STATE FOREST LAND
SEPA ENVIRONMENTAL CHECKLIST

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.

Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at ***http://www.dnr.wa.gov/state-environmental-policy-act-sepa****. These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

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:

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:

Timber Sale Name: **Fall Creek Trailhead Expansion** *Agreement #* **C30SP18001**

2. Name of applicant: **Washington Department of Natural Resources**

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

   South Puget Sound Region Office
   950 Farman Ave N
   Enumclaw, WA 98022
   Phone: (360) 825-1631
   Audrey Mainwaring

4. Date checklist prepared: **09/20/2018**

5. Agency requesting checklist: **Washington Department of Natural Resources**

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

   a. *Auction Date:* **April 8, 2019**
   b. *Planned contract end date (but may be extended):* **Harvest: July 31, 2019, Trailhead construction October 31st, 2019**
   c. *Phasing:* **None**

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

Yes.

Timber Sale:

a. *Site preparation:*

   None.

b. *Regeneration Method:*

   None.

c. *Vegetation Management:*

   None

d. Thinning:

None.

Roads:

Roads that are used for this proposal will receive periodic road maintenance such as grading, ditch cleanout, and vegetation management following harvest activities. After timber harvest an access road and parking lot will be constructed to expand the existing trailhead. The mainline haul roads outside the harvest area will be used for future forestland management activities such as timber harvesting, recreation, and fire control. The Department of Natural Resources will complete road maintenance on haul roads used by this proposal.

Rock Pits and/or Sale:

Rock for this proposal will be from a commercial source.

Recreational trailhead parking expansion

After the harvesting activities are complete in the proposal area, Unit 1 (approximately 1.85 acres) will be converted into non-forested land and day use parking area construction and access road will begin. Twelve additional car parking stalls will be constructed along with 4 truck and trailer stalls for equestrians. Currently mountain bike and running enthusiasts are parking in existing truck and trailer stalls.

Trail and trail bridge construction

4.75 Miles of additional non-motorized trails are being constructed as part of the Capitol Forest Non-motorized Trail Expansion Fall Creek Area, SEPA file no. 17-050202.

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

☒ *303 (d) – listed water body in WAU:* ☒ *temp* ☐ *sediment* ☐ *completed TMDL (total maximum daily load):* **Chehalis River**
☐ *Landscape plan:*
☐ *Watershed analysis:*
☐ *Interdisciplinary team (ID Team) report:*
☐ *Road design plan:*
☐ *Wildlife report:*
☐ *Geotechnical report:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *Rock pit plan:*
☒ *Other:*

Forest Practices Board Manual; Forest Practices Activity Maps; Policy for Sustainable Forests (PSF 2006); State Soil Survey; Habitat Conservation Plan (HCP 1997); HCP Checklist; Riparian Forest Restoration Strategy (RFRS); Planning and Tracking Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): #240657. ; Capitol State Forest Recreation and Public Access Management Plan January 2005; SEPA Review for the Capitol Forest Plan, completed in 2005; 0505 Review Fall Creek Trailhead expansion. The following information is provided by DNR's GIS database: Weighted Old Growth Habitat Index (WOGHI); WAU Rain-On-Snow Layer; Marbled Murrelet Habitat Layer; Spotted Owl Habitat Layer; and USGS and GLO maps; Communications with State Lands Geologist-in-Training, and Region Biologist

Referenced documents may be obtained for review from the South Puget Sound Region Office in Enumclaw during the SEPA comment period.

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.

Not applicable.

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

☒*FPA* ☐ *FPHP* ☒*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* ☐*Existing HPA* ☐*Other:*

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 description.)

Complete proposal description:

The proposal consists of one even-aged harvest unit converting a forested area to recreation use within Capitol State Forest. The purpose of the harvest is to expand the existing Fall Creek day use area parking lot and approximately 200 foot gravel access road. The expanded parking area will provide for improved access with twelve additional car parking stalls, four truck, and trailer spots. Approximately 48 mbf is planned to be removed within the harvest unit.

a. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

The proposed harvest unit is located on flat terrain in the lower and middle elevations of a hilly area. The proposed harvest has slopes between 3 to 15 percent. Elevation of the proposal ranges from 590 to 620 feet.

The majority of the harvest area is in the stem exclusion stage of development. The harvest unit is composed primarily of a 29 year old hand-planted, hydrologically mature conifer forest, with 0.2 acres of the 1.85 acres consists of 94 year old Douglas-fir. Trees fully occupy the site and form a single main canopy layer. Where understory consists of sword fern, Oregon grape, salmonberry, and vine maple.

