

SEPA ENVIRONMENTAL CHECKLIST
WASHINGTON DEPARTMENT OF NATURAL RESOURCES
CARBON PROJECT

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project, if applicable:

Washington Department of Natural Resources Carbon Project

2. Name of applicant:

Washington Department of Natural Resources

3. Address and phone number of applicant and contact person:

Csenka Favorini-Csorba
1111 Washington Street SE
Olympia, WA 98504
(360) 688-0850

4. Date checklist prepared:

September, 2022

5. Agency requesting checklist:

Washington Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

DNR intends to enter into one or more leases during calendar years 2023 or 2024 and each lease is expected to have a 40-year duration, although the actual duration of each lease would be determined individually.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Although DNR may lease additional lands for the purpose of carbon storage and sequestration in the future, there are currently no plans to do so.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

This checklist incorporates by reference the SEPA environmental analysis contained in the following:

- *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019)
- *Long-Term Conservation Strategy for the Marbled Murrelet Final Environmental Impact Statement* (USFWS and DNR 2019).
- *Final Environmental Impact Statement on the Policy for Sustainable Forests* (DNR 2006).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No, areas included in the proposal would be DNR-managed lands that are currently available for timber harvest based on current DNR policy and on which DNR has discretion to manage in the best interests of DNR's trust beneficiaries.

10. List any government approvals or permits that will be needed for your proposal, if known.

Not applicable. The proposal is within DNR's legal authority to lease lands, and no additional government approvals or permits are required.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project).

DNR is proposing a forest carbon project on operable forested state trust lands in western Washington. The term 'operable' in this checklist means areas that could currently receive an even-aged timber harvest under current DNR policies, state laws, and federal laws. The project would involve setting aside approximately 10,000 operable acres of forested state trust lands, and generating revenue through the sale of carbon credits rather than through timber harvests. DNR is proposing to choose forest areas that have high conservation value; for example, areas that have important characteristics relevant to biodiversity and species' habitat, ecosystem health, watershed resilience, cultural significance, and community subsistence. Specifically, DNR will seek to identify forest parcels that have these values and where these values might not be maintained or enhanced in the context of timber harvest. It is DNR's goal to simultaneously protect these important forest areas and conservation values, mitigate climate change through increased carbon storage and continued sequestration, and generate revenue for DNR's trust beneficiaries through the sale of carbon credits. The parcels will be selected from DNR-managed forested state trust lands in western Washington (Figure 1).

While the total number of parcels or acres that would be included in leases is not known, the proposal is to include approximately 10,000 operable acres of forested state trust lands that are eligible to generate carbon credits. The leases would also include some non-operable acres, because the parcels would have logical boundaries that at times incorporate areas such as riparian management zones or other areas not available for timber harvest. These acres would not be eligible to generate carbon credits because they would not have been harvested in a business-as-usual scenario, and therefore the carbon sequestered and stored in those areas during the lifetime of the project would not be considered "additional." Accordingly, DNR would need to identify more than 10,000 acres of total forest area in order to reach a net of approximately 10,000 operable acres capable of generating carbon credits.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposal is located on forested state trust lands in western Washington. Parcels will be selected from forested state trust lands shown in Figure 1.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

Because the proposal area includes all forested state trust lands in western Washington, the topography of the proposal area varies, to include all of the types listed above.

b. What is the steepest slope on the site (approximate percent slope)?

Because the proposal area includes all forested state trust lands in western Washington, it includes areas containing steep slopes, including those in excess of 100 percent.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Soil characteristics vary throughout the proposal area because of the diversity of soil-forming factors.

- In the Puget Lowlands and North Cascade Foothills, past glaciation has formed thick layers of fine-grained glacial lake sediments, coarse-grained outwash, and till. Many of these sediments are very compact, having been overridden by thousands of feet of ice.
- The North Cascade Range is dominated by steep bedrock slopes. In the South Cascade Range, soils on mountain slopes and ridge tops can compact easily because of coarse textures. Volcanic ash is a common parent material and compacts easily when wet.
- On the Olympic Peninsula, lowlands and major river valleys are underlain by sediments derived from glaciation, which are in turn underlain by very weak sedimentary and volcanic rocks.
- In southwest Washington, which largely was never glaciated, soils are older, deeper, and finer. The Willapa Hills are comprised primarily of very weak marine sedimentary and volcanic rocks and the lower Columbia River valley contains thick and deeply weathered loess deposits.

