WASHINGTON STATE DEPARTMENT OF Natural Resources

TIMBER NOTICE OF SALE

***SALE NAME**: YAKIMA VALLEY VDT* ***AGREEMENT NO**: 30-092545*

AUCTION: January 27, 2016 starting at 10:00 a.m., Northwest Region Office, Sedro Woolley, WA

COUNTY: Snohomish

SALE LOCATION: Sale located approximately 4 miles south of Granite Falls, WA.

PRODUCTS SOLD AND SALE AREA:

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags, the BW-ML Road and the BW-07 and BW-1301 abandoned road grades, except preexisting dead and down cedar trees and cedar logs in Unit #1 (collectively labeled 1A, 1B, 1C, and 1D).

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags and the BW-ML, BW-13 and BW-15 roads, except preexisting dead and down cedar trees and cedar logs in Unit #2 (collectively labeled 2A and 2B).

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags and the BW-15 Road, except preexisting dead and down cedar trees and cedar logs in Unit #3 (collectively labeled 3A and 3B).

All timber bounded by orange right of way tags, except that title to the timber within the right of way tags is not conveyed to the Purchaser unless the road segment is actually constructed, except all timber as described for removal in Schedule B.

The above described products on part(s) of Sections 6 and 7 all in Township 29 North, Range 7 East, Sections 1 and 12 all in Township 29 North, Range 6 East, W.M., containing 310 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BV-SFIS-US09000572)

ESTIMATED SALE VOLUMES AND QUALITY:

	Avg	Ring	Total	Total	Price	MBF by Grade								
Species	DBH	Count	MBF	Tons	$/Ton	1P	2P	3P	SM	1S	2S	3S	4S	UT
Hemlock	12	8	807	7,583	$4.40						33	566	208	
Douglas fir	13	8	756	6,239	$4.40						34	453	249	20
Red alder	9		19	140	$29.00							12	7	
Cottonwood	10		11	67	$2.00								11	
Red cedar			1	6	$113.00								1	
Sale Total			1,594	14,035										

MINIMUM BID: $4.4/ton (est. value $65,000.00)

BID METHOD: Sealed Bids

PERFORMANCE SECURITY: $13,000.00

SALE TYPE: Tonnage Scale

EXPIRATION DATE: March 31, 2019

ALLOCATION: Export Restricted

BIDDABLE SPECIES: **Hemlock, Douglas fir combined.**

TIMBER NOTICE OF SALE

BID DEPOSIT: $6,500.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable; cable or forwarder on sustained slopes 35% or less. Falling and Yarding will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator (THIS PERTAINS TO GROUND-BASED EQUIPMENT ONLY) to reduce soil damage and erosion.

Additional restrictions apply, see Remarks section below.

ROADS: 101.70 stations of required reconstruction. 89.35 stations of optional construction. 19.72 stations of optional reconstruction. 39.37 stations of existing road to be abandoned. 89.35 stations of road to be abandoned if built.

Rock may be obtained from the following source(s) on State land at no charge to the Purchaser: PK-1101 Hard Rock Pit at station 7+60 of the PK-11 Road. FG-01 Gravel Pit at station 6+16 of the FG-ML Road. BW-1503 Gravel Pit at station 1+53 of the BW-1503 Road.

Development of existing rock source(s) will involve clearing, stripping, drilling, shooting, and processing rock to generate riprap, pit run rock, and 3-inch-minus ballast.

An estimated total quantity of rock needed for this proposal: 189 cubic yards of riprap and 7,886 cubic yards of ballast and pit run rock.

In addition, the Purchaser may use up to 374 cubic yards of 3-inch-minus ballast rock in the PK-1101 Hard Rock Pit at station 7+60 of the PK-11 Road.

Additional restrictions apply, see Remarks section below.

Road construction, road reconstruction, road abandonment, and the hauling of rock will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation. The hauling of forest products will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation.

ACREAGE DETERMINATION

CRUISE METHOD: Acres determined by GPS traverse. 321.0 acres gross. 10.5 acres deducted for existing roads and 0.4 acres deducted for an exclusion area. 310.1 acres net. Cruised using variable plot method. Expansion factor used is 20.00 and 40.00. Sighting height is 4.5 feet. A total of 130 plots were taken.

Shapefiles of units are available upon request.

FEES: $28,275.75 is due on day of sale. $1.02 per ton is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: 1. This sale was laid out with the intention of being harvested by ground-based method.

2. On forest roads, pioneering shall not extend past construction that shall be completed by October 15. If constructing between October 15 and May 1, pioneered road may not extend more than 500 feet beyond completed road.

3. Falling and yarding with ground based equipment is not permitted from October 1 to April 30.

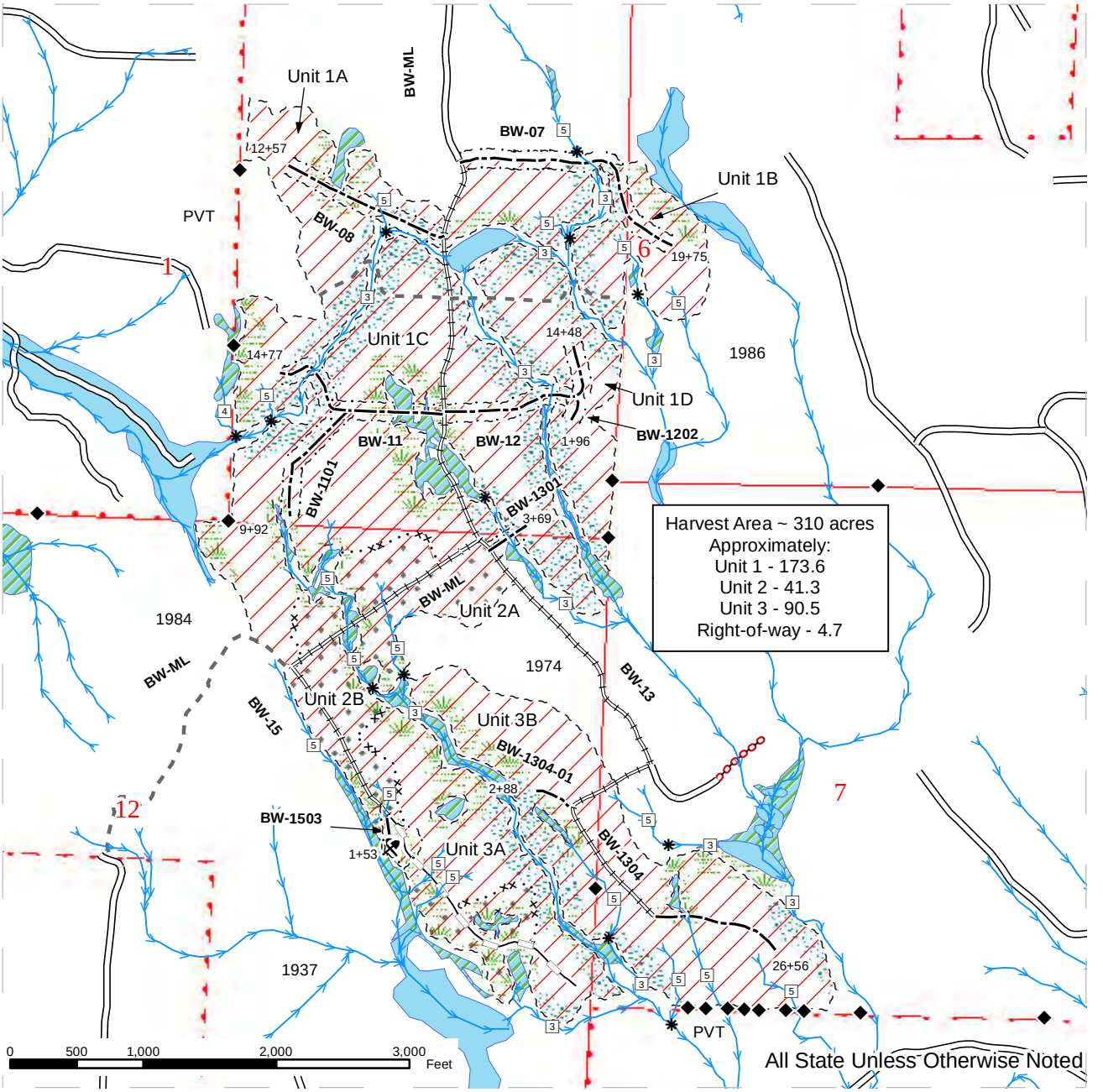
4. Cutting and yarding in the sale area shall not be permitted during the bark slippage season unless authorized in writing by the Contract Administrator. This season is estimated to run from April 1 to July 15 but may vary depending on weather conditions. If permission is granted to operate during the bark slippage season the purchaser shall be required to provide a plan outlining mitigation measure.

5. If cable yarding, intermediate supports may be necessary.

TIMBER SALE MAP

SALE NAME: YAKIMA VALLEY VDT
AGREEMENT#: 92545
TOWNSHIP(S): T29R06E, T29R07E
TRUST(S): Community College Forest Reserve(12)

REGION: Northwest Region
COUNTY(S): SNOHOMISH
ELEVATION RGE: 520-757



Sale Area
Unit 2
Wetland Mgt Zone
Riparian Mgt Zone
Sale Boundary Tags
Special Mgt Area Tags
Right of Way Tags
Existing Road
Abandoned Grade
Optional Construction
Required Abandonment
Required Reconstruction
Optional Reconstruction
Open Water
Wetlands
Streams
Stream Type
Stream Type Break
Survey Corners
Existing Rock Pit

N

Prepared By: dtri490

Creation Date: 4/24/2015

Modification Date/By: 11/10/2015 tkle490

DRIVING MAP

SALE NAME: YAKIMA VALLEY VDT
AGREEMENT#: 92545
TOWNSHIP(S): T29R06E, T29R07E
TRUST(S): Community College Forest Reserve(12)