Overall Unit Objective:
The objective of this proposal is the harvesting of Unit 1 and expanding the trailhead by an acre and half within the 1.85 acre unit. The expanded trailhead will improve access to the non-motorized trail system. Another objective of this proposal is to produce revenue for the State Forest Purchase (02) and the Forest Board Repayment (42) trusts, through the production of saw logs, poles and pulp material.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		200	1.5 **	0
Reconstruction		0		
Abandonment		0		
Bridge Install/Replace	0			
Culvert Install/Replace (fish)	0			
Culvert Install/Replace (no fish)	2*			

* *Two cross drains will be installed as part of this proposal*
** *Acreage includes the proposed road and parking lot for the trail head.*

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. *(See site plan and topographic maps on DNR website: **http://www.dnr.wa.gov/state-environmental-policy-act-sepa** Click on the DNR region under "Current SEPA Actions – Timber Sales.")*

a. Legal description:

T17N R4W S24
T17N R4W S25

b. Distance and direction from nearest town (include road names):

This proposal is located approximately 6 miles by road northwest of Littlerock within Thurston County. From I-5, (exit 95) turn west on Maytown Rd. SW and follow for 2.8 miles and through the town pf Littlerock. Continue straight (west) onto 128th Ave and follow for 0.7 mile, turn right on Waddell Ck. RD. for 4.3 miles, turn left on Sherman Valley Rd. for 1.4 miles, merge strait onto the C-Line forest road. See associated Driving Map for further details.

c. Identify the names of all watershed administrative units (WAU). (See also landscape/WAU map on DNR website ***http://www.dnr.wa.gov/state-environmental-policy-act-sepa*** *under the topic "Current SEPA Project Actions – Timber Sales" for a broader landscape perspective.)*

WAU Name	WAU Acres	Proposal Acres
UPPER CHEHALIS/CEDAR CREEK	**26228.50**	
Sub basin #1		**2**

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website ***http://www.dnr.wa.gov/state-environmental-policy-act-sepa*** *for a broader landscape perspective.)*

This proposal is located within the Upper Chehalis/Cedar Creek (WAU). Agriculture and home sites are located in the valleys near the major streams. There appears to be a trend towards increasing conversion of agriculture and forest land to home sites in the low to mid elevation ranges. The uplands are mainly managed for timber production. Ownership includes large industrial forests, small private forests, and Department of Natural Resources managed forests. Forested stands within the WAU appear to be primarily second and third growth stands. The numbers of forest practice activities shown on the WAU maps (referenced above on the Department's website) along with observations within the WAU indicate that the WAU is intensively managed for timber production, including variable retention harvest, thinning, and partial cuts.

The following tables are an estimated summary of past and future activities on Department of Natural Resources managed land and privately managed land in the Upper Chehalis/Cedar Creek Watershed WAU (information is based on Forest Practices applications that have been approved in the last seven years as of October 12th, 2018 compiled by the Department's GIS database). No attempt was made to predict future timber harvest on private ownerships within the WAU. The source for this information only provided the acreage at the WAU level. Primitive recreation which includes trails, trailheads and small campgrounds are within in the Capitol Forest.

Upper Chehalis/Cedar Creek WAU	WAU ACRES	ACRES OF EVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	ACRES OF UNEVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	PROPOSED EVEN-AGED HARVEST IN THE FUTURE	PROPOSED UNEVEN-AGED HARVEST IN THE FUTURE
DNR MANAGED LAND	24,539	2,120	115	825 (estimated)	0 (estimated)
Other OWNERSHIP	1,690	7 (estimated)	0(estimated)	Unknown	Unknown
TOTAL	26,229	2,127	115	825	0

The Department of Natural Resources has a multi-species Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats, which requires the Department to manage landscapes to provide and sustain long-term habitat in exchange for an Incidental Take Permit. This agreement substantially helps the Department to mitigate for cumulative effects related to management activities. The applicable strategies incorporated into this proposal are as follows:

- **Retaining Riparian Management Zone (RMZ) and Wetland Management Zone (WMZ) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZ and WMZ will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.**
- **Evaluating the proposal for potential slope instability and cultural resources.**
- **The harvest of the trees for this proposal is to convert this land from forested land to a road and a parking lot for recreational use in the future. Several trees left around a bathroom were left for aesthetics.**
- **Analyzing, designing, and constructing roads to minimize effects on the environment.**

A regular maintenance schedule will be followed to allow for proper road surface run-off and drainage. Haul routes for this proposal have been evaluated for potential environmental impacts. To ensure sediment is minimized during hauling, cross-drains, sediment ponds, and other structures will be used to disconnect ditch water from flowing streams. Road ditch water will be routed to the forest floor for filtering to prevent it from entering live streams. New road construction was located on stable ridge-top locations, where possible. Road system analysis and design required under the HCP and analysis required under the Forest Practices RMAP process in the Capitol Forest was completed and approved.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):
☒Flat, ☐Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous,
☐Other:

1) *General description of the WAU or sub-basin(s)(landforms, climate, elevations, and forest vegetation zone).*

Upper Chehalis/Cedar Creek WAU contains steep slopes and mountainous terrain. Most steep slopes can be found alongside stream edges. Precipitation for the WAU averages 50-56 inches per year. Minimum elevation is 35 feet to a maximum of 2,657 feet. The Forest Vegetation Zone is western hemlock with the major timber type being Douglas-fir with western hemlock and western red cedar on upland soils and red alder and big leaf maple in wet areas or in draws.

