

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> under "SEPA Center." 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:

Loup Fire Salvage Sorts

Agreement # 93273

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

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

**Robert Hechinger
225 South Silke Road
Colville, WA. 99114
509-684-7474**

4. Date checklist prepared: **11/3/2015**

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

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

- a. *Auction Date:* **1/15/2016**
- b. *Planned contract end date (but may be extended):* **10/31/2016**
- 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.

Timber Sale:

a. *Site preparation:*

TSU 1	PILE & BURN	12/01/2016	3 Acres
TSU 1	GROUND HERB	04/01/2017	431 Acres
TSU 2	PILE & BURN	12/01/2016	1 Acre
TSU 2	GROUND HERB	04/01/2017	100 Acres
TSU 3	PILE & BURN	12/01/2016	1 Acre
TSU 3	GROUND HERB	04/01/2017	44 Acres
TSU 4	PILE & BURN	12/01/2016	1 Acre
TSU 4	GROUND HERB	04/01/2017	15 Acres
TSU 5	PILE & BURN	12/01/2016	2 Acres
TSU 5	GROUND HERB	04/01/2017	112 Acres
TSU 6	PILE & BURN	12/01/2016	2 Acres
TSU 6	GROUND HERB	04/01/2017	195 Acres

Hand applied herbicides may be utilized in conjunction with reforestation.

b. *Regeneration Method:*

TSU 1	HAND PLANT	04/01/2017	431 Acres
TSU 2	HAND PLANT	04/01/2017	100 Acres
TSU 3	HAND PLANT	04/01/2017	44 Acres
TSU 4	HAND PLANT	04/01/2017	15 Acres
TSU 5	HAND PLANT	04/01/2017	112 Acres
TSU 6	HAND PLANT	04/01/2017	195 Acres

c. *Vegetation Management:*

TSU 1	SEED GRASS	11/01/2016	25 Acres
TSU 2	SEED GRASS	11/01/2016	5 Acres
TSU 3	SEED GRASS	11/01/2016	4 Acres
TSU 4	SEED GRASS	11/01/2016	1 Acre
TSU 5	SEED GRASS	11/01/2016	5 Acres
TSU 6	SEED GRASS	11/01/2016	8 Acres

d. *Thinning:*

None is planned.

Roads:

Road maintenance needs will be assessed during periods of active timber hauling and annually thereafter. Road maintenance will include, but will not be limited to, periodic ditch and culvert cleanout and road grading to ensure that roads will readily shed water from the running surface (also refer to A.11.c.). In addition, all roads located on lands managed by the DNR in the Loup Loup block, as well as the current proposal area, are covered by the Loup Loup Road Maintenance and Abandonment Plan (RMAP) No. 2302178 and the Riverside RMAP No. 2302706. 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.

Rock Pits and/or Sale:

None planned.

Other:

Firewood may be available to cut with a DNR firewood permit after harvest activities have concluded. Slash piles may need burning to meet planting objectives.

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: WA DNR road plan: November 3, 2015
- Wildlife report:
- Geotechnical report:
- Other specialist report(s): WADNR archaeologist report dated 10/15/2015
- 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, and habitat type of Loup Loup, Lower Salmon Creek, and Wanacut WAUs; Department of Natural Resources TRAX; Washington Department of Fish and Wildlife (WDFW) heritage database; DNR Policy for Sustainable Forests; DNR Smoke Management Plan (April 1993); State Soil Survey; WDFW Priority Species Habitat Management Recommendations, Loup Loup RMAP No. 2302178; Riverside RMAP No. 2302706; "Identifying Old Trees and Forests in Eastern Washington" by Robert Van Pelt, September 2008; Okanogan County Fires Interagency Burned Area Emergency Response Team Report, September 2015. Documents listed are available for reviewed at the Northeast Region office.

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.

None known.

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

FPA # 3020590 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 is a fire salvage timber harvest that will include tree removal, 72,282 feet of pre-haul road maintenance, 7,474 feet of road construction, and 584 feet of road re-construction on lands managed by the Department of Natural Resources for the Common School Trust.

Estimated Volume: 3,513 Mbf. Area in acres: 922. Landings: 25 Acres: Approximately 12

Note: The actual number of landings and acreage involved may be lower. Plans are to use natural openings and keep landings as small as operationally possible, approximately one-half acre or less, rather than construction of large landings that might involve the removal of larger trees. However, with today's modern larger equipment, safety at landings often times dictates larger landings.

Note: Hardwoods are scattered within the units and these were not tabulated.

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

The pre-harvest stand consists primarily of ponderosa pine, Douglas-fir, and western larch ranging from 80-100 years old with a general origin date of 1910-1940. It was heavily damaged by the Okanogan Complex fire in the summer of 2015. The burn intensity varied from a mosaic pattern of intermixed green and dead trees to a consistent landscape of severe mortality in all species. This will be a salvage harvest retaining at least six standing trees per acre among the largest available that meet Forest Practices and Departmental requirements. Ponderosa pine, western larch, and Douglas-fir are the preferred leave trees for all units associated with this proposal. The objectives of the harvest will include but will not be limited to: conduct a salvage harvest generating revenue for the Common School Trust, retaining wildlife and green recruitment trees for the purpose of wildlife cover and habitat, increasing the more insect and disease resistant western larch component of the stand, increasing the overall health and vigor of the stands for future production, and the diversification of age classes and species across ownerships to reduce risk of insect and disease caused mortality and future catastrophic fire.

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		7,474	2.4	0
Reconstruction		584		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	2			

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.

a. Legal description: :

T33N R24E S1
T34N R24E S13, 14, 23, 24, 25, 26, 35, 36
T34N R25E S8, 9, 17
T35N R26E S16

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

Units 1, 2, and 3 of this proposal are approximately 12 miles west of Okanogan, Washington, via Highway 20 and West Fork Rock Creek Road. Units 4 and 5 are located approximately 13 miles west of Okanogan, Washington, via Highway 20 and Buzzard Lake Road. Unit 6 is located approximately 15 miles north of Okanogan, Washington via Highway 97, Riverside Cutoff Road, and Evans Lake Road.

c. Identify the names of all watershed administrative units (WAU). See also landscape/WAU map on DNR website: <http://www.dnr.wa.gov/ResearchScience/sepa/Pages/Home.aspx> under the topic "Current SEPA Project Actions – Timber Sales" for a broader landscape perspective.

WAU Name	WAU Acres	Proposal Acres
LOUP LOUP CREEK	41,562	600
LOWER SALMON CREEK	21,301	127
WANACUT	66,703	195

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> under "SEPA Center for a broader landscape perspective.")

Loup Loup Creek WAU:

DNR Activities: DNR-managed land comprises approximately 72.4 % (30,075 acres) of the Loup Loup Creek WAU. The majority of harvest activities on DNR-managed lands within this WAU before 2002 were light, uneven-aged "risk-tree" removals. Recent harvest activities (past ten years) have consisted of 2,179 acres of uneven-aged harvests, 2,301 acres of salvage, and 1,665 acres of even-aged harvests. There have been eleven approved Forest Practice applications for timber harvests on DNR lands within the last ten years in this WAU. These timber harvests consist of No Sweat, Bucky Depue FIT, Camp Sid, Junebug, Ghost, Oden Road Fire Salvage, Beaver Fever FIT, Moss, Ice, Hornet, and Polepick 2 FIT.

The Oden Road Fire in the summer of 2009 burned approximately 6,050 acres within the southern-most portion of this WAU. Of these 6,050 acres, approximately 4,257 acres are on DNR-managed land, of which approximately 2,878 are forested. Although the burn severity and tree mortality due to the fire is highly variable throughout the burn area, the entire 2,878 acres of forested land will be considered not hydrologically mature for the purposes of estimating cumulative impacts within the WAU. In addition, due to the Okanogan Complex fire in the summer of 2015, approximately 4,500 acres of forested land will not be considered hydrologically mature for the purposes of estimating cumulative impacts within the WAU.

The 1,245 acre West Fork Fire Salvage timber sale and 387 acre Zoom timber sale are the only known immediate activities to occur within the next year in this WAU. It is possible that some timber salvage will occur in Loup Loup Canyon near campground areas. These proposals are not anticipated to result in any cumulative change in the environment when combined with the past and current proposal.

Non-DNR Activities: Non-DNR managed lands (private or other, non-federal public lands) comprises approximately 22.1% (9,178 acres). As for other forest practice applications within this WAU, salvage harvesting is currently taking place on private property.

