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: **COOGANS BLUFF FIT** *Agreement #* 30-093730

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

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

   Robert Hechinger
   Department of Natural Resources
   225 S. Silke Road
   Colville, WA 99114

4. Date checklist prepared: **03/23/2016**

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

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

   a. *Auction Date:* **02/21/2017**
   b. *Planned contract end date (but may be extended):* **10/21/2017**
   c. *Phasing:* There will be no phasing as part of this proposal.

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

   There are no further plans associated with this proposal.

Timber Sale:

a. *Site preparation:*

Normal ground disturbance will occur with ground based yarding operations. Landing slash will be piled and burned. Results will be monitored and prescriptions adapted as necessary.

b. *Regeneration Method:*

Units 2, 3, 4, 6, 8, 10, 11 and 12 will be planted at 220 trees per acre with a mixture of western larch and ponderosa pine following harvest. The planted units will utilize a microsite strategy to determine what species will be planted where. A sufficient amount of overstory trees, advanced regeneration or saplings will be left in units 1, 5, 7, and 9, therefore planting will not be necessary. Natural regeneration is expected in all units.

c. *Vegetation Management:*

Road cut banks and fill slopes, landing locations, ditch lines, and skid trails will be seeded with grass where necessary to minimize surface erosion, promote soil rehabilitation, and reduce the spread of noxious weeds. The utilization of an aggressive roadside noxious weed spray program and road closures will to further minimize noxious weed introduction and spread. This will allow establishment of the seedlings in conjunction with existing vegetation

d. *Thinning:*

Units 1, 5, 7 and 9 will be evaluated post-harvest to determine management needs and prescriptions will be adapted as necessary. There will be no thinning in Units 2, 3, 4, 6, 8, 10, 11 and 12

Roads:

Please see questions A.11.a, and A.11.c

Rock Pits and/or Sale:

There will be no rock pits developed as part of this proposal.

Other:

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:* ***DNR Road Plan dated 03/07/16***
☐ *Wildlife report:*
☐ *Geotechnical report:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *Rock pit plan:*
☒ *Other:*

GIS generated watershed administrative units (WAU) maps showing soil types, mass wasting, erosion potential, soil stability, and hydrological maturity of the Wauconda Summit and Lower Toroda WAUs; DNR TRAX; Forest Practice Risk Assessment Tool (FPRAT); Washington Department of Fish and Wildlife (WDFW) Heritage database; Policy for Sustainable Forests, December 2006; Retention and Perpetuation of Biological Legacies and Green Trees (Eastern Washington); "Identifying Old Trees and Forests in Eastern Washington" (Van Pelt 2008); Environmental Impact Statement, June 2006; DNR Smoke Management Plan, issued April 1993; State Soil Survey; Commissioners FHHWA Order # 201226, issued August 22, 2012; Road Maintenance and Abandonment Plan (RMAP) No. R2302662.

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.

DNR is acquiring access easement 55-093978 over BLM in T39N R31E NE1/4 SE1/4 Section 21 along DNR road E393121C to allow haul of timber. DNR will be performing routine maintenance on the easement route consisting of applying spot rock in the DNR road station 17+40 vicinity. BLM is processing a concurrent NEPA No. WAOR-68713 related to the easement grant.

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

☒ *FPA #* **3021258** ☐ *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*:

The Coogans Bluff Timber Sale will remove approximately 3,441 thousand board feet (MBF) of commercial timber from the Wauconda Summit and Lower Toroda WAUs. This harvest will occur on 12 harvest units totaling 561 gross acres and 552 net acres. Following harvest silvicultural treatments are planned including artificial regeneration, slash reduction, and grass seeding where necessary. Road maintenance activities are also planned. A ground based harvesting system will be implemented in all units in order to remove the estimated volume of green timber from this area. This harvest will focus on the removal of trees showing signs of poor forest health and decreased vigor. The result of this treatment will be two uneven-aged stands leaving approximately six trees per acre and at least 150 seedlings or saplings per acre, one uneven-aged stand leaving approximately 16 trees per acre and at least 100 stems of advanced regeneration per acre, one uneven-aged stand leaving at least 21 trees per acre and eight even-aged stands, one of which will have at least 15 trees per acre and seven will have at least six trees per acre after harvest.

A mixture of western larch and ponderosa pine planted at approximately 220 trees per acre will occur in Units 2, 3, 4, 6, 8, 10, 11 and 12. Natural regeneration is also anticipated.

There will be approximately 1,770 feet of new road construction, 1,900 feet of existing road reconstruction, and 51,898 feet of pre-haul maintenance on existing roads. Roads have been located on as gentle of slopes as possible.

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

All the stands included in this proposal except for those found in Units 7 and 12 are dominated by Douglas-fir and western larch, with a mix of ponderosa pine spread out throughout. The stands in Units 7 and 12 are dominated by Douglas-fir and ponderosa pine with some scattered western larch. Average origin date of the stands is around 1929. There is medium to light infection of western spruce budworm in susceptible areas throughout all stands. Found in scattered pockets, there is also dwarf mistletoe with a Hawksworth rating of 1 to 3 in the Douglas-fir and western larch.

Overall objectives for this proposal have been prescribed to achieve and maintain conditions conducive to improved forest health. This will be implemented by reducing stocking levels and removing infection vectors for current and potential pathogens. There will be a minimum of six trees per acre remaining following harvest in the eight proposed even-aged units, six overstory trees and at least 150 seedlings or saplings per acre in uneven-aged Units 1 and 9, approximately 16 overstory trees and at least 100 stems of advanced regeneration per acre in the uneven-aged Unit 7, and 21 trees per acre remaining in uneven-aged Unit 5. By reducing stocking levels this harvest will decrease the risk of Douglas-fir beetle, spruce budworm, mountain pine beetle, and other detrimental insect outbreaks, as well as reducing the risk of catastrophic wildfire.
Following harvest, the units will be planted back to a native early seral species such as ponderosa pine and western larch which occurred historically. Trees will be planted at a density of 220 trees per acre.

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		**1,770**	**1**	**0**
Reconstruction		**1,900**		**0**
Abandonment		**0**	**0**	**0**
Bridge Install/Replace	**0**			**0**
Culvert Install/Replace (fish)	**0**			**0**
Culvert Install/Replace (no fish)	**1**			

There will be 51,898 feet of pre-haul maintenance included in this proposal. There may also 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.

a. *Legal description:* **T39N, R31E, S 7, 8, 15, 16, 17, 21, 27**

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

Units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10:

From Wauconda, WA, travel north on Toroda Creek Road for 13.5 miles and then turn west on Chesaw Road. Drive 1.1 miles on Chesaw Road to Sqove Road and turn north. Travel 2.4 miles on Sqove Road (E393121C) to Unit 7 or

turn north on E393116E and drive 0.5 mile to Unit 6. To reach Unit 8, turn east onto E393116K from the intersection in Unit 6 and travel 0.4 mile. To reach Units 4 and 5, continue another 0.5 mile on E393116E from Unit 6. To reach Unit 3, continue another 0.1 mile on E393116E, turn north on E393108K and travel 0.5 mile. To reach Unit 2, drive another 0.8 mile on E393116E from Units 4 and 5. Travel an additional 0.7 mile on E393116E to the intersection with E393108P, turn west and drive 0.1 mile to Unit 1. To reach Unit 10, travel 1.2 miles on Sqove Road from the intersection with Chesaw Road, turn northeast on E393121E and drive 0.6 mile. Continue another 0.4 mile to Unit 9.

Units 11 and 12:

From Wauconda, WA travel north on Toroda Creek Road for 12.5 miles and then turn west on the E393127F road. Travel 0.4 mile to Unit 12 and 0.7 mile to Unit 11.

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
WAUCONDA SUMMIT	**45,849**	**38**
LOWER TORODA	**58975.90**	**523**

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.)

Wauconda Summit WAU
DNR manages approximately 13% (5,924 acres) of the lands within the Wauconda Summit WAU. Since 2009, there has been 756 acres of even-aged and 162 acres of uneven-aged harvest, including this proposal, planned or completed in this WAU. No additional harvest activities are known to be proposed on DNR-managed lands within this WAU at this time. The Coogans Bluff FIT timber sale will comprise an estimated 38 acres in this WAU.

Non-DNR managed lands (private or other State, non-federal public lands) comprise approximately 51% (23,528 acres) of the Wauconda Summit WAU. Since 2009, Forest Practices applications have been approved for 75 acres of even-aged harvest and 3,374 acres of uneven-aged harvest.

Federal managed lands (Colville and Okanogan-Wenatchee National Forests) comprise approximately 36% (16,397 acres) of the Wauconda Summit WAU. Since 2009 there have been approximately zero acres of even-aged harvest and 140 acres of uneven-aged harvest on federal lands. There are up to 2,000 acres of commercial harvest activities planned on federal lands in the next five years.

