

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Tillamook Field Office  
4610 Third Street  
Tillamook, Oregon 97141

MOORE'S MEADOW TIMBER SALE  
ORN04-TS-2019.0403  
Date: August 13, 2019

PROSPECTUS

THIS IS A PROSPECTUS ONLY. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE TILLAMOOK FIELD OFFICE.

NOTICE IS HEREBY GIVEN that the Bureau of Land Management will offer for sale timber as described herein for oral auction, pursuant to Instructions to Bidders, as stated on Form No. 5440-9, attached. Written and oral bids will be received by the District Manager, or his representative, in the timber sale room at the District Office, 1717 Fabry Road, S.E., Salem, Oregon. Written bids and deposits will be accepted beginning at 8:30 a.m. and the timber sale oral auction will commence at 9:00 a.m., on Wednesday, September 11, 2019.

THIS TIMBER SALE NOTICE does not constitute the decision document for purposes of protest and appeal of a forest management decision. Consistent with 43 CFR Subpart 5003-Administrative Remedies, the notice of a timber sale, when published as a legal ad in a newspaper of general circulation shall constitute the decision document for purposes of protest and appeal. Protests may be filed with the Contracting Officer within 15 days of the publication of the aforementioned decision document in the newspaper. It is anticipated that the decision document will be published in the News-Register on or about April 16, 2019. BLM does not warrant publication on this exact date. All parties considering protest of the timber sale decision document are encouraged to review the aforementioned newspaper(s) to ensure accurate knowledge of the exact publication date.

AN ENVIRONMENTAL ASSESSMENT was prepared for each timber sale tract, and a Finding of No Significant Impact has been documented. These documents are available for inspection as background for each timber sale tract at the Tillamook Field Office.

A WRITTEN BID on Form 5440-9 at not less than the advertised appraised price on a unit basis per species and the required minimum bid deposit shall be required to participate in oral bidding.

THE SUCCESSFUL BIDDER, as a condition of award, will be required to sign Form 5430-11, a certification that the bid was arrived at by the bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. Also, Form 5450-17, Export Determination must be completed by the successful bidder. To expedite procedure, this form should be completed and submitted with the written bid.

THE VOLUMES LISTED herein are estimates only. The sale volumes listed are based on 16-foot taper breaks which must be taken into consideration if comparisons are made with volume predictions based on other standards. The volumes based on 32-foot taper breaks are shown for comparison purposes. No sale shall be made for less than the advertised appraised price. The Purchaser shall be liable for the total purchase price, without regard to the amount bid per unit, even though the quantity of timber actually cut or removed or designated for taking is more or less than the estimated volume or quantity so listed.

THIS TIMBER SALE has been cruised based upon Eastside Scribner board foot measure. The minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

A PERFORMANCE BOND in an amount not less than 20 percent of the total purchase price will be required for all contracts of \$2,500 or more. A minimum performance bond of not less than \$500 will be required for all installment contracts less than \$2,500.

QUALIFIED SMALL BUSINESS concerns may apply to SBA for a loan to provide financing for access road construction required under the terms of qualifying timber sale contracts, and necessary contract changes will be made. Approval of loan applications rests with SBA and may be contingent on availability of funds. Applicants for such loans shall notify BLM of their intention to apply for a loan.

PRE-AWARD QUALIFICATIONS. The high bidder may be required to furnish information to determine the ability to perform the obligations of the contract. If the high bidder is determined not qualified, responsible or refuses to respond within fifteen (15) days of a request for information pertaining to qualifications, the contract may be offered and awarded for the amount of the high bid to the highest of the bidders who is qualified, responsible, and willing to accept the contract.

LOG EXPORT AND SUBSTITUTION: All timber sales, including timber from Federal rights-of-ways, shall be subject to the restrictions relating to the export and substitution of unprocessed timber from the United States in accordance with P.L. 94-165 and 43 CFR 5400 and 5420, as amended.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS: Excepting Port-Orford-cedar, all timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from being used as a substitute for exported private timber. The BLM has revised the log export restrictions special provision to reduce the log branding and painting requirements. The new requirements include branding of one end of all logs with a scaling diameter of over 10 inches. All loads of 11 logs or more, regardless of the diameter of the logs, will have a minimum of 10 logs branded on one end. All logs will be branded on loads of 10 logs or less. One end of all branded logs will be marked with yellow paint. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. The Purchaser shall bear any increased costs for log branding and painting.

CONTRACT MODIFICATION, SUSPENSION OR TERMINATION: A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to: (1) Comply with the Endangered Species Act or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or; (2) Comply with a court order, or; (3) Protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines or management direction established in the ROD and RMP.

ADDITIONAL INFORMATION concerning this timber sale tract is available at the above District Office. A copy of the timber sale contract is also available for inspection at the District Office. The prospectus for this/these sale(s) is also available online at: <https://www.blm.gov/or/resources/forests/index.php>. The prospectus includes maps and tables that cannot be made Section 508 compliant. For help with its data or information, please contact the Tillamook Field Office at 503-815-1100.

Attachments:  
Form 5450-17  
Form 5430-11  
Form 5440-9

## TIMBER SALE NOTICE

NORTHWEST OREGON DISTRICT  
TILLAMOOK FIELD OFFICE  
COLUMBIA MASTER UNIT

Sale Date: September 11, 2019

CONTRACT NO.: ORN04-TS-2019.0403, MOORE'S MEADOW TIMBER SALE  
YAMHILL COUNTY, OREGON: O&C: ORAL AUCTION: BID DEPOSIT REQUIRED: \$141,200.00

All timber designated for cutting on: Lot 1, W½NW¼, Sec. 17, T. 3 S., R. 5 W and S½, Sec. 13; NE¼NE¼, Sec. 23; NW¼NW¼, Sec. 24, T. 3 S., R. 6 W, WM.

**THIS TIMBER SALE HAS BEEN CRUISED BASED UPON EASTSIDE SCRIBNER MEASURE.**

Minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

Approx. No. Merchantable Trees	Est. Vol. MBF 32' Log	Species	Est. Vol. MBF 16' Log	Appraised Price Per MBF	Estimated Volume Times Appraised Price
20,297	4,455.0	Douglas-fir	5,488.0	\$255.00	\$1,399,440.00
95	61.0	grand fir	76.0	\$127.20	\$9,667.20
387	12.8	bigleaf maple	16.0	\$50.40	\$806.40
46	2.4	western hemlock	3.0	\$110.20	\$330.60
5	1.6	western redcedar	2.0	\$437.60	\$875.20
58	0.8	red alder	1.0	\$99.60	\$99.60
<b>20,888</b>	<b>4,533.6</b>	<b>Totals</b>	<b>5,586.0</b>		<b>\$1,411,219.00</b>

**LOG EXPORT AND SUBSTITUTION RESTRICTIONS:** All timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and also prohibited from substitution of exported private timber.

**CRUISE INFORMATION:** The timber volumes for the partial cut units were based on a variable plot cruise for estimating the board foot volume of trees. Plots were measured using a 20 basal area factor (BAF) for partial cut units and a 40 BAF for regeneration harvest units and new construct roads. Board foot volume estimates for renovate roads is based on a 100% cruise. None of the total sale volume is salvage material. For merchantable Douglas-fir trees the average DBHOB is 15.9 inches; the average gross merchantable log contains 64 bf; the total gross volume is approximately 5,774 MBF; and 95% recovery is expected.

**CUTTING AREA:** Four (4) units totaling approximately one hundred ninety-one (191) acres, of which seventy-five (75) acres shall be regeneration harvest and one hundred fifteen (115) acres shall be partial cut harvest. In addition, approximately one (1) acre of right-of-way shall be cut. Acres shown on Exhibit A have been computed using an S1 mobile mapper and Trimble R1 GNSS Receiver.

**DURATION OF CONTRACT:** Contract length will be 36 months for cutting and removal of timber.

**ADDITIONAL INFORMATION:** This contract includes an additional special provision to ensure the Purchaser understands he/she is required to conduct all operations in compliance with Contract Section 12 (Purchaser's Contractual Responsibilities for Liability) and Contract Section 29 (Safety and Health) and the Special Provisions included in Section 42 of this Contract.

SPECIAL ATTENTION ITEMS:

Sec. 14. Protection of overhead power lines, underground cables, and improvements

Sec. 42.g. Traffic Control on Nestucca Access Road, Meadow Lake Road, and NW. Moores Valley Road

Sec. 42.h. Protection of asphalt surfaced roads

Sec. 42.n. thru Sec. 42.r. Seasonal Restrictions

Sec. 42.y. Obtaining Right-of-Way permits from Yamhill County for road construction

Sec. 42.ii. Creation of Coarse Woody Debris

OPTIONAL CONTRIBUTION (Sec. 42.jj.): The Purchaser will have the option of performing Coarse Woody Debris or contributing eighteen thousand six hundred ninety-four and 78/100 dollars (\$18,694.78) in lieu thereof. The option must be declared *prior* to contract execution.

LOCATION: The contract area is located approximately 7.5 air miles west and slightly north of Carlton, Oregon. Starting on W. Main Street in Carlton, head west toward S. Scott Street for 0.3 miles. Continue straight onto NW. Meadow Lake Road for 8.5 miles where you will encounter Unit 4 of the Moore's Meadow Timber Sale. Consult Exhibit A page 1 or a project location map. Access to a portion of Unit 3 is through a locked gate. Prospective bidders may obtain a combination from the Tillamook Resource Area office by calling 503-815-1100.

ACCESS AND ROAD MAINTENANCE: Access is provided by County, Bureau of Land Management (BLM) and Weyerhaeuser Company controlled roads. In the use of Weyerhaeuser Company controlled roads – Purchaser Maintenance the Purchaser will be required to perform maintenance on approximately 0.53 miles of road. The Purchaser shall pay Weyerhaeuser Company a road maintenance obligation for rockwear of one hundred sixteen and 07/100 dollars (\$116.07) for timber and mineral haul associated with the contract.

In the use of Weyerhaeuser Company controlled roads – the Purchaser shall enter into a license agreement with Weyerhaeuser Company and pay to Weyerhaeuser Company a road use fee of seven hundred thirty and 00/100 dollars (\$730.00) and carry liability insurance with limits of \$1,000,000/\$1,000,000/\$1,000,000.

In the use of Bureau of Land Management controlled roads – Purchaser Maintenance the Purchaser will be required to perform maintenance on approximately 1.97 miles of road. The Purchaser shall pay the Government a road maintenance obligation for rockwear of two hundred thirty-seven and 24/100 dollars (\$237.24) for timber and mineral haul associated with the contract.

In the use of Bureau of Land Management controlled roads – Bureau of Land Management Maintenance, the Purchaser shall pay the Government a road maintenance obligation of one thousand one hundred sixty-three and 62/100 dollars (\$1,163.62).

Purchaser maintenance shall include frequent blading and shaping of road surface; ditch, culvert, and catch basin cleaning; removal of minor slides and other debris. Roads shall be left in a condition to withstand adverse weather at the end of the seasonal operations.

ROAD CONSTRUCTION AND RENOVATION: The Purchaser will be required to do all work set forth below. The Purchaser shall supply all material unless otherwise indicated.

1. New Road Construction:

P1: 340 feet, 16-foot subgrade, Natural surfacing.

P2: 760 feet, 16-foot subgrade, Surfacing – Aggregate base course, depth 4 inches, useable width 15 feet.

P3: 50 foot landing, Natural surfacing.

P4: 305 feet, 16-foot subgrade, Natural surfacing.

P5: 165 feet, 16-foot subgrade, Natural surfacing.

P6: 285 feet, 16-foot subgrade, Natural surfacing.

P7: 420 feet, 16-foot subgrade, Natural surfacing.

P8: 1,140 feet, 16-foot subgrade, Natural surfacing.

P9: 448 feet, 16-foot subgrade, Natural surfacing.

P10: 197 feet, 16-foot subgrade, Natural surfacing.

P11: 450 feet, 16-foot subgrade, Natural surfacing.

P12: 340 feet, 16-foot subgrade, Natural surfacing.

2. Renovation:

3-6-13.2 Road, MP 0.00—0.69, 16-foot subgrade with 1-foot ditch  
Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 4 inches, useable width 15 feet.

3-6-24.0 A part Road, MP 0.00 – 0.18, 16-foot subgrade with 1-foot ditch  
Roadside brushing; grading and compacting; erosion control; useable width 15 feet.

3-6-13 A Road, MP 0.00 – 1.51  
Sweeping; Surfacing – paved.

P39: 420 feet, 16-foot subgrade  
Grading and compacting; erosion control; Surfacing – Natural, useable width 15 feet.

P40: 420 feet, 16-foot subgrade  
Grading and compacting; erosion control; Surfacing – Natural, useable width 15 feet.

3. Improvement: None

4. Estimated Quantities:

a. Clearing, Grubbing, and Brushing:

6.3 acres of Clearing and Grubbing

0.4 acres of Brushing

b. Excavation

3,695 cubic yards of common

c. Culverts:

615 feet of 24 inch (CPP)

90 feet of 24 inch (CMP)

45 feet of 36 inch (CMP)

3 Metal "T" Posts for Inlet Markers

d. Aggregate & Asphalt Material:

Quantity

1,702 cubic yards

85 cubic yards

Description

3" minus crushed rock

3/4" minus crushed rock -- Culvert bedding material

e. Miscellaneous

Rolling – 58 hours

Soil stabilization – 3.7 acres

Blading – 0.52 miles

Rock Source: Commercial source, or source that meets specifications and is approved by the Authorized Officer

SEASONAL RESTRICTION MATRIX:

**Restricted Times are Shaded**

Activity	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16
Mechanized falling and Ground-Based Yarding																								
Cable yarding and haul except from Nestucca Access Road, Meadow Lake Road, Road 3-6-13.2 and P2.																								
Cable yarding and haul from Nestucca Access Road, Meadow Lake Road, Road 3-6-13.2 and P2	These activities will be allowed year round.																							
Road renovation, construction, improvement, decommissioning, stabilization, sub-soiling, and maintenance activities	These activities will be allowed year round, except during times when conditions are not sufficiently dry, per the Authorized Officer.																							
In-Stream Activities																								

## TIMBER SALE CONTRACT SPECIAL PROVISIONS

### Sec. 41. Timber and Area Reservation Provisions

#### RESERVED

- a. All timber in the reserve area(s) shown on Exhibit A, and all trees that are painted orange and posted, which mark the boundaries of the Sale Areas.
- b. All trees marked with orange paint above and below stump height within the boundaries of the Sale Areas shown on Exhibit A.
- c. All trees within areas posted as Leave Islands, which are shown as reserve areas within sale units on Exhibit A.
- d. Western redcedar or western hemlock trees less than eight (8) inches diameter at breast height (dbh), all Pacific madrone, all Pacific dogwood, and all snags in the sale areas shown on Exhibit A, outside of posted Rights-of-Ways, which do not present a safety hazard as determined by the Authorized Officer. If any are felled, they shall be retained on site.
- e. Existing down logs in the sale areas shown on Exhibit A, which do not present a safety hazard as determined by the Authorized Officer.
- f. Trees felled within road rights-of-way, which are marked with yellow paint above and below stump height shall remain on site and be placed outside of the road prism, and are not included in the timber sale.

### Sec. 42. Special Provisions

#### LOGGING

- a. Before beginning operations on the Contract Area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date he plans to begin operations. This written notification must be received by the Authorized Officer no less than seven (7) days prior to the date the Purchaser plans to begin or resume operations. The Purchaser shall also notify the Authorized Officer in writing if he intends to cease operations for any period of seven (7) or more days.
- b. Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A pre-work conference between the Purchaser's authorized representative and the Authorized Officer must be held before the logging plan will be approved. All logging shall be done in accordance with the approved logging plan.

The Purchaser shall provide a minimum of seven (7) days notice when requesting the scheduling of a pre-work conference.

c. Excessive damage to reserve timber, as determined by the authorized officer, will result in suspension of yarding operations until corrective measures to prevent further damages have been approved by the Authorized Officer.

d. No falling, yarding, or loading is permitted in or through the reserve area, shown on Exhibit A, unless otherwise approved by the Authorized Officer.

e. Prior to attaching any logging equipment to a reserve tree, the Purchaser shall obtain approval from the Authorized Officer, and shall take precautions to protect the tree from damage as directed by the Authorized Officer.

f. During logging operations, the Purchaser shall keep Nestucca Access Road, Meadow Lake Road, and NW. Moores Valley Road, where it passes through the contract area, clear of trees, rock, dirt, and other debris resulting from timber harvest operations. The road shall not be blocked by such operations for more than thirty (30) minutes at a time unless otherwise approved by the Authorized Officer.

g. The Purchaser shall provide two (2) flaggers to control traffic on Nestucca Access Road, Meadow Lake Road, and NW. Moores Valley Road, where it passes through the sale area, whenever felling, bucking, yarding or road construction activities are occurring within two (2) tree lengths of the road.

h. Tracked type equipment shall not be allowed to cross over asphalt surfaced roads without the proper protection of that surface. Prior approval shall be obtained from the Authorized Officer when crossing with protective devices.

i. At all landings in the sale area, all non-merchantable logs more than eight (8) inches in diameter at the large end and exceeding eight (8) feet in length that are not removed, shall be decked at a location designated by the Authorized Officer.

j. In all harvest areas shown on Exhibit A, except where ground-based yarding is allowed in Sec. 42.k., all yarding shall be done with a skyline or similar cable system equipped with a slack pulling carriage capable of transporting logs completely clear of the ground and capable of yarding one thousand (1,000) feet slope distance from the landing and at least seventy-five (75) feet laterally from the skyline to the designated sky road and with minimum damage to reserved trees. The carriage shall be capable of being held in position on the skyline during all lateral yarding and shall be able to pass intermediate support jacks as required. The leading end of all logs shall be transported free of the ground during yarding. Full suspension is required within fifty (50) feet of streams. The rigging of tail or lift trees, intermediate supports and use of tail holds outside the Sale Areas shall be required where necessary to meet this requirement. If trees are cut within a no harvest stream buffer for operational purposes, they will remain on site and will be felled away from the stream unless otherwise directed by the Authorized Officer. Skyline corridors in partial cut areas shall not exceed fifteen (15) feet in width and have an average spacing of one hundred fifty (150) feet.



k. Ground-based operations are limited to slopes of thirty-five (35) percent or less. All skidding shall be done by equipment operated entirely on skid trails that have been approved by the Authorized Officer and use existing skid trails as much as possible. Harvest equipment operating off of approved skid trails shall use the minimum number of passes necessary. The area composed of skid trails shall not exceed fifteen (15) percent of the total yarding area within a unit. Excavation on designated skid trails shall be limited to a maximum cut of one (1) foot unless otherwise approved by the Authorized Officer. The Purchaser shall directionally fall trees into the lead with the skidding direction and winch or carry the logs to the skid trails. Temporary logging roads, skid trails, and harvester/forwarder trails would be water barred and blocked as directed by the Authorized Officer, after each operating season before the fall wet season begins.

l. Before cutting and removing any trees necessary to facilitate logging in the Sale Areas shown on Exhibit A, the Purchaser shall identify the location of skid trails, cable yarding roads, and tail hold, tieback, guy line, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference, and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following conditions must be met:

1. All skid trails and/or cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees.
2. The Purchaser may immediately cut and remove additional timber to clear skid trails and cable yarding roads; and provide tail hold, tieback, guy line, lift and intermediate support trees when the trees have been marked with blue or green paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. When trees are marked with yellow paint above and below stump height they may be cut, but must remain on site. The volume of the timber to be sold will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under terms of this provision unless sufficient installment payments have been made in accordance with Sec. 3.(b). of the contract or sufficient bonding has been provided in accordance with Sec. 3.(d). of the contract.
3. The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9. of the contract; or, the Authorized Officer determines that the tree species are not listed in Exhibit B of this contract and otherwise reserved in Sec. 41. of the contract or any tree that exceeds forty (40) inches dbh shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8. of the contract.