Federal Lands: Federal lands comprise approximately 2,382 (7.8%) acres of this WAU, with 470 acres (1.5%) on BLM and the remaining 1,912 acres (6.3%) belonging to the Okanogan National Forest. USFS management within this WAU appears to be limited. Using local knowledge, orthophotos, and GIS mapping tools, it is estimated that past harvest activities within the WAU include approximately 120 acres of even-aged harvest and 233 acres of uneven-aged harvest. Harvest activity on BLM lands has been minimal to non-existent within this WAU. Future planned activities on federal land within the WAU are unknown.

Lower Salmon Creek WAU:

DNR Activities: DNR manages 5,176 acres (24%) of the 21,302 acre WAU. A summary of forest practice applications submitted in the past seven years indicates 429 acres of even-aged harvest with the Turkey Buzzard, Beaver Fever FIT, and Polepick 2 FIT sales on DNR-managed lands. This proposal encompasses less than 1% of the acreage of the Lower Salmon Creek WAU and is not expected to have any substantial adverse effects to the WAU. No other future activities are anticipated to occur in this WAU within the next year. In addition, due to the Okanogan Complex fire in the summer of 2015, approximately 600 acres of forested land will not be considered hydrologically mature for the purposes of estimating cumulative impacts within the WAU.

Non-DNR Activities: Non-DNR managed land comprises 16,126 (76%) acres of the WAU. There have been 499 acres of harvest on non-DNR lands. 80% of the activity on non-DNR managed lands has been uneven-aged harvest. It is anticipated that some future timber salvage activities will be completed on these lands within the next year.

Wanacut WAU:

DNR Activities: DNR-managed land within the WAU is approximately 4,915 acres (14%). Past activities on DNR-managed land in the last 10 years include the Crawdad timber sale that harvested 739 acres of timber. There are no other future activities planned in the next year within this WAU. In addition, due to the Okanogan Complex fire in the summer of 2015, approximately 1500 acres of forested land will not be considered hydrologically mature for the purposes of estimating cumulative impacts within the WAU.

Non-DNR Activities: Private and other public ownership comprises 12,639 acres (36%) of the WAU. There is

anticipated to be some timber salvage occurring on private property within the next year.

Tribal Lands: Tribal ownership comprises 33,028 acres (50%) of the WAU. A majority of these acres are non-forested lands consisting of grass and sagebrush. There is anticipated to be some timber salvage occurring on tribal ownership within the next year in this WAU, as approximately 6,500 acres of timbered land was burned with the Okanogan Complex fire of 2015.

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).*

The Loup Loup Creek WAU is located on the eastern slopes of the North Cascades, with elevations ranging from 787 to 6,125 feet, with an average elevation of 3,342 feet. Precipitation varies from about five inches in the lower elevations of the WAU, up to 25 inches annually in the highest elevations. The primary tree species is a ponderosa pine and Douglas-fir mix at the lower elevations, transitioning to ponderosa pine, Douglas-fir, and western larch mix at mid-elevations, and a subalpine mix of lodgepole pine, Engelmann spruce, and subalpine fir in a few of the higher elevations of the WAU. A large portion of the southern, lower elevation part of this WAU is non-forested, grassland mixed with small draws of ponderosa pine and some Douglas-fir. The southernmost tip of the WAU consists of agricultural cropland.

The Lower Salmon Creek WAU is located on the eastern slopes of the North Cascades, with elevations ranging from 808 to 4,924 feet. Precipitation varies across the WAU, with an average of ten inches falling in the lower elevations up to 15 inches annually in higher elevations. The primary tree species is ponderosa pine at low elevations where trees exist, transitioning to a ponderosa pine/Douglas-fir mix at mid and upper elevations of the WAU. Western larch, Engelmann spruce, and lodgepole pine are found sporadically, generally on north slopes or moister areas within the WAU. Specific habitat types vary greatly, depending on elevation and aspect. The terrain strongly influences the climate, and a majority of the annual precipitation falls in the form of winter snow.

The Wanacut WAU is located on the eastern slopes of the North Cascades with elevations ranging from 800 feet to nearly 4,200 feet. Precipitation within the WAU averages 12 inches per year. Major timber types include ponderosa pine, Douglas fir, Douglas fir/western larch, Douglas fir/ponderosa pine (lower elevations) and lodgepole pine (higher elevations). The vegetation zones include ponderosa pine and interior Douglas fir.

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

The proposal area is indicative of the general description of the Loup Loup Creek, Lower Salmon Creek, and Wanacut WAUs.

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

The steepest slope is approximately 55%, however equipment will not be operating on these slopes due to a lack of merchantable timber. Effective contract administration will ensure this occurs. There will be some harvest activity occurring on slopes greater than 30%, however a majority of the sale is on 30% slopes or less.

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
2492	SANDY LOAM	5-25	186	INSIGNIFIC'T	MEDIUM
9416	XEROCHREPTS-ROCK OUTCROP-COMPLEX	45-70	135	No Data	HIGH
5310	F.SANDY.LOAM	0-25	103	INSIGNIFIC'T	MEDIUM
9046	STONY LOAMY SAND	25-50	83	MEDIUM	MEDIUM
1699	DONAVAN-ROCK OUTCROP-	45-70	62	No Data	HIGH

	COMPLEX				
5309	BOULDERY F.SANDY.LOAM	30-50	36	LOW	HIGH
0677	LOAM	0-25	31	INSIGNIFIC'T	MEDIUM
9409	STONY LOAM	45-70	21	MEDIUM	HIGH
1651	SANDY LOAM	0-25	20	INSIGNIFIC'T	MEDIUM
9415	XEROCHREPTS-ROCK OUTCROP-COMPLEX	45-70	14	No Data	HIGH
8140	F.SANDY.LOAM	0-8	10	NO DATA	LOW
8219	GRAVELLY SANDY LOAM	20-45	9	LOW	MEDIUM
4780	SILT LOAM	0-25	9	INSIGNIFIC'T	MEDIUM
3986	LOAM	8-25	7	INSIGNIFIC'T	MEDIUM
4730	STONY SANDY LOAM	25-45	1	LOW	MEDIUM
9417	XEROCHREPTS-ROCK OUTCROP-COMPLEX	15-45	0	No Data	No Data
6812	ROCK OUTCROP- XEROCHREPTS-COMPLEX	45-70	0	No Data	No Data
1697	DONAVAN-ROCK OUTCROP- COMPLEX	15-45	0	No Data	No Data

Note: The information in the table above is extrapolated from a GIS database. The above acreage is less than the sale acreage proposed, due to the lack of available data. Since soils data is not available for all of the acreage within the proposal, the areas that we do have data for should reasonably represent the soil types found within the rest of the proposal acreage since the harvest units are located in fairly close proximity to one another. The site was examined during sale layout and no erosion or mass wasting issues were observed on those areas without soils data/typing.

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

1) *Surface indications:*

As a result of the Okanogan Complex Fire, many soils were destabilized by heat and vegetation loss. However, currently there are no surface indications of unstable soils that are known to exist within the proposal. Soil types contained within the proposal typically have low to medium erosion potential and insignificant to low mass wasting potential. The areas in the table above that have no data listed for mass wasting, are either located on gentle ground where mass wasting is not an issue, or are a rock outcrop which is normally quite stable. On-site verification by district staff and DNR Forest Practices Geologist, on October 20th, 2015, determined that there were no visual indications of unstable slopes within the proposal area.

No report was written by the Geologist since no issues were identified. On-site review also revealed that no substantial erosion had occurred on these soils. DNR State Lands Geologist completed a review of the proposal and had no concerns as well. See B.1.h., for erosion and mass wasting mitigation measures.

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:

One known event occurred in 1999, and was located in Section 13, Township 34 North, Range 24 East, W.M. This failure occurred in the spring of the year and involved saturated soils sloughing off a rock base. No roads were located anywhere near the vicinity, and no timber harvest activities had occurred in the area where the failure originated.

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:

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.*

In general, the harvest units were located away from steep slopes. The unit boundaries were placed in locations suitable for ground based harvest equipment and to minimize potential adverse effects to the environment. Roads are located (with consultation of engineers) in areas where slope stability is not expected to be an issue. With proper skid trail placement and effective contract administration, slope stability issues should not be a problem. Where necessary, skid trail locations may be required to be pre-marked by the logging contractor and approved by the contract administrator prior to use.

