

*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.

**A. BACKGROUND**

1. Name of proposed project, if applicable:

*Timber Sale Name:*     **CENTER 16 THINNING**

*Agreement #* **30-093097**

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

3. Address and phone number of applicant and contact person:     Olympic Region  
411 Tillicum Lane  
Forks, WA 98331-9271  
(360) 374-2800  
Contact Person: Mark Benner

4. Date checklist prepared: **01/27/2016**

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

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

- a. *Auction Date:* **06/15/2016**
- b. *Planned contract end date (but may be extended):* **10/31/2019**
- c. *Phasing:* **n/a**

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

*Timber Sale:*

- a. *Site preparation:*  
**No**
- b. *Regeneration Method:*  
**No**
- c. *Vegetation Management:*  
**No**
- d. *Thinning:*  
**No**

*Roads:* Road maintenance will include roadside brushing, roadside herbicide spray, grading, ditch maintenance, and replacement of cross drains as needed.

*Rock Pits and/or Sale:*

State Pits that may be used to supply ballast for this proposal include; PT-S-5110 Pit (T28N R2W Sec. 2), Buena Vista Pit (T29N R2W Sec. 15), Trooper Pit (T28N R1W Sec. 16), Paradise Pit (T28N R1E Sec. 34), Jimmycomelately and Alpaca Pits (T29N R2W Sec. 29). These pits may supply ballast for this proposal and will continue to be developed to serve the State's needs for constructing access roads and performing road maintenance in the vicinity. Additional ballast and/or surfacing, if needed, may be sourced commercially.

Other: Forest management activities will continue in the vicinity of this proposal. These activities include; variable retention harvests, road maintenance, biomass salvage, and various silvicultural treatments. Public recreation activities will also occur in the area.

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): Tarboo Creek
- Landscape plan:
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan: Dated July 22, 2015
- Wildlife report:
- Geotechnical report:
- Other specialist report(s):
- Memorandum of understanding (sportsmen’s groups, neighborhood associations, tribes, etc.):
- Rock pit plan: Dated July 22, 2015
- Other: Habitat Conservation Plan ('97), Policy for Sustainable Forests ('06), WAU Status Reports, Special Concerns Reports.  
*Documents will be available for public review at the Olympic Region Office during the SEPA comment period.*

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None.

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

- FPA #  Burning permit  Shoreline permit  Incidental take permit #812521 (USFWS)
- Existing HPA  Other: Board of Natural Resources approval

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 Center 16 Thinning Timber Sale consists of 18 units totaling 1,030 net harvest acres. The proposal will include maintenance and construction of forest roads. Several State rock pits could be used to provide ballast for this proposal.

Harvest of timber is designed for ground based equipment. Harvest activities could take place in any season, weather permitting, depending on the logging plan. Seasonal equipment restrictions apply depending on the specific unit. Road building activities will be seasonally restricted, however, the restriction may be lifted if authorized by the contract administrator.

Sale of Timber:

Estimated Volume- 6,066 MBF

Net Harvest Acres:

Unit 1-	95 ac
Unit 2-	13 ac
Unit 3-	23 ac
Unit 4-	35 ac (includes 1 ac of R/W)
Unit 5-	114 ac
Unit 6-	298 ac
Unit 7-	3 ac
Unit 8-	27 ac
Unit 9-	26 ac
Unit 10-	62 ac
Unit 11-	6 ac
Unit 12-	62 ac
Unit 13-	33 ac
Unit 14-	32 ac
Unit 15-	77 ac
Unit 16-	53 ac
Unit 17-	32 ac
<u>Unit 18-</u>	<u>39 ac</u>

Total Harvest Acres: 1,030 ac

Type of harvest- Commercial Thinning (CT)

Logging methods- ground based (100%)

Landings identified- 3

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

This proposal is composed of third generation stands composed of primarily Douglas-fir with lesser components of western hemlock, red alder, and western red cedar. All stands lie within the *Tsuga heterophylla / Polystichum munitum-Gaultheria shallon* forested plant association. Stand ages range from 30 to 40 years old.

Timber harvest will be a ground based commercial thinning. The removal prescription will target smaller diameter, or poor form, or less desirable species. Some larger trees will be removed to allow for operability of thinning equipment. The residual stands will be fully stocked with an average TPA of 224 and BA of 170 per acre.

Overall unit objectives include providing additional nutrients, sunlight, and water to the residual stand to reallocate growth to the dominant and codominant trees. This entry will generate revenue for the trust beneficiaries while preserving future revenue for the trusts.

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 (#)
Maintenance		<b>176,545</b>		<b>n/a</b>
Construction		<b>2286</b>	<b>1</b>	<b>n/a</b>
Reconstruction		<b>13,664</b>		<b>n/a</b>
Decommissioning		<b>2900</b>	<b>n/a</b>	<b>n/a</b>
Bridge Install/Replace	<b>0</b>			<b>n/a</b>
Culvert Install/Replace (fish)	<b>0</b>			<b>n/a</b>
Culvert Install/Replace (no fish)	<b>4</b>			

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:* :  
T29N R3W Sec. 14  
T29N R2W Sec. 5, 7, 8, 9, 10, 11, 14, 15, 19, & 20  
T29N R1W Sec. 16  
T28N R2W Sec. 2, 11, 35  
T28N R1W Sec. 16, 21, 34  
T28N R1E Sec. 28, 29, 33

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

Units 1 & 2: From Sequim, travel 2.6 miles east on Highway 101. Turn south on Palo Alto Rd for 4.4 miles. Turn west onto PT-J-1500 road. Units begin 1 mile along PT-J-1500.

Units 3 & 4: From Sequim, travel 7 miles east on Highway 101. Turn south on Chicken Coop Rd for 0.4 mile. Turn south on PT-B-1000 Rd. Unit 3 is located 0.6 mile along PT-B-1000. Unit 4 is accessed by traveling another 0.2 mile on PT-B-1000 then west on the PT-B-1600 for 0.9 mile.

Units 5, 6, & 7: From Port Townsend, travel 10 miles south on Highway 20 to Junction with Highway 101. Travel 0.2 mile west on 101. Turn south on Uncas Rd for 0.2 mile. Turn north Cassilary Rd for 0.8 mile. Cassilary becomes PT-B-4000. Unit 6 begins after 0.3 mile. In the same area, the PT-B-4200 Rd departs the PT-B-4000. Unit 7 is located 0.5 mile east along the PT-B-4200. Unit 5 is located 2 miles north along the PT-B-4000 and then 0.5 mile north along the PT-B-4800.

Units 8 & 9: From Sequim, travel 6.6 miles east on Highway 101. Turn south on Woods Rd for 4 miles then turn east onto the PT-B-1000. Unit 9 is located 0.8 mile on the PT-B-1000 near the junction with the PT-B-1100. Unit 8 is located 0.3 mile west on the PT-B-1100.

Unit 10: From Port Townsend, travel 3 miles south on Highway 20. Then travel 3.4 miles south on Highway 19. Turn west onto West Valley Rd for 1 mile. Turn west on Van Trojan Rd for 0.7 mile. Turn west on PT-V-1000 for 0.5 mile to reach Unit 10.

Units 11 & 12: From Quilcene, travel 10.5 miles north on Highway 101. Turn west on West Uncas Rd for 0.1 mile. Then turn south on Wycoff Rd for 0.1 mile. Turn west onto the PT-S-5000 Rd for 4.3 miles. Units 11 and 12 are located 0.6 mile east on PT-S-5400.

Units 13 & 14: From Chimacum, travel 7.3 miles south on Center Valley Rd. Turn east on Dabob Rd for 0.5 mile. Turn north on the PT-O-1000. Unit 13 is located 1 mile along the PT-O-1000. Unit 14 is located another 0.7 mile on the PT-O-1000.

Unit 15: From Quilcene, travel 4.5 miles north on Highway 101. Turn west on Leland Cut-off Rd for 0.3 mile. Turn south on Old Leland Valley Rd for 0.6 mile. Turn west on PT-L-3000 Rd for 0.4 mile to reach Unit 15.

Unit 16: From Quilcene, travel 3.5 miles north on Center Valley Rd. Turn east on Dabob Rd for 1.7 miles. Turn south on Dabob Post Office Rd for 0.3 mile then west on Coyle Rd for 1.3 miles. Turn north on PT-C-1100 for 0.4 mile to reach Unit 16.

Unit 17 & 18: From Port Ludlow, travel 1.5 miles south on Paradise Bay Rd. Turn south on Teal Lake Rd for 2.5 miles. Turn west on the PT-T-2100 Rd. Unit 17 is located 0.5 mile on the PT-T-2100. To reach Unit 18, travel another 0.1 mile on the PT-T-2100 then turn west on the PT-T-2130 Rd for 0.1 mile.

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

WAU Name	WAU Acres	Proposal Acres
<b>DISCOVERY BAY</b>	<b>52674.50</b>	<b>471</b>
<b>CHIMAKUM</b>	<b>52442.70</b>	<b>60</b>
<b>SEQUIM BAY</b>	<b>27382</b>	<b>241</b>
<b>TOANDOS PENINSULA</b>	<b>43425.40</b>	<b>181</b>
<b>LITTLE QUIL</b>	<b>26330</b>	<b>77</b>

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/sepa> for a broader landscape perspective.)

The Center 16 Thinning Timber Sale is composed of 18 units spread across 5 WAUs in eastern Clallam and Jefferson Counties. The management activity proposed will remove a portion of the timber. The stands are currently hydrologically mature and fully stocked. The residual stands will remain hydrologically mature and fully stocked. The intent of this management activity is to remove trees with defects and increase available growing space for dominant and codominant trees. The goal is to realize some revenue for the trust beneficiaries and to enhance merchantability of the future stands.

WAUs associated with this proposal include Discovery Bay, Chimakum, Sequim Bay, Toandos Peninsula, and Little Quil.

Table 13.1 Chimakum WAU Ownership

<b>Land Manager</b>	<b>Acres</b>	<b>% of WAU</b>
DNR	2051	3.9
Federal	2626	5.0
Other State (non-DNR)	1844	3.5
Other Land (Private & Other Public Land)	45,922	87.6

Table 13.2 Discovery Bay WAU Ownership

<b>Land Manager</b>	<b>Acres</b>	<b>% of WAU</b>
DNR	9311	17.7
Federal	10,139	19.2
Other State (non-DNR)	2518	4.8
Other Land (Private & Other Public Land)	30,707	58.3

Table 13.3 Sequim Bay WAU Ownership

<b>Land Manager</b>	<b>Acres</b>	<b>% of WAU</b>
DNR	8345	30.5
Federal	7052	25.8
Other State (non-DNR)	951	3.5
Other Land (Private & Other Public Land)	11,034	40.3

Table 13.4 Toandos Peninsula WAU Ownership

<b>Land Manager</b>	<b>Acres</b>	<b>% of WAU</b>
DNR	8762	20.2
Federal	741	1.7
Other State (non-DNR)	278	0.6
Other Land (Private & Other Public Land)	33,644	77.5

Table 13.5 Little Quil WAU Ownership

<b>Land Manager</b>	<b>Acres</b>	<b>% of WAU</b>
DNR	2452	9.3
Federal	9680	36.8
Other State (non-DNR)	4	0.0
Other Land (Private & Other Public Land)	14,194	53.9

This proposal will implement the State’s Habitat Conservation Plan Riparian Forest Restoration Strategy. This proposal is composed of multiple third generation stands. Typical third generation stand were harvested with minimal or no buffering of typed water. The Riparian Forest Restoration Strategy seeks to accelerate development of structurally diverse Riparian Management Zones that will persist through future forest management activities. One tree will be selected per five RMZ acres to be directionally felled toward typed water from outside the core zone. This will augment down woody debris near typed water and contribute to vertical stand diversity in RMZs through time.

Future management activities planned on DNR land in the vicinity of this proposal include:

- Hardtak Sorts Timber Sale will target 4,691 MBF
- Radar Love Timber Sale will target 5,166 MBF
- Dabob Special Timber Sale will target 5,180 MBF
- Wing It Hardwood Timber Sale will target 5,130 MBF

*No information is available for future activities on private land.*

This proposal and all future management activities on DNR lands will be conducted in accordance with the State's Habitat Conservation Plan (HCP 1997) and the Policy for Sustainable Forests (PSF 2006). The HCP is an agreement with the federal government concerning threatened and endangered species and their habitat which requires DNR to implement habitat conservation measures for endangered, threatened, and sensitive species of fish and wildlife. The applicable procedures incorporated into this proposal are as follows:

- \* HCP Riparian Forest Restoration Strategy, (PR 14-004-150).
- \* Assessing Slope Stability, (PR 14-004-050).
- \* Management of Forest Stand Cohorts (Westside), (PR 14-006-090).
- \* Forest Roads, (PR 14-020).

In the Straits HCP Planning Unit, DNR's interim HCP conservation strategy for marbled murrelets protects at least 50% of modeled habitat per WAU, including all occupied habitat. In concert, the HCP strategies for spotted owl, marbled murrelet, and riparian conservation will contribute to the retention and development of older forests and will increase the structural diversity of forests across the landscape.

For management activities not covered by the HCP agreement, Forest Practice Rules will be observed. By carrying out management activities in compliance with these plans, policies, and rules, the impacts of any future management activities to the environment will be mitigated.

## **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 Little Quilcene WAU consists of 26,330 acres, of which 9.3% are DNR managed lands. Topography of the area ranges between gently rolling and hilly in the lower reaches of the WAU near Quilcene Bay, to mountainous near the upper reaches of the WAU where steep slopes exist. The minimum elevation in the WAU is sea level on the tidal flats of Quilcene Bay. Maximum elevation reaches 6,246 feet along the defining ridgelines of the WAU. The climate of the area is characterized by maritime temperate influences where minimum precipitation averages 35 inches per year, and maximum precipitation reaches 50 inches per year. The lowland zone occupies 15,045 acres of land. The highland zone includes 360 acres. The rain dominated zone holds 4,104 acres of

land. The snow dominated zone is 1,552 acres, and the peak rain-on-snow zone is 5,266 acres. The majority of the WAU is dominated by the *Tsuga heterophylla/ Gaultheria shallon* and the *Tsuga heterophylla/ Polystichum munitum* plant association. Major tree species include: Douglas fir, western red cedar, western hemlock, and red alder. Understory species are dominated by indicator plants such as sword fern, and salal.

The Toandos Peninsula WAU consists of 43,425 acres of which 8,762 are DNR managed forestland. Topography of the area ranges between flat and gently rolling in the lower reaches of the WAU near Dabob Bay, to hilly near the upper reaches of the WAU where some steep slopes exist. The minimum elevation in the WAU is sea level on the tidal flats of Dabob Bay. Maximum elevation reaches 721 feet along the defining ridges of the WAU. The climate of the area is characterized by maritime temperate influences where minimum precipitation averages 25 inches per year, and maximum precipitation reaches 45 inches per year. The weighted average precipitation for the WAU is 35 inches per year. The lowland zone accounts for 42,516 acres of land. The majority of the WAU is dominated by the *Tsuga heterophylla / Gaultheria shallon* and the *Tsuga heterophylla / Polystichum munitum* forested plant associations. Major tree species include: Douglas fir, western red cedar, western hemlock, and red alder. Understory species are dominated by indicator plants such as sword fern, and salal.

The Chimakum WAU consists of 52,443 acres of which 2,051 are DNR managed forestland. Topography of the area ranges between flat and gently rolling farmland in the lower reaches of the WAU around Chimacum Valley, to hilly near the upper reaches of the WAU where a large amount of commercial forest resides. The minimum elevation in the WAU is sea level on the tidal flats of Port Townsend and Oak Bay. Maximum elevation reaches 904 feet along the defining ridges of the WAU. The climate of the area is characterized by maritime temperate influences where minimum precipitation averages 15 inches per year, and maximum precipitation reaches 35 inches per year. The weighted average precipitation for the WAU is 25 inches per year. The entire WAU falls in the lowland zone and contains no rain-on-snow acreage. The majority of the WAU is dominated by the *Tsuga heterophylla / Gaultheria shallon* and the *Tsuga heterophylla / Polystichum munitum* forested plant associations. Major tree species include: Douglas fir, western red cedar, western hemlock, and red alder. Understory species are dominated by indicator plants such as sword fern and salal.

The Discovery Bay WAU consists of 52,675 acres, of which 17.7% are DNR managed lands. Topography of the area ranges between gently rolling and hilly in the lower reaches of the WAU near Discovery Bay, to mountainous near the upper reaches of the WAU where steep slopes can be encountered. The minimum elevation in the WAU is sea level on the tidal flats of Discovery Bay. Maximum elevation reaches 4,232 feet along the defining ridgelines of the WAU. The climate of the area is characterized by maritime temperate influences where minimum precipitation averages 15 inches per year, and maximum precipitation reaches 45 inches per year. The weighted average precipitation for the WAU is 28 inches per year. The lowland zone is 33,063 acres of land. The rain dominated zone holds 12,227 acres. The snow dominated zone is 220 acres, and the peak rain-on-snow zone is 5,885 acres. The majority of the WAU is dominated by the *Tsuga heterophylla / Gaultheria shallon* and the *Tsuga heterophylla / Polystichum munitum* forested plant associations. Major tree species include: Douglas fir, western red cedar, western hemlock, and red alder. Understory species are dominated by indicator plants such as sword fern, and salal.

The Sequim Bay WAU consists of 27,382 acres of which 8,345 are DNR managed forestland. Topography of the area ranges between flat and gently rolling in the lower reaches of the WAU near Sequim Bay, to mountainous near the upper reaches of the WAU where steep and rocky slopes exist.