The proposal would not affect any of these soils. The forested areas chosen will not be harvested and will remain in their current state.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Unstable slopes are found throughout the proposal area with different types of unstable slopes occurring in different geologic regions. The type of parent material (mineral or rock material from which a soil develops) largely determines the susceptibility of the resulting soil to land-use impacts.

- In the Puget Lowlands and North Cascade Foothills Glacial meltwater and river and marine erosion have left over-steepened slopes on the margins of river valleys and marine shorelines, which are often highly susceptible to a large variety of landslide types.

- In the North Cascades, rock falls and complex rock slides are common on steep slopes, while in the South Cascades shallow landslides generating debris avalanches and flows are common on steep slopes and drainages.
- On the Olympic Peninsula large landslide complexes are widespread along Hood Canal and the lower reaches of the major river valleys. Landslides also are abundant in the very weak marine sedimentary rocks in western and northwestern portions of the Olympic Peninsula.
- In southwest Washington, weak residual soils in the Willapa Hills are subject to widespread landslides, while soils in the lower Columbia River valley are subject to shallow landslides and debris flows.

Although unstable slopes may occur in the selected parcels, the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration; therefore, there is no risk of management-related landslides from the proposal.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The proposal does not include any filling, excavation, or grading.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

The proposal does not include clearing or construction, therefore there is no potential for erosion from these activities. The proposed use of the parcels included in the proposal would be leasing of forested state trust lands for carbon storage and sequestration. Naturally occurring erosion may occur, which is not influenced by use of the parcels.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Zero percent of the parcels included in the proposal would be covered with impervious surfaces.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Not applicable, there would be no erosion or other impacts to the earth from the proposal.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

There would be no emissions to the air resulting from the proposal other than vehicular trips for verification and field audit purposes. The purpose of the proposal is to lease forested state trust lands for carbon storage and sequestration, offsetting emissions of greenhouse gases from other sources not associated with the proposal.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No, the purpose of the proposal is to lease forested state trust lands for carbon storage and sequestration, offsetting emissions of greenhouse gases from other sources not associated with the proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Not applicable, there would be no emissions or other impacts to the air from the proposal other than periodic vehicular trips to the lease sites.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Because the proposal area includes all forested state trust lands in western Washington, there are many surface water bodies in the proposal area. However, the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration. No impacts to surface waters are expected from the proposal.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The proposal will not require any work over, in, or adjacent to a surface water body.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

There will be no fill or dredge material placed or removed for surface water or wetlands as a part of the proposal.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

No, the proposal will not require surface water withdrawals or diversions.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Portions of the included parcels may lie within the 100-year floodplain of Type 1 through 5 waters, because parcel boundaries will be drawn to include contiguous areas, and therefore it is likely that the parcels will contain streams and their associated floodplains.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No, the proposal does not involve any discharges of waste materials to surface waters.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Under the proposal, groundwater will not be withdrawn for a well for drinking water or other purposes.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

The proposal will not involve any discharge of waste material into the ground.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The proposal would not result in any water runoff beyond what may be currently naturally occurring on the parcels included. Because the proposal is the leasing of operable forested state trust lands for carbon storage and sequestration, the proposal would not contribute to or cause runoff above current levels.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

No, the proposal would not generate waste materials, therefore no materials would enter ground or surface waters.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

No, the proposal would not alter or otherwise affect drainage patterns in the selected parcels.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Not applicable, there would be no impacts to surface, ground, or runoff water or to drainage patterns from the proposal.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other**
- evergreen tree: fir, cedar, pine, other**
- shrubs**
- grass**
- pasture**
- crop or grain**
- Orchards, vineyards or other permanent crops.**
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
- water plants: water lily, eelgrass, milfoil, other**
- other types of vegetation**

