

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: KLINE MEADOW FIT Agreement # 30-092914

2. Name of applicant: Washington Department of Natural Resources

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

Robert Hechinger
225 S. Silke Rd.
Colville, WA 99114
(509) 684-7474

4. Date checklist prepared: 8/01/16

5. Agency requesting checklist: Washington Department of Natural Resources

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

- a. Auction Date: 03/28/2017
- b. Planned contract end date (but may be extended): 10/31/2017
- c. Phasing: N/A

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

Timber Sale:

- a. Site preparation:
TSU NO :1 GROUND HERB 07/01/2018 60 Acres

TSU NO :1	PILE & BURN	10/01/2017	4 Acres
TSU NO :2	GROUND HERB	07/01/2018	100 Acres
TSU NO :2	PILE & BURN	10/01/2017	2 Acres
TSU NO :3	PILE & BURN	10/01/2017	2 Acres
TSU NO :4	PILE & BURN	10/01/2017	1 Acre
TSU NO :5	PILE & BURN	10/01/2017	2 Acres

b. *Regeneration Method:*

TSU NO: 1	HAND PLANT	04/01/2019	60 Acres
TSU NO: 2	HAND PLANT	04/01/2019	100 Acres

c. *Vegetation Management:*

TSU NO :1	SEED GRASS	10/01/2016	3 Acres
TSU NO :2	SEED GRASS	10/01/2016	2 Acres
TSU NO :3	SEED GRASS	10/01/2016	2 Acres
TSU NO :4	SEED GRASS	10/01/2016	1 Acre
TSU NO :5	SEED GRASS	10/01/2016	2 Acres

d. *Thinning:*

TSU NO: 1	Pre-commercial Thinning	10/01/2017	331 Acres
TSU NO: 2	Pre-commercial Thinning	10/01/2017	100 Acres
TSU NO: 3	Pre-commercial Thinning	10/01/2017	84 Acres
TSU NO: 4	Pre-commercial Thinning	10/01/2017	23 Acres
TSU NO: 5	Pre-commercial Thinning	10/01/2017	50 Acres

Roads:

Road maintenance assessments will be conducted annually and may include periodic ditch and culvert clean out and grading to minimize erosion. See A.11

Rock Pits and/or Sale:

There are six potential rock sources in this proposal. They are all located within Units 1 and 2.

Other:

Landing slash will be piled and burned, or if economically feasible, chipped for biomass. Application of herbicides may also occur provided the activity is financially valid. Results will be monitored and prescriptions adapted as necessary. Firewood may be available to cut with a DNR firewood permit after harvest activities have concluded.

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):

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: WADNR draft road plan dated 06/29/2016

Wildlife report:

Geotechnical report:

Other specialist report(s):

Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):

Rock pit plan:

Other: GIS generated WAU maps showing: soil type, mass wasting potential, erosion potential, soil stability, habitat type, and hydrologic maturity of Huckleberry Creek and North-Middle Forks Deer Creek WAU; DNR TRAX; Washington Department of Fish and Wildlife (WDFW) Heritage database; Policy for Sustainable Forests; DNR Smoke Management Plan, issued April 1993; State Soil Survey; WDFW Priority Species Habitat Management Recommendations; Road Maintenance and Abandonment Plan No. R2303709, Carrs Corner.

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.

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

FPA # 3021396 FHPA 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.)

a. *Complete proposal description:*

This proposal consists of 837 gross acres, 822 net acres. A total of five units will be harvested using ground based equipment to remove approximately 4,392 MBF of timber.

Unit 1 –An uneven-aged harvest comprised of 380 net acres, leaving 6 trees per acre (TPA) over 10 inches diameter at breast height (DBH) and 150+ trees per acre less than 10 inches DBH. Portions of this unit will be spot planted with

approximately 220 TPA of western larch and ponderosa pine after the area has had adequate site preparation. The remainder of the unit will be pre-commercially thinned after harvest.

Unit 2 – An uneven-aged harvest comprised of 270 net acres, leaving 21 TPA over 10 inches DBH. Portions of this unit will be spot planted with approximately 220 TPA of western larch and ponderosa pine after the area has had adequate site preparation. The remainder of the unit will be pre-commercially thinned after harvest.

Unit 3 – An uneven-aged harvest comprised of 84 net acres, leaving 6+ TPA over 10 inches DBH and 150+ TPA less than 10 inches DBH. After harvest unit will be accessed for pre-commercial thinning needs.