4. This authorization for the Purchaser to cut and remove additional timber prior to the execution of a modification may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser has cut and removed any tree not previously marked and approved for cutting by the Authorized Officer, which under Sec. 10. of the contract constitutes a violation of the contract and under Sec. 13. of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.

5. If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least one (1) working day prior to the need for cutting and removing any additional timber, and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8. or Sec. 9. of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period of time deemed necessary and appropriate for the Government to safely measure and mark additional timber.

### SAFETY

m. Purchaser's operations shall facilitate BLM's safe and practical inspection of Purchaser's operations and BLM's conduct of other official duties on Contract Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees, contractors and subcontractors.

In the event that the Authorized Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract may be modified. If the cost of such contract modification is of a substantial nature (\$2,000.00 or more), the Purchaser may request, in writing, an adjustment in the Total Purchase Price specified in Sec. 2. of the timber sale contract, as amended, to compensate for the changed conditions.

Unless otherwise specified in writing, when operations are in progress adjacent to or on roads and/or trails in the harvest unit area, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the road or trail user with adequate warning of and protection from hazardous or potentially hazardous conditions associated with its operations. Purchaser shall prepare a Traffic Control Plan, which the Purchaser has determined is compliant with state and local OSHA and Transportation standards no later than the pre-work meeting and prior to commencing operations. Traffic control devices shall be appropriate to current operating and/or weather conditions and shall be covered or removed when not needed. Flagmen and devices shall be as specified in state OSHA and Transportation standards for logging roads or the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) published by the U.S. Department of Transportation - Federal Highway Administration. Included in the Traffic Control Plan, Purchaser shall note traffic control device locations on a Purchaser-produced copy of the contract Exhibit A Map.

### SEASONAL RESTRICTIONS

- n. On Nestucca Access Road, Meadow Lake Road, and NW. Moores Valley Road, no hauling of timber, rock, or equipment shall occur on weekends between Memorial Day and Labor Day weekends, both weekends inclusive, unless otherwise approved by the Authorized Officer.
- o. No mechanized falling or ground based equipment operation within harvest units shown on Exhibit A outside of dry season (generally October 16 of one calendar year to May 31 of the following calendar year). If conditions are sufficiently dry, as determined by the Authorized Officer, some of these activities may be allowed during the seasonal restriction.
- p. No haul except from Nestucca Access Road, Meadow Lake Road, Road 3-6-13.2 and P2 in the Sale Areas shown on Exhibit A outside of dry season (generally October 16 of one calendar year to May 31 of the following calendar year). If conditions are sufficiently dry, as determined by the Authorized Officer, some of these activities may be allowed during the seasonal restriction.
- q. No road renovation, road construction, road improvement, road decommissioning or stabilization, sub-soiling, or road maintenance shown on Exhibits C, D, or E during times when there is a high potential to deliver sediment to streams or as otherwise directed by the Authorized Officer.
- r. No work required in live streams shall be conducted between October 1 of one calendar year and July 14 of the following calendar year, both days inclusive, unless BLM receives a waiver from the Oregon Department of Fish and Wildlife.

### ROAD CONSTRUCTION, IMPROVEMENT, RENOVATION, MAINTENANCE AND USE

- s. The Purchaser shall renovate approximately 13,463 feet of road and construct approximately 4,900 feet of road in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and a made a part hereof.
- t. Any required road construction or renovation shall be completed and accepted prior to the removal of any timber, except right-of-way timber, over that road.
- u. The Purchaser is authorized to use the roads shown on Exhibit E for the removal of Government timber sold under the terms of this contract and the hauling of rock as required in Exhibit C, provided that the Purchaser pay the required maintenance obligation for road maintenance and rockwear described in Section 42.v., Section 42.w. and Section 42.x. Any road shown on Exhibit E and requiring renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the improvement or renovation from the Authorized Officer.
- v. The Purchaser shall pay the Government a road maintenance obligation for rockwear of two hundred thirty-seven and 24/100 dollars (\$237.24) and pay the Government a road maintenance fee of one thousand one hundred sixty-three and 62/100 dollars (\$1,163.62) for the transportation of timber included in the contract area for the use of Purchaser maintained roads. If the total road maintenance obligation for rockwear does not exceed five hundred and 00/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads.

If the total road maintenance obligation for rockwear exceeds five hundred and 00/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the maintenance obligation for rockwear.

w. The Purchaser shall perform any required road repair and maintenance work on the roads identified as Purchaser maintenance, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof.

x. In the use of Road No. 3-5-18, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-805 between the United States of America and Weyerhaeuser Company. This document is available for inspection at the Northwest Oregon District Office. These conditions include:

1. Payment of a road use obligation of seven hundred thirty and 00/100 dollars (\$730.00) to Weyerhaeuser Company, payable at the time indicated in the License Agreement.
2. Payment of a road maintenance obligation for rockwear of one hundred sixteen and 07/100 dollars (\$116.07) to Weyerhaeuser Company, payable at the time indicated in the License Agreement.
3. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
4. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

y. The Purchaser must obtain Right-of-Way permits from Yamhill County for road construction connecting to any county road and provide a copy to the Authorized Officer prior to beginning road construction on P3-P7 and P9-P12.

z. The Purchaser shall decommission P1, P3-P12, as shown on Exhibit C, by subsoiling, installing non-drivable waterbars, grass seeding, and blocking. Purchaser shall decommission roads P2, P39 and P40, as shown on Exhibit C, by installing non-drivable waterbars and blocking. Subsoiling shall consist of loosening the soil to a depth of eighteen (18) inches utilizing excavator attachments, log loader tongs or other approved equipment acceptable to the Authorized Officer. No subsoiling shall be required where the road traverses rock outcroppings. All natural water courses shall be opened to prevent erosion of the road. Barriers shall be constructed and clearing debris shall be placed on and around the barriers so as to prevent further use of the road by vehicles as shown on Exhibit C. Decommissioning shall be completed within thirty (30) days of completion of yarding and hauling operations on that road.

aa. The Purchaser agrees that if they elect to use any other private road, which is the subject of a right-a-way agreement with the Government for the removal of Government timber sold under the terms of this contract, Purchaser shall request and agree to the modification of this contract to provide for such use and for allowances for amortization of the Government's shares of the capital investment of any such road.

bb. With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of roads included in Exhibit E; provided, that such cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage, in accordance with this contract. The Purchaser shall furnish the Authorized Officer a copy of any cooperative maintenance agreements entered into with other users of these roads.

cc. The Purchaser shall be required to secure written approval to use vehicles or haul forest products and equipment over Government owned or controlled roads when such vehicles or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit or if vehicles meet allowable non-permitted State vehicle weights, but the haul route crosses a structure or segment of road that is posted for reduced weights. The Purchaser agrees to abide by any special requirements included in said written approval.

Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics at least fifteen (15) days prior to proposed move in.

Details shall include:

- A. Axle weights when fully loaded.
- B. Axle spacing.
- C. Transverse wheel spacing.
- D. Tire size.
- E. Outside width of vehicle.
- F. Operating speed.
- G. Frequency of use.
- H. Special features (e.g., running tracks, overhang loads, etc.).

The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use of overweight or over-dimension vehicles or equipment: (1) without written approval; (2) in violation of the conditions of a written approval; or, (3) in a negligent manner. The amount of actual damage shall be determined by the Authorized Officer following a technical inspection and evaluation.

#### ENVIRONMENTAL PROTECTION

dd. In order to prevent the spread of noxious weeds, the Purchaser shall pressure wash all road construction and ground-based logging equipment that will be used off of existing roads, as well as loaders and mechanically propelled brush cutters, prior to entry onto the BLM Land shown on Exhibit A, as directed by the Authorized Officer. Cleaning shall be defined as removal of all dirt, grease, plant parts and material that may carry noxious weed seeds.

ee. The Purchaser shall immediately discontinue specified construction or harvesting

operations upon written notice from the Contracting Officer that:

1. threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;
2. when, in order to comply with the Endangered Species Act, or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or to protect occupied marbled murrelet sites in accordance with management direction of the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
3. federal proposed, federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 - Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;
4. when, in order to comply with a court order, which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;
5. when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
6. species have been discovered which were identified for protection in accordance with management direction established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;
7. when, in order to protect species which were identified for protection in accordance with management direction established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer, which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event of a suspension period or a combination of suspension periods that exceed a total of 30 days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser.

For the period of suspension extending beyond 30 days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Section 3.b. of the contract. Any First

Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, et seq.). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3.b. of the contract within 15 days after the bill for collection is issued, subject to Section 3.j. of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

In the event of a suspension period or a combination of suspension periods that exceed a total of 30 days, the unamortized Out-of-Pocket Expenses for road or other construction required pursuant to Exhibit C of the contract shall be refunded or transferred to another BLM contract at the request of the Purchaser. Upon written notice from the Contracting Officer lifting the suspension, the Purchaser shall reimburse the Government the amounts refunded or transferred. The Purchaser may choose to pay this reimbursement at once or in installments payable at the same time as payments are due for the timber under the contract and in amounts approximately equal to the expenses associated with the timber for which payment is due.

In the event that operating time is lost as a result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U.S. Fish and Wildlife Service or U.S. National Marine Fisheries Service, or court-ordered injunctions, the Purchaser agrees that an extension of time, without reappraisal, will constitute a full and complete remedy for any claim that delays due to the suspension hindered performance of the contract or resulted in damages of any kind to the Purchaser.

The Contracting Officer may determine that it is necessary to modify the contract or terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, prevent incidental take of northern spotted owls in accordance with the ROD and RMP, protect occupied marbled murrelet sites in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection in accordance with management direction established in the ROD and RMP, or comply with a court order. Following the issuance of a written notice that cutting and removal rights will be terminated, the Purchaser will be permitted to remove timber cut under the contract, if allowed by the Endangered Species Act, if able to proceed without causing incidental take of northern spotted owls in accordance with the ROD and RMP, consistent with marbled murrelet occupied site protection in accordance with the ROD and RMP, consistent with species protection in accordance with management direction established in the ROD and RMP, or court order requirements necessitating the modification or termination.

In the event the contract is modified or cutting and removal rights are terminated under this subsection, the Purchaser agrees that the liability of the United States shall be limited to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area. This calculation of liability shall utilize actual Purchaser costs and Government estimates of timber volumes. At the Authorized Officer's request, the Purchaser agrees to provide documentation of the actual costs incurred in the performance of the contract.

In addition, the Purchaser shall be released from the obligation to pay the contract price for any timber which is not authorized to be removed from the contract area.

The Purchaser specifically and expressly waives any right to claim damages, other than those described in the preceding paragraphs, based on an alleged breach of any duty to the Purchaser, whether express or implied, in regard to the manner in which the Government defended the litigation which resulted in the court order affecting the operation of the contract. This waiver also extends to any claims based on effects on the operation of the contract that arise from litigation against another agency. Furthermore, the Purchaser specifically acknowledges and agrees that a court ruling that the Government violated the Administrative Procedures Act cannot be interpreted, in itself, to mean that the Government had not acted reasonably in regard to its duties to the Purchaser under this contract.

### FIRE PREVENTION

ff. Primarily for purposes of fire prevention and control, the Purchaser shall, prior to the operation of power driven equipment in construction or logging operations under this contract during fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer. Purchaser shall take such measures for prevention and suppression of fire on the contract area and other adjacent Government lands used or traversed by Purchaser in connection with operations as are required by applicable laws and regulations. However, when in the opinion of the Authorized Officer, weather and other conditions affecting fire incidence and control make special precautions necessary to protect the contract area and said Government lands, Purchaser shall take such additional or other fire prevention and control measures as may be required by the Authorized Officer. The Purchaser shall comply with Oregon Department of Forestry Industrial Fire Precaution Level (IFPL) I (fire season) requirements. At IFPL II and III, additional fire prevention and control provisions may be added as determined by the Authorized Officer and specified in written instructions to the Purchaser to mitigate dry fuel and weather conditions.

### LOGGING RESIDUE REDUCTION

gg. In addition to the requirements of Sec. 15 of this contract, and notwithstanding the Purchasers satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the States willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following hazard reduction measure(s) required by this contract: Perform logging residue reduction and site preparation work on approximately forty-one (41) acres of harvest area located within harvest units. The required work shall consist of any treatment or combination of treatments, as determined by the Authorized Officer and specified in writing by the Contracting Officer. The number of acres of each treatment shall be determined by the Authorized Officer. Prior to commencement of any operation under this Section of the contract, a slash disposal and pre-work conference between the purchaser's representative and the Authorized Officer must be held at a location designated by the Authorized Officer. The number of acres of each treatment shall be determined by the Authorized Officer. All slash disposal shall be done in accordance with the plans developed at this pre-work conference.



Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract.

1. Excavator pile and burn slash within ground based portion of regeneration harvest units from skid trails and within twenty-five (25) feet of Nestucca Access Road, Meadow Lake Road, and NW. Moores Valley Road in harvest areas. Slash shall be piled no more than sixteen (16) feet in height or diameter by an excavator equipped with a hydraulic thumb. Finished piles shall be tight and free of dirt.
  - a. Unmerchantable logs greater than six (6) inches on the small end shall be left in place, or positioned so that they will not be burned.
  - b. Pacific madrone and Pacific dogwood shall be reserved and undamaged.
  - c. Machine piles shall be located as far as possible from green trees, snags, or unit boundaries to minimize damage.
  - d. Machine piles shall be kept free of dirt and other non-wood debris and constructed as compactly as possible. There should be an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels.
  - e. A minimum 10-foot by 10-foot cover of four (4) mil. polyethylene shall cap each machine pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Plastic shall be held in place with woody debris or tied with rope or twine. The plastic must be secured so that it is held in place during strong wind conditions. The Purchaser is required to furnish the covering materials. Covering shall be completed as directed by the Authorized Officer.
  - f. Cutting Areas shall be piled during the same season that they are logged.
2. Pile and burn landing slash within thirty (30) feet of the edge of each landing, all tops, broken pieces, limbs and debris between one (1) inch and eight (8) inches in diameter at the large end and between three (3) feet and eight (8) feet in length shall be piled within fifteen (15) days of completion of hauling logs from that landing. For larger material, refer to Sec. 42.i. Landing piles shall be kept free of dirt and located adjacent to roads at least twenty (20) feet from any reserve tree and/or as directed by the Authorized Officer. Upon completion of landing piling, the Purchaser shall prepare the landing piles for burning by securely covering each landing pile with four (4) mil. thick polyethylene plastic film at least twenty (20) feet wide. Landing piles shall be seventy-five (75) percent covered, with the covering extending three-quarters (3/4) of the way down all sides. The plastic shall be oriented southwest to northeast. Pieces of burnable material shall be placed on top of the plastic to secure it from moving and to prevent it from blowing off during strong wind episodes. The Purchaser is required to furnish the covering materials. The timing of this covering work shall be in accordance with instructions from the Authorized Officer. No landing debris shall be dozed off the landing and covered with dirt. Debris which has been buried and is determined to be the source of holdover fire shall be excavated by the Purchaser, at the Purchaser's expense, with a tractor and/or hydraulic excavator as directed by the Authorized Officer.

If the structure of the landing piles will not permit adequate consumption of piled debris by burning, the Purchaser shall re-pile them at the direction of the Authorized Officer.

### PRESCRIBED BURNING

hh. Notwithstanding the provisions of Sec. 15 of this contract, the Government shall assume all obligations for disposal or reduction of fire hazards created by Purchaser's operations on Government lands, except for burning and mop-up assistance as required herein. The Purchaser shall, under supervision of the Authorized Officer or designated representative, assist in preparing units for burning, burning, mop-up, and patrol by furnishing, at the Purchaser's own expense, the services of personnel and equipment on each unit as shown below:

1. For Igniting, Burning, and Mop-up of Piles on Units:
  - a. One work leader(s) Firefighter Type 1 (FFT1) qualified according to National Wildfire Coordinating Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1) to supervise crew and equipment operations, and to serve as Purchaser's representative.
  - b. Three-person crew Firefighter Type 2 (FFT2) qualified according to National Wildfire Coordination Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1, with sufficient fuel for burning, four (4) drip torches, one (1) power saw, one (1) backpack pump, and one (1) tool for each crew member.
  - c. The crew shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.
  - d. All ignition personnel will be directly supervised by a BLM representative.

Aircraft and pilots used for Logging Residue Reduction or the suppression of escaped fires from Logging Residue Reduction operations, shall be acquired from a list of aircraft and pilots approved (i.e., carded for these specific activities) by the Office of Aircraft Services or the U.S. Forest Service. This list is available from BLM District Offices upon request. All listed personnel shall be physically fit, experienced and fully capable of functioning as required.

All listed personnel shall be physically fit, experienced and fully capable of functioning as required. In addition, all listed personnel shall be qualified according to the National Wildfire Coordinating Group (NWCG) Wildland Fire Qualification System Guide, PMS-310-1 and provide documentation of these qualifications. On the day of ignition all listed personnel shall be fluent in speaking and understanding English, clothing shall consist of long pants and long sleeved shirts, and be of approved aramid fabric (Nomex™ or equivalent), as well as being free of diesel fuel oil. All personnel shall wear lug sole boots with minimum eight (8) inch tall uppers that provide ankle support, approved hardhats and leather gloves. Personnel who do not meet these requirements or do not have proper clothing and personal protective equipment (PPE) will not be allowed to participate. All listed tools and equipment shall be in good usable condition.