Because the proposal area includes all forested state trust lands in western Washington, it primarily contains lands dominated by evergreen trees, with some areas dominated by deciduous trees. Forested state trust lands in western Washington are primarily dominated by Douglas-fir or western hemlock. In lower elevation areas along the Washington coast, Sitka spruce is common, while higher elevation forested state trust lands in both the Olympic and Cascade Mountains also contain Pacific silver fir. Other common evergreen trees include western redcedar, noble fir, and grand fir. Common species of deciduous trees include big-leaf maple and red alder. Plants typically associated with wetland or riparian areas also occur on forested state trust lands.

Forest stands are dynamic and diverse systems that constantly change through tree and other plant growth and ecological succession. To account for such change and diversity, DNR classifies forest stands into “stand development stages” that represent the general progression of growth and structural development that any particular stand of trees goes through over time. As trees grow from seedlings after a harvest or natural disturbance, forest stands move through stand development stages. Each stand development stage is characterized by a set of measurable physical attributes. The forest classification system for state trust lands is based on many scientific publications (Van Pelt 2007, Franklin and others 2002, Oliver and Larson 1996, DNR 2004). The *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019) describes five stand development stages:

- **Ecosystem Initiation:** Begins soon after most overstory trees have been removed by harvest or natural events. This stage is known to support a high number of wildlife species, particularly as foraging habitat.
- **Competitive Exclusion:** Trees fully occupy the site, competing for light, water, nutrients, and space. Dense overstory means there are few or no shrubs or groundcovers and relatively little wildlife use.
- **Understory Development:** Overstory trees die, fall down, or are harvested, creating gaps in the canopy. An understory of trees, ferns, and shrubs develops. This process can be accelerated through active management.
- **Biomass Accumulation:** Numerous large overstory trees rapidly grow larger in diameter, producing woody biomass. Forest stands lack large snags or downed woody debris in this stage.
- **Structurally Complex:** Approaching conditions of natural older forests with multiple tree and shrub canopy layers, dead and downed logs, and well-developed understory. Multiple tree canopies are present, supporting diverse vertebrate and invertebrate species.

b. What kind and amount of vegetation will be removed or altered?

Because the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration, no vegetation would be removed or altered as part of the proposal.

c. List threatened and endangered species known to be on or near the site.

Appendix H of the *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019) contains a list of rare plants known to occur within the proposal area, none of which are on the federal list of threatened or endangered plants believed or known to occur in Washington, listed under the Endangered Species Act. Rare plants may occur in the parcels included in the proposal, however because the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration, the proposal would not have impacts to rare plant species potentially occurring in the proposal area.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Not applicable, the proposal would conserve the existing vegetation on the individual parcels selected for inclusion in the proposal.

e. List all noxious weeds and invasive species known to be on or near the site.

DNR does not maintain a record of all noxious weeds located on state trust lands. Noxious weeds potentially occurring in the proposal area are listed by county by the Washington State Noxious Weed Control Board, and these lists are available at this link: [Washington State Noxious Weed Control Board](#). Under current DNR policy (PR 14-006-050 *Controlling Invasive Plants and Noxious Weeds*), region staff will participate in control efforts for both invasive plant and noxious weeds in concert with or in support of counties. As budget and staffing allow, staff may participate in other types of cooperative partnerships to address these invasive plants and/or noxious weeds across ownerships. The proposal would not impact DNR’s ability to participate in control efforts in these parcels.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other _____

As described in the *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019), forested state trust lands in western Washington support a wide variety of wildlife species and habitats.