Unit 4 – An uneven-aged harvest comprised of 22 net acres, leaving 6+ TPA over 10 inches DBH and 150+ TPA less than 10 inches DBH. After harvest, the unit will be assessed for pre-commercial thinning needs.

Unit 5 – An uneven-aged harvest comprised of 66 net acres, leaving 6+ TPA over 10 inches DBH and 150+ TPA less than 10 inches DBH. After harvest, the unit will be assessed for pre-commercial thinning needs.

There are six areas within Units 1 and 2 that may be used as a rock source. Slash is planned to be piled and burned in all units. Grass seed will be placed on road sides and skid trails where needed.

Klines Meadow County road is the access for this proposal. There will be 13,685 feet of road reconstruction and 34,092 feet of pre-haul road maintenance and 4,855 feet of road decommissioned after harvest. There will be one culvert (CMP) installed in a Type Np stream.

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

All units will be uneven-aged harvests leaving 6 to 21 trees per acre over 10 inches DBH and 150+ TPA less than 10 inches DBH. All units in this proposal are mixed conifer stands with scattered mature ponderosa pine, Douglas-fir, western larch, grand fir, and western redcedar. These stands are between 80 to 100 years old and had been shelterwood harvested in the 1990's. All units have dwarf mistletoe in the western larch and Douglas-fir. There are some large openings caused by root disease affecting primarily Douglas-fir. Legacy trees were marked to leave in all units. Units were selected based on overstocking of understory and their needing of a silvicultural treatment and the presence of Douglas-fir beetle, *Armillaria* root disease, dwarf mistletoe and risk of catastrophic fire loss.

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				
Reconstruction		13,685		
Abandonment				
Bridge Install/Replace				
Culvert Install/Replace (fish)				
Culvert Install/Replace (no fish)	1			

The proposal also includes approximately 34,092 feet of pre-haul road maintenance and 4,855 feet of road decommissioning. There may be up to 599 feet of additional new road construction within the sale area, in the form of short spurs to facilitate access, protect public resources, maintain ingress and egress, or provide for safety.

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:* **T31N R39E S8, 16**

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

From the intersection Hwy 395 and Main Street in Chewelah, WA travel 2.0 miles south on Hwy 395 and take a right onto Quarry-Browns Lake County Rd. Travel 4.8 miles and take a left onto Smola County Rd and travel 1.2 miles. Take a right onto Red Marble County Road and travel 4.3 miles and take a right on Kline Meadow County Road. Travel 0.5 miles to enter Unit 4 and travel an additional 170 feet and take a left onto the E313916A road to access Units 2, 3 and 5.

At the intersection of E313916A road and the Klines Meadow County Road travel an additional 2.3 miles and take a left onto the E313905E Road. Travel through the gate and go 0.5 miles to enter Unit 1.

- 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
HUCKLEBERRY CREEK	50,088	530
NORTH-MIDDLE FORKS DEER CREEK	28,806	292

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.)

Based on aerial photos, local knowledge, site visits, and GIS data, the Huckleberry Creek and North-Middle Forks Deer Creek WAUs fall below the threshold for impacts to peak flow potential. At completion of this proposal, both WAUs are expected to remain below this threshold. There should be no significant increase in peak flows in areas associated with the proposal due to protection measures that have been designed to minimize any contribution to peak flow events. Roads and harvest operations will be monitored to ensure appropriate protection measures are utilized where necessary to reduce the potential for runoff to directly enter streams or damage roads. See B.1.h.

Approved Forest practice applications in the Huckleberry Creek WAU include 12 acres of DNR-managed land, 2 acres even-aged, and 10 acres uneven-aged. Other lands, including private, are 6,587 acres, 2,406 acres even-aged, and 4,181 acres uneven-aged. Approved Forest practice applications in the North-Middle Forks Deer Creek WAU include 375 acres of DNR land, 374 acres even-aged, and 1 acre uneven-aged. Other lands, including private, are 5,317 acres, 3,112 acres even-aged, 1,717 acres uneven-aged and 487 acres of salvage.

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).

Huckleberry Creek

The WAU is located east of the Huckleberry ridgeline. Major streams flow east to the Colville River that runs along the eastern border of the WAU. Elevations range from 1,628 feet at the Colville River up to 5,800 feet along the Huckleberry Range ridgeline. Average precipitation is 15 inches in the lower elevations with upper elevations receiving 20 inches per year. Precipitation is greatest in winter and spring. Vegetation within the WAU varies with elevation, aspect, and micro sites. The lower elevations and south aspects are ponderosa pine and Douglas-fir series. Drainages, northern aspects, and micro sites can vary from Douglas-fir series to western redcedar series. A small portion of the WAU in the upper most elevations includes the subalpine fir series.

