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/sepa****. These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

FPA #2817520

Jack A Roe, 3/25/2020

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **JACK A ROE**
   Agreement # **30-098887**

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

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

   DNR Northwest Region

   919 North Township Street

   Sedro Woolley, WA 98284

   (360) 856-3500

   Contact person: Jay Guthrie

4. Date checklist prepared: **12/23/2019**

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

6. Proposed timing or schedule (including phasing, if applicable):
   a. *Auction Date:*
   10/28/2020

   b. *Planned contract end date (but may be extended):*
   03/31/2023

   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.
☐ *No, go to question 8.* ☒ *Yes, identify any plans under A-7-a through A-7-d:*

a. Site Preparation: **Variable Retention Harvest (VRH) areas may be treated with herbicides prior to planting. Assessment for treatment will occur after completion of harvest.**

b. Regeneration Method: **Hand plant conifer seedlings within two years after completion of harvest.**

c. Vegetation Management: **Treatment to be assessed in 3-5 years. Competing vegetation may be treated by manual cutting and/or herbicide. Thinning treatment to be assessed in 10 to 15 years for pre-commercial thinning. A commercial thinning is possible in 25 to 45 years.**

d. Other:
Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary. Onsite rock may be used for road construction, if rock sources are discovered along haul routes or within the sale area.

The MF-ML, MF-18, MF-25, MF-2513, MF-2513-02, MF-2514, MF-2514-01, MF-2518, MF-2518-01 and MF-2521 roads will continue to be used for future forest management activities.

The St. Stephen hard rock pit will continue to be used for future road construction and road maintenance activities.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. *Note: All documents are available upon request at the DNR Region Office.*
   ☒ *303 (d) – listed water body in WAU:* **Portions of Porter Creek, Middle Fork Nooksack River, and Canyon Lake Creek**
      ☒ *temp*
      ☐ *sediment*
      ☐ *completed TMDL (total maximum daily load)*
   ☐ *Landscape plan:*
   ☐ *Watershed analysis:*
   ☐ *Interdisciplinary team (ID Team) report:*
   ☒ *Road design plan:* **Dated 12/19/1029**

☒ *Wildlife report:* **Dated 01/13/2020**
☐ *Geotechnical report:*
☒ *Appendix D. slope stability informational form:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *Rock pit plan:*
☒ *Other:* **State Soil Survey, 1992; Policy for Sustainable Forests, December 2006; Final Habitat Conservation Plan (HCP) & Environment Impact Statement, September 1997; Riparian Forest Restoration Strategy, April 2006; Hydrologic Maturity and ROS Analysis dated October 1, 2019**

Referenced documents may be obtained at the region office responsible for this proposal.

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 #* 2817520 ☐ *FPHP* ☒ *Board of Natural Resources Approval*
☐ *Burning permit* ☐ *Shoreline 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 proposal is a variable retention harvest (VRH) and right-of-way, expected to produce a total of 4,255 MBF of timber. All RMZ areas will be non-harvest, as they already meet DNR riparian desired future conditions (RDFC) targets. All harvest is on State managed trust lands. The harvest removals may occur via ground-based, cable assisted and cable yarding systems. The proposal is surrounded by State managed land and private commercial timberlands.

Approximately 180 acres were considered for this proposal; this has been reduced to approximately 113 net acres due to riparian management zones, inner gorge features, patches of old growth remnants retained under DNR retention tree policy and non-productive site ground. All of this proposal is in the Porter Canyon WAU.

Rock pit will be utilized with this proposal. Rock pit name is listed in A.7.
Road work will be completed as part of this proposal, as listed in A.11.c.

It is anticipated that this proposal will be a Class IV Special Forest Practices Application as it is located in the Nuxwt'iqw'em Cultural District.

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

Pre-harvest Stand Description:
The pre-harvest condition is a second-growth stand, originating around 1945, via natural regeneration methods. The stand is mainly Douglas-fir, with some western hemlock and western redcedar intermixed. Red alder is also present in a couple of areas within the stand. Site productivity ranges from site II to site IV ground, with timber growth at higher elevations being slower due to shallower, rocky soils. Stand contains scattered old growth remnants, left from previous harvest and subsequent fire activity.

Overall Unit Objectives:
- **Generate revenue for the State trust beneficiaries.**
- **Protect water quality, maintain site productivity, minimize impact to soils and maintain wildlife habitat.**
- **This proposal meets or exceeds all guidelines set forth in the DNR Habitat Conservation Plan (HCP), Policy for Sustainable Forests, and Forest Practices Rules and Regulations.**

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c. *Describe planned road activity. Include information on any rock pits that will be used in this proposal. See associated forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		8,016	2.3	0
Reconstruction		970		0
Pre-haul Maintenance		30,343		0
Abandonment		0	-	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	3			
Cross-Drain Install/Replace	41			

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist *(See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" as referenced on the DNR website: http://www.dnr.wa.gov/sepa. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)*

a. *Legal description:* **Includes legal description of harvest, road work and rock pit:**

Sections 7, 8, 17, 18 and 19 of Township 38 North, Range 6 East and Sections 12 and 13 of Township 38 North, Range 5 East, W.M.

b. *Distance and direction from nearest town (see the driving map listed on the DNR website for further information):*
Proposal is located 11 miles southeast of Deming, WA.

13. Cumulative Effects

a. *Briefly describe any known environmental concerns that exist regarding elements of the environment in the associated WAU(s). (See WAC 197-11-444 for what is considered an element of the environment).*
Small shallow slope failures are known to exist in the WAU, associated with over-steepened slopes and inner gorge stream channels. The potential for natural delivery of sediment to typed waters is present, especially during peak flow events. The marbled murrelet has the potential to use suitable habitat within the WAU, and occupied sites are known to exist in the WAU.

b. *Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.*
This proposal meets or exceeds all guidelines set forth in the DNR Habitat Conservation Plan (HCP), Policy for Sustainable Forests, and Forest Practices Rules and Regulations.