For terrestrial wildlife, the above-referenced document uses “guilds” to describe species most likely to occur within the proposal area. A guild is a group of species using the same class of resources in a similar way. Wildlife guilds containing species known or expected to occur in the proposal area are:

- *Early successional guild* is composed of species that forage primarily in very young forest stands, including deer, elk, several species of bats, other small mammals, and migratory songbirds. These species are directly associated with the Ecosystem Initiation stand development stage.
- *Late successional guild* is composed of species that require Structurally Complex forest stands. Representative species include northern goshawk, northern pygmy owl, brown creeper, Vaux’s swift, Townsend’s warbler, red tree vole, northern flying squirrel, and black bear (for denning).
- *Edge guild* is composed of species that use the edges between early stages, such as Competitive Exclusion, and later stages. Representative species include red-tailed hawk, great horned owl, Cascades fox, and mountain lion.
- *Riparian guild* is composed of species closely associated with streams and nearby upland habitat. Representative species include several species of amphibians and migratory songbirds, as well as aquatic mammals such as mink and beaver.

At least seven native species of resident and anadromous trout and salmon inhabit rivers and streams on state trust lands in the proposal area (NMFS and USFWS 2006). Salmon species include chum, coho, sockeye, and Chinook. Trout species include steelhead, bull trout, and coastal cutthroat. Numerous other native fish species are also distributed in water bodies throughout the proposal area, including minnows, suckers, sculpins, and three species of lampreys (NMFS and USFWS 2006). Appendix I in the *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019) contains a list of these species and their general distribution within the proposal area.

b. List any threatened and endangered species known to be on or near the site.

Appendix J in the *Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement* (DNR 2019) contains a list of state-listed, candidate, and sensitive species present within the proposal area, as well as a list of species of regional importance, including those species that are important for recreational, commercial, cultural, or ecological values.

Several federally listed terrestrial species are found in forested habitats or openings within forested areas in the proposal area, listed in Table 1.

Table 1: Terrestrial Species in Western Washington Listed as Threatened or Endangered under the Endangered Species Act.

Category	Species	Listing Status
Mammals	Columbian white-tailed deer (<i>Odocoileus virginianus leucurus</i>) ¹	Threatened
	Gray wolf (<i>Canis lupus</i>)	Endangered
	Grizzly bear (<i>Ursus arctos horribilis</i>)	Threatened
	Mazama pocket gopher (<i>Thomomys mazama</i> subspecies)	Threatened
Birds	Streaked horned lark (<i>Eremophila alpestris strigata</i>)	Threatened
	Northern spotted owl (<i>Strix occidentalis caurina</i>)	Threatened
	Marbled murrelet (<i>Brachyramphus marmoratus</i>)	Threatened
	Snowy plover (<i>Charadrius alexandrinus nivosus</i>)	Threatened
	Western yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened
Amphibians	Oregon spotted frog (<i>Rana pretiosa</i>)	Threatened
Invertebrates	Oregon silverspot butterfly (<i>Speyeria zerene hippolyta</i>)	Threatened
	Taylor’s checkerspot butterfly (<i>Euphydryas editha taylori</i>)	Endangered

¹ The listing status of Columbian white-tailed deer has changed from endangered to threatened as shown in DNR 2019

For fish, it is common for only a portion of a species population to be listed under the Endangered Species Act, based on the location of the population segment. Table 2 lists the fish species and population segment listed under the Endangered Species Act that are known to occur in the proposal area.

Table 2: Fish Species in Western Washington Listed as Threatened or Endangered under the Endangered Species Act.

Species	Population Segment	Listing Status
Chum salmon (<i>Oncorhynchus keta</i>)	Hood Canal Summer-run	Threatened
Sockeye salmon (<i>O. nerka</i>)	Ozette Lake	Threatened
Chinook salmon (<i>O. tshawytscha</i>)	Puget Sound	Threatened
	Lower Columbia River	Threatened
Steelhead Trout (<i>O. mykiss</i>)	Lower Columbia River	Threatened
Bull Trout (<i>Salvelinus confluentus</i>)	Columbia River	Threatened
	Coastal – Puget Sound	Threatened

Forested state trust lands in western Washington are managed under DNR’s 1997 Habitat Conservation Plan (HCP) (DNR 1997, a multispecies habitat conservation plan that provides conservation for all of the terrestrial and fish species listed in Tables 1 and 2 within the range of the northern spotted owl in Washington. The proposal would not change any of the conservation strategies included in the 1997 HCP, and, by conserving approximately 10,000 operable acres of forested state trust lands, may help DNR to meet the objectives of the 1997 HCP.

c. Is the site part of a migration route? If so, explain.