Lower Toroda WAU
DNR manages approximately 12% (6,936 acres) of the lands within the Lower Toroda WAU. Since 2009, there has been 1,006 acres of planned or completed even-aged harvests and 376 acres of planned or completed uneven-aged harvests in this WAU, including this proposal. No additional harvest activities are known to be proposed on DNR-managed lands within this WAU at this time. The Coogans Bluff FIT timber sale will comprise an estimated 522 acres in this WAU.

Non-DNR managed lands (private or other State, non-federal public lands) comprise approximately 26% (15,201 acres) of the Lower Toroda WAU. Since 2009, Forest Practices applications have been approved for 1 acre of even-aged harvest and 471 acres of uneven-aged harvest.

Federal managed lands (Colville and Okanogan-Wenatchee National Forests) comprise approximately 62% (36,812 acres) of the Lower Toroda WAU. Since 2009 there have been approximately zero acres of even-aged or uneven-aged harvest on federal lands. There are up to 4,000 acres of commercial harvest activities planned on federal lands in the next five years.

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 Coogans Bluff FIT proposal is located within portions of the Wauconda Summit and Lower Toroda WAUs. These WAUs are located on the eastern edge of the Okanogan Highlands between the North Cascades and Kettle mountain ranges. These WAUs both generally drain into Toroda Creek which flows south to north into the Kettle River. The general terrain in both WAUs are similar which include flat benches, bluffs, steep slopes, and valleys with slopes between 0 and 80 percent. The climate ranges from dry and arid in the lower elevations to cold and more humid in the higher elevations, depending on the season.

Wauconda Summit WAU:
The average yearly precipitation for this WAU is 18 inches, with an elevation range of 2,437 to 5,721 feet. The primary forest species consist of ponderosa pine and Douglas-fir in the lower elevations, Douglas-fir, western larch, and Engelmann spruce in the middle elevations, and Engelmann spruce, lodgepole pine, and subalpine fir in some of the higher elevations.

Lower Toroda WAU:
The average yearly precipitation for this WAU is 17 inches, with an elevation range of 1,837 to 5,595 feet. The primary forest species consist of ponderosa pine and Douglas-fir in the lower elevations, Douglas-fir, western larch, and Engelmann spruce in the middle elevations, and Engelmann spruce, lodgepole pine, and subalpine fir in some of the higher elevations.

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

The general information above includes and describes this proposal. The proposed activities are located in the middle to upper elevations of the WAUs ranging from 2,978 to 4,231 feet. Primary species to be harvested are Douglas-fir and western larch. There are varying aspects found throughout this proposal; Units 1, 2, 4, 5, 9, 10 and 11 have a northern aspect, Units 3 and 7 have a southern aspect, Units 6 and 12 have an eastern aspect and Unit 8 has a western aspect. Approximately 48% of the sale is located on slopes under 35%. The proposal area falls entirely within the rain-on-snow zone. The precipitation amount given above is similar to that of the proposal area based on vegetation and soils found within the sale area.

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

There are slopes approaching 55 to 60% in the proposal area.

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
4725	**SANDY LOAM**	**25-45**	**105**	**LOW**	**MEDIUM**
4724	**SANDY LOAM**	**0-25**	**96**	**INSIGNIFIC'T**	**LOW**
4784	**MOLSON-ROCK OUTCROP-COMPLEX**	**15-50**	**76**	**HIGH**	**HIGH**
4728	**STONY SANDY LOAM**	**0-25**	**63**	**INSIGNIFIC'T**	**LOW**
4782	**SILT LOAM**	**25-45**	**57**	**LOW**	**HIGH**
6078	**PEPOON-ROCK OUTCROP-COMPLEX**	**15-50**	**49**	**MEDIUM**	**MEDIUM**
0677	**LOAM**	**0-25**	**29**	**INSIGNIFIC'T**	**MEDIUM**
4296	**LITHIC XEROCHREPTS-ROCK OUTCROP-COMPLEX**	**15-50**	**28**	**HIGH**	**HIGH**
6813	**ROCK OUTCROP-XEROCHREPTS-COMPLEX**	**45-70**	**26**	**MEDIUM**	**HIGH**
4780	**SILT LOAM**	**0-25**	**25**	**INSIGNIFIC'T**	**MEDIUM**
9416	**XEROCHREPTS-ROCK OUTCROP-COMPLEX**	**45-70**	**7**	**MEDIUM**	**HIGH**

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

1) Surface indications:

The road surface on the existing haul route has experienced small failures on the downhill (fill) side in at least four locations. The road was previously designed without proper drainage features.

This proposal will address these problem areas with the installation of keyed embankments and drainage features.

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

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

There is no evidence of natural slope failures in the sub-basins.

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:

Small local events can be found along cut banks and fill slopes of roads in these WAUs. These consist primarily of sloughing materials into ditches and occasionally onto road surfaces. Since the adoption of the Road Maintenance and Abandonment Plans (RMAP), those roads within the WAUs that have been identified as having potential for resource damage either to soil or water will be mitigated with this proposal. With proper road pre-haul maintenance, construction, and timber sale unit layout and design, it is anticipated that no mass wasting, slope failure, or significant erosion will result from roads or timber harvest activities.

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:*

Existing road cut slopes and some of the soil types listed in the table above are similar to those where other isolated failures have occurred.

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

Road construction/maintenance, yarding and log-hauling will not take place from March 15th through June 1st for all units unless authorized by the contract administrator. Existing roads are being utilized where possible and will undergo preventive maintenance procedures. Roads will be graded and the running surface will be kept smooth to assure that water is not allowed to collect in low spots and saturate into the sub grade of the road. Additional drivable dips will be installed as necessary to move water off of the road surface. Proper road construction techniques will be used to prevent slope failures, including grubbing of cut and fill slopes, in-sloping, out-sloping and shaping, and installation of adequate drainage features such as culverts, drain dips, and water bars. No organic matter such as logs, stumps, or branches will be used in the creation of road prisms which will create a stronger road bed. No fill material will be perched against live trees or stumps to ensure that cut and fill slopes are stable. Landings will be located at stable locations and minimized to reduce disturbance and erosion potential. Stumps, tops, and slash from the right-of-way will be placed on the downhill side of the clearing limits to act as a silt fence.

Upon completion of harvest 4,920 feet of road will be decommissioned. This light decommissioning will consist of the removal of shoulder berms and the installation of waterbars to control the shedding of water from the road surface to prevent erosion. It will also consist of the construction of earthen barricades at the beginning of each road segment to prevent traffic from compromising the drainage features. A Road Maintenance and Abandonment Plan has been completed for this area. At the time of this report, there were no issues that were identified in the RMAP in the immediate vicinity of this proposal that required action.

Leave trees will be left in clumps as well as scattered throughout the harvest unit boundaries. Leave trees were selected in part for their ability to provide root strength to surrounding soils following harvest. Skid trail patterns will be coordinated to ensure that impacts will be minimal. On slopes greater than 25%, main skid trails will be water barred and/or slash may be scattered on them as directed by the contract administrator, to ensure that water is diverted as soon as possible to mitigate potential erosion. Following harvest, reforestation will occur; seedlings will take root in the ground and add further root strength to the soils in the area. In order to combat sheet erosion from roads and landings, grass seeding will occur. A seed mixture of certified weed free grass will be broadcast on all roads and landings following harvest. This will hold the top soils in place while other vegetation, including shrubs, forbs, and trees have time to become established.

See also A.11.a and B.1.h

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: 1 *Approx. acreage new landings:* 4 *Fill Source:* None

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

There is potential for some minimal erosion to occur as a result of pre-haul maintenance, construction, culvert installation on roads and/or harvest activities associated with this proposal. This sale will conform to RMAP and

Forest Practice regulations. Management techniques have been identified where appropriate to minimize or eliminate the risk of erosion, see B.1.h below for measures to reduce and 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):*

No impervious surfacing is proposed with this project.

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

To reduce or control erosion and/or mass wasting potential in areas associated with the proposal, DNR has completed, and Forest Practices has approved, a Road Maintenance and Abandonment Plan (No. R2302662) for this area. Proper road maintenance, coordinated skidding patterns, landing locations, and effective contract administration are expected to minimize the erosion potential. Water bars, culverts, drivable dips, ditching, out-sloping, light decommissioning, monitoring, and grass seeding will be utilized. Road surfaces will be out-sloped, in-sloped, or crowned. On crowned or in-sloped portions of roads, ditch lines will be installed as necessary. These techniques will conduct water out onto natural vegetation on the undisturbed forest floor. Ditch lines and cut and fill slopes will be seeded with weed free grass seed. On slopes greater than 25%, main skid trails will be water barred and/or slash may be scattered on them as directed by the contract administrator, to ensure that water is diverted as soon as possible to mitigate potential erosion. Timber falling, yarding, and log-hauling on any roads, including county roads, will not occur during spring break-up from March 15th to June 1st or during extreme wet weather conditions when excess rutting may occur, unless authorized by the contract administrator. See B.1.d.5 for additional protection measures.

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, yarding, and hauling equipment; dust from road construction and logging activities and dust from log hauling activities. Pile burning, which will adhere to the requirements of the Smoke Management Act, is anticipated to occur as well.