The Department's Habitat Conservation Plan (HCP) outlines strategies to protect Federally listed threatened and endangered species, and species that are in danger of being listed in the future, as well as uncommon habitat types found on forest lands in western Washington. HCP riparian buffers intended to protect salmon and trout habitat were applied to this proposal, and will be applied to all future sales in the vicinity. The HCP identifies large, structurally unique trees and snags as uncommon habitats that need to be protected. An average of 8 trees per acre will be left in the proposed harvest area. These trees will function for future snag and large structurally unique tree recruitment.

c. *Briefly describe any specific mitigation measures proposed, in addition to the mitigation provided by plans and programs listed under question A-13-b.*
- **Retaining Riparian Management Zones (RMZs) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZs will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.**
- **Evaluating the proposal for potential slope instability, and excluding areas that exhibited indicators of potentially unstable slopes.**
- **Analyzing, designing, and constructing roads to minimize effects on the environment.**
- **Remote and field reviews were conducted to ensure that all identified potentially unstable slopes that were interpreted as having potential to adversely impact public resources or public safety, were excluded from the harvest areas.**
- **Rule-identified landforms with interpreted delivery potential, were excluded from harvest by timber sale boundary tags and non-tradeable leave trees.**

- **No tailholds will be allowed within and no timber will be yarded across any identified Forest Practice rule-identified landforms.**
- **Cross-drains and ditch-outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage by dispersing water onto stable forest floor.**
- **Skid trails may be water barred post harvesting activities, if necessary to avoid concentrating surface water runoff.**

d. Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?
No.

e. Complete the table below with the reasonably foreseeable future activities within the associated WAU(s) (add more lines as needed). Future is defined as occurring within the next 7 years.

WAU Name	Total WAU Acres	DNR-owned WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
PORTER CANYON	19,789	6,557	944	460	1,174

Other management activities, such as stand and road maintenance, will likely occur within the associated WAU(s).

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 associated WAU(s) or sub-basin(s) within the proposal (landforms, climate, elevations, and forest vegetation zone).*

WAU:	PORTER CANYON
WAU Acres:	19,789
Elevation Range:	282 – 5,007 ft.
Mean Elevation:	2,077 ft.
Average Precipitation:	74 in./year
Primary Forest Vegetation Zone:	Western Hemlock

2. *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
This proposal is a representative example of the WAU at the same elevation and aspect.

b. What is the steepest slope on the site (approximate percent slope)?
90%

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 an overview of general soils information for the soils found in the entire sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture
0126	V.GRAVELLY LOAM
5603	V.GRAVELLY LOAM
0140	V.GRAVELLY SILT LOAM
5604	V.GRAVELLY LOAM
0694	V.GRAVELLY LOAM

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

☐ *No, go to question B-1-e.*
☒ *Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.*
In and around the proposal are relict deep-seated bedrock associated landslides and bedrock hollows.

Around the proposal there are also steep inner gorge features along Falls Creek, with small shallow rapid landslides present on the long 70%+ slopes down to Falls Creek. These features are within RMZs, and no portion of these areas will be harvested.

The statewide landslide inventory (LSI) screening tool indicates the presence of two polygons mapped as landslides within the proposed harvest unit boundaries. These polygons are addressed in the slope form, appendix D, of the FPA. This landslide database is maintained by the Washington State Department of Natural Resources, Forest Practices Division. The LSI includes landslides mapped during many different projects including large-scale geologic mapping, watershed analyses, landscape planning, and landslide hazard zonation, in addition to other case studies and mapping efforts. A large majority of landslides identified by these projects are mapped by remote review with minimal field verification. In addition, dormant and ancient deep-seated landslides are mapped in many projects included in the LSI. A large number of the remotely identified landslides and deep-seated features have been mapped with a questionable, probable, or unknown certainty. As a result, the LSI database is meant to be used as a screening tool and field verification is a necessary step in confirming the absence, presence, and extent of mapped features, as well as their actual level of activity/instability.

1) *Does the proposal include any management activities proposed on potentially unstable slopes or landforms?*

☐ *No* ☒ *Yes, describe the proposed activities:*
Falling, yarding and road building will occur within two dormant-indistinct to relict, deep-seated, bedrock landslides in the sale. These features were evaluated by a state lands geologist.

2) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*
No timber harvest or road work will occur on potentially unstable slopes with the potential to deliver debris to surface waters or other public resources. Roads were designed to minimize ground-based yarding distances to an average of 400 feet or less and to access cable landing locations for areas requiring cable yarding. Land features such as benches, ridgetops and saddles were utilized to provide a more stable road surface.

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: **2.3**
Approx. acreage new landings: **1.5**
Fill Source: **Native material and rock**

Road construction will utilize standard cut and fill methodology and full bench construction to obtain grade and alignment. Native soil and rock will be excavated from the road prism and used for fill in the sub-grade and over cross drains and stream crossings.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.

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):*
Less than 5% of the site will remain as gravel roads.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)
The following timing and access restrictions will be applied to the project:
- **No road construction or timber or rock haul will occur from November 1 to March 31 unless the operator formulates an adequate plan to prevent road sediment from entering surface waters.**
- **No ground-based yarding operations will occur from November 1 to March 31 during times of heavy precipitation and/or soil saturation unless the operator formulates an adequate plan to prevent erosion and channelling water towards sensitive slopes.**

The following strategies will be applied to proposed road construction/maintenance:

- **All roads will be constructed to meet or exceed Forest Practices standards and the Habitat Conservation Plan guidelines.**
- **Soils that are exposed by road work will be revegetated the year roads are constructed.**
- **On newly constructed roads, cross-drain culverts will be adequate in size and frequency to prevent concentration of road runoff to the extent that it would cause gullying of stream drainages. Cross drain culverts will be placed in order to minimize the amount of ditch water that flows into surface waters. Riprap will be utilized at culvert inlets and outlets as necessary to prevent erosion at these vulnerable points. Existing roads will be maintained so that drainage structures remain functional.**
- **Storm patrols will be conducted as necessary on existing and newly constructed roads to identify and address potential erosion problems.**