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*

The proposal location is similar to the general description of the WAU, with the exception that it is located in terrain.

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

15 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.

Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture	% Slope
9003	SILT CLAY LOAM	15-30
0575	SILT LOAM	5-20

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

1) Surface indications:

There are no indications of unstable soils in the immediate vicinity.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*

☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

There is evidence of small, shallow slope failures within the sub-basin. These are generally associated with slopes greater than 70 percent within convergent landforms such as bedrock hollows and inner gorges. These landforms, per local knowledge, typically occur within the RMZs, lower slopes of the main draws, and on headwalls at the top of steep draws.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*

☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

Associated management activity:

Indicators of small shallow slope failures are evident in harvested areas within the sub-basins.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*

☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

There have not been any slope stability protection measures incorporated into this proposal due to its location on relatively flat ground with no identified slope stability issues present.

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.

Purpose: **Culvert installations with construction of parking lot expansion and access road.**

Approx. acreage new roads: **1.5 acres of additional gravel parking area and access road.**
Approx. acreage new landings: **None** *Fill Source:* **approximately 1,300 yards of crushed rock will be added for the trailhead parking expansion and access road.**

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

Incidental erosion may occur within the sale boundaries but should be confined to the area of disturbance by erosion control measures.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

81 percent of the expanded trailhead area will have a crushed gravel surface.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *(Include protection measures for minimizing compaction or rutting.)*

Timber Sale
Erosion control and reduction measures are addressed in the sale layout and harvest system design.

- **During trailhead expansion silt fencing and or eco logs may be placed along the lower portion of the unit. Eco logs, weed free straw, and or angular rock may be placed in the access road ditch to reduce sediment movement.**
- **Skid trails may be water barred post harvesting activities, if necessary.**
- **A detailed plan of operations will be developed by the purchaser and approved by the Contract Administrator prior to commencing operations**
- **During saturated soil conditions, road construction, harvesting operations and parking lot construction will be restricted.**
- **No operations will be permitted on weekends or State recognized holidays or weekdays from 7 p.m. to 7 a.m. unless permission is granted in writing by the Contract Administrator.**

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.

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete

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

None known.

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

None.

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. *(see timber sale map available at DNR region office, or forest practice application base maps.)*

a. Downstream water bodies:

There are multiple streams that flow into Sherman Creek & Fall Creek, which flow into Cedar Creek.

b. Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Sherman Creek	**3**	**1**	**186 feet**
Stream	**5**	**1**	**Within WMZ buffer**
Wetland	**Greater than 1 acre**	**1**	**186 feet**

c. List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

RMZ and WMZ for this proposal are designed in accordance with the Department's HCP procedures and their stream type identified by the stream's physical characteristics per the water typing system for Forested State Trust HCP lands.

In compensation for a portion of the access road being constructed in the outer RMZ, down woody debris will be added to the undisturbed portion of the RMZ to improve habitat quality.

Local knowledge of prevailing wind direction and observation of standing trees in nearby RMZs in recently harvested units determined no wind buffers were necessary.

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.

☐ *No* ☒ *Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)*

Description (include culverts):
Harvest will occur within 200 feet of the streams and wetland listed in the above table. Trees may be cut in the RMZ and WMZ for safety or operational needs, but will be left in place to provide large woody debris functions. The new access road that will be constructed into the expanded parking area is within the RMZ for 145 feet.

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.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation).*

☒ *No* ☐ *Yes, description:*

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

☒ *No* ☐ *Yes, describe location:*

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* ☐ *Yes, type and volume:*

7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

Yes. Within the sub-basin, soils and terrain susceptible to surface erosion and/or mass wasting are generally located on slopes steeper than 70 percent. The potential for eroded material to enter surface water is minimized due to the erosion control measures and operational procedures outlined in B.1.d.5. and B.1.h.