- 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: 2.4 Approx. acreage new landings: 12 Fill Source: N/A

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

There is potential for some erosion to occur as a result of road maintenance and harvest activities associated with this proposal. Operational techniques have been identified where appropriate to reduce the risk of erosion, see B.1.h.

- 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 of the site will be covered with impervious surfaces at project completion. It is estimated that 2% of the acreage of the proposal is in permanent road running surface, consisting primarily of native material, with very little rock surfacing or rock in the road sub-grade.

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

(Include protection measures for minimizing compaction or rutting.)

- o Cross drain structures will conduct water out onto undisturbed vegetation on the forest floor.
- o On slopes greater than 25%, main skid trails will be water barred and/or have slash scattered on them as required by the contract administrator.
- o Drainage structures are designed to handle 100-year flood events.
- o Periodic routine maintenance of roads during harvesting activities will be conducted.
- o Grass seeding of major skid trails, landings, and heavily disturbed areas will take place at the completion of timber harvest.
- o Spur roads opened for harvest activities will be closed to vehicle traffic after the completion of harvesting activities.
- o End-hauling material from road maintenance activities.

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.

The proposed timber harvest will involve vehicle emissions from logging, yarding, and hauling equipment; dust from road maintenance and timber harvest activities and dust from log hauling activities. These emissions are not expected to result in a significant adverse impact to air quality.

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

No off-site sources of odors, or emissions, are known to exist.

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

Dust abatement will be performed when needed by contractor, as directed by the contract administrator. If slash burning occurs, it will adhere to the states smoke management program and other applicable rules and regulations.

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.)*

There are four Type A wetlands and two Type B wetlands in the immediate vicinity of the proposal, labeled 1, 2, 3, 4, 5 and 6 on the forest practice maps submitted. Loup Loup Creek is a fish bearing stream and is located within a quarter mile of the proposal. West Fork Rock Creek is a Type Np stream located in the sale vicinity. There is also an un-named Type Np stream located between Units 2 and 3. There is one Type Ns stream located in Unit 1 and one Type Ns stream located in Unit 2.

- a. *Downstream water bodies:*

West Fork Rock Creek and Loup Loup Creek are adjacent to the proposal area and would also be considered downstream. During peak flow runoff times, Loup Loup Creek flows into the Okanogan River, but generally only for a short period of time. Much of the water in Loup Loup

Creek is diverted for irrigation uses and into Leader Lake prior to reaching the Okanogan River. Loup Loup Creek flows south through the Loup Loup Creek watershed into the Okanogan River at the southern-most point of the WAU.

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)
Wetland	A	4	100
Wetland	B <0.5 acres	2	25
Stream	Np	2 outside of units	50
Stream	Ns	2	30 foot ELZ

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

Drainage will be maintained on roads during the course of harvest activities and will be monitored annually after completion of harvest. With these controls, storm water and waters from snowmelt should be diverted onto the forest floor. Other protection measures include operational timing, directional skidding and felling, and grass seeding in the area of streams. There will be no impacts to the 303(d) water body, as it is located eight miles southeast from the nearest harvest unit. There is also no shade being reduced within this 303(d) water body. Also see B.1.h. above.

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):

There will be two 30 inch diameter culverts, one 24 inch diameter culvert, and one 18 inch diameter culvert installed during road work.

All skid trails within 200 feet of the above listed streams and wetlands will have slash placed on them and will be water barred as required by the contract administrator at the completion of harvest.

Hauling will also take place within 200 feet of some of the above-listed streams. See B.3.c above for road and RMZ protection measures.

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.

No fill or dredging will take place within surface waters or wetlands as part of this proposal.

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, all soils are subject to surface erosion to varying degrees based on soil type and site conditions. However, 63% of the soils contained within the proposal that has data available indicate medium to low erosion potential, and 54% insignificant to low potential for mass wasting (see B.1.c.). As mentioned in B.1.c above, those areas without soils data were examined during sale layout.

It is recognized that the potential for erosion is increased in a post-fire environment. Protection measures discussed in B.1.h. and recommendations found in the BAER report are expected to reduce surface erosion potential. Natural revegetation of grasses will also assist in reducing erosion potential. Aerial grass seeding could possibly occur within the general proposal area if funding allows.

- 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:

No evidence of changes to the stream channels in the WAUs and sub-basin drainages as a result of surface erosion or mass wasting have been observed as a result of land management activities. Changes do occur periodically to the stream channels, mainly as a result of high water flows in the form of spring runoff (from snowmelt). On rare occasions, a cloudburst associated with a thunderstorm occurs. The result of this can be the accumulation of a substantial amount of precipitation over a small geographic area in a short period of time. As a result of this type of storm, localized erosion and scouring may occur within a segment of the channel. These occasions are an act of nature and infrequent in occurrence.

It is recognized that the potential for erosion is increased in a post-fire environment. Protection measures discussed in B.1.h. and recommendations found in the BAER report are expected to reduce surface erosion potential. Natural revegetation of grasses will also assist in reducing erosion potential. Aerial grass seeding could possibly occur within the general proposal area if funding allows. There has been very little rain since the Okanogan Complex Fire of August 2015 and as of this date there has been no evidence of changes to the channels in the WAUs and sub-basin(s) due to erosion or mass wasting.

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

No Yes, explain:

No impacts to water quality are anticipated with this proposal. Activities will be monitored while the project is active and corrective measures taken before water quality is impacted. Additional protective measures associated with this proposal are expected to limit or minimize many of the potential impacts.

- 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:

Loup Loup Creek WAU: 2.1 road miles per square mile.

Lower Salmon Creek WAU: 1.8 road miles per square mile.

Wanacut WAU: 2.9 road miles per square mile.

- 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:

Loup Loup Creek WAU: 75% of the WAU is located in the peak rain-on-snow zone.

Lower Salmon Creek WAU: 51% of the WAU is located in the peak rain-on-snow zone.

Wanacut WAU: 30% of the WAU is located in the peak rain-on-snow zone.

- 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?*

Hydrological maturity within the significant rain-on-snow zone of these WAUs were determined by using data provided by Washington DNR Forest Management Planning and Tracking reports, district timber sale contracts on file, ArcGIS analysis, and State Uplands Viewing Tool analysis. Curtis RD was not considered as a component. Using this data, the following information in each WAU represents the approximate percentage within the significant ROS zones that are hydrologically mature.

71% of the Loup Loup Creek WAU

75% of the Lower Salmon Creek WAU

60% of the Wanacut WAU

Hydrologic maturity will not be affected by this proposal based on the fact that only dead and dying trees are being harvested.

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):

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, site visits, and GIS data this proposal was determined to be below the threshold for impacts to peak flow in each of the three WAUs. At completion of the proposal, it is expected to remain below the threshold.

Currently scheduled and planned activities on DNR-managed lands have been developed giving consideration to their potential impact to water quality and peak flows. Care has been taken to minimize the potential for any adverse impacts. No increase of peak flow in any of the WAUs is anticipated as a result of this proposal. Protection measures for this proposal are identified in B.1.h.

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:

The proposal is not expected to affect changes in surface water amounts, quality or movements nor contribute to peak flow events based on the protection measures identified in B.1.h and harvest design.

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.

This sale was designed with environmental protection in mind. Most of the sale acreage is located in areas of relatively moderate slope. Proper road construction, maintenance, and cross drains will ensure that any water which may accumulate on road surfaces will be diverted and dispersed onto the undisturbed forest floor.

As mentioned above, only dead and dying trees will be harvested. Felled trees not utilized will be left on site where possible to minimize sheet erosion. Harvest activities will break up the ash cap and allow the soil to better absorb rainfall, while minimizing sheet erosion.

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 ground water will be withdrawn, nor will anything be discharged into ground waters.

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 materials will be discharged from septic tanks or other sources, such as those listed above.

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:

No adverse impacts to groundwater are anticipated as a result of activities associated with this proposal. See B.3.a.1.

a. Note protection measures, if any.

See B.1.h for protection measures.

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. The distance that the harvest units

are located away from streams should minimize the potential for runoff to directly enter stream channels.

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

No Yes, describe:

The chance of waste materials entering ground or surface waters is expected to be negligible.

a. Note protection measures, if any.

No protection measures needed in addition to those listed in B.1.h. and B.3.a.1.c.

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

No.

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.)

- Drainage structures have been designed to move water away from creeks and onto the forest floor.
- Skid trails on slopes over 25% will be water barred, have slash scattered on them, and will be grass seeded, as required by the contract administrator.
- Landings and heavily disturbed areas will be grass seeded.
- Spur roads opened for harvest will be closed upon completion of operations.
- Felled trees not utilized will be left on site to minimize sheet erosion.
- Replanting approximately 220 conifers per acre.
- See also B.1.h. above for further protection measures

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: snowberry, serviceberry

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.)