The minimum elevation in the WAU is sea level on the tidal flats of Sequim Bay. Maximum elevation reaches 3,483 feet along the defining ridges of the WAU. The climate of the area is characterized by maritime temperate influences where minimum precipitation averages 15 inches per year, and maximum precipitation reaches 35 inches per year. The weighted average precipitation for the WAU is 27 inches per year. The lowland zone occupies 11,310 acres. The rain dominated zone holds 10,766 acres, and the peak rain-on-snow zone occupies 5,033 acres. The majority of the WAU is dominated by the *Tsuga heterophylla* / *Gaultheria shallon* and the *Tsuga heterophylla* / *Polystichum munitum* forested plant associations. Major tree species include: Douglas fir, western red cedar, western hemlock, and red alder. Understory species are dominated by indicator plants such as sword fern, salal and ocean spray.

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

The Center 16 Thinning Sale area is a subset of the broader WAU descriptions. Elevation of the proposal ranges from 178' to 2,455'. Sale units were identified as loggable with ground based equipment. Units are flat to gently rolling.

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

The steepest slope in the proposal area is 45% and located in Unit 10.

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
0056	GRAVELLY SANDY LOAM	0-15	170	INSIGNIFIC'T	LOW
1959	GRAVELLY SANDY LOAM	15-35	159	LOW	LOW
0064	GRAVELLY SANDY LOAM	15-30	85	INSIGNIFIC'T	LOW
0077	ALDERWOOD-LOUELLA-COMPLEX	0-30	75	No Data	No Data
7641	GRAVELLY SANDY LOAM	0-15	69	INSIGNIFIC'T	LOW
1113	GRAVELLY SANDY LOAM	15-30	69	INSIGNIFIC'T	LOW

0467	BEAUSITE- ALDERWOOD- COMPLEX	0-30	58	No Data	No Data
1117	GRAVELLY LOAM	10-30	53	INSIGNIFIC'T	LOW
6404	SILT LOAM	15-30	37	INSIGNIFIC'T	LOW
0052	GRAVELLY LOAM	15-30	35	INSIGNIFIC'T	LOW
0463	GRAVELLY SANDY LOAM	15-30	35	INSIGNIFIC'T	LOW
7642	GRAVELLY SANDY LOAM	15-30	28	INSIGNIFIC'T	LOW
4330	GRAVELLY LOAM	30-65	27	LOW	MEDIUM
1600	V.GRAVELLY SANDY LOAM	0-15	25	INSIGNIFIC'T	LOW
5641	V.GRAVELLY SILT LOAM	0-30	23	INSIGNIFIC'T	LOW
2981	HOODSPORT- LOUELLA- COMPLEX	0-30	20	No Data	No Data
4332	GRAVELLY LOAM	30-65	17	LOW	MEDIUM
3012	GRAVELLY SANDY LOAM	15-30	9	LOW	LOW
0464	GRAVELLY SANDY LOAM	30-50	9	LOW	MEDIUM
0470	BEAUSITE- ROCK OUTCROP- COMPLEX	0-50	7	No Data	No Data
7606	GRAVELLY SANDY LOAM	0-8	6	INSIGNIFIC'T	LOW
7295	MUCK	0-2	6	INSIGNIFIC'T	N/A
0048	GRAVELLY LOAM	0-15	5	INSIGNIFIC'T	LOW
4331	GRAVELLY LOAM	10-30	2	INSIGNIFIC'T	LOW
0957	CASSOLARY- KITSAP- COMPLEX	30-50	1	No Data	No Data

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

1) *Surface indications:* None.

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:*  
Some sub-basins within the associated WAUs are known to contain historic and recent shallow rapid failures. These failures are typically found within over steepened gorges and areas prone to mass wasting. Very old, dormant deep-seated landslides have also been identified within 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:* Primarily, historic failures have occurred throughout the WAUs where roads were constructed on steep slopes prior to more conscientious road building practices.

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:*  
No road construction will occur on steep slopes.

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

The sale boundary between Units 11 and 12 was established above the slope break of a Forest Practice rule defined inner gorge.

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:* 1

*Fill Source:* On-site material if suitable, otherwise, glacial pit run or commercial rock.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. Small amounts of disturbed soil may be eroded in conjunction with road construction and movement of heavy equipment through the units. Seasonal limitations of harvest methods and road construction will help mitigate the risk of 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):*  
Approximately 0.2% of the proposal area will be converted to impervious surface.

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

Roads will be constructed with appropriately located ditches, ditch outs, and cross drains to divert water onto the forest floor and/or into existing natural drainages. Silt fences will be installed where roads cross live water. Road construction and rock haul will be restricted during periods of wet weather and restricted seasonally when the potential for erosion and sediment movement is increased. Skid trails may include log/slash fills over temporary designated crossings. Skid trail abandonment will include restoring natural drainage, disturbing the running surface, and installing water bars. Contract language will require operations on all portions of the proposal to be suspended during periods of wet weather if rutting becomes likely. Exposed mineral soils in cut slopes, waste areas, and fill slopes will be compacted, seeded, and mulched.

## 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.  
Harvest equipment will generate engine exhaust. Log Trucks have the potential to stir up dust on roads during dry weather.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.  
None.
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:  
None.

## 3. Water

- a. Surface Water:
  - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (*see timber sale map available at DNR region office, or forest practice application base maps.*)
    - a. *Downstream water bodies:* Dean Creek, Sequim Bay, Jimmycomelately Creek, Salmon Creek, Discovery Bay, Snow Creek, Anderson Lake, Tarboo Creek, Dabob Bay, Leland Lake, and Hood Canal.

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)
Stream	5	19	n/a
Stream	4	8	100'
Stream	3	3	150'
Wetland	Forested	1	150'
Wetland	B	1	100'

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

This proposal will implement the Habitat Conservation Plan Riparian Forest Restoration Strategy. On typed water, the 25' core zone will not be disturbed except at designated crossings. A 30' equipment limitation zone applies to all typed water except at designated crossings. Adjacent to type 3 and 4 streams, outside the core zone, the upland thinning prescription will be applied to RMZs. As part of the Riparian Forest Restoration Strategy five trees for every RMZ acre will be selected from within the RMZ and outside the core zone to be felled directionally toward the stream. The goal is to promote vertical stand diversity adjacent to typed water. Wind buffers are not incorporated into this proposal because thinning will leave a fully stocked stand.

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): Timber removal in accordance with the thinning prescription will occur with 200' of all described water.

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.  
Log fills in Type 5 streams will be constructed using trees on site and a slash mat extending 10 feet beyond each side of the. After use, logs and slash will be removed from Type 5 streams.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (*Include diversions for fish-passage culvert installation*).
- No       Yes, description:
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
- No       Yes, describe location:
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
- No       Yes, type and volume:
- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?  
The sub-basins do contain soils susceptible to mass wasting. The potential for eroded material to enter surface water is minimal, because the harvest area does not contain soils with elevated risk of mass wasting.
- 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:
- There is evidence that surface erosion and mass wasting causes changes to stream channels within the sub-basins. However, drainages where surface erosion can occur are often incised and changes to the channels are limited by adjacent topography.
- 9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
- No       Yes, explain:
- 10) What are the approximate road miles per square mile in the WAU and sub-basin(s)? Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
- No       Yes, describe:

Table 3.a.10.1 – Chimakum WAU Roads

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	428.9	5.2
DNR	15.2	0.2
Total	444.1	5.4

Table 3.a.10.2 – Discovery Bay WAU Roads

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	326.5	4.0
DNR	73.2	0.9
Total	399.7	4.9

Table 3.a.10.3- Little Quil WAU Roads

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	135.7	3.3
DNR	18.1	0.4
Total	153.8	3.7

Table 3.a.10.4- Sequim Bay WAU Roads

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	160.9	3.8
DNR	71.1	1.7
Total	232.0	5.4

Table 3.a.10.5- Toandos Peninsula WAU Roads

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	244.5	3.6
DNR	70.6	1.0
Total	315.1	4.6

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:

11.2 % of the Discovery Bay WAU is in ROS.

18.4% of the Sequim Bay WAU is in ROS.

20 % of the Little Quil WAU is in ROS.

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?*

This proposal will not reduce acreage of hydrologically mature stands in the ROS zone. No information is available about other ownerships within the ROS zone.

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):

Evidence of periods of accelerated stream aggradations are present in all WAUs and may be related to peak flow events. Peak flow events have the potential to initiate mass wasting on steep slopes where intermittent water flow occurs. Peak flow events also have the potential to accelerate down cutting of stream channels and could possibly cause woody debris in stream channels to be transported downstream. Debris transported by peak flows is present in many stream channels in the vicinity.

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.*

This proposal will not contribute to peak flow impacts because both the pre harvest and post harvest stands meet the definition of hydrologically mature.

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:

This proposal will not significantly impact surface water in the proposal area because both the pre harvest and post harvest stands meet the definition of hydrologically mature. Any fluctuations in surface water will be less than the normal annual variability of the site.

1) *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.*

Construction of roadside ditches, installation of cross drains, and location of ditch outs constructed to the specifications listed in the road plan will ensure functional drainage

throughout the proposal area during peak flow events. Further peak flow mitigation is accomplished by harvest planning design at the landscape level through distribution of units across the landscape and adherence to sustainable harvest rates.

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.

None.

- 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.

None.

- 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:

This proposal will not significantly impact ground water in the proposal area because both the pre harvest and post harvest stands meet the definition of hydrologically mature. Any fluctuations in ground water will be less than the normal annual variability of the site.

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

See answer to B.3.a.16.

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.

Precipitation that falls on roads or adjacent to roads will flow into ditches and be carried to intermittent cross drains or ditch outs where it will be diverted onto the forest floor to allow for infiltration. Relief culverts are located near streams to divert ditchwater to the forest floor before entering live water.

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

No       Yes, describe:

Some logging slash may enter non-fish streams, logging slash that is placed in streams to support yarding will be removed upon completion of yarding.

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

Contract language will restrict equipment operation near streams and no lubricants will be disposed of on site.

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

Cross drains and culverts have been located to preserve the natural drainage patterns of the proposal area.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Road system design and harvest systems identified for the sale area take into account the natural hydrologic function of the proposal area. Skid trail abandonment will include fluffing of soil and organic material to facilitate infiltration and installation of water bars to disrupt overland flow. Seasonal restrictions for road construction and logging methods will prevent activity during expected periods of increased precipitation. Surface water may be diverted for short stretches but location of cross drains and ditch outs will closely preserve natural hydrologic function.

Application of clean rock over stream crossings will reduce sediment near streams. All waste areas will be located on stable ground away from live water and will be compacted, seeded, and mulched. See also answers to B.1.h.

(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: rhododendron, vine maple

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: sword fern

plant communities of concern:

Plant species noted above were encountered during presales activities. Additional species may exist within the proposal area.

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.)

Timber removed from all units will primarily consist of Douglas-fir, western hemlock, western red cedar, red alder, and big leaf maple. Other species may also be harvested but in insignificant volumes. Understory vegetation will also be impacted by harvest activity, but species currently present are expected to remain a component of future stands.

Expected Removal Volumes:

Unit 1	611 MBF	Douglas-fir	4691 MBF
Unit 2	64 MBF	Western hemlock	795 MBF
Unit 3	106 MBF	Western red cedar	284 MBF
Unit 4	186 MBF	Red alder	292 MBF
Unit 5	714 MBF	<u>Grand fir</u>	<u>4 MBF</u>
Unit 6	1623 MBF	Total	6066 MBF
Unit 7	21 MBF		
Unit 8	179 MBF		
Unit 9	169 MBF		
Unit 10	386 MBF		
Unit 11	37 MBF		
Unit 12	346 MBF		
Unit 13	214 MBF		
Unit 14	168 MBF		
Unit 15	441 MBF		
Unit 16	351 MBF		
Unit 17	230 MBF		
<u>Unit 18</u>	<u>220 MBF</u>		
Total	6066 MBF		

- 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/sepa>

(Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales.")

The proposal consist of 18 units spread across DNR holdings in eastern Jefferson and Clallam counties. The landscapes adjacent to the units are also managed forestland under the stewardship of the DNR. Adjacent stands range in age from reprod to mature timber. Adjacent stands are composed of Douglas-fir, western hemlock, red alder, western red cedar, grand fir, big leaf maple, and other minor species.

Retention tree plan:

Unit Target Table

Unit	Acreage	Stems/Acre	Approximate Spacing (ft.)	Basal Area/Acre
1	95	217	14 x 14	160
2	13	256	13 x 13	158
3	23	256	13 x 13	160
4	35	194	15 x 15	166
5	114	250	13 x 13	184
6	298	239	14 x 14	173
7	3	226	14 x 14	165
8	27	173	16 x 16	159
9	26	175	16 x 16	160
10	62	216	14 x 14	176
11	6	200	15 x 15	165
12	62	183	15 x 15	160
13	33	264	13 x 13	186
14	32	200	15 x 15	155
15	77	261	13 x 13	170
16	53	171	16 x 16	176
17	32	228	14 x 14	170
18	39	197	15 x 15	170

- b. List threatened and endangered *plant* species known to be on or near the site.  
None known.
- c. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:  
None.
- d. List all noxious weeds and invasive species known to be on or near the site.  
Invasive species on site include scotch broom, holly, tansy, and thistle.

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: woodpecker

mammals:       deer, bear, elk, beaver, other:

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*).

<b>TSU Number</b>	<b>FMU_ID</b>	<b>Common Name</b>	<b>Federal Listing Status</b>	<b>WA State Listing Status</b>
1	94476	SPOTTED OWL: Site:410-JIMMYCOME LATELY CREEK	THREATENED	ENDANGERED
1	94476	SPOTTED OWL: Site:768-JIMMYCOME LATELY CREEK WEST	THREATENED	ENDANGERED
1	94476	SPOTTED OWL: Site:818-DEAN CREEK	THREATENED	ENDANGERED
2	94477	SPOTTED OWL: Site:410-JIMMYCOME LATELY CREEK	THREATENED	ENDANGERED
2	94477	SPOTTED OWL: Site:768-JIMMYCOME LATELY CREEK WEST	THREATENED	ENDANGERED
2	94477	SPOTTED OWL: Site:818-DEAN CREEK	THREATENED	ENDANGERED
3	94478	SPOTTED OWL: Site:410-JIMMYCOME LATELY CREEK	THREATENED	ENDANGERED
8	94481	MARbled MURRELET: Reference No: 49992	THREATENED	THREATENED
8	94481	SPOTTED OWL: Site:410-JIMMYCOME	THREATENED	ENDANGERED

		<b>LATELY CREEK</b>		
<b>8</b>	<b>94481</b>	<b>SPOTTED OWL: Site:726-SALMON CREEK</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>9</b>	<b>94482</b>	<b>MARbled MURRELET: Reference No: 49993</b>	<b>THREATENED</b>	<b>THREATENED</b>
<b>9</b>	<b>94482</b>	<b>SPOTTED OWL: Site:410-JIMMYCOME LATELY CREEK</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>9</b>	<b>94482</b>	<b>SPOTTED OWL: Site:726-SALMON CREEK</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>11</b>	<b>94487</b>	<b>SPOTTED OWL: Site:158-SNOW CREEK</b>	<b>THREATENED</b>	<b>ENDANGERED</b>

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

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

The proposal area lies within the Pacific flyway, however, it does not contain resting or foraging habitat of migratory water birds.

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: Marbled Murrelet- The proposal was evaluated for marbled murrelet conservation opportunities. No murrelet habitat is included in this proposal and no activities are proposed within 100 meters of occupied murrelet habitat, thus no special measures were incorporated in this proposal.

Species/Habitat: Norther Spotted Owl- Parts of the proposed thinning are located within the Jimmycomelately Creek, Jimmycomelately Creek West, and Snow Creek Owl Circles. No proposed thinning will occur in the best 70 and all thinning units are non-habitat.

Species /Habitat: Riparian/Wetland Habitat – The HCP Riparian Forest Restoration

Strategy will be implemented with this proposal outside the core zone and within the RMZ of type 3 and 4 streams and wetlands over a quarter acre. The goal of RFRS is to accelerate development and diversity of RMZs which will persist through time. Tree spacing outside the core zone will be increased, temporarily allowing more sunlight to reach the forest floor. In the short term, this will allow for increased diversity and growth of understory vegetation providing habitat diversity for riparian fauna. Increased diameter growth in the residual stand will provide large trees, snags, and logs which will also contribute to riparian and aquatic habitat quality. Five trees per RMZ/WMZ acre will be selected from beyond the core zone and directionally felled to add large woody debris near typed water. Wetland and riparian management zones will develop old-forest characteristics that, in combination with other strategies, will help support old-forest and riparian dependent wildlife.

Species/Habitat: Upland- Tree spacing in the residual stand will be increased, temporarily allowing more sunlight to reach the forest floor. In the short term, this will allow for increased growth of understory vegetation providing habitat diversity. In time the stand will again attain crown closure as residual trees fill in the growing space created by commercial thinning. The thinning will promote diameter growth and the larger trees will contribute to habitat quality in the residual stand, and as legacies in the future stand after regeneration harvest.

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

## 6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. None.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: Not applicable.

## 7. Environmental health

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

- 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.

Diesel fuel and hydraulic fluid will be used and may be temporarily stored on site.

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

Wildland fire suppression might be required. The potential need for Emergency Medical Services response or Department of Ecology's spill response exists. In the event of downed or damaged power lines, response from Bonneville Power Administration (BPA) would also be needed. The purchaser is required to provide an emergency response plan containing a list of relevant contact information for their contractors in the event of such emergencies.

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

State forest fire prevention statutes will require operations to be performed in a manner that will reduce the risk of fire. Risk is mitigated by adherence to Industrial Fire Precaution Level (IFPL) restrictions. Fire suppression tools and equipment will be made readily available on site. Contract language will restrict open fires, and require a shutdown of operations when the relative humidity drops below 30%.