All power-driven equipment shall be fully fueled and available for immediate use. During periods of use under this subsection, the Purchaser shall provide fuel and maintenance for all such power-driven equipment.

Except as provided hereafter for fire escapement, the Purchaser shall continue the required assistance in mop up on each cutting unit shown on Exhibit A for seventy-two (72) hours, as directed by the Authorized Officer within a five (5) day period commencing at 8:00 a.m. the day following the completion of ignition in that unit, or until released from such service by the Government, whichever occurs first.

In event of a fire escapement, the Purchaser's personnel and equipment shall, under supervision of the Authorized Officer, take action to control and mop up the escaped fire until released from such service by the Government. If it becomes necessary to use furnished personnel and equipment for the suppression of a fire which escapes from the prescribed fire area for a period beyond the remainder of the day in which the fire escapes, then the Government shall, at its option: (1) reimburse the Purchaser for such additional use of personnel and equipment at wage rates shown in the current Administratively Determined Pay Rates for the Western Area and at equipment rates shown in the current Oregon-Washington Interagency Fire Fighting Equipment Rental Rates schedule until the Purchaser is released from such service by the Government; or (2) release the Purchaser from additional suppression work and assume responsibility for suppressing the escaped fire.

In situations where an escaped fire is controlled and contained by an adequate fire break (i.e., trail, road, stream, rock formation, etc.), the Government may permit the Purchaser to remove personnel for that day; provided that all mop up work on the escaped fire is included with mop up work on the prescribed fire area. In such an event, the Purchaser must sign a statement of agreement to complete mop up work on all escaped fire areas concurrently with mop up work on the prescribed fire area.

In case of injury to personnel or damage to equipment furnished as required by this subsection, liability shall be borne by the Purchaser, unless such injury or damage is caused by Government negligence.

Time is of the essence in complying with this provision. In the event the Purchaser fails to provide the personnel and equipment required herein, the Purchaser shall be responsible for all additional cost incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment and appropriate additional overhead expenses. If the Purchaser's failure results in a deferral of burning and new conditions necessitate additional personnel and equipment to accomplish the planned burn, the Purchaser also shall be responsible for such additional costs.

#### CREATION OF COARSE WOODY DEBRIS

ii. In the Coarse Woody Debris Creation Units shown on Exhibit F, the Purchaser shall, upon completion of yarding, select and fall, top, high-girdle, or basal-girdle two hundred fifty (250) standing live trees in accordance with Exhibit F. No adjustments of volume or value shall be made to meet these requirements.

### CONTRIBUTIONS

jj. The Purchaser shall create coarse woody debris in accordance with Section 42.ii. The Purchaser shall have the option of completing this work, or in lieu thereof, may make a contribution to the Bureau of Land Management in the amount of eighteen thousand six hundred ninety-four and 78/100 dollars (\$18,694.78), and upon making such contribution, the Purchaser shall be relieved of the obligations set out in this subsection. The Purchaser shall notify the Authorized Officer of their intention to make this contribution prior to the date of execution of this contract, and the Purchaser shall pay such amount in full prior to the commencement of operations.

### LOG EXPORT RESTRICTION

kk. All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export under the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as (1) any logs except those of utility grade or below, such as saw logs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8-3/4) inches in thickness; (3) split or round bolts or other round wood not processed to standards and specifications suitable for end-product uses; or (4) western redcedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8-3/4) inches in thickness or less; (6) shakes and shingles. Substitution will be determined under the definition found in 43 CFR 5400.0-5(n).

The Purchaser is required to maintain and upon request to furnish the following information:

1. Date of last export sale.
2. Volume of timber contained in last export sale.
3. Volume of timber exported in the past twelve (12) months from the date of last export sale.
4. Volume of Federal timber purchased in the past twelve (12) months from date of last export sale.
5. Volume of timber exported in succeeding twelve (12) months from date of last export sale.
6. Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a "Certificate as to Nonsubstitution and Domestic Processing of Timber". The original of such certification shall be filed with the Authorized Officer.

Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

In the event an affiliate of the Purchaser has exported private timber within twelve (12) months prior to purchasing or otherwise acquiring Federal timber sold under this contract, the Purchaser shall, upon request, obtain from the affiliate information in the form specified by the Authorized Officer and furnish the information to the Authorized Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report) which shall be executed by the Purchaser. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

Unless otherwise authorized in writing by the Authorized Officer, the Purchaser shall, prior to the removal of timber from the contract area, brand with Purchaser's registered log brand at least one end of each log, bolt, or other roundwood and identify each of these by painting with highway yellow paint.

In the event of the Purchaser's noncompliance with this subsection of the contract, the Authorized Officer may take appropriate action as set forth in Sec. 10. of this contract. In addition, the Purchaser may be declared ineligible to receive future awards of Government timber for a period of one (1) year.

Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over ten (10) inches, prior to the removal of timber from the contract area. All loads of eleven (11) logs or more will have a minimum of ten (10) logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs will be branded on loads of ten (10) logs or less. One end of all branded logs to be processed domestically will be marked with a three (3) square inch spot of highway yellow paint. The Purchaser will stop trucks for accountability monitoring at mutually agreed upon locations when notified by the Authorized Officer.

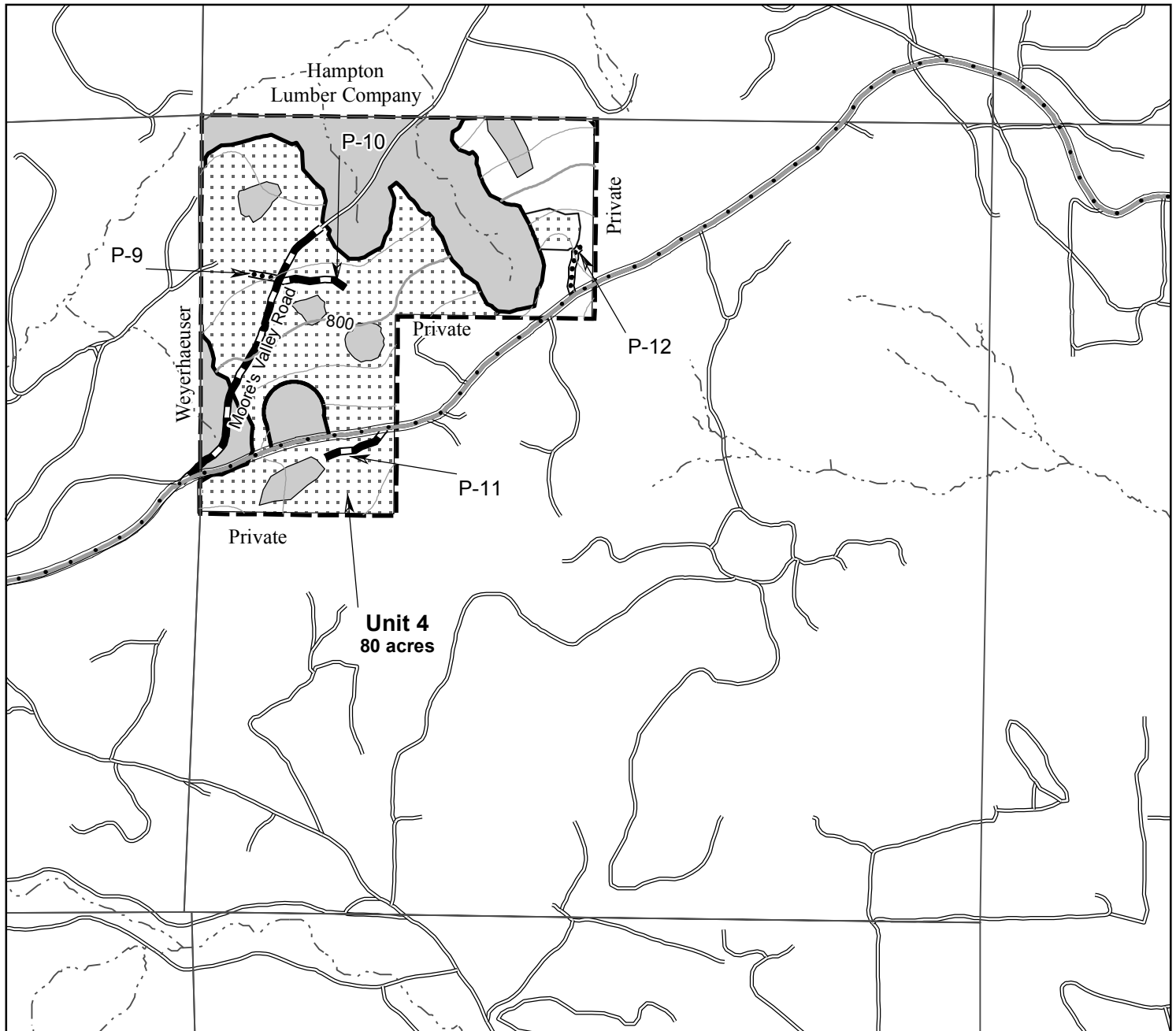
If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines will apply to each bunked load. If a flatbed stake trailer is used, each bundle will be treated as a separate load.

At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. Any increased costs for log branding and painting shall be the responsibility of the Purchaser.

United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

**TIMBER SALE CONTRACT MAP - CONTRACT NO. ORN04-TS-2019.0403**

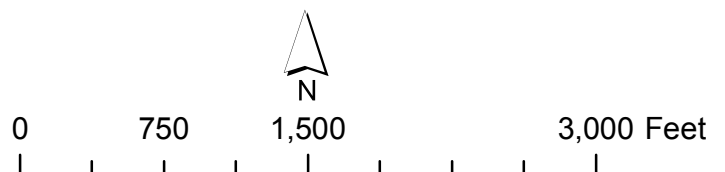
T03S-R05W Section 17 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Contour Interval: 40ft

- |  |                       |  |                        |
|--|-----------------------|--|------------------------|
|  | Partial Cut Area      |  | Meadow Lake Road       |
|  | Regeneration Cut Area |  | Road to be constructed |
|  | Boundary-Cutting Area |  | Road to be renovated   |
|  | Contract Area         |  | Other Roads            |
|  | Reserve Area          |  | Streams                |

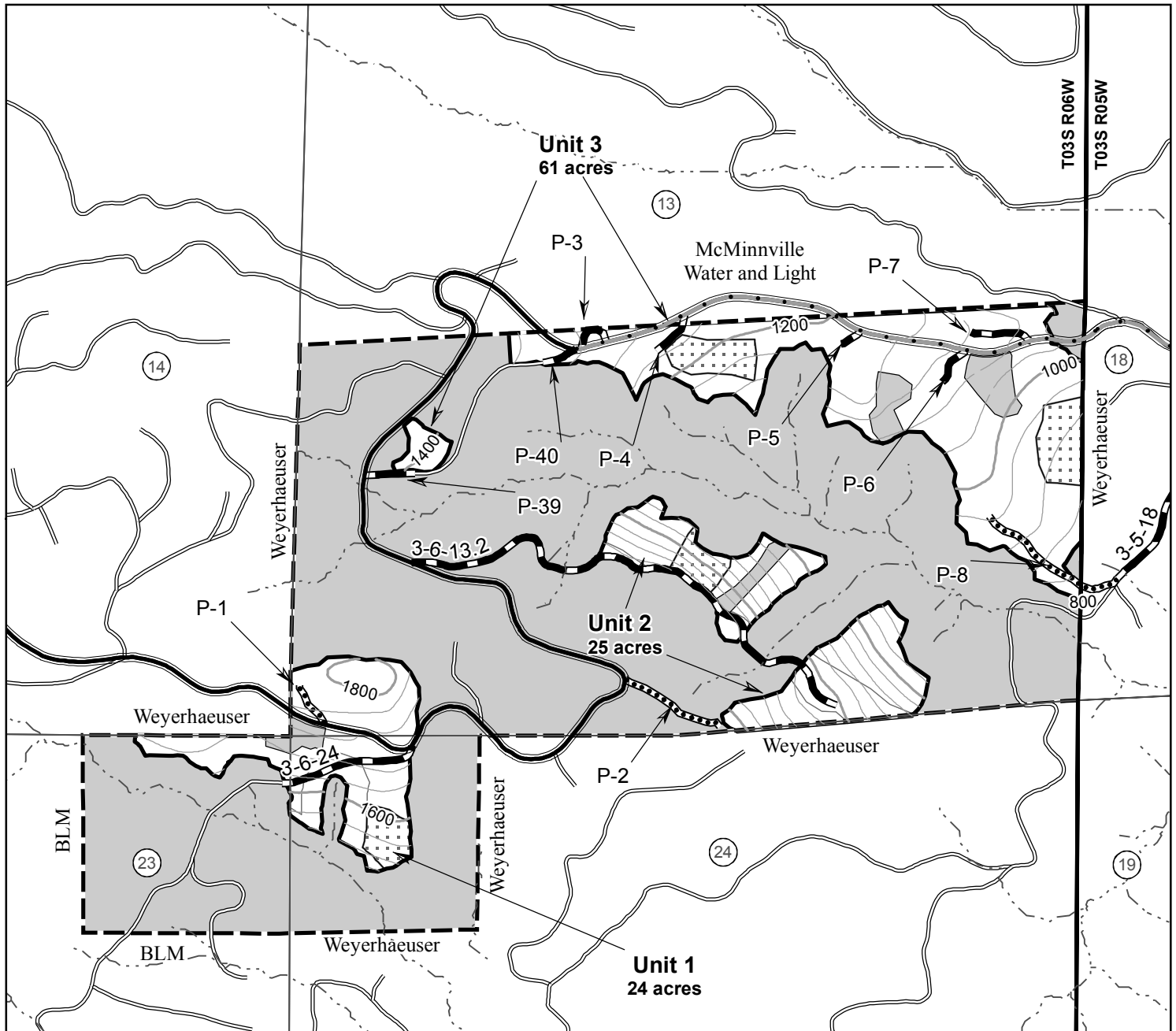
Partial Cut Area	115 Acres
Regeneration Cut Area	75 Acres
Right-of-Way Area	1 Acres
Reserve Area	367.65 Acres
<b>Total Contract Area</b>	<b>558.65 Acres</b>



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

**TIMBER SALE CONTRACT MAP - CONTRACT NO. ORN04-TS-2019.0403**

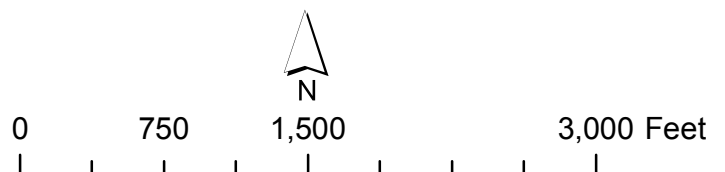
T03S-R06W Section 13, 23 & 24 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Contour Interval: 40ft

- |  |                       |  |                        |
|--|-----------------------|--|------------------------|
|  | Partial Cut Area      |  | Meadow Lake Road       |
|  | Regeneration Cut Area |  | Nestucca Access Road   |
|  | Boundary-Cutting Area |  | Road to be constructed |
|  | Contract Area         |  | Road to be renovated   |
|  | Reserve Area          |  | Other Roads            |
|  |                       |  | Streams                |

Partial Cut Area	115 Acres
Regeneration Cut Area	75 Acres
Right-of-Way Area	1 Acres
Reserve Area	367.65 Acres
<b>Total Contract Area</b>	<b>558.65 Acres</b>



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification. Note: Boundaries of harvest area are painted orange and posted, and right-of-ways (ROW) are posted. Harvest area acres do not include existing roads. Acres shown on Exhibit A for harvest area have been computed using a S1 mobile mapper and Trimble R1 GNSS Receiver. Prepared By: csween Date: 8/6/2019

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**EXHIBIT B / PRE-SALE**

5450-3

Contract No.

ORN04-TS-2019.0403

Moore's Meadow

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

SPECIES	ESTIMATED VOLUME OR QUANTITY (Units Specified)		PRICE PER UNIT	ESTIMATED VOLUME OR QUANTITY X UNIT PRICE
Douglas Fir	5,488.0	MBF	\$255.00	\$1,399,440.00
Grandfir	76.0	MBF	\$127.20	\$9,667.20
Bigleaf Maple	16.0	MBF	\$50.40	\$806.40
Western Hemlock	3.0	MBF	\$110.20	\$330.60
Western Redcedar	2.0	MBF	\$437.60	\$875.20
Red Alder	1.0	MBF	\$99.60	\$99.60
<b>TOTALS</b>	<b>5,586.0</b>	<b>MBF</b>		<b>\$1,411,219.00</b>

The apportionment of the total purchase price is as follows:

Unit 1

Douglas Fir	570.0 MBF	X	\$255.00	=	\$145,350.00
Grandfir	2.0 MBF	X	\$127.20	=	\$254.40
Total	572.0 Mbf				\$145,604.40 ÷ 24.0 acres = \$6,066.85/Acre

Unit 2

Douglas Fir	592.0 MBF	X	\$255.00	=	\$150,960.00
Grandfir	2.0 MBF	X	\$127.20	=	\$254.40
Total	594.0 Mbf				\$151,214.40 ÷ 25.0 acres = \$6,048.58/Acre

Unit 3

Douglas Fir	1,462.0 MBF	X	\$255.00	=	\$372,810.00
Grandfir	6.0 MBF	X	\$127.20	=	\$763.20
Total	1,468.0 Mbf				\$373,573.20 ÷ 61.0 acres = \$6,124.15/Acre

Unit 4

Douglas Fir	2,783.0 MBF	X	\$255.00	=	\$709,665.00
Grandfir	65.0 MBF	X	\$127.20	=	\$8,268.00
Bigleaf Maple	16.0 MBF	X	\$50.40	=	\$806.40
Western Hemlock	3.0 MBF	X	\$110.20	=	\$330.60
Western Redcedar	2.0 MBF	X	\$437.60	=	\$875.20
Total	882.0 Mbf				\$719,945.20 ÷ 80.0 acres = \$8,999.32/Acre



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**EXHIBIT B / PRE-SALE**

5450-3

Contract No.

ORN04-TS-2019.0403

Moore's Meadow

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

Unit RW

Douglas Fir	81.0 MBF	X	\$255.00	=	\$20,655.00
Grandfir	1.0 MBF	X	\$127.20	=	\$127.20
Red Alder	1.0 MBF	X	\$99.60	=	\$99.60
Total	83.0 Mbf				\$20,881.80 ÷ 1.0 acre = \$20,881.80/Acre

## 150: ROAD PLAN AND DETAIL SHEET

Note: Maintenance rock of 50 cy, meeting Sections 1000 AND 1200 specifications, shall be placed on haul route throughout the life of the timber sale. Not required for road acceptance under Section 18 of this contract.