The proposal area lies within the Pacific flyway, used by migratory birds. Individual parcels may also lie within the migration routes of animals such as elk that move seasonally between winter and summer ranges. Because the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration, the proposal is not expected to change the suitability of included parcels for use in migration for any species.

d. Proposed measures to preserve or enhance wildlife, if any:

Not applicable. Because the proposal would conserve any habitat existing within the included leased parcels, habitat would be maintained.

e. List any invasive animal species known to be on or near the site.

Barred owls (*Strix varia*) are known to occur in the proposal area. Closely related to northern spotted owls, barred owls have expanded their range from the eastern United States and are now common throughout western Washington. The slightly larger barred owl can outcompete the northern spotted owl. Barred owls may use forests included in the proposal, but the proposal itself would not affect their numbers or locations. The proposal would not impact DNR’s ability to accommodate any potential future efforts by the U.S. Fish and Wildlife Service to remove barred owls from the selected parcels.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Because the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration under a passive management approach, no energy would be used to complete the project except petroleum fuel for vehicular trips related to verification and field audits.

**b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe.**

No, the proposal would not affect potential use of solar energy by adjacent properties.

**c. What kinds of energy conservation features are included in the plans of this proposal?
List other proposed measures to reduce or control energy impacts, if any:**

Not applicable, the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration under a passive management approach, therefore there would be no associated energy impacts.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There are no environmental health hazards associated with the proposal.

1) Describe any known or possible contamination at the site from present or past uses.

Potential contamination of the site is unlikely, but may exist if illegal dumping has occurred on the site. If present and evident, this would be discovered and addressed when individual parcels for inclusion in the proposal are field verified.

***Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

There are no known existing hazardous chemicals or conditions that may affect development or design of the proposal.

2) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

No toxic or hazardous chemicals would be stored, used, or produced during development of the proposal or at any time during the proposal timeline. No construction would occur in connection to the proposal.

3) Describe special emergency services that might be required.

The need for special emergency services is not expected unless the individual parcels are affected by wildfire at some point in the future. Response to wildfire would not be specific to the proposal sites, but would focus on any forested state trust lands at risk.

4) Proposed measures to reduce or control environmental health hazards, if any:

Not applicable, no environmental health hazards are expected from the proposal.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Existing noise within the proposal area other than ambient forest sounds are potential vehicle traffic noise from vehicles using forest roads, which may include passenger vehicles and logging trucks; noise from private, commercial, or military aircraft overhead; and if logging operations are ongoing nearby, noise from logging equipment such as chainsaws, yarders, and heavy machinery. However, none of these sources of noise would impact the proposal.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

The passive management of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration would not create any noise.

3) Proposed measures to reduce or control noise impacts, if any:

Not applicable; the proposal would not generate noise.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The parcels to be included in the proposal would be forested state trust lands that are available for future timber harvest. Depending on the location of individual parcels included in the proposal, use of adjacent properties could include forest management activities such as timber harvest, planting, or vegetation control; residential or commercial uses if developed; recreational uses such as campgrounds or picnic areas; or areas deferred from harvest and therefore maintained in a forested or other natural condition. The proposal will not affect land uses on nearby or adjacent properties; however, it could potentially impact the yarding systems needed to extract forest products on these properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Parcels considered for inclusion in the proposal are likely to be areas of second- and third-growth forest that have regrown after past logging activity. Because of the proposal objective to focus on conserving areas of high ecological value, many parcels are likely to have naturally regenerated after being logged several decades ago, although some may have been replanted. Zero acres of forest land included in this proposal would be converted to nonforest use.