Contract language will require that preventative measures be taken to avoid on site disposal, or spilling of hazardous materials. The reporting and cleanup of any spills of petroleum based products or other waste is also required. If any toxic or chemical spills occur, or if past contamination is discovered, the Department of Ecology will be notified.

BPA shall be notified before beginning operations near power lines, and BPA's Guidelines for Logging in Western Washington shall be followed.

See answer to question 7.a.4 above.

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.

Noise will be created from chainsaws, heavy equipment, and log truck traffic while the sale is active. Operations will mostly occur during daylight hours and may be heard at any time of year while harvest operations are under way. This is expected to last the course of several months during the life of the proposal.

- 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.*)  
Managed forestland and rural residential home sites. Current use of the site is for timber production. Current land uses will not change as a result of this proposal.
- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The project site has been used as working forest lands. No resource lands will be converted to nonfarm or non-forest uses.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:  
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? Commercial Forest
- f. What is the current comprehensive plan designation of the site? Commercial Forest
- g. If applicable, what is the current shoreline master program designation of the site? N/A
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. No.
- i. Approximately how many people would reside or work in the completed project? None.
- j. Approximately how many people would the completed project displace? None.
- k. Proposed measures to avoid or reduce displacement impacts, if any: None.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: Proposal will remain managed forestland.
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: Adherence to HCP and FP policies.

## 9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. N/a.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. None.
- c. Proposed measures to reduce or control housing impacts, if any: None.

## 10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? N/A.
- b. What views in the immediate vicinity would be altered or obstructed? None.
  - 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*  
 No  Yes, *viewing location:* The proposal are is visible from adjacent properties. Units may also be visible from distance depending on the vantage point.
  - 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:* Some Units may be visible from Hwy 101.
  - 3) *How will this proposal affect any views described in 1) or 2) above?*  
Views will not be affected. Removing a portion of the timber dispersed throughout the stands will not alter the appearance of the stands when viewed at a distance.
- c. Proposed measures to reduce or control aesthetic impacts, if any: None.

## 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 known.

- 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?

There are informal opportunities for hiking, bird watching, berry picking, camping, and hunting. Existing logging roads are used for motorcycle/ATV riding, mountain bike riding, and horseback riding. Old grades and unauthorized trails are also being used by motorcycles and ATVs in the area. These occur both inside and outside of the proposed timber sale units.

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

Informal recreation opportunities will be temporarily suspended during harvest operations within the proposal area.

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

Signs will be posted near the proposal area to notify recreationists of active logging and increased traffic. Forest roads will be day lighted with mechanical brushing to improve visibility and safety for various user groups.

## 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. None.

- 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. GIS data layers including DAHP layer, historic GLO maps, in addition to TRAX report and field assessment by foresters.

- 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. None anticipated.

## 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. see answer A. 12. b

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

Not likely. Harvest activities will generate increased traffic on the access roads mentioned above throughout the harvest timeline. The transportation system was designed to accommodate commercial timber extraction, and is consistent with past levels of use. Pre and post-haul maintenance will be performed on State and private roads to provide a good running surface and to daylight corners for increased visibility.

- 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?

Not applicable.

- 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 the proposal includes maintenance and construction of forest roads on DNR land. See answer to question A.11.c. for lengths of new construction and road improvements.

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

This proposal will improve and expand the existing forest road network in the proposal area.

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

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

While harvest is active, there will be several vehicle trips per day. A minor number of vehicle trips will also be generated in association with normal forestland management activities following the project's completion. No transportation models were used.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

The proposal will generate log truck traffic on roads in the vicinity.

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

All roads used will be maintained, including the newly constructed permanent roads. Posting of traffic warning signs will alert drivers to increased traffic associated with this proposal.

**15. Public services**

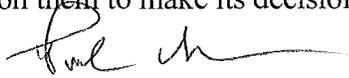
- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. No.
- b. Proposed measures to reduce or control direct impacts on public services, if any. None.

**16. Utilities**

- a. Check utilities currently available at the site:  
electricity natural gas water  refuse service telephone sanitary sewer  
septic system other:  
Not applicable.
- 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 Paul LaChance

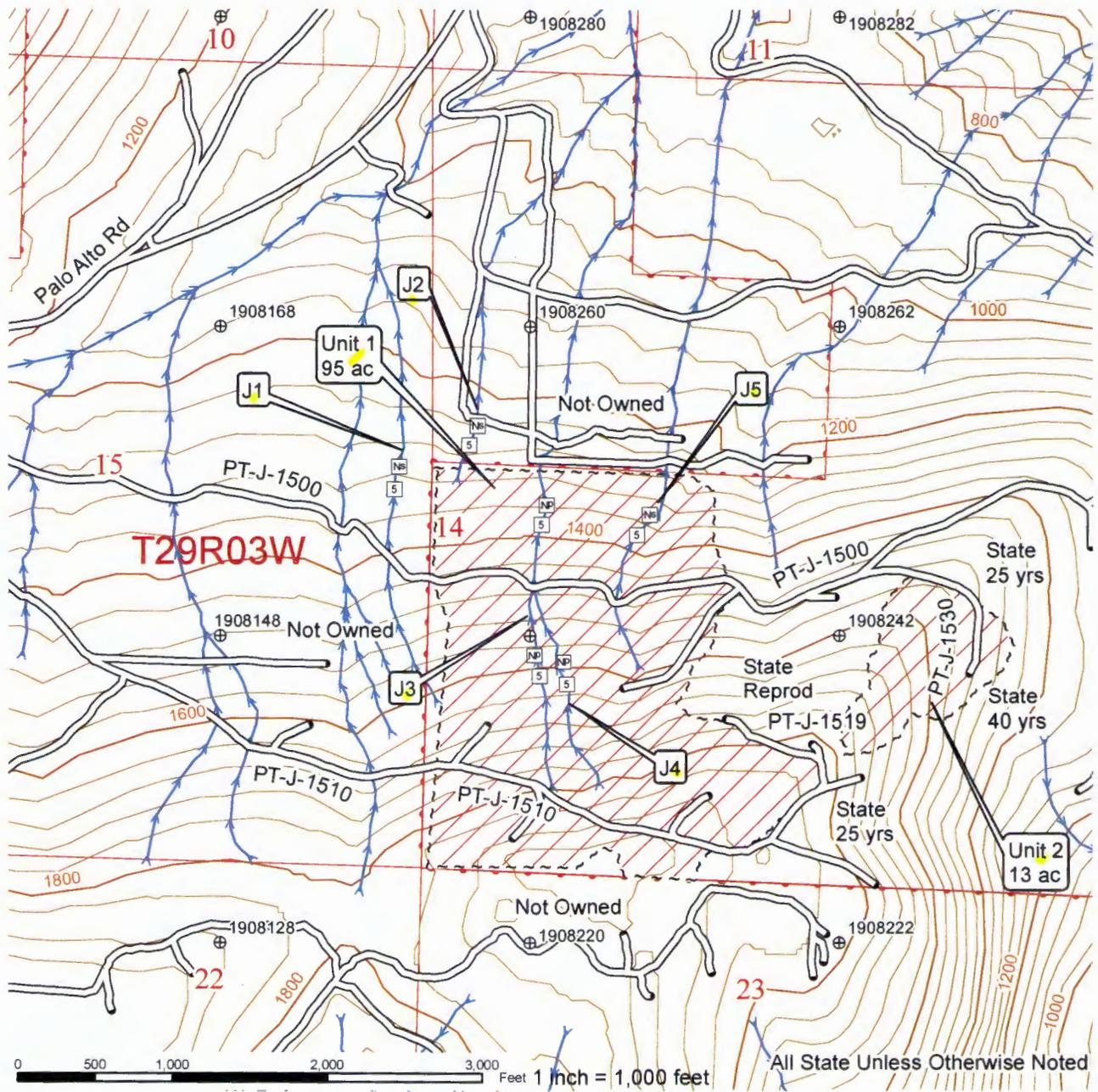
Position and Agency/Organization NRS1 / WA DNR

Date Submitted: \_\_\_\_\_

**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): CLALLAM  
 TOWNSHIP(S): T29R03W

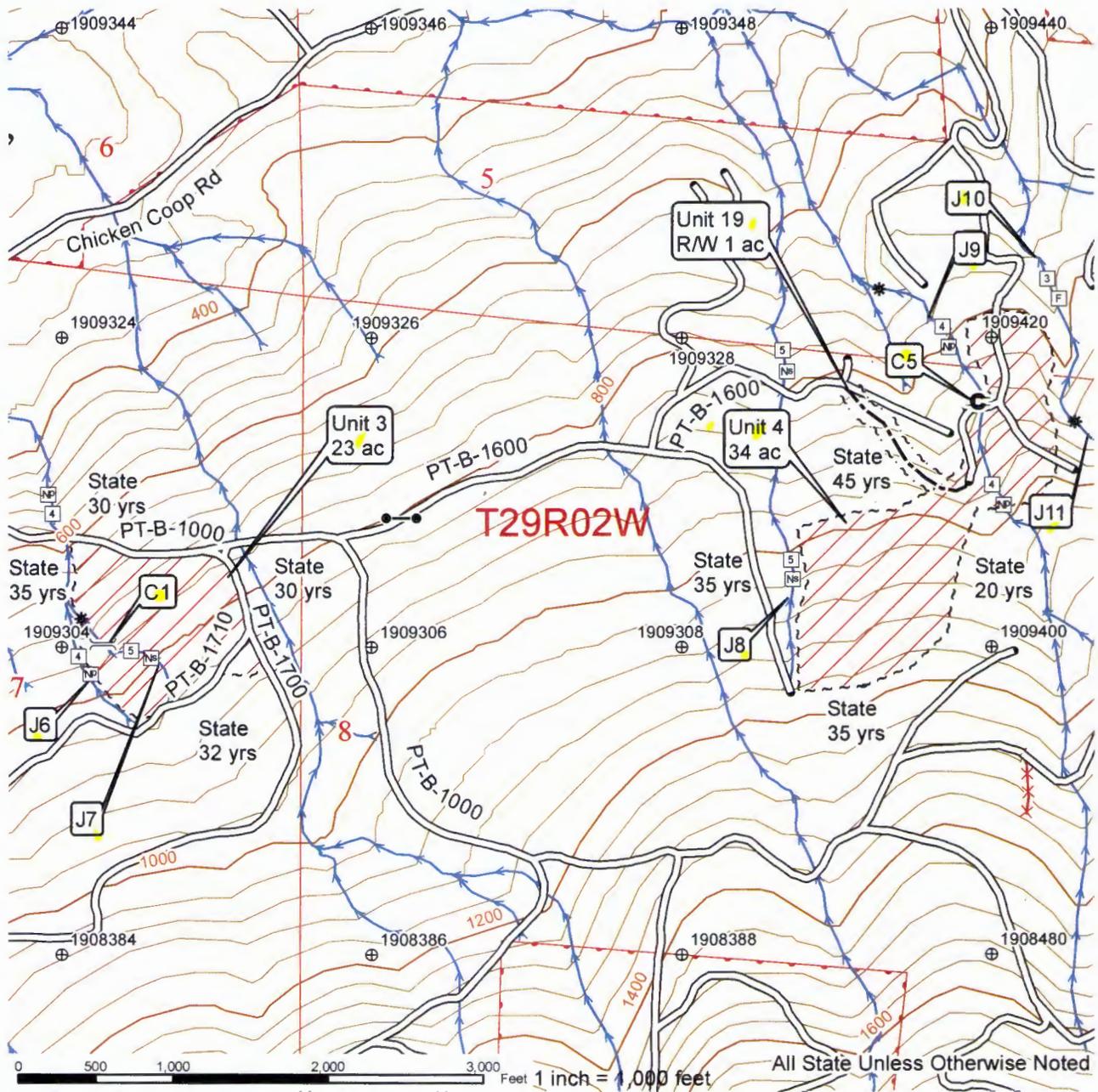


Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (#XXXX)	New Construction
	Existing Rock Source	

**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T29R02W



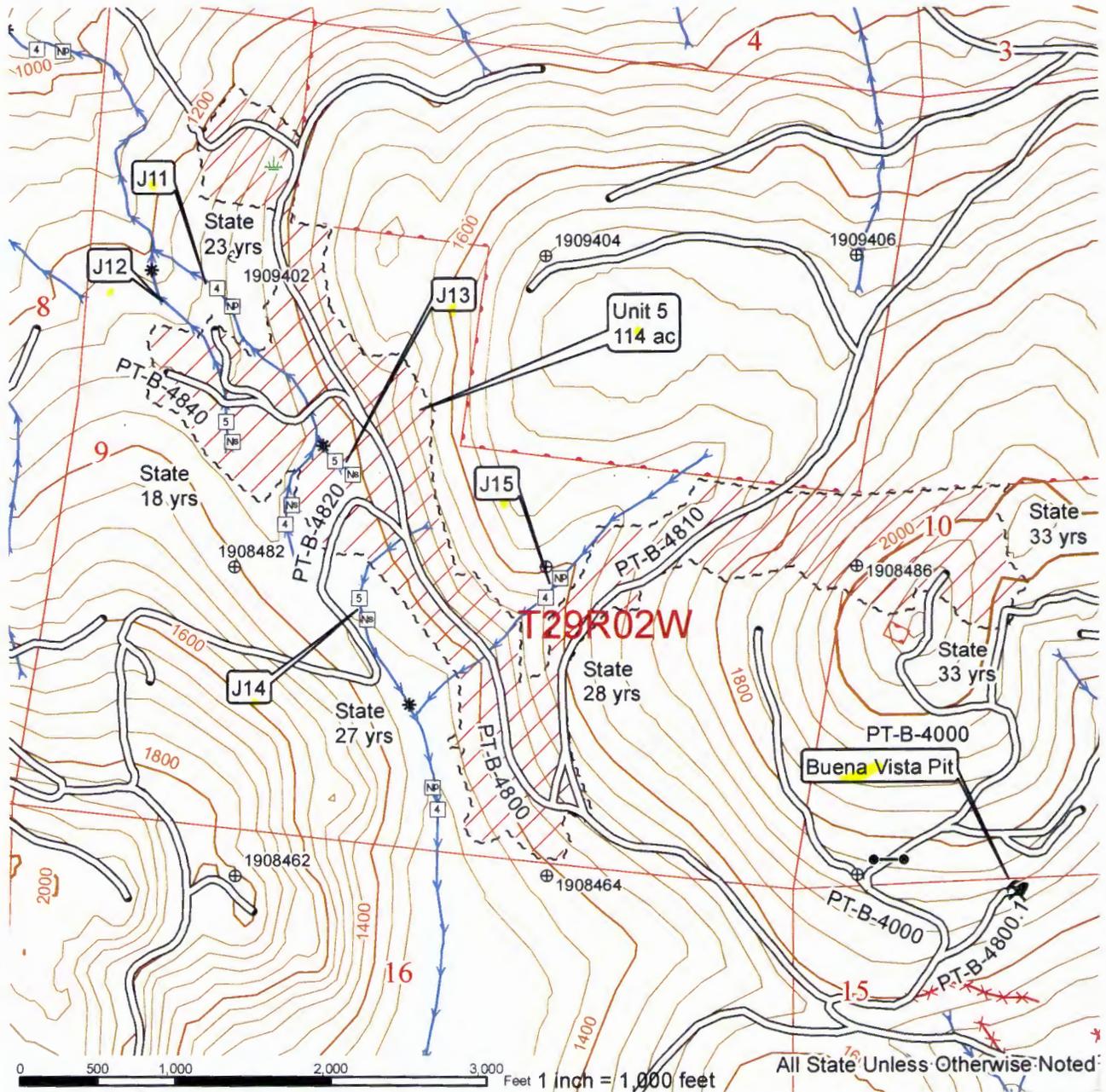
Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	Right of Way Tags