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*

☐ *No* ☒ *Yes, describe changes and possible causes:*

During the winters of 1996, 2007, and 2009, (suspected) 100-year return interval precipitation events occurred. The storms set rainfall and flood level records in Southwest Washington and Northwest Oregon. The events caused many shallow mass-wasting events, which caused stream channels to change location and/or dimension. The full extent and long-term impacts across the WAU from these storms is not known due to varying ownerships.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*

☐ *No* ☒ *Yes, explain:*

This proposal could introduce small amounts of sediment into the streams associated with this proposal during wet weather as a result of road building and harvest activities. The erosion control measures and operation procedures outlined in B.1.d.5. and B.1.h. are designed to avoid sediment delivery. Due to preventative measures required during the project, activities associated with this project are not expected to affect water quality.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)? Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?*

☒ *No* ☐ *Yes, describe:*

Upper Chehalis/Cedar Creek WAU averages 4.8 miles per square mile. Road mileages for the sub-basins are similar to the WAU mileages. The high number of miles per square mile may be due to the majority of the WAU being in an urbanized environment or topography driven.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*

☒ *No* ☐ *Yes, approximate percent of sub-basin(s) in significant ROS zone:*

Or*, approximate percent of WAU:*

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

Not applicable.

13) *Is there evidence of changes to channels associated with peak flows in the WAU and sub-basin(s)?*

☐ *No* ☒ *Yes, describe observations in the WAU and in the sub-basin(s):*

Normally, there are few significant changes associated with peak flows in the WAU and sub-basins. During the winters of 1996, 2007, and 2009, (suspected) 100-year return interval precipitation events occurred. Many channels in the WAU were altered during these events due to high stream flows. In some cases the channels have been scoured down to bedrock, in others the increase in sediment loads and large woody debris delivery has changed channel locations and increased pool/riffle ratios.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

The current proposal may temporarily change the timing, duration, and/or magnitude of peak flows due to decreased evapotranspiration and canopy interception, but measurable impacts are not anticipated.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*

☐ *No* ☒ *Yes, possible impacts:*

There are a few private surface water intakes approximately 1 mile downstream from the proposal. Based on the protection measures outlined in B.1.d.5, B.1.h, and B.3.a.16., no measurable impacts are anticipated.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

Several leave trees are retained around the bathroom structure and RMZs and WMZs adjacent to the sale will remain forested.

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.

Groundwater will not be withdrawn and no water will be discharged to groundwater. There are no known wells within the proposal area.

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.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. Additionally minor amounts of lubricants from vehicles which park at the trailhead may leak on the gravel surfaced parking lot. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up by the timber sale purchaser. This proposal is expected to have no impact on ground water.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*

☐ *No* ☒ *Yes, describe:*

a. *Note protection measures, if any.*

There are a few private wells downstream (approximately 1 mile) from the proposal. Due to the distance from the proposal area, ground water amounts, timing, and movements at these locations are not expected to be changed by this proposal. Based on the protection measures outlined in

B.1.h, impacts to this area are not anticipated.

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 location of culverts (cross drains) will be selected to disperse the collected storm water from the ditches onto the forest floor. The frequent spacing of culverts will minimize the distance water flows before being dispersed onto the forest floor. Consequently, no surface or ditch water will flow directly into existing stream channels. Ditch outs will also be used to direct runoff onto the forest floor. No water runoff will be channeled onto exposed soils.

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

☒ *No* ☐ *Yes, describe:*

a. Note protection measures, if any.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. Additionally minor amounts of lubricants from vehicles which park at the trailhead may leak on the gravel surfaced parking lot. No lubricants will be disposed of on-site. All spills are required to be immediately contained and cleaned-up. This proposal is expected to have no impact on ground water.

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

No additional protection measures will be necessary to protect these resources beyond those described in B.1.h. and B.3.a.2.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-B-3-b-3-a, and B-3-c-2-a.)

- **Drainage control devices will be utilized to allow for proper drainage.**
- **Erosion control measures will be placed in appropriate places on the downslope side of the trailhead.**

4. Plants

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

☒deciduous tree:

☒alder, ☐maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:

☒evergreen tree:

☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐ *lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:

☒shrubs:

☒*huckleberry,* ☒*salmonberry,* ☒*salal,* ☒*other:* **Oregon grape, vine maple**

☒grass
☐pasture
☐crop or grain
☒wet soil plants:

☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☒*devil's club,* ☒other: **water parsley**

☐water plants:

☐water lily, ☐eelgrass, ☐milfoil, ☐other:

☒other types of vegetation: **sword fern**
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See color landscape/WAU and adjacency maps on the DNR website:* ***http://www.dnr.wa.gov/state-environmental-policy-act-sepa*** *(Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales.")*

Units 1: To the north and east area mixed species 94 year-old with moderate structural diversity; to the south and west are 29 year-old Douglas-fir plantations with low structural diversity.