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

There are no off site sources of emissions or odor that will affect this proposal.

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

Dust abatement may occur on selected roads as needed between June 1st and November 1st.

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 no water bodies within the boundaries of this proposal.

a. Downstream water bodies:

Most flowing water in the vicinity of Units 1, 2, 3, 4, 5, 9, and 10 drains into Coogan Creek. Coogan Creek flows into Toroda Creek, which drains into the Kettle River. The Kettle River discharges into Lake Roosevelt/Columbia River. Most flowing water in the immediate vicinity of Units 6, 7, 8, 11 and 12 drains into Beaver Creek. Beaver Creek flows into Toroda Creek, which drains into the Kettle River. The Kettle River discharges into Lake Roosevelt/Columbia River.

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)
Coogan Creek	**Np**	**1**	**50 feet**
Un-named stream	**Np**	**3**	**50 feet**
Un-named Wetland	**Type A**	**2**	**50 feet**
Un-named Pond	**Type F**	**1**	**100 feet**

Un-named Wetland	**Type B**	**1**	**25 feet**
Un-named Wetland	**Forested**	**3**	**0 feet**

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

All streams and wetlands adjacent to this proposal have been identified and, with the exception of right of way boundaries, either avoided or removed entirely from the sale area. All typed waters have been buffered to meet Forest Practices standards and no operations will occur in these areas.

Stumps, tops, and slash from the right of way will be placed on the downhill side of the right-of-way clearing limits to act as a silt fence. Leave trees, planted ponderosa pine and western larch, grass, and other native species should flourish due to a more open forest condition and thus will help stabilize soil movement and prevent erosion.

On slopes greater than 25%, main skid trails will be water barred and/or slash may be scattered on them as directed by the contract administrator, to ensure that water is diverted as soon as possible to mitigate potential erosion. See A.11.a, B.1.d.5 and B.1.h for more protection measures and description of work.

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):

Haul routes for this proposal will occur within 200 feet of the described waters. There will be harvest within 200 feet of all the described waters above, however Forest Practices rules have been met or exceeded in all cases. With the exception of right of way crossings, no harvest RMZs have been placed on these streams to minimize potential delivery of sediment. One 36 inch culvert will replace an 18 inch culvert on Coogan Creek, an Np stream. See the associated Road Plan for details. Cross drain structures are planned to be installed in several areas to gather and then disperse runoff onto the forest floor to further reduce potential impacts. Rock will also be applied to the road surface within 200 feet of some of the described waters.

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

There will be no fill and dredge material placed in or removed from surface waters or wetlands in 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:*

There will be no surface water withdrawals or diversions associated with the proposal.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

The proposal does not lie within a 100-year floodplain

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:*

There will be no discharge of waste material to surface waters from this proposal.

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?*

These WAUs and the proposal area do have soils susceptible to surface erosion and/or mass wasting. There are presently no surface indications of unstable slopes within this proposal. Harvest boundaries and units as a whole are located to reduce the potential for eroded material to damage any public resource. Other protection measures such as installing drivable dips, grass seeding, proper skid trail location with water bars, contract administration, and operational timing restrictions will limit any potential for eroded material 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:*

No. However, there is a history of periodic high water events that flush streams, which seem to be part of natural processes. There are isolated occurrences of livestock use, which may also cause local impacts to individual streams.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☒*No* ☐*Yes, explain:*

There is little or no adverse impact to stream flow or water quality anticipated as a result of activities associated with this proposal. Sale unit design, skidding patterns, operating seasons, and prescriptions minimize the potential for adverse impacts. Existing roads were designed to cross at locations that would have the least impact and at right angles to the stream to minimize impact to riparian areas. There are isolated occurrences of livestock use, which may cause some stream bank erosion or instability in individual areas.

Additional measures will be taken with this proposal to improve water quality. Culverts will be upgraded to prevent plugging and facilitate efficient run off. Sections of the road surface will be rocked to prevent sediment delivery to streams. Selected roads will be decommissioned to restrict traffic and maintain the installed erosion control features.

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:*

Road miles per square mile:

Wauconda Summit WAU has 2.4 miles per section.

Lower Toroda WAU has 2.6 miles per section.

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:*

Approximately 65.4% of the Wauconda Summit WAUand 86.2% of the Lower Toroda WAU is in the peak ROS 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?*

Hydrologic maturity within the significant ROS zone is estimated to be 77% in the Wauconda Summit WAU and 86% in the Lower Toroda WAU

Forested acreage within the significant rain-on-snow zone of these WAUs was determined by using a combination of ortho photo interpretation, use of state upland viewing tool and WAU data from the DNR Planning and Tracking program. This proposal is 100% within the ROS zone. The approximate change in maturity for the ROS zone within these WAUs will be less than one percent. However, with protection measures listed above, there are no cumulative impacts expected in either WAU due to this proposal.

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):*

No, however, there are some indications of past high water events within this 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 WAUs.

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 these WAUs. At completion of this proposal, it is expected to remain below the

threshold.

This proposal makes up less than one percent of any of the listed WAUs and is not expected to have a significant impact or contribution to peak flow events within any WAU. All activities have been planned with water quality and flow in mind. Care has been taken to minimize the potential for adverse impacts.

Hydrologic maturity levels will continue to be monitored by local staff. See A.8, B.3.c.9, and B.3.c.12

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:*

There are no public water resources that will be affected as part of this proposal.

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.*

Proper road construction and maintenance will ensure that water accumulating on running surfaces will be dispersed onto the undisturbed forest floor helping to reduce erosion. Culverts will be upgraded to prevent plugging and facilitate efficient run off. Sections of the road surface will be rocked to prevent sediment delivery to streams. Road blocking will limit road use after harvest to reduce road surface rutting and to encourage vegetation to grow freely. Harvest areas will be replanted. Roads, landings, and skid trails will be grass seeded as necessary to ensure rapid re-establishment of vegetation back onto the disturbed landscape.

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 or discharged to ground water as a result of this proposal.

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 from septic tanks or other sources mentioned 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:*

a. *Note protection measures, if any.*

None are anticipated. Refer to B.3.a.15.

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.

Snowmelt 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. Existing and installed culverts and rolling dips will be utilized to reduce the potential and amount of run-off from road surfaces that can directly enter existing stream channels. See A.11.a, b.1.d.5, and 3.A.1.c

2) Could waste materials enter ground or surface waters? If so, generally describe.
☒*No* ☐*Yes, describe:*

Due to mitigation measures listed throughout this document it is unlikely that any waste materials will enter

ground or surface waters

a. *Note protection measures, if any.*

This proposal will also employ best management practices outlined by the DNR in the Road Maintenance and Abandonment Plan # R2302662. See B.1.d.5, B.1.h, and 3.A.1.c

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

This proposal will not significantly alter any natural drainage patterns in the vicinity. There will be some isolated minor alterations in the form of rolling dips, waterbars and ditching found throughout the sale area. In these cases, water drainage will be dispersed at regular intervals to the forest floor to minimize erosion.

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.)

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:* common snowberry, ninebark, Oregon grape, ocean spray
☒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/ResearchScience/sepa/Pages/Home.aspx (Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales.")*

All of the units for this proposal fall within the Forest Health Hazard Warning Area (FHHWA). The current stands throughout the area are overstocked and are susceptible to disease and insect outbreaks.

Unit 1
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 65 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. There is a substantial amount of Douglas-fir, western larch and ponderosa pine regeneration. The adjacent stand to the east is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir. To the north, south and west of this unit is private property with a mixture of mature and sub merchantable ponderosa pine, western larch, and Douglas-fir.

Unit 2
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 60 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has some areas of very limited regeneration, while some more open pockets have heavy Douglas-fir and ponderosa pine regeneration ranging from 3 to 15 feet in height. The adjacent stand to the west is mature ponderosa pine, western larch and Douglas-fir. To the south is an area of rocky outcroppings with scattered ponderosa pine and western larch. The adjacent stand to the north is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir. The stands to the east consist both of a riparian buffer containing Engelmann spruce, Douglas-fir, and western larch next to a more sparsely

forested area of rocky outcrops with ponderosa pine and Douglas-fir.

Unit 3
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. Stand age range for this unit is estimated at 100 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has some areas of very limited regeneration, while some more open pockets have heavy Douglas-fir and ponderosa pine regeneration ranging from 3 to 15 feet in height. To the east is an area of rocky outcroppings with scattered ponderosa pine and western larch. The adjacent stand to the north is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir. The stand to the west and south consist of a riparian buffer containing Engelmann spruce, Douglas-fir, and western larch.

Unit 4
This unit consists mainly of mature Douglas-fir and western larch with some Engelmann spruce. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 90 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has considerable Douglas-fir, western larch, and Engelmann spruce regeneration but its recent growth has become stagnant. The adjacent stand to the west is a more sparsely forested area of rocky outcrops with ponderosa pine and Douglas-fir. To the south is mature ponderosa pine, western larch, and Douglas-fir. The adjacent stand to the east is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir. The stand to the north consists of a riparian buffer containing Engelmann spruce, Douglas-fir, and western larch.