North-Middle Forks Deer Creek

The North-Middle Forks Deer Creek WAU is located west of the Deer Lake WAU, and together they form the headwaters to the Colville River. Streams at higher elevations are confined by terrain. At mid and lower elevations they have winding channels with the potential to overflow stream banks and contribute to the flooding of fields. The WAU is a mixture of agricultural and timber land with Douglas-fir being the dominant timber type. At lower elevations and on south slopes stands are a mixture of ponderosa pine and lodgepole pine. As elevation increases or on north aspects, western larch and subalpine fir are present. Grand fir and western redcedar also exist on northern slopes and in wetter areas. The private timberlands are actively being managed by small private landowners at lower elevations amongst the farmland. Generally, the higher elevations are managed by larger private landowners, Bureau of Land Management, and the state. There is no U.S. Forest Service or Tribal land within the WAU. Summer temperatures range from 75 to 100 degrees with winter temperatures ranging from -20 to 40 degrees. Typical snow coverage is one to three feet at lower elevations and three to six feet at higher elevations. The annual precipitation is approximately 20 inches per year. Vegetation zones are ponderosa pine, inland Douglas-fir, grand fir, and subalpine fir. Elevations range from 1,720 feet at the Colville River up to 5,819 feet at the top of Stensgar Mountain. Most of the WAU is mountainous terrain with rolling hills present along the eastern edge and in scattered lower elevation areas.

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

Elevation ranges from 2,600 feet to 4,600 feet. The streams are confined to draws with multiple isolated springs and Type Np waters. The proposal is not adjacent to any agricultural land. The south slopes are

dominated with Douglas-fir, north and east slopes are mixed species, redcedar is dominant along stream courses. Cedar Creek, North Fork Deer Creek and another un-named Type F stream all go up into or run along the state parcels. Slopes range from 10 to 80 percent. Snow depths commonly will be four feet with snow coverage from late November until May.

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

Approximately 80% in Unit 2, with the average being approximately 25%.

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	Acres	Mass Wasting Potential	Erosion Potential
3017	SILT LOAM	40-65	456	MEDIUM	HIGH
5282	SILT LOAM	25-40	131	LOW	MEDIUM
3018	HUCKLEBERRY-ROCK OUTCROP-COMPLEX	30-65	88	MEDIUM	HIGH
3016	SILT LOAM	25-40	79	LOW	MEDIUM
0655	BUHRIG-ROCK OUTCROP-COMPLEX	40-65	78	MEDIUM	MEDIUM
0588	SILT LOAM	0-10	4	INSIGNIFICANT	LOW
2935	MUCK	0-1	2	INSIGNIFICANT	N/A

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

1) *Surface indications:*

No unstable soil surface indications were observed.

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:

None known.

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: N/A

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.*

Roads will include rolling dips, water bars, ditching and culverts as needed to control erosion by diverting runoff to the forest floor. In addition, roads and skid trails will be grass seeded and water barred as needed. Existing skid trails will be used when possible.

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.

Approx. acreage new roads: 0 acres
Native on site material

Approx. acreage new landings: 4 acres

Fill Source:

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

Surface erosion may occur on road cut and fill slopes, especially during storms and spring runoff, although none is foreseen to discharge into typed waters due to improved stream crossings, proper road design, and effective water control structures. Hauling will be restricted during wet conditions and spring break-up. Non-erodible surface material will be placed where necessary to maintain stability. In addition, grass seeding will take place where necessary to control erosion.

- 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):*

None.

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

No felling, skidding, or hauling activities will occur during spring break-up, unless otherwise approved by the contract administrator. Harvest and haul activities will be monitored and activities will be restricted where needed to prevent sediment delivery to streams. Roads have been designed to minimize erosion potential and conduct water onto naturally vegetated forest floors utilizing drivable dips, in/out slopes, crowns, ditches, and cross drains. Energy dissipating structures will be placed at the outfall of cross drains where necessary to prevent erosion. Culvert headwalls will be armored where necessary. Skid trails will be grass seeded, water barred or have debris scattered where necessary to prevent erosion. Grass seeding will also occur on cut and fill slopes where necessary.

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.

This proposed timber harvest will involve vehicle emissions from logging and hauling equipment; dust from road maintenance, logging, and hauling activities. Such emissions should result in no significant impact to air quality. If broadcast or slash burning occurs, it will adhere to the state's Smoke Management Program regulations.