The older stands (94 years-old) and the mature RMZ stands adjacent to the units have multi-layered canopies with scattered small to large snags and a moderate component of large down woody debris. The adjacent plantations (29 years-old) have few snags and most of the down woody debris is scattered logs and slash from the previous harvest.

2) *Retention tree plan:*

The harvest of the trees for this proposal is to convert this land from forested land to a parking lot and access road for recreational use in the future. Several trees around a bathroom were left for aesthetics.

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

None found in database search or observed onsite.

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

Retaining existing stands within RMZ, WMZ, and leave trees around a bathroom.

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

No noxious or invasive plant species were found onsite. A comprehensive list of noxious or invasive found throughout Thurston County can be found on the County's website.

5. Animals

a. List any birds and other animals *or unique habitats* 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, ☐*pigeon*, ☒other: Grouse

mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☒other: **coyote**

fish: ☐bass, ☒salmon, ☒trout, ☐herring, ☐shellfish, ☐other:

unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened and endangered species known to be on or near the site *include federal- and state-listed species).*

There are no threatened or endangered species known on or near the proposal.

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

☒ *Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

This proposal is located in the Pacific Flyway. Migratory waterfowl use the Pacific Flyway; however, the area in which this proposal is contained is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest forests, many Neotropical migratory birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of the Department's Habitat Conservation Plan.

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

The purpose of this harvest is to convert the land from forested to a recreation parking lot and access road to Fall Creek Trailhead. Leave trees were left around a concrete bathroom for aesthetics.

1) *Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.*

Species /Habitat: **Riparian Habitat**
Protection Measures: **HCP riparian and wetland buffers 186 feet in width**

Species /Habitat: **Marbled Murrelet Habitat**
Protection Measures: **This proposal is within the South Coast Planning Unit which follows the follows the HCP Interim Conservation Strategy for the marbled murrelet, and the July 16, 2009 concurrence letter with the US Fish and Wildlife Service (USFWS). This proposal is not within any occupied stands, reclassified Marbled Murrelet habitat or released reclassified marbled murrelet habitat.**

Species /Habitat: **Northern Spotted Owl Habitat**
Protection Measures: **This proposal is not located within a designated Spotted Owl Management Unit (SOMU) nor within any Owl Areas, PR14-004-120.**

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

Invasive animal species known to be in the geographic area include:

- **Starlings**
- **House sparrows**
- **Eurasian collared-dove**
- **Bullfrogs are found throughout the lowlands of Washington.**
- **Nutria are found in lakes, wetlands, sloughs, drainage ditches, and irrigation canals along the Columbia River and north to Skagit County.**
- **There are several exotic leaf rollers of concern that are present in Washington.**

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.

The completed project will not require energy.

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

No.

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.

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.

Minimal hazards incidental to operation of heavy machinery such as the risk of fire or small amounts of oil and other lubricants may be accidentally discharged as a result of heavy equipment use.

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

None known and no indications of contaminants observed on site.

2) 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.

None known.

3) 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.

Petroleum fuel will be used on site for operation of logging equipment.

4) Describe special emergency services that might be required.

There are no special emergency services required at this time. In the event of a lubricant spill the Purchaser will contact the Department of Natural Resources and the Department of Ecology.

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

The cessation of operations may occur during periods of time when the risk of fire is increased. Fire tools and equipment, including pump trucks and/or

pump trailers, will be required on site during fire season. In the event of a lubricant spill the timber sale contractor will contact the Department of Natural Resources and the Department of Ecology. Quick response spill kits are required to be on site in caser of smaller spills, as are larger spill kits if hazardous materials are going to be stored on site during operations. No oil or lubricants will be allowed to be disposed of on site.

b. Noise

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

None.

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.

Log trucks and vehicle use associated with trail based recreation will use forest roads, county roads, and Interstate 5. This is normal activity for this area and is consistent with existing traffic. Noise will be increased during daylight hours generated from the operation of machinery and power tools during active operations and trailhead construction only.

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

None.

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. *(Site includes the complete proposal, e.g. rock pits and access roads.)*

The current use of the site and adjacent properties is sustainable timber production, primitive recreation and forest management under state ownership.

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?

The proposal area is currently being managed as forest lands. After the harvesting activities are complete in the proposal area, the unit (approximately 1.85 acres) will be converted into a day use parking area and access road (approximately 1.5 acres). 12 additional car parking stalls will be constructed along with 4 truck and trailer stalls for equestrians.

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:

No. The proposal is consistent with forest land normal business and recreation operations.

c. Describe any structures on the site.

One restroom facility is located within the proposal

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

None.

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

The area of this proposal is zoned as Long-Term Forestry (LTF).

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

The comprehensive plan designation is resource lands, forest of long term significance and primitive recreation.

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

Not applicable.

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

No.

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

None.