1. Extra subgrade widths  
Add to each shoulder: 1 foot for fills of 1 to 6 feet. Widen inside or outside shoulder of tight curves as needed for log trucks to maneuver, with tires remaining on roadbed.
  2. Backslopes  

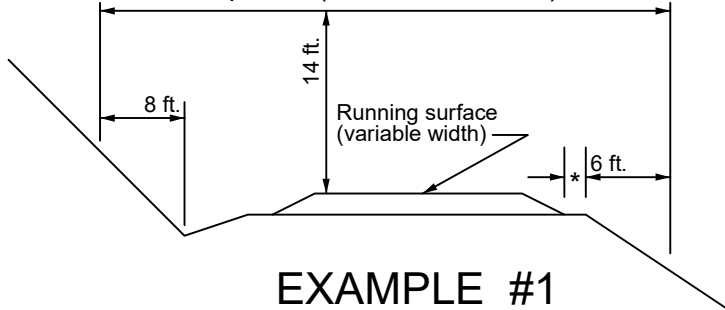
Materials	Cut slopes	Fill slopes
Solid rock	1/2:1	Angle of repose
Soft rock and shale	3/4:1	1:1
Common		
Slopes under 55%	1:1	1-1/2:1
Slopes over 55%	1-1/2:1	1-1/2:1
  3. Surface type  

	Grading
PRR - Pit run rock	C - 1 1/2" minus
GRR - Grid rolled rock	D - 1" minus (surface
SRN - Screened rock	E - 3/4" minus course)
JRR - Jaw run rock	
ABC - Aggr. base course	A - 3" minus
ASC - Aggr. surface course	B - 2" minus (base
WC - Wood chips	C - 3" course)
  4. Turnouts  
Width shall be 10 feet in addition to the subgrade width, with lengths as shown on this plan, or as directed by the Authorized Officer.
  5. Surfacing  
Turnouts, curve widening, and the first 50 feet of all road aprons shall be surfaced, for all road stations requiring surfacing, as listed above, and as directed by the Authorized Officer.
  6. Clearing width 200  
See Section \_\_\_\_\_
  7. As posted and painted for Right-of-Way, and as required in Section 2100 of this contract.
  8. Grading (Renovation) 500  
See Section \_\_\_\_\_
  9. Drainage 400  
See Section \_\_\_\_\_  
Culvert site aggregate, as designated in Section 400 of this contract, does not fulfill any requirements as listed above for full lifts of surface or base applications.
  10. Compaction 300 500  
See Sections \_\_\_\_\_ and \_\_\_\_\_

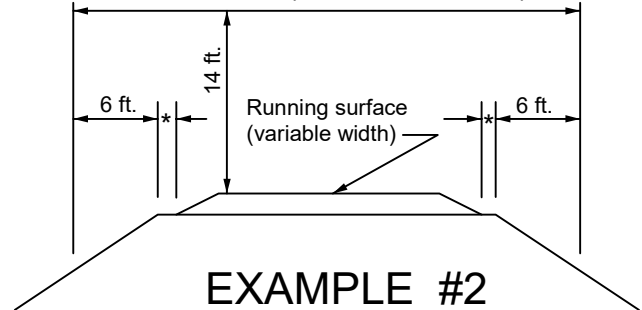
## NORTHWEST OREGON DISTRICT

**ROADSIDE BRUSHING  
DETAIL SHEET**

Road prism (variable distance) \*\*

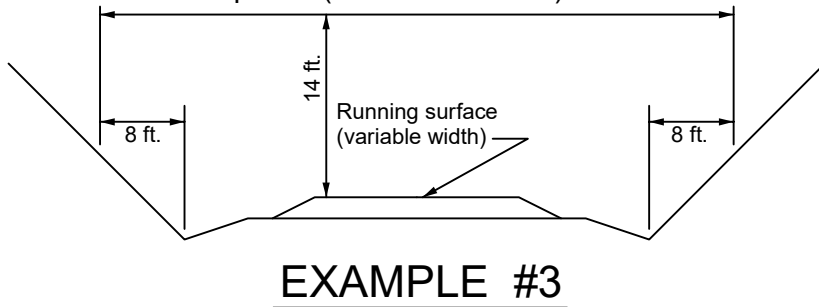


Road prism (variable distance) \*\*

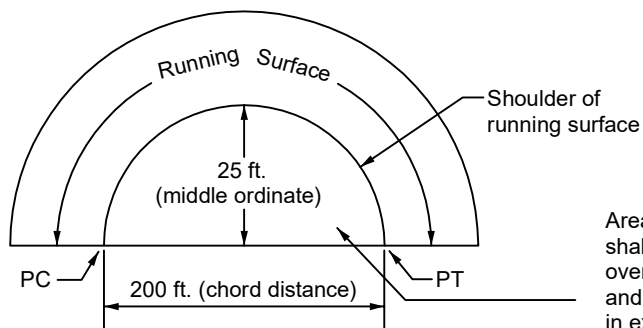


(NO SCALE)

Road prism (variable distance) \*\*



- \* Variable distance between running surface and start of fill slope.
- \*\* All areas within the variable distance shall be free of all vegetation capable of growing one (1) foot in height or higher and all overhanging limbs and branches 14 feet in elevation above the running surface.



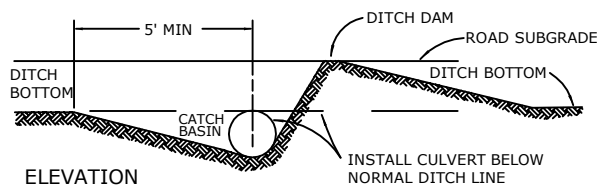
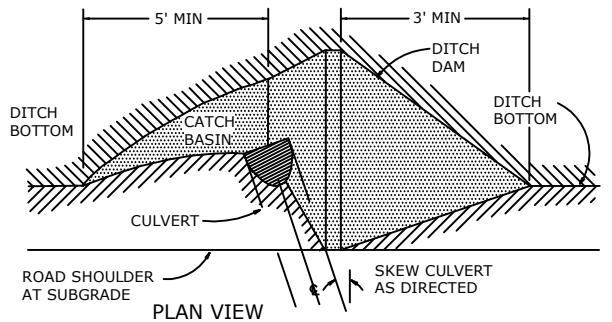
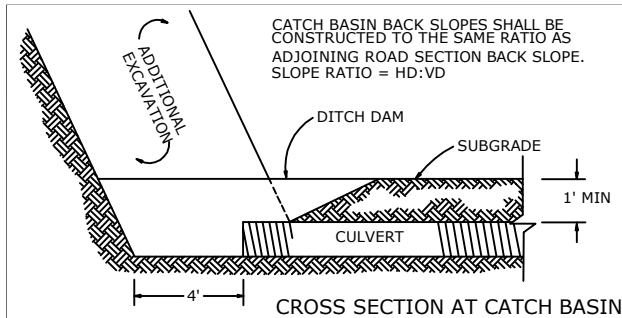
Area to be cut:  
shall be free of  
overhanging limbs  
and all vegetation  
in excess of 1 foot  
in height.

**NOTE:**

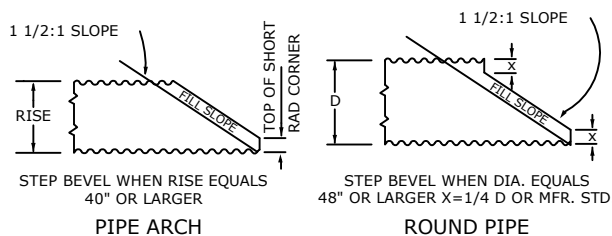
Prior to beginning roadside brushing the purchaser shall establish a control section in a location determined by the Authorized Officer. This section will be used to physically and visually establish acceptable cutting and cleanup standards to be used for the remaining roadside brushing.

**U.S. DEPARTMENT OF THE INTERIOR**  
**Bureau of Land Management**  
**Northwest Oregon District**

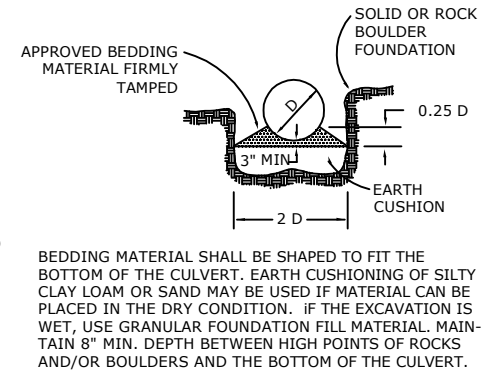
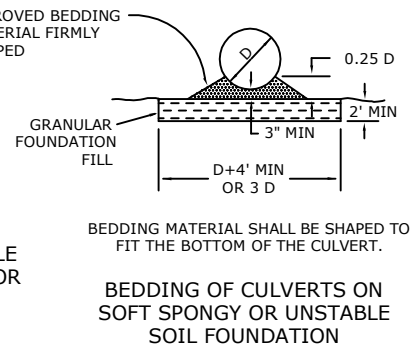
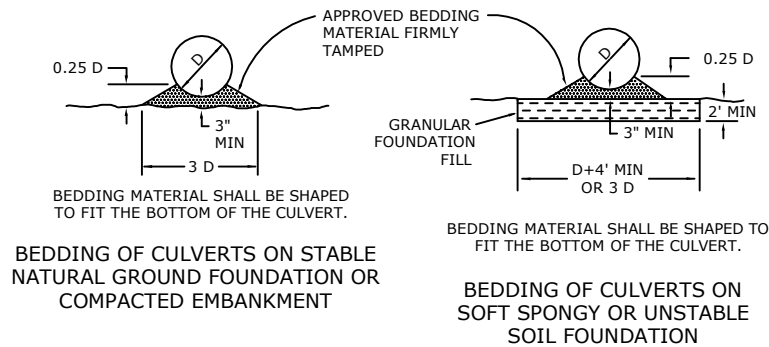
**EXHIBIT C**  
**Sale Name: Moore's Meadow**  
**Contract No: ORN04-TS-2019.0403**  
**Sheet 44 of 47**



**CATCH BASIN**

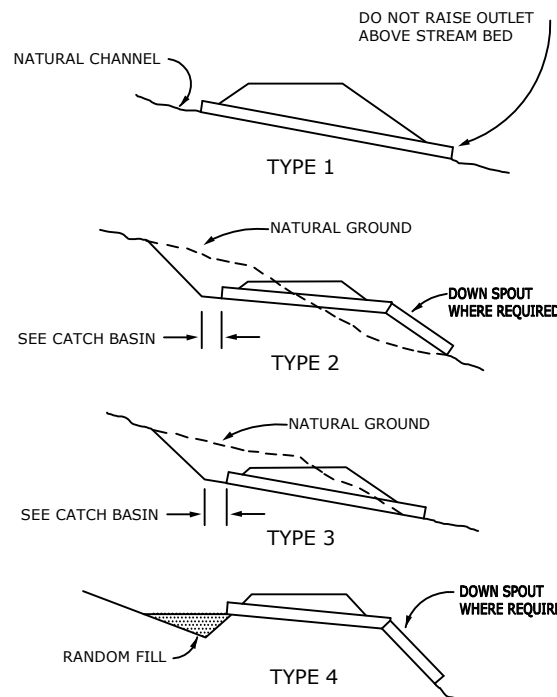


**BEVELED END DETAIL**

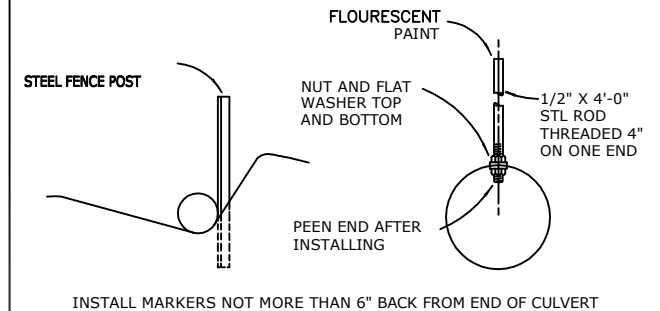


**BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION**

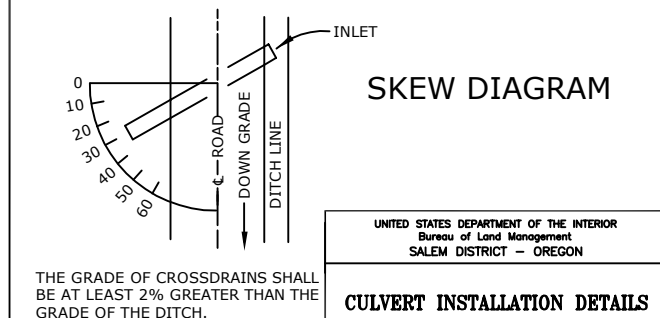
**BEDDING OF CULVERTS**



**CULVERT INSTALLATION TYPES**



**CULVERT MARKER INSTALLATION**



THE GRADE OF CROSSDRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH.

**ALWAYS THINK SAFETY**

UNITED STATES DEPARTMENT OF THE INTERIOR Bureau of Land Management SALEM DISTRICT - OREGON	
<b>CULVERT INSTALLATION DETAILS</b>	
DRAWN J. REMRO Eugene D.O.	SCALE not to scale
DATE 1990	SHEET 1 OF 1

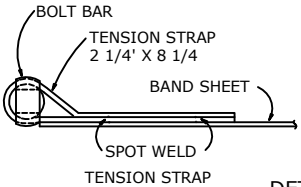
# U.S. DEPARTMENT OF THE INTERIOR

## Bureau of Land Management

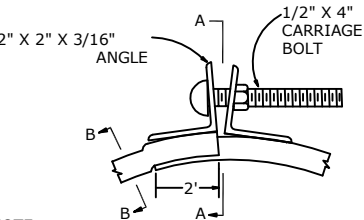
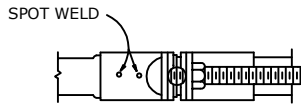
### Northwest Oregon District

EXHIBIT C  
 Sale Name: Moore's Meadow  
 Contract No: ORN04-TS-2019.0403  
 Sheet 45 of 47

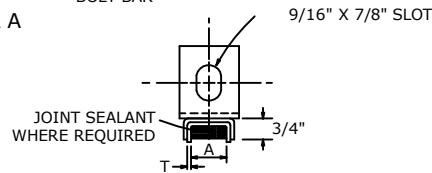
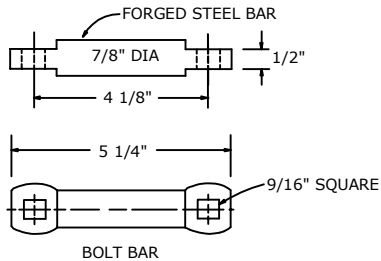
NOTE:  
 DESIGN VARIATIONS IN FASTENERS,  
 (STRAPS, BARS & WELDS) WHICH  
 PROVIDE A TENSILE STRENGTH OF  
 7500 LBS. ARE PERMISSIBLE.



DETAIL A

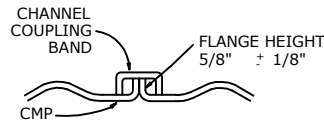


NOTE:  
 AS AN ALTERNATE TO SWEDGE, AN  
 OVERSIZE BRIDGE CLIP MAY BE USED.



DIMENSIONS IN INCHES		
T	A	PIPE WALL THICKNESS
.079	3/4	.109 OR LIGHTER
.109	1	.138 OR HEAVIER

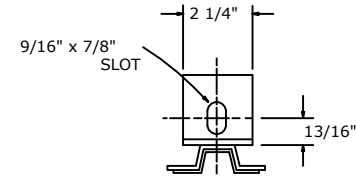
SECTION A-A



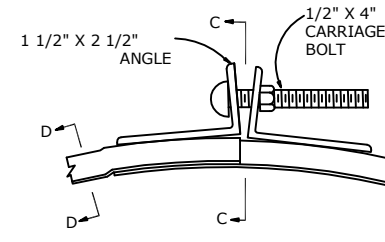
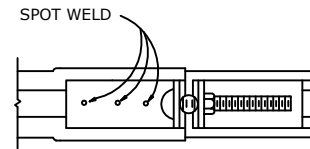
SECTION B-B

TENSION STRAP  
 AND BOLT BAR.  
 SEE DETAIL A

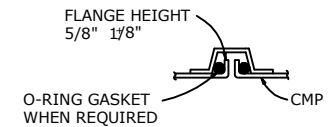
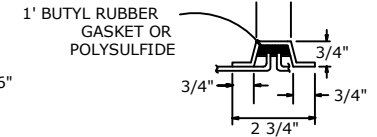
CHANNEL  
 BAND  
 COUPLER



SECTION C-C

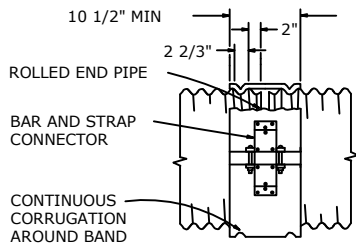
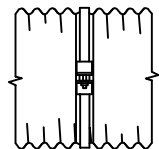


FLANGED END COUPLER



SECTION D-D

SHOWN WITH ALTERNATE TYPES  
 OF JOINT SEALERS



STANDARD CONSTRUCTION IS 1 PIECE 12\"/>

THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL HAVE A MINIMUM WIDTH OF 10 1/2 INCHES AND MAY BE TWO NUMERICAL THICKNESSES LIGHTER THAN THE GAGE OR THICKNESS DESIGNATED FOR THE CONDUIT JOINED. THE BAND SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH TWO 1/2 INCH BOLTS THROUGH USE OF A BAR AND STRAP SUITABLY WELDED TO THE BAND. THE BAND SHALL ENGAGE AND MESH WITH THE SECOND ANNULER CORRUGATION INWARD FROM THE END OF EACH OF THE CONDUIT SECTIONS JOINED.

WHEN DESIGNATED ON THE PLANS OR ON THE SPECIAL PROVISIONS, GASKETS SHALL BE INSTALLED WHEN THE "HUGGER" TYPE, OR AN APPROVED EQUIVALENT COUPLER BAND IS INSTALLED ON SPILLWAY, OVERSIDE OR DOWN DRAINS.