Vegetation within landings and road reconstruction right-of-way limits may be removed or altered. Grass seeding will occur on landings, main skid trails, road right-of-ways, and other heavily disturbed areas as needed. Some alteration of grass and shrubs will occur within the timber sale units as a result of ground disturbance associated with harvest activities. Control of noxious weeds along rights-of-way may occur as needed using herbicides.

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/ResearchScience/sepa/Pages/Home.aspx> (Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales."))

Most of the timber adjacent to the harvest units consists of mixed conifer stands composed of ponderosa pine, Douglas-fir, western larch, and small pockets of lodgepole pine ranging from one to 300 years old. Most of these stands were impacted to varying degrees by the Okanogan Complex Fire in 2015.

2) Retention tree plan:

Retention trees will be randomly scattered throughout the units in the proposal area due to the varying severity of the fire. Douglas-fir greater than 10 inches in DBH with 50% or more live crown and ponderosa pine 10 inches in DBH with 30% or more live crown will be retained.

Forest practice rules will be followed. At least six trees per acre that meet Forest Practices and Departmental requirements will be left standing in every unit. It is possible more than six trees per acre in each unit will be retained based on burn severity and tree merchantability. There will be one leave tree area in the proposal in Unit 1.

- 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:

Leave trees within the sale area will be protected to the greatest extent possible during the course of timber harvesting. In addition, heavily disturbed areas such as landings, main skid trails, and roads with exposed/disturbed soils will be grass seeded to minimize erosion and re-establish vegetation following the completion of timber harvest.

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

Diffuse knapweed.

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: moose, cougar, bobcat, coyote, red squirrel

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
1	86261	Golden Eagle	No Data	Candidate
1	86266	Gray wolf	Endangered	Endangered
1	90348	Gray wolf	Endangered	Endangered
1	93691	Gray wolf	Endangered	Endangered
1	93692	Gray wolf	Endangered	Endangered

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

Pacific flyway Other migration route: Explain if any boxes checked:

All of Washington is located within the Pacific flyway. However, migrating species tend to use the valleys and river bottoms. No impacts to migratory birds are anticipated as a result of the proposed activities.

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

Some spur roads opened for harvest activities will be closed to vehicle traffic after the completion of harvesting activities. A portion of the disturbed areas (skid trails, landings, and some roads) will be grass seeded following the completion of harvesting 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 and burn intensity, which may create edge effect and benefit some wildlife.

Winter range for both mule deer and white-tailed deer was severely impacted by the fire and it will be critically important to protect areas where bitterbrush is present from further degradation. Special care will be taken to avoid felling or yarding of trees through unburned areas that contain bitterbrush and sagebrush plant communities. Unburned areas will be of critical importance to deer in the next few years until the plant community begins to recover from the fire.

A site visit by the WADNR NE Region biologist on 10/15/2015 raised no wildlife concerns associated with this proposal.

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

Species /Habitat: Gray Wolf

Protection Measures: There are no known gray wolf den or rendezvous sites in the proposal area. If any are discovered, no harvesting, road construction, or site preparation will occur within one mile of

an occupied gray wolf den site from March 15 to July 30 or within ¼ mile of a confirmed gray wolf den site at other times of the year.

2) Species /Habitat: Golden Eagle

Protection Measures: There was one golden eagle nest located 815 feet west of Unit 1, but it was consumed by the fire. This nest is why question B.5.a. was checked. No protection is necessary for this location.

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

None

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.

This sale will not require energy needs for completion.

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

Removal of trees will not adversely affect the potential for solar energy use.

- 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:

No energy conservation features are included in the plans of this proposal.

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 associated with operating or working around heavy machinery is possible. Minor spillage of fuel or other lubricants is also a possibility. The risk of a forest fire is ever present, and may be increased for a year due to logging slash and prior to green-up. There should not be a risk of exposure to toxic chemicals.

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

None identified.

- 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 identified.

- 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.

Minor spillage of fuel or other lubricants is a possibility.

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

The Washington State DOE will be notified if any significant spills occur and appropriate actions will be taken. The DNR will be notified in the event of a forest fire. Emergency medical or air ambulance services may be required for personal injuries.

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

Compliance with existing laws should minimize the environmental risks associated with this proposal. Spill kits are required on site during logging operations. In addition, fire equipment in the form of a water tank and pump supply may be required 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)?

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.

During harvesting, road construction, and road maintenance activities, there will be noise associated with heavy equipment operation, chainsaws, and log truck hauling. This will occur primarily during daylight hours.

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

Noise levels are not expected to result in a significant impact. Therefore, no mitigating measures are planned.

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 site is currently being utilized, or used for timber production, cattle grazing, and various forms of recreation. The proposal will not affect current land uses on nearby or adjacent properties.

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

The project site has been used and managed as working forest lands by the Washington State Department of Natural Resources. None will be converted to other uses.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The proposal will not affect any of these above listed operations.

- c. Describe any structures on the site.

There are no structures on site.

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

No.

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

The zoning classification is minimum requirement district.

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

This site is unclassified.

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

Does not apply.

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

No part of this site has been classified.

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

No people will reside or work in the completed project.

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

No people will be displaced.

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

No measures are needed to reduce impacts.

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

This proposal is compatible with existing and anticipated future land uses. Some of these include; timber production, grazing, dispersed recreational activities, and use as wildlife habitat.

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

This proposal is compatible with existing and anticipated future agricultural and forest land uses. Some of these include; timber production, grazing, dispersed recreational activities, and use as wildlife habitat.

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 with the proposal.

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

No units will be eliminated with the proposal.

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

There will be no impacts, so no mitigation measures are planned.

10. Aesthetics

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

No structures are proposed to be built.

- 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:

The south end of the proposal area will be visible from U.S. Highway 20.

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

There will be no major effects from this proposal that affect the views of others.

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

Best management practices will be used during harvesting and road maintenance activities. Care will be taken to protect residual trees during timber harvest and heavily disturbed areas will be seeded at some point following completion of harvest.

11. Light and glare

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

None, except what normally comes from logging equipment and trucks during harvest operations (lights from equipment before and after daylight and glare from daylight activities). What light and glare occurs will only be temporary.

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

No light or glare will be generated by the completed project.

- 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?

Hunting, snowmobiling, fishing, informal camping, horseback riding, mountain biking, motorcycling, woodcutting, and other forms of dispersed recreation occur in the area.

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

Some recreational uses may be temporarily displaced while timber harvest is occurring.

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

Signs may be posted in the vicinity to warn individuals that timber harvest and log hauling activities are occurring. No specific recreational opportunities will be provided by the proposal. Hunting opportunities may increase in the area following the completion of harvest due to the new vegetation growth that will result from site disturbance.

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.

There are two mining prospect sites (45-OK-2078 and 45-OK-2079) located within Unit 5 of this proposal. A WADNR archaeologist determined that both sites were not old enough to meet eligibility requirement for historic registers. They also do not qualify as significant historic archaeological resources of the State of Washington. There is no conflict between the two sites and the proposal with no buffering required. However, the contract administrator will require harvest activities to be avoided immediately around the two sites.

- 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 of these were observed or are known to exist on this site. A special concerns report was done for the proposal area and surroundings and none were found in the database.

- 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.

GIS data, Planning and Tracking special concerns, and TRAX reports were used to identify potential impacts. DAHP reviewed and assessed the two mining prospect sites.

- 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.

- a. Cease operations affecting the discovered site.
- b. Physically identify the site on the ground so it can be located and impacts mitigated (a buffer if necessary).
- c. 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.

Units 1, 2, and 3 will utilize Highway 20 and West Fork Rock Creek Road.

Units 4 and 5 will utilize Highway 20 and Buzzard Lake Road.

Unit 6 will utilize Highway 97, Riverside Cutoff Road, and Evans Lake Road.

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

None of the above traffic related problems are known to exist in the vicinity of the proposal.

- 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?

The site is not served by public transit. The nearest site is approximately 12 miles west and north of the proposal.

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

No parking spaces will be constructed or 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).

Yes, see A.11.c. All road construction and pre-haul maintenance will occur on state, county, and private lands. The road plan map shows the locations and approximate lengths of proposed road maintenance, construction, and reconstruction work.

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

During timber harvesting and log hauling activities there will be a temporary increase in vehicle traffic in the immediate vicinity of the timber sale and along the haul route from the timber sale.