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

None.

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

None.

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

The land will be converted to recreation use at the conclusion of this project. The use of harvest planning information based on data taken from DNR's GIS database, and adherence

to the DNR's Forestry Handbook and the HCP will assure this proposal is compatible with the existing and projected land use and plans. The DNR's Forestry Handbook and Capitol Forest recreation plan is on file at the South Puget Sound Region office in Enumclaw.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Proposed timber harvest is designed to meet Forest Practices Rules, HCP Strategies, Policies for Sustainable Forests and the Capitol Forest Recreation Plan.

9. Housing

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

None

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

None

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

None

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?

As part of the trailhead expansion there will be an equestrian mounting ramp which meets the Americans with Disability Act specifications (ADA).

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

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*

☐ *No* ☒ *Yes, viewing location:* **Fall Creek Trailhead and the Wedekind, Greenline, McKenny & Lost Valley trails.**

2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*

☒*No* ☐*Yes, scenic corridor name:*

3) *How will this proposal affect any views described in 1) or 2) above?*

This forested area will be converted to a non-forested gravel parking area and access road.

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

Leave tree clump was added around a concrete bathroom for aesthetics.

11. Light and glare

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

None.

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

No.

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

None.

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

Not applicable.

12. **Recreation**

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

Non-Motorized shared use trails (equestrian, mountain bike, hiking and trail running), motorized trails, and a primitive campground are in the immediate vicinity. Wedekind, Greenline and McKenny trails are within the vicinity of the timber sale and trailhead expansion area. These trail systems are mainly used by cyclists, horseback riders, motorized riders, and hikers. Several other informal recreational activities include hunting, berry picking, sightseeing, and other informal outdoor recreation activities may occur within the proposal area.

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

Anyone recreating or inquiring about recreation in the vicinity of this proposal will be informed of any active timber removal or trailhead expansion operations. Steps will be taken such as temporary re-routes will be used to minimize disruptions to recreation activities.

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

The impacted portions of the trails will be posted with signs and on the Department's web site to inform trail riders of the timber sale and trailhead expansion activity. Portions of the impacted trails will be closed while logging and trailhead expansion activities take place. Outreach and updates to recreational user groups concerning timing of activities will occur.

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 located on or near the site? If so, specifically describe.

Based on a TRAX search, one item was noted in the vicinity of the proposal. This was cross referenced with the Department of Archaeology and Historic Preservation Database and found to be located approximately ½ mile from the proposal area, and would not be affected by any activities associated with 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.

None known.

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.

Historical maps were reviewed. Consultation with a DNR archaeologist occurred for this proposed activity. Trail head expansion project manager contacted tribes in 2008 pursuant to 0505 review seeking cultural resource concerns or information regarding trail maintenance and construction in Capitol Forest.

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.

If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.

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.

Interstate 5 to county roads, access to the forest roads which access the harvest unit.

1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

No.

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. The nearest transit stop is approximately 10-15 miles away.

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

This area will increase the parking area capacity by 12 car parking stalls and 4 truck and trailer areas. Presently mountain bike and running enthusiasts are parking in existing truck and trailer stalls. Truck and trailer stalls are used by equestrian enthusiasts. No parking spaces will be eliminated.

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).

The proposal is to harvest timber from the trailhead expansion area and to expand the existing Fall Creek trailhead. The ADA loading ramp will be re-built to better facilitate equestrian use at the trailhead. Additional parking will better accommodate existing recreation use.

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

There will not be any significant change or impact. The existing trailhead is at the end of a forest road. The trailhead parking area expansion is anticipated to accommodate the increase in recreation traffic currently observed in the area.

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

No.

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?

There may be 5 to 10 round trips per day of log and rock haul while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 7:00 p.m. of the operating period. No truck traffic will occur directly from this proposal once the project is complete.

The trailhead is being expanded to better accommodate present public use and to better serve the equestrian community. Presently when the trailhead is full recreationists will park alongside the C-6000A road. There are other trailheads in Capitol Forest which are tending to draw a portion of the mountain bike population away from the Fall Creek area.

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

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

None.

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.

The trailhead is being expanded to better accommodate the present amount of public use.

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

None.

16. **Utilities**

a. Check utilities currently available at the site:
☐electricity ☐natural gas ☐water ☐ refuse service ☐telephone ☐sanitary sewer
☐septic system ☐other:

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.

None.

