State of Washington Department of Natural Resources

Management Plan for Washougal Oaks Natural Area

Draft – April 2025

Scott Sargent, Region Manager
Pacific Cascade Region **Date DRAFT**

Kristen Ohlson-Kiehn, Division Manager
Recreation and Conservation Division **Date DRAFT**

Dr. Heida Diefenderfer, Chair
Washington State Natural Heritage Advisory Council **Date DRAFT**

2025 Management Plan for Washougal Oaks Natural Area

Why Create a Management Plan for Washougal Oaks Natural Area?

The Washougal Oaks Natural Area comprises two conservation designations, Natural Area Preserve (NAP) and Natural Resources Conservation Area (NRCA). This joint NAP/NRCA (natural area) management plan provides functional guidelines for the site manager and other Washington State Department of Natural Resources (DNR) staff, as well as conservation information for partners, neighbors, interested parties and the public. This plan helps to identify priorities for management of natural features and public access at the site. The plan demonstrates how DNR is applying statutory and policy requirements to specific management activities for the natural area. The management objectives, actions and provisions outlined in this plan apply only to the DNR-owned lands within the combined preserve and conservation area.

How Might the Management Plan Change Over Time?

Once approved by DNR, the plan guides future conservation land management actions within Washougal Oaks Natural Area, in combination with any related implementation prescriptions or more detailed site inventory or analysis later adopted as appendices to this plan. Appendices 2 and 3 are a "living" work plan and cost summary that will be updated by DNR from time to time as changes arise with the routine management of the site and as projects are implemented or economic factors (such as inflation) cause changes. Future updates to Appendices 2 and 3 will be in conformance with the policy guidance and land management goals of the plan, including any future adopted appendices.

Table of Contents

GLOSSARY OF ACRONYMS 5

GENERAL NATURAL AREA INFORMATION 6

LOCATION OF WASHOUGAL OAKS NATURAL AREA PRESERVE (NAP) AND NATURAL RESOURCES CONSERVATION AREA (NRCA) 6
NATURAL AREA DESIGNATION 9
OVERVIEW OF NATURAL AREA FEATURES 9
WASHOUGAL OAKS NATURAL AREA MANAGEMENT PLANNING PROCESS 10
Agency Overview *10*
DNR Natural Areas Program *11*
State of Washington Natural Heritage Program *11*
Natural Heritage Advisory Council *11*
Applicable Local, State, and Federal Regulations *12*

PRESERVE DESCRIPTION 15

Natural Area Design: *15*

NATURAL FEATURES DESCRIPTION 18

WASHOUGAL OAKS NATURAL AREA PRIMARY NATURAL FEATURES 18
CLIMATE 20
Climate Change *20*

HISTORICAL AND CURRENT USES OF THE PRESERVE 21

Historical and Current Native American Tribal Use *21*
European-American Settlement *22*
Recent History and Use *23*
CURRENT USES 24
Science, Research, and Monitoring *24*
Environmental Education *24*
Volunteer and Stewardship Opportunities *25*

MANAGEMENT POLICIES, GOALS AND ACTIONS 26

GENERAL MANAGEMENT GUIDANCE 26
GOAL 1: PROTECT PRIMARY FEATURES 27
Objective: Address Research Needs in Support of Primary Features *28*
Objective: Follow Management Guidance for Primary Features *28*
GOAL 2: PROVIDE AND MANAGE ACCESS 31
Objective: Offer Access for Education and Teaching *32*
Objective: Offer Access for Research and Monitoring *32*
Objective: Conduct Assessment to Determine if Other Forms of Access are Appropriate within the Natural Resources Conservation Area *32*
Objective: Collaborate to Ensure that Tribal Practices are Consistent with Conservation Goals *32*
Objective: Clearly Outline Limitations on Uses and Activities *32*
GOAL 3: MANAGE THE SITE IN RESPONSE TO A CHANGING CLIMATE 35
Objective: Review and Adapt Management Practices as Needed to Address Impacts of Climate Change *35*
GOAL 4: MINIMIZE IMPACTS OF WILDFIRE MANAGEMENT 35
Objective: Follow the Wildfire Management Strategy Emphasizing Minimum Impact Suppression Tactics *36*
GOAL 5: CONTROL INVASIVE SPECIES 36

Objective: Follow the Site Weed Management Plan and Coordinate with Partners to Reduce Overall Cover of Invasive Weeds. *37*
GOAL 6: ENSURE THE PERSISTENCE OF HABITAT STRUCTURE FOR WILDLIFE 37
Objective: Ensure the Goals for Protecting Primary Features are Met. *37*
GOAL 7: PROTECT ARCHAEOLOGICAL AND CULTURAL SITES 37
Process for Historical and Archaeological Preservation *38*
GOAL 8: MAINTAIN ROADS AND RIGHTS-OF-WAY 39
Objective: Natural areas staff will routinely monitor roads and easement corridors for impacts that may affect the natural area if left unaddressed. *39*
Objective: Natural Areas Managers Will Take Action to Investigate, Identify, and Rectify Issues when Observations Indicate that Impacts on Rights-of-Way may Affect the Natural Area. *39*
MANAGEMENT GOALS, ACTIONS AND ACTIVITY DETAILS 39
Routine Management Actions in Appendix 2 ..... *43*
Near-Term Project List in Appendix 3 ..... *43*

REFERENCES: 44

APPENDICES 47

APPENDIX 1 WILDFIRE MANAGEMENT STRATEGY FOR WASHOUGAL OAKS NATURAL AREA 48

SITE REPRESENTATIVES 49

APPENDIX 2 ROUTINE MANAGEMENT ACTIONS FOR WASHOUGAL OAKS NAP 51

APPENDIX 3 NEAR-TERM PROJECT LIST FOR WASHOUGAL OAKS NAP 53

APPENDICES 4 THROUGH 14 ARE UNDER DEVELOPMENT 55

Glossary of Acronyms

DNR	Department of Natural Resources
NAP	Natural Area Preserve
NRCA	Natural Resources Conservation Area
RCW	Revised Code of Washington
WAC	Washington Administrative Code
HCP	Habitat Conservation Plan
SEPA	State Environmental Protection Act
GMA	Growth Management Act
GEO	Governors Executive Order
CPL	Commissioner of Public Lands
CRGNSA	Columbia River Gorge National Scenic Area
SMA	Special Management Areas
WRIA	Watershed Resource Inventory Area
BNSF	Burlington Northern Santa Fe (Railway)
WDFW	Washington Department of Fish and Wildlife
WWRP	Washington Wildlife and Recreation Program
YEOP	Youth Education and Outreach Program (DNR)
EIA	Ecological Integrity Assessment
EO	Element Occurrence
DAHP	Department of Archaeological and Historic Preservation

General Natural Area Information

Location of Washougal Oaks Natural Area Preserve (NAP) and Natural Resources Conservation Area (NRCA)

Washougal Oaks Natural Area, which includes both NAP and NRCA designations is located at the western terminus of the Columbia River Gorge. The site is on the north bank of the Columbia River and extends from its western edge, located 3 miles east of the City of Washougal east to the county line (Figure 1a).

The natural area preserve portion of the site is located in:

T: R: S: Portions of Sections 14, 15, 23, and 24 in Township 1 North, Range 4 East, Willamette Meridian, Clark County.

Quad: Washougal, Washington, 7.5 minute Quadrangle Map (U.S.G.S 1973)
Ecoregion: Puget Trough

The natural resources conservation area is located in:

T: R: S: Portions of Sections 12, 13, 14, 15, 23, 24 and DLC 51 in Township 1 North, Range 4 East, Willamette Meridian, Clark County.

Quad: Washougal, Washington, 7.5 minute Quadrangle Map (U.S.G.S 1973)
Ecoregion: Puget Trough

Figure 1a. Washougal Oaks Natural Area Ownership within the Approved Boundary

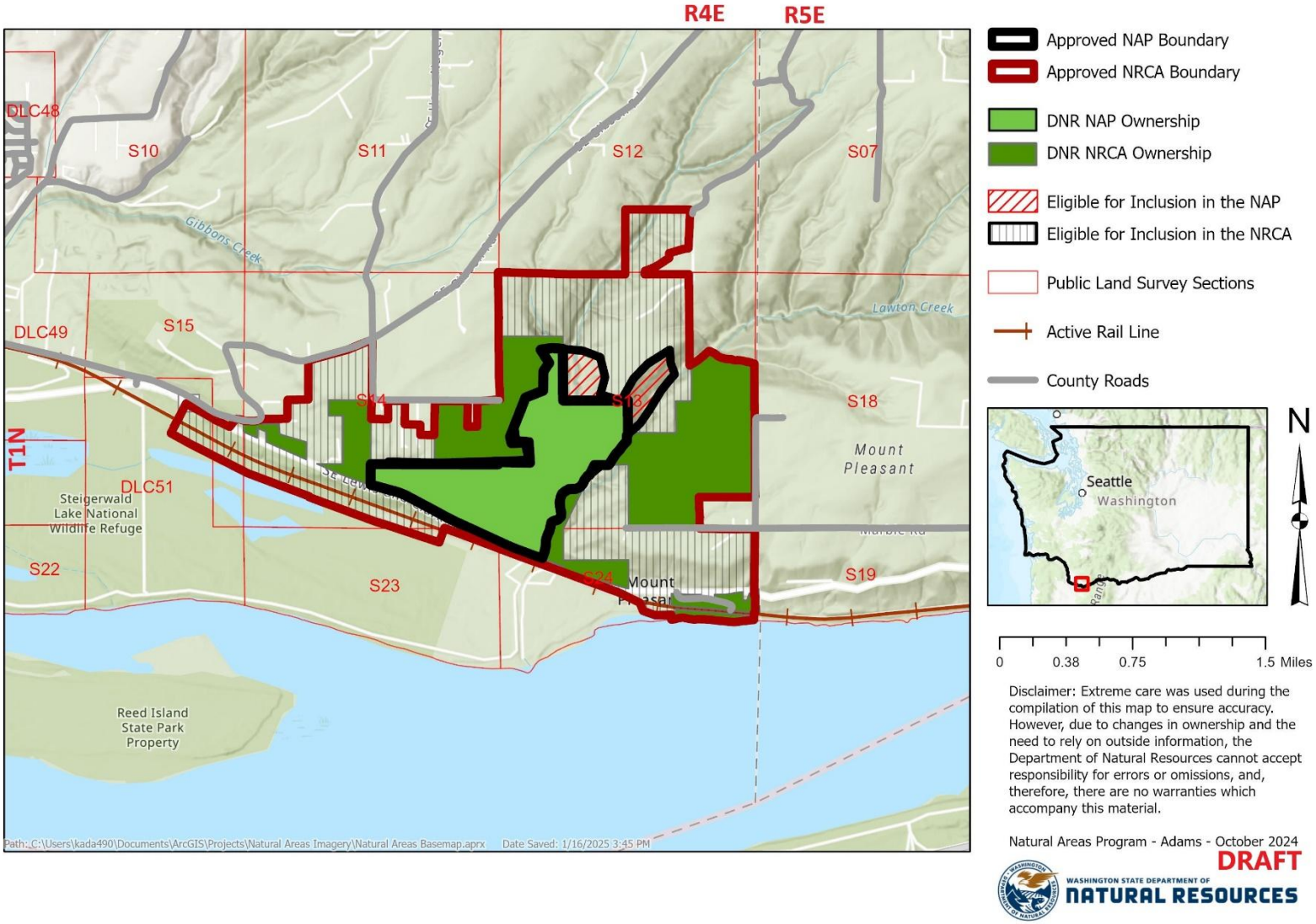
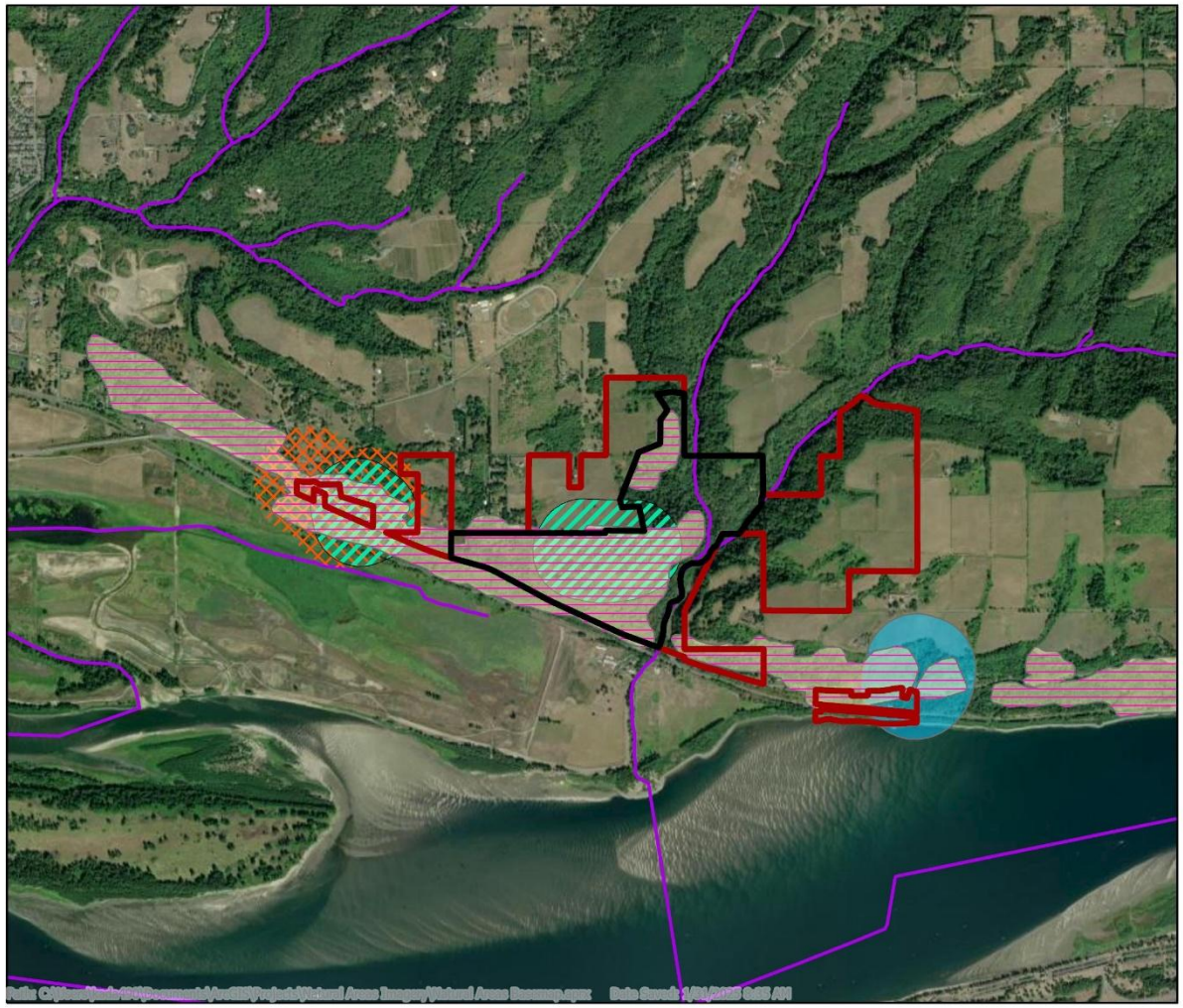