"HUGGER" COUPLER BANDS

STANDARD COUPLER BANDS												
CORRUGATED								FLAT-DIMPLED				
CULVERT SIZE INCHES	STD. ANNULAR		HELICAL		3" X 1"		6" X 1"		WIDTH	NO. OF ROWS OF DIMPLES	NO. OF BOLTS	
	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS			Ⓐ	Ⓑ
UNDER 18	7	2	7	2					10 1/2	2	2	2
18 TO 54	12	3	12	3	14	3	18	3	10 1/2	2	3	2
OVER 54	24	5	24	5	24	5	24	4	16 1/2	4	5	4

DATA IN THIS BLOCK DOES NOT APPLY TO PERFORATED PIPE UNDERDRAIN. FOR BANDS WITH "PUNCH-OUT" TYPE CONNECTIONS, 2 BOLTS ARE PERMISSIBLE FOR EACH LAP. BANDS SHALL LAP 1/2 WIDTH ONTO EACH SECTION OF PIPE AND MUST FULLY ENCIRCLE THE JOINT FORMING A NEARLY WATERTIGHT CONNECTION.

- Ⓐ BANDS WITH ANGLES  
 Ⓑ BANDS WITH TENSION TYPE CONNECTIONS

ALWAYS THINK SAFETY

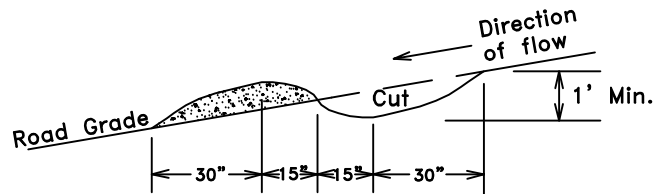
UNITED STATES DEPARTMENT OF THE INTERIOR Bureau of Land Management SALEM DISTRICT - OREGON	
CULVERT BAND DETAILS	
DRAWN J. REMRO Eugene D.O.	SCALE not to scale
DATE 1990	SHEET 1 OF 1

U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Land Management  
Northwest Oregon District

EXHIBIT C

Sale Name: Moore's Meadow  
Contract No: ORN04-TS-2019.0403

Sheet 46 of 47

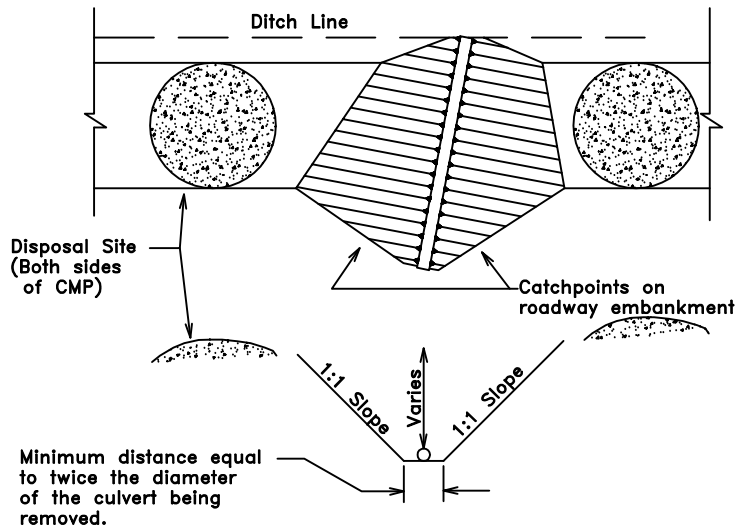


1. Waterbars shall be constructed as shown.
2. Exact locations will be flagged by the Authorized Officer prior to construction.
3. All waterbars shall be skewed 30 degrees.
4. Waterbars shall extend from the cut bank to the fill slope and be readily crossed by passenger type vehicles.
5. See Itemized Project List for quantities and locations.

Typical Waterbar Details  
(Not to scale)

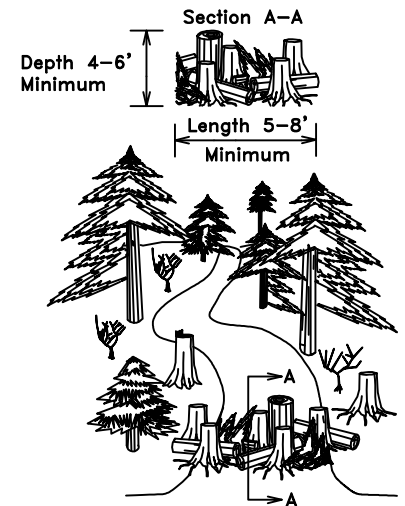
Typical Culvert Removal Details  
(Not to Scale)

Typical Debris Barricade Details  
(Debris & Earth berm)  
(Not to Scale)



1. Culverts shall be removed as shown
2. Removed culverts shall be disposed of as directed by the Authorized Officer
3. The exposed areas shall be seeded in accordance with Section 1800, Exhibit C
4. Excavated material shall be stockpiled as shown

1. Roads shall be blocked as shown using available debris
2. All barricade material shall be stock piled in a large configuration of stumps, logs, large rocks, woody material and earth. Earth will be used to aid debris from being cut, stolen or moved from site.
3. Barricade locations will be flagged by the Authorized Officer prior to construction
4. The barricade shall span the entire width of the roadway and shall sufficiently block all vehicular access to the road



**Legend:**

- ⊗ Roadside Landing
- Road to be Constructed
- BR Begin Renovation
- ER End Renovation
- County Road
- Road to be Renovated
- BNC Begin New Construction
- Existing Road
- Moore's Meadow Project Location
- ENC End New Construction

**Map Details:**

- Scale:** 0 to 2,000 Feet
- North Arrow:** Points North
- Inset Map:** Northwest Oregon District, OREGON
- Project Locations and Mileposts:**
  - Nestucca Road MP 0.52, P39 BR MP 0.00
  - Nestucca Road MP 1.51, P1 BNC Sta 0+00
  - Rd. # 3-6-13 MP 0.68, Rd. # 3-6-13/2 BR MP 0.00
  - Rd. # 3-6-13 MP 1.36, Rd. # 3-6-24 BR MP 0.00
  - Rd. # 3-6-24 ER MP 0.18
  - Nestucca Road MP 1.00, P2 BNC Sta 0+00
  - Meadowlake Road MP 10.75, P3 Roadside landing
  - Nestucca Road MP 0.00, P40 BR MP 0.00
  - P40 ER MP 0.08
  - Meadowlake Road MP 10.69, P4 BNC Sta 0+00
  - Meadowlake Road MP 10.49, P5 BNC Sta 0+00
  - Meadowlake Road MP 10.23, P7 ENC Sta 4+20, P7 BNC Sta 0+00
  - Meadowlake Road MP 10.31, P6 BNC Sta 0+00
  - Rd. # 3-5-18 MP 0.53, P8 BNC Sta 0+00
  - Rd. # 3-6-13/2 ER MP 0.69
  - P1 ENC Sta 3+40
  - P2 ENC Sta 7+60
  - P3-39 ER MP 0.07
  - P4 ENC Sta 3+05
  - P5 ENC Sta 1+65
  - P6 ENC Sta 2+85
  - P8 ENC Sta 11+40
  - P9 ENC Sta 4+50
  - P10 ENC Sta 2+00
  - P11 ENC Sta 4+50
  - P12 BNC Sta 0+00
  - Moore's Valley Road MP 0.29, P10 and P9 BNC Sta 0+00
  - Meadowlake Road MP 8.88, P11 BNC Sta 0+00
  - ENC STA 3+40

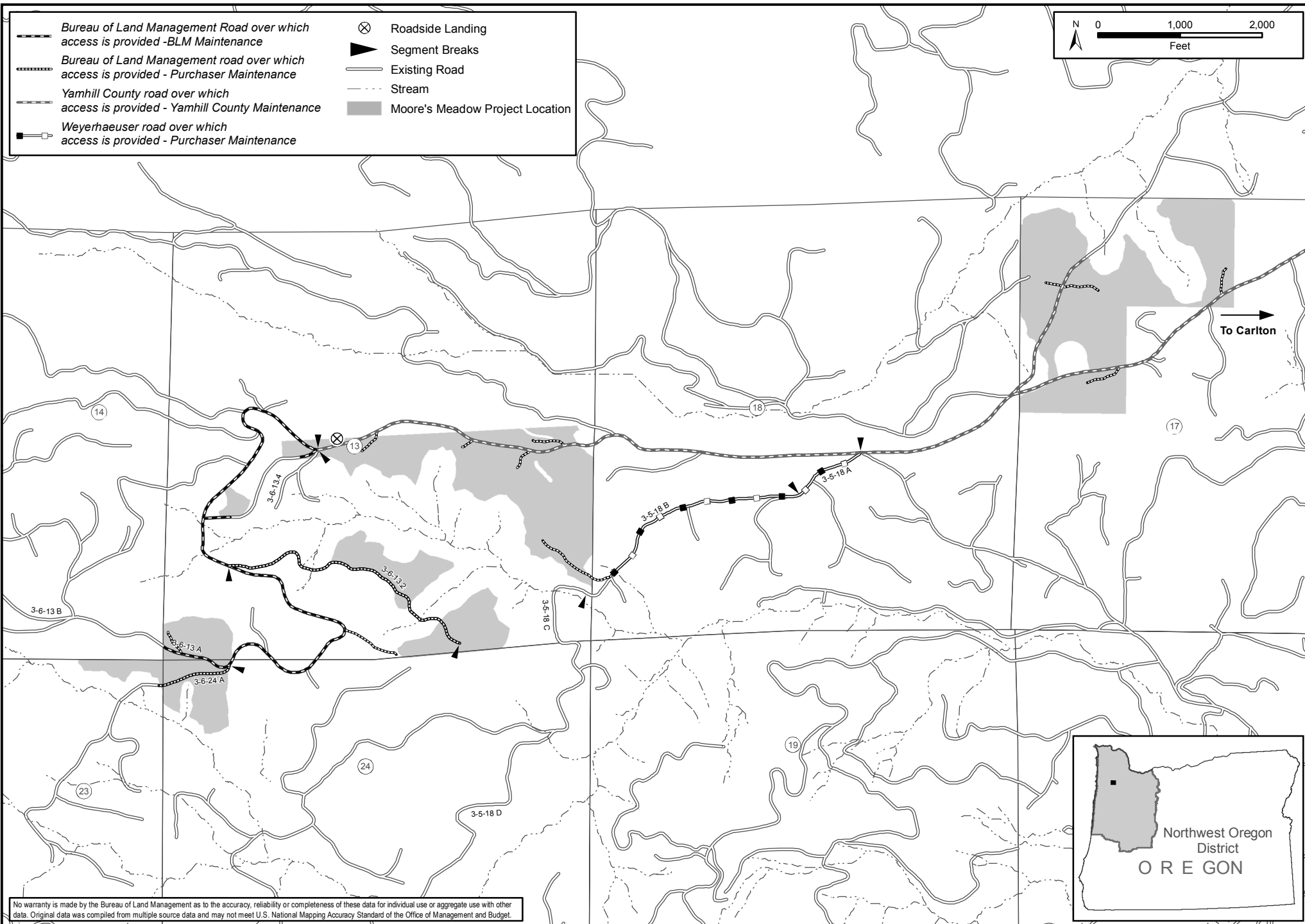
**Disclaimer:** No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data. Original data was compiled from multiple source data and may not meet U.S. National Mapping Accuracy Standard of the Office of Management and Budget.



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Road Use and Maintenance Map

Moore's Meadow  
ORN04-TS-2019.0403  
EXHIBIT E

T. 03 S. - R. 05 W., Section 17, 02 - T. 03 S. - R. 06 W., Sections 13, 23, 24 W.M.





### COARSE WOODY DEBRIS (CWD) CREATION

The Purchaser shall select and treat a total of two hundred fifty (250) reserve trees in the CWD Creation Units shown on Exhibit F to create Coarse Woody Debris (CWD) by saw-topping, high-girdling, basal-girdling or felling. Treated trees will be marked with numbered aluminum tags and flagging. The Purchaser shall record the tree tag number, treatment type, tree data, and UTM coordinates for all treated trees on the Wildlife Tree Data Recording Forms (Illustration #4).

Treatment of trees to create CWD within any given unit shall not start until all yarding operations within that unit are complete. The Purchaser must provide a proposed schedule of work to the Authorized Officer at least one week prior to commencing CWD Creation activities.

#### CWD Creation per CWD Unit

CWD Unit Number <sup>1</sup> (section)	Acres	Total Trees	Saw-Top	High Girdle	Basal Girdle	Fell	Tree Size to be Selected <sup>2</sup> (inches at DBH)
1 (17)	63	63	63	0	0	0	20 to 36
2 (17)	17	17	8	9	0	0	20 to 30
3 (13, 23, 24)	20	20	10	10	0	0	20 to 30
3RR (24)	4	64	13	13	14	24	fell = 12 to 24 snags = 16 to 28
4 (13)	61	61	30	31	0	0	20 to 30
5 (13)	12	12	6	6	0	0	20 to 30
6 (13)	13	13	6	7	0	0	20 to 30
<b>Totals</b>	<b>190</b>	<b>250</b>	<b>136</b>	<b>76</b>	<b>14</b>	<b>24</b>	

<sup>1</sup> See Coarse Woody Debris Creation maps (Exhibit F pages 10-12)

<sup>2</sup> Select approximately 50% of the trees larger and 50% of the trees smaller than the median tree size for the given range unless stand conditions dictate otherwise. If only trees smaller than the appropriate size are available, select trees of the largest size class present. Do not select the largest, most dominant tree within any given area.

1. **Tree Selection** – The Purchaser shall select two hundred fifty (250) reserve trees to create CWD by saw-topping, high-girdling, basal-girdling or felling according to the following guidelines. Numbers of trees and tree sizes to be selected, specific to each CWD unit, are displayed in the table above. Placement of trees to be selected by treatment type within the individual treatment units is displayed on the Coarse Woody Debris Creation maps (Exhibit F pages 10-12).
  - Only Douglas-fir trees shall be selected for treatment.
  - No trees marked with any existing metal tags shall be selected for treatment.
  - No trees with nests or any nest-like structures of any birds or mammals, or trees with defects such as cavities, platforms, mistletoe infection, or dead, forked/multiple and/or broken tops shall be selected.

- Selected trees shall be evenly distributed throughout the CWD units. When selecting trees, select approximately fifty (50) percent of the trees larger than the median tree size for the given range, and approximately fifty (50) percent of the trees smaller than the median tree size for the given range unless stand conditions dictate otherwise. If only trees smaller than the appropriate size are available, select trees of the largest size class present. Do not select the largest, most dominant tree within any given area.
- a. **Saw-topping and High-girdling:** Select healthy appearing Douglas-fir trees with live crown ratios greater than thirty (30) percent and with average or larger crown spread. If only trees with smaller live crown ratios than appropriate are available, select trees with the largest crown ratio present. Treatment types and selected trees shall be scattered uniformly throughout the units. Trees selected for saw-topping shall be selected singly. Trees selected for high-girdling shall be selected in groups of three (3) to five (5) trees. Trees selected for saw-topping or high-girdling shall not be located within seventy-five (75) feet of a drivable road or a property line boundary where BLM land abuts non-federal ownership.
- b. **Basal-girdling:** Select Douglas-fir trees with live crown ratios less than thirty (30) percent and smaller than average crown spread. If only trees with larger live crown ratios than appropriate are available, select appropriately sized trees with the smallest crown ratio present. Selected trees shall be located within the portion of the CWD units designated for basal-girdling and selected in groups of three (3) to five (5) trees. Trees selected for basal-girdling shall not be located within approximately one hundred fifty (150) feet of a drivable road or a property line boundary where BLM land abuts non-federal ownership. Trees selected for basal-girdling shall be those trees which provide minimal amounts or no shade to streams (e.g., north side of stream channel and/or being an area where topography or tree location minimizes the shade afforded to stream by selected tree, such as being located several tree spacings from the stream channel).
- c. **Tree felling:** Select Douglas-fir trees with live crown ratios less than thirty (30) percent and smaller than average crown spread. If only trees with larger live crown ratios than appropriate are available, select appropriately sized trees with the smallest crown ratio present. Selected trees shall be located within the portion of the CWD units designated for felling and shall be scattered uniformly throughout the units. Trees selected for felling shall be and selected singly (not in groups). Trees selected for felling shall be located within one hundred (100) feet of the stream channel and selected so that when felled, the portion of the tree in contact with the stream channel would be at least six (6) inches in diameter. Trees selected for felling shall be those trees which provide minimal amounts or no shade to streams (e.g., north side of stream channel and/or being an area where topography or tree location minimizes the shade afforded to stream by selected tree, such as being located several tree spacings from the stream channel).

2. **CWD Treatments**

a. **Saw-Topping**

1. The Purchaser shall climb and top selected trees at a height of at least sixty (60) feet above the ground at a point where approximately twenty to fifty (20-50) percent of the live crown remains; saw-topping heights shall be varied equally within this range (See Illustration 1). Topping shall be done with power tools (e.g., chainsaws).
2. The Purchaser shall cut several V-type notches that are a minimum of six (6) cuts into the sawn top surface of the tree, each a minimum of six (6) inches deep.
3. To the extent practicable, the Purchaser shall retain all green limbs and the largest dead limbs on the treated trees during the climbing and topping operations.
4. Tree tops shall be completely severed from the tree and fall completely to the ground inside unit boundaries.
5. To the extent practicable, the Purchaser shall directionally fall tops in order to not damage existing snags, under-story conifers, any tree containing a suspected nest of a bird or mammal, or any tree with defects such as hollow cavities, multiple tops, or decay, and avoid contact with unburned burn piles and BLM road spurs.
6. The Purchaser shall tie two (2) pieces of flagging of a color approved by the Authorized Officer around the bole of each treated tree, one (1) at a height of approximately twenty to thirty (20-30) feet above the ground and another at four and one-half (4.5) feet above the ground (measured from the uphill side of the tree).
7. A small numbered aluminum tag shall be nailed to the base of the treated tree (uphill side). The tree tag number shall be recorded on the Wildlife Tree Data Recording Form.

b. **High-Girdling** – within the live crown

1. The Purchaser shall climb and girdle selected trees within the live crown at a point where approximately twenty to fifty (20-50) percent of the live crown remains below the point of girdling and at a height of at least sixty (60) feet above the ground; girdling heights shall be equally varied within this range. Girdling may be done with a hand tool or power tool and will consist of removing all bark and cambium in a ten to twelve (10-12) inch band completely around the main stem of the tree. (See Illustration #3)
2. Tool cuts must not penetrate more than one-half (0.5) inches into the wood of high-girdled trees.
3. Live limbs below the point of high-girdling shall not be removed. To the extent practicable, the Purchaser shall retain the largest dead limbs on the trees during the climbing and high-girdling operations.