1) Will the proposal affect or be affected by surrounding working farm or forest land

normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The parcels selected for inclusion may be adjacent to working forest land, however direct impacts to the parcels from activity on adjacent land is unlikely given the objective of conserving the parcels for carbon storage and sequestration. If adjacent forest land is harvested, the leased parcels may be affected by windthrow, depending on factors such as slope aspect, soils, tree species, and prevailing wind direction.

c. Describe any structures on the site.

The parcels selected for inclusion are unlikely to have any structures on them, given they are currently forested state trust lands.

d. Will any structures be demolished? If so, what?

It is unlikely that any structures would be demolished due to the proposal.

e. What is the current zoning classification of the site?

The selected parcels would have a zoning classification of commercial forest.

f. What is the current comprehensive plan designation of the site?

If the selected parcels were located in a county with a comprehensive plan, those parcels would be designated as commercial forest.

g. If applicable, what is the current shoreline master program designation of the site?

Selected parcels may be located in uplands adjacent to shorelines of the state and a portion of a shoreline area may be within the lease boundary, however this portion of the area would be inoperable and not eligible for carbon credits. In addition, because the proposal is the leasing of approximately 10,000 operable acres for carbon storage and sequestration, the proposal would have no impacts to shorelines of the state.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No. Because individual parcels would be classified as commercial forest, they would not be classified as critical areas.

i. Approximately how many people would reside or work in the completed project?

No people would reside or work in the individual parcels selected.

j. Approximately how many people would the completed project displace?

The completed proposal would not displace any people.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Not applicable; the proposal would not result in any displacement impacts.

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Not applicable. The individual parcels would be located on current state trust lands managed by DNR and would be managed in a manner that is consistent with State law and DNR policies.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

The proposal would not impact agricultural lands or change forest lands of long-term commercial significance as the current land use zoning designations will not change from this proposal.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

There would be no housing associated with the proposal.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units would be eliminated by the proposal.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable; there would be no housing impacts from the proposal.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No structures would be constructed as part of the proposal.

b. What views in the immediate vicinity would be altered or obstructed?

As stands in the selected parcels age and grow over time some views in the immediate vicinity of the parcels could become gradually obstructed. Conversely, by not conducting harvesting activities in the selected parcels, no new views within the immediate vicinity of the parcels are expected.

c. Proposed measures to reduce or control aesthetic impacts, if any:

There are no plans to mitigate aesthetic impacts from the proposal, as these impacts are expected to be minimal.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposal would not produce light or glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No, the proposal would not produce light or glare.

c. What existing off-site sources of light or glare may affect your proposal?

No existing off-site sources of light or glare would affect the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable, there would be no light or glare impacts from the proposal.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Individual parcels may be located near designated recreation areas such as campgrounds, picnic areas, or trails. Dispersed or sanctioned recreation may also occur in or around the individual parcels, such as hiking, hunting, fishing, berry picking, and sightseeing. Forest roads in or adjacent to individual parcels may be used for ATV, motorcycle, mountain bike, or horseback riding.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No, the proposal would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Not applicable; there would be no impacts to recreation from the proposal. Recreation opportunities will not be specifically provided by the proposal.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

It is unlikely that buildings or structures would be located on the parcels included in the carbon leases. Furthermore, because the proposal is the leasing of approximately 10,000 operable acres for carbon storage and sequestration, the proposal would not affect cultural or historic resources potentially located on individual parcels should they occur. Therefore there is no risk to cultural or historic resources from the proposal.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Common examples of such sites that occur on state trust lands include logging railroad grades, logging camps, mining camps, homesteads, and culturally modified trees. However, because the proposal is the leasing of approximately 10,000 operable acres for carbon storage and sequestration, the proposal would not affect cultural or historic resources potentially located on individual parcels. Some of the parcels may be selected in consultation with Tribal Nations to preserve or enhance culturally significance sites.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Not applicable. Although cultural or historic resources may occur within the individual parcels identified for inclusion in the proposal, there would be no impacts to these resources from the proposal which is the passive management of forested state trust land for carbon storage and sequestration for a set period of time.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Not applicable. The proposal would not result in the loss of, or changes or disturbance to, any historic or cultural resources.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Selected parcels would be accessed by existing forest roads, which in turn are accessed by the many public roads and highways in western Washington.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No, forested state trust lands are not served by public transit.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