REGION: Northwest Region
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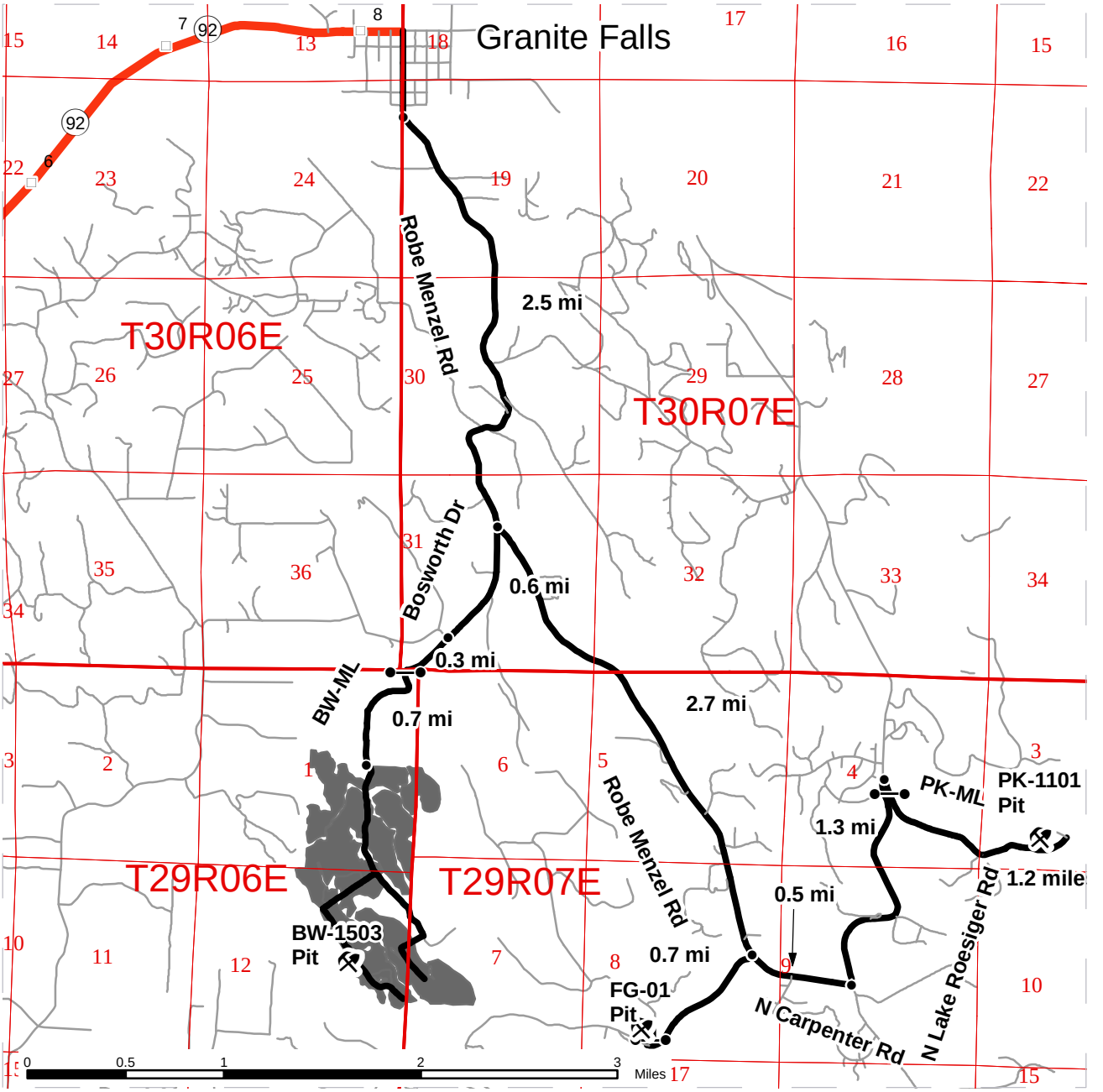


- Timber Sale Unit
- Highways
- Other Route
- Haul Route
- Milepost Markers
- Gate
- Distance Indicator
- Existing Rock Pit

DRIVING DIRECTIONS:

The timber sale is located approximately 4 miles south of Granite Falls.

From Granite Falls travel south on Robe Menzel Road for 2.5 miles. Veer right onto Bosworth Drive and travel 0.6 miles. Continue straight onto the unpaved Bosworth Drive and travel for 0.3 miles. Pass through the DNR gate (F1 key needed) and continue for 0.7 miles to reach the timber sale.

N

Prepared By: dtri490

Creation Date: 4/16/2015

Modification Date: 11/10/2015
tkle490

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Tonnage Scale AGREEMENT NO. 30-092545

SALE NAME: YAKIMA VALLEY VDT

THE STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES, HEREINAFTER ACTING SOLELY, IN ITS PROPRIETARY CAPACITY, STATE, AND PURCHASER, AGREE AS FOLLOWS:

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

Bill of Sale and Contract for Forest Products: Contract between the Purchaser and the State, which sets forth the procedures and obligations of the Purchaser in exchange for the right to remove forest products from the sale area. The Bill of Sale and Contract for Forest Products may include a Road Plan for any road construction or reconstruction, where applicable.

Contract Administrator: Region Manager's designee responsible for assuring that the contractual obligations of the Purchaser are met.

Forest Product: Any material derived from the forest for commercial use.

Purchaser: The company or individual that has entered a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.

Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

State: The Washington State Department of Natural Resources, landowner and seller of Forest Products from the timber sale area. The State is represented by the Region Manager as designated on the contract signature page. Contractual obligations to the State are enforced by the Region Manager or the designated Contract Administrator.

Subcontractor: Individual or company employed by the Purchaser to perform a portion or all of the services required by The Bill of Sale and Contract for Forest Products. The Purchaser is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

G-010 Products Sold and Sale Area

Purchaser was the successful bidder on January 27, 2016 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags, the BW-ML Road and the BW-07 and BW-1301 abandoned road grades, except preexisting dead and down cedar trees and cedar logs in Unit #1 (collectively labeled 1A, 1B, 1C, and 1D).

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags and the BW-ML, BW-13 and BW-15 roads, except preexisting dead and down cedar trees and cedar logs in Unit #2 (collectively labeled 2A and 2B).

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, blue special management tags and the BW-15 Road, except preexisting dead and down cedar trees and cedar logs in Unit #3 (collectively labeled 3A and 3B).

All timber bounded by orange right of way tags, except that title to the timber within the right of way tags is not conveyed to the Purchaser unless the road segment is actually constructed, except all timber as described for removal in Schedule B.

The above described products, located on approximately 310 acres on part(s) of Sections 6, and 7 all in Township 29 North, Range 7 East, Sections 1, and 12 all in Township 29 North, Range 6 East W.M. in Snohomish County(s) as shown on the attached timber sale map and as designated on the sale area.

All forest products described above from the bole of the tree that meet or exceed 2 inches diameter inside bark on the small end are eligible for removal. Above ground components of a tree that remain as by-products after the manufacture of logs, including but not limited to tree tops, branches, limbs, needles, leaves, stumps, are not eligible for removal under the terms of this contract.

Forest products purchased under a contract that is designated as export restricted shall not be exported until processed. Forest products purchased under a contract that is designated as exportable may be exported prior to processing.

G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
A	NW Ground-Based Equip Specifications (Rev11/05/14)
B	Thinning Prescription

G-030 Contract Term

Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to March 31, 2019.

G-040 Contract Term Adjustment - No Payment

Purchaser may request an adjustment in the contract term. A claim must be submitted in writing and received by the State within 30 days after the start of interruption or delay. The claim must also indicate the actual or anticipated length of interruption or delay. The State may grant an adjustment without charge only if the cause for contract term adjustment is beyond Purchaser's control. The cause must be one of the following and the adjustment may be granted only if operations or planned operations under this contract are actually interrupted or delayed:

a. Road and bridge failures which deny access.

b. Access road closures imposed by road owner.

c. Excessive suspensions as provided in clause G-220.

d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

G-050 Contract Term Extension - Payment

Extensions of this contract term may be granted only if, in the judgment of the State, Purchaser is acting in good faith and is endeavoring to remove the forest products

conveyed. The term of this contract may be extended for a reasonable time by the State if all of the following conditions are satisfied:

a. A written request for extension of the contract term must be received prior to the expiration date of the contract.

b. Completion of all required roads and compliance with all contract and regulatory requirements.

c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the contract value based on the contract payment rate and advertised volume.

   For the second extension, not to exceed 1 year, payment of at least 90 percent of the contract value based on the contract payment rate base and advertised volume.

   The payments shall not include the initial deposit which shall be held according to the provisions of RCW 79.15.100.

d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the timber value of the contract.

   To determine the unpaid portion of the contract, multiply the contract payment rate for each item by the remaining volume for each item based on the volumes from the Timber Notice of Sale. In addition, all cash deposits that can be used for timber payments, except the initial deposit, will be deducted from the unpaid portion of the contract.

e. Payment of $3.00 per acre per annum for the acres on which an operating release has not been issued in the sale area.

f. In no event will the extension charge be less than $200.00.

g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

Whenever the State determines that a survey for sensitive, threatened, or endangered species is prudent, or when Purchaser determines a survey is prudent and the State agrees, Purchaser shall perform such surveys at Purchaser's expense and to the standards required by the State. The survey information shall be supplied to the State.

G-060 Exclusion of Warranties

The PARTIES AGREE that the IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and ALL OTHER WARRANTIES EXPRESSED OR IMPLIED ARE EXCLUDED from this transaction and shall not apply to the goods sold. For example, THE FOLLOWING SPECIFIC MATTERS ARE NOT WARRANTED, and are EXCLUDED from this transaction:

a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.

b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."

c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.

d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.

e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.

f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.

g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.

h. Items contained in any other documents prepared for or by the State.

G-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State's HCP area and are subject to the terms and conditions of the HCP, and the Services' Incidental Take Permit Nos. 812521 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP

conditions. All HCP materials, including the ITP, are available for review at the State's Regional Offices and the administrative headquarters in Olympia, Washington.

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to authorize the lawful activities of the Purchaser carried out pursuant to this contract, PROVIDED the Purchaser remains in compliance with the terms and conditions of both the HCP and ITP. The requirements set forth in this contract are intended to comply with the terms and conditions of the HCP and ITP. Accordingly, non-compliance with the terms and conditions of the HCP and ITP will render the authorization provided in this paragraph void, be deemed a breach of the contract and may subject Purchaser to liability for violation of the Endangered Species Act.

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.

G-063 Incidental Take Permit Notification Requirements

a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.

b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.

c. Purchaser shall refer to a specific ITP number, PRT-812521 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.

d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

G-065 Regulatory Disclaimer

The State disclaims any responsibility for, or liability relating to, regulatory actions by any government agency, including actions pursuant to the Forest Practices Act, Ch. 76.09 RCW that may affect the operability of the timber sale.

G-066 Governmental Regulatory Actions

a. Risk

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract, Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

b. Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed the expiration date of this contract, and Purchaser has complied with this contract, the following shall apply:

i. RCW 79.15.140 shall govern all adjustments to the contract area.

c. Adjustment of Price

The State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall cause the timber sale area subject to governmental regulation or order to be measured. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage. However, variations in

species, value, costs, or other items pertaining to the affected sale area will be analyzed and included in the adjustment if deemed appropriate by the State. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser constructed but was unable to fully use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser. The State shall not be liable for any damages, whether direct, incidental or consequential.

G-080 Scope of State Advice

No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method, manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

G-090 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-100 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-105 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease damage may be added to this sale by the Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-110 Title and Risk of Loss

Title to the forest products conveyed passes at confirmation of the sale. Purchaser bears the risk of loss of or damage to and has an insurable interest in the forest products in this contract from the time of confirmation of the sale of forest products. In the event of loss of or damage to the forest products after passage of title, whether the cause is foreseeable or unforeseeable, the forest products shall be paid for by Purchaser. Breach of this contract shall have no effect on this provision. Title to the forest products not removed from the sale area within the period specified in this contract shall revert to the State as provided in RCW 79.15.100.