- 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:

Smoke management requirements will be followed while burning landing slash piles.

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:*

Ns, Np and F streams flow into Huckleberry Creek and North Fork Deer Creek. Huckleberry Creek and North Fork Deer Creek flow into the Colville River. There is also a Type A wetland associated with a Type F water south of Unit 2.

Two segments of the Colville River located downstream of the proposal are listed as 303(d) waters. These are located in the valley bottom. This proposal is not expected to affect any 303(d) listed waters in the WAUs due to proposed RMZ protection measures and protection measures listed in B.1.h. The TMDL requirements for temperature developed by the Washington State Department of Ecology are not complete.

- 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)
Un-named wetland	A	1	100 feet
Cedar Creek	F	1	75 feet
Un-named	F	2	75 feet
Un-named	Np	22	50 feet

Un-named	Ns	1	30 foot ELZ
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c. List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

All Type F streams have 75 foot no harvest buffers, all Type Np streams have 50 foot no harvest buffers and all Type Ns streams have a 30 foot ELZ. The Type A wetland associated with a Type F water has a 100 foot no harvest buffer.

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): A culvert will be replaced on a Type Np stream within Unit 2. See road plan for details.

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.

Approximately 5 cubic yards of existing native fill material will be used to replace the culvert.

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?

Some soils listed for this area have medium to high erosion and mass wasting potential. Looking at landforms, existing roads and previous harvest activities, there are no visible signs of instability. Techniques mentioned in B.1.h. are anticipated to minimize the potential for surface erosion or mass wasting to enter surface water.

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:

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

No Yes, explain:

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?

Huckleberry Creek WAU – 2.9 miles

North-Middle Forks Deer Creek WAU – 5.7 miles

No Yes, describe:

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:

Approximate percent of Huckleberry Creek WAU in the ROS zone – 50.1%

Approximate percent of North-Middle Forks Deer Creek WAU in the ROS zone – 59.2%

- 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?*

It is estimated that 82% of Huckleberry Creek WAU is rated as hydrologically mature and 70% of the North-Middle Forks Deer Creek WAU is rated as hydrologically mature.

- 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):

There are some indications of past high water events within the WAU, which appear to have occurred as natural events, mainly as spring runoff from snowmelt. The primary evidence is the scouring and deposition of materials observed in the stream channels after runoff waters have receded. This is a natural process that occurs each spring on streams throughout the WAU.

- 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.*

Based on aerial photos, local knowledge, site visits, and GIS data, the Huckleberry and North-Middle Forks Deer Creek WAU falls below the threshold for impacts to peak flow potential. At completion of this proposal, these WAUs are expected to remain below this threshold. There are no significant increases to peak flows anticipated in areas associated with the proposal due to protection measures that have been designed to minimize any contribution to peak flow events. Roads and harvest operations will be monitored to ensure appropriate protection measures are utilized where necessary to reduce the potential for runoff to directly enter streams or damage roads. See B.1.h.

Several protection measures have been designed within this proposal to minimize any contribution to peak flow events. Coordinated skidding patterns and landing locations, effective contract administration and normal road maintenance is expected to minimize erosion potential within and adjacent to the proposal area. Water bars, drivable dips, ditching, cross drains, out sloping, monitoring and revegetation of cut slopes and skid trails will be used as needed to minimize the potential for soil erosion, mass wasting events and contribution to peak flows within the WAUs.

Road construction, hauling, yarding and felling may be suspended if wet weather conditions threaten public resources within the sale area or along the haul routes. Hauling on all roads may be suspended during spring break-up or during wet conditions that would cause significant rutting of road surfaces. Drainage structures will be used where appropriate to minimize the risk of erosion. Proper road maintenance and drainage along the haul route will ensure any runoff is dispersed on the forest floor.

In addition, see B.h.1 for protection measures regarding roads and harvest activities. See A.13 for ownership and harvest type and frequency within the WAU.

- 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:

- 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.*

Included in this proposal are the exclusion of all RMZs and ELZs from harvest areas and the improvement of road access and drainage. See B.1.h.

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.

No

- 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.

No waste material will be discharged into the ground.

- 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.*

See protection measures under B.3.a.14

- 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.

Snow melt and rain are the main sources of water runoff. Runoff that is intercepted by road surfaces and ditches will be diverted onto the undisturbed forest floor where possible. Culverts have been located to minimize the amount of runoff directly entering stream channels.