Unit 5
This unit consists mainly of mature Douglas-fir and western larch. Stand age range for this unit is estimated at 90 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has some areas of very limited regeneration, while some areas have Douglas-fir and western larch regeneration ranging from 3 to 15 feet in height. The adjacent stand to the south is a more sparsely forested area of rocky outcrops with ponderosa pine and Douglas-fir. To the west is mature ponderosa pine, western larch, and Douglas-fir. The adjacent stand to the east is partially US Forest Service property and partially DNR land that both contain mature ponderosa pine, western larch, and Douglas-fir. The stand to the north consists of mature Douglas-fir and western larch with some Engelmann spruce.

Unit 6
This unit consists mainly of mature Douglas-fir with scattered western larch and ponderosa pine. Stand age range for this unit is estimated at 90 to 150 years. The understory is mainly pine grass with common snowberry and some ninebark. There is a small amount of Douglas-fir, western larch, and ponderosa pine regeneration. The adjacent areas to the west and south are more sparsely forested with ponderosa pine and Douglas-fir between rocky outcroppings and openings. The stand to the east is mostly forested wetland with hardwoods, Douglas-fir, and western larch. To the north is mature ponderosa pine, western larch, and Douglas-fir.

Unit 7
This unit consists mainly of advanced regeneration and mature Douglas-fir and ponderosa pine. There are also a few scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 45 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The area to the north and east is mostly grassland with some scattered ponderosa pine. To the west is private ground with scattered ponderosa pine. To the south is also private land with mature ponderosa pine, Douglas-fir, and western larch.

Unit 8
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 85 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has some areas of very limited regeneration, while some more open pockets have heavy Douglas-fir and western larch regeneration ranging from 3 to 15 feet in height. The adjacent stand to the east is mature ponderosa pine, western larch, and Douglas-fir with substantial regen of the same species. To the south is open grassland with a few scattered ponderosa pine. The adjacent stand to the north is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir. The stands to the east consist both of a riparian buffer containing Engelmann spruce, Douglas-fir, and western larch next to a more sparsely forested area of rocky outcrops with ponderosa pine and Douglas-fir.

Unit 9
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 90 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. There is a substantial amount of Douglas-fir, western larch, and ponderosa pine regeneration. The adjacent stand to the west is mature ponderosa pine, western larch, and Douglas-fir. To the east and south is an area of rocky outcroppings and open grassland with scattered ponderosa pine and Douglas-fir. The adjacent stand to the north is US Forest Service property that contains mature ponderosa pine, western larch, and Douglas-fir.

Unit 10
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 55 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The unit has some areas of very limited regeneration, while some more open pockets have heavy Douglas-fir and western larch regeneration ranging from 3 to 15 feet in height. The unit is surrounded by broken terrain of rocky outcroppings and grasslands where Douglas-fir and ponderosa pine grow in isolated pockets or small draws. The adjacent private property to the northeast is more heavily forested with mature Douglas-fir and ponderosa pine.

Unit 11
This unit consists mainly of mature Douglas-fir and western larch with scattered ponderosa pine. There are also scattered pockets of hardwoods found in this unit. Stand age range for this unit is estimated at 110 to 150 years. The understory has little conifer regeneration but is mainly pine grass with some common snowberry and ninebark. The stand to the north is on a steep slope where mature western larch and Douglas-fir are growing and largely succumbing to root disease. The adjacent stand to the west is US Forest Service property that also contains mature ponderosa pine, western larch, and Douglas-fir. The adjacent areas to the east and south are more sparsely forested with ponderosa pine and Douglas-fir between rocky outcroppings and openings.

Unit 12
This unit consists mainly of advanced regeneration and mature Douglas-fir and ponderosa pine. Stand age range for this unit is estimated at 110 to 150 years. The understory is mainly pine grass with some common snowberry and ninebark. The areas to the west, south and east are mostly rocky outcroppings and grassland with some scattered ponderosa pine and Douglas-fir in the draws. To the north there is mature ponderosa pine, Douglas-fir, and western larch.

c. *Retention tree plan:*

This harvest will result in seven even-aged stands leaving at least six trees per acre, one even-aged stand leaving a minimum 15 trees per acre, two uneven-aged stands leaving approximately six trees per acre and at least 150 seedlings or saplings per acre, one uneven-aged stand leaving approximately 16 trees per acre and at least 100 stems of advanced regeneration per acre and one uneven-aged stand leaving at least 21 trees per acre. Leave trees were selected in accordance with department guidelines established from the "Retention and Perpetuation of Biological Legacies and Green Trees (Eastern Washington)". All trees that met the legacy tree requirements were designated as leave trees and are randomly scattered throughout the units. In addition to legacy trees, there are green recruitment trees (GRTs) and wildlife recruitment trees (WRTs) selected as leave trees also randomly scattered throughout the units. GRTs do not meet the legacy tree requirements, but are selected as leave trees with the intent that they will develop into legacy trees in the future. WRTs are typically snags or green trees that serve as desirable wildlife habitat. Also, see A.11.b.

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

No endangered or threatened plant species are known be on or near this 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:

Grass seeding will occur following harvest activities. This will be done using a native seed mixture which has been certified weed free.

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

There are a small amount of noxious weeds known to be in or near the proposal area. These include Canada thistle and houndstonngue. No other noxious weeds are known to be onsite at this time.

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:

mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☒other: coyote, cougar, moose

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).*

The sale area lies within the bull trout overlay. There will not be any shade removed from within the RMZ or WMZ of F typed waters.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	90571	Grizzly bear	Threatened	Endangered
2	90572	Grizzly bear	Threatened	Endangered
3	90573	Grizzly bear	Threatened	Endangered
4	94603	Grizzly bear	Threatened	Endangered
5	94604	Grizzly bear	Threatened	Endangered
6	94605	Grizzly bear	Threatened	Endangered
7	94606	Grizzly bear	Threatened	Endangered
8	94607	Grizzly bear	Threatened	Endangered
9	94608	Grizzly bear	Threatened	Endangered
10	94609	Grizzly bear	Threatened	Endangered
11	94610	Grizzly bear	Threatened	Endangered
12	94611	Grizzly bear	Threatened	Endangered

c. Is the site part of a migration route? If so, explain.
X *Pacific flyway* ☐*Other migration route: Explain if any boxes checked:*

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

Mule deer may use the general area annually during migration. Due to the proposal's activities, there may be increased potential for the site to be used more often as part of the overall migration route. The regeneration of grasses, forbs, low shrubs, bushes etc. are expected to create more habitat opportunities for deer and other herbivores.

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

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

Species /Habitat: Various species including Grizzly Bear
Protection Measures: Grizzly bears have occurred on rare occasions in the vicinity of the proposal. The proposal area is not within a designated grizzly bear recovery zone, so no specific protective measures have been implemented. The planned road decommissioning should reduce vehicular traffic and human presence, which would provide more secure habitat conditions for grizzlies and other wildlife in the area.

The Northeast Region Wildlife Biologist has conducted an assessment of this proposal area along with district forester staff and has found no reason to expect any long term negative impacts to the area wildlife as part of this proposal. The even-aged harvest system that is proposed for Units 2, 3, 4, 6, 8, 10, 11 and 12 should promote rapid regeneration concurrent with planting creating quality wildlife habitat. The uneven-aged harvest methods for Units 1, 5, 7 and 9 should also promote regeneration and quality forage.

The leave trees marked for retention have been selected for several factors one of which is their value to wildlife. This proposal also has the potential to create an increase in the amount of grasses and forbs in the area directly following harvest, which is commonly used as forage and browse for mule deer. At least two snags per acre which do not pose a safety issue will be left in all units. These features provide habitat to cavity nesting birds. There will be 4,920 feet of roads blocked with soils berms or gates as part of this proposal which will limit public vehicle access. This will provide fewer disturbances by vehicle access to local wildlife populations. This proposal should have an overall positive effect on species that favor early seral forest habitat conditions.

Species /Habitat: Bull Trout
Protection Measures: The sale area lies within the bull trout overlay. There will not be any shade removed from within the RMZ or WMZ of Type F waters.

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

There are no known invasive animal species on or near the site at this time.

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.

Diesel fuel and gasoline will be used to fuel timber harvesting and log hauling equipment.

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

The project will not affect the potential use of solar energy.

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:

Energy conservation features are not included in 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.

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

There are no known contaminations in this proposal area.

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.

There are no existing hazardous chemicals/conditions known to be located in the proposal area.

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 small amounts of mechanical maintenance fluids stored on site throughout this proposal, such as; hydraulic oil, motor oil, and diesel fuel.

4) Describe special emergency services that might be required.

Washington Department of Ecology will be notified if any spill occurs and appropriate actions will be taken.

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

Care will be taken to reduce or control any environmental health hazards.

b. Noise

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

Noises that may affect the project do not exist in the proposal area.

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 maintenance/construction and harvest activities there will be some noise associated with heavy equipment, chainsaws, and log truck operations.