G-116 Sustainable Forestry Initiative® (SFI) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative program Standard under certificate number: BV-SFIS-US09000572.

Purchaser shall have at least one person regularly on-site during active operations that have completed training according to the requirements outlined within the SFI® program Standard. Purchaser shall designate in writing the name(s) of the individual(s) who will be on-site and provide proof of their successful completion of an approved training program prior to active operations.

G-120 Responsibility for Work

All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser. Any damage to improvements, except as provided in clause G-121 or unless the State issues an operating release pursuant to clause G-280, shall be repaired promptly to the satisfaction of the State and at Purchaser's expense.

G-121 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where road damage occurs due to Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

Road is defined as the road bed, including but not limited to its component parts, such as subgrade, ditches, culverts, bridges, and cattle guards.

For the purposes of this clause, damage will be identified by the State and is defined as:

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;

2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and

3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

The repair work identified by the State shall be promptly completed by Purchaser at an agreed price. The State may elect to accomplish repairs by means of State-provided resources. The State will bear the cost to repair damages caused by a third party. In all other cases, the Purchaser shall bear responsibility for the costs as described below.

For each event, Purchaser shall be solely responsible for the initial $5,000 in repairs. For repairs in excess of $5,000, the parties shall share equally the portion of costs between $5,000 and $15,000. The State shall be solely responsible for the portion of the cost of repairs that exceed $15,000.

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchasers expense regardless of cost, to remedy deficiencies at any time.

G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance

Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance

policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract. Insurance coverage shall be obtained by the Purchaser prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased as deemed necessary by State of Washington, Department of Natural Resources, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than $1,000,000.00 per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit. CGL coverage shall include a Logging and Lumbering Endorsement (i.e. Logger's Broad-Form) to cover the events that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than $2,000,000.00 each occurrence.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than $1,000,000.00 each accident for bodily injury by accident or $1,000,000.00 each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers' compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than $1,000,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or

expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Sedro Woolley, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

G-170 Assignment and Delegation

No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as Purchaser.

G-180 Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

G-190 Contract Complete

This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

G-200 Notice

Notices required to be given under the following clauses shall be in writing and shall be delivered to Purchaser's authorized agent or sent by certified mail to Purchaser's post office address:

G-210 Violation of Contract
G-220 State Suspends Operations

All other notices required to be given under this contract shall be in writing and delivered to the authorized agent or mailed to the Party's post office address. Purchaser agrees to notify the State of any change of address.

G-210 Violation of Contract

a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.

b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.

c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.

d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operation

The Contract Administrator may suspend any operation of Purchaser under this contract when the State is suffering, or there is a reasonable expectation the State will suffer environmental, monetary, or other damage if the operation is allowed to continue.

Purchaser shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes without prior approval and notice from the Contract Administrator.

Purchaser may request a modification of a suspension within 30 days of the start of suspension through the dispute resolution process in clause G-240. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

G-230 Unauthorized Activity

Any cutting, removal, or damage of forest products by Purchaser, its employees, agents, or invitees, including independent contractors, in a manner inconsistent with the terms of this contract or State law, is unauthorized. Such activity may subject Purchaser to liability for triple the value of said forest products under RCW 79.02.320 or RCW 79.02.300 and may result in prosecution under RCW 79.02.330 or other applicable statutes.

G-240 Dispute Resolution

The following procedures apply in the event of a dispute regarding interpretation or administration of this contract and the parties agree that these procedures must be followed before a lawsuit can be initiated.

a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.

b. The Region Manager will issue a written decision on Purchaser's request within ten business days.

c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.

d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor - Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws

Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to; chapter 27.53 RCW, chapter 68.50 RCW, WAC 240-15 and WAC 296-54. Failure to comply may result in forfeiture of this contract.

G-260 Venue

This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.

G-270 Equipment Left on State Land

All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any

damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.

G-280 Operating Release

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; DATA MISSING. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

Purchaser shall arrange with the Contract Administrator to review this contract and to examine the sale area before beginning any operations. A plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations. To the extent that the plan of operations is inconsistent with the contract, the terms of the contract shall prevail. State's acceptance and approval of Purchaser's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

G-340 Preservation of Markers

Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, the Purchaser shall, at the Purchaser’s own expense, re-establish them through a licensed land surveyor in accordance with U.S. General Land Office standards. Corners and/or witness objects that must be disturbed or destroyed in the process of road construction or logging shall be adequately referenced and/or replaced in accordance with RCW 58.24.040(8). Such references must be approved by the Contract Administrator prior to removal of said corners and/or witness objects.

G-360 Road Use Reservation

The State shall have the right to use, without charge, all existing roads and any road constructed or reconstructed on State lands by Purchaser under this contract. The State may extend such rights to others. If the State grants such rights to others, the State shall require performance or payment, as directed by the State, for their proportionate share of maintenance based on their use.

G-430 Open Fires

Purchaser shall not set, or allow to be set by Purchaser's employees, agents, invitees and independent contractors, any open fire at any time of the year without first obtaining permission, in writing, from the Contract Administrator.

G-450 Encumbrances

This contract and Purchaser's activities are subject to the following:

DATA MISSING

Section P: Payments and Securities

P-010 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in the 'Payment for Forest Products' clause, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-024 Payment for Forest Products

Purchaser agrees to pay the following rate per ton for forest products conveyed plus $28,275.75 on day of sale and $1.02 per ton upon removal in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

DATA MISSING

Species that are conveyed but are not listed in the table above shall be paid for at a rate to be determined by the State.

P-027 Payment for Removal of Optional Forest Products

Purchaser agrees to pay the rate of $2.00 per ton for forest products approved for removal from the sale area under clause H-157.

P-040 Weighing and Scaling Costs

Purchaser agrees to pay for all scaling and weighing costs for logs and other products sold under this contract. Purchaser also agrees to pay for all costs associated with the transmission and reporting of scale or weight data.

P-045 Guarantee of Payment

Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

P-052 Payment Procedure

If a third party Log and Load Reporting Service (LLRS) is required by this contract the State will compute and forward to the Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the Northwest region office on or before the date shown on the billing statement.

If a third party LLRS is not required by this contract, Purchaser shall pay for forest products removed on a monthly basis. Payments will be submitted to the Northwest region office on or before the fourteenth of the month following the month in which the timber was removed or, according to an alternate payment schedule as approved by the State with at least one payment each month for timber removed. The alternate payment schedule, once approved by the State, shall become part of this contract and may be changed only with written approval of the State.

Payment will be based on the contract rate multiplied by the tons (tonnage contracts) or volume (mbf contracts) removed during the month or payment period. Included with the payment will be a summary report along with all related load tickets and the corresponding certified weight tickets for the payment period. The summary report will be generated using a computer spreadsheet and list the load tickets in ascending numerical order with the corresponding ticket number and weight or volume for each load.

P-070 Payment for Products: Damage, Theft, Loss or Mismanufacture

Forest products included in this agreement which are destroyed, damaged, stolen, lost, or mismanufactured shall be paid for by Purchaser on demand of the State. The rates contained in clause P-024 shall apply.

P-080 Payment Account Refund

Advance payments made under P-045 or P-045.2 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of $13,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

The State may reduce the performance security after an operating release has been issued if the State determines that adequate security exists for any remaining obligations of Purchaser.

Section L: Log Definitions and Accountability

L-060 Load Tickets

Purchaser shall complete and use load tickets as directed by the Contract Administrator and, if required, use other identification as directed by the State to ensure accounting of forest products removed from the sale area. A load ticket must be fixed, as designated by the Contract Administrator, to each truck and trailer load prior to leaving the landing.

Purchaser shall account for all load tickets issued by the Contract Administrator. The State may treat load tickets not accounted for as lost forest products. All costs associated with computing the billings for lost loads shall be borne by Purchaser.

L-071 Log and Load Reporting Service

This contract requires the use of a State approved third party Log and Load Reporting Service (LLRS). Purchaser shall ensure log volume measurement data and/or load and weight data is received by the LLRS within 24 hours of logs being measured or weighed. Purchaser agrees to pay the LLRS for log and load data supplied to the State.

If during the term of this contract, the State discontinues use of the LLRS, the State will notify the Purchaser in writing and the Purchaser will then be responsible to send log scale and/or weight information to the State.

L-110 State Approval of Log Scaling and Weighing Locations

Forest Product measurement and weighing facilities required by this contract must be approved by the State. Forest products sold under the contract which require log scaling shall be scaled, measured, or counted by a State approved third party log scaling organization. Forest products sold under the contract which require weighing shall be weighed at a location that meets Washington State Department of Agriculture approval.

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or en-route to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

Section H: Harvesting Operations

H-010 Cutting and Yarding Schedule

Falling and Yarding will not be permitted from October 1 to April 30 BY GROUND-BASED EQUIPMENT unless authorized in writing by the Contract Administrator.

H-011 Certification of Fallers and Yarder Operators

All persons engaged in the felling and yarding of timber must receive certification in writing from the Contract Administrator. Certification may be revoked when the Contract Administrator determines that non-compliance of leave tree selection criteria or cut tree selection criteria is occurring, or excessive damage to leave trees or skid trails is occurring.

Excessive damage for leave trees is defined in clause H-012.

Excessive skid trail damage is defined in clause H-015 or H-016.

When leave tree damage exceeds the limits set forth in clause H-012, Purchaser shall be subject to liquidated damages (clause D-040 or D-041).

H-012 Leave Tree Damage Definition

Leave trees are trees required for retention within the sale boundary. Purchaser shall protect leave trees from being cut, damaged, or removed during operations.

Leave tree damage exists when more than 5 percent of the leave trees are damaged in a unit and when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:

a. A leave tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 20 square inches.

b. A leave tree top is broken or the live crown ratio is reduced below 30 percent.

c. A leave tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a leave tree has been cut or damaged, the Purchaser may be required to pay liquidated damages for Excessive Leave Tree Damage as detailed in clause D-040.

H-016 Skid Trail Requirements

A skid trail is defined as an area that is used for more than three passes by any equipment.

Purchaser shall comply with the following during the yarding operation:

a. A skid trail will not exceed 12 feet in width, including rub trees.

b. Skid trails shall not cover more than 15 percent of the total acreage on one unit.

c. Location of the skid trails must be marked by Purchaser and approved by the Contract Administrator.

d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.

e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.

f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.

g. Purchaser will not have more than two skid trails open to active skidding at any one time. All other skid trails used for skidding timber will be closed.

h. Once a skid trail is closed, Purchaser will not reopen a skid trail unless approved in writing by the Contract Administrator.

i. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from the Contract Administrator.

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 4 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-030 Timber Falling

Trees shall be felled and logs shall be bucked to obtain the greatest practicable utilization of forest products and other valuable materials conveyed.

H-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for the sale area. The plan shall address the falling, yarding and hauling of forest products,, which are part(s) of this contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval by the Contract Administrator.