Figure 1b. Landscape context and extent of rare plants and ecosystems contiguous with those protected in Washougal Oaks Natural Area



DNR NAP Ownership
DNR NRCA Ownership
Douglas-fir - Oregon White Oak / Common Snowberry Woodland
Oregon White Oak / Oval-leaf Viburnum - Poison-oak Woodland
Oregon bolandra
Small-flowered trillium
Tall bugbane

N

0 0.38 0.75 1.5 Miles

Disclaimer: Extreme care was used during the compilation of this map to ensure accuracy. However, due to changes in ownership and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and, therefore, there are no warranties which accompany this material.

Natural Areas Program - Adams - October 2024

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES DRAFT

Natural Area Designation

Washougal Oaks Natural Area was jointly designated in 2002 as a natural area preserve (NAP) under Revised Code of Washington (RCW) Chapter 79.70, the Washington Natural Area Preserves Act, and as a natural resources conservation area (NRCA) under RCW Chapter 79.71, the Washington Natural Resources Conservation Areas Act. The combined natural area (the natural area) is owned and managed by the Washington State Department of Natural Resources.

Natural area preserves (NAPs) are established to protect the highest quality remaining examples of natural Washington's biodiversity. The collection of natural areas across the state (referred to as the statewide register of natural areas) provide protection for the best remaining examples of each of Washington's native ecosystems and rare species populations, as a way of preserving our natural heritage. Designated natural areas are intended to provide adequate representation of targeted species and ecosystems, provide opportunities for research and education, and contribute to the overall conservation of those species and ecosystems. Sites generally become candidates for natural area preserve status with the discovery of a place that supports exemplary representations of Washington's ecosystems or is extremely valuable for the continued existence of a rare species. Sites are assessed for their overall ecological condition and long-term conservation viability, in comparison with other known examples of the same species or ecosystem

In addition to their educational and conservation values, NRCA's are protected and managed for other low-impact uses when they do not conflict with the conservation goals of the site. NRCA's can also protect geologic, cultural and scenic resources. Development of any projects to facilitate low-impact use at Washougal Oaks Natural Area will undergo additional public outreach and community discussion.

The natural area boundary (Figure 1a) represents the area within which DNR can purchase private lands from willing sellers. The boundary contains approximately 1,656 acres of primarily upland habitat, along with a stream corridor and tidal-freshwater aquatic habitat along the Columbia River shoreline. Within this boundary, 517 acres are currently owned by DNR (including 4.8 acres of state-owned aquatic lands). The NAP occupies approximately 221 acres. The NRCA occupies approximately 296 acres. There are 1,139 acres eligible for inclusion into the Natural area, with 14 Acres that can be added to the NAP, and 1,125 acres that can be included in the NRCA.

Overview of Natural Area Features

This combined NAP and NRCA protects two, high quality Oregon white oak (*Quercus garryana*) woodland plant associations (Figure 1b), three rare plants, two rare birds, and a rare salamander. Oregon white oak is also commonly called "Garry Oak". The site is representative of the native oak woodlands that were once relatively common in the Puget Sound and Willamette Valley regions but are now exceptionally rare. It protects part of the

historic landscape where Lewis and Clark viewed vast meadows of blue camas (*Camassia spp*) stretching up to the oak covered hillsides as they came to the western opening of the Columbia Gorge. The NAP and NRCA ownership (Figure 1a, 1b) combined include 517 acres.

Washougal Oaks Natural Area Management Planning Process

The Washougal Oaks Natural Area Management Plan provides functional guidelines for the site manager and other DNR staff, as well as conservation information for neighbors, interested parties and site visitors. The plan helps to identify priorities for management of natural features and public access to the site. The plan demonstrates how the Natural Areas Program is applying policy and statutory requirements to specific management activities.

Limits of the Washougal Oaks Natural Area Plan

The management objectives, actions and provisions outlined in this plan apply only to the DNR-owned lands. DNR will implement the management actions as resources become available. The basis of future budget requests for maintenance, monitoring and operations will reflect the objectives and actions of this plan. To develop the management plan for the NAP, DNR staff conducted ecological integrity assessments and inventories, and collected comments and input from area residents, agencies and Tribes.

Agency Overview

The Washington State Department of Natural Resources (DNR) manages 5.7 million acres of forest, range, agricultural, commercial, conservation, and aquatic lands in trust for the people of Washington. State-owned upland trust lands are managed to produce revenue for various trust beneficiaries, including schools, state facilities and, in some cases, local government services. Forested trust lands within the range of the Northern Spotted Owl are managed under a multi-species habitat conservation plan (HCP). This Trust Land HCP affords incidental take under the Endangered Species Act for permitted management activities while providing fish and wildlife habitat, clean and abundant water, and public access to outdoor recreational opportunities. The HCP makes ecosystem-based recommendations to guide management in a way that protects habitat for at-risk species. The multispecies conservation strategy outlined within the HCP is directed at providing habitat for animal species of conservation concern as well as unlisted animal species and special landscape features identified as uncommon habitats or habitat elements. The conservation strategy identifies three objectives to provide habitat that:

- Maintains the geographic distribution of species that have small annual or breeding season home range areas.
- Contributes to the support of species with large home ranges on federal forest reserves, and
- Facilitates the dispersal of species among federal forest reserves.

Many DNR-managed natural areas are within the range of the Northern Spotted Owl, including the Washougal Oaks Natural Area, are covered by the Trust Lands HCP. DNR-managed natural areas provide ecosystem services in the form of protection of specific types of habitat and conservation values that benefit the HCP's conservation objectives.

As of 2024, DNR manages 169,465 acres of conservation land at 97 natural areas throughout the state within the Natural Areas Program. Primary management objectives in DNR-managed natural areas include conservation, research and environmental education, as well as low-impact recreation where appropriate. DNR manages two types of conservation lands, natural area preserves (NAPs, under RCW Chapter 79.70) and natural resources conservation areas (NRCAs, under RCW Chapter 79.71). DNR-managed natural areas contribute to meeting the requirements of the HCP for the state-owned trust lands. NAPs and NRCAs provide habitat and/or support one or multiple life stages for various species of concern protected under the HCP.

DNR Natural Areas Program

After a site has been designated and acquired as a natural area it is managed by the DNR Natural Areas Program, which works to fulfill DNR policies and legislative provisions under RCW 79.70 and RCW 79.71. Management objectives seek to protect the primary natural features of each natural area and provide opportunities for research, environmental education, and other public access that is compatible with conservation. Active management is necessary in many natural areas to ensure the long-term viability of the priority species and ecosystems protected within them.

State of Washington Natural Heritage Program

The Washington State Legislature recognized the need for a systematic and objective approach to guide inventory and protection efforts to protect natural features most at risk, and to efficiently focus scarce conservation resources. As a result, the Washington Natural Heritage Program was established in 1987 to provide a scientific approach to the process of identifying candidate sites for the natural areas system and to gather and share data about the state's imperiled species and ecosystems for environmental assessment, conservation planning, and land management purposes.

The program creates a biennial *State of Washington Natural Heritage Plan* that establishes the framework for a statewide register of natural areas and identifies conservation priority species and ecosystems for broader decision making.

Natural Heritage Advisory Council

The Natural Heritage Advisory Council (Council), established by the Natural Area Preserves Act (RCW 79.70), advises DNR and other state agencies on the establishment and management of NAPs. The Council reviews and approves or rejects natural area nominations, recommends sites to the Commissioner of Public Lands or the agency directors for Washington State Parks and Recreation Commission and the Washington Department of Fish and Wildlife, and works with DNR or other state agency staff to develop management plans for established natural area preserves. The Council advises DNR on management practices for the preservation and maintenance of high-quality natural areas. Additionally, the Council may be called upon as subject matter experts to provide guidance for establishment or management of NRCAs, especially as it pertains to protecting the state's rare plant and animal species and high-quality ecosystems, scenic landscapes, and archaeological or geological features.

Applicable Local, State, and Federal Regulations
The following plans and regulatory processes may shape and limit activities or projects that are proposed within the Washougal Oaks Natural Area Management Plan.

The Washington Natural Areas Preserves Act: (RCW 79.70) In passing the Natural Area Preserves Act, the Legislature recognized the need for, and benefits of, permanently designating areas explicitly for conservation of biodiversity and geological features, research, and education. The Natural Area Preserves Act authorizes DNR to establish and manage a statewide system of natural areas (the Natural Areas Register) through cooperation with federal, state and local agencies, private organizations and individuals. These designated natural areas are intended to provide critical habitat for rare and vanishing species, conserve representative examples of the state's ecosystems, and ensure the availability of places for scientific research and education. Today, this system consists of lands managed by numerous federal and state agencies as well as private conservation organizations. Because they retain much of their natural character, these natural areas serve as reference sites to learn how ecosystems function and to document ecological change in relation to natural ecological processes thereby providing a baseline from which changes resulting from human-induced stressors or management activities (such as resource production or extraction, or outdoor recreation) can be compared.

The Washington Natural Resources Conservation Act: (RCW 79.71) The Natural Resources Conservation Act established a second natural area designation, natural resources conservation areas (NRCAs), to further address the increasing and continuing need by the people of Washington for certain areas of the state to be conserved for the benefit of present and future generations. NRCAs are a conservation land designation specific to DNR. Their purpose is to protect outstanding examples of native ecosystems and habitat for endangered, threatened, and sensitive plant and animal species. In addition, NRCAs protect geological, archaeological, scenic, or similar features of critical importance. Low-impact recreation such as hiking, backcountry camping, and scenic photography that does not adversely affect the natural resources values for which a NRCA is established may be a compatible use.

The NRCA Statewide Management Plan: The 1992 NRCA Statewide Management Plan provides programmatic guidance for developing site management plans for NRCAs, which are required by the NRCA Act. The statewide plan was adopted by the Commissioner of Public Lands in 1992 and was developed with the assistance of the NRCA Statewide Advisory Committee. Until such time as individual NRCA plans can be written, the statewide plan functions, in essence, as programmatic rules for site management.

The State Environmental Policy Act (SEPA): Washington's SEPA (RCW 43.21) requires governmental agencies to consider the environmental impact of proposals before making project decisions. The management plan for Washougal Oaks will require the development of an Environmental Checklist for SEPA review as a non-project action due to the NRCA component of the natural area. Future management activities, which have the potential to impact the environment, such as development of educational or recreational facilities, may require SEPA review.

The Washington Growth Management Act (GMA): Passed by the Washington State Legislature in 1990, the GMA requires all urban counties and cities to develop and adopt comprehensive plans and regulations to implement these plans. The plan includes county-wide planning policies, land use designations (including zoning), urban growth boundaries, etc. The plans are used to guide growth and development for residents living in unincorporated areas of the counties. The two areas of the Comprehensive Plan that are of primary relevance to Washougal Oaks Natural Area are zoning and the Critical Areas/Resource Ordinance (see below).

Critical Areas/Resource Ordinances: Clark County's Critical Areas Ordinance regulates land use within ecologically sensitive areas, including Oregon White Oak habitat. The Washington state Growth Management act requires the development of regulations, based on best available science, to protect critical environmental resources and avoid natural hazards. These "Critical Areas" include, but are not limited to, aquifer recharge areas (where water infiltrates to aquifers), geologic hazard areas (such as steep slopes prone to landslides), important wildlife habitats and species, frequently flooded areas (such as floodplains and surfacing groundwater), and wetlands.

Clark County Zoning: The Clark County Comprehensive Plan was adopted in 1995 and most recently updated in 2025. The entire area within the natural area boundary lies within the Columbia River Gorge National Scenic Area (CRGNSA), Clark County zoning reflects specific zoning applied to the CRGNSA. The property surrounding Washougal Oaks Natural Area includes large scale agriculture in parcels of 40- and 80-acres, Special Management Area (SMA) designated agriculture, SMA designated open space, and small woodland in 40-acre tracts, with 5-acre residential parcels on the extreme southwest border.

Washington Governor's Executive Order (GEO) 21-02: GEO 21-02 requires agencies to consult with the Washington Department of Archaeology and Historic Preservation and affected Tribes on the potential impacts of a project on cultural resources. The order covers state-funded construction, restoration, or acquisition projects that will not undergo Section 106 review under the National Historic Preservation Act of 1966 (Section 106). It also includes grant and pass-through funding that will culminate in construction or land acquisitions.