- 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?

During active log hauling, it is estimated that five to fifteen truckloads of logs will be hauled from the sale area each day.

- 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.

The proposal will not negatively interfere with, affect, or be affected by, the movement of agricultural and forest products on roads or streets in the area.

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

“Caution Log Truck” signs may be posted on highways, mainline roads, and intersections near the proposal area to inform travelers of harvest operations and log truck traffic occurring in the vicinity. Roads will be maintained while timber harvest activity is occurring and after harvest has been completed. Some logging spurs may be closed after timber harvest. Log hauling will not be allowed during spring break-up or during extremely 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.

No increased need for public services.

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

No measures are planned because no impacts are anticipated.

16. Utilities

- a. Check utilities currently available at the site:

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

None of the listed utilities are available at these sites.

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

No utilities are proposed with the project.

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.

Completed by: Jake Townsend, South Okanogan District Unit Forester, Date: 11/05/15

Reviewed by: Kevan Roberts, South Okanogan District Manager, Date: 11/05/15

Signature: Robert Hechinger

Name of signee: Robert Hechinger

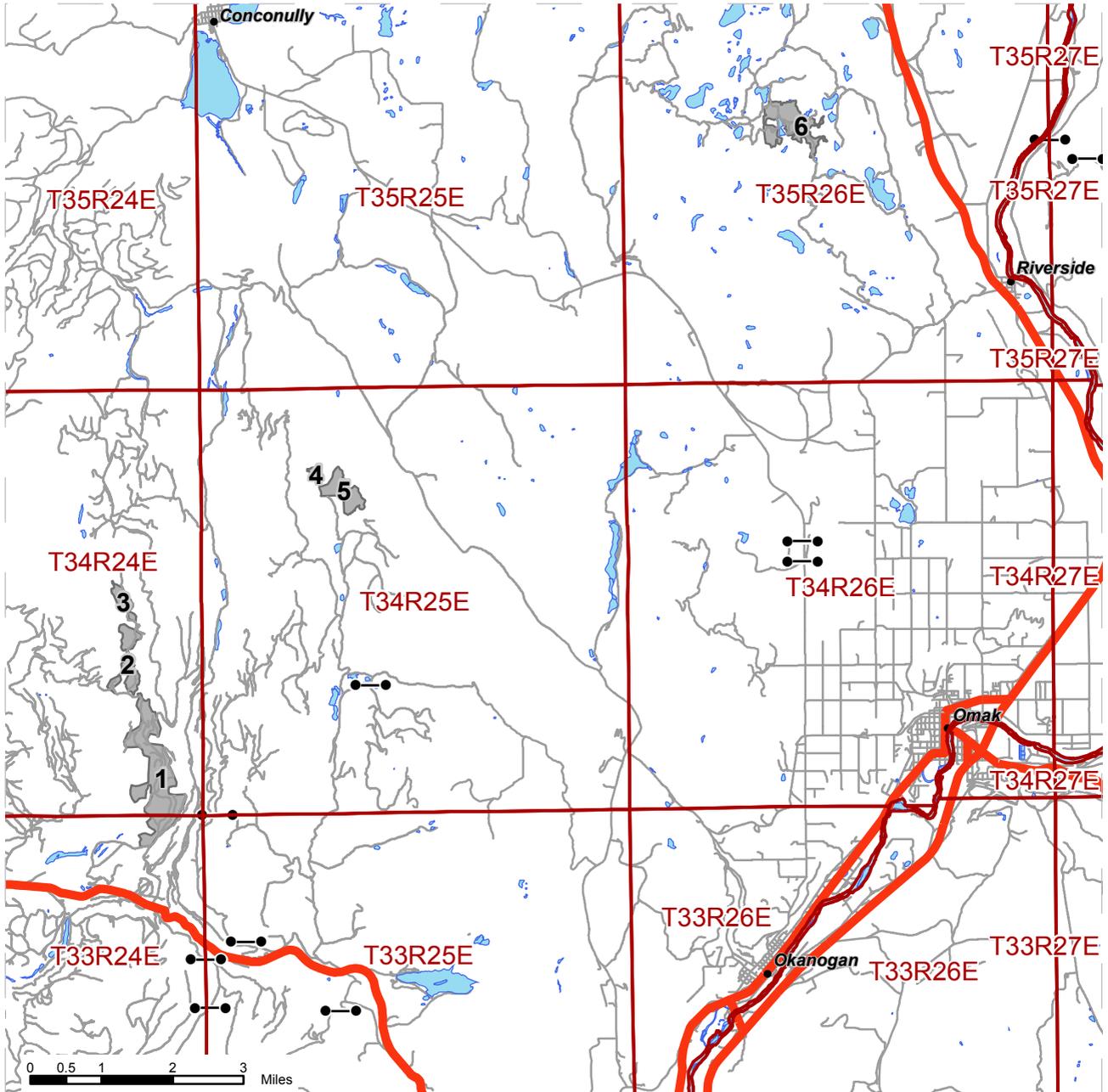
Position and Agency/Organization: Northeast Region Proprietary Forester/Washington State Department of Natural Resources

Date Submitted: 11/24/15

DRIVING MAP

SALE NAME: LOUP F SALV SORTS
AGREEMENT#: Not Defined.
TOWNSHIP(S): T33R24E, T34R24E, T34R25E, T35R26E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2088-4067



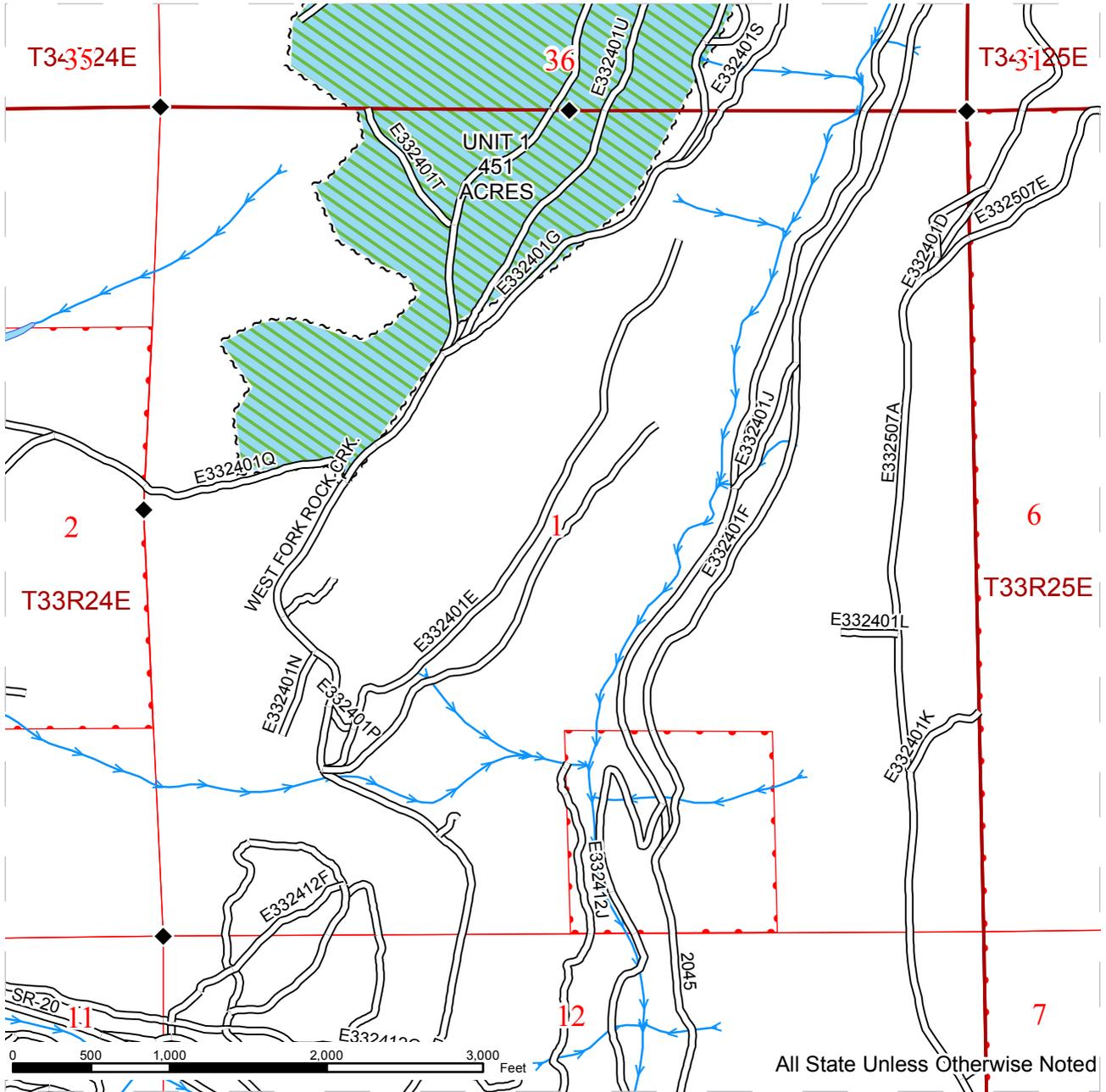
<ul style="list-style-type: none"> Timber Sale Unit Highways Other Route Milepost Markers Gate 	<p><u>DRIVING DIRECTIONS:</u></p> <p>"INSERT TEXT HERE"</p>
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TIMBER SALE MAP