H-052 Branding and Painting

Forest products shall be branded with a brand furnished by the State prior to removal from the landing. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

For pulp loads purchased under a contract designated as export restricted, Purchaser shall brand at least 3 logs with legible brands at one end. Also, 10 logs shall be painted at one end with durable red paint.

H-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

H-120 Harvesting Equipment

Forest products sold under this contract shall be felled by chainsaw or feller-buncher/harvester and yarded by cable; felled by chainsaw or feller-buncher/harvester and yarded by cable or forwarder on sustained slopes 35% or less, unless authority to use other equipment is granted in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-130 Hauling Schedule

The hauling of forest products will not be permitted on any road from November 1 to March 31 unless authorized in writing by the Contract Administrator .

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. An on-site pre-work meeting shall be scheduled with the Contract Administrator, which shall include the operator and fallers, prior to commencement of any activities on site.

B. A copy of the timber sale map and contract shall be present on site during active operations.

C. Avoid cable yarding in, across, adjacent, or parallel to stream channels where possible. When it is necessary to yard across stream channels, crossings shall be as close to perpendicular as possible and shall be marked by the Purchaser and approved in writing by the Contract Administrator prior to felling. Channel integrity shall be protected by using temporary crossing structures, when harvesting.

D. Location of the yarding corridors must be marked by Purchaser and approved in writing by the Contract Administrator prior to use.

E. Trees must be felled away from stream channels, RMZ/WMZ areas, and any standing water or wet swales when feasible.

F. Ground-based equipment shall not operate in areas where there is potential for ruts to form (wet/soft soils).

G. Ground-based equipment shall operate on mats of slash to avoid rutting, especially in yarding corridors.

H. No tops or limbs shall be allowed to accumulate on any landings. Tops and limbs shall be redistributed in the unit to the satisfaction of the Contact Administrator.

I. Purchaser shall not have more than two ground-based yarding corridors open to active yarding at any one time. All other ground-based yarding corridors used for yarding timber shall not be active.

J. Intermediate support and lift trees located in the harvest units must be marked by Purchaser and approved by the Contract Administrator before felling operations begins.

K. "Caution, active logging operations" signs must be provided and posted at the Purchaser's expense prior to falling and yarding activities, as directed by the Contract Administrator.

L. Cutting and yarding shall not be permitted during the bark slippage season unless authorized in writing by the Contract Administrator. This season is estimated to run from April 1 to July 15, but may vary depending on weather conditions. If permission is granted to operate during the bark slippage season the purchaser shall be required to provide a plan outlining mitigation measures.

Permission to do otherwise must be granted in writing by the Contract Administrator.

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. On forest roads, pioneering shall not extend past construction that shall be completed by October 15. If constructing between October 15 and May 1, pioneered road may not extend more than 500 feet beyond completed road.

B. When harvesting, avoid exposing mineral soil within 50 feet of any type 3, 4, or 5 stream or wetland.

C. Avoid construction, earth work and grubbing of skid trails.

D. Falling patterns shall facilitate yarding away from draws and streams.

E. Falling and yarding with ground-based equipment is not permitted from October 1 to April 30.

Permission to do otherwise must be granted in writing by the State.

H-150 Required Removal of Forest Products

Purchaser shall remove from the sale area and present for scaling or weighing all forest products conveyed in the G-010 clause that meet the following minimum dimensions:

Species	Net bd ft	Log length (ft)	Log dib
All species	10	12	5

The State may treat failure to remove forest products left on the sale area that meet the above specifications as a breach of this contract. At the State's option, forest products that meet the above specifications and are left on the sale area may be scaled for volume or measured and converted to weight by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling, measuring and computing the billing will be borne by the Purchaser.

H-157 Optional Removal of Forest Products Not Designated

If in the course of operations, Purchaser decides to remove forest products that are below the minimum designated removal specifications per the 'Required Removal of Forest Products' (H-150), the payment rates in clause P-027 shall apply.

Forest products designated as optional shall be decked separately from forest products designated as required for removal. Prior to removal from the sale area, optional forest products as described in this clause must be inspected and approved by the Contract Administrator. Optional forest products may not be mixed with forest products that are required for removal by this contract and shall be removed from the sale area in separate truck loads using load tickets specified by the Contract Administrator.

All material removed under this clause is subject to the same log and load accountability rules as defined in the Log Definitions and Accountability section of this contract. Purchaser shall follow the payment procedures as required in the P-052 clause and will submit a separate summary report for all forest products removed from the sale area under the authority of this clause.

H-160 Mismanufacture

Mismanufacture is defined as forest products remaining on the sale area that would have met the specifications in clause H-150 if bucking lengths had been varied to include such products.

The State may treat mismanufacture as a breach of this contract. At the State's option, forest products that are left on the sale area may be scaled for volume by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling and computing the billing will be borne by Purchaser.

H-180 Removal of Specialized Forest Products or Firewood

Prior to the removal of conveyed specialized forest products or firewood from the sale area, Purchaser and the State shall agree in writing to the method of accounting for/and removal of such products.

H-190 Completion of Settings

Operations begun on any setting of the sale area shall be completed before any operation begins on subsequent settings unless authorized in writing by the Contract Administrator.

H-220 Protection of Residual or Adjacent Trees

Unless otherwise specified by this contract, the Contract Administrator shall identify damaged adjacent or leave trees that shall be paid for according to clause G-230.

H-230 Tops and Limbs Outside the Sale Boundary

Tops and limbs outside the sale boundary as a result of Purchaser's operation shall be removed concurrently with the yarding operation unless otherwise directed by the Contract Administrator.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 4/21/2015 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on Bosworth Drive, Lake Bosworth Mainline (BW-ML), BW-07, BW-08, BW-11, BW-1101, BW-12, BW-1202, BW-13, BW-1301, BW-1304, BW-1304-01, BW-15, BW-1503, Forest Glade Mainline (FG-ML), Pilchuck Mainline (PK-ML), and PK-11 roads. All work shall be completed to the specifications detailed in the Road Plan.

C-080 Landing Locations Approved Prior to Construction

Landings shall be marked by Purchaser and approved by the Contract Administrator prior to construction.

C-130 Dust Abatement

Purchaser shall abate dust on the Bosworth Drive while hauling.

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity on or in the vicinity of the sale area. The Contract Administrator and the State shall be promptly notified whenever an incident occurs requiring an emergency response.

The ERP must be presented for inspection at the prework meeting and kept readily available to all personnel, including subcontractors, on site during active operations

S-010 Fire Hazardous Conditions

Purchaser acknowledges that operations under this Contract may increase the risk of fire. Purchaser shall conduct all operations under this agreement following the requirements of WAC 332-24-005 and WAC 332-24-405 and further agrees to use the highest degree of care to prevent uncontrolled fires from starting.

In the event of an uncontrolled fire, Purchaser agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity.

Purchaser’s failure to effectively engage in fire-safe operations is considered a breach and may result in suspension of operations

S-020 Extreme Hazard Abatement

Purchaser shall provide a written Extreme Hazard Abatement plan that meets the requirements of WAC 332-24 prior to the beginning of logging operations. The plan must be acceptable to the Contract Administrator. The plan will identify how Purchaser will accomplish abatement. Purchaser shall also provide, and keep current, a written timetable for completion of all specified work in the plan. The Contract Administrator's acceptance and approval of Purchaser's hazard abatement plan shall not be construed as any statement or warranty that the hazard abatement plan is adequate for Purchaser's purposes or complies with applicable laws.

S-030 Landing Debris Clean Up

Landing debris shall be disposed of in a manner approved in writing by the Contract Administrator.

S-050 Cessation of Operations for Low Humidity

During the "closed season", when the humidity is 30 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.

S-060 Pump Truck or Pump Trailer

Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed

season" or as extended by the State and shall provide trained personnel to operate this equipment on the sale area during all operating periods.

S-100 Stream Cleanout

Slash or debris which enters any stream as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

S-120 Stream Protection

No timber shall be felled into, across, or yarded through type 3 stream.

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup and waste disposal. Purchaser shall be responsible for restoring the site in the event of a spill.

b. Hazardous Materials Spill Prevention

All operations shall be conducted in a manner that avoids the release of hazardous materials, including petroleum products, into the environment (water, air or land).

c. Hazardous Materials Spill Containment, Control and Cleanup

If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick response spill kits capable of absorbing 4 to 6 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain & recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).

d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available

and a means of remote communication for purposes of quick notification. In the event of a spill, the Purchaser is responsible for notifying the following:

Appropriate Department of Ecology regional office (contact information below).
DNR Contract Administrator

ECY - Northwest Region:
1-425-649-7000
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

ECY - Southwest Region:
1-360-407-6300
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

ECY - Central Region:
1-509-575-2490
(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties)

ECY - Eastern Region:
1-509-329-3400
(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

S-131 Refuse Disposal

As required by RCW 70.93, All Purchaser generated refuse shall be removed from state lands for proper disposal prior to termination of this contract. No refuse shall be burned, buried or abandoned on state forest lands. All refuse shall be transported in a manner such that it is in compliance with RCW 70.93 and all loads or loose materials shall be covered/secured such that these waste materials are properly contained during transport.

S-140 Fence Repair

Purchaser shall immediately repair all fence damage resulting from operations on this sale to an equal or better condition than existed at the time of sale.

Section D: Damages

D-010 Liquidated Damages

The clauses in the DAMAGES section of this contract provide for payments by Purchaser to the State for certain breaches of the terms of this contract. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State caused by Purchaser's breach. These liquidated damages provisions are agreed to by the State and Purchaser with the understanding of the difficulty of proving loss and the inconvenience or infeasibility of

obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

D-021 Failure to Remove Forest Products

Purchaser's failure to remove all or part of the forest products sold in this agreement prior to the expiration of the contract term results in substantial injury to the State. The value of the forest products sold at the time of breach is not readily ascertainable. Purchaser's failure to perform disrupts the State's management plans, the actual cost of which is difficult to assess. A resale involves additional time and expense and is not an adequate remedy. Therefore, Purchaser agrees to pay the State as liquidated damages a sum calculated using the following formula:

LD = .35V-ID-P+C+A

Where:

LD = Liquidated Damage value.

V = The unremoved value at the date of breach of contract. The value is determined by subtracting the removal tonnage to date from the cruised tonnage multiplied by the contract bid rates.

ID = Initial Deposit paid at date of contract that has not been applied to timber payments.

P = Advance payments received but not yet applied to specific contract requirements.

C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.

A = Administrative Fee = $2,500.00.

The above formula reflects the Purchaser's forfeiture of the initial deposit in accordance with clause P-010 by deducting the initial deposit from the amount owed. In no event shall the liquidated damages be less than zero. Interest on the liquidated damage is owed from the date of breach until final payment, calculated using the following formula: Interest = r x LD x N.

Where:

r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.

LD = Liquidated damage value.

N = Number of days from date of breach to date payment is received.