National Historic Preservation Act (NHPA) Section 106: Any project at Washougal Oaks Natural Area with a federal nexus (such as funding through federal funds) will be required to undergo a Section 106 consultation. In a Section 106 consultation, the federal agency serves as the lead agency for the purposes of the consultation process. Section 106 of the NHPA requires that each federal agency identify and assess the effects that their actions or projects may have on historic buildings, structures, districts, objects, and archaeological sites. The Section 106 consultation process begins when the lead agency consults with the State Historic Preservation Officer and the affected Tribes. During the consultation, key determinations include 1) identification of historic and cultural resources that may be affected by the project, 2) determination of any adverse effects to these resources that may occur as a result of the project, and 3) how to resolve those adverse effects by avoiding

negative adverse effects and mitigating for any adverse effects that will or do occur as a result of the project.

Commissioner of Public Lands Order on Tribal Relations #201029: The Commissioners Order recognizes that Native American culture is characterized by an intimate relationship with natural resources and that DNR shares a commitment with Tribes in protecting natural resources. The order seeks to build inter-governmental relationships based on trust and mutual respect as guided by six principles: Respect for Sovereignty, Interdependence, Sustainable Use, Sound Science, Transparency, and Respect for Traditional Knowledge and Cultural Values.

The Columbia River Gorge National Scenic Area (CRGNSA) Act: The act was signed in 1986 to protect the approximately 80-mile-long river canyon along the Washington and Oregon sides of the Columbia River. The CRGNSA was established to:

- protect and provide for the enhancement of the scenic, cultural, recreational, and natural resources of the Columbia River Gorge, and
- protect and support the economy of the Columbia River Gorge by encouraging growth to occur in existing urban areas and allowing future economic development in a way that protects or enhances the above resources.

The national scenic area lies to the east of Portland, Oregon and Vancouver, Washington. It stretches about 83 miles from the Sandy River on the west to the Deschutes River on the east in Oregon and from Gibbons Creek in Clark County to a line 4 miles east of Wishram in Washington. The national scenic area covers portions of six counties: Clark, Skamania, and Klickitat counties in Washington, and Multnomah, Hood River, and Wasco counties in Oregon (Gorge Commission and USFS NSA, 2020). The CRGNSA Act requires a management plan that treats this area that encompasses parts of two states, six counties, and 13 urban areas as one region.

The Columbia River Gorge Commission and National Scenic Area Management Plan: The counties within the NSA, including Clark County, WA, are authorized to implement the management plan through land use ordinances consistent with the management plan. The plan identifies Special Management Areas (SMAs) that include the most sensitive landscapes and has prepared land use designations and guidelines for the SMAs. The Act specifies stringent standards in SMAs including prohibiting land division, prohibiting new homes on parcels less than 40 acres in size, and regulating forest practices to avoid adverse effects to scenic, cultural, natural, and recreational resources (Gorge Commission and USFS NSA, 2020). The zoning designated in this management plan are reflected in the zoning designations of Clark County.

The Watershed Management Act: The Watershed Management Act of 1998, (ESHB 2514, and RCW 90.82) required local governments to develop watershed plans for managing water resources and protecting existing water rights. The collaborative effort among city, county, and state agencies resulted in the development of management policies and recommendations for water quantity, water quality, aquatic habitat, and instream flow. Water Resource Inventory Areas delineate the management units, following ecological and

political boundaries within a watershed. Washougal Oaks Natural Area is within the Salmon/Washougal Water Resource Inventory Area (WRIA 28).

Preserve Description

Preserve Purpose:
Washougal Oaks Natural Area contains numerous biodiversity elements that were identified in the 2001 State of Washington Natural Heritage Plan as priorities for including in a state natural area (Table 1). The site supports one of the two best remaining occurrences of the Oregon White Oak / Oval-Leaf Viburnum - Poison-Oak Woodland, listed as "Endangered" in the Washington State Natural Heritage Plan. The site also supports the Douglas fir - Oregon White Oak / Common Snowberry Woodland, a Priority 3 element identified as "Threatened" in the Washington State Natural Heritage Plan. The Washougal oak woodland communities are part of the largest relatively contiguous area of oak woodland remaining in western Washington, almost all of which is included within the existing natural area (Appendix 4). The combined NAP and NRCA provides protection for this ecosystem.

The site also supports three animal, and three plant species listed as priorities in the State of Washington Natural Heritage Plan (Table 1, Figure 1b). Animals include the Slender-billed Nuthatch (*Sitta carolinensis aculeata*), a subspecies (Priority 1 in the Natural Heritage Plan) that has declined significantly and is now regularly present in the state only at Washougal Oaks and at four other sites in the state. Plant species occurrences include two of the thirteen total statewide known occurrences of bolandra (*Bolandra oregana*), a species listed as "Threatened" by WDFW. Additionally, one of only seven statewide occurrences numbering more than 50 individuals of tall bugbane (*Actaea elata var. elata*) can be found on site. This species is listed as "Sensitive" by WDFW.

Natural Area Design:
The natural area design is a combination of NAP and NRCA (Figure 1a). The natural area boundary is designed to incorporate, and protect from threats, all the viable portions of the oak woodland ecosystem and the vulnerable species occurrences. A DNR Commissioner's Order, signed by the Commissioner of Public Lands, delineates the boundary of Washougal Oaks Natural Area.

A natural area boundary is a designation of lands eligible for inclusion within a state-owned natural area. Lands located within the boundary only become part of the natural area if they are acquired by DNR. The boundary is simply an administrative tool to indicate where DNR will work with willing-seller property owners, and it imposes no change in land use zoning or any other restrictions on landowners.

Within the boundary of the natural area, DNR currently owns 221 acres managed as NAP and 296 acres managed as NRCA. The boundary also includes approximately 1,139 acres of privately owned lands that may be acquired by DNR in the future. These privately held parcels are owned by individuals and family trusts, most of which are less than 80 acres. State Highway 14 crosses the southern portion of the NRCA, and the ends of five county roads enter the preserve.

Adjacent Land/In-holdings: The natural area boundary (Figure 1a) currently includes approximately 1,138.9 acres that are held in private ownership and therefore not managed by DNR. Private lands within the boundary are currently used mostly for residential and agricultural purposes, including pasture and hay, while others were managed for timber and open space.

Natural Area Preserve:
The current DNR ownership within the NAP encompasses a total of 221 acres. The NAP includes the largest contiguous, unfragmented stand of oak woodland on the site, a portion of the adjoining ravines, and some smaller stands of oak woodland located in and adjacent to the ravines carved by Lawton and Walton Creeks. The oak woodland in this area appears to be mostly in good condition; there are no houses, roads, or agriculture within the area. The boundary is designed to surround the oak woodland as well as some open field that serves as a buffer to the woodland. The northern boundary in many areas follows the edge of the oak woodland where they border agricultural lands and cross steep ravines carved by Lawton and Walton creeks just upstream from the edge of the oak woodlands.

The oak woodlands to the west of the NAP boundary of the preserve are not in as good condition. These habitats have experienced more fragmentation, and greater abundance of non-native plant species therefore, they are not included in the preserve boundary. These woodlands as well as the agricultural habitat extending to the county line are included in the NRCA boundary and will be managed for conservation when acquired by DNR.

Natural Resources Conservation Area:
The current DNR ownership within the NRCA portion of the site is 296 acres, including approximately 4.8 acres of Columbia River shoreline. The NRCA lies to the east and west of the NAP. The NRCA property east of the NAP includes both forested and formerly agricultural habitats and is bounded by the county line. Similarly, the NRCA on the west side of the NAP is also composed of a mix of agricultural and forested habitats. See Appendix 4 for a more thorough description of the primary features found within the natural area.

The oak woodland associations are located on steep slopes directly adjacent to or nearby and upslope from the railway line (Figure 1a). The opposite side (southern) of the railway line is primarily degraded wetlands and former pastures managed or planned for acquisition by the U.S. Fish and Wildlife Service. The additional area on the southern side of the railway line is a priority for managing invasive species in areas adjacent to the oak woodland. On the

uphill side of Highway 14 at the far eastern end of the site, the boundary includes contiguous unfragmented forest and rare plant populations.

The boundary includes all parcels that have some portion of the oak woodland occurrences, as well as an additional buffer of forest and agricultural land 0.1-0.25 mile wide.

Forests to the west of Gibson Road are too degraded by the density of Himalayan blackberry to be manageable and are marginally connected to the forest east of that road, so they are not included within the boundary. Just west of Gibson Road, Steigerwald National Wildlife Refuge owns 72.5 acres of open grassland, oak savanna, oak forest and mixed conifer-oak forest.

Preserve Acquisition:
Following a recommendation to create the Washougal Oaks Natural Area in 2002, the Commissioner of Public Lands established the site boundary and DNR began land acquisition in 2005. To date, DNR has made 15 acquisitions totaling 517.1 acres at Washougal Oaks Natural Area. Efforts to acquire the remaining properties within the preserve boundary will continue with landowner interest and as grant or other funding becomes available. Acquisition is from willing sellers only; DNR cannot condemn private property for inclusion in the natural area. Acquisition from potentially willing sellers within a boundary is based on market value as determined by independent, third-party appraisals. Landowners may also be interested in retaining ownership and selling a conservation easement on their property. DNR will work with landowners who may not wish to sell by seeking their participation in joint management of the Oregon white oak woodlands, or by pursuing the listing of their lands on the Washington Register of Natural Areas as a voluntary registry site.

Natural Features Description

Washougal Oaks Natural Area Primary Natural Features
At the time of site establishment, the 2001 Natural Heritage plan identified two Priority 1, two Priority 2, and three Priority 3 species and plant communities for protection in natural areas (Appendix 4). The following the plant associations and species are considered to be the "primary features" of the site (Table 1, Figure 1b):

Table 1. Primary features priorities with associated NatureServe Element Codes found at Washougal Oaks NA (NatureServe Explorer).

Plant Association / Species	**Scientific Name (Element Code)**	**Conservation Status**
Oregon White Oak / Oval-leaf Viburnum-Poison-Oak Woodland	*Quercus garryana / Viburnum ellipticum-Toxicodendron diversiloba* (CEGL003354)	State Endangered
Douglas fir - Oregon White Oak / Common Snowberry Woodland	*Pseudotsuga menziesii-Quercus garryana / Symphoricarpos albus* (CEGL000929)	State Threatened
Tall bugbane	*Actaea elata var. elata*	State Sensitive
Bolandra	*Bolandra oregana*	State Threatened
Small-flowered trillium	*Trillium albidum var. parviflorum*	State Sensitive
Slender-billed Nuthatch	*Sitta carolinensis aculeata*	State Candidate
Peregrine Falcon	*Falco peregrinus*	Species of Greatest Conservation Need
Larch Mountain Salamander	*Plethodon larselli*	State Sensitive

Appendix 4 (available online at www.dnr.wa.gov/washougal-oaks-natural-area) contains the DNR Natural Heritage Program recommendation report that includes information on site topography, geology, soils, hydrology, and additional conservation features. The State of Washington Natural Heritage Plan, which describes the conservation methodology for NAPs, is available online at the Natural Heritage Program webpage.

A list of plant species known to occur on the site is included in Appendix 5 and for animals/birds in Appendix 6 (available online at www.dnr.wa.gov/washougal-oaks-natural-area).

Primary Plant Communities: The majority of the site is oak-conifer woodland. Two major woodland types are present. The primary ecological feature of interest is the extensive occurrence of Oregon White Oak / Oval-Leaf Viburnum - Poison-Oak Woodland, which

total 318 acres in area. The second major forest type is the Douglas-fir - Oregon White Oak / Common Snowberry Woodland. Other forests, primarily co-dominated by Douglas-fir (*Pseudotsuga menziesii*) and bigleaf maple (*Acer macrophyllum*). Smaller areas of forest are dominated by red alder (*Alnus rubra*), bigleaf maple, or a mixture of the two. Other ecosystems present include sparsely vegetated cliffs and talus, herbaceous-dominated seeps, streams and associated riparian vegetation, small grassy balds, and agricultural lands. Find a more detailed description of these plant communities in Appendix 5 (available online at www.dnr.wa.gov/washougal-oaks-natural-area).Global summaries of these communities can be found by searching the NatureServe Element Code found in Table 1 at https://explorer.natureserve.org/Search#q. Contact the Natural Heritage Program manager for Washington-specific descriptions.

Primary Rare Plant Species: Washougal Oaks Natural Area supports two species listed as "Sensitive" in the Washington State Natural Heritage plan, and one species listed as "Threatened". Bolandra (*Bolandra oregana)* is listed as "Sensitive" and is found along wet basalt cliffs and on the bedrock adjacent to streams and waterfalls. Tall bugbane (*Actaea elata var. elata*) is also listed as a "Sensitive" species in the Washington State Natural Heritage Plan and occurs in the understory of moist to semi-dry forest habitats that are dominated by red alder, bigleaf maple, and in some areas, Douglas-fir.
Small-flowered trillium (*Trillium albidum ssp. parviflorum*) is listed as "Threatened" and occurs on gentle south-facing forested slopes in the understory of oak woodland with abundant tall shrubs such as oval-leaf viburnum, Pacific ninebark (*Physocarpus capitatus*), and Oceanspray (*Holodiscus discolor*).

In addition, Washougal Oaks Natural Area has been approved as a site to establish Kincaid's lupine (*Lupinus oreganus* var. *kincaidii*), a federally listed threatened species. This species was historically more widespread in grassland and savanna habitats in the Willamette Valley and southern Puget Trough and will be established as part of prairie restoration in a former agricultural field on the periphery of the site.

Key Bird Species: There are many species documented from the natural area. Two species are identified as conservation priorities in the Natural Heritage Plan. The Slender-billed Nuthatch has been documented in the mixed oak-conifer forest. A Peregrine Falcon nest site has been established east of the site at Cape Horn in Skamania County, and the birds have been seen from the natural area in early summer. Washougal Oaks Natural Area supports a wide variety of birds that varies depending on season, including neotropical migrants that arrive at Washougal Oaks Natural Area in spring to reproduce and prepare for migration back to wintering grounds. A list of the birds that have been seen in the preserve are found in Appendix 6.