4. The Purchaser shall tie three pieces of flagging of a color approved by the Authorized Officer to each high-girdled tree. One flag shall be tied on a branch visible from the ground near the point of girdle, a second flag shall be tied around the bole of the tree at a height of approximately twenty to thirty (20-30) feet above the ground and a third flag at four and one-half (4.5) feet above the ground (measured from the uphill side of the tree). The two highest flags shall extend at least four (4) feet from the knot.
5. A small numbered aluminum tag shall be nailed to the base of the treated tree (uphill side). The tree tag number shall be recorded on the Wildlife Tree Data Recording Form.

**c. Basal-Girdling**

1. The Purchaser shall basal-girdle selected trees by making three (3) parallel cuts around the bole of the tree between three (3) and four (4) feet above ground level measured on the uphill side of the tree; power tools may be used. Each cut must connect with itself completely around the tree and penetrate through the cambium layer into the wood at least one-half (0.5) inches, but not more than one and one-half (1.5) inches. The distance between the top cut and the bottom cut shall not exceed twelve (12) inches. (See Illustration #2)
2. The Purchaser shall tie a piece of flagging of a color approved by the Authorized Officer around the bole of each treated tree four and one-half (4.5) feet above the ground (measured from the uphill side of the tree).
3. A small numbered aluminum tag shall be nailed to the base of the treated tree (uphill side). The tree tag number shall be recorded on the Wildlife Tree Data Recording Form.

**d. Felling**

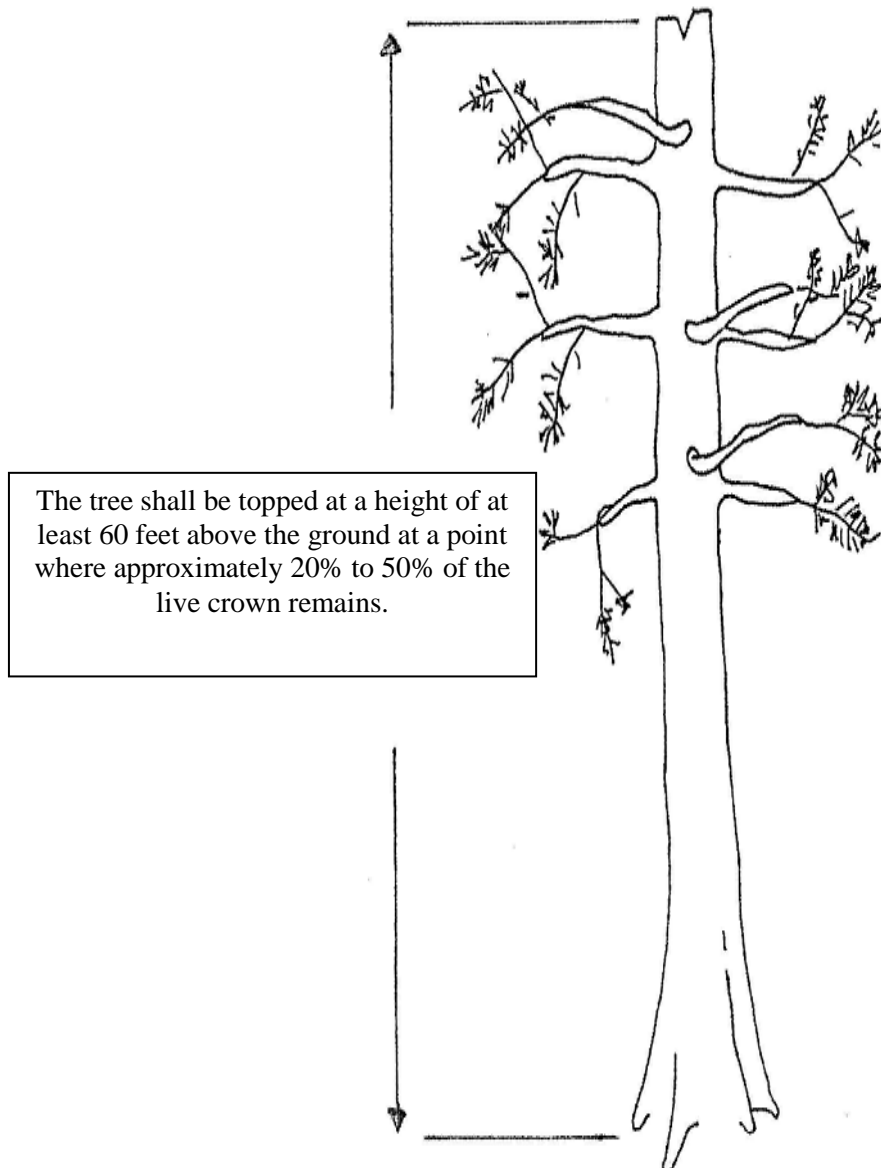
1. The Purchaser shall completely sever selected trees from the stump and fall them completely to the ground.
2. Stumps shall be no more than four and one-half (4.5) feet tall measured on the uphill side.
3. No part of a fallen tree shall rest outside of unit boundaries, or within one hundred fifty (150) feet of any open (unblocked) road as determined by the Authorized Officer.
4. Directionally fall trees toward the nearest mapped stream.
5. Trees shall be felled into active stream channels only during the Oregon Department of Fish and Wildlife's (ODFW's) in-stream work window (July 15 – September 30) unless a waiver is obtained from ODFW by the BLM.
6. Directionally fall trees away from existing snags, decay class three (3) and four (4) down wood larger than twenty-four (24) inches in diameter, under-story conifers, any tree containing a suspected nest of a bird or mammal, or any green tree with defect such as multiple tops, hollow cavities, or decay.
7. A small numbered aluminum tag shall be nailed to the base of the felled tree. The tree tag number shall be recorded on the Wildlife Tree Data Recording Form.

**3. Documentation**

- a. The Purchaser shall provide the location for all saw-topped, high-girdled, basal-girdled or felled trees by documenting the UTM coordinates using a GPS unit with NAD83 datum, zone 10. If acceptable GPS satellite coverage cannot be obtained at a site, the point shall be hand drawn onto a map and submitted to the Authorized Officer with the Wildlife Tree Data Recording Forms.
- b. The Purchaser shall provide the Wildlife Tree Data Recording Forms, UTM coordinates, and any hand drawn maps in a digital format once per week to the Authorized Officer for work completed during the previous week.
- c. All information recorded on the Wildlife Tree Data Recording Forms shall be legible, clear and reproducible on a black and white copy machine. All documents shall be reviewed by the Purchaser to ensure completeness, legibility, accuracy, and consistency in style before submitting them to the Authorized Officer.

### ILLUSTRATION #1 – Saw-topping within the Live Crown

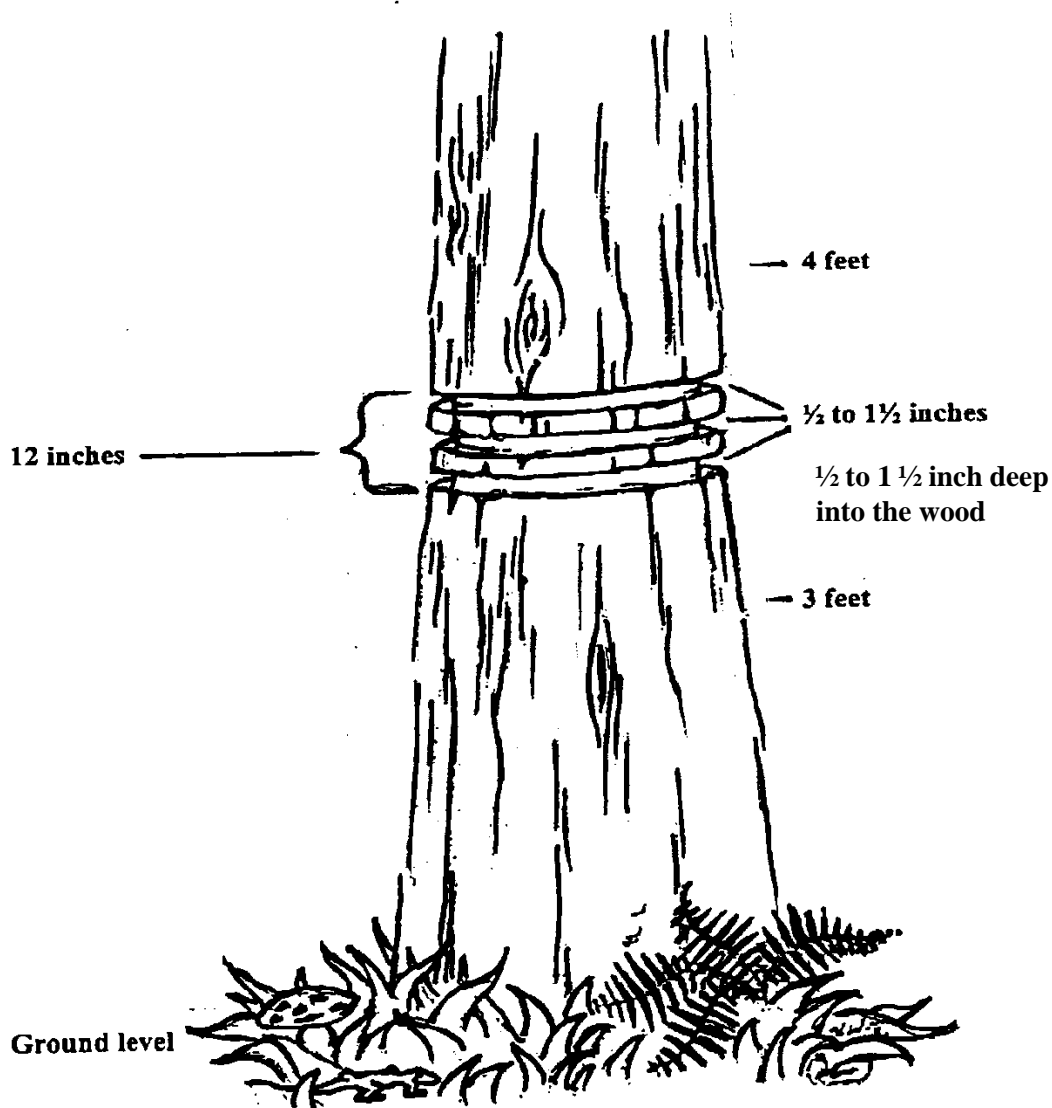
Cut a V-type notch or a “King’s Crown” (with a minimum of 6 cuts) into the sawn top surface, a minimum of 6 inches deep, to provide for a greater potential of future decay in the treetop. To the extent practicable, retain all green limbs and the largest dead limbs on the treated trees during the climbing and topping operation.



Tie two pieces of flagging around the bole of each saw-topped tree, one at a height of approximately 20-30 feet and one 4.5 feet above the ground. A small numbered aluminum tag is nailed to the base of the tree (uphill side).

## Basal-Girdling ILLUSTRATION #2

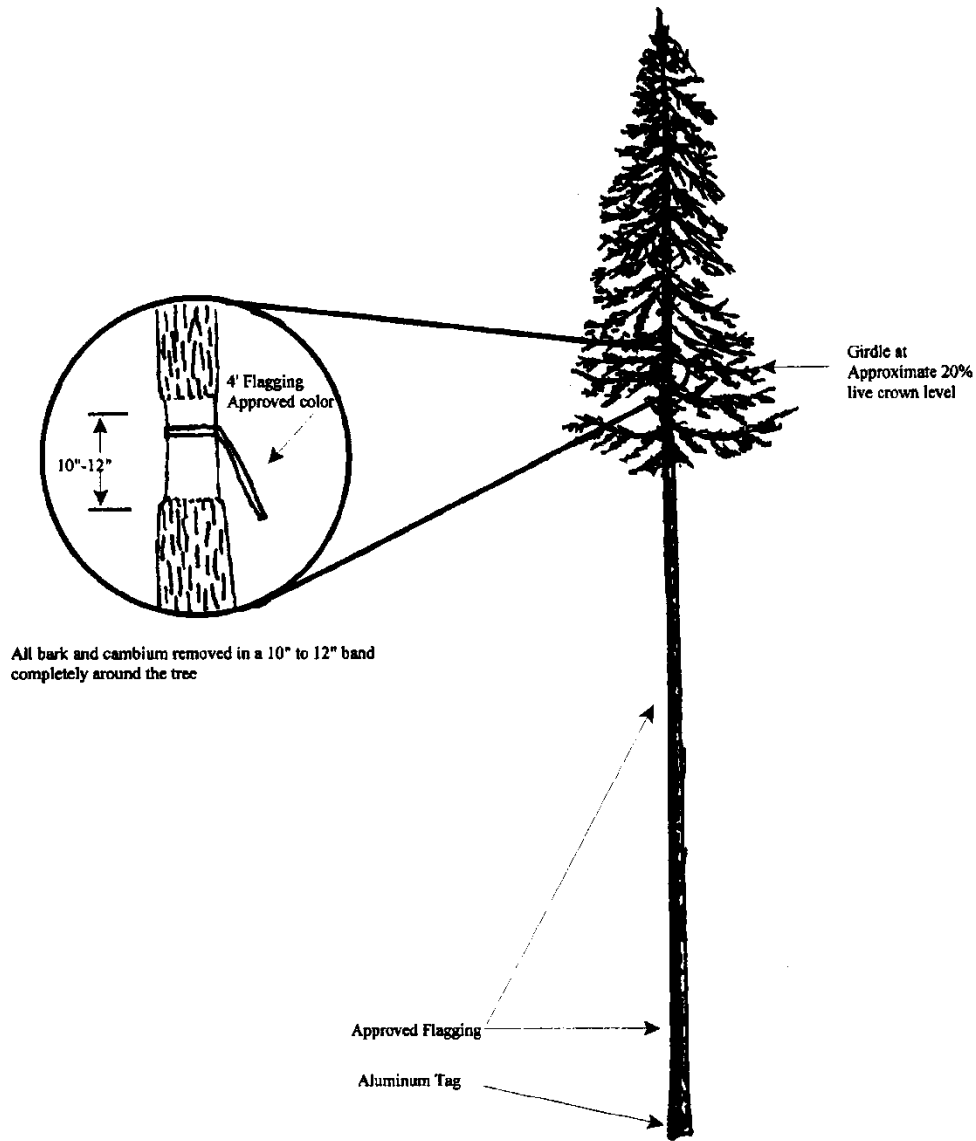
**Girdling example:** make three (3) parallel unbroken cuts around the tree. The distance between the top and the bottom of the cut shall not exceed twelve inches. Cuts must penetrate at least  $\frac{1}{2}$  inch, but not more than  $1\frac{1}{2}$  inches into the wood of the tree. Trees shall be girdled between 3 and 4 feet from the ground.



Tie one piece of flagging around the bole of each basal-girdled tree 4.5 feet above the ground. A small numbered aluminum tag is nailed to the base of the tree (up-hill side).

### Illustration #3 – High-Girdling within the Live Crown

#### Crown Girdling Specifications:



To the extent practicable, retain all green limbs and the largest dead limbs on the treated trees below the point of treatment. Treatment heights shall be greater than or equal to 60 feet above the ground at a point in the live crown where 20% to 50% of live branches remain. Tie three pieces of flagging around the bole of each high-girdled tree, one at the point of girdling, one at a height of approximately 20-30 feet and one 4.5 feet above the ground. A small numbered aluminum tag is nailed to the base of the tree (uphill side).



**ILLUSTRATION #4   Wildlife Tree Data Recording Form**

**Date** \_\_\_\_\_ **Page** \_\_\_\_\_

**UNIT #** \_\_\_\_\_ **Name(s)** \_\_\_\_\_

[illegible]

<sup>1</sup> **Treatment Types:** ST = Saw-top; HG = High-Girdle; BG = Basal-Girdle; F = Fell.

<sup>2</sup>**DBH** = Diameter of treated tree measured at 4.5 feet above the ground on the uphill side to the nearest one (1) inch.