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

No Yes, describe:

None are anticipated with the protective measures proposed.

- a. *Note protection measures, if any.*

See B.3.b.3

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

Drainage from roads will be improved with maintenance and grass seeding.

- 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-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

See B.1.h. and B.3.a.14.

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: oceanspray and ninebark

- grass
- pasture
- crop or grain
- wet soil plants:
 - cattail, buttercup, bullrush, skunk cabbage, devil's club,
 - other:
- water plants:
 - water lily, eelgrass, milfoil, other:
- other types of vegetation:
- 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."))

All units and surrounding areas are comprised of mixed stands of Douglas-fir, ponderosa pine, western larch, lodgepole pine, grand fir and western redcedar in the draws. This area has rock outcrops with cliffs in some areas.

Unit 1 has the majority of it surrounded by large private industrial landowners. The area that surrounds Unit 1 has varying ages of clearcuts. The northwest and northeast adjacent portions have 2 to 4 year old mixed conifer stands, while portions of the north and southwest have mixed conifer stands 10 to 25 years in age.

Unit 2 has a type F stream on its western boundary that is comprised of 75 to 150 year old mixed conifer stands. To the north is a ponderosa pine and Douglas fir stand 75 to 120 years old on a south facing slope. To the east and south of this unit is a 75 to 120 year old mixed conifer stand.

Unit 3 has a 60 to 80 year old mixed conifer stand to the south with western red cedar being the predominant species. To the west is a 75 to 120 year old ponderosa pine and Douglas fir stand. To the north and east is Unit 4 which is mixed conifer stand 75 to 120 years old.

Unit 4 has Unit 3 to the south and west which is similar to the above mentioned Unit 4 and is separated by an un-named Type Np stream and Klimes Meadow County Road. To the north and east of Unit 4 is a mixed conifer stand 75 to 120 years old.

Unit 5 has Type F Cedar Creek running along the east side, which is comprised of a 75 to 185 year old mixed conifer stand. Surrounding the remaining sides is 75-120 year mixed conifer stands.

2) Retention tree plan:

All units will have 6 to 21 trees greater than 10 inches DBH per acre and 100 trees less than 10 inches DBH remaining after harvest.

Leave trees and/or retention trees were selected in accordance with Department Legacy Tree Procedures and Forest Practice requirements. Leave tree preferences were based upon species, health, size, value to wildlife, location, and dominance. See prescription details in A.11.b.

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

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

None.

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

Canadian thistle, bull thistle, common mullein

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: turkey, grouse
 mammals: deer, bear, elk, beaver, other: coyote, moose, cougar, wolf
 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).

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search		Gray Wolf see below		

- c. Is the site part of a migration route? If so, explain.
xPacific flyway Other migration route: Explain if any boxes checked:

All of eastern Washington is considered in the Pacific Flyway. No impacts are anticipated as a result of this proposal.

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

No known den or rendezvous sites for wolves are known to be near the project area.

Retention trees (which include legacy trees), wildlife reserve trees, green recruitment trees, and snags will be left scattered and clumped randomly throughout the harvest units. These, in addition to down logs and woody debris, will be left to provide habitat for various species. A portion of the disturbed areas (skid trails (where needed), landings, and some roads) will be grass seeded following the completion of harvest activities. This is expected to minimize the chance for erosion and noxious weed invasion. In addition, the proposed harvest will create a mosaic pattern due to unit design, which may create edge effect and benefit some wildlife species.

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

None known

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.

None needed.

- 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:

None.

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 some hazards that may occur as a result of operating or working around heavy machinery. Minor fuel spills and other petroleum product leaks or spills are possible. There is risk of forest fire, which may be increased due to accumulations of logging slash and prior to green up. The proposal may reduce the risk of a catastrophic crown fire with the increased spacing between trees following timber harvest. There should not be exposure to toxic chemicals.

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

There has been mining in the area in the past, but no contamination is known.

- 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.

There will be fuel and lubricants used in machines and vehicles during the proposal.

- 4) Describe special emergency services that might be required.

The Washington State Department of Ecology will be notified if any significant oil or fuel spills occur and appropriate cleanup actions will be taken. The Department of Natural Resources and local fire districts would suppress any wildfires that occur. Emergency medical personnel or air ambulance services would be contacted as a result of injuries that occurred from a severe logging accident.

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

Compliance with existing state laws should reduce the risk of damage to the environment and minimize health hazards and the potential for personal injuries. Firefighting equipment may be required to be on site during fire season.

b. Noise

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

No noise will affect this 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.