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

Proposed measures are not planned for the level of noise impacts expected from 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 site is currently being used for timber production, cattle grazing, and dispersed recreation use such as hunting, hiking, etc. This proposal will not affect current land uses.

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?

See B.8.a for current/historic land use. There will be no conversion of land uses as part of this proposal.

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:

This proposal may briefly affect transportation in the immediate vicinity due to equipment being transported on/offsite and the increased traffic of log trucks hauling timber.

c. Describe any structures on the site.

There are no known structures on site.

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

There will be no structures demolished as part of this proposal.

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

The current zoning classification of this site would be considered rural.

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

There is no comprehensive plan designation for this site.

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

There no shoreline designation program developed as part of this site.

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

There is no part of this site which has been classified as an environmentally sensitive area.

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

People will not work or reside in the completed project area.

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

People will not work or reside in the completed project area.

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

No avoidance measures will be needed.

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

This proposal will maintain and enhance compatibility with existing and projected land uses, such as timber production, grazing, dispersed recreation activities, and use by wildlife for forage.

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

This proposal will maintain and enhance compatibility with nearby agriculture and forest land uses, such as timber production, grazing, dispersed recreation activities, and use by wildlife for forage.

9. Housing

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

There will not be any housing units needed.

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

There will be no housing units eliminated.

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

No measures will be needed.

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.

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:*

This proposal is not visible from any residential area, recreation site, or scenic vista.

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:*

Parts of this proposal will be visible from Toroda Creek county road.

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

The affects will be minimal due to the measures listed below and that timber harvests are common to the area.

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

In accordance with Forest Practices and DNR's retention and perpetuation of biological legacies and green trees (Eastern Washington), at least 6 trees per acre will remain after harvest throughout units 1, 2, 3, 4, 6, 8, 9, 10, and 11. There will be approximately 16 trees remaining after harvest in Unit 7, 15 trees remaining after harvest in Unit 12 and 21 trees remaining after harvest in Unit 5. There are also deferred areas between units that will help to reduce the magnitude of visual impacts. Replanting all units and grass seeding landings, skid trails and roadways will all help 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?

Potential windshield glare from logging equipment during daylight hours.

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

There will be no light or glare produced as a result of the proposal.

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

There is no existing off-site sources of light or glare that will affect this proposal.

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

No measures needed.

12. **Recreation**

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

There are no designated recreational activities. Informal activities in the immediate vicinity include hunting, hiking, and camping, etc.

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

There may be temporary restrictions and/or road closures associated with this proposal during harvesting operations for safety purposes.

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

Harvest operations may temporarily block some roads that are currently used by recreational users. Logging operation warning signs will be placed at the beginning of roads.

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.

Two historic sites were located during the layout stage of this proposal. The state lands archeologist was consulted; the sites were recorded and given protection as directed by the archeologist. These resources have not been evaluated to determine their national, state, or local preservation register eligibility. No resources listed in preservation registers are within or adjacent to the proposed harvest.

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.

See 13.a. above. One of the sites is a historic cabin, the other is a historic foundation with associated well and refuse scatter. Both sites were recorded by a DNR archeologist.

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.

This sale has been reviewed both in the field and remotely by a DNR archeologist who has recorded and designed site-specific avoidance plans for the resources. Maps of the proposal have also been sent to the Confederated Tribes of the Colville Reservation. The Department of Archeology and Historic Preservation has been notified of DNR's avoidance plan for this project.

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.

Specific plans for avoiding cultural resource impacts have been prepared by DNR's state lands archaeologist.

DNR will comply with the Cultural Resources Inadvertent Discovery Guidelines in the event that any previously unknown cultural resources are identified during the timber harvest.

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.

Chesaw Road, Toroda Creek Road, see sale area vicinity map.

b.

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

This proposal is not expected to contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem.

c. 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?

This site is not currently served by public transit.

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

There will be no parking spaces created.

e. 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).

Please see A.11.c, the road plan proposal.

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

The impacts of this proposal are expected to improve the overall transportation system in the area and will result in a more efficient road system in the future. Access to existing roads within the sale area may be restricted or limited during operations for safety. Public use may be restricted on existing haul roads during the sale activity. See 12.b.

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

No, this project will not use water, rail or air transportation.

g. 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?

This proposal should result in no increase in vehicle trips per day upon completion of the timber sale. During the course of the proposal log hauling could occur at volumes of approximately 10 loads per day typically from early morning to late afternoon. There will also be a small increase in passenger vehicle trips in the immediate area while crews enter and exit the proposal area. These estimates were determined from average vehicular volumes on other local timber sale proposals of similar size and complexity.

e. 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 briefly affect transportation in the immediate vicinity due to equipment being transported on/offsite. There are no anticipated negative affects due to log hauling on public roads in the area.

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

Log hauling will not be permitted from March 15th to June 1st during spring break up in all units, unless authorized by the contract administrator. Dust abatement may occur on selected haul roads to mitigate dust created as a result of hauling activities. "Caution Log Trucks" signs and CB radios will be used during log hauling to warn other users and residences of log truck traffic. The contract administrator will monitor speeds of truck traffic to assure safe haul operations. See B.14.d.1.

i.

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.

This proposal will not increase the need for public services.

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

There are no proposed measures to reduce or control direct impacts on public services.

16. **Utilities**

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

There are no utilities currently available at the site.

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.

There are no utilities for this 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.

Signature: Robert Hechinger

Name of signee: Robert Hechinger

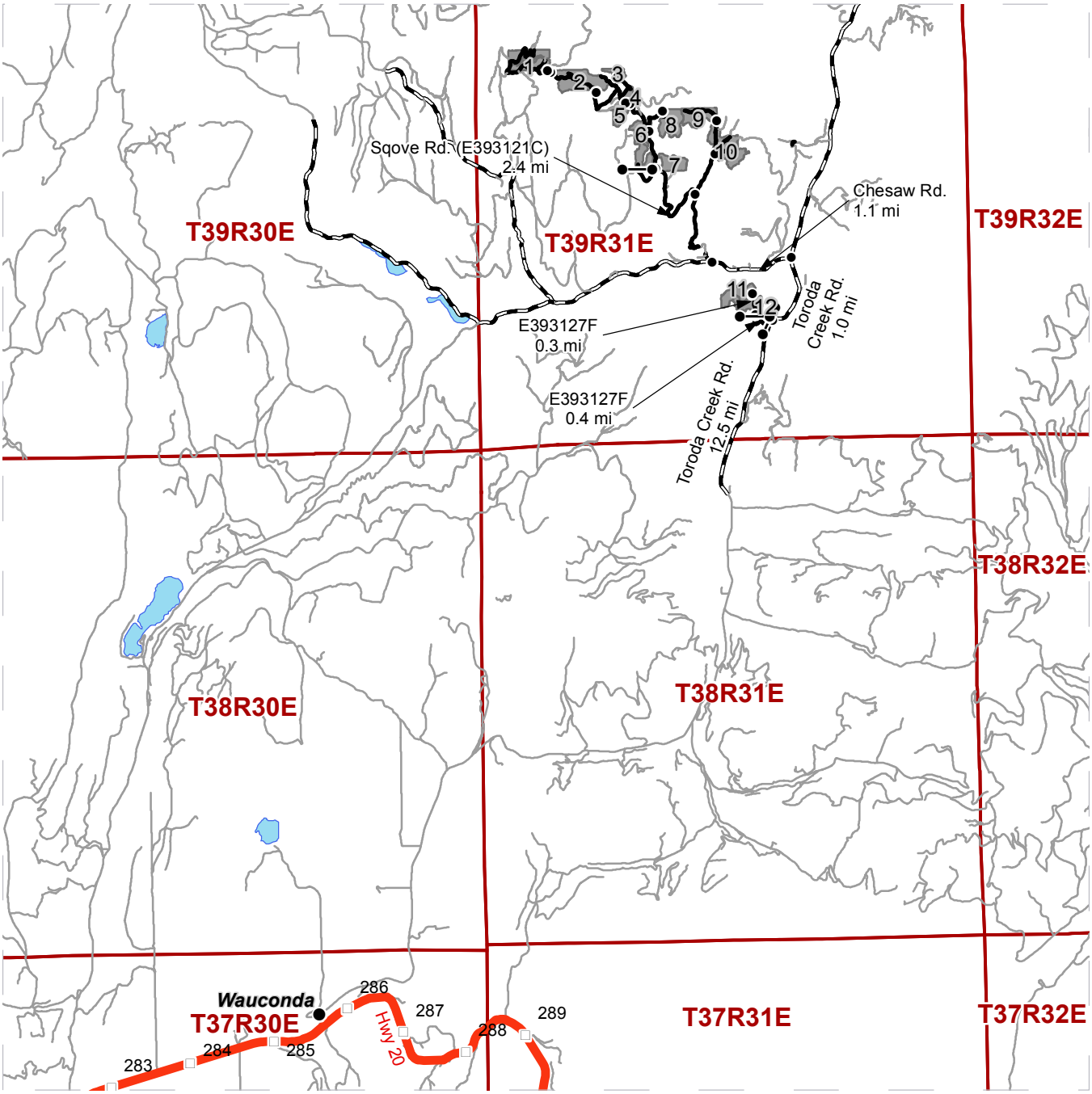
Position and Agency/Organization: NE Region Proprietary Forester, WADNR