<sup>3</sup>UTM = Universal Transverse Mercator *Coordinates (GPS) in NAD 83 datum*



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Moore's Meadow Timber Sale

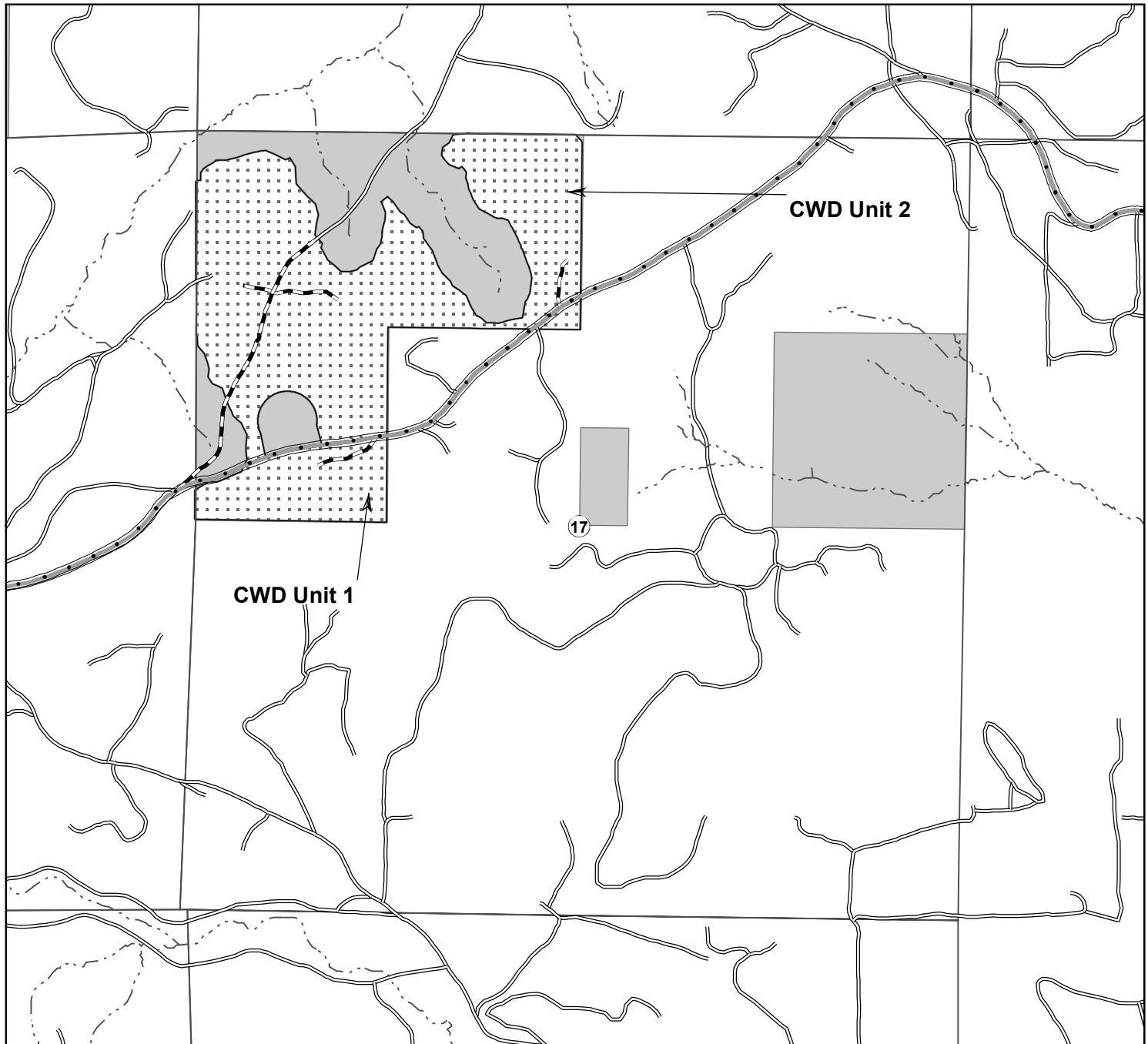
ORN04-TS-2019.0403

Exhibit F

Page 10 of 12

**Coarse Woody Debris Creation**

T03S-R05W Section 17 W. M. - NORTHWEST OREGON DISTRICT - OREGON



- Saw Top and High Girdle
- Meadow Lake Road
- Moore's Meadow Project Roads
- Streams
- Other Roads
- BLM Land

Exhibit F CWD Unit	Acres	Total Trees	Saw-Top	High Girdle	Basal Girdle	Fell	Tree Size to be Selected * (Inches DBH)
1	63	63	63	0	0	0	20 to 36
2	17	17	8	9	0	0	20 to 30

0 750 1,500 3,000 Feet

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Prepared By: csween Date: 8/6/2019



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**Coarse Woody Debris Creation**

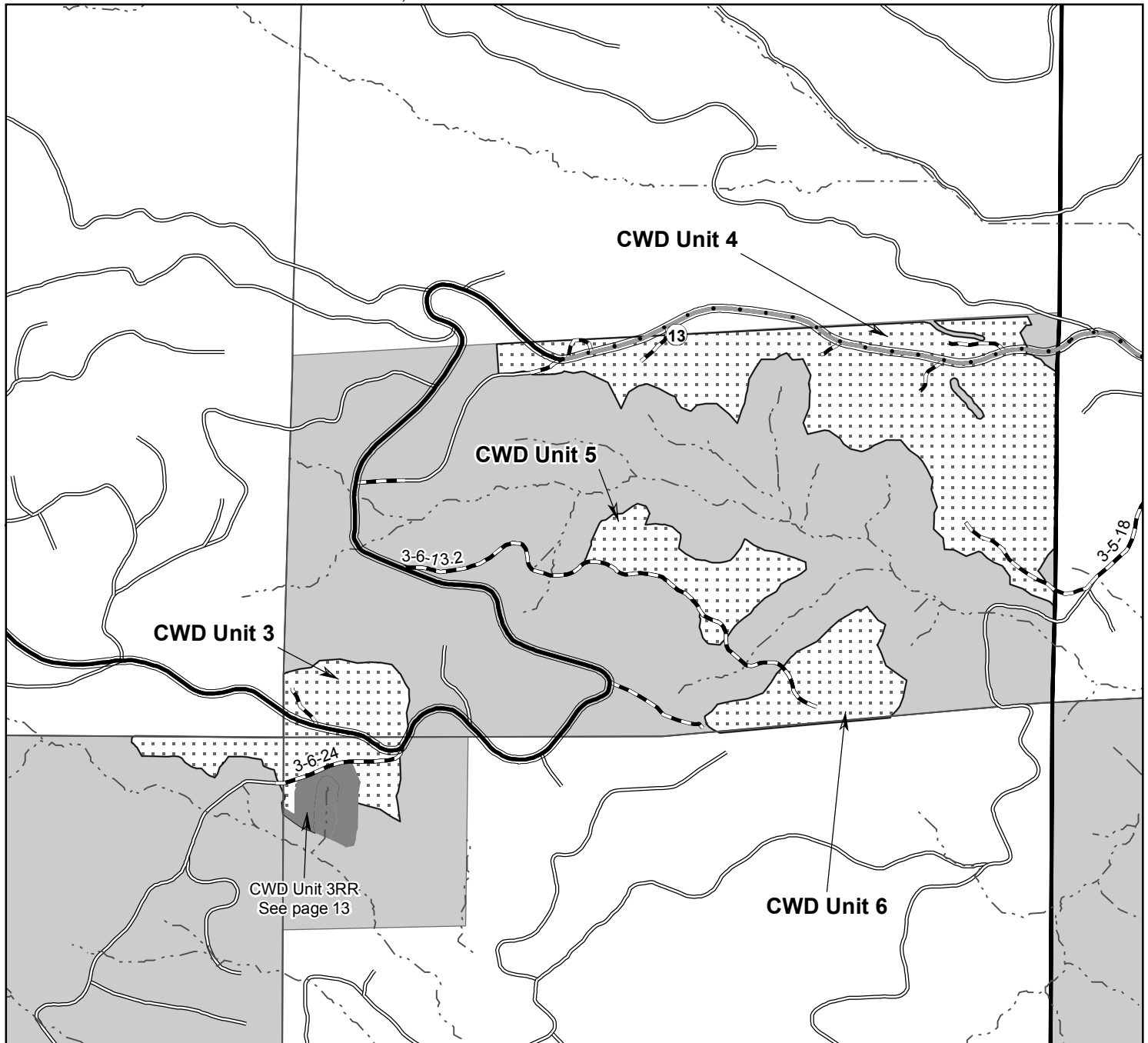
Moore's Meadow Timber Sale

ORN04-TS-2019.0403

Exhibit F

Page 11 of 12

T03S-R06W Section 13, 23 & 24 W. M. - NORTHWEST OREGON DISTRICT - OREGON



- Saw Top and High Girdle
- Meadow Lake Road
- Moore's Meadow Riparian Reserve Treatment Area
- Moore's Meadow Project Roads
- Nestucca Access Road
- Streams
- Other Roads
- BLM Land

Exhibit F CWD Unit	Acres	Total Trees	Saw-Top	High Girdle	Basal Girdle	Fell	Tree Size to be Selected * (Inches DBH)
3	20	20	10	10	0	0	20 to 30
4	61	61	30	31	0	0	20 to 30
5	12	12	6	6	0	0	20 to 30
6	13	13	6	7	0	0	20 to 30

0 750 1,500 3,000 Feet

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

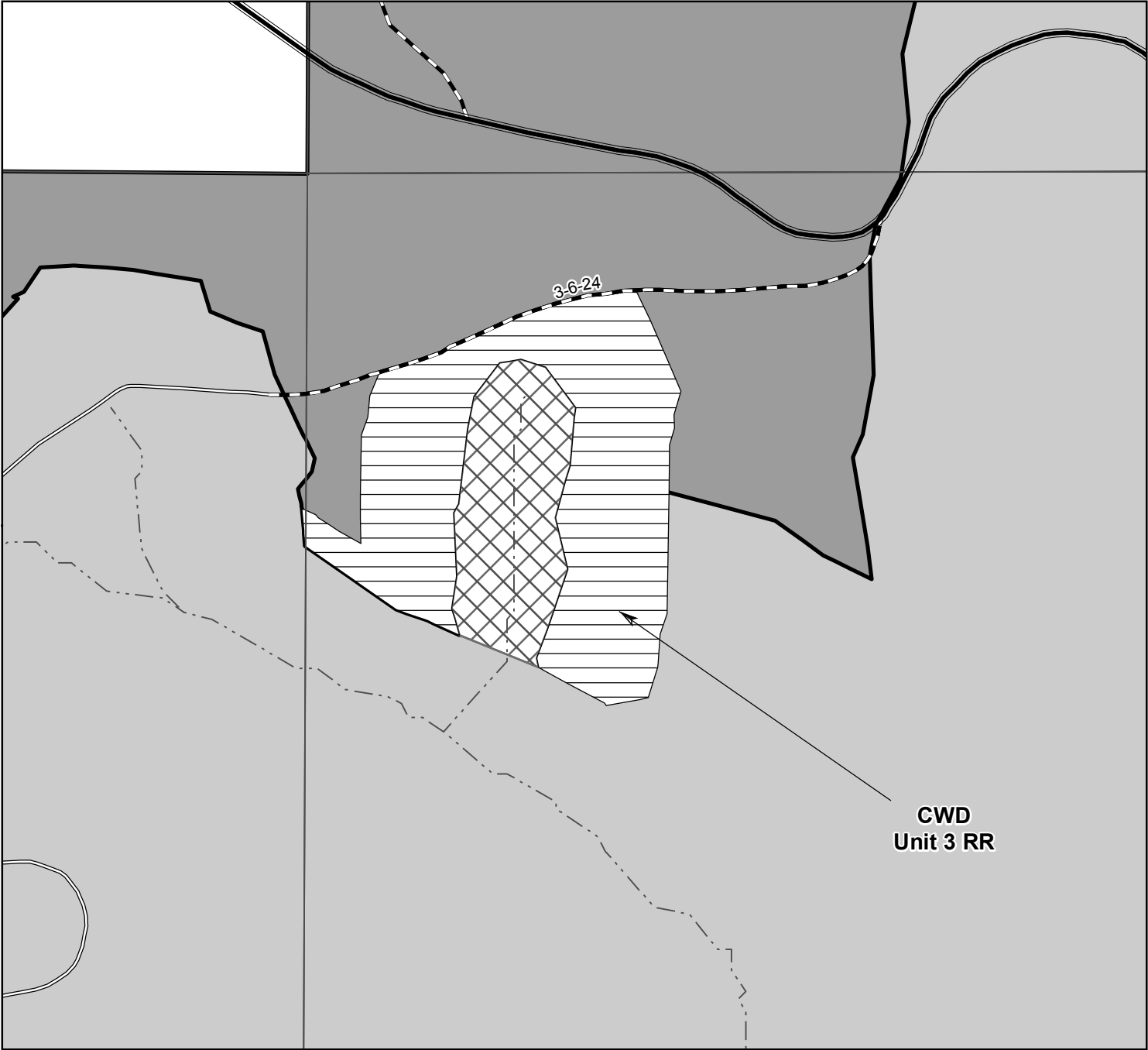
Prepared By: csween Date: 8/6/2019



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**Coarse Woody Debris Creation**

Moore's Meadow Timber Sale  
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Exhibit F  
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T03S-R06W Section 13 W. M. - NORTHWEST OREGON DISTRICT - OREGON











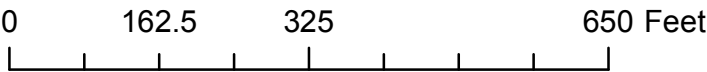
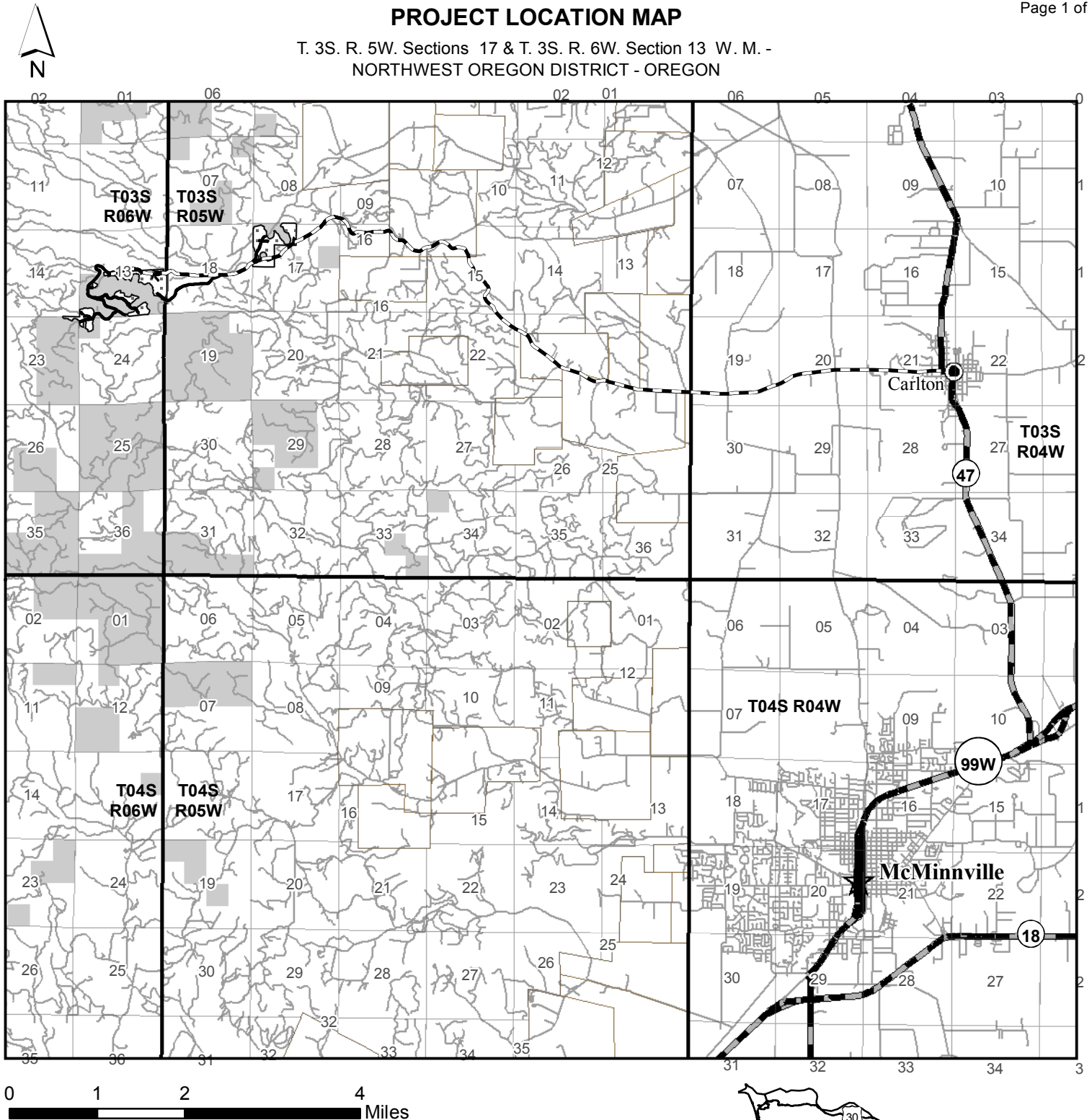
-  Basal Girdle, Saw Top and High Girdle
-  Felling, Basal Girdle, Saw Top and High Girdle
-  Moore's Meadow Upland Treatment Area
-  Moore's Meadow Project Roads
-  Nestucca Access Road
-  Streams
-  Other Roads
-  BLM Land

Exhibit F CWD Unit	Acres	Total Trees	Saw-Top	High Girdle	Basal Girdle	Fell	Tree Size to be Selected * (Inches DBH)
3RR	4	64	13	13	14	24	fell = 12 to 24 Snags = 16 to 28



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**PROJECT LOCATION MAP**

T. 3S. R. 5W. Sections 17 & T. 3S. R. 6W. Section 13 W. M. -  
NORTHWEST OREGON DISTRICT - OREGON



- Moore's Meadow Project Area
- Highway
- Moore's Meadow Project Roads
- Other Roads
- Meadow Lake Road
- Bureau of Land Management

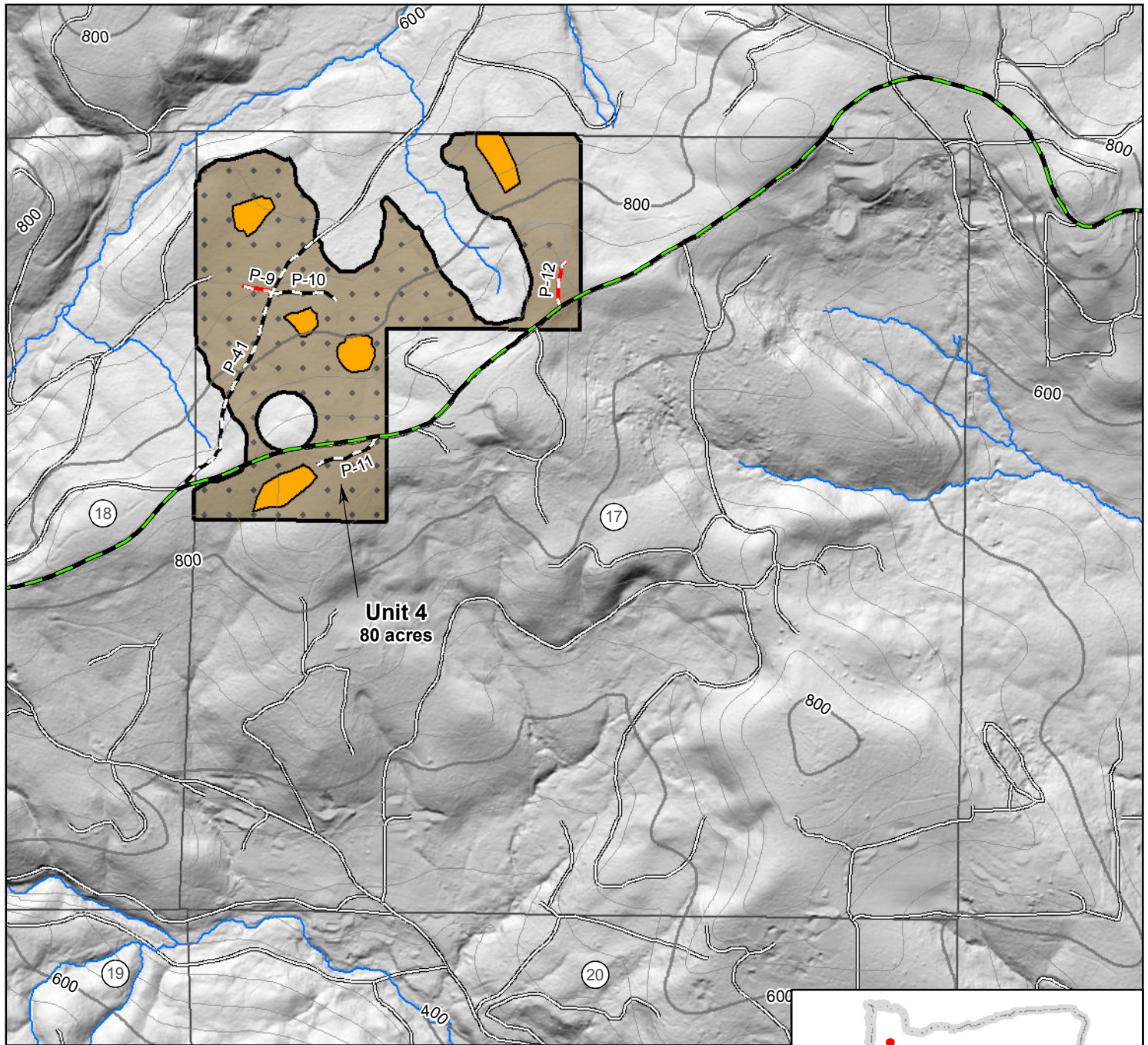












United States Department of the Interior  
BUREAU OF LAND MANAGEMENT

Moore's Meadow Timber Sale  
Page 1 of 2

T03S-R05W Section 17 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Contour Interval: 40ft