SALE NAME: LOUP F SALV SORTS
AGREEMENT#: Not Defined.
TOWNSHIP(S): T33R24E, T34R24E, T34R25E, T35R26E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2088-4067



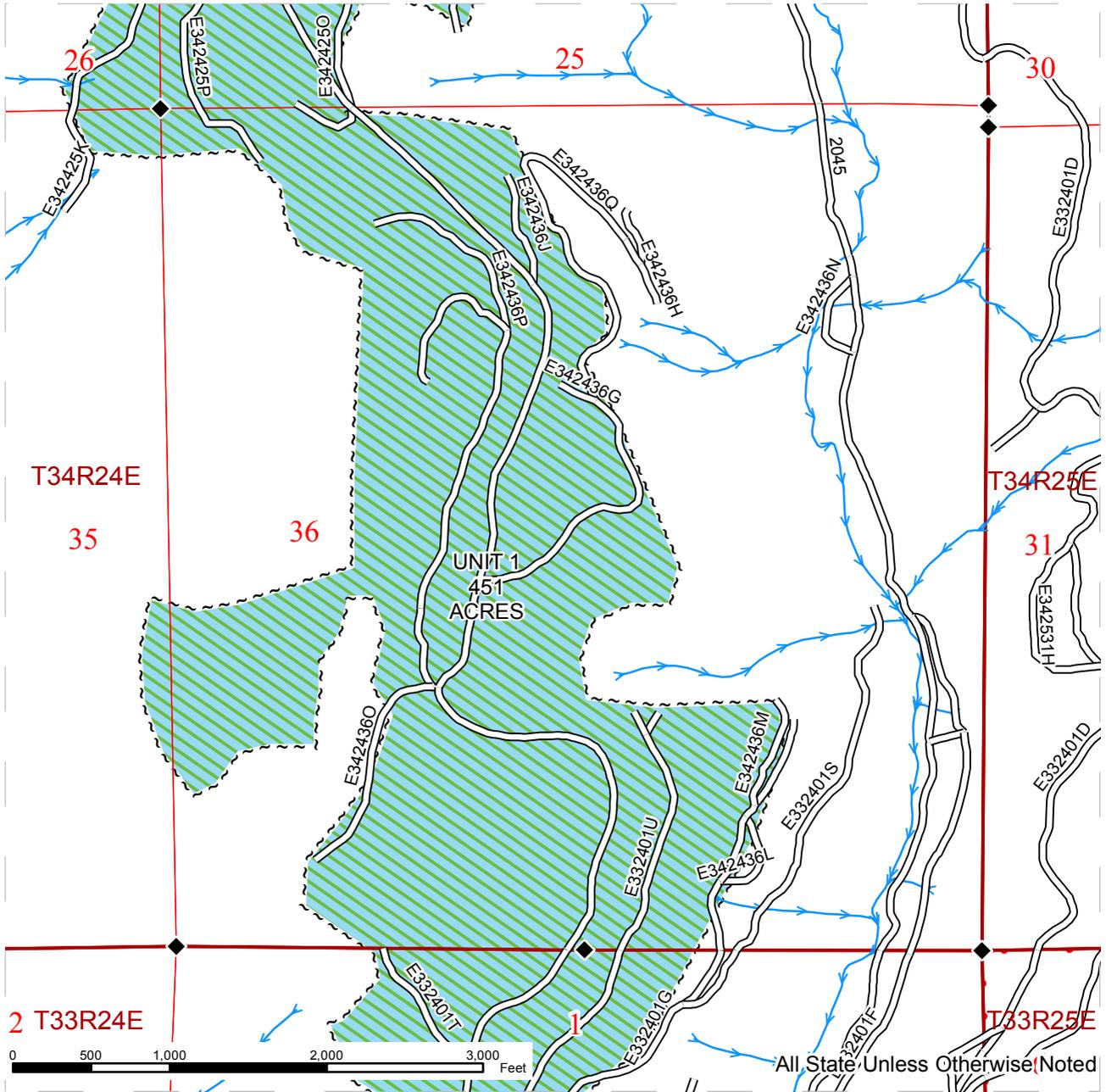
~ ~ ~	Sale Boundary Tags	— — —	Undefined Construction	→	Streams
	Ground Skidding	◆	Monumented Corners		
	General				



TIMBER SALE MAP

SALE NAME: LOUP F SALV SORTS
AGREEMENT#: Not Defined.
TOWNSHIP(S): T33R24E, T34R24E, T34R25E, T35R26E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2088-4067



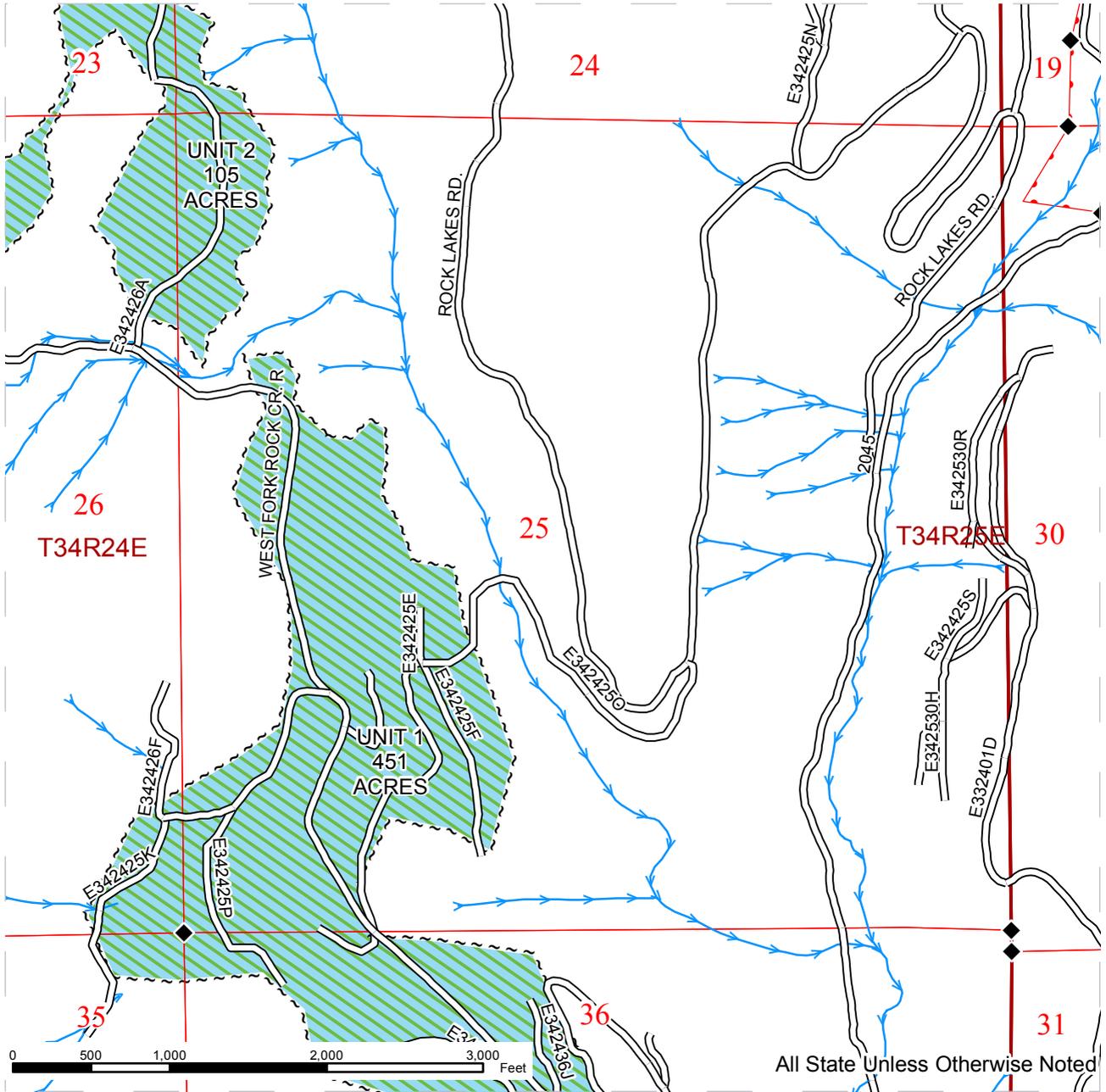
~ ~ ~	Sale Boundary Tags	— — —	Undefined Construction	→	Streams
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	General				