Date Submitted: 9/15/16

DRIVING MAP

SALE NAME: COOGANS BLUFF FIT
AGREEMENT#: 30-093730
TOWNSHIP(S): T39R31E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2869-4231



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

DRIVING DIRECTIONS:

From Wauconda, WA, travel north on Toroda Creek Road for 12.5 miles and then turn west on road E393127F. Travel 0.4 miles to Unit 12 and an additional 0.3 miles to Unit 11.
From the Toroda Creek Road and E393127F junction travel 1.0 miles on Toroda Creek Road and then turn west on Chesaw Road. Drive 1.1 miles on Chesaw Road to Sqove Road and turn north on said road. Travel 2.4 miles on Sqove Road (E393121C) to Unit 7, turn north on E393116E and drive 0.5 miles to Unit 6. To reach Unit 8, turn east onto E393116K from the intersection in Unit 6 and travel 0.4 miles. To reach Units 4 and 5, continue another 0.5 miles on E393116E from Unit 6. To reach Unit 3, continue another 0.1 miles on E393116E, turn north on E393108K and travel 0.5 miles. To reach Unit 2, drive another 0.8 miles on E393116E from Units 4 and 5. Travel an additional 0.7 miles on E393116E to the intersection with E393108P, turn west and drive 0.1 miles to Unit 1. To reach Unit 10, travel 1.2 miles on Sqove Road from the intersection with Chesaw Road, turn northeast on E393121E and drive 0.6 miles. Continue another 0.4 miles to Unit 9.

N

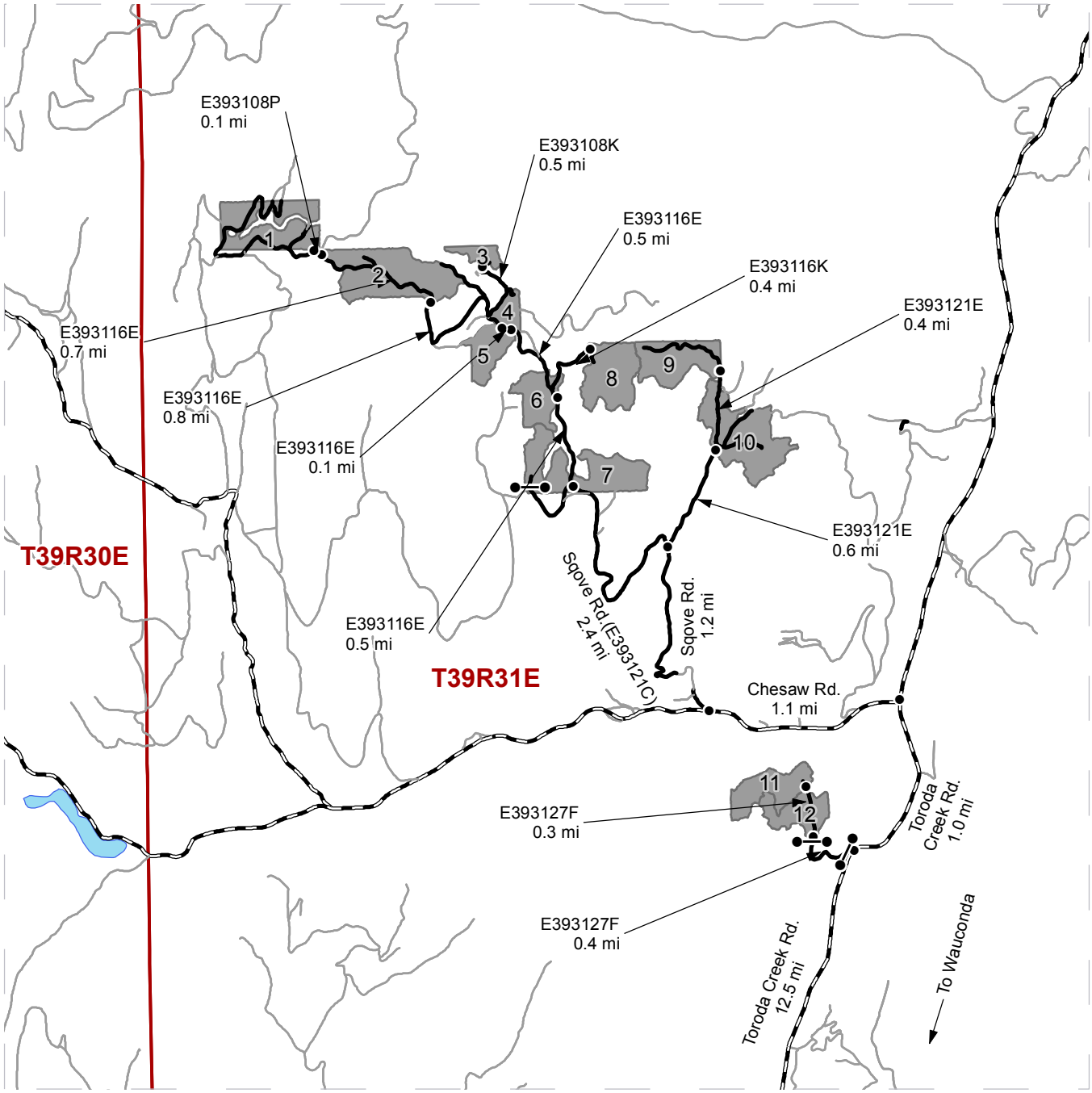
Prepared By: jmis490 02/26/2016

Modification Date: 6/23/2016

DRIVING MAP

SALE NAME: COOGANS BLUFF FIT
AGREEMENT#: 30-093730
TOWNSHIP(S): T39R31E
TRUST(S): Common School and Indemnity(3)

REGION: Northeast Region
COUNTY(S): OKANOGAN
ELEVATION RGE: 2869-4231



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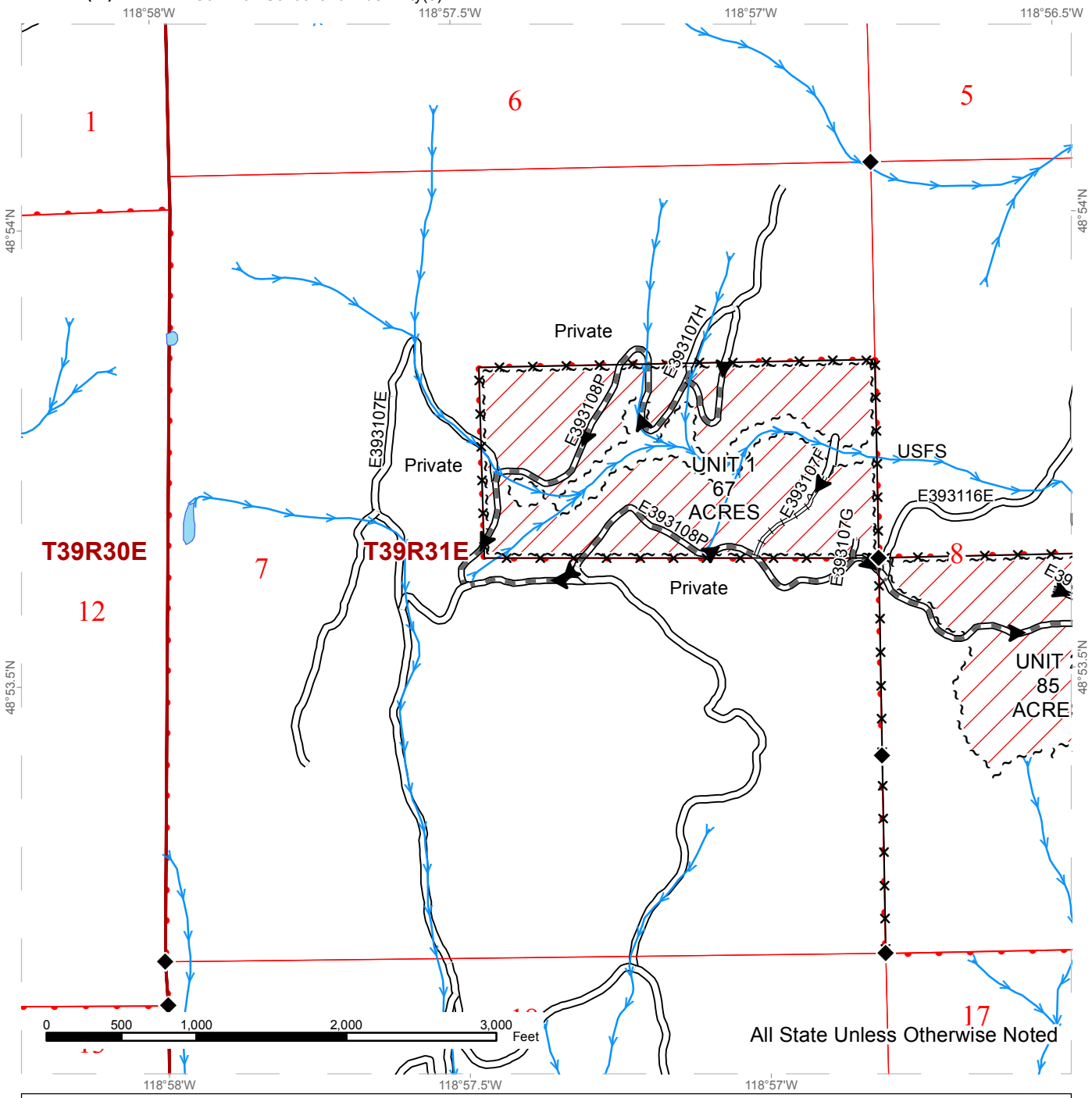