The following strategies will be applied to the proposed timber harvest:
- **Riparian management zone (RMZ) buffers as described in B.3.a.1.b. and B.3.a.1.c., will be retained.**
- **The leading end of logs will be suspended when being yarded to reduce soil disturbance.**
- **Any equipment trails will be water-barred and/or grass-seeded if necessary.**
- **Untethered, non self-leveling, ground-based equipment will be restricted to operating on sustained slopes of 40% or less. Untethered, ground-based equipment of any type will be restricted to operating on sustained slopes of 55% or less.**

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
None known.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

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 "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" as referenced on the DNR website: http://www.dnr.wa.gov/sepa. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)*

☐ *No* ☒ *Yes, describe in 3-a-1-a through 3-a-1-c below*

a. Downstream water bodies: **Falls Creek, Heislers Creek and Middle Fork Nooksack River.**

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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)
Unnamed and Falls Creek	Type 3	2	165/172
Unnamed and Falls Creek	Type 4	15	100
Unnamed	Type 5	10	0/30-foot ELZ

c. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers.
RMZ/WMZ buffers as listed in B.3.a.1.b. as well as the proposed measures to reduce or control erosion described in B.1.h provide protection measures for the surface waters in the vicinity of the proposal area.

Ditchwater will be diverted through relief culverts prior to stream crossings to keep sediment out of streams. Exposed soils will be grass seeded.

RMZs are no-harvest buffers. No wind buffers were applied to the type 3 streams as is was deemed unnecessary for this proposal. Type 3 streams associated with the proposal are all downslope of the actual proposal area.

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 maps which are available on the DNR website: http://www.dnr.wa.gov/sepa. Timber sale maps are also available at the DNR region office.)*
(Note: Timber Sale maps are DRAFT at the point of submission of this SEPA.)

Description (include culverts): **Culvert installations at typed water crossings and road construction/right-of-way removals at crossings. VRH adjacent to no-harvest RMZs.**

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected.
Indicate the source of fill material.
None.

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

☐ *No* ☒ *Yes, description:* **All water flow may be temporarily diverted through bypass culverts or retained behind (or pumped around) coffer dams during culvert installations. Also, typed waters may be temporarily diverted, if culvert replacement is deemed necessary, through the course of operations, on typed water crossing on existing roads.**

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

☒ *No* ☐ *Yes, describe activity and 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.
It is not likely that any waste materials will be discharged into the surface waters.

7) *Is there a potential for eroded material to enter surface water as a result of the proposal considering the protection measures incorporated into the proposal's design?*

☐ *No* ☒ *Yes, describe:*
Soils and terrain susceptible to surface erosion are generally located on slopes steeper than 70%. The potential for eroded material to enter surface water is minimized due to the erosion control measures and operational procedures outlined in B-1-h.

8) *What are the approximate road miles per square mile in the associated WAU(s)?*

PORTER CANYON = 3.4 (mi./sq. mi.)

9) *Are there forest roads or ditches within the associated WAU(s) that deliver surface water to streams, rather than back to the forest floor?*

☒ *No* ☐ *Yes, describe:*
While it is likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, none were identified within the scope of this project.

10) *Is there evidence of changes to channels associated with peak flows in the proposal area (accelerated aggradations, surface erosion, mass wasting, decrease in large organic debris (LOD), change in channel dimensions)?*

☐ *No* ☒ *Yes, describe observations:*
There is evidence of minor changes and aggradation to the channels of some streams. These changes can most likely be attributed to past mass wasting and peak flow events. Debris flows or torrents have scoured some channels down to bedrock and may have historically resulted in small course changes in some low gradient channel segments.

11) *Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area.*
No significant impacts are anticipated. See Hydrologic Maturity and ROS Analysis dated October 1, 2019.

12) *Is there a water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

☐ *No* ☒ *Yes, describe the water resource(s):*
The Middle Fork Diversion Dam, slated for removal, is downslope of the proposal, as well as downstream of the Falls Creek Drainage.

The Middle Fork of the Nooksack River is ultimately downstream of all water courses in the proposal area.

a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?

☒ *No* ☐ *Yes, describe possible impacts:*

13) *Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.*
Leave tree areas were put in place along portions of DNR type 5 streams that did not otherwise require protection measures. Equipment specifications were designed to minimize soil impacts and delivery potential. Seasonal restrictions are in place to restrict ground based operations during the wet season, if conditions do not allow for low impact operating.

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 water will be withdrawn or discharged.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

☐ *No* ☒ *Yes, describe:* **See B.3.a.12.**

a. Is it likely a water resource or an area of slope instability listed in B-3-b-3 (above) could be affected by changes in amounts, timing, or movements of groundwater as a result this proposal?

☒ *No* ☐ *Yes, describe possible impacts:*

Note protection measures, if any:

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.
Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

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

☒ *No* ☐ *Yes, describe:*
No waste material is anticipated to enter any water as a result of this proposal.

Note protection measures, if any:
No additional protection measures will be necessary to protect these resources beyond those described in B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.
No changes to drainage patterns are expected.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
Existing ditches, new cross-drain (relief) culverts, drain dips, and water bars may be used to control road related runoff. Straw, grass seeding, or other appropriate methods may be used on any soil exposed cut and fill slopes during the course of this proposal in order to prevent sediment movement. Roads and landings will be crowned to avoid water accumulation. Falling and yarding away from all typed water will be applied where feasible. All activities associated with this proposal will meet or exceed Forest Practices standards and will follow the Habitat Conservation Plan. See also B-3-a-1-c, B-3-a- 13, B-3-b-3, and B-3-c-2.