Amphibians and Reptiles: No formal amphibian surveys have been completed within the natural area; however Larch Mountain Salamander has been found within the site. Larch Mountain Salamander has been identified as a conservation priority in the Natural Heritage Plan. These species, listed in the Washington State Natural Heritage Plan as "Sensitive", are found in the rocky talus at the bottom of the ravine walls along Lawton creek, however a diversity of reptile and amphibian species are supported in the various habitats of

Washougal Oaks. A list of the amphibians and reptiles that have been seen in the preserve is in Appendix 6.

Key Fish Species: Lawton Creek, which is the dominant freshwater feature running through the natural area, is a small tributary to the Columbia River and is included in the Washington Lower Columbia Salmon Recovery Plan (LCFRB, 2010) within the Lower Gorge Subbasin. Lawton Creek historically supported winter steelhead (*Oncorhynchus mykiss*), chum (*Oncorhynchus keta)*, coho (*Oncorhynchus kisutch*), and fall chinook (*Oncorhynchus tshawytscha*) populations, which are all listed as "Threatened" under the Federal Endangered Species Act. Recent surveys by WDFW biologists show current use by coho and presumably winter steelhead within the natural area boundaries. Chum have been documented in the downstream habitat outside of the natural area. Chinook may also use the stream habitat downstream of the natural area boundary.

Ecoregional Context: Washougal Oaks Natural Area is located within the West Cascades ecoregion. In Washington state, this ecoregion encompasses the mountains west of the Cascade crest from Snoqualmie pass south to the Columbia River Gorge, continuing to the Klamath Mountains in southwest Oregon (Popper et al., 2007). This ecoregion is mountainous and heavily forested, bounded by agriculture, rural development and cities on the west, and forest communities east of the Cascade crest. Washougal Oaks Natural Area is located on the Columbia River at the western terminus of the Columbia River Gorge and is in an area characterized by forest lands and small-scale agriculture with urban development to the west, and the Columbia River Gorge National Scenic Area to the East.

The vegetation supported by the mild wet climate is composed of extensive conifer forests, with riparian wetlands, pockets of old-growth forest, and a ribbon of oak woodland that historically followed the southern and western margins of the ecoregion within Washington state. Washougal Oaks Natural Area is located on the southern margin of the ecoregion within Washington state at the only low elevation pass in the Cascade Range cut by the Columbia River.

Climate

The West Cascades ecoregion experiences a climate that varies with elevation and latitude. At Washougal Oaks most of the precipitation falls between October and April. Average annual precipitation is approximately 60 inches, mostly of rain. Washougal Oaks Natural Area does not receive enough snow to maintain seasonal snowpack. The average high temperatures (Fahrenheit) ranging from the 40s in January to the 80s in July and August. Summers within the West Cascades ecoregion are warm and dry, with occasional thunderstorms in the higher elevations. However, fire is becoming more frequent with climate change and more severe after decades of fire suppression, (Popper et al., 2007).

Climate Change

Climate change has the potential to alter important variables in the Washougal Oaks NAP environment, key among them being temperature and water regime which drive plant and animal community composition and species distribution (Chang et al., 2023). Over the last 100 years, the average annual temperature in the Pacific Northwest has increased by 1.3

degrees Fahrenheit, and temperatures are expected to increase by between 3 and 10 degrees by 2100, with the largest increases anticipated in summer temperatures (Snover et al., 2013).

Changes in the timing of hydrologic cycles will continue to have ecological impacts with climate change (Mote et al., 2014). Warmer winter temperatures and shifts in the rainfall patterns in terms of timing and intensity have significant impacts on the environment. Similarly, earlier warm temperatures in spring and hotter average summer temperatures are resulting in lower in-stream flow earlier in the year, and longer dry seasons in summer and fall. Forest ecosystems are trending towards becoming warmer and drier in response to rising temperatures, changes in precipitation patterns, and decreased soil moisture (Chang et al, 2023). These stresses result in ecosystems more vulnerable to insects and disease, and fire suppression efforts have led to a buildup of fuels that adds to an increased risk of damaging fire. The range of existing ecosystems and communities are likely to change in the future, and novel systems and communities are likely to develop over time.

Managing natural areas like Washougal Oaks Natural Area to protect biodiversity and support rare species and habitats in a time of changing climate will help provide refuge, connectivity and corridors to numerous species. Natural areas can provide shelter and a place for species to relocate or adapt with climatic changes. Additionally, these minimally disturbed sites serve as baselines where natural processes dominate and from which we can observe and compare how a natural ecosystem responds to the impacts of climate change and other human influences on the landscape (Noss et al., 2024).

The ecological changes driven by climate change are having profoundly negative impacts on Tribal cultures and traditional and spiritual practices by reducing or eliminating traditional foods and medicines and weakening connections with the ecosystem through reduction or absence of plant and animal populations and reduced environmental quality. Conserving natural areas will protect natural resources and ecosystems that are at the core of Tribal cultures. Protected from direct disturbance, these ecosystems may persist longer in natural areas, even in the face of climate change, than in the surrounding landscape. DNR acknowledges not just the intrinsic ecological value of the sites, but also the deeper values held for these ecosystems by Tribal partners.

Historical and Current Uses of the Preserve

Historical and Current Native American Tribal Use

Washougal Oaks Natural Area falls within the traditional territories of the Cowlitz people. Other affiliated indigenous groups include the Yakima, Confederated Tribes of the Siletz, the Confederated Tribes of the Grand Ronde, and the Cayuse, Umatilla, and Walla Walla peoples. The Columbia River peoples had large, permanent winter village sites and lived in semi-subterranean cedar plank houses that were located along ridges and hilltops to avoid seasonal flooding (Moulton 1991). During the spring and summer months they lived in temporary structures that allowed for easy accessibility to natural asset locations. The temporary camps were focused along waterways that were ideal for seasonal procurement,

trade, and travel. The Columbia River groups' diets consist of seasonal foodstuffs including salmon, sturgeon, lamprey, eulachon, and resident freshwater fishes, as well as birds, aquatic mammals, and terrestrial mammals (primarily deer and elk). Plant goods were also seasonal and included berries, nuts, roots, and tubers such as wapato (*Sagitaria spp*) and camas (*Camassia spp)* (Boyd and Hajda 1987). There are ethnographic and historical accounts of Lower Columbia peoples harvesting and eating acorns (Barsh and Murphy 2024). Garry Oak stands commonly occurred with fire managed prairie landscapes (Barsh and Murphy 2024) and oak trees would have benefited from fire management through decreased competition. Potlatchs and ceremonial gatherings were an important part of season harvest and life events (Engdahl 2023).

In addition to those gatherings, the indigenous peoples along the Columbia River were part of the complex and significant Columbia River trade that connected the Pacific Coast peoples with the Columbia Plateau peoples and beyond. Seasonal salmon trade brought indigenous people from all over the region to major trading points including at Celilo Falls, Kettle Falls, and Willamette Falls among other points along the Columbia (Lewis 2018). Complex kin networks facilitated through intertribal marriage strengthened trade connections. The groups along the Columbia who maintained strategic village locations where trade was most significant and maintained great wealth in the region. The strong trade and intermarriage connections between villages enabled regional peace (Lewis 2018). After contact, the shrewd business acumen of the Columbia River peoples was widely heralded.

Tribal people have strong ties to the land and water that inform the management and harvest techniques of the natural resources under their stewardship. The many plant and animal species in their traditional territory provided everything needed to thrive, from clothing and shelter to common and ceremonial tools. The affiliated Indigenous descendants maintain an interest in, and practice stewardship of, the land within their traditional territories, which includes Washougal Oaks Natural Area.

DNR recognizes sovereign Tribal rights and authorities and maintains government-to-government relations with all twenty-nine federally recognized Indian Tribes residing in the state of Washington, as well as other Tribes with rights in the state. DNR also recognizes the vital knowledge Tribal peoples have of our shared natural resources and operates under an order from the Commissioner of Public Lands to ensure management of state-owned lands is accomplished in collaboration with the twenty-nine federally recognized Tribes of Washington State.

European-American Settlement

Although early trappers and traders were the first Europeans to interact with the Native Americans in the region, the European settlement of the Washougal area was most likely set into motion by Lieutenant William Broughton who was sent by Captain George Vancouver to explore the lower reaches of the Columbia River in 1792. Broughton's team explored the river to a point about four miles upstream from the mouth of the Washougal River to the area around the Steigerwald National Wildlife Refuge and the Washougal Oaks Natural

Area. In 1824, the Hudson's Bay Company established Fort Vancouver as a fur trading post. Richard Ough, who worked for the Hudson's Bay Company, established the first homestead in Washougal in 1841 with his wife, Betsy White Wing, the daughter of Cascade Chief Schleyboos. Settlement of the area continued, and the city of Washougal became incorporated in 1880. The location of the town on the shores of the Columbia River and later along the Burlington Northern Santa Fe (BNSF) railway, supported a strong early economy based on furs, agriculture (particularly dairies and prune orchards), and the Union and Pendleton Woolen Mills (Caldbick, 2010).

Pilings from an old fish wheel occur along the Columbia River at the east end of the preserve. Fish wheels were large wooden structures that were turned by the current and used to scoop salmon out of the river in areas where they congregated. A steamboat stop along the river in the SE corner of the NCRA brought people and supplies up to the small community of Mount Pleasant.

Recent History and Use

The Washington Natural Area Preserves Act (RCW 79.70) designates preserves for conservation of lands, resources and ecosystem functions, use as outdoor classrooms, as sites for scientific research and, as appropriate to each site, for other low impact uses, including Tribal access for cultural and spiritual practices, so long as the conservation features of the site are maintained.

The Washington

The natural area was designated in 2002 and has been expanded over time through land transactions purchased at market value, from willing sellers, through grants awarded to the Natural Areas Program from the Washington Wildlife and Recreation Program (WWRP).

The surrounding area has remained rural in nature, with low density residential development, small scale agriculture, and some timber harvest. The core area of the natural area is oak woodland in good condition with tree stand age ranges between 50 and 150 years old. Douglas-fir has been selectively harvested in the past, before DNR ownership. The other woodlands in the NAP been logged to varying degrees and are aged between 90 and 200 years old. In 2010. Douglas-fir trees that were overtopping oaks were thinned as part of a WWRP funded restoration project. Douglas-fir trees were either killed by girdling and left standing as wildlife snags or were dropped and flown by helicopter to a landing and removed from site. Forty-five full length fir trees were placed in Lawton and Walton Creeks to provide large woody debris to improve salmonid habitat. Other restoration projects have involved the planting of Oregon white oak and native shrubs. and the control of invasive weeds like blackberry, ivy, and shiny geranium. Lower Lawton Creek has been mined for gravel in the past and has resulted in notable fluvial geomorphological response within and upstream of the mining activities. Highway 14 runs through the southern portion of the site, forming part of the boundary. The BNSF Railway runs along the southern edge of the natural area adjacent to the Columbia River.

Current Uses

Washougal Oaks Natural Area currently offers access in the form of scientific research, guided environmental education opportunities, and volunteer work parties. Sanctioned activities occurring within the Natural Area are in support of site management and restoration or contribute to research and environmental education. To help conserve the ecology of this natural area during research and educational uses, bicycles and pets (with the exception of leashed service animals) are not allowed. See the State Trust Lands Map, or the DNR GO! Map, found on the DNR Website, for a list of alternative access sites for recreational opportunities.

Science, Research, and Monitoring

Public and private universities, other research institutions and individual researchers may contact DNR to propose a research project or site visit at Washougal Oaks Natural Area. If you are interested in pursuing research at Washougal Oaks, please contact the Natural Areas Program statewide ecologist (Appendix 12). Educational visit requests will be evaluated for approval by the DNR region office on a case-by-case basis. DNR reserves the right to limit use to protect the value of the NAP and NRCA. Educational site visit requests can be approved by phone, letter, or in person. DNR may, at its sole discretion, require that DNR staff accompany groups or individuals during site visit(s).

Research proposals must follow Natural Areas Program research guidelines, which are available from the DNR Pacific Cascades Region office or Natural Areas Program statewide ecologist. Official letters of project approval or denial including any specific conditions will be issued within approximately two weeks of receipt of a proposal. Multi-year projects will be re-evaluated and notified of approval (or denial) to continue on a yearly basis.

Washougal Oaks NAP continues to serve as an active research site, supporting the curation of invertebrate and plant specimens for education and display, and studies exploring various facets of the Oregon white oak communities of the site. See Appendix 8 for more information about the research and monitoring that has occurred on the site.

Environmental Education

Currently, no formal educational programs are available at Washougal Oaks NAP. The Pacific Cascades Region natural areas manager may consult with DNR's Youth Education and Outreach Program (YEOP) to identify suitable opportunities to provide environmental education in partnership with local education entities (schools, skills centers, non-profit partners, extra-curricular programs, etc.). Additionally, YEOP staff may coordinate with the natural areas manager to coordinate access to Washougal Oaks Natural Area for environmental education programming through activities such as field trips, site stewardship, data collection, and monitoring projects in collaboration with local education partners. YEOP staff specialize in working with formal and non-formal educators to develop curriculum appropriate to the students and the site, and to providing consultation and training for DNR staff outside the YEOP Program to lead these kinds of events themselves. For more information about educational visits to Washougal Oaks Natural Area, contact the

DNR Pacific Cascade Region natural areas manager (Appendix 12). For more information about environmental education opportunities on DNR Lands, contact the DNR YEOP Program Manager (Appendix 12).