~ ~ ~ Sale Boundary Tags	Existing Road	Streams
Ground Skidding	Required Prehaul Maintenance	Fence
	Required Reconstruction	Monumented Corners
	Haul Route	

N

Prepared By: jmis490 02/26/2016

Modification Date: 8/8/2016

TIMBER SALE MAP

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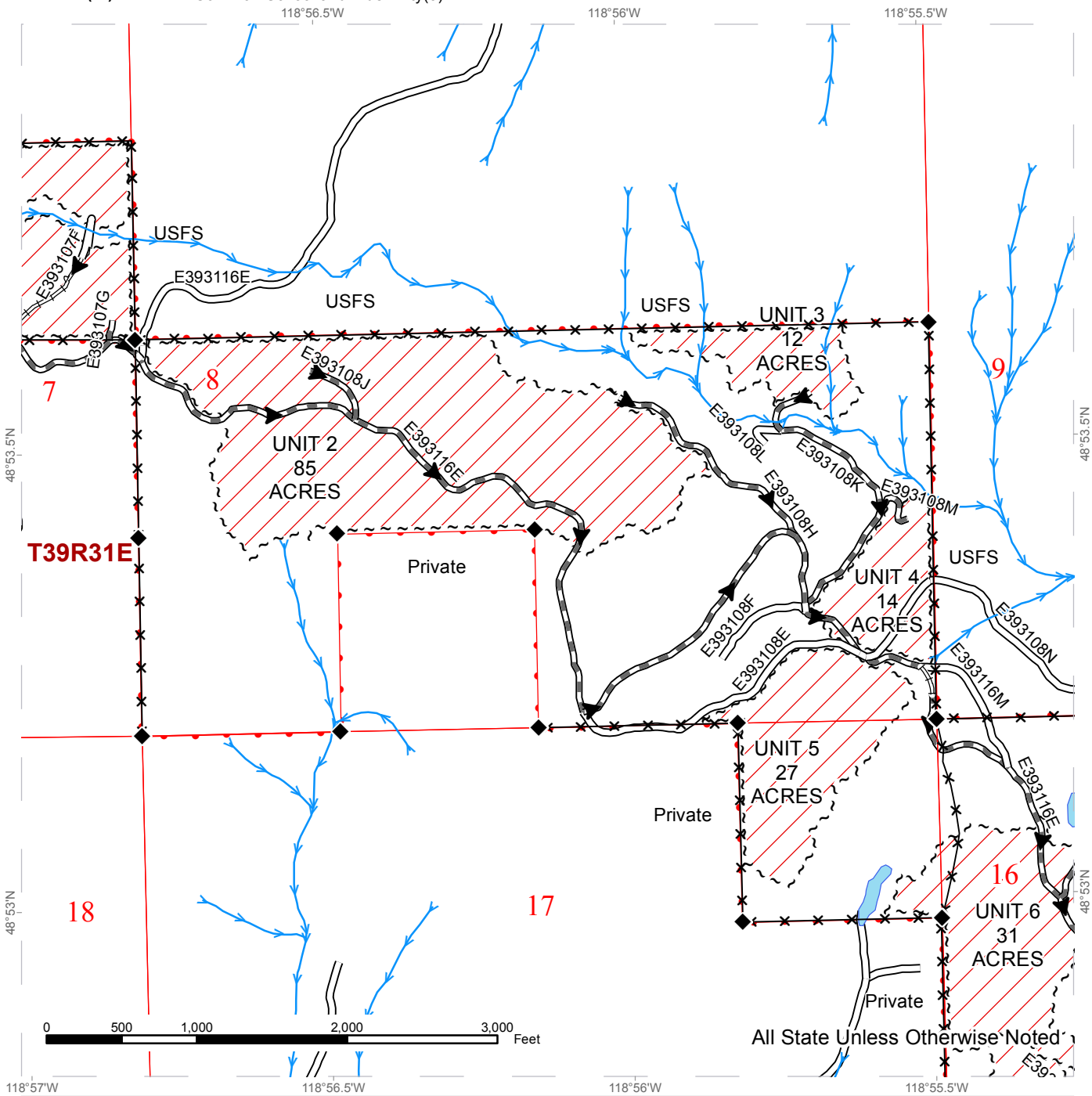
ELEVATION RGE: 2869-4231



~ ~ ~ Sale Boundary Tags	Existing Road	Streams
Ground Skidding	Required Prehaul Maintenance	Fence
	Required Reconstruction	Monumented Corners
	Haul Route	

N

Prepared By: jmis490 02/26/2016

Modification Date: 8/8/2016

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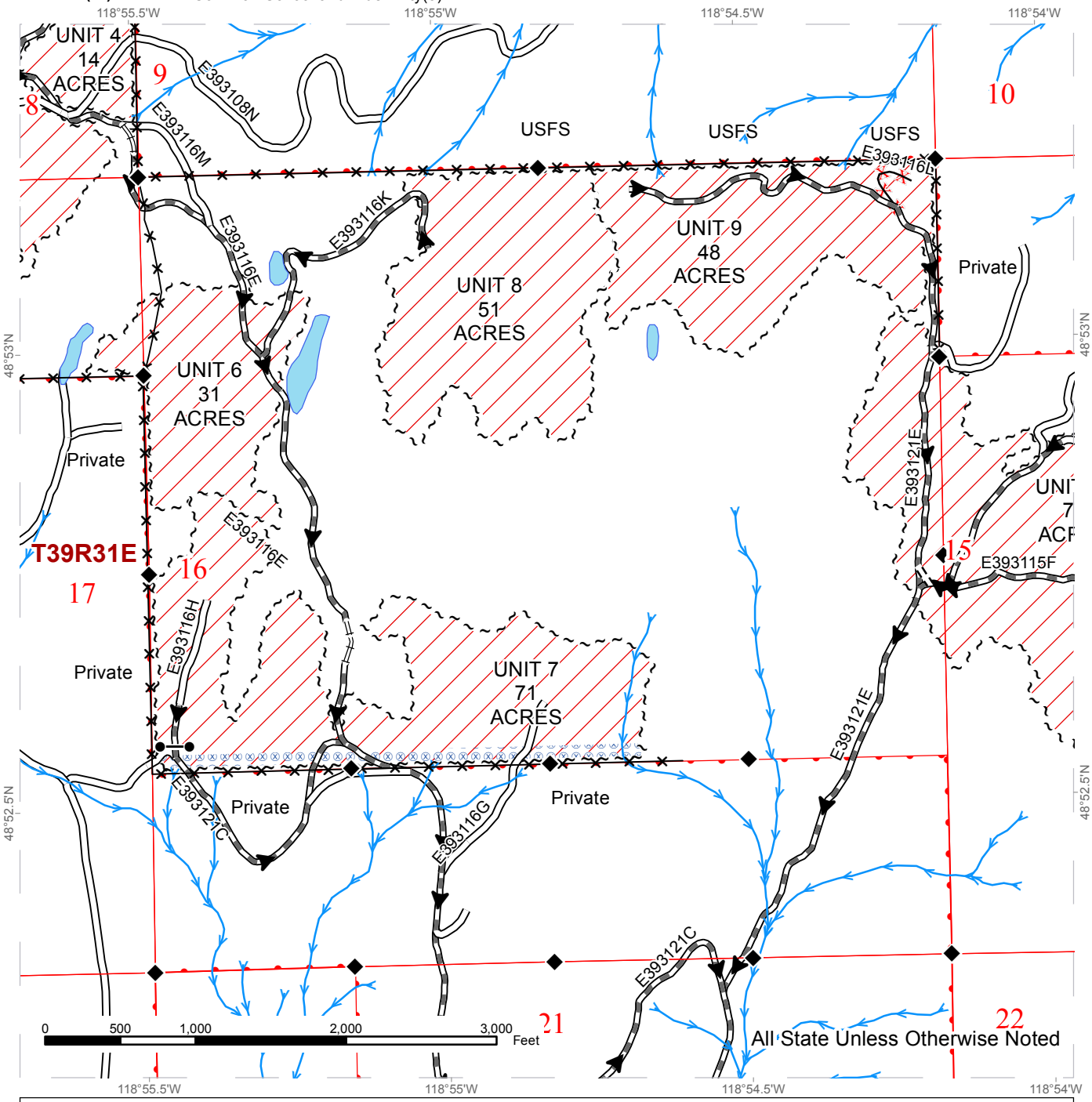