None. There would be no parking spaces developed in association with the proposal.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No, the proposal will not require new roads or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No, the proposal will not use or occur in the vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The proposal would not measurably increase vehicle trips to the vicinity of the individual parcels over existing uses for forest management or recreation. There would be initial visits to the sites to verify they meet the criteria

for inclusion in the carbon project and possible further visits at infrequent intervals over the life of the lease for field verification and auditing.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No, the proposal will not interfere with, affect, or be affected by the movement of forest products on roads in the vicinity of individual parcels.

h. Proposed measures to reduce or control transportation impacts, if any:

Not applicable, there would be no transportation impacts from the proposal.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No, the proposal would not result in an increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Individual parcels will be located on forested state trust lands therefore there will be no utilities on the sites.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No utilities are proposed as part of the proposal.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:  _____

Name of signee Csenka Favorini-Csorba

Position and Agency/Organization Senior Policy Advisor, Department of Natural Resources

Date Submitted: 9/22/2022

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The proposal would not increase discharges to water; emissions to the air; production, storage or release of toxic or hazardous substances; or production of noise. The proposal is leasing land for carbon storage and sequestration with the intention to offset carbon emissions from other sources not associated with the proposal.

Proposed measures to avoid or reduce such increases are:

Not applicable, there would be no increases of these types from the proposal.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The proposal may benefit upland plants and animals because it involves the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration that would otherwise be available for timber harvest. Animal species that benefit from young stands (e.g., elk) and open canopies could be impacted as the proposal excludes timber harvest activities in the leased parcels and therefore would limit the creation of young stands and open canopy conditions on state trust lands to a limited extent. Open canopy conditions and young stands will still be created through planned and future harvest activities on adjacent DNR trust lands within the landscapes of the project parcels, so impacts to species that benefit from the aforementioned conditions are expected to be minimal. The proposal is not likely to affect fish because even though streams may be within the lease areas, the project is the leasing of forested state trust lands for carbon storage and sequestration and therefore would not negatively affect fish habitat. The proposal would not affect marine life because it would not occur in or near the marine environment.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Not applicable, no significant adverse impacts to plants, animals, fish, or marine life are expected from the proposal. The proposal is to conserve the forested areas selected, which would maintain the existing plants, animals, and fish, and their habitat, present in the selected parcels.

3. How would the proposal be likely to deplete energy or natural resources?

The proposal would not deplete energy or natural resources; it would protect natural resources from disturbances associated with timber harvest. However, it would effectively reduce the harvestable land base which would decrease available harvest volume from state trust lands during the leasing period.

Proposed measures to protect or conserve energy and natural resources are:

Not applicable; there would be no adverse impacts to energy or natural resources from the proposal beyond the decrease in available harvest volume in the short term.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The proposal would not adversely affect environmentally sensitive areas. It would occur primarily on forested state trust lands otherwise available for timber harvest, with the potential for some areas of endangered species habitat, such as northern spotted owl and marbled murrelet habitat, being located within the lease parcel boundaries along with wetlands, floodplains, and historic and cultural sites. Individual parcels could also be located adjacent to these and other environmentally sensitive or protected areas. However, since the proposal is the leasing of approximately 10,000 operable acres of forested state trust lands for carbon storage and sequestration, there would be no impacts from the proposal on these lands.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Not applicable, there would be no impacts to these resources from the proposal.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The proposal would have no effect on shoreline use. It would remove approximately 10,000 operable acres of forested state trust lands available for even-age timber harvest from the operable land base for the duration of the lease(s). This proposal is consistent with current DNR land management.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Not applicable, there would be no impacts to shorelines and changes in land use from the proposal are consistent with DNR management.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposal would not increase demands on transportation or public services and utilities.