4. Plants

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

☒ Deciduous tree:
☒ Alder ☐ Aspen ☒ *Birch* ☒ *Cottonwood* ☒ Maple ☐ *Western Larch*
☒ Other: **Cherry**

☒ Evergreen tree:
☒ *Douglas-Fir* ☐ *Engelmann Spruce* ☐ *Grand Fir* ☐ *Lodgepole Pine*
☐ *Mountain Hemlock* ☐ *Noble Fir* ☐ *Pacific Silver Fir* ☐ *Ponderosa Pine*
☒ *Sitka Spruce* ☒ *Western Hemlock* ☒ *Western Redcedar* ☐ *Yellow Cedar*
☐ Other:

☒ Shrubs:
☒ *Huckleberry* ☒ *Rhododendron* ☒ *Salmonberry* ☒ *Salal*
☒ *Other:* **Osoberry**

☒ *Ferns*

☐ Grass

☐ Pasture

☐ Crop or Grain
☐ *Orchards* ☐ *Vineyard* ☐ *Other Permanent Crops*

☒ Wet Soil Plants:
☐ Bullrush ☒ Buttercup ☐ Cattail ☒ *Devil's Club* ☐ Skunk Cabbage
☐ Other:

☐ Water plants:
☐ Eelgrass ☐ Milfoil ☐ Water Lily
☐ Other:

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☐ Other types of vegetation:
☐ *Plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(Also see answers to questions A-11-a, A-11-b and B-3-a-2).*
See A.11. Second-growth conifer and hardwoods will be removed using a VRH prescription. Understory vegetation will be disturbed by logging or road building activities. These stands will retain snags, dominant and co-dominant and/or structurally unique trees via clumps and scattered leave trees to increase horizontal and vertical diversity over the landscape.

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" on the DNR website: http://www.dnr.wa.gov/sepa. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)*
Adjacent timber ranges from recently harvested and planted timber units, to timber stands originating in the 1940s.

Young stands of adjacent timber contain predominantly Douglas-fir plantations. Adjacent second growth timber is consistent with the timber found in the proposal area, with mostly conifer dominated forests, similar to the unit.

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

None found per FPRAM 6/29/2020 BH

None found in corporate database.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
An average of 8 trees per acre in the variable retention harvest areas will be left as scattered leave trees and in clumps that are distributed across the proposal area. These clumps include all tree species currently found in the proposal area. Clumped and scattered leave trees primarily targeted old growth remnants, but also are located around areas with downed woody debris, adjacent to small streams, and on large, wind firm conifer trees. These placements will contribute to the maintenance of biological diversity.

e. List all noxious weeds and invasive species known to be on or near the site.
The corporate database indicates no known noxious weeds or invasive species, however, Himalayan blackberry and holly are found on the site.

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:
☒ eagle ☒ hawk ☐ heron ☐ *owls* ☐ songbirds
☒ other: **blue grouse, ravens, crows**
mammals:
☒ bear ☐beaver ☒ *coyote* ☒ *cougar* ☒ deer ☐ elk
☐ other:
fish:
☐ bass ☐ herring ☐ salmon ☐ shellfish ☐ trout
☐ other:
amphibians/reptiles:
☒ *frog* ☐ *lizard* ☐ *salamander* ☒ *snake* ☐ *turtle*
☐ *other*:
unique habitats:
☐ *balds* ☐ *caves* ☐ *cliffs* ☐ *mineral springs* ☐ *oak woodlands* ☐ *talus slopes*
☐ other:

Eagle: Bald Eagles were spotted in the vicinity of the area, but no nests or roosting areas were identified.

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b. List any threatened and endangered species known to be on or near the site (*include federal- and state-listed species*).
None found in corporate database.

Marbled Murrelet Detection Area & within 1.5mi buffer of Marbled Murrelet Occupied Site per FPRAM 6/29/2020 BH

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:*
Explain:

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: **Downstream Fish Habitat**
Protection Measures: **Stream protection measures listed in B.3.a.1.b. and c., B.3.a.2.; soil protection measures in B.1.h.; slope stability protection in B.1.d.2; and peak flows protection in B.3.a.13.**

Species /Habitat: **Mature Forest Components and unique landscape features**
Protection Measures: **Retention tree plan described B.4.d.**

e. List any invasive animal species known to be on or near the site.
None known.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental health

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

1) Describe any known or possible contamination at the site from present or past uses.
None known.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

4) Describe special emergency services that might be required.
The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.

5) Proposed measures to reduce or control environmental health hazards, if any:
No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.

NOTE: If contamination of the environment is suspected, the proponent must contact the Department of Ecology.

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.
There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area. This typically occurs between 4 a.m. and 4 p.m. on weekdays.

3) Proposed measures to reduce or control noise impacts, if any:
None.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. *(Site includes the complete proposal, e.g. rock pits and access roads.)*
Current use of site and adjacent land types: Working Forest Lands.

This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

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?
This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
No.

c. Describe any structures on the site.
None.

d. Will any structures be demolished? If so, what?
No.

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

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

g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.

i. Approximately how many people would reside or work in the completed project?
None.

j. Approximately how many people would the completed project displace?
None.

k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This project is consistent with current comprehensive plans and zoning classifications.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
None.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.

c. Proposed measures to reduce or control housing impacts, if any:
None.

10. Aesthetics

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

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

1) *Is this proposal visible from a residential area, town, city, recreation site, major transportation route or designated scenic corridor (e.g., county road, state or interstate highway, US route, river or Columbia Gorge SMA)?*

☐ *No* ☒ *Yes, name of the location, transportation route or scenic corridor:*
Portions of this proposal may be visible from Highway 9, near Acme, WA and from the Forest Service 38 road. Leave tree patterns and Riparian Management Zones will help mitigate any visual impacts.