**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T29R02W



All State Unless Otherwise Noted

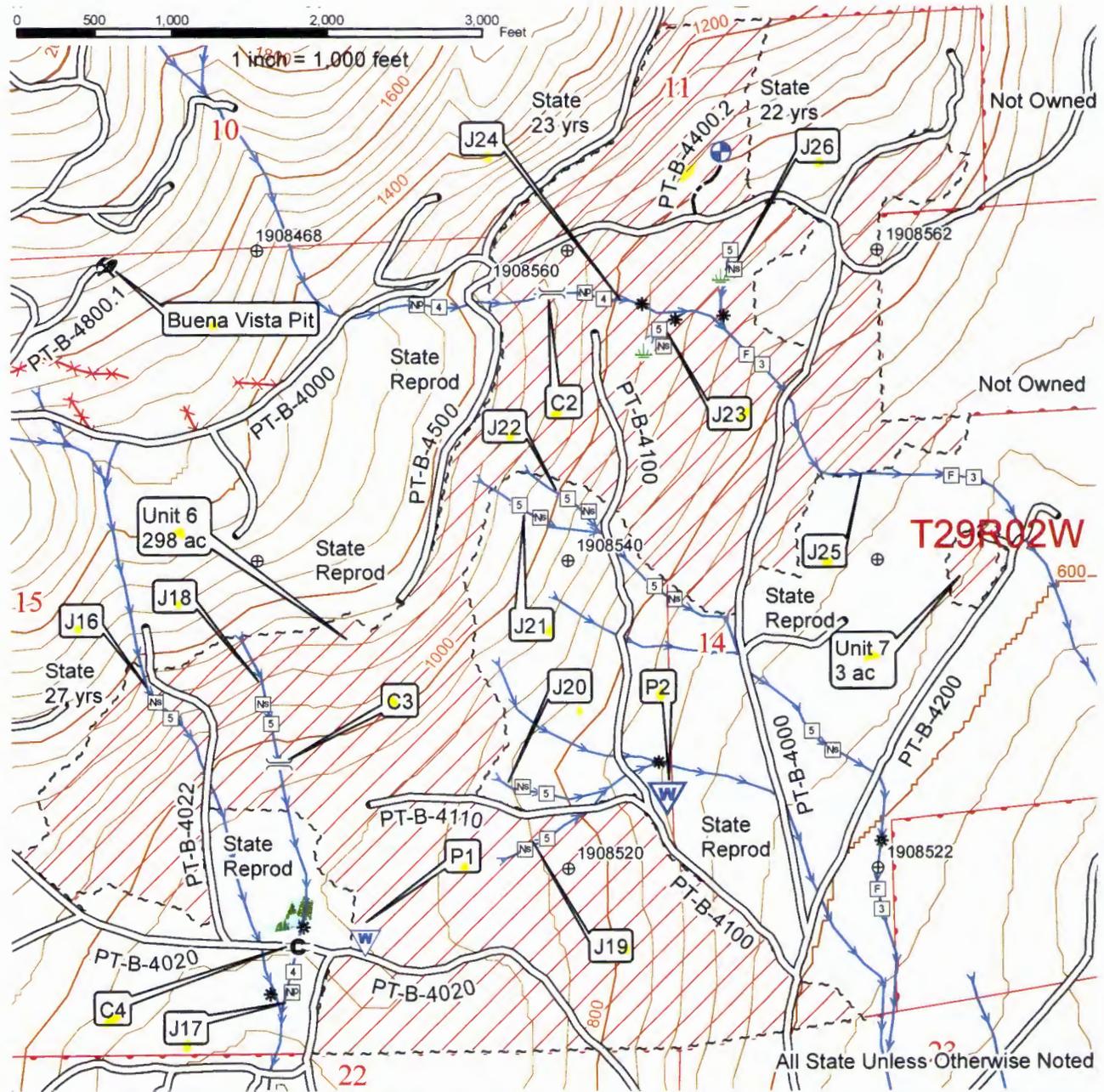
Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	



# FOREST PRACTICES ACTIVITY MAP

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T29R02W

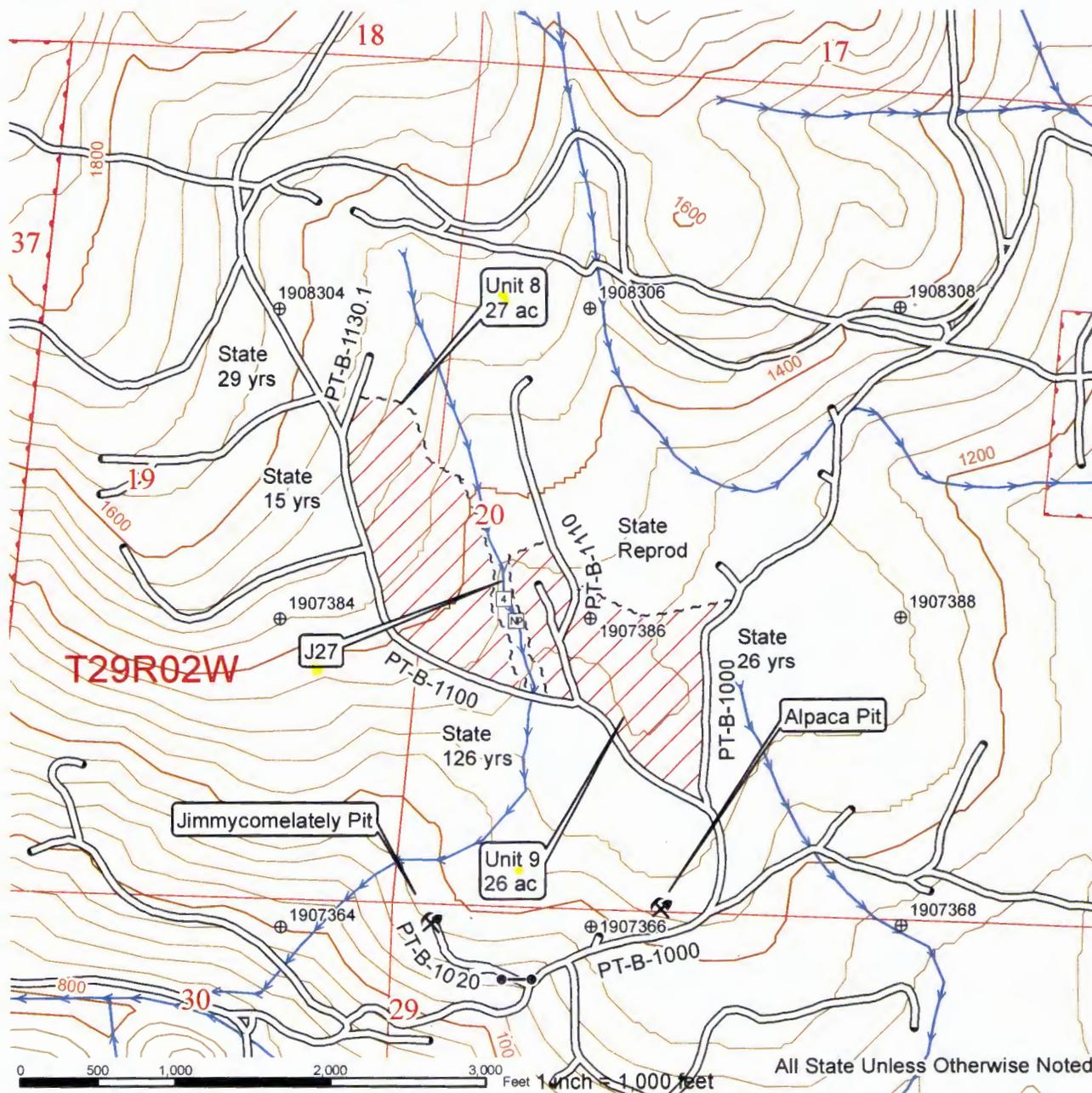


Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	

**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): CLALLAM  
 TOWNSHIP(S): T29R02W

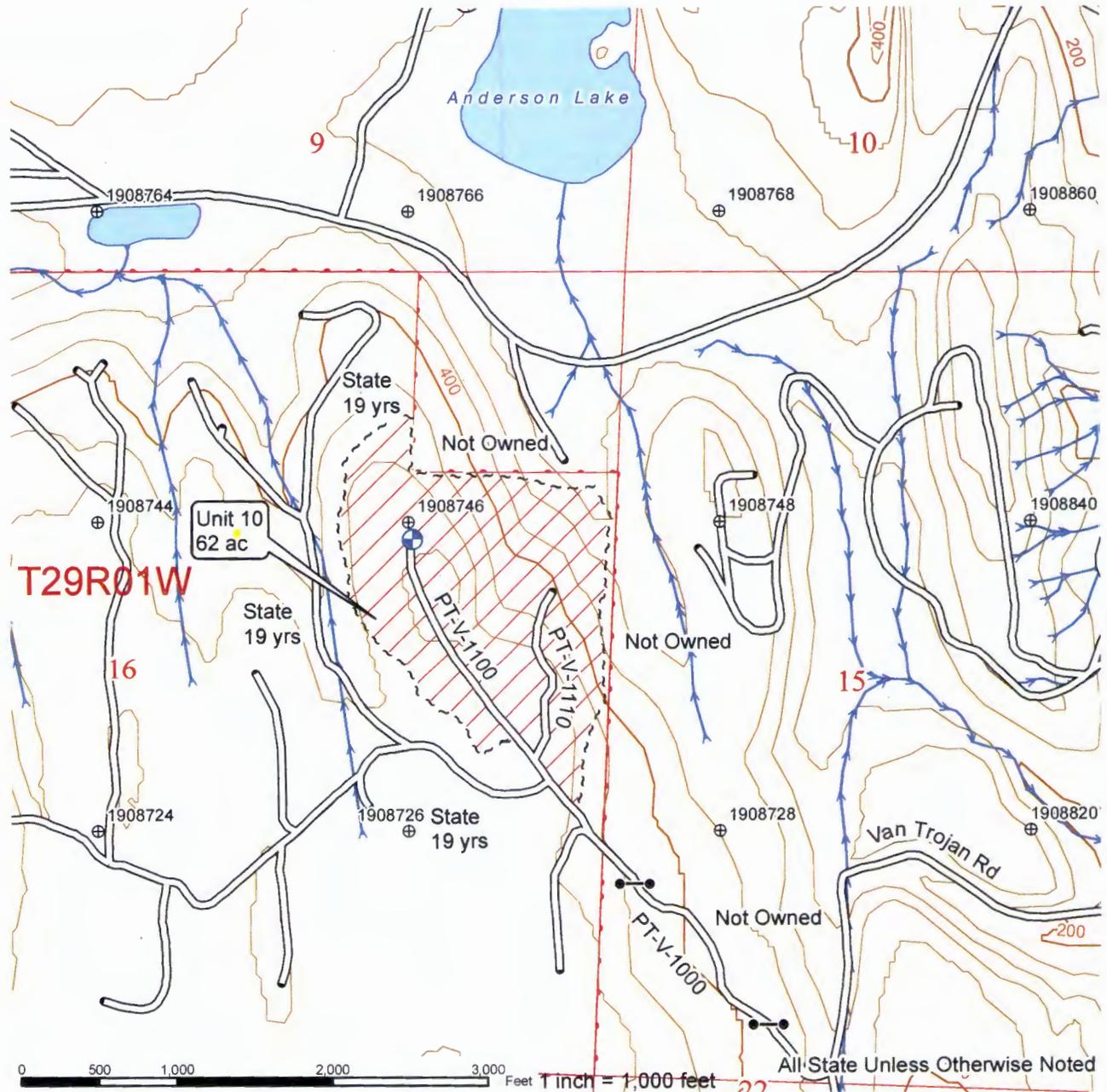


Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	

**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T29R01W



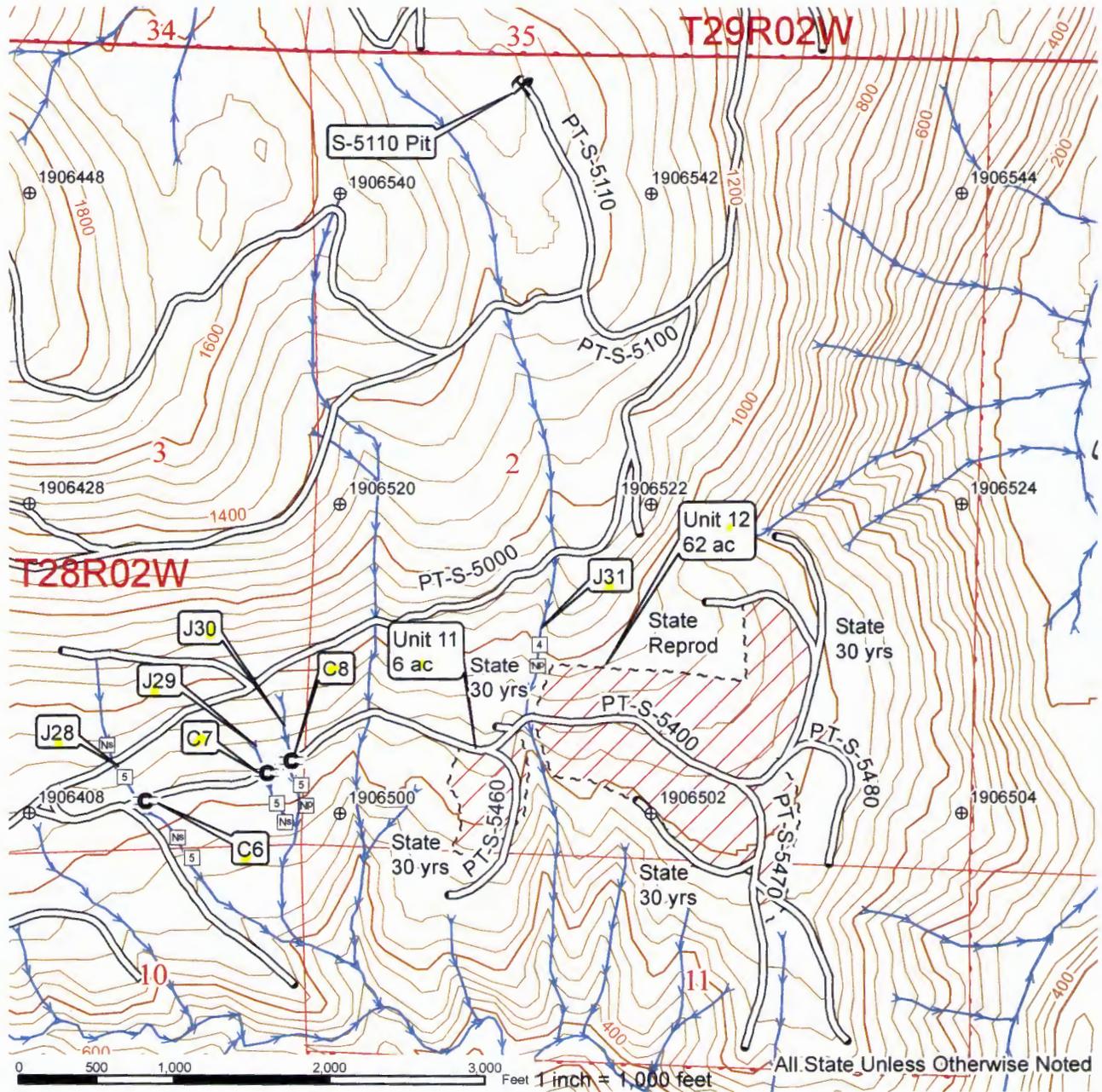
Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	



**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

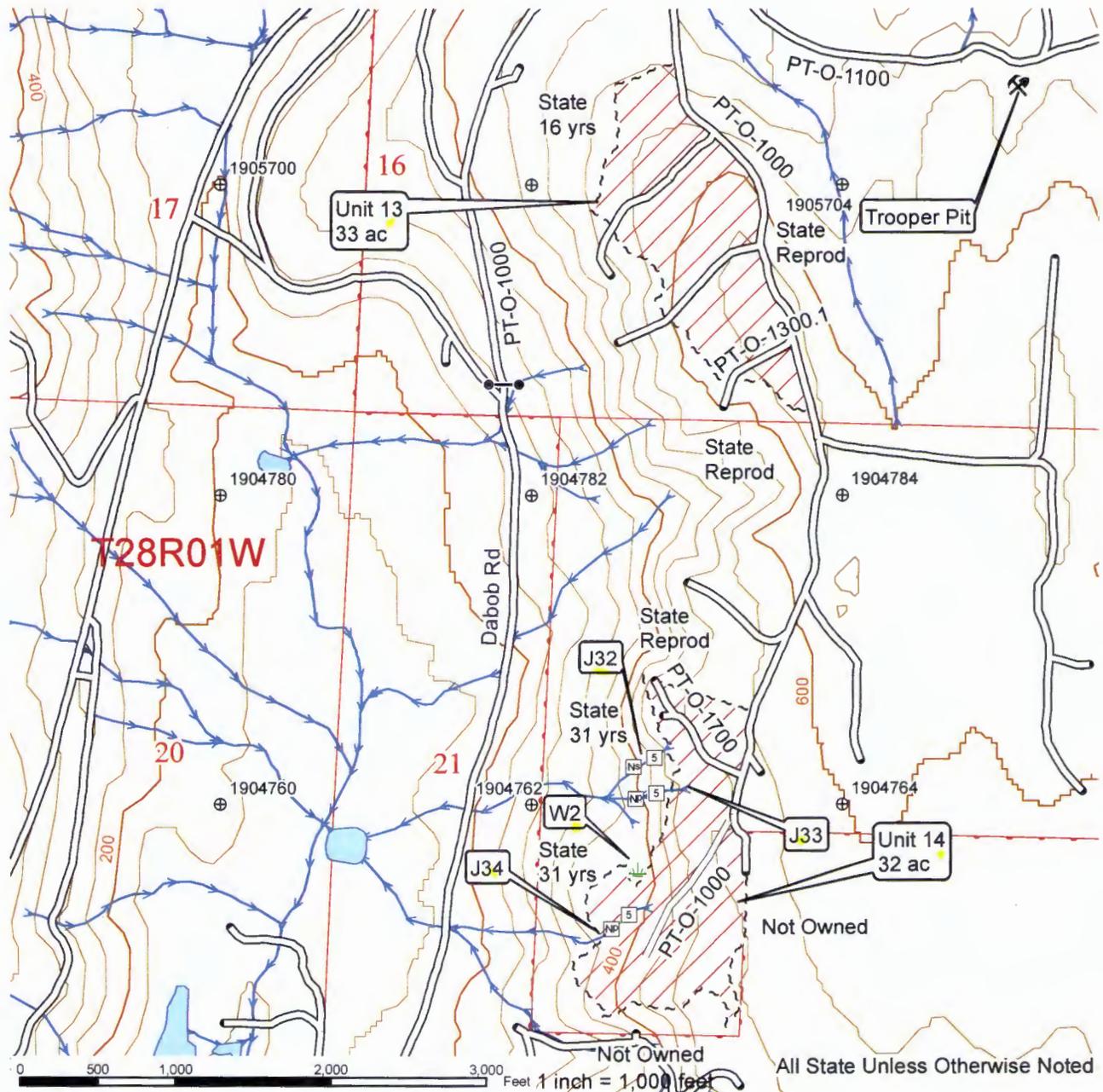
COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T28R02W