D-030 Inadequate Log Accountability

Removal of forest products from the sale area without adequate branding and/or valid load tickets attached to the load and scaling forest products in a location other than the facility approved by the State can result in substantial injury to the State. Failure to properly account for loads and scaling and/or weighing information can result in loss to the State. The potential loss from not having proper branding, ticketing, scaling and/or weighing location and accountability is not readily ascertainable. Purchaser's failure to perform results in a loss of log weight and scale accountability, increases the potential for unauthorized removal of forest products, and increases the State's administration costs, the actual costs of which are difficult to assess.

Enforcement actions for unauthorized removal of forest products for each improperly branded load, improperly ticketed load, lost or unaccounted for tickets, or use of a facility not authorized for this sale or improper submission of scaling data are impractical, expensive, time consuming and are not an adequate remedy. Therefore, Purchaser agrees to pay the State, as liquidated damages, a sum of $100 each time a load of logs does not have branding as required in the contract, $250 each time a load of logs does not have a load ticket as required by the contract, $250 each time a load ticket has not been filled out as required by the plan of operations, $250 each time a load is weighed or scaled at a location not approved as required under this contract, $250 each time a log ticket summary report is not submitted properly, and if a third party Log and Load Reporting Service is required, $250 each time scaling or weight data is not properly submitted to the Log and Load Reporting Service within 24 hours of log removal, and $250 each time a ticket is either lost or otherwise unaccounted for.

D-040 Leave Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-012, Leave Tree Damage Definition, the trees damaged result in substantial injury to the State. The value of the damaged leave trees at the time of the breach is not readily ascertainable. Therefore, Purchaser agrees to pay the State as liquidated damages at the rate of $50.00 per tree for all damaged trees in the sale area.

IN WITNESS WHEREOF, the Parties hereto have entered into this contract.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

_____	_____
Purchaser	Jean Fike Northwest Region Manager
Date: _____	Date: _____
Address:	

CORPORATE ACKNOWLEDGEMENT

STATE OF _____)
)
COUNTY OF _____)

On this _____ day of _____, 20___, before me personally appeared _____
_____ to me known to be the _____ of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
Notary Public in and for the State of

_____

My appointment expires _____

Schedule A
NW Ground-Based Equip Specifications (Rev11/05/14)

The following types of equipment are considered ground-based equipment: feller-buncher, processor, forwarder, skidder and shovel.

SHOVEL is defined as a low ground pressure track-mounted machine with hydraulic boom and grapple capable of picking up one end of the largest log 25 feet from the center of the machine.

LOG PROCESSOR/DE-LIMBER is defined as a mobile machine with a hydraulic boom capable of simultaneously bucking, delimbing and/or debarking and chipping whole trees while sitting stationary at the landing.

FELLER-BUNCHER/HARVESTER is defined as a track mounted machine with hydraulic boom and cutter head capable of felling, bucking, limbing, and decking logs in one operation.

FORWARDER is defined as a track or rubber tire machine used for transporting logs to a landing by use of a bunk with self loading boom in which logs are carried free of the ground.

RUBBER-TIRED SKIDDER is defined as a skidder mounted on rubber tires used to drag logs to a landing. Logs are generally pulled in groups of six or less, with one end on the ground.

TRACKED SKIDDER is defined as any tracked tractor or skidder, fixed or articulated, used to drag logs to landings. Logs are generally pulled in groups of six or less, with one end on the ground.

Harvester shall not deviate from the requirements set forth in this Schedule without prior written approval from the Contract Administrator.

FOR ALL YARDING:

Equipment will remain at least 30 feet from all water courses or areas of wet/soft soils, except as necessary to cross at approved locations. Water course crossing structures must be approved by a HPA or by the Contract Administrator.

Logging debris created by the operation will be removed from water courses concurrently with yarding.

WHEN SHOVEL YARDING IS AUTHORIZED:

S1. When yarding and loading operations are occurring simultaneously, an additional shovel will be required for loading to avoid extra trips to the landing.

S2. Shovel yarding will not be allowed to create ruts or soil puddling. Shovel routes should be dispersed to prevent creation of definable trails.

S3. Within shovel logged areas, to facilitate proper reforestation, logging debris will be dispersed as necessary to create clear, plantable spots at approximately a 11 foot x 11 foot spacing. Planting spots will be created concurrently with yarding.

LOG PROCESSORS will be allowed within the sale area only under one of the following conditions:

1. No tops or limbs will be allowed to accumulate on any landings, and all tops and limbs will be re-distributed into the unit, to the satisfaction of the Contract Administrator, and will provide for plantable spots every 11 feet by 11 feet.

2. Harvester must provide a written slash treatment plan, acceptable to the Contract Administrator, to address the additional slash accumulation. The Slash Treatment Plan will be a part of the Plan of Operations.

Schedule B
Thinning Prescription

Unit 1:
Thin from below and leave the best 120 trees (approximately 19 x 19 foot spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 140-150 square feet per acre. They shall be selected by comparing their characteristics with other trees in the stand.

Unit 2:
Thin from below and leave the best 120 trees (approximately 19 x 19 foot spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 170-185 square feet per acre. They shall be selected by comparing their characteristics with other trees in the stand.

Unit 3:
Thin from below and leave the best 130 trees (approximately 18.3 x 18.3 foot spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 120-130 square feet per acre. They shall be selected by comparing their characteristics with other trees in the stand.

Trees tagged with blue special management tags that demarcate the boundary between Unit 1 and Unit 2 are subject to the thinning prescription of Unit 1.

Trees tagged with blue special management tags that demarcate the boundary between Unit 2 and Unit 3 are subject to the thinning prescription of Unit 3.

All Units:
Leave tree species in order of descending preference:
1. western redcedar
2. Douglas-fir
3. western hemlock
4. red alder
5. other hardwood

"Best tree" is defined as the following characteristics:
1. Largest diameter (must be greater than 8" DBH)
2. Fullest and most vigorous crown.
3. Free of disease, major defect, and damage.
4. Best form (tallest, straightest bole).

Special Thinning Conditions and Corridors

- Hardwood patches shall be held to the same stocking criteria as the rest of the stand.

- In areas where thinning is not necessary, i.e., prescription is met, do not put in yarding corridors or skid trails. These areas must be identified and agreed upon in advance with the Contract Administrator.

- Landings shall be located to provide for parallel yarding corridors whenever possible.

- Ground-based corridors shall be limited to 14 feet including rub trees. If used, cable corridors shall be limited to 12 feet including rub trees.

- Ground-based corridors shall be no closer than 75 feet apart from center of corridor.

- If radial yarding corridors are required from a central landing, the distance between yarding corridors must be no closer than 100 feet where the corridor leaves the unit as measured from the center of the corridors.

RMZ enhancement activities.

Five conifer trees per acre of RMZ, from the largest thinned DBH class, shall be felled towards the stream where feasible to remain as down woody debris. The Purchaser shall mark and fall upon review/approval of the Contract Administrator. These trees shall be marked IN THE SALE AREA within 25 feet of the white “timber sale boundary” tags (total of 250 trees in Unit 1 and 80 trees in Unit 3).

Certification of Fallers and Yarder Operators – See clause H-011 of the contract.

The Contract Administrator and Faller/Harvester Operator shall jointly review the take tree selection criteria as outlined in Schedule B of the contract.

In conjunction with the Contract Administrator, the Faller/Harvester Operator shall mark a designated area as a test plot within the sale area boundary.

Satisfactory thinning of the test plot completes the certification process. Certifications shall be issued to individuals when they demonstrate to the Contract Administrator their ability to perform within the requirements set forth in the contract.

Certification may be revoked at any time by Contract Administrator if the Contract Administrator determines that the prescription is not being implemented properly.

Damage Compartments:

Determination of damage shall be calculated by comparing the percentage of damaged trees to the total number of standing trees by compartment as determined by the Contract Administrator.

Damage compartments are as follows: Unit 1A, 1B, 1C, 1D; Unit 2A, 2B; Unit 3A, 3B

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Northwest

Timber Sale Name: Yakima Valley VDT

Application Number: 30- 092545

EXCISE TAX APPLICABLE ACTIVITIES

Construction: 0 **linear feet**
Road to be constructed (optional and required) but not abandoned

Reconstruction: 8447 **linear feet**
Road to be reconstructed (optional and required) but not abandoned

Abandonment: 242 **linear feet**
Abandonment of existing roads not reconstructed under the contract

Decommission: 0 **linear feet**
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: 0 **linear feet**
Existing road to receive maintenance work (specifically required by the contract) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

Temporary Optional Construction: 8935 **linear feet**
Optional roads to be constructed and then abandoned

Temporary Optional Reconstruction: 1972 **linear feet**
Optional roads to be reconstructed and then abandoned

New Abandonment: 1723 **linear feet**
Abandonment of roads constructed or reconstructed under the contract

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contact. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 6/13)

PRE-CRUISE NARRATIVE

Sale Name: Yakima Valley VDT	Region: **Northwest**
Agreement #: 30-092545	District: Cascade
Contact Forester:Dylan Tripp Phone / Location: 206-979-5097	County(s): Snohomish, Choose a county
Alternate Contact:Greg Anderson Phone / Location: 360-333-7983	Other information: Click here to enter text.

Type of Sale: MBF Scale	
Harvest System: Ground based Click here to enter text.	100%
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	1/29N/6E	12	162.6			5.2		157.4	GPS (Garmin)
2	12/29N/6E	12	40.1			2.5		37.6	GPS (Garmin)
3	12/29N/6E	12	85.3			2.8	0.4*	82.1	GPS (Garmin)
U1 corridors	1/29N/6E	12	16.2					16.2	L*W
U2 corridors	12/29N/6E	12	3.7					3.7	L*W
U3 corridors	12/29N/6E	12	8.4					8.4	L*W
U1 R/W	1/29N/6E	12	4.1					4.1	Choose an item.L*W
U2 R/W	12/29N/6E	12	0.4**					0.4	GPS (Garmin)
U3 R/W	12/29N/6E	12	0.2**					0.2	GPS (Garmin)

TOTAL ACRES			321.0			10.5	0.4	310.1	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	VDT. Trees will be thinned following the prescription listed in the Schedule B. All timber is bound by white Timber Sale Boundary tags, blue Special Management Area tags, and existing and abandoned roads.	Special Management tags mark the boundary between U1 and U2.	Prescriptions are below.
2	VDT. Trees will be thinned following the prescription listed in the Schedule B. All timber is bound by white Timber Sale Boundary tags, blue Special Management Area tags, existing and abandoned roads.	Special Management tags mark the boundary between U1 and U2, and U2 and U3.	Prescriptions are below.
3	VDT. Trees will be thinned following the prescription listed in the Schedule B. All timber is bound by white Timber Sale Boundary tags, blue Special Management Area tags, and existing roads.	Special Management tags mark the boundary between U2 and U3.	Prescriptions are below.
R/W	Marked with orange Right of Way boundary tags.		