During road re-construction, maintenance and harvest activities there will be some noise associated with heavy equipment, chainsaws, and logging trucks.

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

None are expected to be necessary for this proposal.

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 DNR-managed land and several adjacent lands are currently used for timber production. There are some residences nearby. This area is used for recreation such as hiking and hunting.

- 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 site is working forest lands. No conversion of forest lands will occur.

- 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.

- c. Describe any structures on the site.

None on site.

- d. Will any structures be demolished? If so, what?
No.
- e. What is the current zoning classification of the site?
Forest land; one dwelling unit per 20 acres.
- f. What is the current comprehensive plan designation of the site?
Forest land.
- 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.
None known.
- 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:
None.
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
Proposed activities are consistent with Stevens County Comprehensive Plan policies.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
No housing will be provided.
- 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?
Does not apply, no structures are proposed.
- 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:

- 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:

It can be seen from the Klines Meadow County Road and Red Marble County Road.

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

The stand will be more open and some skid trails may be visible for a short period of time until re-establishment of vegetation occurs.

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

No specific measures were used to reduce or control aesthetic impacts.

11. Light and glare

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

Possible glare from logging equipment during daylight hours.

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

Finished project will not produce glare.

- 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:

None.

12. Recreation

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

Hiking, snowmobiling, biking, hunting, and horse riding. Most of this proposal is not drivable with a vehicle at this time.

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

No.

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

None.

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.

An old mining structure was found north of Unit 4 on BLM property.

- 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.

There are old mine test shafts located throughout the area.

- 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.

A special concerns report was run using available data bases. Listed within the report are known archaeological/historical sites, right of way, water rights, species or habitats of concern and rain-on-snow designations. TRAX from Washington State Department of Natural Resources. Ground verification and inspection.

- 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.

Structures are located outside of the harvest units on adjacent property.

If an unknown historic or cultural resource is discovered during the operation, the following process will occur:

- 1) Cease operations affecting the discovered site.
- 2) Physically identify the site on the ground so it can be located and impacts mitigated (a buffer if necessary).
- 3) Contact region state lands assistant and district manager, and work in collaboration on timing, confidentiality, and notification of tribes and other affected parties.

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.

Klines Meadow County Road.

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

While timber harvest activities are active there is the potential for an increase in noise and dust in the general vicinity of the timber sale. Roads used for harvest activities and access to the sale area will be maintained during the course of active operations. Warning signs will be posted on roads to inform the public of the harvest and hauling operation. Some dust may be created while hauling out Klines Meadow County Road.

- 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 public transit system is in the immediate area. The nearest public system would be 12 miles away in Chewelah, Washington.

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

Does not apply.

- 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).

See A.11.c, all road reconstruction will occur on DNR-managed lands and private timber lands.

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

This proposal is not expected to have any significant impacts on the current transportation system. Any impact will be temporary and limited to the period of time during which operations are being conducted. Access to existing roads in the sale area may be restricted for safety during operations. The general public is somewhat restricted to access this DNR-managed land by private landowners who have private gates on their private land.

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

No, none of these modes of transportation are available in the vicinity of the proposal.

- 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 completed project will not generate any additional vehicle traffic. While timber harvest is occurring, work may generate 5 to 15 truckloads of logs daily.

- 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.

This proposal may be using the Klines Meadow County road for hauling at the same time as other timber owners.

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

Roads will have signs posted to inform travelers of harvest and hauling operations occurring in the vicinity. Roads will be maintained while timber harvest activity is occurring and after harvest has been completed. Log hauling will not be allowed during spring break-up or during extreme wet conditions as determined by the contract administrator.

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.

None are anticipated.

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

None are anticipated.