# FOREST PRACTICES ACTIVITY MAP

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T28R01W



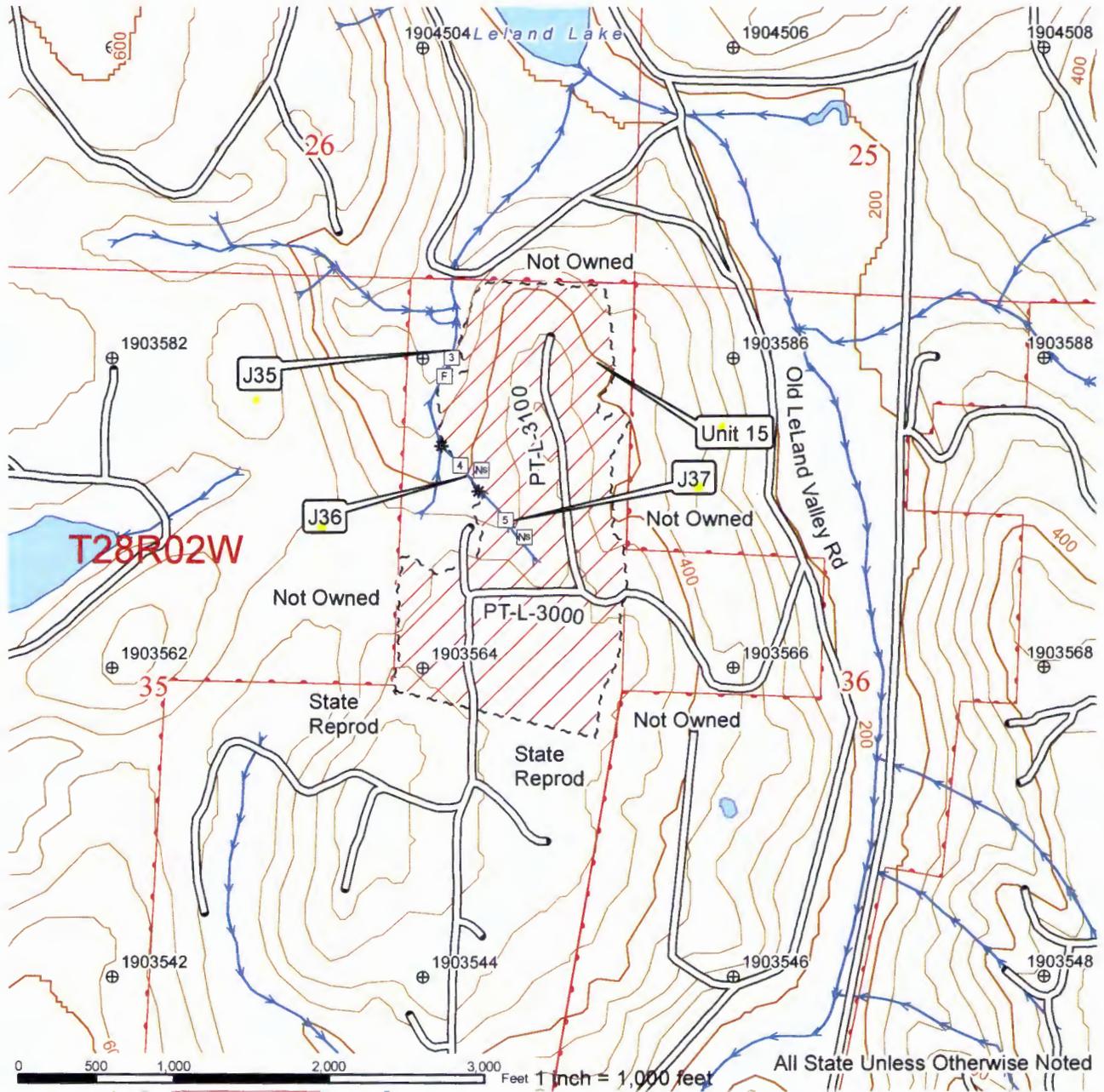
Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	



**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T28R02W



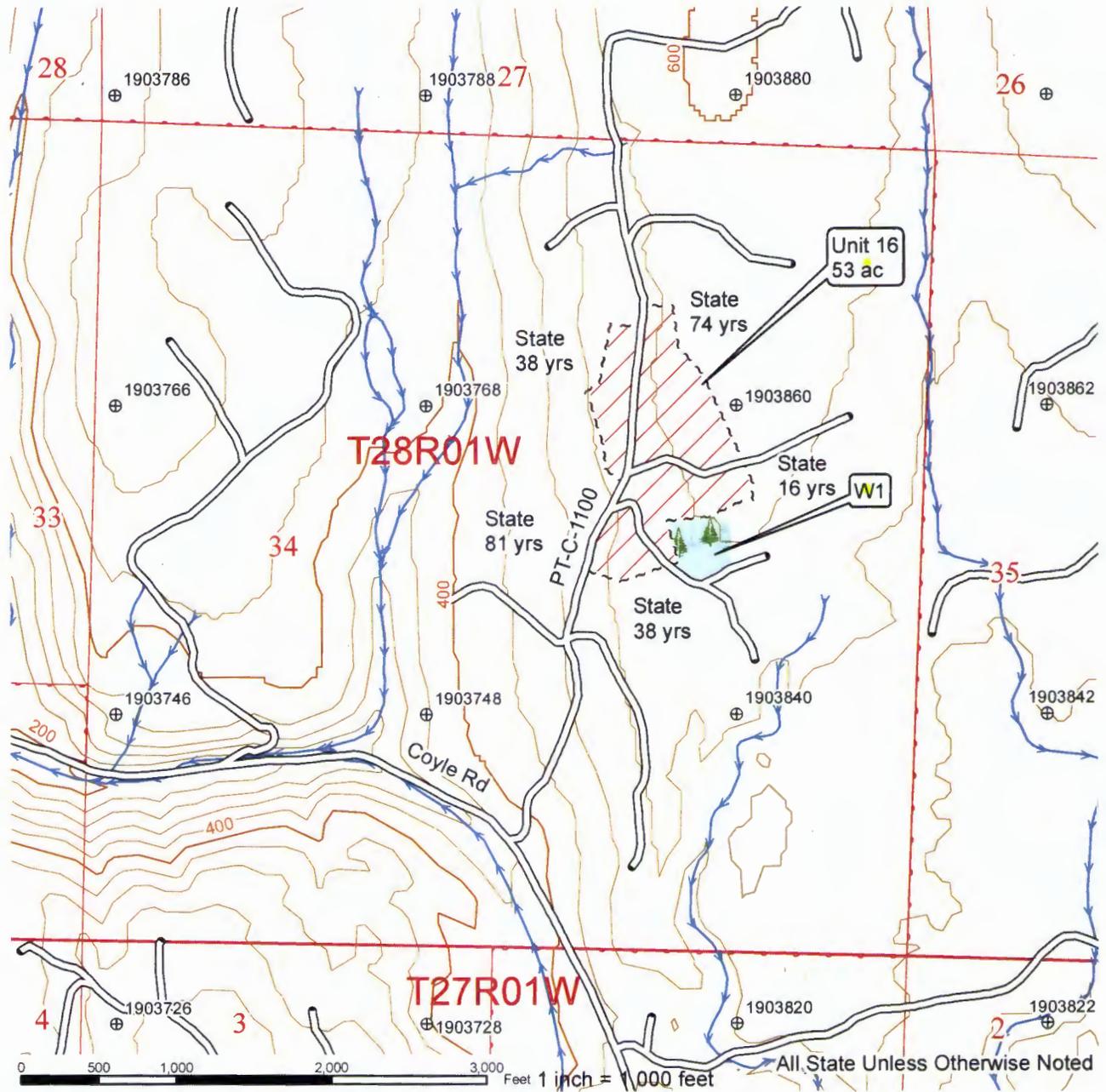
Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Culvert	DNR Managed Lands
Forested Wetland	Wetland	40 ft. Contours
Streams	Waste Area	200 ft. Contours
Stream Type	Gate (AA-1)	Existing Roads
Stream Type Break	Existing Rock Source	New Construction
		Road Abandonment



**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T28R01W

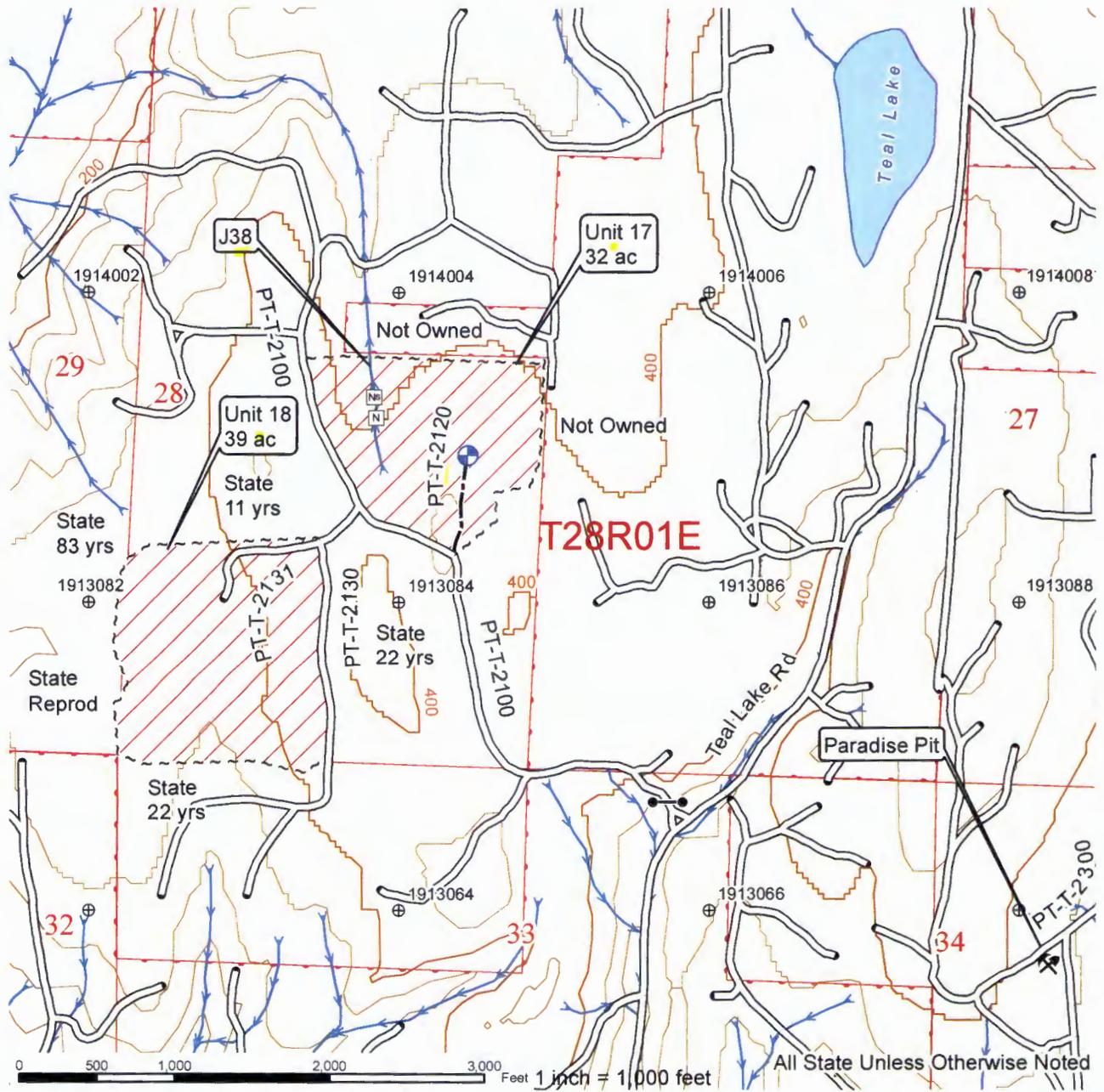


Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	

**FOREST PRACTICES ACTIVITY MAP**

SALE NAME: CENTER 16 THINNING  
 APPLICATION #: 30-093097

COUNTY(S): JEFFERSON  
 TOWNSHIP(S): T28R01E

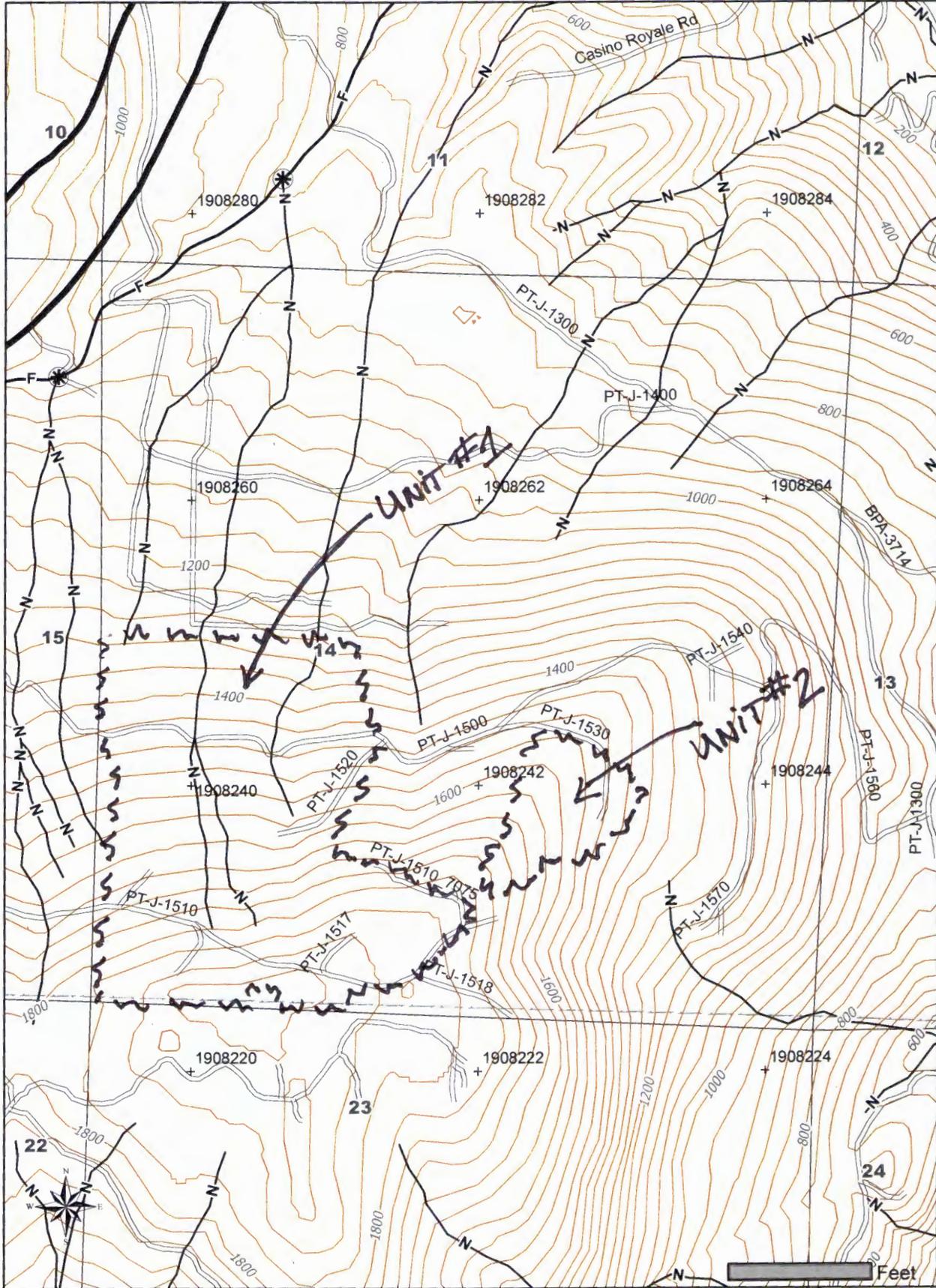


Timber Sale Boundary	Landing - Proposed	Public Land Survey Sections
Ground Logging	Designated Crossing	DNR Managed Lands
Forested Wetland	Culvert	40 ft. Contours
Streams	Wetland	200 ft. Contours
Stream Type	Waste Area	Existing Roads
Stream Type Break	Gate (AA-1)	New Construction
	Existing Rock Source	

# FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 03 WEST (W.M.) HALF 0, SECTION 14

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

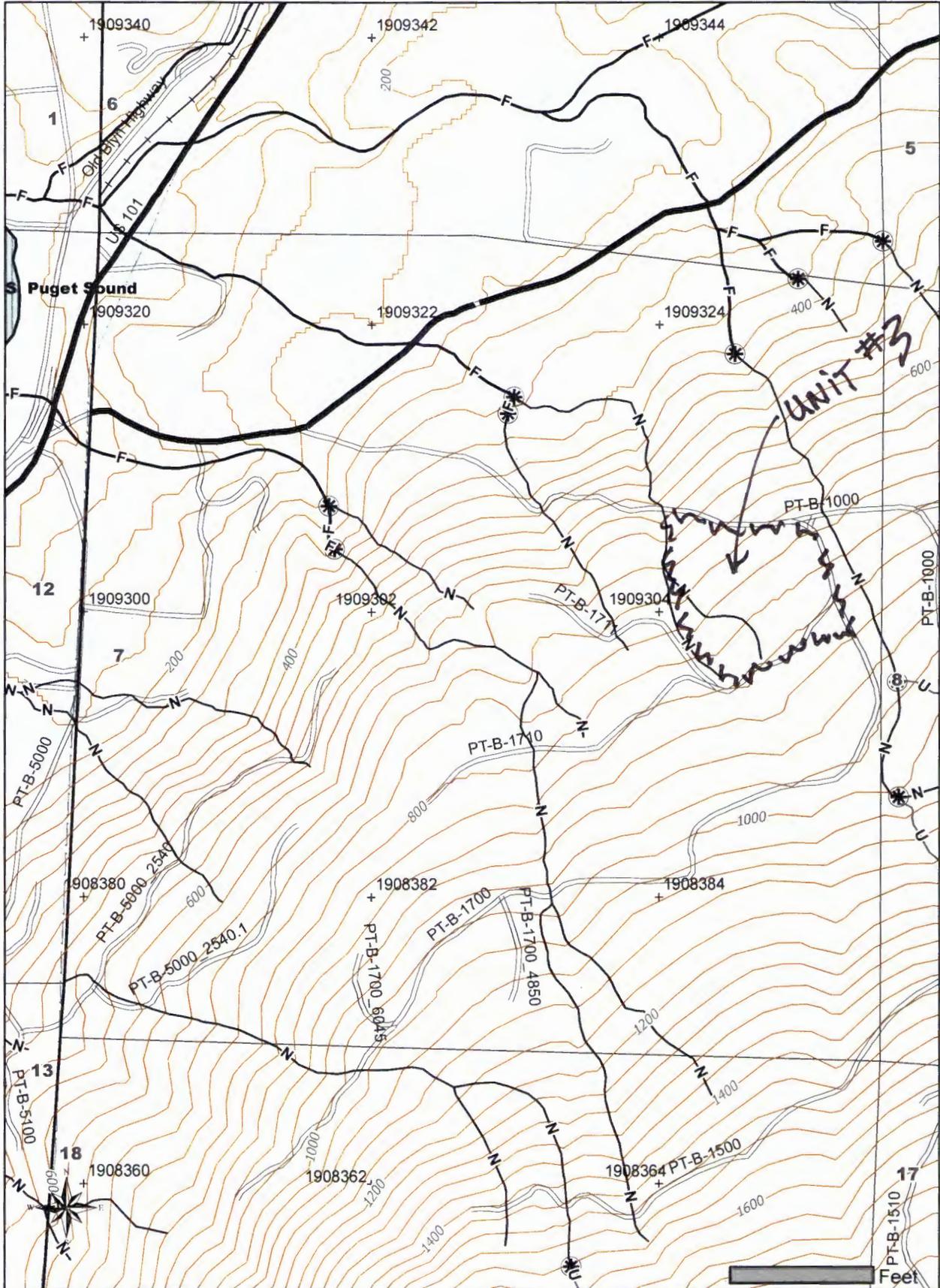
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 7

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

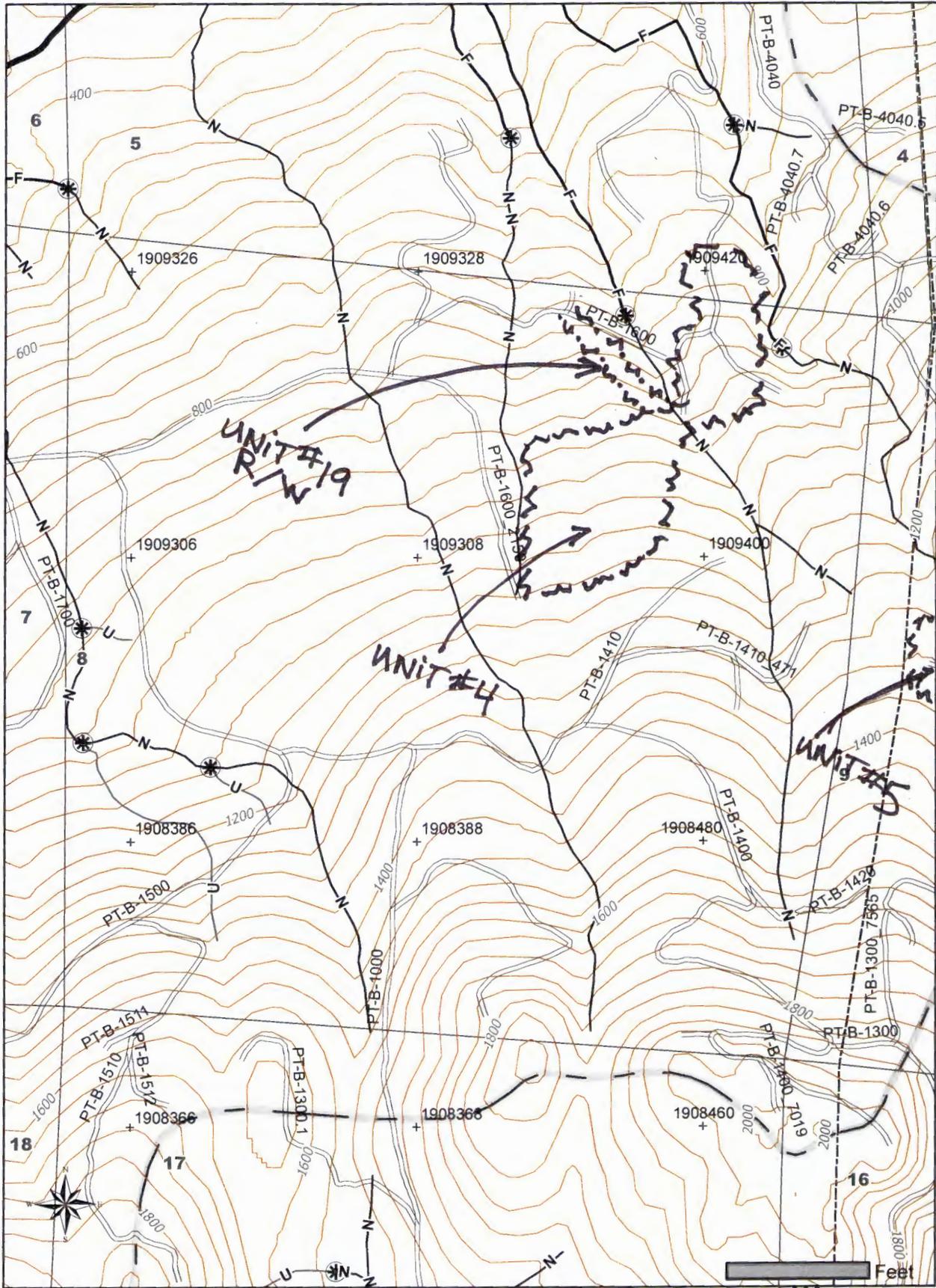
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 8

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

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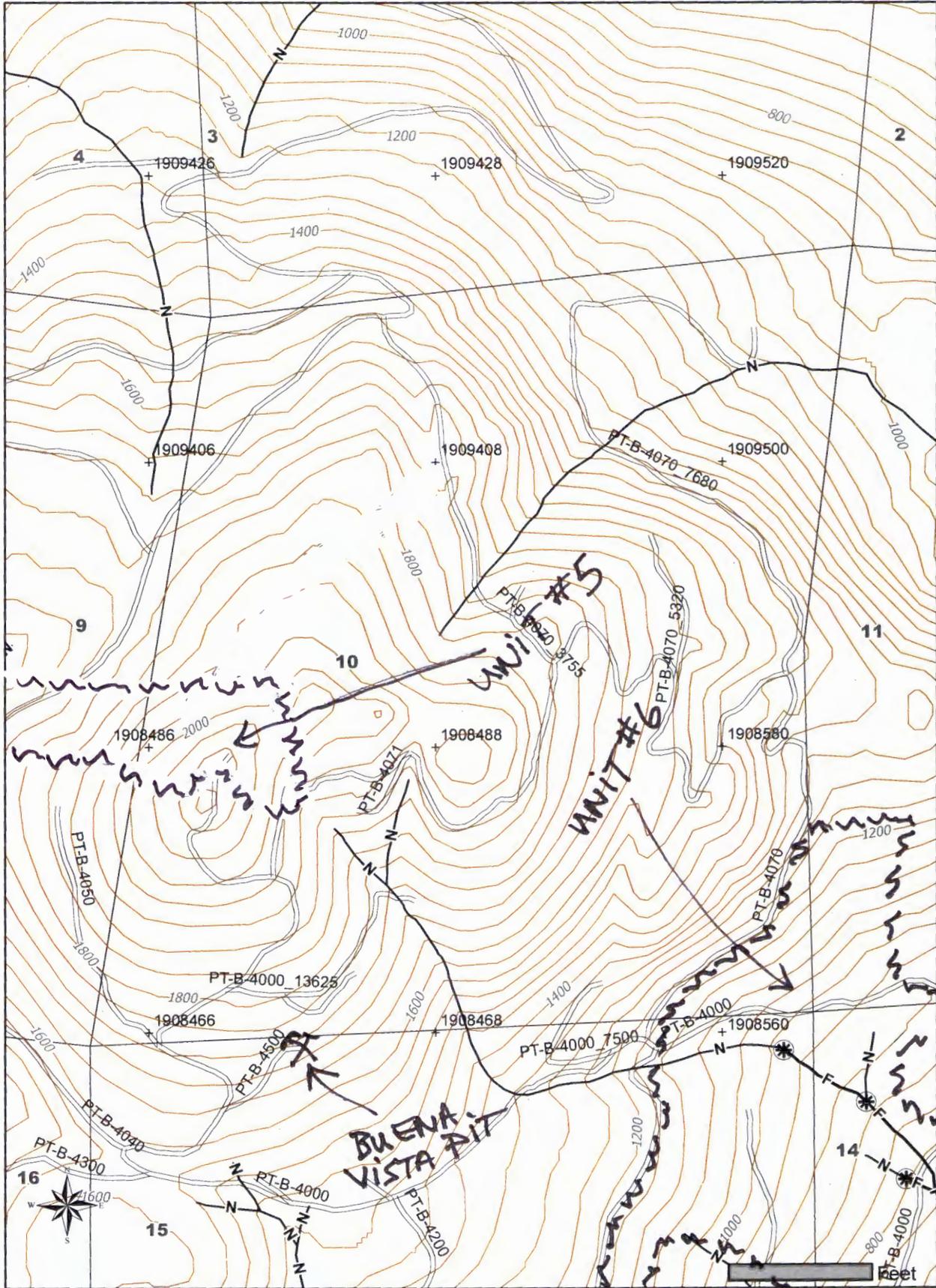
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 10

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

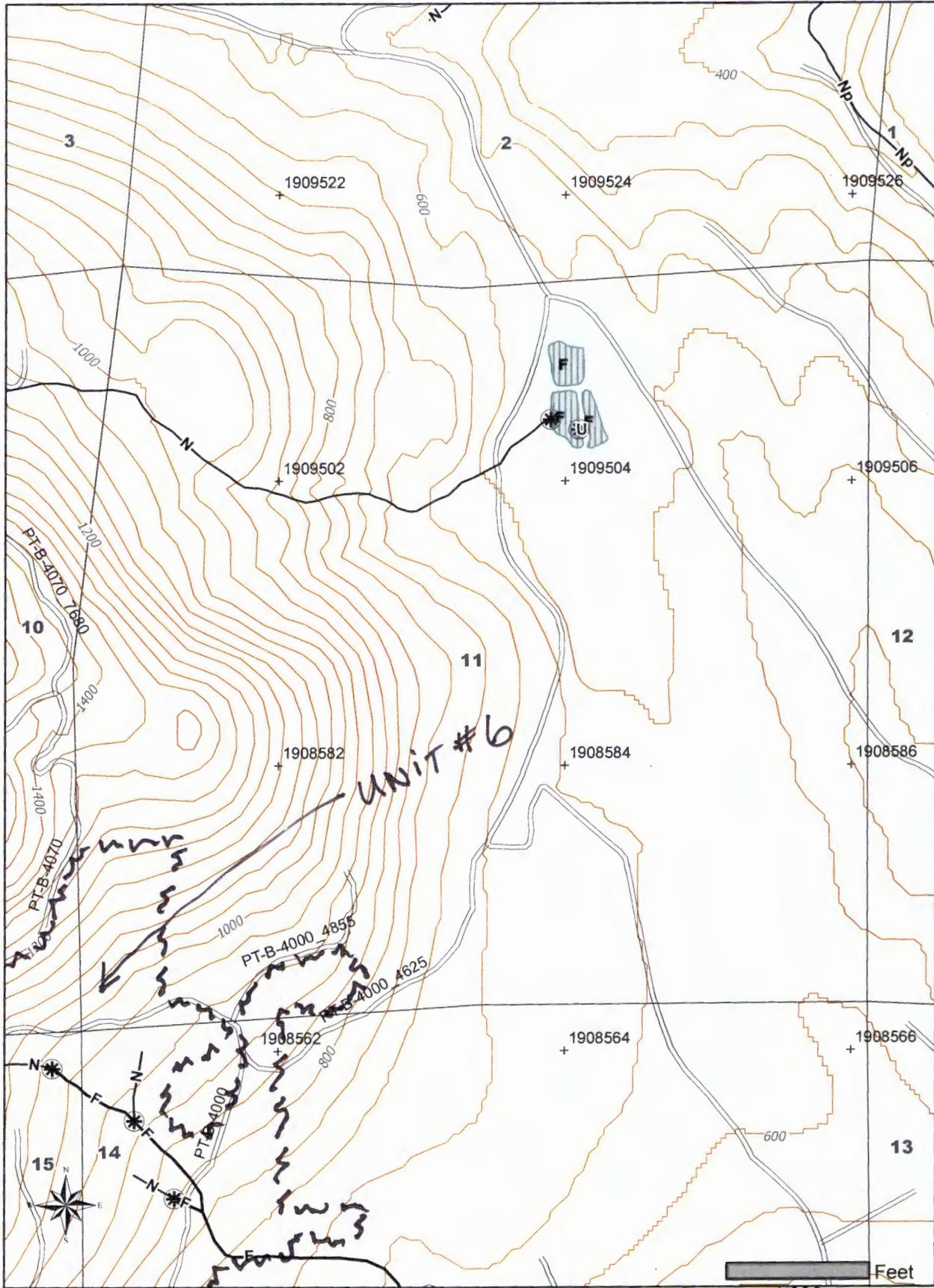
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# FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 11

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

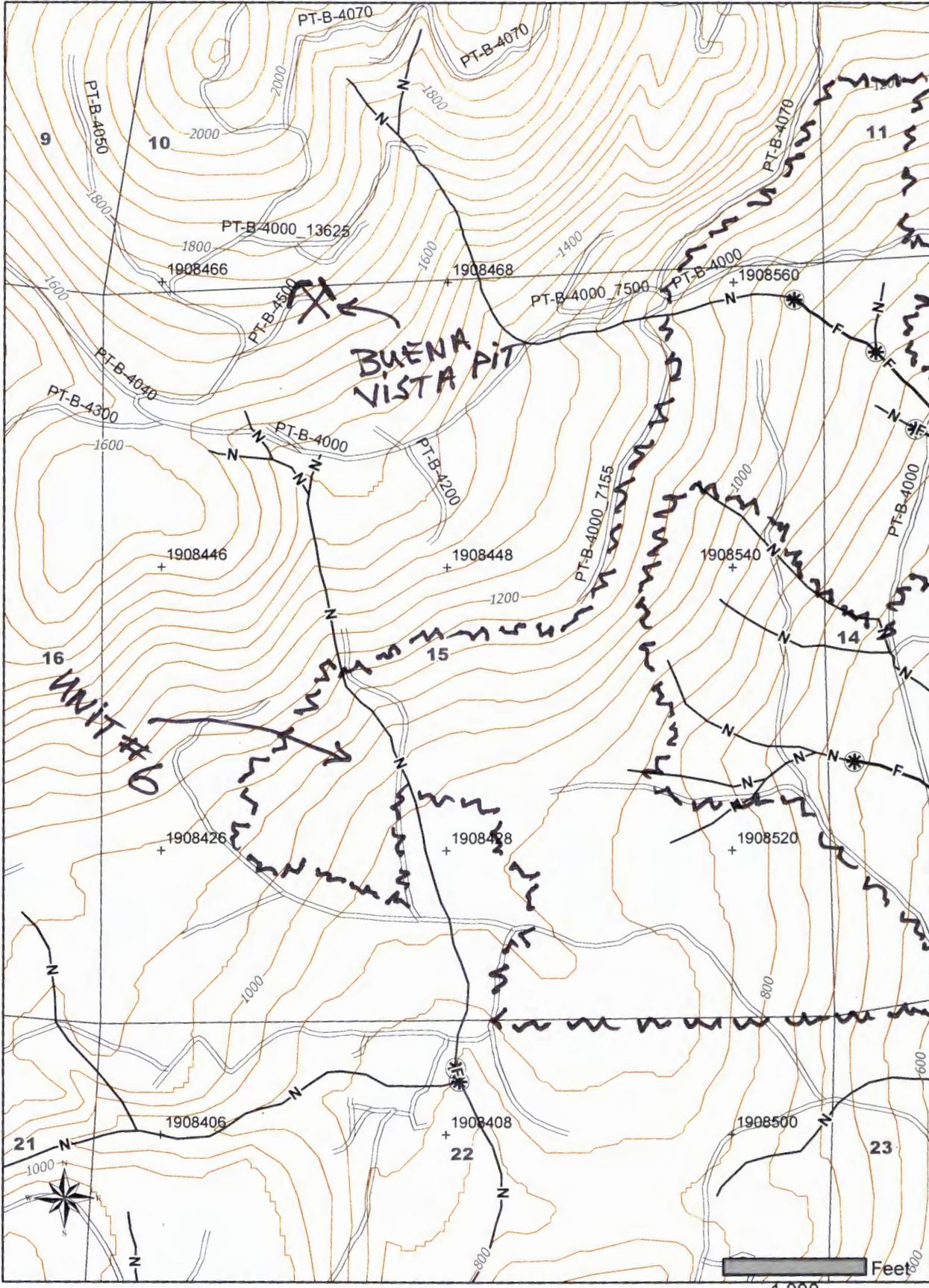
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# FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 15