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
U1	DF, WH 723MBF	Site is accessed from BW-ML, F1 key needed.	Traverse and Driving Maps are attached.
U1 Corridors	DF, WH 406MBF		
U2	DF, WH 395MBF		
U2 Corridors	DF, WH 137MBF		
U3	DF, WH 400MBF		
U3	DF, WH 169MBF		

Corridors			
U1 R/W	DF, WH 105MBF		
U2 R/W	DF, WH 5 MBF		
U3 R/W	DF 4 MBF		
TOTAL MBF	2344 MBF		

REMARKS:

Thinning prescriptions:
U1: Thin from below and leave the best 120 trees (approximately 19' x 19' spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 140-150ft^2 per acre.
U2: Thin from below and leave the best 120 trees (approximately 19' x 19' spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 170-185ft^2 per acre.
U3:Thin from below and leave the best 130 trees (approximately 18.3' x 18.3' spacing) per acre of the preferred species uniformly distributed over the area to achieve an average basal area of 120-130ft^2 per acre.

All Units:

Leave tree species in order of descending preference:

1) western redcedar
2) Douglas-fir
3) western hemlock
4) red alder
5) other hardwood

"Best tree" is defined as the following characteristics:

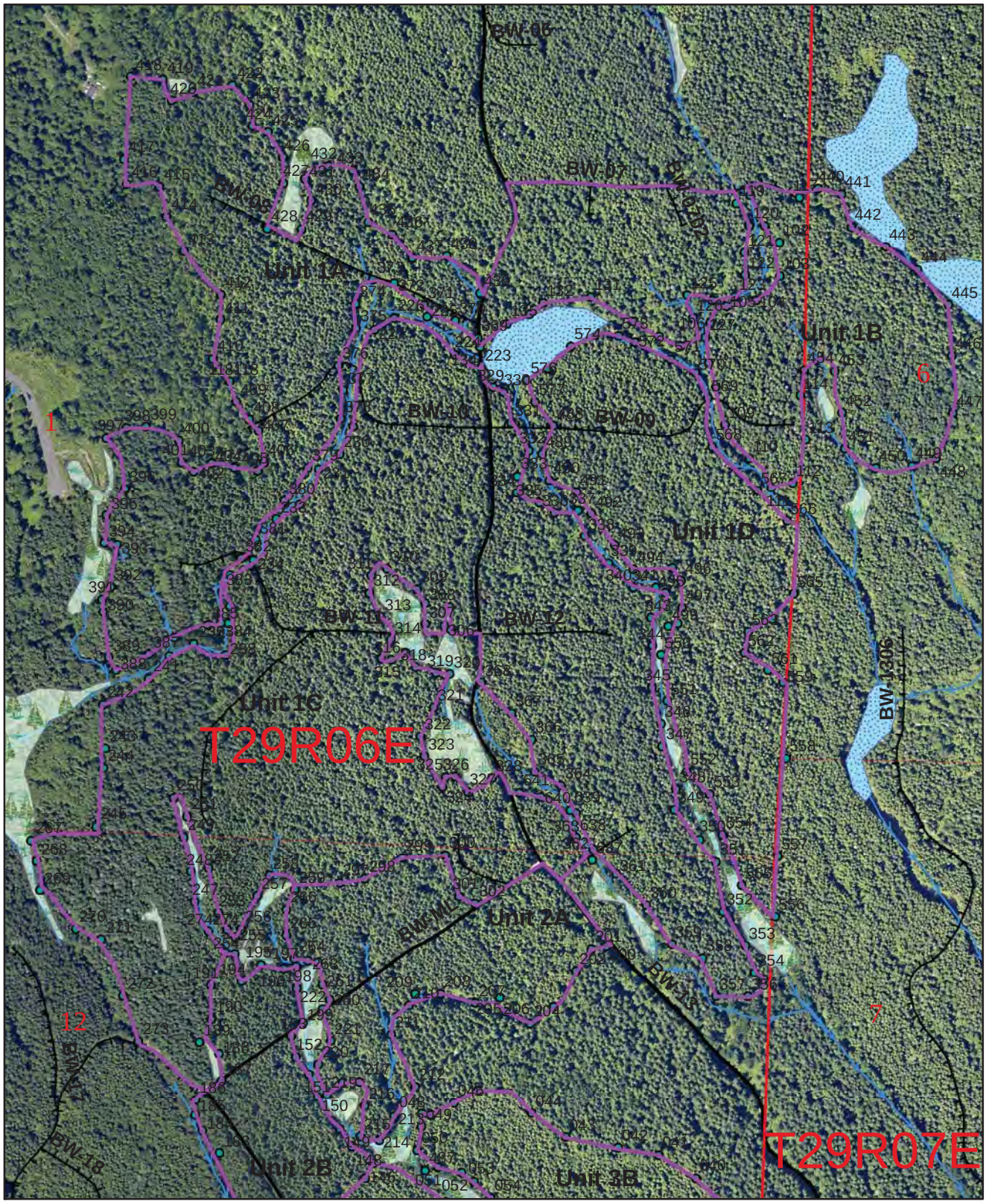
- Largest diameter (must be greater than 8" DBH)
- Fullest and most vigorous crown.
- Free of disease, major defect, and damage.
- Best form (tallest, straightest bole).

*U3 deductions are from non-timbered areas delineated with Garmin GPS.

**U2 and U3 R/W is for gravel pit development along the BW-15 that crosses the road into both units.

Prepared By: Dylan Tripp Date: May 5, 2015	Title: NRS 1	CC:

Yakima Valley VDT



Legend

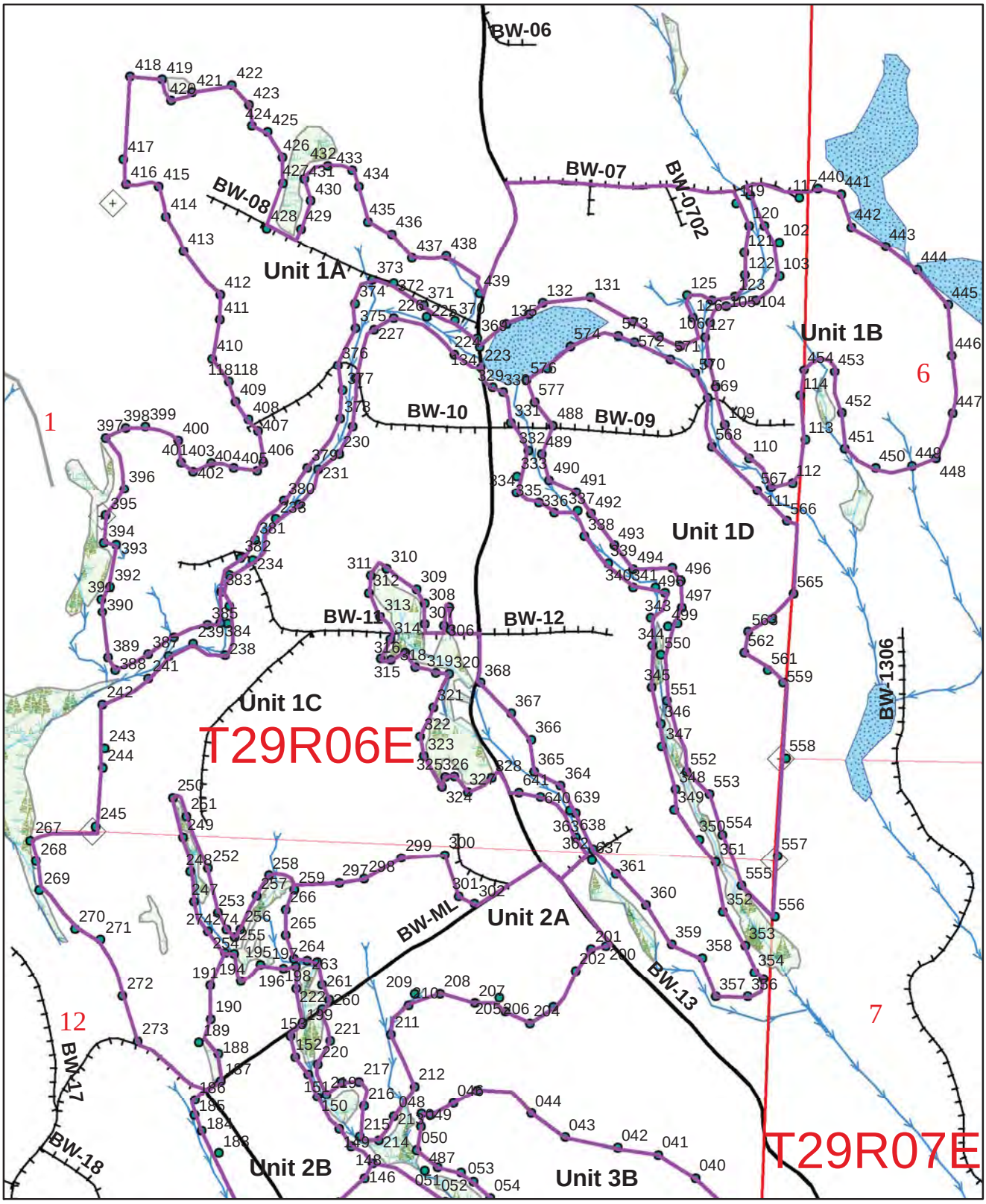
- Timber Sale Boundaries
- GPS Points
- Open Water
- Wetlands/Wet Areas
- Streams
- Townships
- Sections