Volunteer and Stewardship Opportunities

Volunteers help with a variety of activities on natural areas, including invasive species control, restoration, and monitoring. Volunteer and stewardship opportunities like these are often well suited for youth groups, which can be engaged through a partnership with DNR's Youth Education and Outreach Program. If you are interested in volunteer and stewardship opportunities in the Washougal Oaks NAP, please contact the DNR Pacific Cascade Region natural areas manager (Appendix 12). For more information about volunteer or stewardship opportunities on DNR Lands, contact the DNR YEOP Program Manager (Appendix 12).

General Management Guidance

The Washington Natural Heritage Program identifies natural area preserves (NAPs), as defined in RCW 79.70, through a scientific inventory process. The purposes of NAPs are:

- To protect outstanding examples of rare or vanishing terrestrial or aquatic ecosystems, rare plant and animal species and unique geologic features.
- To serve as baselines against which the influences of human activities in similar, but differently managed ecosystems can be compared; and
- To provide areas that are important to preserve natural features of scientific or educational value.

DNR may acquire lands and manage them as a Natural Resources Conservation Areas (NRCA), as defined in RCW 79.71. Lands may be acquired only if they possess the following characteristics considered by the legislature to be worthy of consideration for conservation purposes:

- The land is identified as having priority for conservation, natural systems, wildlife and low-impact public use values.
- The site features areas of land and/or water that supports flora, fauna, geological, archaeological, and scenic characteristics which have retained to some degree (or has re-established) it's natural character.
- The site has examples of native ecological communities, and
- The site is an environmentally significant site threatened with conversion to incompatible or ecologically irreversible uses.

Limited Intervention in Natural Processes: The woodlands of the natural area are susceptible to a variety of insects and other pathogenic organisms. Native insects and other pathogenic organisms are part of the preserve's natural ecological conditions and processes. As such, no management intervention will occur when infestations and diseases are the result of native organisms and natural process, unless they pose a threat to human life or adjacent landowner property and require treatment by law. Non-native introduced insects or other pathogens that threaten key natural features of the preserve will be controlled to the extent possible.

Public Access Policy: Access and allowable uses in preserves are defined by the Natural Area Public Access Policy (Policy # 13-002, DNR), consistent with Washington Administrative Code (WAC) 332-52 for Public Access and Recreation on DNR-managed lands and consistent with Revised Code of Washington (RCW) 79.70 for the establishment of NAPs. Current access and use management for the conservation area portion of this combined natural area is governed by this management plan, the Natural Resources Conservation Areas Statewide Management Plan, and the NRCA Act in RCW 79.71.

Uses within NAPs are limited to low impact non-consumptive uses, focused on scientific study or environmental educational purposes, or traditional established aboriginal rights. As

part of the Ongoing site management, the natural areas manager will work with the Natural Areas Program statewide ecologist when considering opportunities to provide low impact access as funding and staffing allow. Activities and use at the NAP should not compromise a site's integrity, ecological, geological, scenic, historic or archaeological values. Non-consumptive use means that activities should be constrained in a manner to leave vegetation, animal behavior, soil and water in place and relatively unaffected. Washougal Oaks NAP will be monitored, and the allowable uses at the site revised if the protected values of the site are negatively impacted by use in a way that affects the site's integrity as measured by direct observation or an Ecological Integrity Assessment (See Management Goal 1, and Appendix 10).

Within NRCAs where appropriate in terms of location, intensity, timing and type of access, certain non-consumptive and non-damaging recreational uses can be accommodated, predominantly in buffer areas or in previously impacted locations. Low impact recreational uses on NRCAs can be developed when it can be located to protect ecosystem features and function within the NRCA. Development of access within a natural area will be guided by the Statewide Natural Resource Conservation Area Management Plan and will include public engagement to gather comments and identify and review alternatives. Development of access is dependent upon adequate funding for facilities and ongoing site management staffing.

Access for research or education projects must be consistent with the site management goals and require written authorization signed by the natural areas manager or the natural areas program ecologist. Individuals granted permission to access the site outside of designated trails are required to have one copy of the written authorization signed by the natural areas statewide program ecologist in their parked vehicle and another copy with them while on site conducting those activities. Contact the DNR Pacific Cascades Region natural areas manager to request consideration of a research or education project at Washougal Oaks Natural Area.

The DNR *Natural Areas Preserve Public Access Policy* is found in Appendix 7 or available via the internet at the Washougal Oaks Natural Area webpage (www.dnr.wa.gov/washougal-oaks-natural-area). For a map of low-impact recreation opportunities on DNR-managed land in the area, use DNR's statewide interactive recreation map or the DNR GO! Map online to find other sites to recreate on state lands.

Goal 1: Protect Primary Features

As a NAP, the purpose of land management at Washougal Oaks Natural Area is to protect the primary features of conservation significance from human-induced stressors (Table 1 in the Natural Features Description, Figure 1b). Any activity or management action taken at the site should first consider whether it would risk the viability or ecological integrity of these primary features.

Objective: Address Research Needs in Support of Primary Features
Research provides key insights into the ecological drivers of site conditions and relationships between species and their environment. There are often specific needs for data collection and research to inform adaptive management of the site. These needs are site specific and may evolve over time as we identify shifts and impacts driven by climate change or other cumulative stressors. Research should be conducted in collaboration with the natural areas manager, and staff, under permit approved by the natural areas program ecologist's to successfully support and protect the primary features at Washougal Oaks Natural Area. DNR's Natural Heritage Program scientists should also be engaged when research is focused on the primary features identified in the Washington State Natural Heritage Plan.

See Appendix 9 for the current and future research needs for Washougal Oaks Natural Area.

Objective: Follow Management Guidance for Primary Features
The guiding principle for managing the Washougal Oaks NAP is to permit natural ecological and physical processes to predominate, while limiting activities and preventing actions that directly or indirectly modify them. Exceptions may occur when a primary feature would be jeopardized without active intervention, such as during restoration projects.

Management activities will maintain the site in the best ecological condition possible. Removal or alteration of vegetation, soil, or rock is not allowed except where specifically authorized by DNR under the framework of this plan. Goals for preserve management include:

- Protecting the site's primary natural features, including ecosystem processes.
- Monitoring threats to the natural features and the health of natural systems.
- Managing non-native and invasive plant or animal species.
- Protecting cultural and archaeological sites.
- Facilitating environmental education and research on the preserve.
- Inviting interested Tribal partners to participate in the development of restoration plans to incorporate Traditional Ecological Knowledge (TEK) and consider traditional land management practices.
- Providing access when it is compatible with the preserve's conservation goals, including Tribal access for cultural and spiritual practices

The overarching management goal is to maintain the ecological integrity of natural areas such that they do not deteriorate below the ecological condition at the time of establishment, or that they reflect a restored Ecological Integrity Assessment (EIA) rank of at least B or better in cases where their initial ranking is below a B. An EIA should be conducted on a 5-year rotation to provide relevant data for decision making and respond in a timely manner to changes in ecological integrity of the site. Additionally, EIAs should be conducted after any event that could drive change in an ecosystem. Examples of such events are extreme weather events, natural disturbances (fire, flood, invasive species establishment, or others), development of adjacent parcels, significant restoration work, or impacts to the preserve's

features from upstream or off-site events. Monitoring for specific components or processes of ecosystem features (such as water levels, water quality, tree growth rates), or for other features may be necessary and will be added to Appendix 10 as needed. Key background and goals for the management of primary features is established in this plan, with additional detail provided in Appendix 10.

Various information sources describing reference conditions (i.e. the natural range of variability of composition, structure, and ecological processes) for the ecosystems has been consulted and should continue to be used to help guide management (see details in Appendix 10).

Oregon White Oak / Oval-leaf Viburnum-Poison-Oak Woodland & Douglas-fir - Oregon White Oak / Common Snowberry Woodland.

The Oregon White Oak / Oval-leaf Viburnum-Poison-Oak Woodland association is considered globally critically imperiled and is listed as "Endangered" in the Washington State Natural Heritage Plan because of the small number of occurrences, small global range, and high degree of threats. While the historic fire regime in the vicinity of Washougal Oaks natural area is not well documented, fire – primarily cultural burning – was a significant disturbance in oak woodlands throughout most of the Pacific Northwest. Fires would have maintained or expanded oak woodlands on the landscape by reducing conifer and shrub encroachment and encouraging oak regeneration. In the absence of fire, and with significant land use impacts in recent decades, only ten percent of the historic range of Oregon white oak habitat in Washington remains (Vesely and Rosenburg, 2010). This woodland is typically found on areas of more shallow, rocky soils and southerly aspects while Douglas-fir – Oregon White Oak / Common Snowberry Woodland (identified as "Threatened" in the Washington State Natural Heritage Plan) is found on deeper soils and a wider variety of aspects. These two oak woodlands occurrences are part of the largest relatively contiguous area of oak woodland remaining in western Washington, almost all of which is included within the proposed natural area. The element occurrence of these two communities occupies about 220 acres, 164 of which are in current preserve ownership. No Ecological Integrity Assessment (EIA) has been conducted in either of these two oak woodland occurrences; however, overall ecological integrity has been estimated for both woodland types is estimated at B or B- (good ecological integrity). The core area of oak woodland appears to be in good condition and is mostly young (50-100 years) to mature (100-150 years) in age. Portions of the area were selectively logged in the past for Douglas-fir, and the Natural Areas Program has conducted removal of select conifers more recently as part of restoration efforts. Invasive species, primarily Himalayan blackberry (*Rubus bifrons*), English holly (*Ilex aquifolium*), and shining geranium (*Geranium robertianum*) occur along the edges as well as in parts of the interior of these woodland communities. Douglas-fir encroachment has occurred within portions of these features and presents a long-term threat, especially to the Oregon White Oak / Oval-leaf Viburnum - Poison-Oak Woodland community.

Various information sources describing reference conditions (i.e., the natural range of variability of composition, structure, and ecological processes) for the ecosystems has been consulted and should continue to be used to help guide management (see Appendix 10).

Management Goal:

- Maintain these communities in Ecological Integrity condition rank of B or better, with a focus on maintaining or improving overstory composition and structure and reducing invasive species in the understory.

Primary rare plant species (tall bugbane, bolandra, small-flowered trillium)
The tall bugbane and bolandra populations are among the largest within the state, while the small-flowered trillium population is one of the smaller populations. Kincaid's lupine, while not a Primary Feature, is a Federally Threatened species that is being established on the natural area. Kincaid's lupine is intolerant of shading and requires an open grassland or savanna habitat to persist. Natural and cultural fire would traditionally have maintained these open conditions and Kincaid's lupine resprouts from underground rhizomes readily after a low intensity burn. A 15-acre former agricultural field on the periphery of the site has been identified for restoration and establishment of the Kincaid's Lupine along with other native prairie vegetation. Management of the restored habitat will maintain an open oak savanna or grassland setting, through the use of mowing, chemical treatment, and potentially prescribed burning.

The rare plants on site are found in distinct areas and in low numbers. At the time of designation, the condition of the rare plant populations within the boundary included:

- Tall bugbane populations consist of approximately 250 plants in two distinct locations within the natural area boundary.
- Bolandra populations consists of approximately 100 plants, but only a small portion (<10 percent) is on land that is currently part of the Washougal Oaks Natural Area.
- The small-flowered trillium population is small, with approximately 75 plants in multiple smaller clusters within a 10-acre area.

Additional information about the ecology, distribution, and threats associated with the rare plants can be found in the following links:

- Bolandra: https://fieldguide.mt.gov/wa/?species=bolandra%20oregana
- Small-flowered trillium: https://fieldguide.mt.gov/wa/?species=trillium%20albidum%20ssp.%20parviflorum
- Tall bugbane: https://fieldguide.mt.gov/wa/?species=actaea%20elata%20var.%20elata
- Kincaid's lupine: https://fieldguide.mt.gov/wa/?species=lupinus%20oreganus%20var.%20kincaidii

Management Goal:

- Maintain stable or increasing populations and distribution within the site, accounting for natural range of variation, with a focus on maintaining or improving light conditions and reducing invasive species competition.
- For Kincaid's lupine, the goal is to establish and maintain a population with at least 1,000m^2 of foliar cover in order to meet recovery plan goals for this species (USFWS, 2010).

Primary wildlife species (Slender-billed White-Breasted Nuthatch, Larch Mountain Salamander, Peregrine Falcon)

By protecting the primary ecosystem features of the site, we will achieve the maintenance of the habitat that supports these species when present. For additional information of these species see these links:

- Larch Mountain Salamander: https://wdfw.wa.gov/species-habitats/species/plethodon-larselli
- Peregrine Falcon: https://wdfw.wa.gov/species-habitats/species/falco-peregrinus
- Slender-billed White-breasted Nuthatch: https://wdfw.wa.gov/species-habitats/species/sitta-carolinensis-aculeata

Management Goal:

- Ensure the persistence of Habitat Structure for Primary Wildlife Features by maintaining the Ecological Integrity of the site in a condition rank of B or better.

Goal 2: Provide and Manage Access

Activities at Washougal Oaks NAP include the following categories: research projects, guided nature walks, volunteer restoration events and group activities may require a permit prior to accessing the site. Individually authorized activities in the NAP and dispersed access within the NRCA will be managed to maintain the site's ecological integrity and geological, scenic, historic or archaeological values. The Natural Areas Program, under the DNR *NAP Public Access Policy* in Appendix 7 (available online at https://www.dnr.wa.gov/washougal-oaks-natural-area), maximizes the educational value of NAPs through conservation management to preserve natural features for scientific research and environmental education. Activities must leave vegetation, animal behavior, soil and water courses relatively unaffected. Development of any projects to facilitate low-impact use at Washougal Oaks Natural Area will undergo additional public outreach and community discussion. Washougal Oaks Natural Area will be monitored in accordance with WAC 332-52-100, and the allowable uses mentioned in this plan will be revised if the protected values of the site are negatively impacted by use in a way that affects the site's integrity as measured by direct observation of site condition or by an Ecological Integrity Assessment (See Management Goal 1, and Appendix 10).