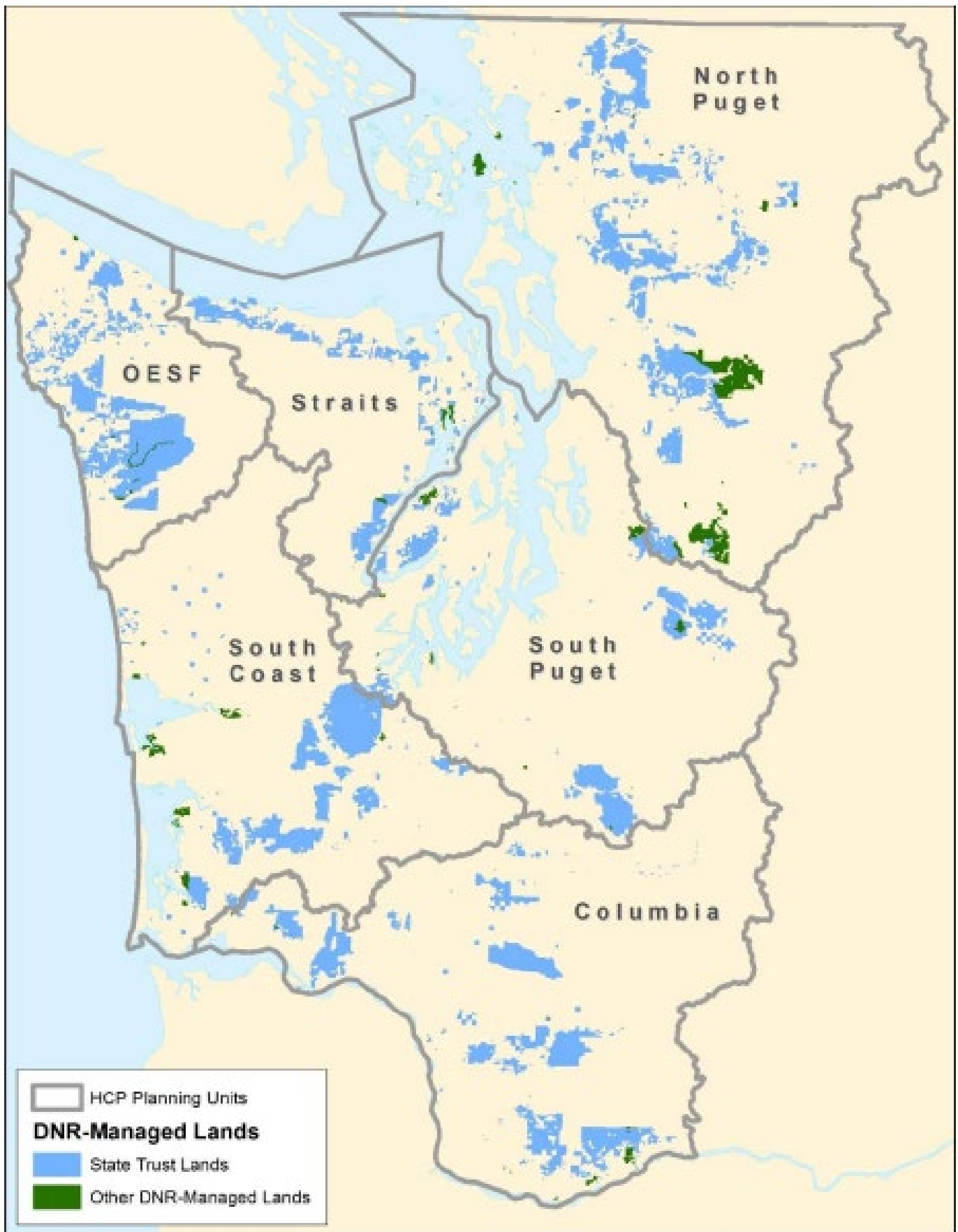
Proposed measures to reduce or respond to such demand(s) are:

None.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposal will not conflict with local, state, or federal laws or requirements for the protection of the environment. The proposal would provide additional environmental protections.

Figure 1: State Trust Lands in Western Washington



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