0 300 600 1,200 Feet

1 inch = 600 feet

Created By: Dylan Tripp

Yakima Valley VDT



Legend

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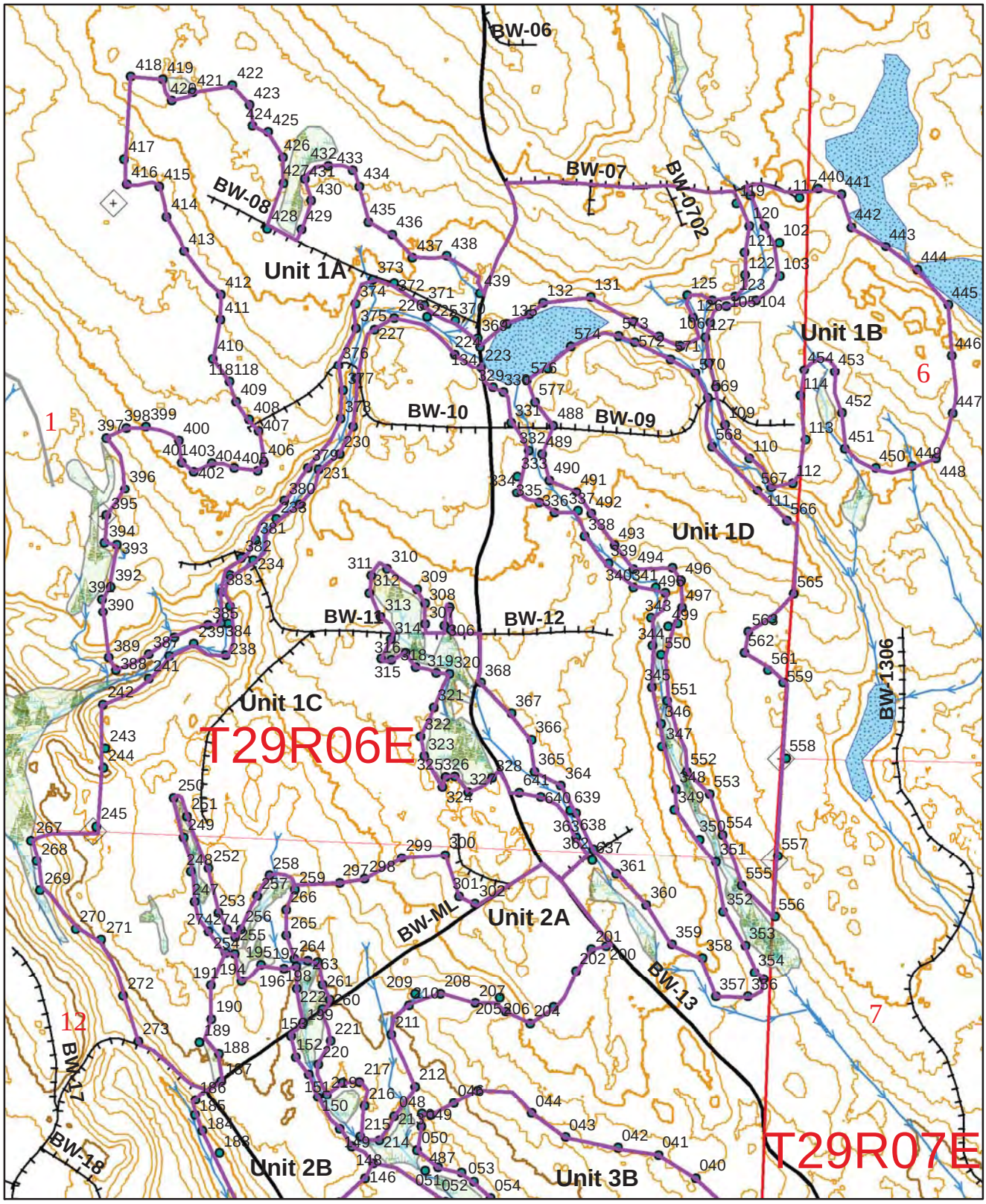
Yakima Valley VDT



Legend

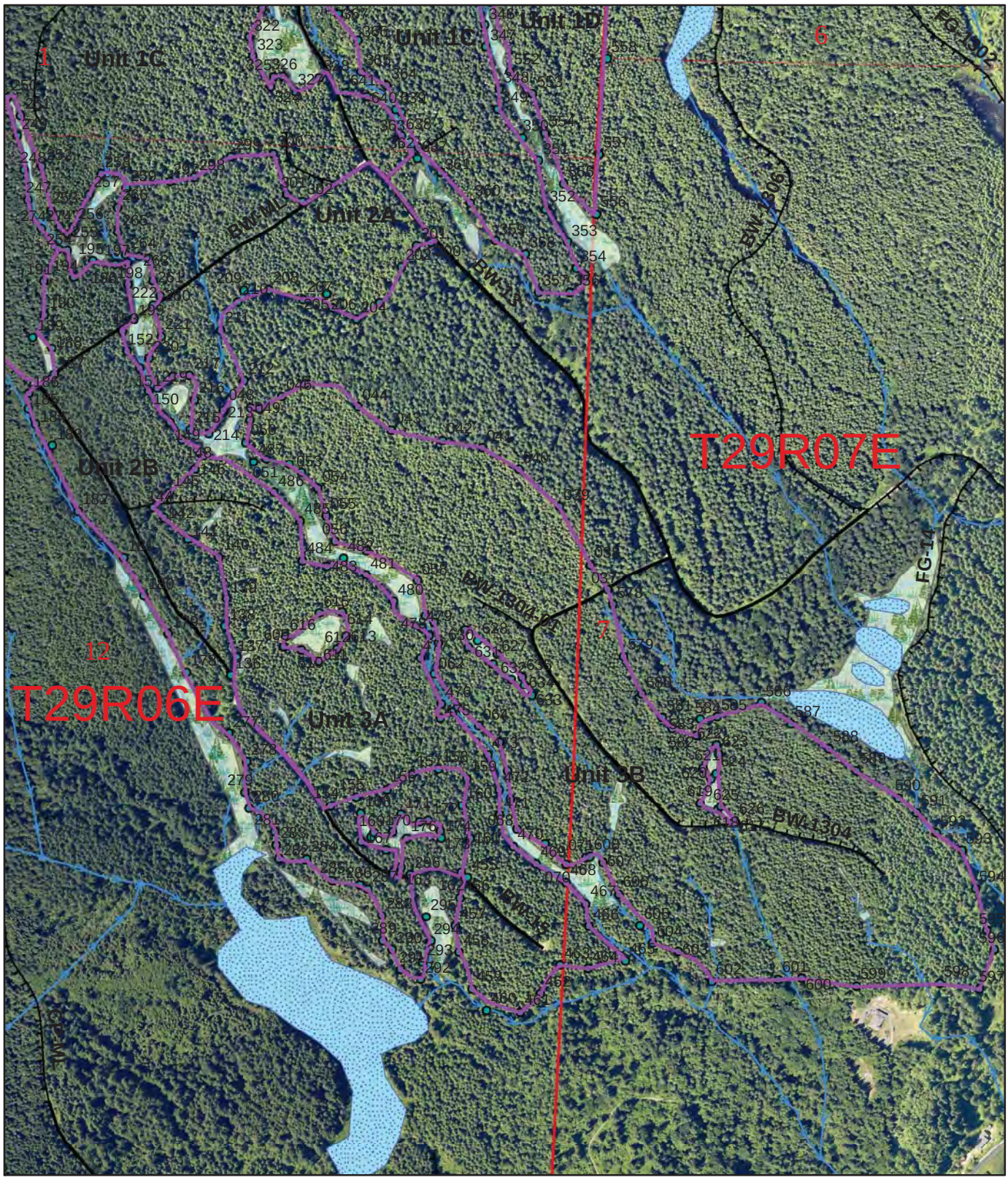
- Timber Sale Boundaries
- GPS Points
- Open Water
- Wetlands/Wet Areas
- Streams
- Townships
- Sections
- Contours 10-foot

0 300 600 1,200 Feet

1 inch = 600 feet

Created By: Dylan Tripp

Yakima Valley VDT



Legend

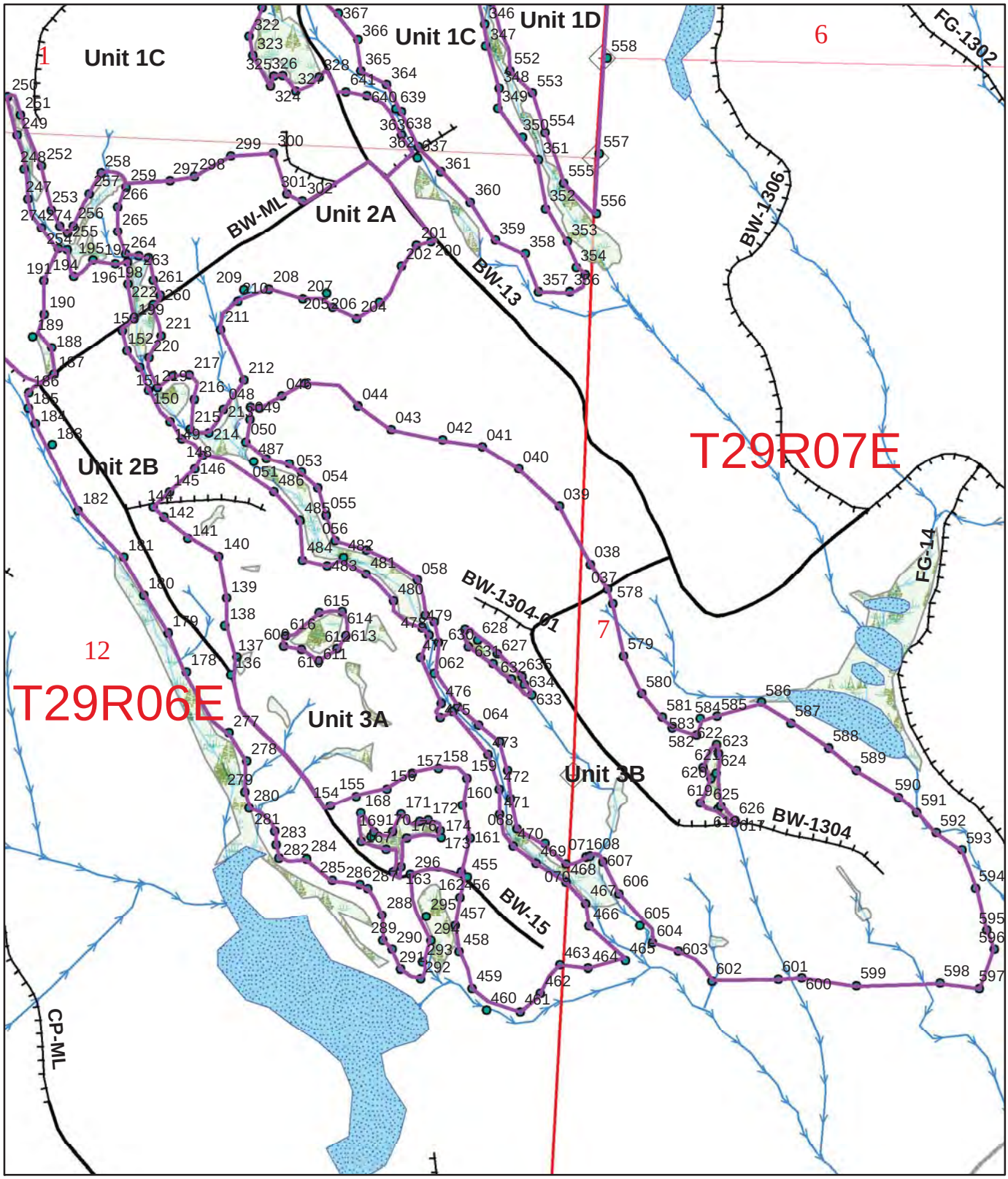
- Timber Sale Boundaries
- GPS Points
- Open Water
- Wetlands/Wet Areas
- Streams
- Townships
- Sections