- |   |  |
|---|--|
|  Partial Cut Area-Ground Based      |  Road to be constructed |
|  Regeneration Cut Area-Ground Based |  Road to be renovated   |
|  Leave Islands                      |  Other Roads            |
|  Meadow Lake Road                   |  Streams                |



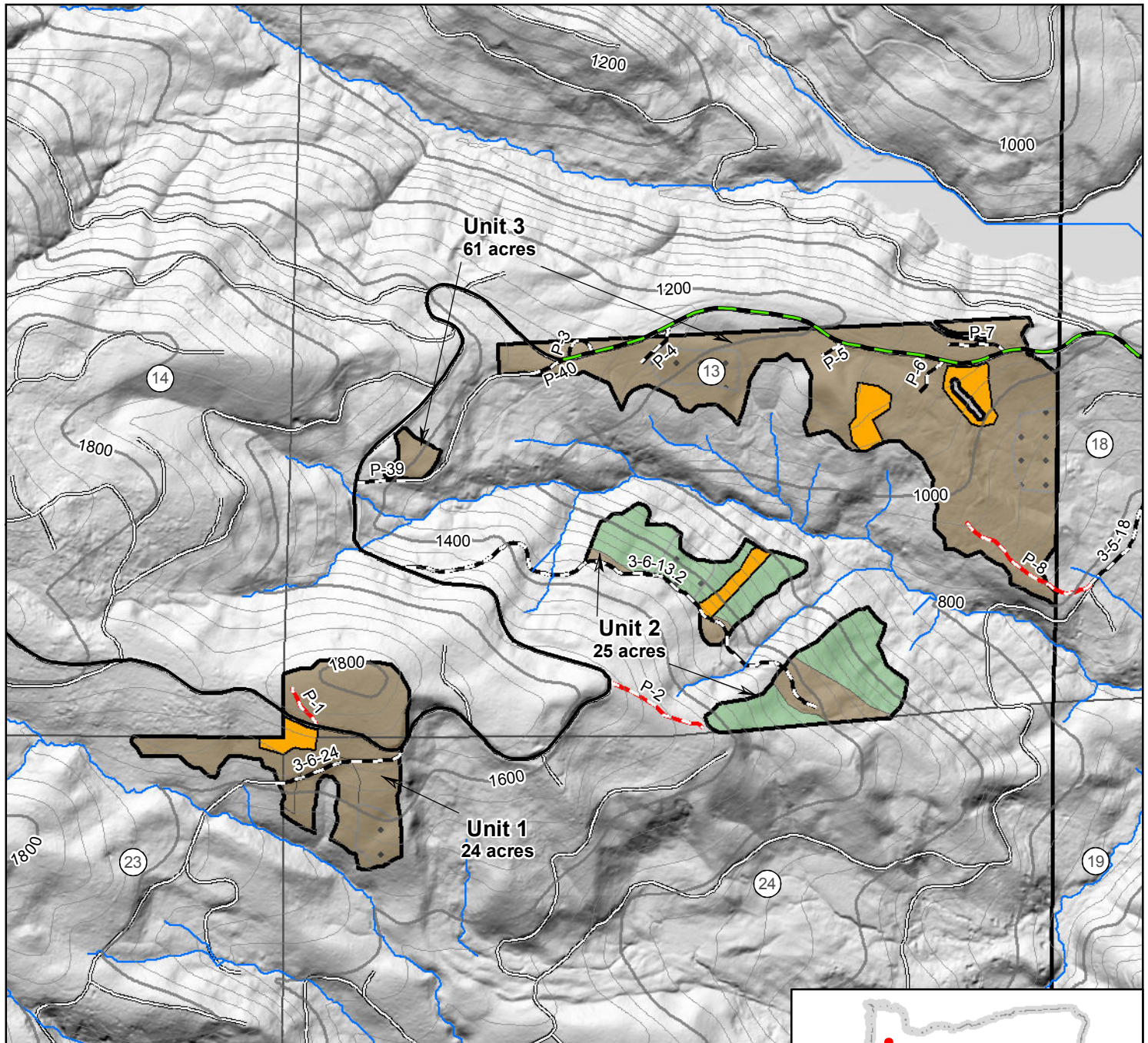
0 750 1,500 3,000 Feet



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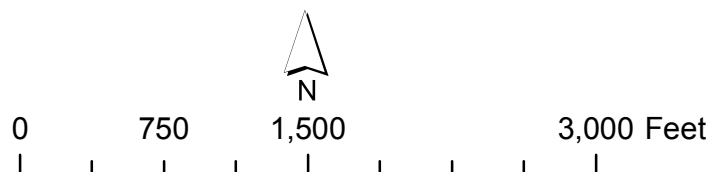
Moore's Meadow Timber Sale  
Page 2 of 2

T03S-R06W Section 13, 23 & 24 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Contour Interval: 40ft

- |                                    |                        |
|------------------------------------|------------------------|
| Partial Cut Area-Ground Based      | Nestucca Access Road   |
| Regeneration Cut Area-Ground Based | Road to be constructed |
| Partial Cut Area-Skyline           | Road to be renovated   |
| Regeneration Cut Area-Skyline      | Other Roads            |
| Leave Islands                      | Streams                |
| Meadow Lake Road                   |                        |



## Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Yamhill	3 S	5 W	17	Lot 1, W1/2NW1/4	Willamette
O&C	Yamhill	3 S	6 W	13	S1/2	Willamette
O&C	Yamhill	3 S	6 W	23	NE1/4NE1/4	Willamette
O&C	Yamhill	3 S	6 W	24	NW1/4NW1/4	Willamette

## Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	5,488.0	5,774.0	5,790.0	90,049	459	20,297
Grandfir	76.0	83.0	83.0	525	0	95
Bigleaf Maple	16.0	39.0	39.0	378	455	387
Western Hemlock	3.0	3.0	3.0	93	0	46
Western Redcedar	2.0	5.0	5.0	10	15	5
Red Alder	1.0	3.0	3.0	29	74	58
<b>Totals</b>	<b>5,586.0</b>	<b>5,907.0</b>	<b>5,923.0</b>	<b>91,084</b>	<b>1,003</b>	<b>20,888</b>

## Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
75.0	115.0	1.0	191.0	29.2



**Logging Costs**

Stump to Truck	\$574,665.63
Transportation	\$311,766.25
Road Construction	\$153,126.93
Maintenance/Rockwear	\$17,825.99
Road Use	\$730.00
Other Allowances	\$36,940.00
<b>Total:</b>	<b>\$1,095,054.80</b>
<b>Total Logging Cost per MBF:</b>	<b>\$196.04</b>

**Utilization Centers**

<b>Location</b>	<b>Distance</b>	<b>% of Net Volume</b>
Willamina	33.0 miles	98 %
Longview	85.0 miles	1 %
Garibaldi	89.0 miles	1 %

**Profit & Risk**

Profit	9 %
Risk	3 %
<b>Total Profit &amp; Risk</b>	<b>12 %</b>

**Tract Features**

<b>Quadratic Mean DBH</b>	15.9 in
<b>Average GM Log</b>	65 bf
<b>Average Volume per Acre</b>	29.2 mbf
<b>Recovery</b>	94 %
<b><u>Net MBF volume:</u></b>	
<b>Green</b>	5,586.0 mbf
<b>Salvage</b>	0 mbf
<b>Export</b>	0 mbf
<b><u>Ground Base Logging:</u></b>	
<b>Percent of Sale Volume</b>	92 %
<b>Average Yarding Slope</b>	20 %
<b>Average Yarding Distance</b>	400 ft
<b><u>Cable Logging:</u></b>	
<b>Percent of Sale Volume</b>	8 %
<b>Average Yarding Slope</b>	65 %
<b>Average Yarding Distance</b>	450 ft
<b><u>Aerial Logging:</u></b>	
<b>Percent of Sale Volume</b>	0 %
<b>Average Yarding Slope</b>	0 %
<b>Average Yarding Distance</b>	0 ft

**Cruise**

<b>Cruise Completed</b>	May 2019
<b>Cruised By</b>	Bill Bryant
<b>Cruise Method</b>	
Variable plot/ GGD 100	

## Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	20,297	5,488.0	\$512.49	\$61.50	\$196.04	\$0.00	\$255.00	\$1,399,440.00
Grandfir	95	76.0	\$367.35	\$44.08	\$196.04	\$0.00	\$127.20	\$9,667.20
Bigleaf Maple	387	16.0	\$280.00	\$33.60	\$196.04	\$0.00	\$50.40	\$806.40
Western Hemlock	46	3.0	\$348.00	\$41.76	\$196.04	\$0.00	\$110.20	\$330.60
Western Redcedar	5	2.0	\$720.00	\$86.40	\$196.04	\$0.00	\$437.60	\$875.20
Red Alder	58	1.0	\$336.00	\$40.32	\$196.04	\$0.00	\$99.60	\$99.60
Totals	20,888	5,586.0						\$1,411,219.00

### Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir				57.0 %	39.0 %	4.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Grandfir				82.0 %	17.0 %	1.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Bigleaf Maple							100.0 %

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Western Hemlock					70.0 %	30.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill			Camp Run
Western Redcedar							100.0 %

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Red Alder							100.0 %

**Moores Meadow****Unit Summary****ORN04-TS-2019.0403****Unit: 1**

Douglas Fir	570.0	597.0	600.0	2,278
<b>Totals:</b>	<b>572.0</b>	<b>599.0</b>	<b>602.0</b>	<b>2,281</b>

**Net Volume/Acre: 23.8 MBF**

Partial Cut	22.0
<b>Total Acres:</b>	<b>24.0</b>

**Unit: 2**

Douglas Fir	592.0	621.0	624.0	2,370
<b>Totals:</b>	<b>594.0</b>	<b>623.0</b>	<b>626.0</b>	<b>2,373</b>

**Net Volume/Acre: 23.8 MBF**

Partial Cut	23.0
<b>Total Acres:</b>	<b>25.0</b>

**Unit: 3**

Douglas Fir	1,462.0	1,533.0	1,540.0	5,821
<b>Totals:</b>	<b>1,468.0</b>	<b>1,540.0</b>	<b>1,547.0</b>	<b>5,829</b>

**Net Volume/Acre: 24.1 MBF**

Partial Cut	55.0
<b>Total Acres:</b>	<b>61.0</b>

**Unit: 4**

Douglas Fir	2,783.0	2,938.0	2,941.0	9,609
Bigleaf Maple	16.0	39.0	39.0	387
Western Redcedar	2.0	5.0	5.0	5

**Net Volume/Acre: 35.9 MBF**

Partial Cut	15.0
<b>Total Acres:</b>	<b>80.0</b>

Unit: RW

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	81.0	85.0	85.0	219
Grandfir	1.0	1.0	1.0	1
Red Alder	1.0	3.0	3.0	58
Totals:	83.0	89.0	89.0	278

Net Volume/Acre: 83.0 MBF

Partial Cut	0.0
Total Acres:	1.0

Total Stump To Truck	Net Volume	\$/MBF
\$574,665.63	5,586.0	\$102.88

## Stump to Truck: Falling, Bucking, Yarding, &amp; Loading

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	GM MBF	470.0	\$183.40	\$86,198.00	Cable Thin
Track Skidder	GM MBF	2,411.0	\$103.99	\$250,719.89	Ground Thin
Track Skidder	GM MBF	3,026.0	\$77.99	\$235,997.74	Ground Regen
<b>Subtotal</b>				<b>\$572,915.63</b>	

## Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
<b>Subtotal</b>				<b>\$0.00</b>	

## Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	Each	1.0	\$800.00	\$800.00	
Shovel	Each	1.0	\$500.00	\$500.00	
Track Skidder	Each	1.0	\$450.00	\$450.00	
<b>Subtotal</b>				<b>\$1,750.00</b>	

## Comments:

Fuel \$2.00/ gal

5mbf per load

cable thin 4 loads/day

ground regen 8 loads/day

ground thin 6 loads/day

Total	Net Volume	\$/MBF
\$311,766.25	5,586.0	\$55.81

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
Longview	85.0	Cedar	GM MBF	5.0	\$118.75	\$593.75	1 %
Garibaldi	89.0	Hardwoods	GM MBF	42.0	\$118.75	\$4,987.50	1 %
Willamina	33.0	conifers	GM MBF	5,860.0	\$52.25	\$306,185.00	98 %

**Comments:**

Conifers: \$95/hr. 2.75hr/round trip 5mbf/load

Hardwoods: \$95/hr. 5 hr/round trip 4mbf/load

Cedar: Longview \$95/hr. 5hr/round trip 4mbf/load

**Engineering Allowances**

Total	Net Volume	\$/MBF
\$171,682.92	5,586.0	\$30.73

Cost Item	Total Cost
Road Construction:	\$153,126.93
Road Maintenance/Rockwear:	\$17,825.99
Road Use Fees:	\$730.00

Total	Net Volume	\$/MBF
\$36,940.00	5,586.0	\$6.61

**Environmental Protection**

Cost item	Total Cost
Machine Washing	\$296.00
<b>Subtotal</b>	<b>\$296.00</b>

**Logging**

Cost item	Total Cost
Flaggers	\$4,320.00
<b>Subtotal</b>	<b>\$4,320.00</b>

**Miscellaneous**

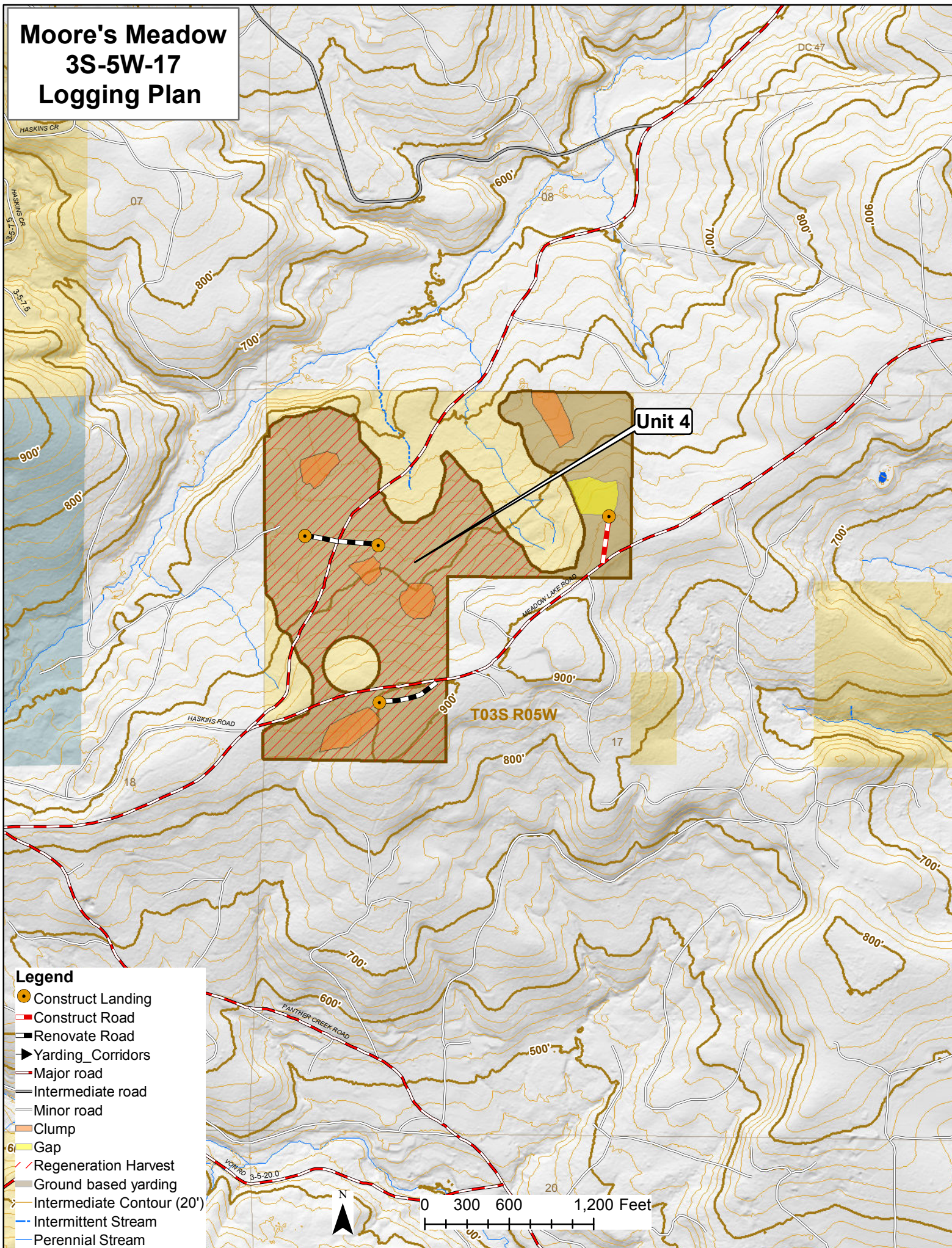
Cost item	Total Cost
Basal Girdle	\$336.00
Fell (CWD)	\$768.00
High Girdle	\$4,750.00
Saw Top	\$9,520.00
<b>Subtotal</b>	<b>\$15,374.00</b>

**Slash Disposal & Site Prep**

Cost item	Total Cost
Landing Pile Cover, Burn	\$750.00
Machine Pile Construct, Cover, Burn	\$16,200.00
<b>Subtotal</b>	<b>\$16,950.00</b>



# Moore's Meadow 3S-5W-17 Logging Plan





# Moore's Meadow 3S-6W-13, 23 and 24 Logging Plan