2) *How will this proposal affect any views described above?*
This proposal will resemble previous timber harvests in the area and background view will change from a stand of mature timber to a view of a recent harvest with mature trees remaining scattered and clumped throughout the unit.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Leave tree patterns and Riparian Management Zones will help mitigate any visual impacts. Additionally, the proposal area will be planted with conifer trees within two years of completion of harvest activities.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.

c. What existing off-site sources of light or glare may affect your proposal?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Informal recreational opportunities exist in the vicinity. These include shooting, hiking, mountain biking, hunting, ORV use, berry picking, and mushroom picking.

b. Would the proposed project displace any existing recreational uses? If so, describe.
There may be some disruptions to recreational use during periods of harvesting and hauling.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None, other than aesthetic mitigations listed in B.10.

13. Historic and cultural preservation

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

Verified per FPRAM Site # WH00540 6/29/2020 BH

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.
None known.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.
Historic GLO maps and DAHP GIS layers were reviewed by an agency Cultural Resource Technician.

A meeting was held with representatives from the Nooksack Indian Tribe and Lummi Nation on January 23, 2019 in order to provide more comprehensive information concerning this and other proposals. No concerns have been raised as of the submittal of this document.

Field observations for cultural resources were a part of the field work done with the proposal. None were found.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
Please see WAU and adjacency maps on the DNR website under "SEPA CENTER". Access to the proposal area is off of Mosquito Lake Road, using the USFS-38 Road. There will be no addition of public roads to access the site as a result of this 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?
No. Nearest transit spot is approximately 11 miles away in Deming, WA

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
None.

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.

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*
Apart from log hauling traffic during the course of operations, this project will have minimal to no additional impacts on the overall transportation system in the area.

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e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?
The completed project will generate approximately 1-2 trips per year for management purposes, for the first 5-10 years after the completion of the proposal. Up to 25 vehicular trips per day could occur during peak harvest activities. These trips would occur primarily between the hours of 4 a.m. and 5 p.m. on weekdays.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.
No.

h. Proposed measures to reduce or control transportation impacts, if any:
None.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
No.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. Utilities

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

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
None.

C. SIGNATURE

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

Signature: _____

Name of signee Kelly A Beesley

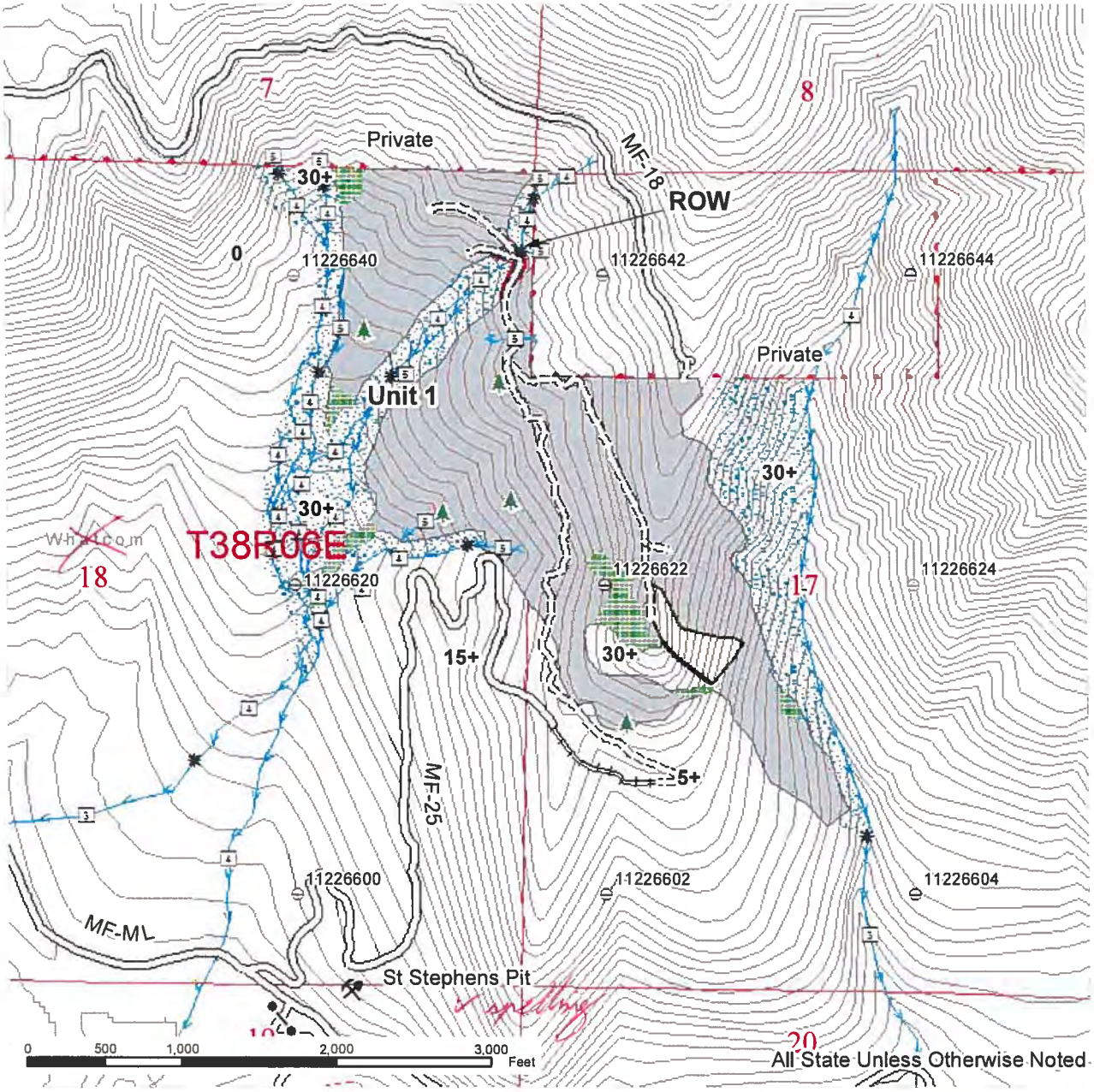
Position and Agency/Organization Natural Resource Specialist 2