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: _____

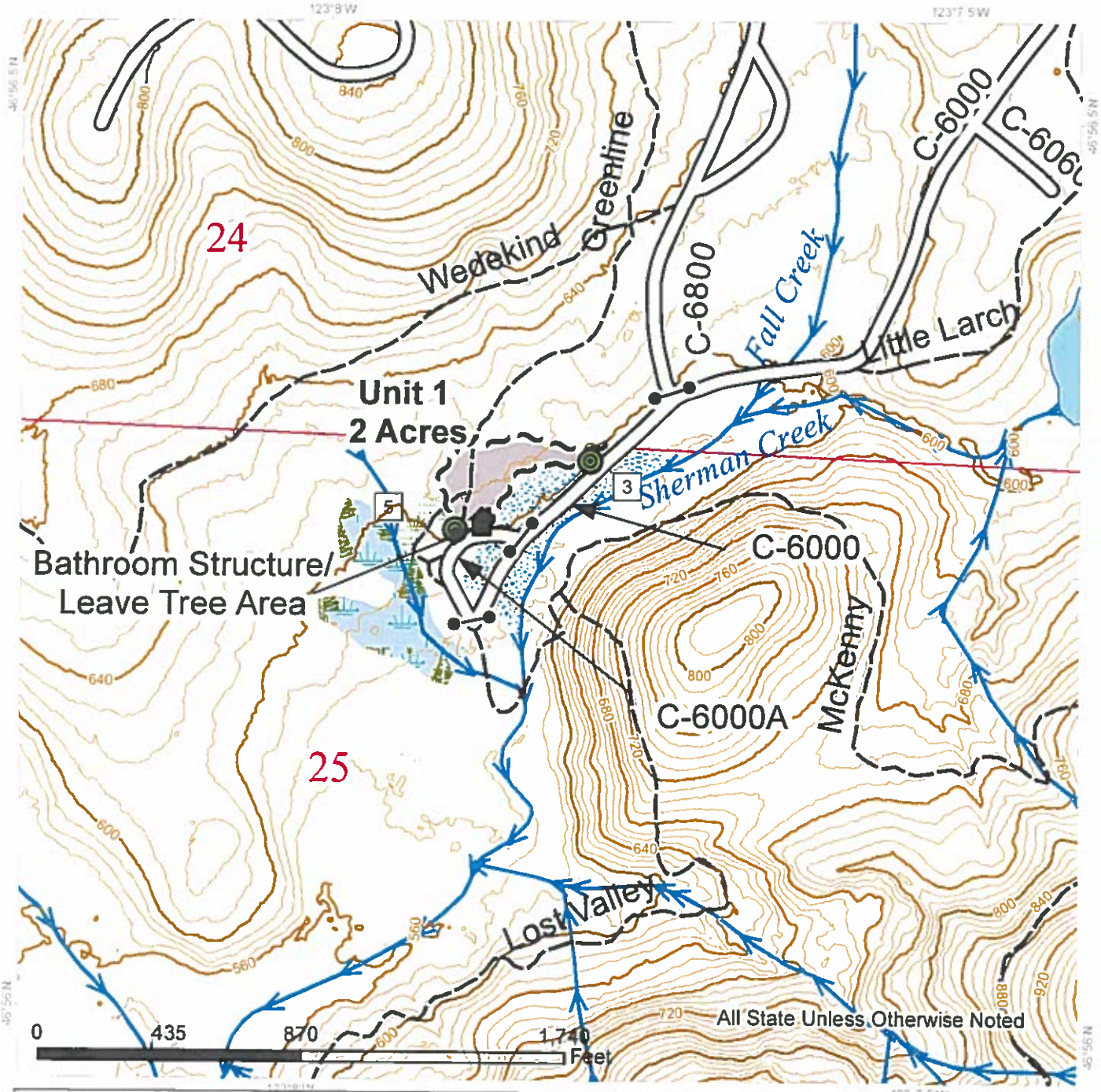
Name of signee **Dean Adams**

Position and Agency/Organization State Lands Assistant Region Manager

Date Submitted: 2/13/19
AEM 1-30-19

TIMBER SALE MAP

SALE NAME:	FALL CREEK TRAILHEAD EXPANSION	**REGION:**	South Puget Sound Region
AGREEMENT #:	C30SP18001	**COUNTY(S):**	Thurston
TOWNSHIP(S):	T17R04W	**ELEVATION RGE:**	864-2649
TRUST(S):	Forest Board Repayment (42), Scientific School (10), State Forest Purchase (2)		



Sale Area	Designated Landing	Existing Roads
Riparian Mgt Zone	Gate (786 key)	Sale Boundary Tags
Forested Wetland	Structure	Trail
Wetland Mgt Zone		Streams
		Stream Type