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

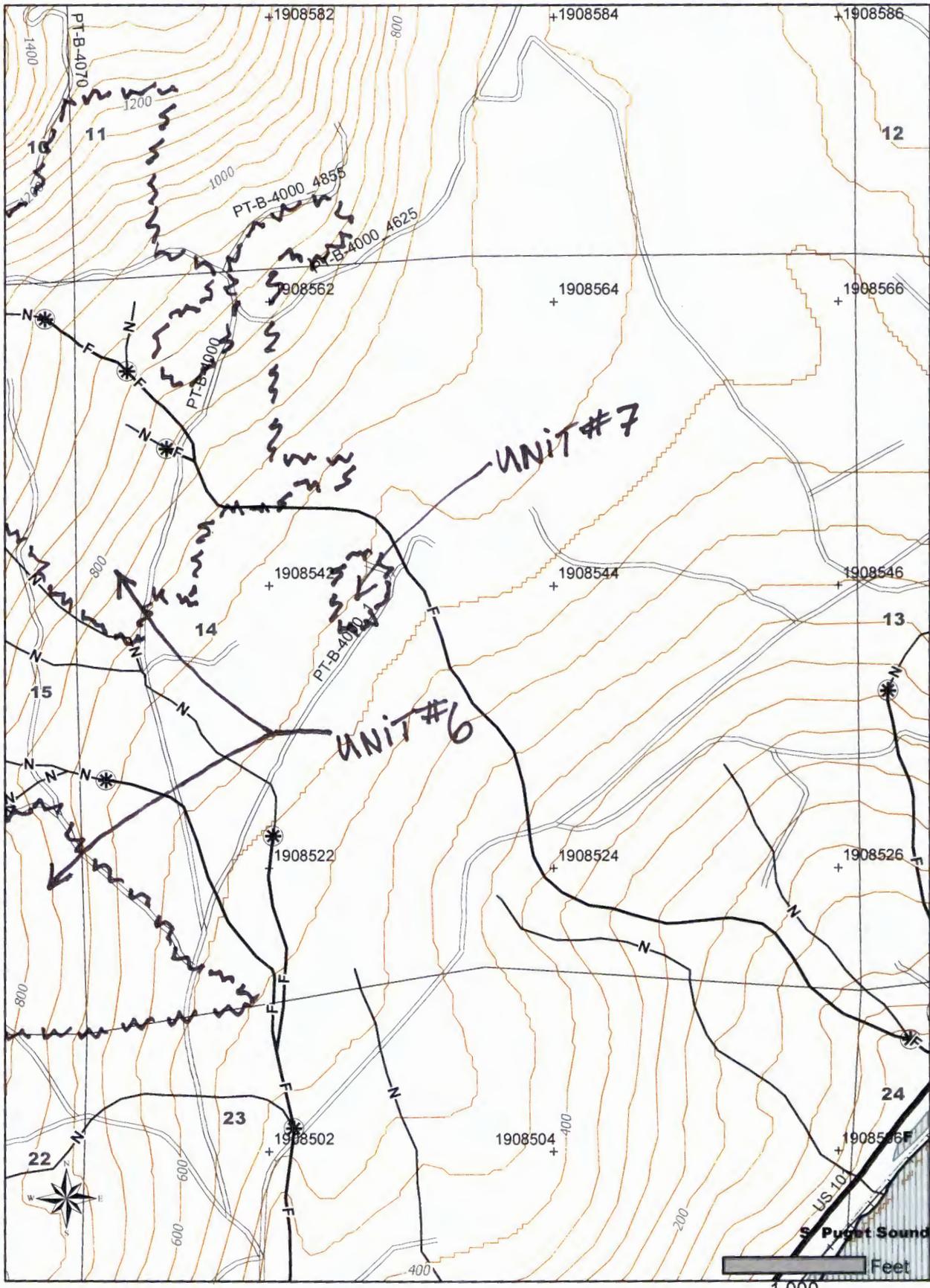
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 14

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

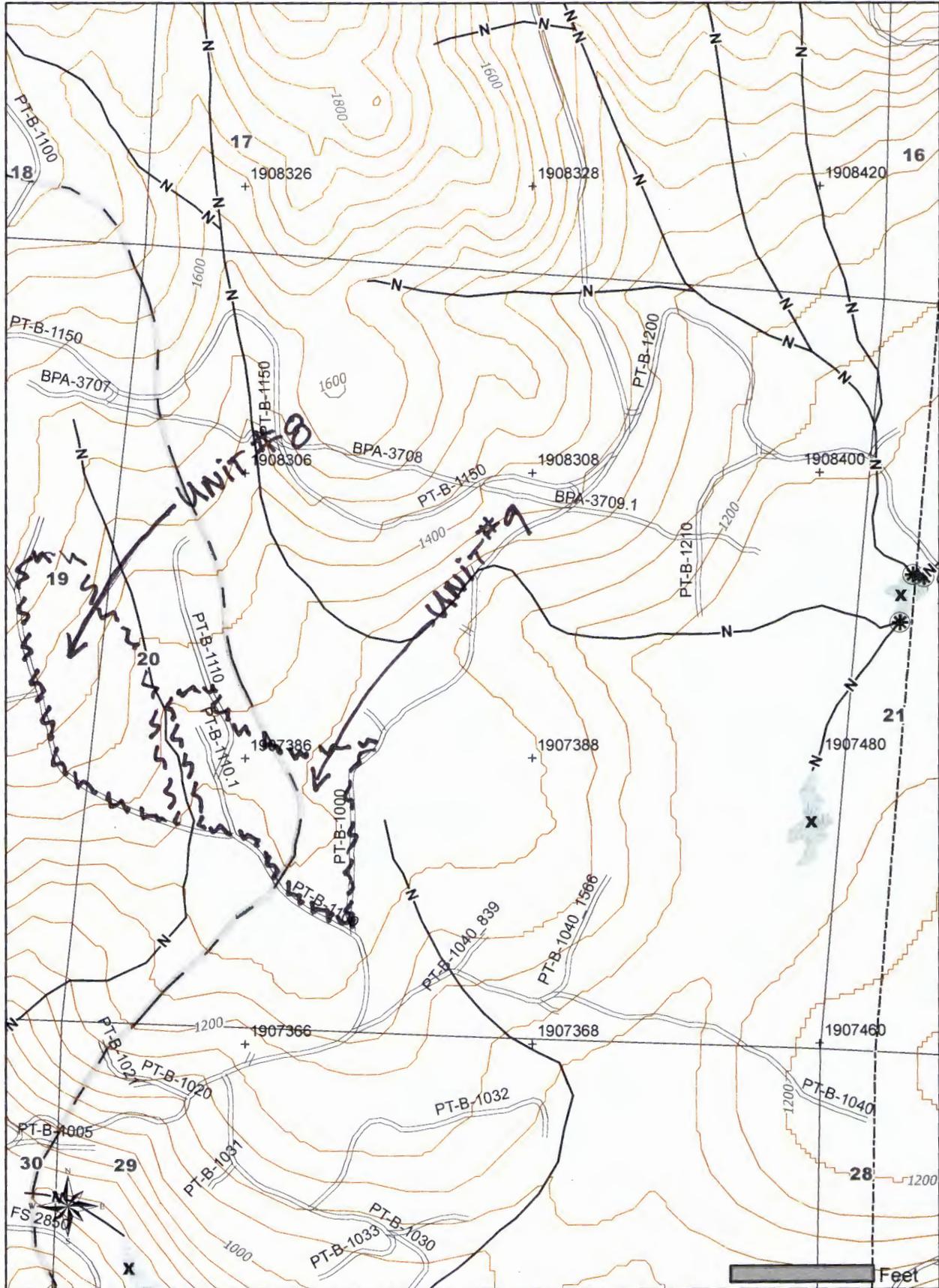
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 20

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

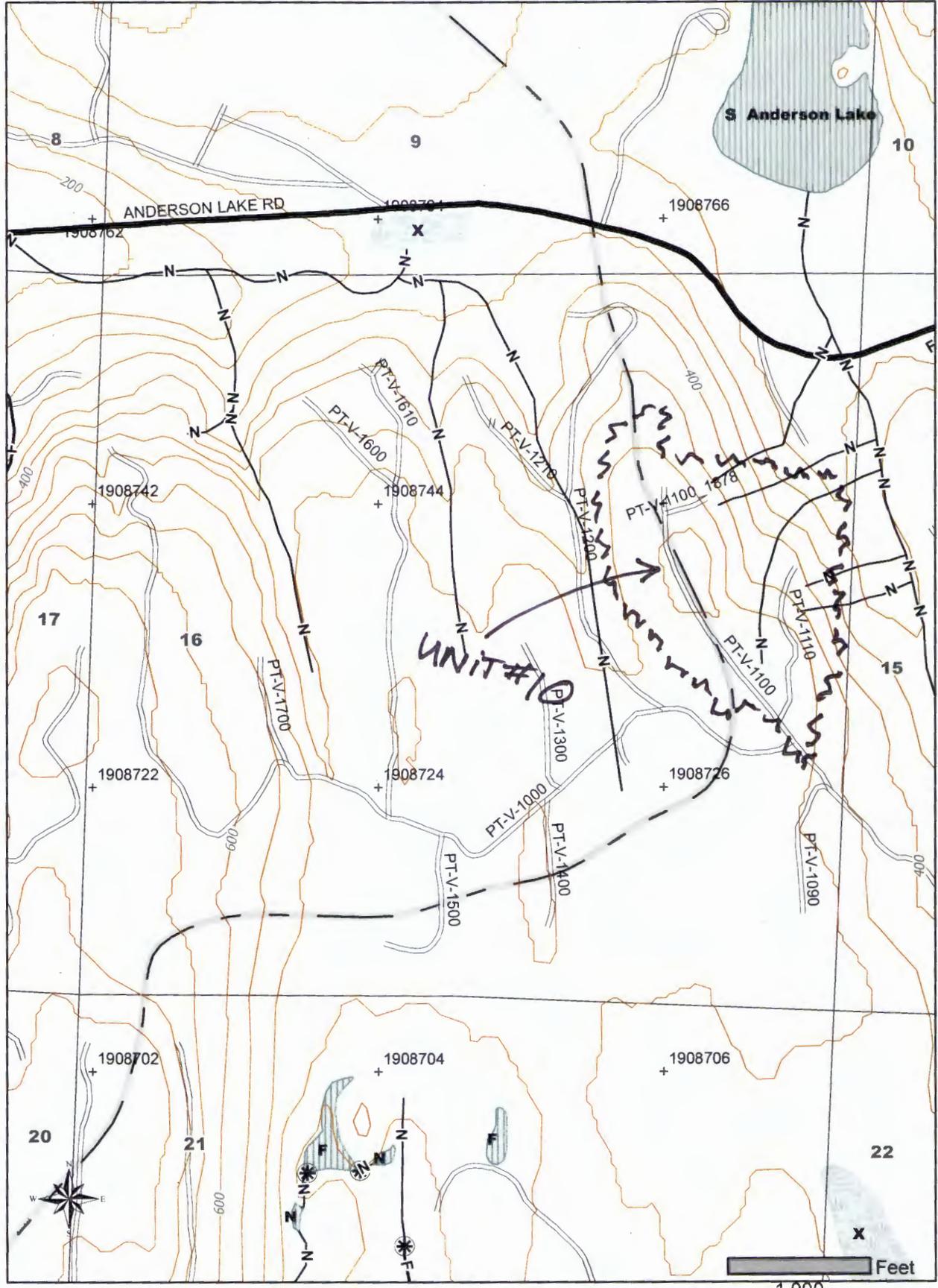
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 29 NORTH HALF 0, RANGE 01 WEST (W.M.) HALF 0, SECTION 16

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

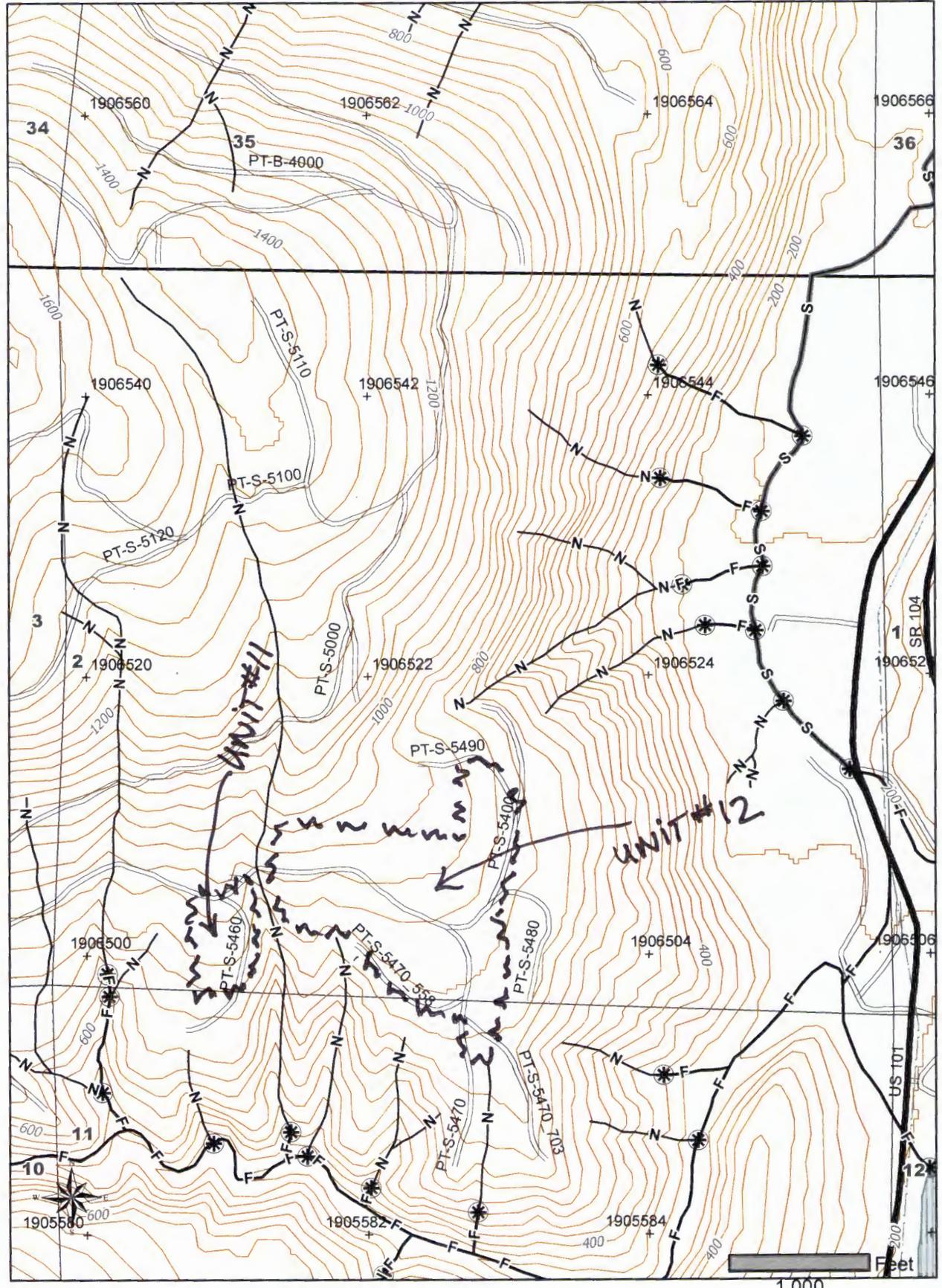
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 2

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

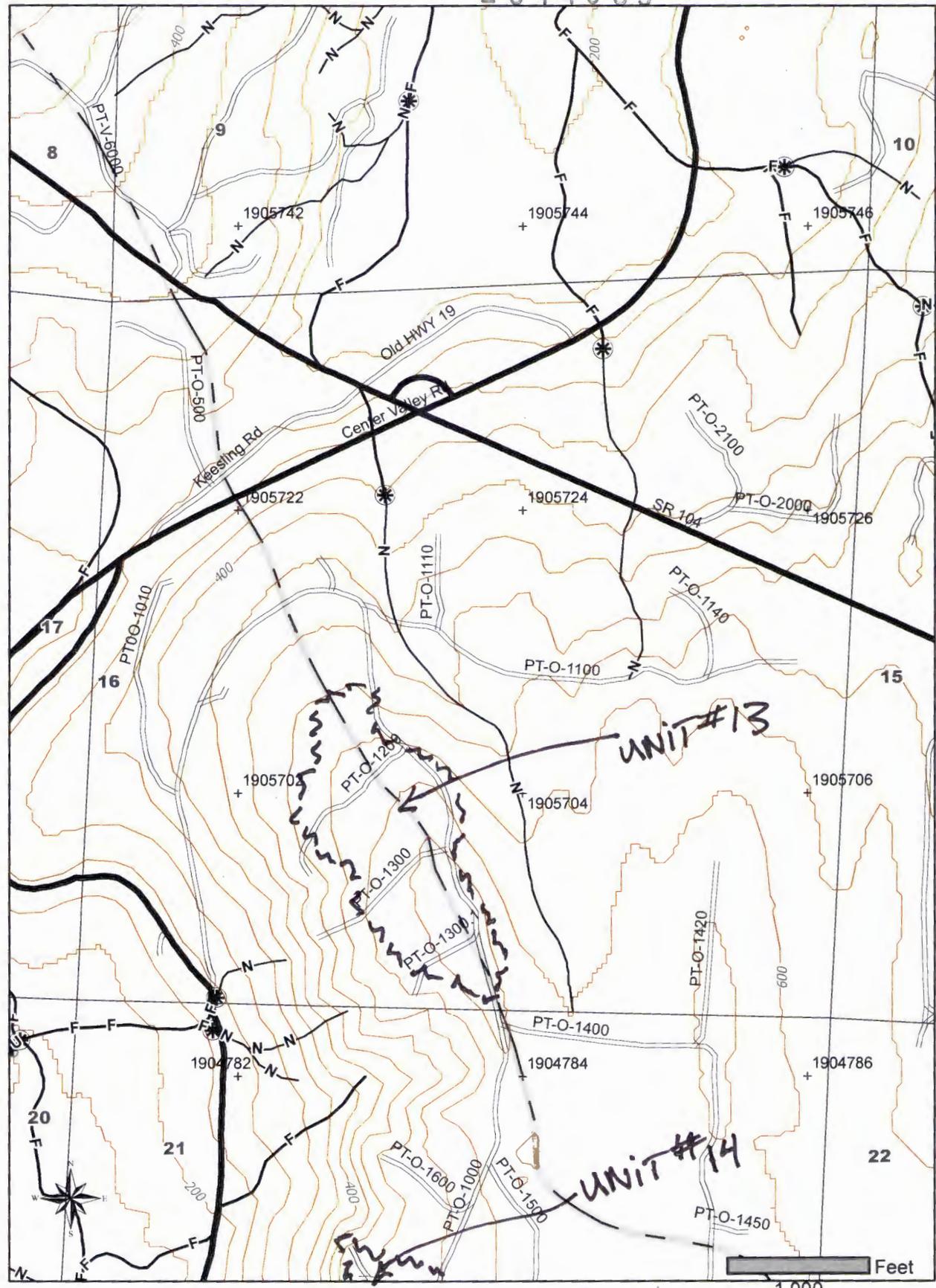
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 01 WEST (W.M.) HALF 0, SECTION 16