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REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2088-4067

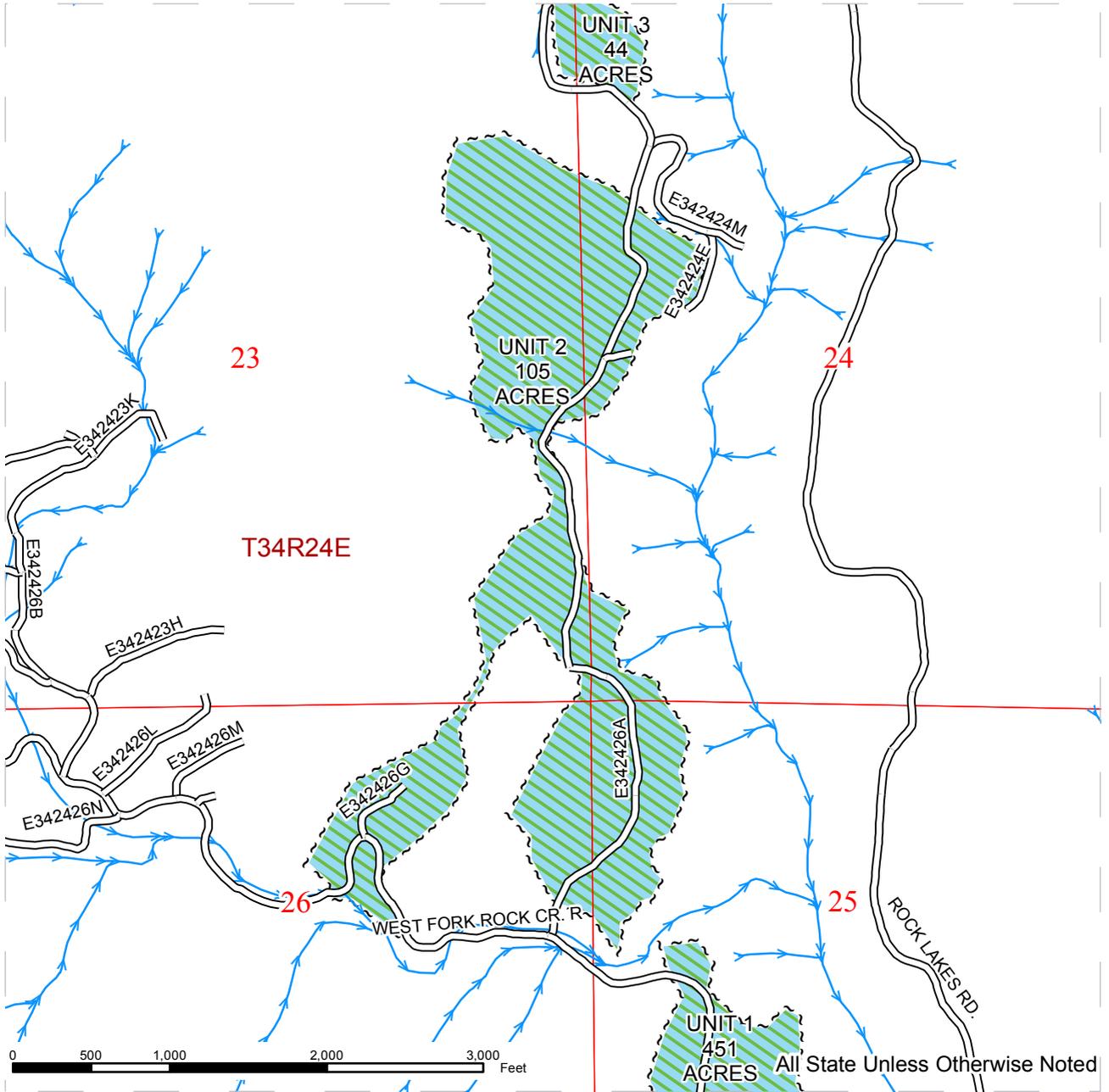


~ ~ ~	Sale Boundary Tags	— — —	Undefined Construction	→	Streams
	Ground Skidding	◆	Monumented Corners		
	General				

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COUNTY(S): OKANOGAN
ELEVATION RGE: 2088-4067



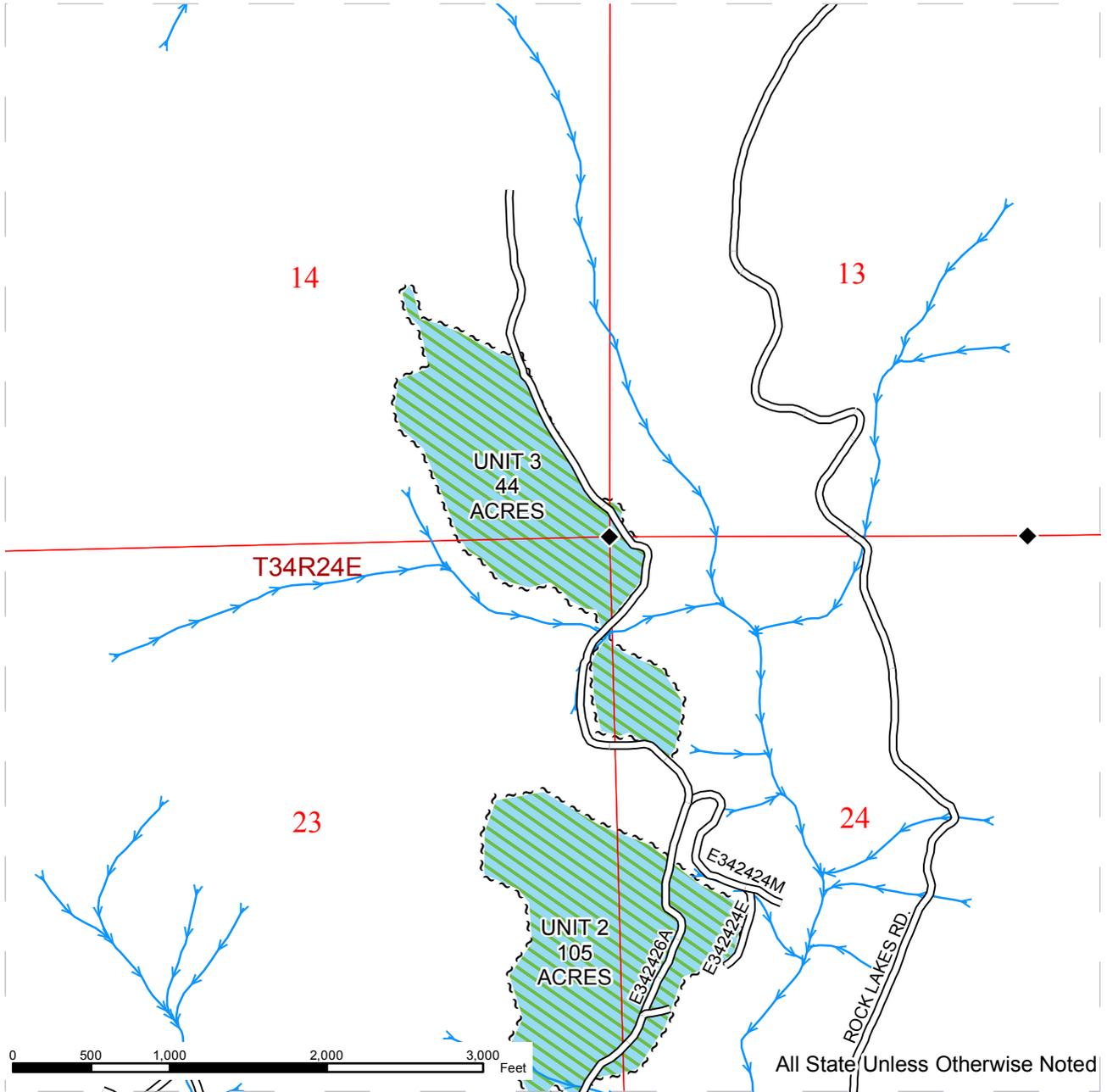
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	Ground Skidding		General	◆	Monumented Corners