Objective: Offer Access for Education and Teaching
DNR staff will continue to offer guided educational access, as available, throughout the site where it can be safely provided. The DNR region natural areas manager may coordinate with DNR's Youth Education and Outreach Program (YEOP) to facilitate access and engagement opportunities to local youth. Key opportunities for classroom and community educational projects and activities include:

- Guided school outings
- Native plant and bird groups.
- Volunteer activities.
- Access to environmental interpretive features.

For more information about educational visits to Washougal Oaks Natural Area, contact the DNR Pacific Cascade Region natural areas manager (Appendix 12). For more information about environmental education opportunities on DNR Lands, contact the DNR YEOP Program Manager (Appendix 12).

Objective: Offer Access for Research and Monitoring
Research projects may be approved following review and with site protection stipulations by the Natural Areas Program statewide ecologist, working with the DNR region natural areas manager. Additionally, DNR may conduct research and monitoring at natural areas to further conservation goals. Research or monitoring by DNR staff may draw upon the resources available within DNR's Youth Education and Outreach Program (YEOP) and similar community-based educational or scientific organizations. Advanced educational research or student internships may be available for hands-on learning opportunities in the fields of conservation land management and ecological restoration.

Objective: Conduct Assessment to Determine if Other Forms of Access are Appropriate within the Natural Resources Conservation Area
DNR will conduct an assessment to determine if other forms of access for education and low-impact use may be appropriate at the site. The assessment will be conducted by the natural areas manager, ecologist, recreation and natural areas planners, and will include broad community outreach and review.

Objective: Collaborate to Ensure that Tribal Practices are Consistent with Conservation Goals
Together with interested Tribal partners, an assessment will be conducted to determine whether and how specific traditional practices can be accommodated at the site while staying consistent with the site's conservation goals.

Objective: Clearly Outline Limitations on Uses and Activities
Prohibited uses and activities within Washougal Oaks Natural Area determined by DNR to be inconsistent with the conservation purpose of the NAPs Act as outlined in RCW 79.70 are considered incompatible with conservation management and are not approved uses. DNR's existing law enforcement policies will apply. DNR will comply with applicable regulations in the management of Washougal Oaks NAP and will cooperate with local and state enforcement agencies when necessary to curb unauthorized use.

Prohibited uses at Washougal Oaks Natural Area, as well as activities determined by DNR under this management plan to be in conflict with conservation land management goals, include the following:

Creation of Unauthorized Social Trails – In accordance with WAC 332-52-405(1), the creation of unauthorized trails within the natural area is not an appropriate use. Unauthorized trails are not built to standards that protect ecological features and are not known to site managers, therefore they are not patrolled, maintained, or monitored. A lack of monitoring and maintenance of such trails results in significant negative impacts to the vegetation on and adjacent to the trail as it becomes worn down and widened, including damage to or loss of sensitive plants. Social trails open up bare ground to invasive plants, create paths for water to travel and erode localized areas, and can lead to habitat fragmentation which can inhibit wildlife movement across the landscape.

Pets –Due to the sensitive nature of the plants and soils, and the potential for negative impacts and disturbances upon wildlife species, pets are not permitted within the preserve boundary, except for service animals (WAC 332-52-140(1), which must be leashed at all times on any future designated trails or developed interpretive areas.

Hunting and Trapping within the NAP – Hunting and trapping are not approved uses for Washington's NAPs. DNR does not allow species removal (hunting, trapping) from NAPs unless it is necessary for management purposes. The guiding principle for managing the NAP is to permit natural ecological and physical processes to predominate. Uses are limited to low impact, non-consumptive use. Opening this small natural area to hunting can put at risk those features the site was designated to protect. Hunting can also negatively impact ecological research by violating assumptions about the influence of natural process on study results, introduce variation to the analyses, and damage or eliminate monitored populations or plots from a sample area.

Exceptions may occur when a primary feature would be jeopardized without active intervention. Should the need to use hunting as a management tool arise, the DNR natural areas manager will consult with the Washington Department of Fish and Wildlife to define the parameters under which animal control methods may be allowed.

Hunting and Trapping within the NRCA – Hunting and trapping are not approved uses for Washougal Oaks NRCA. Exceptions may occur when a primary feature would be jeopardized without active intervention. Should the need to use hunting or trapping as a management tool arise, the DNR natural areas manager would consult with Washington Department of Fish and Wildlife to define the parameters under which animal control methods would be allowed.

Hunting is not an approved use at Washougal Oaks NRCA for the following primary reasons:

- Impacts to vegetation from navigating to and from hunting stations, or as hunters navigate across the landscape to track game.

- There are no markers to delineate the boundaries between the NAP and NRCA, or between public and private property.
- Spreading of invasive plants both to and from the site.
- Safety of the hunters as they navigate roadless areas of the site with cliffs and incredibly steep slopes and dense brush in pursuit of game.
- Safety of neighboring residents and travelers on the roads and highways that form the borders of the site. Clark County Code 9.12.030 defines No-Shooting Zones near habitation, prohibiting the discharge of air guns, shot guns, or bow within 100 yards of habitation and the discharge of all other firearms within 200 yards of habitation.
- Safety of DNR Staff working on site to conduct monitoring and restoration.

Removal (Harvest and Removal) of Plant or Mineral Material – I In accordance with WAC 332-52-115(1a,b), the harvest and removal of any amount of plant or mineral material is not an allowable use, other than by DNR land managers for conservation purposes or with written permission from the natural areas manager or the natural areas program ecologists. Removal of mushrooms, firewood, tree boughs, and cuttings from shrubs are not allowed under this limitation of use.

Removal or Damage to Historical and Archaeological Objects, Features and Sites Significant archaeological and cultural resources are protected by state law concerning Archaeological Sites and Resources (RCW 27.53), the National Historic Preservation Act (P.L. 89-665 as amended) and the Archaeological and Historic Preservation Act of 1974 (P.L. 93-291). The removal or alteration of archaeological materials including artifacts, features, sites, and structures from DNR managed lands is not allowed, other than when carried out by DNR cultural resources staff or authorized individuals to project the resource from loss or harm and/or conduct scientific analysis.

Dumping – In accordance with WAC 332-52-120 dumping is not allowed within Washougal Oaks Natural Area. Dumping results in trampled vegetation at the site, and creates a sanitation risk, and can introduce invasive species.

Fishing – Fishing within the natural area is not an appropriate use of the site. The terrain is not conducive to establishing access trails or parking. Accessing these shoreline areas requires traveling across natural vegetation, and would cause damage to plant communities, and increase the potential for erosion as soil is exposed in the creation of social trails.

Other Uses Not Outlined Above – Uses and activities within Washougal Oaks Natural Area determined by DNR to be inconsistent with the conservation purpose of the Natural Area Preserves Act as outlined in RCW 79.70 are considered incompatible with conservation management and are not approved uses. DNR's existing law enforcement policies will apply. DNR will comply with applicable regulations in the management of Washougal Oaks NAP and will cooperate with local and state enforcement agencies when necessary to curb unauthorized use.

Goal 3: Manage the Site in Response to a Changing Climate

Natural areas play a significant role in ecological climate resilience. Natural areas are considered a key component in mitigating climate impacts and play a strategic role in protecting the biodiversity and natural heritage of Washington State. They provide environmental services, such as sequestration and storage of carbon, provision of habitat refugia for rare species, maintenance or improvement of water quality and watershed processes, and protection of rare plant communities and ecosystems.

Objective: Review and Adapt Management Practices as Needed to Address Impacts of Climate Change

In recognition of the importance of consideration of climate change in conservation planning, land management approaches may need to adjust to continue to preserve protected elements in state natural areas. Natural Areas Program land managers and ecologists regularly review and consider existing approaches to the following as a part of general site management at Washougal Oaks Natural Area:

- Collaborate with interested Tribal specialists and Washington Natural Heritage Program staff to inventory culturally significant plants in the natural area and determine their vulnerability and response to climate change
- Review the adequacy of the natural area boundary to protect primary features against climate change
- Consult available climate change vulnerability assessments applicable to the primary features of the site to identify primary concerns and potential management actions. The Natural Heritage Program Climate Change Vulnerability Index assessments for rare plants and Habitat Climate Change Vulnerability Index assessments for ecosystems (https://www.dnr.wa.gov/NHPclimate) are primary resources.
- Review invasive species management practices (including Natural Heritage Program invasive species ecological impact reports)
- Review the need for prescribed fire on the landscape, and alternatives to fire as a tool to achieve similar ends.
- Review the balance between inherent ecological and scientific value and recreational use and update policies as needed.
- Review restoration targets informed by shifting climatic conditions. (see above, climate change vulnerability assessments).
- In consultation with Natural Areas Program and Natural Heritage Program scientists, review the use of certain species in restoration projects in light of ongoing climate changes to plants and insect pests (i.e. reduction in use of trees that are not doing well with climate change and loss of ash to Emeral Ash Borer).
- In consultation with Natural Areas Program and Natural Heritage Program scientists as well as the Natural Heritage Advisory Council, review the potential need for assisted migration of near-by native plant and animal species.

Goal 4: Minimize Impacts of Wildfire Management

Wildfire suppression in Washougal Oaks Natural Area focuses on protecting life, resources, and property, and will be conducted to the degree possible with Minimum Impact

Suppression Tactics to minimize impacts to conservation features. See Appendix 1 for the "Wildfire Management Strategy for Washougal Oaks Natural Area.

Objective: Follow the Wildfire Management Strategy Emphasizing Minimum Impact Suppression Tactics

Oregon white oak Woodland ecosystems have evolved with natural and cultural fire and the plant communities and ecosystem processes benefit from frequent, low intensity burns (Rochhio and Crawford, 2015). Sensitive areas identified on maps should be avoided whenever possible, particularly for use of retardants or heavy equipment. After fires have been suppressed, site restoration will be supervised by the region natural areas manager in consultation with the natural areas program ecologist.

Goal 5: Control Invasive Species

For the purposes of this management plan, an invasive species is a plant species that is not native to the State of Washington and poses a threat to site management goals. Invasive species can repress or exclude native species and are widely viewed as one of the greatest threats to ecosystem health and biodiversity worldwide. Useful sources of information on invasive species ecology, control, and ecological impacts include state and county weed control board information, Invasive Species Profiles (https://www.invasivespeciesinfo.gov/species-profiles-list), Center for Invasive Species and Ecosystem Health (https://www.invasive.org/), and the *Washington Invasive Ranking System* (Ramm-Granberg et al., 2024). This information can be used to identify species that may be potential threats to the site as well as to help prioritize species for control.

Inventory, assessment and control of invasive weed species are top priorities in the management of the preserve. The priority species are those that are considered able to invade the interior of the preserve and have the greatest potential to alter the native ecosystem. The other species of concern are typically found on disturbed soils and do not appear to be expanding into the undisturbed areas.

Upland priority weed species of concern include:

- Himalayan Blackberry (*Rubus bifrons*)
- Shiny Geranium (*Geranium lucidum*)
- English Ivy (*Hedera helix*)
- Clematis (*Clematis vitabla*)
- Periwinkle (*Vinca major*)
- European Holly (*Ilex aquifolium*)

Other weed species of concern include:

- Herb Robert (*Geranium robertianum*)
- Black Locust (*Robinia pseudoacacia*)
- Arum (*Arum italicum*)
- Canada Thistle (*Circium arvense*)

Objective: Follow the Site Weed Management Plan and Coordinate with Partners to Reduce Overall Cover of Invasive Weeds.
Weed management techniques will vary seasonally for the best effect based on the physiology of the target species and avoidance of unintended impacts to non-target species. Some combination of mechanical and chemical approaches will be the primary tools. Species specific approaches can be found in Appendix 11.

The other species of concern should be addressed through documentation and treatment of nascent populations and the containment and control of established populations. In addition to ongoing vegetation surveys, monitoring for invasive species should focus on roadside buffers, forested edges and riparian areas, as well as areas affected by future management activities, especially those that will create light gaps in the overstory and soil disturbance in the understory.

Goal 6: Ensure the Persistence of Habitat Structure for Wildlife

The habitat within Washougal Oaks NAP supports a rich diversity of wildlife, in addition to the Larch Mountain Salamander and the Slender-billed White-breasted Nuthatch, which are designated by WDFW as priority species. More information about species location and abundance is needed to guide management actions under this plan, potentially including collaboration with WDFW biologists, volunteer site stewards or researchers. Invasive, non-native species that may require control include opossum, nutria, and starlings, all of which may have adverse impacts on native species through nest depredation, preemption of nesting cavities, and destruction of vegetation. Per the adopted *Natural Area Preserve Public Access Policy* in Appendix 7, the removal of wildlife only occurs as a DNR-approved management action, if necessary.

Objective: Ensure the Goals for Protecting Primary Features are Met.
The wildlife protected in Washougal Oaks Natural Area are native to these natural ecosystems. Species presence may vary with diurnal, seasonal, or annual cycles. Whether or not a species is documented on site at a discrete point in time, the ability for the habitat to support that species when it is present is the goal. Protecting the primary ecosystem features of the site maintains the habitat that supports a diversity of wildlife including those identified by the Washington State Natural Heritage Plan as conservation priorities.

Goal 7: Protect Archaeological and Cultural Sites

The lands in and surrounding the preserve are known to have been inhabited or used by past peoples and may include important cultural resources. In compliance with Governor's Executive Order 21-02 (GEO 21-02) and in cases where natural area projects have a Federal nexus under Section 106 of the National Historic Preservation Act (NHPA), State Department of Archaeology and Historic Preservation records shall be reviewed prior to the implementation of any research, education or management activity. Any alteration to an archaeological site would require a permit from the Department of Archaeology and Historic Preservation (RCW 27.44 and RCW 27.53). Confidential cultural data is protected and exempt from disclosure under RCW 42.56.300 to prevent looting and depredation of the

artifacts. All employees working at Washougal Oaks Natural Area should become familiar with DNR's Inadvertent Discovery Plan (Appendix 14) to understand how to proceed if an artifact is found during the course of work.