Date Submitted: _____

FOREST PRACTICES ACTIVITY MAP

SALE NAME: JACK A ROE
APPLICATION #: TBD by FP Staff

COUNTY(S): Whatcom
TOWNSHIP(S): T38R6E



- Variable Retention Harvest
- Variable Density Thinning
- Right of Way
- Leave Tree Area
- No-cut RMZ
- Existing Roads
- New Construction
- Required Reconstruction
- Streams
- Stream Type
- Stream Type Break
- Leave Tree Area <1/4-acre
- Rock Pit

N

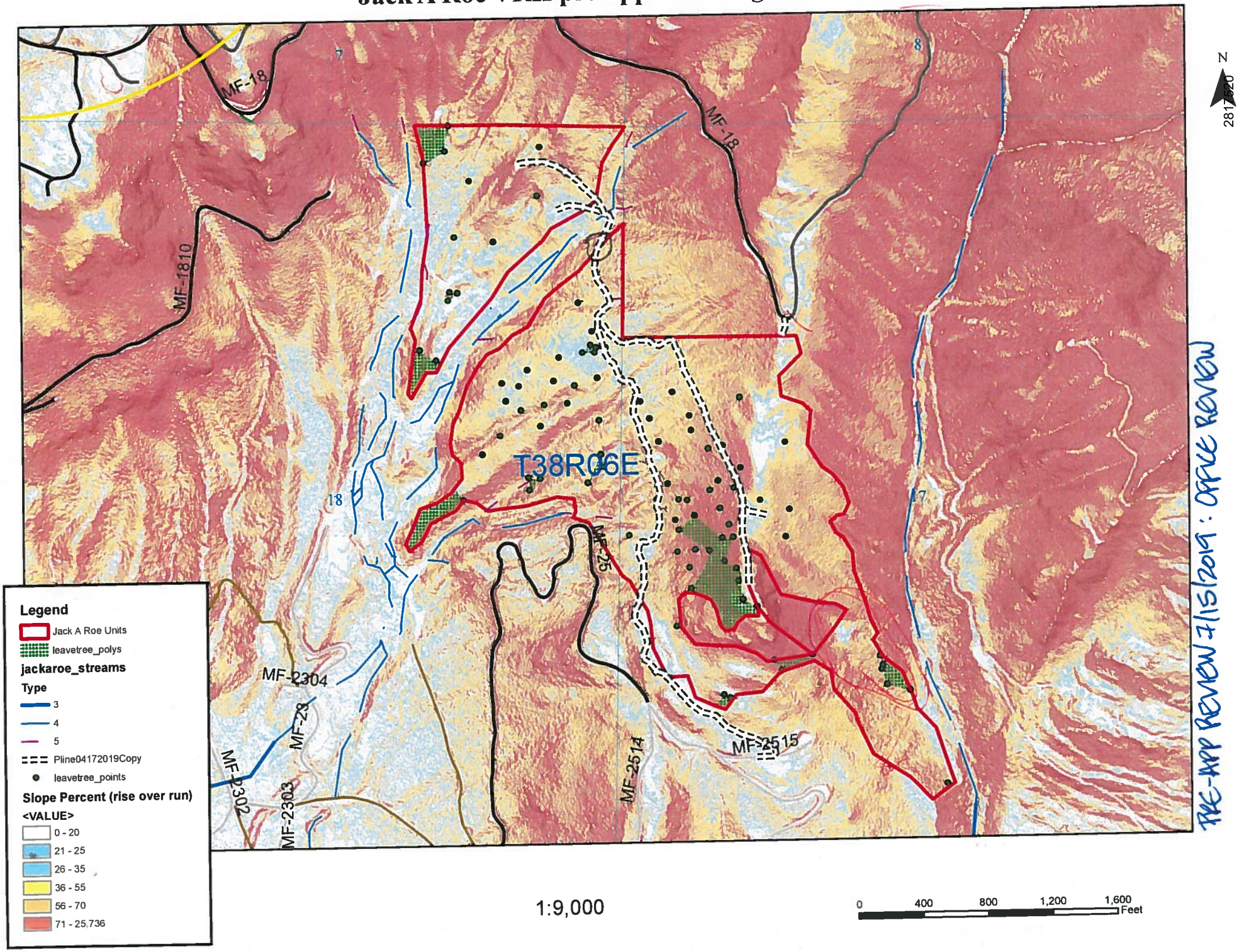
PRE-APP REVIEW 7/15/2019 : OFFICE REVIEW