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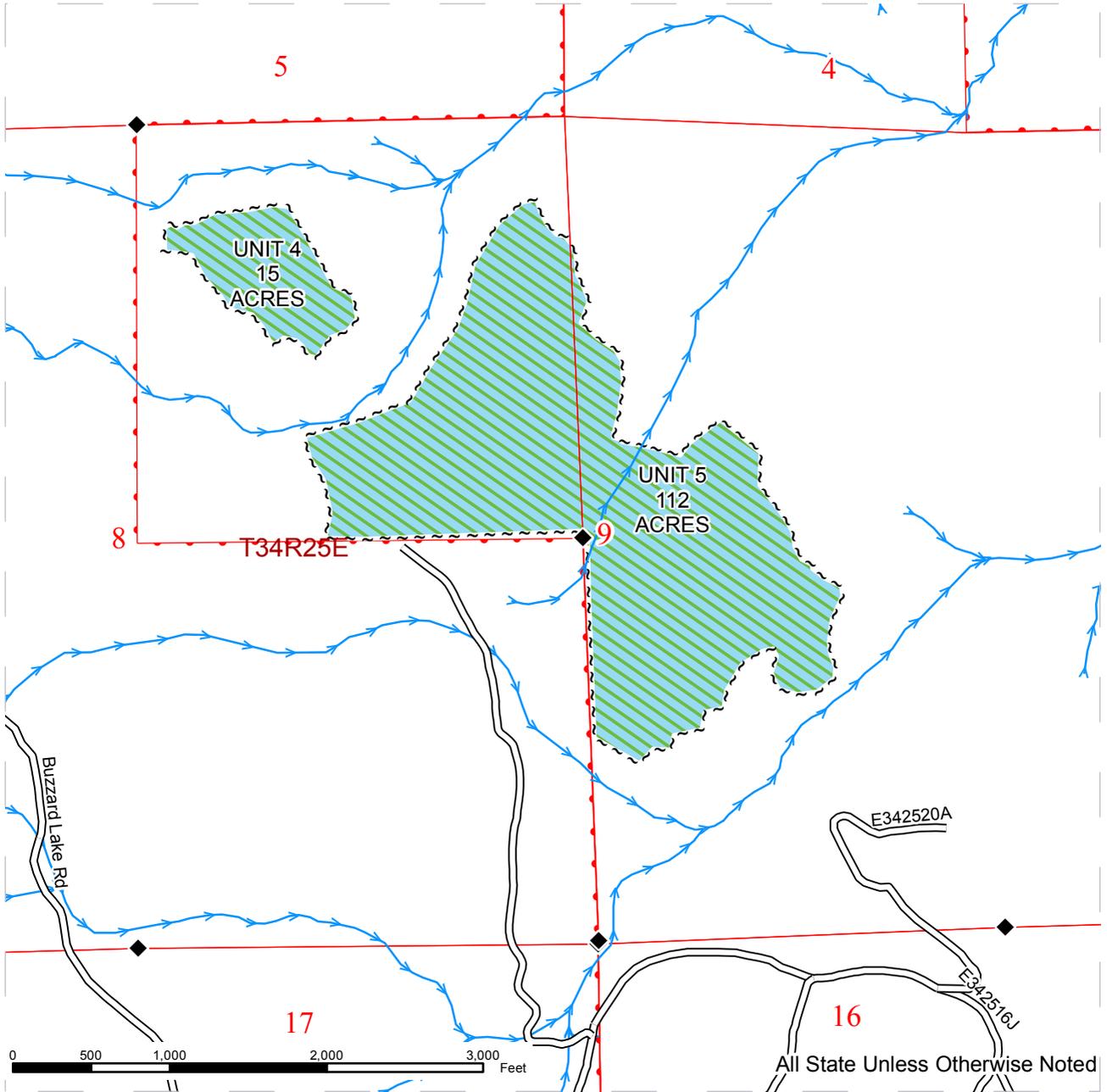
~ ~ ~	Sale Boundary Tags	==	Undefined Construction	→	Streams
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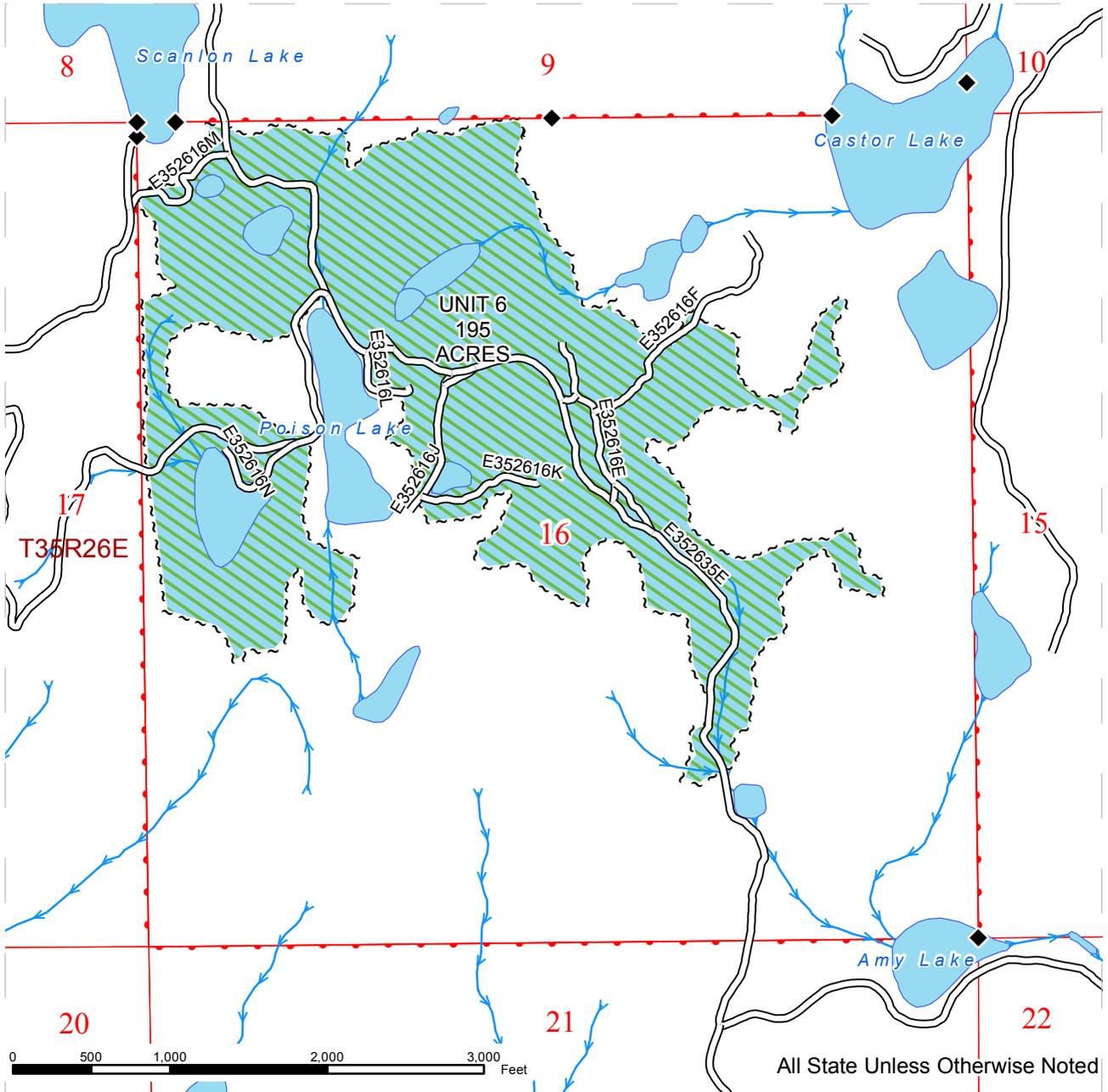
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	Ground Skidding		General	◆	Monumented Corners