Process for Historical and Archaeological Preservation

Natural areas managers will initiate informal Tribal consultation with affiliated Tribes and work with professional archaeologists to ensure cultural resource compliance with GEO 21-02. GEO-21-02 mandates that

- DNR shall consult with DAHP and affected Tribes on the potential effects of projects on cultural resources proposed in state-funded construction or acquisition projects. Consultation should occur early in the project planning process and must be completed prior to the expiration of state funds for construction, demolition or acquisition.
- DNR shall take all reasonable action to avoid or mitigate adverse effects to archaeological sites, historic buildings or structures, traditional cultural places, sacred sites, or other cultural resources
- DNR shall retain the responsibility to ensure an adequate consultation process and will be responsible for holding all records related to the Tribal consultation process. DNR will provide the records to DAHP to demonstrate completion of the Tribal consultation process.
- A cultural resources study may be needed before a project may proceed and DNR must consult with DAHP and the affected Tribes for the purpose of seeking agreement on studies.
- If an archaeological site, historic building or structure, or cultural or sacred place is identified during a study, DNR shall consult with DAHP and the affected Tribes on avoidance strategies or methods to minimize harm if the project poses a direct or indirect effect on cultural resources.
- In the case of historic buildings or structures, DNR shall develop mitigation strategies in consultation with DAHP and if requested, affected Tribes. For all other cultural resources including archaeological and historic archaeological sites or traditional and sacred places DNR may only develop mitigation strategies upon notifying DAHP and the affected Tribes that avoidance cannot be attained.
- Mitigation strategies for archaeological, cultural and sacred sites shall be identified through consultation with DAHP and the affected Tribes.

In instances where DNR works in conjunction with a federal agency or under a federal nexus, natural area managers and professional archaeologists will work with the appropriate federal agency on Section 106 requirements and compliance. Confidential cultural data is protected and exempt from disclosure under RCW 42.56.300 to prevent looting and

depredation of the artifacts. Contact the DNR Pacific Cascades Region natural areas manager for more information.

Goal 8: Maintain Roads and Rights-of-Way

County roads and state highways, as well as DNR access roads, exist within the natural area boundary and current DNR ownership (Figure 1a). Maintenance of these roads and associated rights-of-way is conducted by the County and DNR and includes routine brushing and danger-tree management. Roads are the most intrusive elements within and adjacent to the preserve and are the source for waste dumping as well as the spread of noxious weeds. DNR will regularly monitor formal and unauthorized access points, the roadside rights of way along the perimeter of the site, and easement corridors.

Objective: Natural areas staff will routinely monitor roads and easement corridors for impacts that may affect the natural area if left unaddressed.
Natural areas program staff will regularly monitor roads and easement corridors for encroachment of invasive weeds, impacts of weed treatment that drift beyond the right-of-way, the presence of trash, unauthorized access points, evidence of recreational fire, and other signs of activity that could threaten the integrity of the natural area.

Objective: Natural Areas Managers Will Take Action to Investigate, Identify, and Rectify Issues when Observations Indicate that Impacts on Rights-of-Way may Affect the Natural Area.
When routine monitoring of rights-of-way identifies an issue that could potentially present a risk to the ecological integrity of the site or to safety, the natural areas manager will take appropriate action to rectify it.

Management Goals, Actions and Activity Details

Table 2. Management Guidance for Washougal Oaks NAP

Goal	Management Action	Activity Detail
Protect Primary Features	• Implement a strategy to protect the site's primary features based on reference conditions defined by EIA metrics, the global and state element descriptions (and EIA metrics), and other relevant information	• Manage for highly invasive species • Maintain or improve woodland structure relative to reference conditions through periodic thinning of trees and/or prescribed burning • Coordinate with other land managers in the area on fire ecology and prescribed fire education efforts

Goal	Management Action	Activity Detail
		• Restore appropriate understory vegetation (as determined by reference conditions) in areas most affected by previously high tree densities • Restore appropriate vegetation (as determined by reference conditions) in areas impacted by use • Restore appropriate vegetation (as determined by reference conditions) in areas where forest had been cleared in the past • Direct access to approved trail parking and restore use-impacted areas • Assess current impacts from upstream properties and implement mitigation actions onsite • Pursue funding and facilitate partnerships to meet site management and needs • Encourage research on priority topics to assist with site management <u>Priority Research Topics</u> • See Appendix 9
	• Gather and maintain information necessary for site management	Highest Priority Monitoring Needs • Ecological monitoring of woodland features, including EIA, supplementary long-term plots, and assessment of tree regeneration approximately every 5 years • Rare plant population monitoring via census or plot sampling • Site use and associated impacts • Monitor roadsides and sites commonly targeted by

Goal	Management Action	Activity Detail
		vandalism and associated impacts • Regularly monitor roads and utility corridors for incursions into the preserve • Invasive species distribution Additional Monitoring Needs • Slender-billed Nuthatch population
Provide and Manage Public Access	• Foster environmental education • Monitor potential impacts to natural features from site uses	• Write an interpretive plan / sign plan • Sponsor field trips • Determine if and where access may be appropriate • Coordinate with DNR Youth Education and Outreach Program to connect with interested education groups for interpretive site visits, service projects, research and monitoring
Manage Site for a Changing Climate	• Monitor primary features and species • Monitor invasive species • Encourage research on priority topics to assist with site management	<u>Highest Priority Monitoring Needs</u> • Ecological monitoring of species populations and primary ecosystem functions • Invasive species distribution • Shoreline conditions <u>Additional Monitoring Needs</u> • Restoration site revisitation at 5-year intervals <u>Priority Research Topics</u> • Climate change impacts
Minimize impacts of Wildfire Management	• Follow the Wildfire Management Strategy emphasizing Minimum Impact Suppression Tactics	• Coordinate with Incident Management team in event of wildfire threats to the natural area • Meet annually with the local DNR fire staff prior to fire season to discuss the purpose of the site and the desire for MIST techniques.

Goal	Management Action	Activity Detail
		• Conduct regular updates to the Pacific Cascades Region Fire Mobilization Guide
Control invasive species	• Revise site-specific weed management plan • Restore areas where native vegetation has been damaged, focusing on shorelines	• Update existing site-specific weed management plan with information on new weeds and weed control methods. • Plant areas with natives that were previously infested with weeds
Ensure the persistence of Habitat Structure for Wildlife	• Protect the primary features to maintain them at a high EIA Rank of B or better	• Maintain the general structure of a healthy Oregon white oak Woodland habitat to support the wildlife that depends on the resources of that site
Protect Archeological Sites and Cultural Resources	• Coordinate with Tribes to ensure that cultural sites are not disturbed and to gather their input and exchange information about the preserve • Follow the process for historical and archaeological preservation outlined in Goal 7	• Establish primary contacts for outreach about DNR projects and management activities • Learn about Tribal interests and concerns • Consult with Tribes and Archaeologists on cultural resources reviews for projects • Follow mandated state and federal processes for Tribal consultation
Maintain Roads and Rights-of-Way	• Monitor roads for impacts that may affect the natural area if left unaddressed • Investigate, identify and rectify issues when observations indicate that impacts on rights-of-way may affect the natural area	• Monitor roads for invasive weeds and treat as necessary

Routine Management Actions in Appendix 2
Routine management actions, the work required to steward the site on a daily basis, exclusive of significant project-related work that requires special fiscal appropriation, is described in Appendix 2. A reasonable base budget for routine management of Washougal Oaks Natural Area will support a DNR land manager for 6 months per biennium, and 6 months per biennium each for two natural area stewards, including all costs related to the site such as travel and materials. A list of actions required to accomplish the routine site management and an estimate of DNR staff time that will be necessary is presented in (Appendix 2, Table 2-1).

Costs associated with managing Washougal Oaks Natural Area are expected to change over time due to general economic factors (such as inflation), identification of new land and resource management challenges, or to meet newly identified opportunities for research, environmental education or access. DNR pursues a variety of state and federal grant funding to assist with land and resource management, restoration, research, and development of access and educational facilities, including development of educational curricula and materials by DNR's Youth Education and Outreach Program for use at this site.

Near-Term Project List in Appendix 3
Near-term projects, work that typically requires special fiscal appropriation beyond that available for routine operations, is described in Appendix 3. The one-time projects noted in Appendix 3 should be pursued to complete necessary planning and make investments in land management or access projects. An estimate for the level of investment required to accomplish these projects is presented in the description of the work and an estimate of DNR staff time that will be assigned to the work in Appendix 3 Table 3-1. The one-time projects noted in the appendix should be pursued to complete necessary planning and make investments in other-than-routine land management activities or capital budget projects.

Costs estimates are expected to change over time due to general economic factors (such as inflation) or to rise to challenges during implementation. The Department of Natural Resources pursues a variety of state and federal grant funding to assist with project implementation.

Duration of this Management Plan
This management plan, the routine management actions, and the near-term projects will be reviewed as necessary and updated by the DNR Natural Areas Program. Significant changes in management direction or policy guidance will include consultation with the Natural Heritage Advisory Council, and perhaps revisions to the management plan and appendices, which is expected to happen infrequently. The list of near-term actions will be updated as needed for the cost factors noted above. Continuation of the management direction for Washougal Oaks Natural Area as stated in this adopted management plan may be incorporated into revised Appendices 2 and 3 without requiring additional review by the Natural Heritage Advisory Council.

REFERENCES:

Barsh, Russell and Madrona Murphy, 2024. "Garry Oaks and Acorns in Native American Cultural Landscapes and Diets." Garry Oaks and Acorns in Native American Cultural Landscapes and Diets - HistoryLink.org

Boyd, Robert T., and Yvonne P. Hajda, 1987. Seasonal Population Movement along the Lower Columbia River: The Social and Ecological Context. *American Ethnologist* 14:309-326.

Caldbick, John, 2010. Washougal – Thumbnail History. HistoryLink.org Essay 9312. Electronic Document https://www.historylink.org/File/9312. Accessed October 2024.

Chang, M., L. Erikson, K. Araújo, E.N. Asinas, S. Chisholm Hatfield, L.G. Crozier, E. Fleishman, C.S. Greene, E.E. Grossman, C. Luce, J. Paudel, K. Rajagopalan, E. Rasmussen, C. Raymond, J.J. Reyes, and V. Shandas, 2023: Ch. 27. Northwest. In: Fifth National Climate Assessment. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA. doi.org/10.7930/NCA5.2023.CH27

Chappell, C. B. 2006. Upland plant associations of the Puget Trough ecoregion, Washington. Washington Natural Heritage Program, Department of Natural Resources, Olympia, WA. https://www.dnr.wa.gov/publications/amp_nh_upland_puget.pdf

Columbia River Gorge Commission and USDA Forest Service National Scenic Area, 2020. Management Plan for the Columbia River Gorge National Scenic Area, October 2020 Revision. https://gorgecommission.org/images/uploads/pdfs/!_Management_Plan_Complete_and_Formatted.pdf

Elsner, M. M., L. Cuo, N. Voisin, J. S. Deems, A. F. Hamlet, J. A. Vano, K. E. B. Mickelson, S. Y. Lee, and D. P. Lettenmaier, 2010: Implications of 21st century climate change for the hydrology of Washington State. Climatic Change, 102, 225-260, doi:10.1007/s10584-010-9855-0.

Engdahl, Tanna, 2023. In the Beginning Cowlitz in Cowlitz Indian Tribe: The Forever People. https://www.cowlitz.org/our-story. Accessed 07/12/2023

French, David H., and Kathrine S. French, 1998. Wasco, Wishram, and Cascades. In *Handbook of North American Indians: Plateau, v.12*, edited by Deward E.Walker,Jr., pp.360-377. Smithsonian Institution, Washington D.C.

Gahr, D. Ann Trieu, 2013. Ethnobiology: Nonfishing Subsistence and Production. In *Chinookan Peoples of the Lower Columbia*, edited by Robert T. Boyd, Kenneth M. Ames, and Tony A. Johnson, pp. 63-79. University of Washington Press, Seattle and London.

Gedalof, Ze'ev, Pellatt, M., Smith, D. (2006). From prairie to forest: three centuries of environmental change at Rocky Point, Vancouver Island, BC. Northwest Science. 80. 34-46.

Greenler, S. M., F. K. Lake, W. Tripp, K. McCovey, A. Tripp, L. G. Hillman, C. J. Dunn, S. J. Prichard, P.F. Hessburg, W. Harling, and J. D. Baily, 2024. "Blending Indigenous and Western Science: Quantifying Cultural Burning Impacts in Karuk Aboriginal Territory." Ecological Applications e2973. doi.org/10.1002/ eap.297

Hoyer, Robert; Timberlake, Thomas; compilers. 2023. Climate change vulnerability and adaptation in the Columbia River Gorge National Scenic Area, Mount Hood National Forest, and Willamette National Forest: executive summary. Misc. Pub. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 11 p. https://research.fs.usda.gov/treesearch/66348 accessed January 2025.

Lewis, David G. , 2018. Native Kinships and Wealth Among the Middle Chinooks in the *Quartux Journal*. https://ndnhistoryresearch.com/2018/05/31/native-kinships-and-wealth-among-the-middle-chinookans/. Accessed 07/13/2023.

Long, J. W., F.K. Lake, and R.W. Goode, 2021. The importance of indigenous cultural burning in forested regions of the Pacific West, USA. Forest Ecology and Management 500(15) 119597.

Lower Columbia Fish Recovery Board, 2010. Washington Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan. Longview, WA.