N

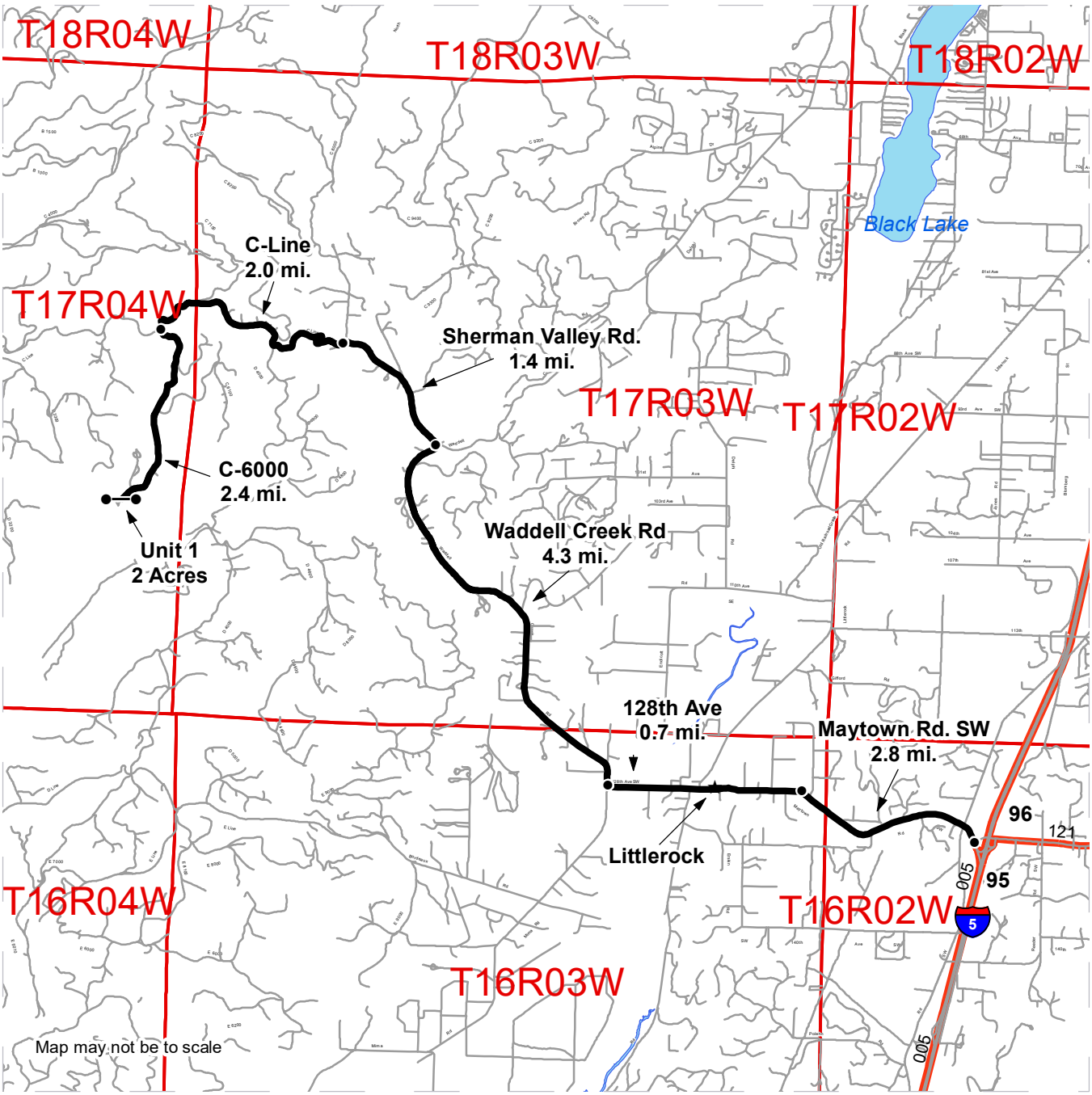
Prepared By: ACOL 09/13/2017

Modification Date: 12/18/2018

DRIVING MAP

SALE NAME: Fall Creek Trailhead Expansion
AGREEMENT#: C30SP18001
TOWNSHIP(S): T17R04W
TRUST(S): Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
COUNTY(S): Thurston
ELEVATION RGE: 864-2649



- Highway
- Haul Route
- Other Road
- Distance Indicator
- Gate (786)
- Town
- Open Water

DRIVING DIRECTIONS:

From I-5, (exit 95) turn west on Maytown Rd. SW and follow for 2.8 miles and through the town of Littlerock. Continue straight (west) onto 128th Ave and follow for 0.7 mile, turn right on Waddell Ck. RD. for 4.3 miles, turn left on Sherman Valley Rd. for 1.4 miles, merge strait onto C-line and follow for 2.0 miles to C-6000 intersection. Turn left (south) on C-6000 and follow for 2.4 miles to Fall Creek Trailhead to arive at Unit 1 and Unit 2.

N

Prepared By: ddun490 08/07/2018

Modification Date: 1/14/2019