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: Robert Hechinger

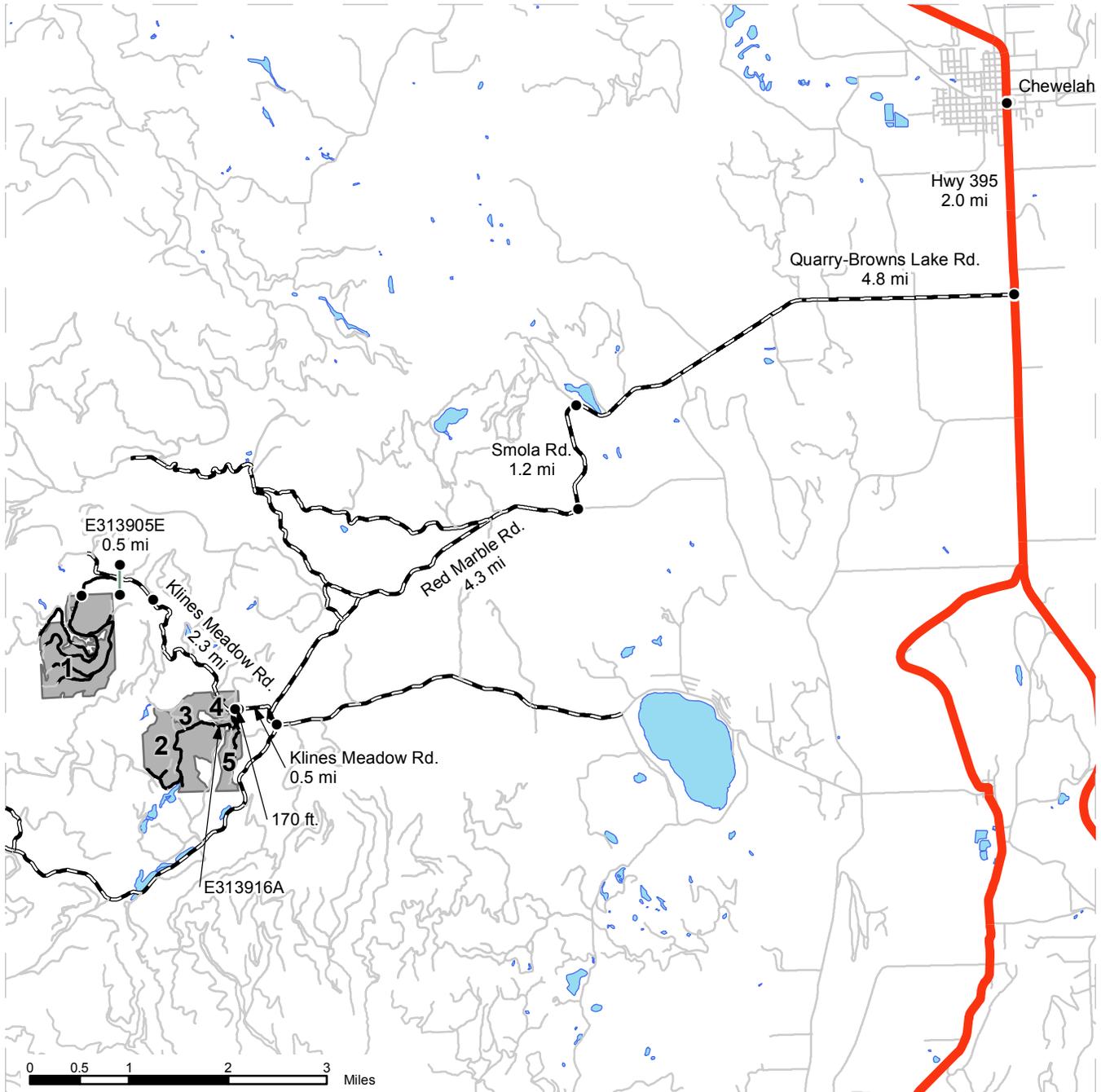
Position and Agency/Organization: NE Region Proprietary Forester, WADNR

Date Submitted: 10/28/16

DRIVING MAP

SALE NAME: KLINES MEADOW FIT
AGREEMENT#: Not Defined.
TOWNSHIP(S): T31R39E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): STEVENS
ELEVATION RGE: 2626-4559



	Timber Sale Unit
	Haul Route
	Other Route
	County Road
	Highways
	Gate
	Distance Indicator

DRIVING DIRECTIONS:

From the intersection Hwy 395 and Main Street in Chewelah, WA travel 2.0 miles south on Hwy 395 and take a right onto Quarry-Browns Lake Rd. Travel 4.8 miles and take a left onto Smola Rd and travel 1.2 miles. Take a right onto Red Marble Road and travel 4.3 miles and take a right on Klines Meadow Road. Travel 0.5 miles to enter Unit 4 and travel an additional 170 feet and take a left onto the E313916A road to access Units 2, 3, and 5.