~ ~ ~ Sale Boundary Tags	Existing Road	Streams
Ground Skidding	Required Construction	Fence
Extreme Hazard Abatement	Required Decommission	Monumented Corners
	Required Prehaul Maintenance	Gate
	Required Reconstruction	
	Haul Route	

N

Prepared By: jmis490 02/26/2016

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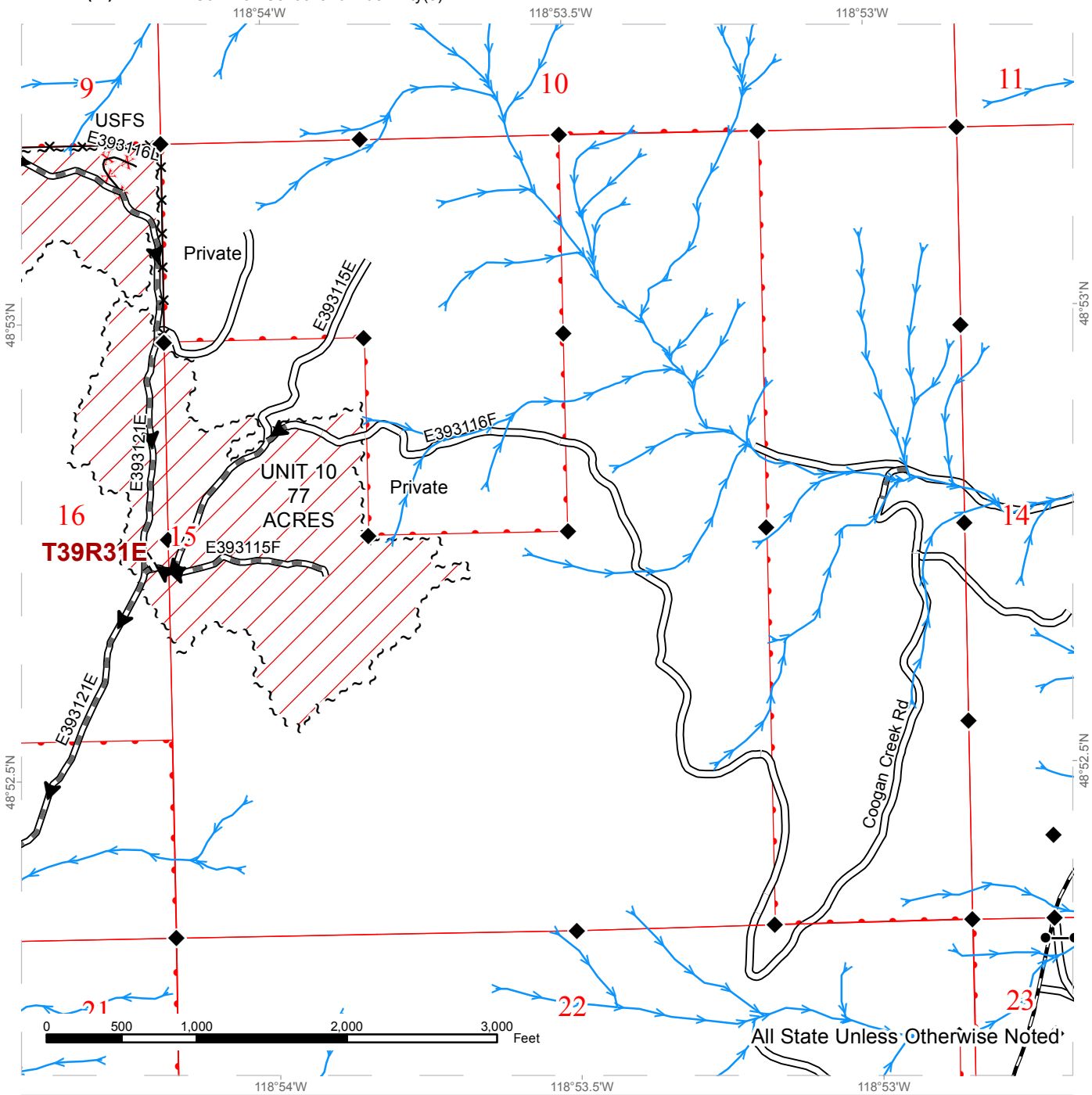

~ ~ ~ Sale Boundary Tags	County Road	Streams
Ground Skidding	Existing Road	Fence
	Required Construction	Monumented Corners
	Required Decommission	
	Required Prehaul Maintenance	
	Haul Route	

N

Prepared By: jmis490 02/26/2016

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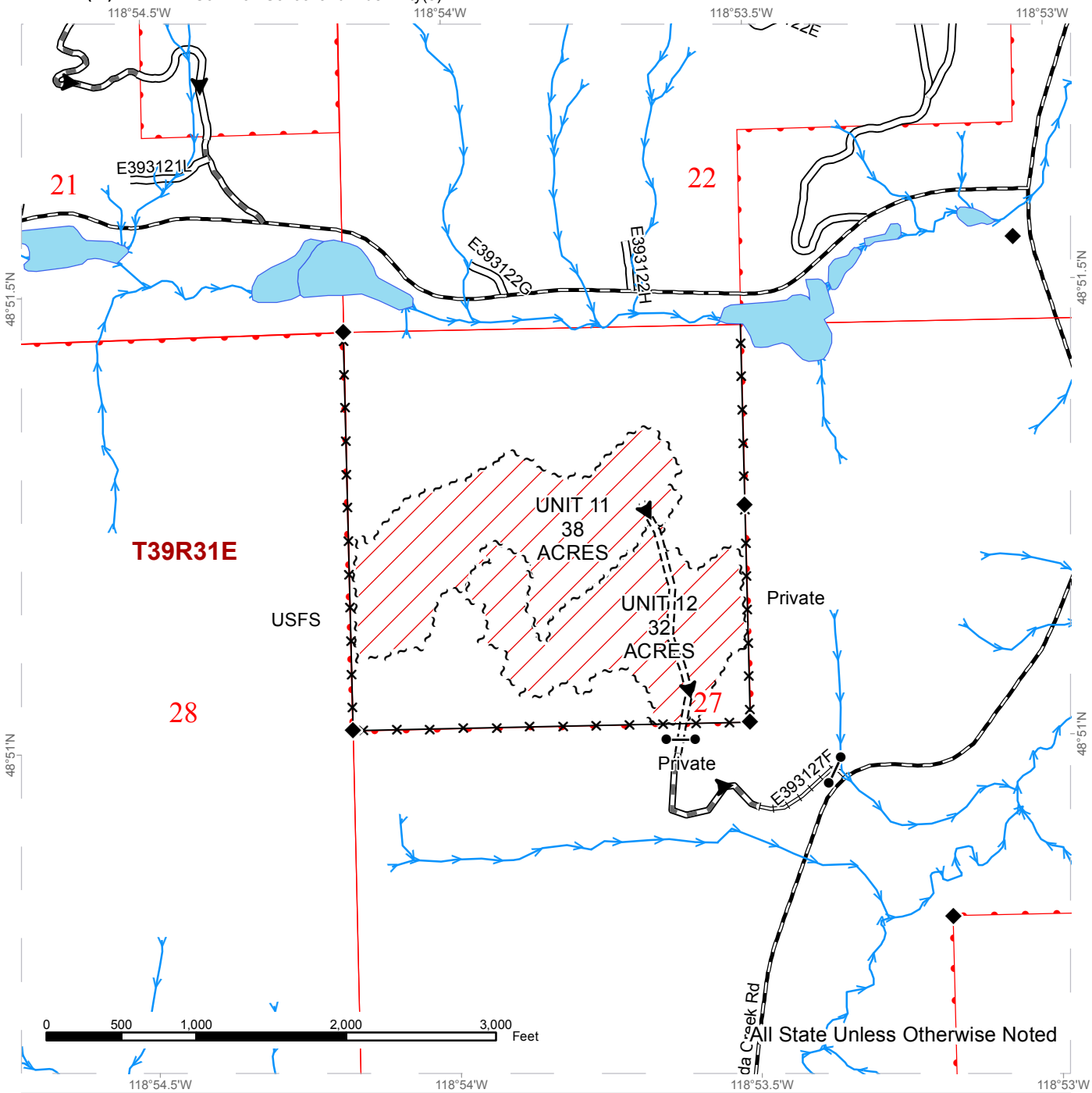

~~ Sale Boundary Tags	County Road	Streams
Ground Skidding	Existing Road	Fence
	Required Construction	Monumented Corners
	Required Prehaul Maintenance	Gate
	Required Reconstruction	
	Haul Route	

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Prepared By: jmis490 02/26/2016

Modification Date: 8/8/2016