Prepared By: kbly490

Modification Date: kbly490 7/15/2019

2817520

Jack A Roe VRH pre-app with Megan



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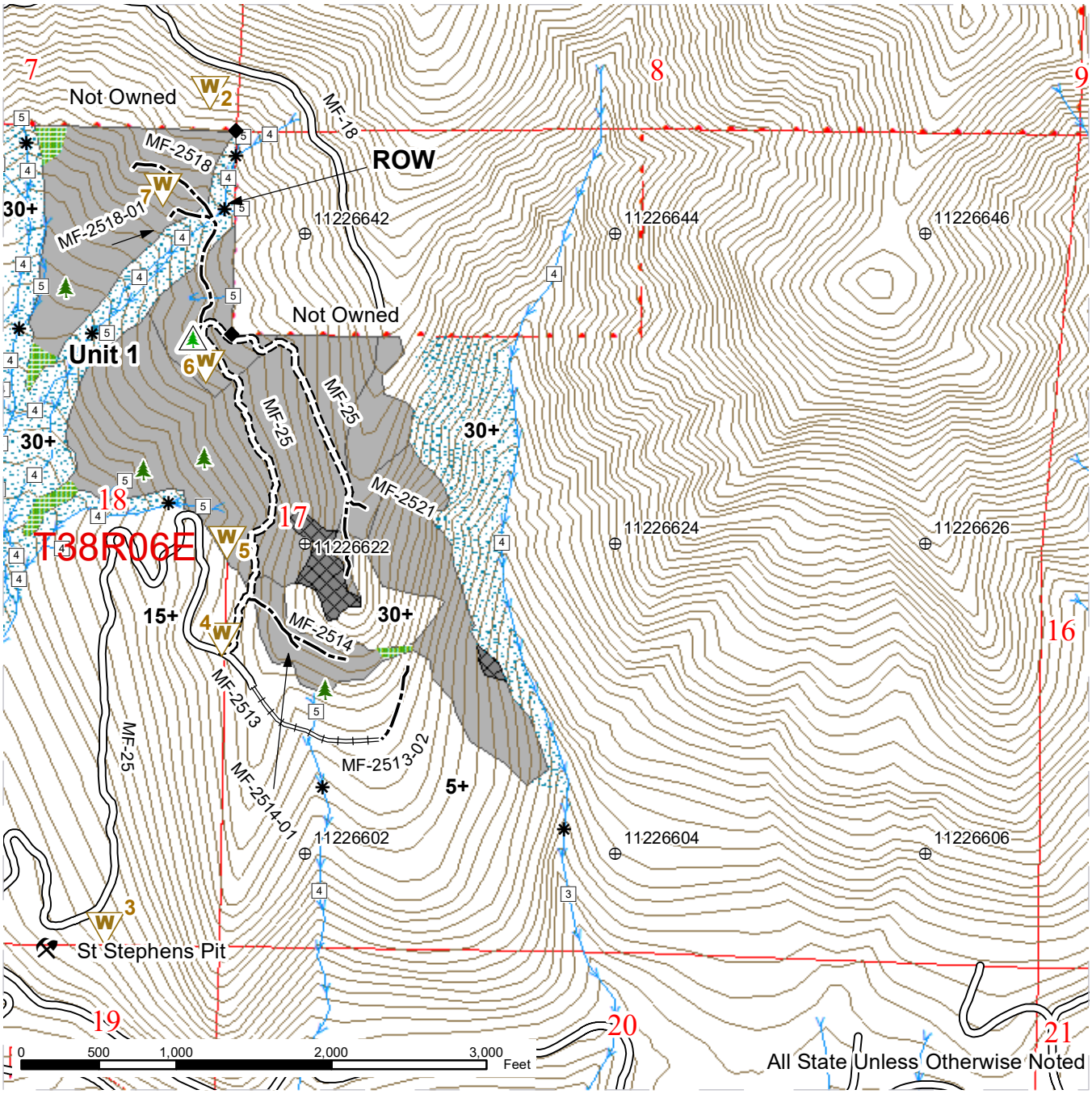

- Even Aged
- DNR Managed Lands
- Non-tradeable Leave Tree Area
- Leave Tree Area
- No-harvest RMZ
- Existing Roads
- New Construction
- Construction
- Reconstruction=Construction
- Streams
- Found Survey Monuments
- Leave Tree Area <1/4-acre
- Non-Tradeable Leave Trees
- Rock Pit
- Waste Area

N

Prepared By: kbly490

Modification Date: kbly490 2/26/2020

2817520

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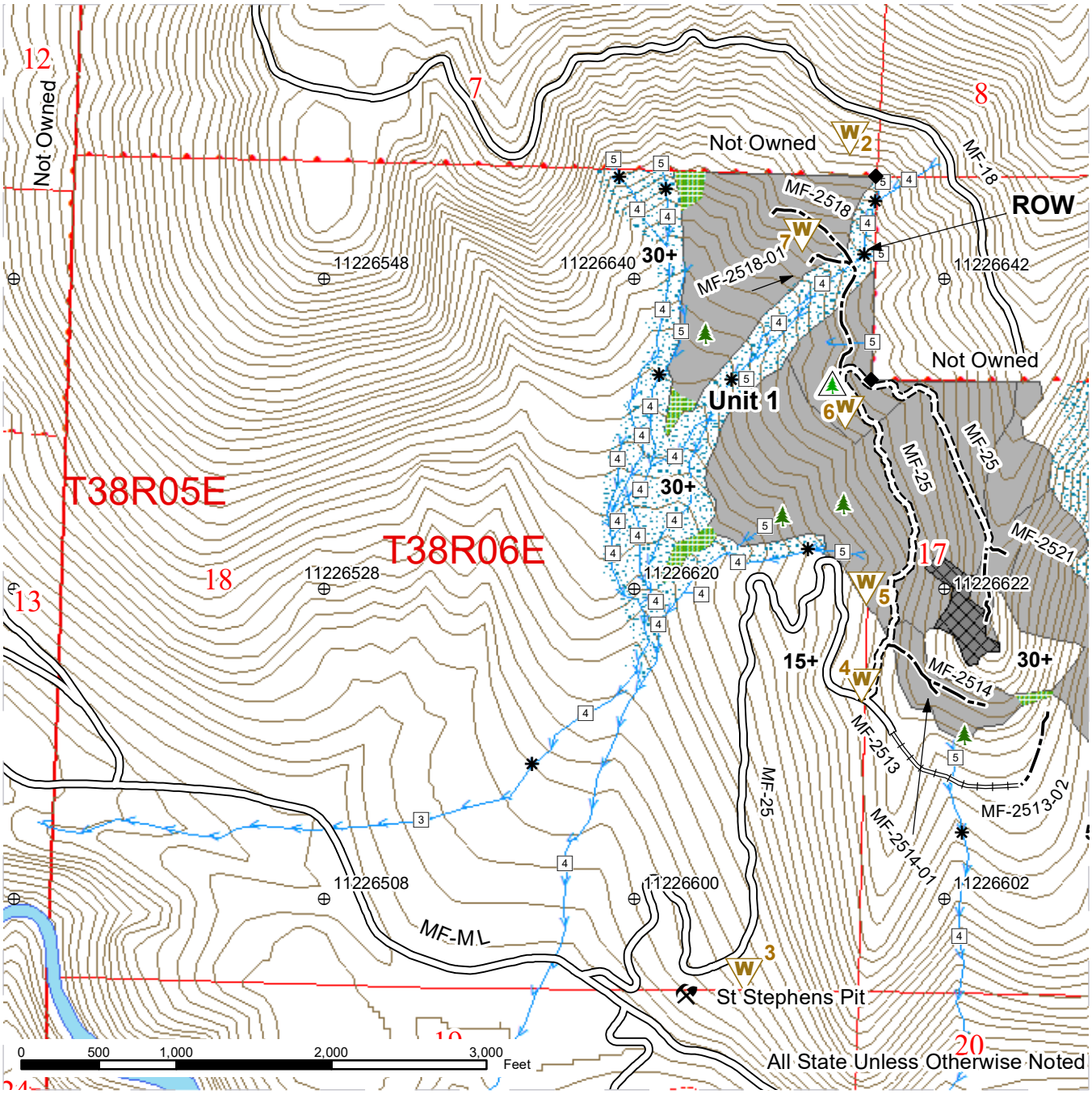