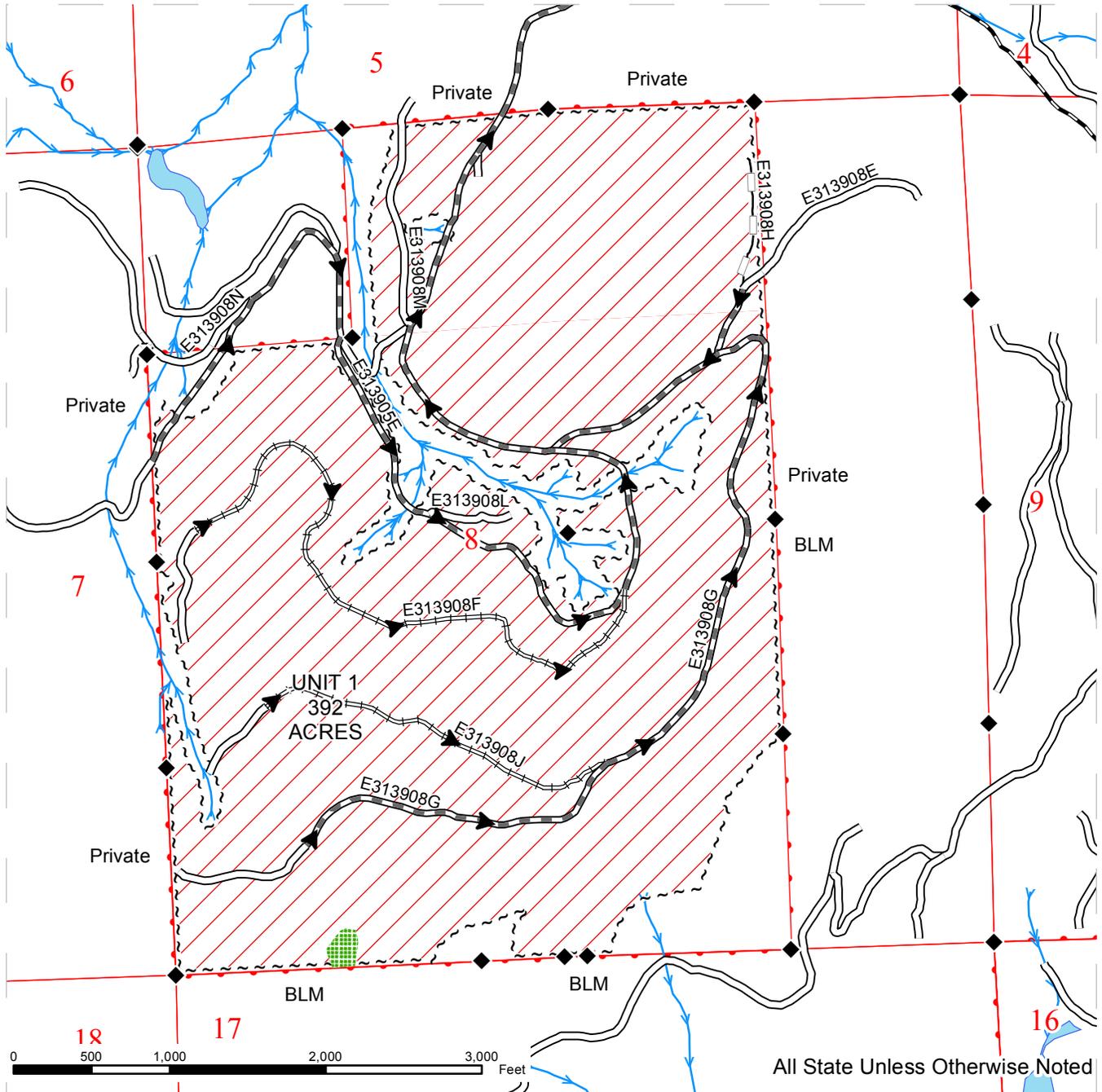
At the intersection of road E313916A and Klines Meadow Road travel an additional 2.3 miles and take a left onto road E313905E. Travel through the gate and go 0.5 miles to enter Unit 1.



TIMBER SALE MAP

SALE NAME: KLINES MEADOW FIT
 AGREEMENT#: .
 TOWNSHIP(S): T31R39E
 TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
 COUNTY(S): STEVENS
 ELEVATION RGE: 2626-4559



~ ~ ~ Sale Boundary Tags	— County Road	→ Streams
▨ Ground Skidding	— Existing Road	◆ Monumented Corners
▩ Leave Tree Area	— Optional Reconstruction	
	— Required PreHaul Maintenance	
	— Required Reconstruction	
	▶ Haul Route	

TIMBER SALE MAP

SALE NAME: KLINES MEADOW FIT
 AGREEMENT#: .
 TOWNSHIP(S): T31R39E
 TRUST(S): Common School and Indemnity(3)

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