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

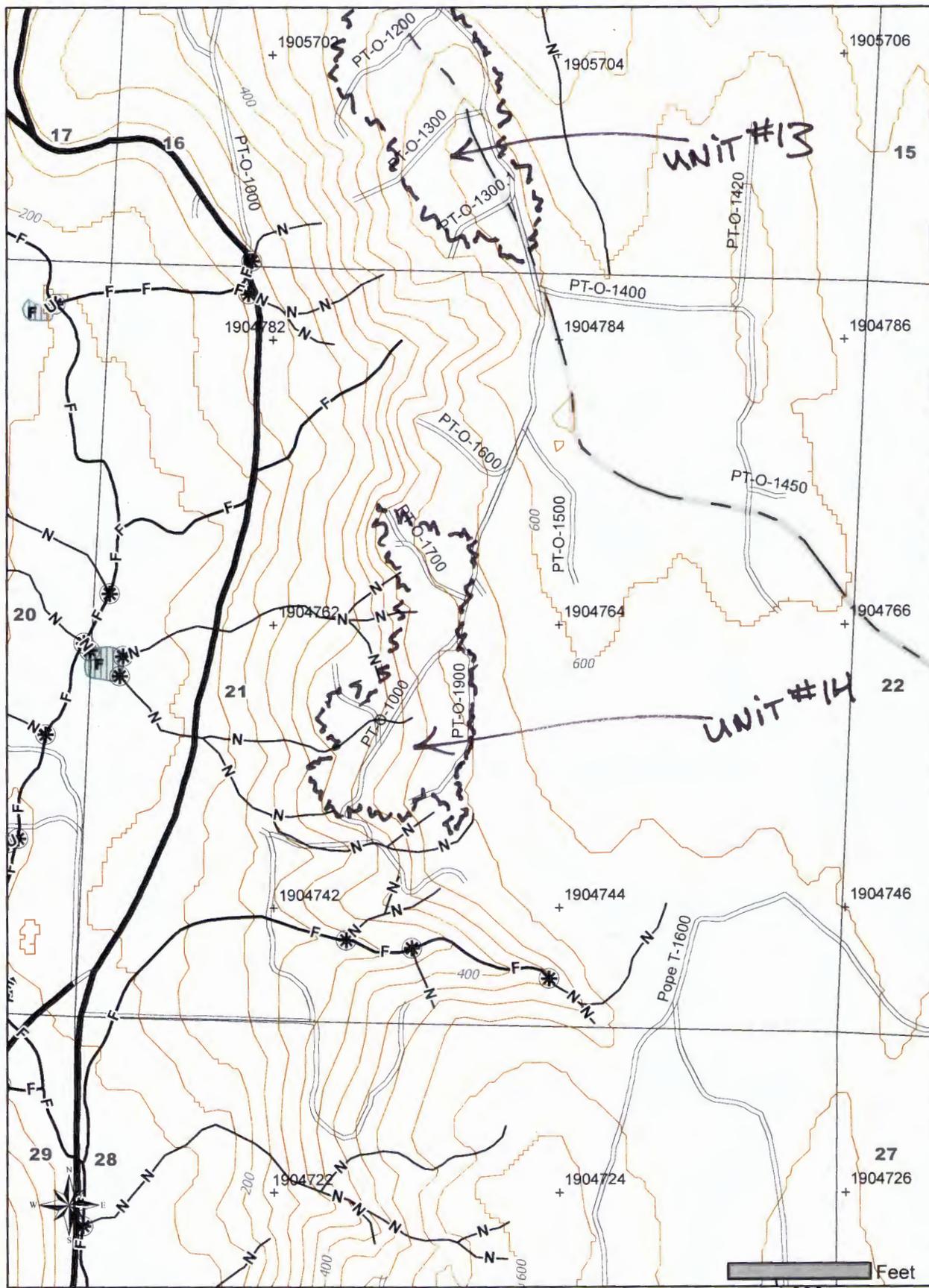
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 01 WEST (W.M.) HALF 0, SECTION 21

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

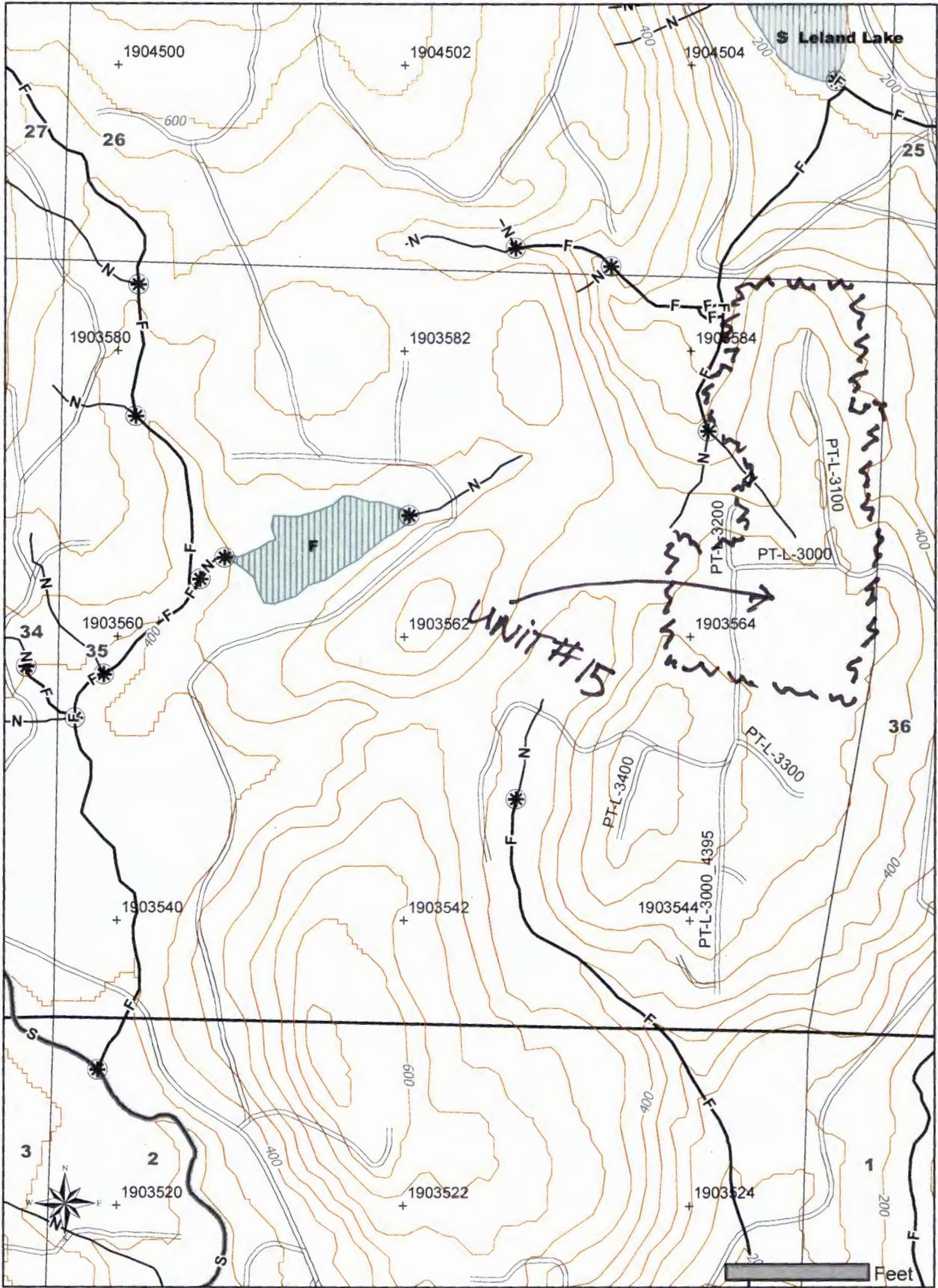
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 02 WEST (W.M.) HALF 0, SECTION 35

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

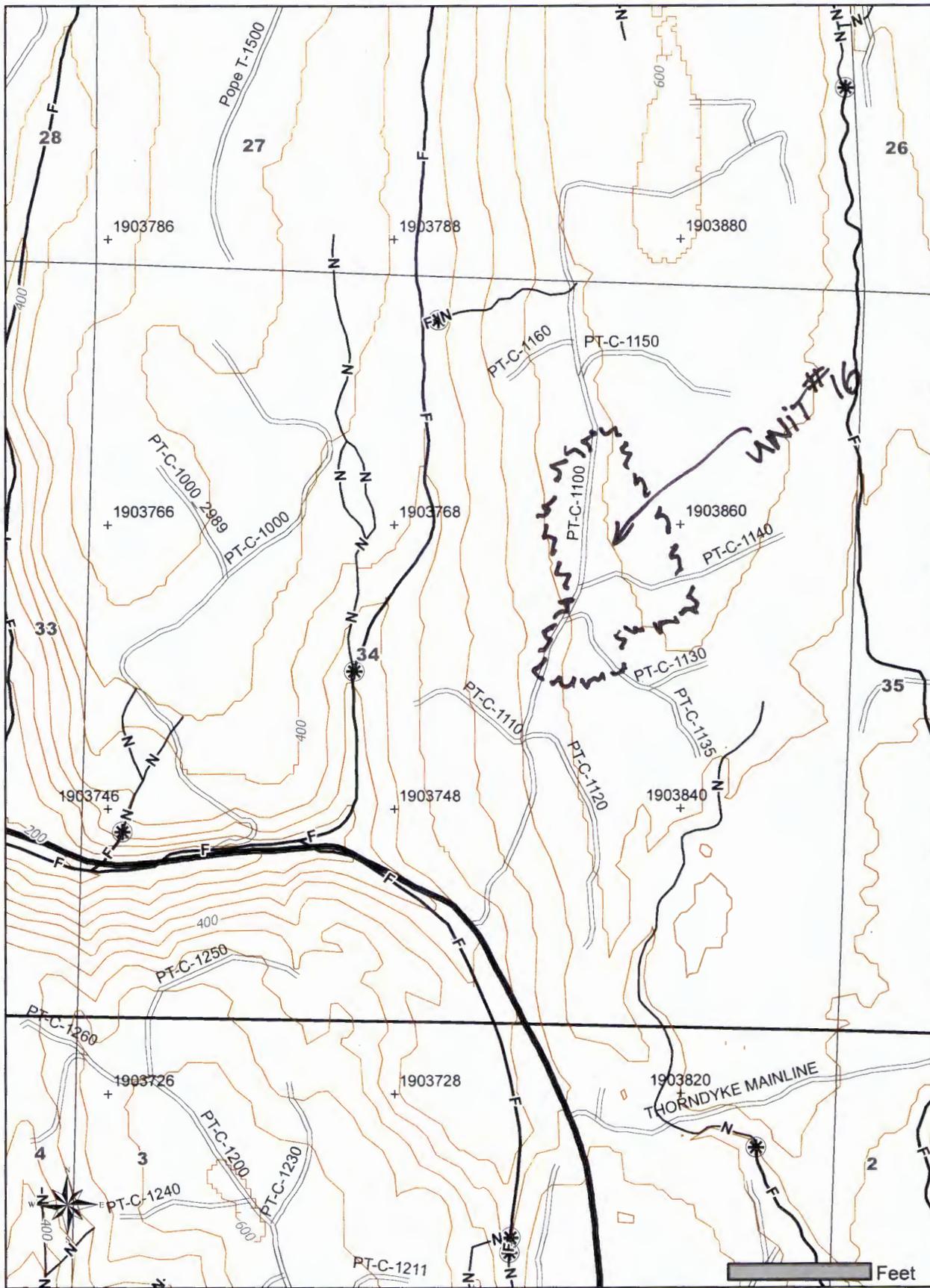
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 01 WEST (W.M.) HALF 0, SECTION 34

Application #: 2614089



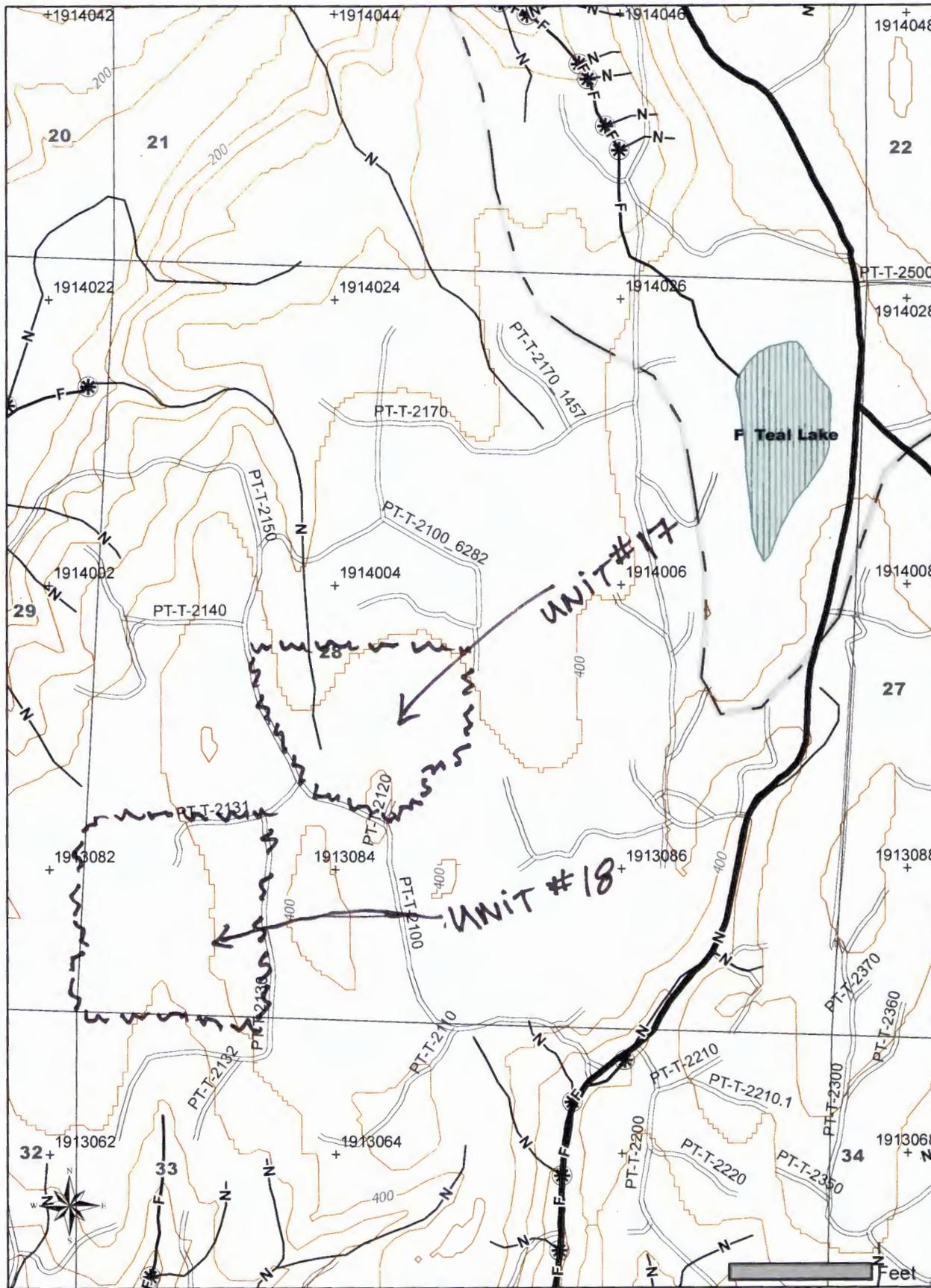
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FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 28 NORTH HALF 0, RANGE 01 EAST (W.M.) HALF 0, SECTION 28

Application #: 2614089



Please use the legend from the FPA Instruction or provide a list of symbols used.

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