Even Aged	Reconstruction=Construction
DNR Managed Lands	Streams
Non-tradeable Leave Tree Area	Found Survey Monuments
Leave Tree Area	Leave Tree Area <1/4-acre
No-harvest RMZ	Non-Tradeable Leave Trees
Existing Roads	Rock Pit
New Construction	Waste Area
Construction	

N

Prepared By: kbly490

Modification Date: kbly490 2/26/2020

2817520

FOREST PRACTICES ACTIVITY MAP

SALE NAME: JACK A ROE VRH
APPLICATION #: TBD by FP Staff

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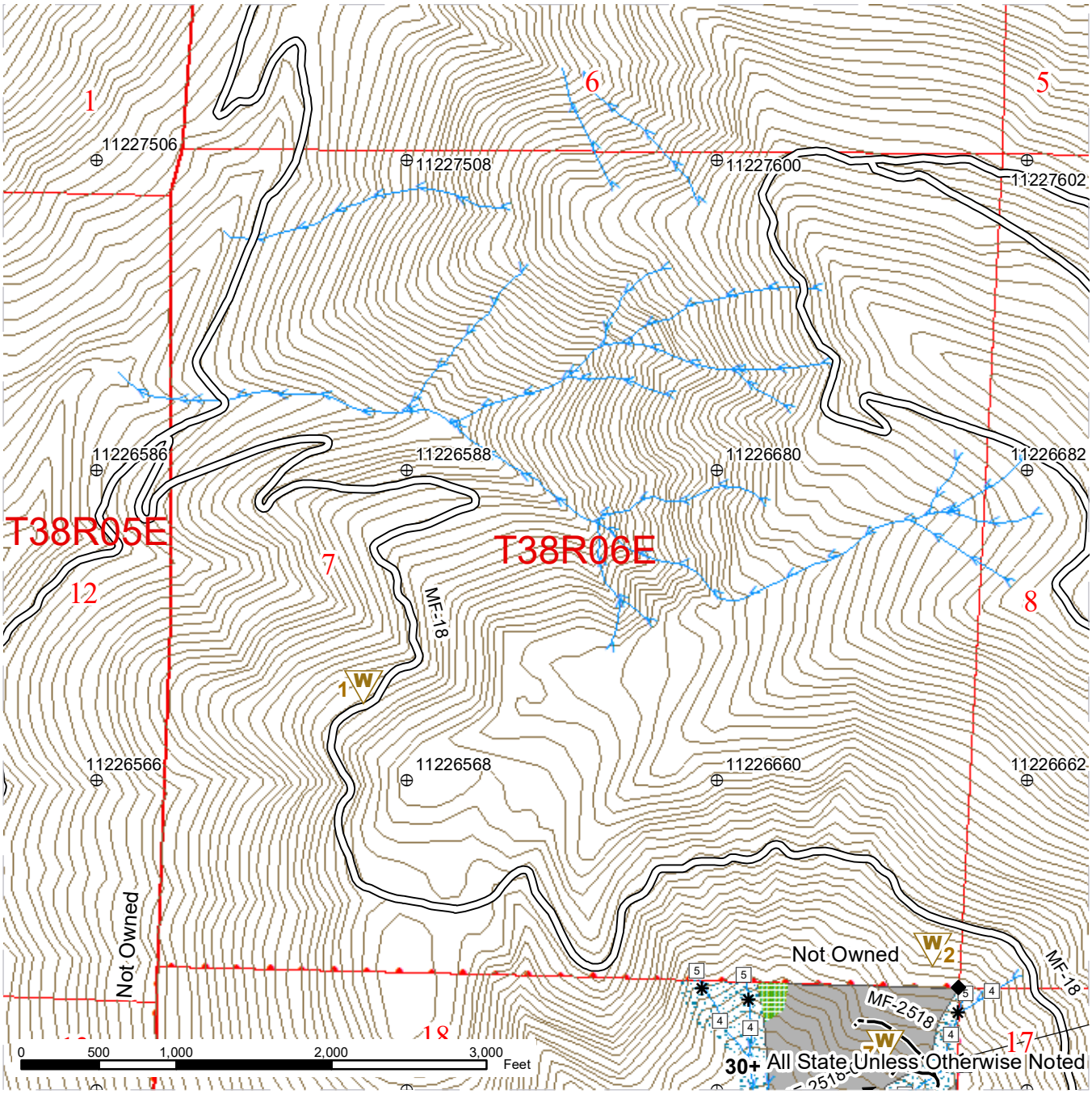
TOWNSHIP(S): T38R6E



- Even Aged
- DNR Managed Lands
- Leave Tree Area
- No-harvest RMZ
- Existing Roads
- Optional Construction
- Streams
- Found Survey Monuments
- Waste Area

N

Prepared By: kbly490

Modification Date: kbly490 2/26/2020

2817520