Mote, P., A. K. Snover, S. Capalbo, S. D. Eigenbrode, P. Glick, J. Littell, R. Raymondi, and S. Reeder, 2014: Ch. 21: Northwest. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 487-513. doi:10.7930/J04Q7RWX

Moulton, Gary E. (editor), 1991. The Journals of the Lewis & Clark Expedition. Vol. 7: March 23 - June 9, 1806. University of Nebraska Press, Lincoln and London.

Noss, R., G. Aplet, P. Comer, C. Enquist, J. Franklin, J. Riley, and H. Safford, 2024. Natural Areas in the Twenty-first Century. Natural Areas Journal 44(1):35-40. doi.org/10.3375/2162-4399-44.1.35

Popper, K., G. Wilhere, M. Schindel, D. VanderSchaaf, P. Skidmore, G. Stroud, J. Crandall, J. Kagan, R. Crawford, G. Kittel, J. Azerrad, L. Bach. 2007. The East Cascades – Modoc Plateau and West Cascades Ecoregional Assessments. Prepared by The Nature Conservancy and the Washington Department of Fish and Wildlife with support from the Oregon Natural Heritage Information Center, Washington Heritage Program, and Natureserve. The Nature Conservancy, Portland, Oregon.

Ramm-Granberg T., I. Weber, and M.S. Wiebush. 2024. The Washington Invasive Ranking System (Version 1.5). Washington Natural Heritage Program, Department of Natural Resources, Olympia, WA. NHP-2024-12.

Rocchio, J. and R. Crawford, 2015. Ecological systems of Washington State: A guide to identification. Washington Department of Natural Resources, Natural Heritage Program. Olympia, WA. https://deptofnaturalresources.app.box.com/v/amp-nh-eco-sys-guide

Snover, A.K, G.S. Mauger, L.C. Whitely Binder, M. Krosby, and I. Tohver. 2013. Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers. Section 2 State of Knowledge Report prepared for the Washington State Department of Ecology. Climate Impacts Group, University of Washington, Seattle.

U.S. Department of Agriculture, Forest Service, 2007. LANDFIRE Rapid Assessment. Rapid assessment reference condition models. In: LANDFIRE. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Lab; U.S. Geological Survey; The Nature Conservancy (Producers). Available: www.landfire.gov/models_EW.php [66533]

U.S. Fish and Wildlife Service. 2010. Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington. U.S. Fish and Wildlife Service, Portland, Oregon. xi + 241 pp.

Vesely, D. G., and Rosenberg. D. K. 2010. Wildlife Conservation in the Willamette Valley's Remnant Prairie and Oak Habitats: A Research Synthesis. Oregon Wildlife Institute, Corvallis, OR.

Vesely, David and Gabe Tucker. 2006. A Landowner's Guide to Restoring and Managing Oregon White Oak Habitats. Accessed at www.blm.gov/or/districts/salem/files/white_oak_guide.pdf

APPENDICES

The appendices for this document are in various stages of development and may include a placeholder for material that is in development. Note that Appendices 2 and 3 may be updated with each state budget cycle. When finalized, Appendices 4 – 14 will be available on the Washougal Oaks Natural Area website at: www.dnr.wa.gov/washougal-oaks-natural-area.

APPENDIX 1 WILDFIRE MANAGEMENT STRATEGY for Washougal Oaks Natural Area

Management Jurisdiction
Fire suppression on the natural area is the responsibility of the DNR's Fire Control Program. DNR's Fire Control Program is responsible for fires on the non-federal, unimproved portions of Clark County where the natural area is located. For questions regarding the Wildfire Management Strategy please contact the natural areas manager (Appendix 12).

Ignition Sources
Potential ignition sources include cigarettes thrown from vehicles or by site visitors, parked vehicles, blowing cinders from nearby fires, and lightning.

Preferred Suppression Tactics
Minimum Impact Suppression Tactics (MIST) should be employed whenever possible, with specific guidelines listed below. Sensitive areas identified on maps should be avoided whenever possible, particularly for use of retardants or heavy equipment. These sensitive areas are primarily located within the oak woodland and along Lawton and Walton creeks. The following are preferred fire suppression tactics:

- When safe and reasonable, use natural fuel breaks or control lines outside the natural area boundary for fire suppression.
- Water and hand tools should be used to stop the spread of wildfire, except under extreme conditions or if an improved structure is threatened. Crews should use a mist (instead of straight stream) water application where possible.
- Helicopter landing areas and fire camps shall not be established within the natural area.
- Under extreme conditions or when an improved or historic structure is threatened, foam or retardants are preferable to bulldozers. It is preferable not to use foam or retardants on the salt marsh because of negative effects to the aquatic community and fertilizing effects to the plant community.
- Fire vehicles will be confined to roads and, when applicable, bulldozed fire trails.
- Trees and snags will not be felled unless they pose a threat to firefighters.
- Location and extent of mop-up, and type of mop up activity will be determined by the Incident Commander in consultation with Natural Areas Program staff. Mop-up activities should be minimized in the sensitive areas identified on maps and soil disturbance minimized by using water as much as possible.

After fires have been suppressed, site restoration will be supervised by the region natural areas manager in consultation with the Natural Areas Program statewide ecologist.

Site Representatives
If wildfire involves or threatens the NAP, one of the following DNR personnel shall be contacted and placed as a consultant to the Fire Incident, using the closest available person first:

Natural Areas Manager, *Pacific Cascade* Region
360-577-2025

Natural Areas Program Statewide Ecologist, *Recreation, Conservation & Transactions Division*
(360) 902-1600

In the event that coordination with the local fire district is required, staff can coordinate with:
East County Fire District, (360) 834 4908
For emergencies dial 911.

If the incident occurs after normal working hours, contact emergency services #911. Emergency services will contact the DNR Pacific Cascade Region standby staff, who will then contact a Natural Areas Program representative from the above list at home. The representative will inform the Incident Commander of:

1. The purpose of the natural area;
2. The management objectives for the primary features of the natural area; and
3. The need to employ MIST fire suppression techniques when possible. The Incident Commander should contact the Region representative or the Division before beginning mop-up activities within the natural area.

Post-Fire Rehabilitation: In the event of a wildfire, the Natural Areas Program statewide ecologist will determine whether revegetation is required to protect ecological features of the natural area. If revegetation is deemed necessary, the natural areas ecologist will develop a plan according to the Wildfire Rehabilitation Guidelines below, and any restoration costs above and beyond erosion control measures typically implemented by Fire Control will be the responsibility of the Natural Areas Program. Ensure that Pacific Cascade Region Wildfire personnel are informed of the natural revegetation policy of the Preserve.

Wildfire Rehabilitation Guideline(s): Following wildfires, the preserve should be allowed to regenerate naturally without human intervention. Post-fire revegetation will not be undertaken unless natural revegetation is impeded or slowed to such an extent that ecological features or processes in the area will be negatively affected. Areas with significant soil disturbance due to fire suppression efforts, *e.g.* berms and fire lines, may be restored by returning soil to its original location. Soil rehabilitation and revegetation efforts will only be undertaken after consultation with the natural areas ecologist. If revegetation is necessary following wildfire, only native plants or seed of native plant species will be used for seeding or propagation of plants; exceptions may occur for the use of short-term, transient non-native plants if determined by the natural areas ecologist to be warranted.

The Role of Fire in the Development and Maintenance of this Native Ecosystem:
Oregon white oak woodlands are fire-dependent ecosystems that rely on this disturbance to maintain the structure and diversity that supports complex plant and animal communities. Over 200 wildlife species use Oregon white oak habitat in some way (Vesely and Tucker, 2006). Oregon white oak trees are adapted to low intensity, high frequency fire regime. The west Cascades oak habitats historically experienced low intensity fires every 12 years on average, with stand replacing fires occurring only about every 275 years (USDA Forest Service, 2007). Frequent fire controls vegetation in the understory, preventing the buildup of fuel on the forest floor that can result in ecologically damaging, higher intensity fires. In a natural forest, low intensity fires create self-maintaining oak ecosystems. These low intensity fires were often an intentional tool used by Native Americans in the stewardship of their land and improving the quantity, quality, and distribution of resources (Long et al., 2021, Greenler et al., 2024). They are mostly confined to the ground layer, burning grasses and tree seedlings that would encroach upon the oak canopy if allowed to grow in (Gedalof, 2006). Similarly, fire helps maintain species diversity in the understory of an oak woodland by reducing cover of competing vegetation and allowing sunlight and open space on the forest floor for a diversity of seeds to germinate and establish. This diverse understory is an important component in a healthy oak ecosystem, providing habitat and food resources for a diversity of insects and animals. Due the proximity of residences and roadways, prescribed fire may not be a preferred tool for managing the Oak woodlands at Washougal Oaks Natural Area. Other tools, such as stand thinning and understory maintenance can be used to achieve similar conditions achieved from fire.

APPENDIX 2 Routine Management Actions for Washougal Oaks NAP

A reasonable base budget for routine management of the NAP will support Pacific Cascade Region Natural Areas Program staff including all costs related to the site such as travel and materials. Funding typically comes in the form of the Natural Areas Program biennial state budget.

Costs associated with managing Washougal Oaks Natural Area are expected to change over time due to general economic factors (such as inflation), identification of new land and resource management challenges, or to meet newly identified opportunities for research, environmental education or access. DNR pursues a variety of state and federal grant funding to assist with land and resource management, restoration, research, and development of access and educational facilities, including development of educational curricula and materials by DNR's Youth Education and Outreach Program for use at this site.

Table 2-1. Routine Management Activities List Created January 2025

Activity	**Description**	**Estimated Staffing and Resources Required** with Potential Fund Source
Weed Control — See map below	• English holly • English ivy • Himalayan blackberry • Italian arum • Shiny geranium • Tansy ragwort • Tree of heaven	1.5 months per biennium for Natural Areas Manager 4 months per biennium for Stewardship staff 7 gallons of Herbicide 2.5 gallons of Surfactant Funding: Natural Areas Program budget; DNR Aquatic Resources crews and budget; Washington Department of Ecology grants; Washington Conservation Corps crew allocation
Ecological and Adverse Impacts Monitoring	• invasive species distribution mapping and treatment monitoring • Woodland plant community monitoring (Level 2/3 EIA, overstory measurements)	1 month per biennium for Natural Areas Manager 3 months per biennium for Stewardship staff 2 weeks per biennium for Natural Areas ecologist

Activity	Description	**Estimated Staffing and Resources Required** with Potential Fund Source
	• Rare plant population monitoring • Impacts of uses in developed access areas • Impacts from unauthorized uses, such as dumping, off-roading, or theft	
Primary Feature Condition Monitoring (EIA)	• Conduct EIA to document trends in site condition relative to management goals outlined in Goal 1	Conduct EIA every 5 years; 2 weeks per biennium for either Natural Areas Program or Natural Heritage Program staff
Environmental Education	• Work with YEOP to look for opportunities to host guided educational tours and activities for students. • Work with YEOP to look for ways the public can be involved with citizen science projects. • Host guided nature tours	1 months per biennium for Natural Areas Manager 2 months per biennium for Stewardship staff
Access Facilities Assessment and Maintenance	• Conduct assessment of appropriate access options	1 months per biennium for Natural Areas Manager 1 months per biennium for Recreation Planner
Restoration	• Newly acquired parcels • Investigate the need to restore Walton and Lawton Creeks to	1.5 months per biennium for Natural Areas Manager 3 months per biennium for Stewardship staff

Activity	Description	**Estimated Staffing and Resources Required** with Potential Fund Source
	improve salmonid habitat.	2 weeks per biennium for Natural Areas ecologist

APPENDIX 3 Near-Term Project List for Washougal Oaks NAP

The one-time costs noted in Table 3-1 below, should be pursued to complete necessary planning and make initial investments for site management, restoration, and enhancement. This list of projects is revised to propose priorities for each biennium, perhaps planning across two biennia.

Costs associated with managing Washougal Oaks Natural Area are expected to change over time due to general economic factors (such as inflation), identification of new land and resource management challenges, or to meet newly identified opportunities for research, environmental education or access. DNR pursues a variety of state and federal grant funding to assist with land and resource management, restoration, research, and development of access and educational facilities, including development of educational curricula and materials by DNR's Youth Education and Outreach Program for use at this site.

This initial project list will be updated by the Natural Areas Program as projects are implement and new activities or new costs are identified.

Table 3-1. Priority Project Needs for Washougal Oaks Natural Area as of Winter 2025.

Activity	**Description**	**Estimated Staffing and Resources Required** with Potential Fund Source
Property Restoration on Parcels Acquired in 2024	Restore 45 acres of open weedy fields to oak/conifer woodland with native shrub understory and riparian forest. Remove 3 culverts and associated fill.	$153,000 – Grant funding secured in July 2025 via Recreation and Conservation Office, Washington and Wildlife and Recreation Program
Archaeological Sites and Cultural Resources	Conduct survey of areas where we will have ground disturbance during a restoration project, demolition	3 weeks per biennium for DNR archaeologist

	Conduct desk audit for cultural resources with the purchase of new parcels.	
Non-native Invasive Animal Species Monitoring or Control	Assessment of invasive aquatic and upland animal species	$5,000 one-time — Estimated cost of contract with WDFW

(*insert map(s) related to projects in action plan above*))))

APPENDICES 4 through 14 are under development

Location: www.dnr.wa.gov/washougal-oaks-natural-area as of (Not Yet Posted)

Appendix 4: Natural Heritage Program report including info on topography, geology, soils, hydrology, and additional conservation features (NAP Recommendation?)
Appendix 5: Plant list and detailed description of plant communities
Appendix 6: Animal list
Appendix 7: Public Access Policy.
Appendix 8: Science, Research and Monitoring History
Appendix 9: Research Needs in Support of Site Management
Appendix 10: Management Goals and Actions for Priority Features
Appendix 11: Invasive Species Treatment Plan
Appendix 12: Natural Areas Staff Contact Information
Appendix 13: Restoration History
Appendix 14: Inadvertent Discovery Plan