0 300 600 1,200 Feet

1 inch = 600 feet

Created By: Dylan Tripp

Yakima Valley VDT



Legend

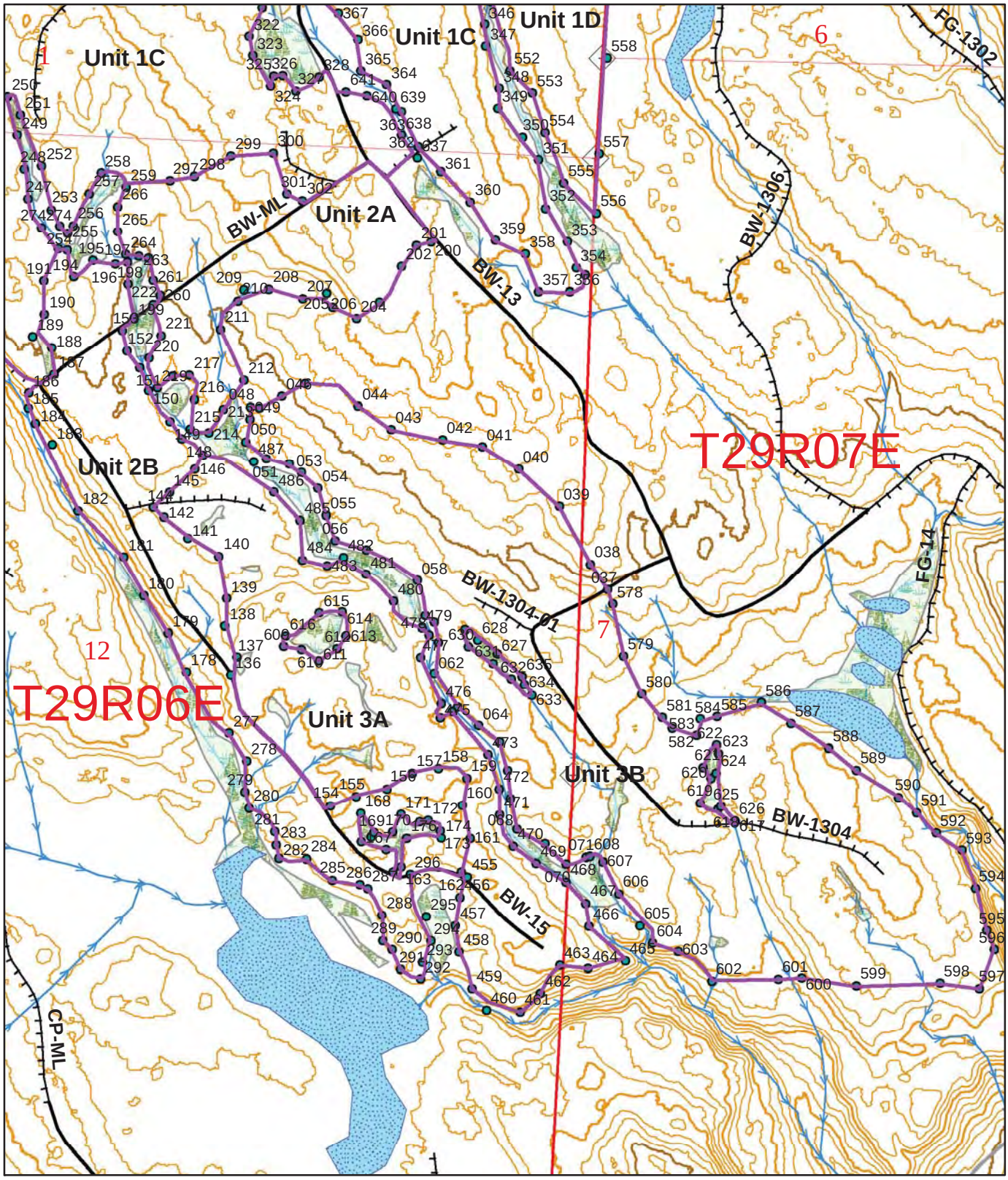
- Timber Sale Boundaries
- GPS Points
- Open Water
- Wetlands/Wet Areas
- Streams
- Townships
- Sections

0 300 600 1,200 Feet

1 inch = 600 feet

Created By: Dylan Tripp

Yakima Valley VDT



Legend

- Timber Sale Boundaries
- GPS Points
- Open Water
- Wetlands/Wet Areas
- Streams
- Townships
- Sections
- Contours 10-foot

0 300 600 1,200 Feet

1 inch = 600 feet

Created By: Dylan Tripp

Cruise Narrative

Sale Name: **Yakima Valley** **VDT**	**Region: Northwest**
Agree. #: **30-092545**	**District: Cascade**
Lead cruiser: **Matt Llobet**	**Completion date:** **10-12-15**
Other cruisers on sale: PK,IM	

Unit acreage specifications:

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	157.4	Yes	
2	37.6	Yes	
3	82.1	Yes	
CORR U1	16.2	Yes	
CORR U2	3.7	Yes	
CORR U3	8.4	Yes	
U1 R/W	4.1	Yes	
U2 R/W	0.4	Yes	
U3 R/W	0.2	Yes	
Total	310.1	Yes	

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/ half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (cruise:count)	Total number of plots
1	V.P.	40.0 BAF	4.5’	360’ x 360’	Cruise All	51
2	V.P.	40.0 BAF	4.5’	360’ x 360’	Cruise All	13
3	V.P.	40.0 BAF	4.5’	360’ x 360’	Cruise All	31
CORU1	V.P.	40.0 BAF	4.5’	1plot/ac	Cruise All	16
CORU2	V.P.	40.0 BAF	4.5’	1plot/ac	Cruise All	4
CORU3	V.P.	40.0 BAF	4.5’	1plot/ac	Cruise All	8
U1R/W	V.P	20.0 BAF	4.5’	1plot/1.2ac	Cruise All	5

U2R/W	V.P.	20.0 BAF	4.5’	1plot/ac	Cruise All	1
U3R/W	V.P.	20.0 BAF	4.5’	1plot/ac	Cruise All	1

Sale/Cruise Description:

Minor species cruise intensity:	Used a Full prism throughout entire sale.					
Minimum cruise spec:	Minimum DBH 8 inches, 10 Net Board feet, Minimum Top Diameter 5 inches or 40% of 16-foot form point					
Avg ring count by sp:	**DF** =	8	**WH** =	8	**SS** =	
Leave/take tree description:	**Unit- 1,2,3- Variable Density Thinning** – See Schedule B **ROW**- Take all timber within orange right-of-way boundary tags					
Other conditions						

Field observations:

All timber was graded in variable log lengths with the Scaling Bureaus Westside/ Northwest log rules. The utility wood was given a board ft. volume. Yakima Valley timber sale was cruised using the variable plot sample method. Yakima Valley timber sale is 310.1acres, with excellent road access. Yakima Valley timber sale is 100% ground base logging. The species composition of the sale is: Western Hemlock, at 15 %, Douglas Fir, at 14%. The Douglas Fir has an average diameter of 13 inches and an average bole height of 63 feet. The Western Hemlock has an average diameter of 12 inches and an average bole height of 58 feet.
General Location- ~ 4 miles south of Granite Falls
Harvest Method- Ground Base
Stand Health- Overall good health
Brush Component- Observed heavy Salmonberry/Vine Maple in the understory
Timber Quality- Observed consistent bear-damage, spike-knots and shifts in the first log
Sample Points Dropped- Sample points were dropped due to sale boundary
Elevation- 520’-757’

Prepared by: Matt Llobet

Title: Northwest Region Timber Cruiser

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T29N R06E S01 Ty00U1
THRU
T29N R06E S12 TyRWU3

Project: YAKIMA
Acres 310.10

Page 1
Date 10/12/2015
Time 2:47:20PM

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
WH	L	D	2S	3	23.6	105	80	25			100					100	36	12	147	1.45	.5
WH	L	D	3S	69	4.5	1,927	1,839	570	38	62						100	37	8	81	0.66	22.7
WH	L	D	4S	25	1.8	658	646	200	100				32	38	1	28	24	5	24	0.30	26.8
WH	L	D	PU	3		67	67	21	21	79			46			54	19	7	40	0.58	1.7
WH	**Totals**			15	4.5	2,756	2,632	816	51	46	3		9	9	0	81	30	6	51	0.52	51.8
WH	T	D	2S	4		106	106	33			100					100	39	13	230	1.56	.5
WH	T	D	3S	70	3.9	1,897	1,824	566	44	56						100	38	7	79	0.62	23.1
WH	T	D	4S	26	3.2	692	670	208	100				16	31	17	36	27	5	28	0.29	23.9
WH	**Totals**			15	3.5	2,695	2,599	806	56	40	4		4	8	4	84	33	6	55	0.49	47.5
DF	L	D	2S	9	10.2	1,011	908	281			100			2		98	38	12	190	1.43	4.8
DF	L	D	3S	64	4.3	6,199	5,934	1,840	30	70					0	100	38	8	87	0.68	68.4
DF	L	D	4S	25	3.2	2,353	2,278	706	99	1			15	30	20	35	28	5	29	0.31	77.7
DF	L	D	PU	2		169	169	52	69	31			57		10	33	18	6	24	0.33	7.2
DF	**Totals**			54	4.5	9,732	9,289	2,881	45	45	10		5	8	5	82	32	7	59	0.54	158.1
DF	T	D	2S	4	4.2	115	110	34			100					100	40	13	229	1.49	.5
DF	T	D	3S	60	4.7	1,532	1,460	453	30	70						100	38	8	89	0.69	16.3
DF	T	D	4S	33	4.3	840	804	249	99	1			8	22	27	43	31	5	33	0.31	24.4
DF	T	D	PU	3	16.4	77	65	20	100				69	23	8		18	5	18	0.25	3.7
DF	**Totals**			14	4.9	2,564	2,439	756	53	42	5		4	8	9	78	32	6	54	0.48	44.9
RA	T	D	3S	63		37	37	12	100							100	40	6	60	0.37	.6
RA	T	D	4S	37		22	22	7	100					100			23	5	20	0.29	1.1
RA	**Totals**			0		59	59	18	100					37		63	29	5	35	0.33	1.7
RC	L	D	3S	92	2.8	45	44	14		100						100	36	9	88	1.68	.5
RC	L	D	4S	3		1	1	0	100				100				12	5	10	0.29	.1
RC	L	D	PU	5		2	2	1	100				100				11	5	10	0.24	.2
RC	**Totals**			0	2.6	49	48	15	8	92			8			92	26	7	55	1.42	.9
CW	T	D	4S	99		35	35	11	84	16				3	84	13	34	5	45	0.33	.8
CW	T	D	PU	1		0	0	0	100						100		32	5	30	0.34	.0
CW	**Totals**			0		35	35	11	84	16				3	84	13	34	5	45	0.33	.8
Totals					4.4	17,891	17,102	5,303	49	44	7		5	8	5	82	32	6	56	0.52	305.6

1,593 MBF Take

PROJECT STATISTICS

PROJECT YAKIMA

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	01	YAKIMA	00U1	THR	310.10	130	579	S	W
29N	06E	12	YAKIMA	RWU3						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	130	579	4.5		
CRUISE	130	579	4.5	59,809	1.0
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	248	95.3	13.5	63	25.7	94.1	9,732	9,289	2,743	2,743
DOUG FIR-T	140	28.7	12.5	63	6.9	24.3	2,564	2,439	706	706
WHEMLOCK-L	80	33.4	12.8	55	8.3	29.7	2,756	2,632	796	796
WHEMLOCK-T	103	32.5	12.4	58	7.8	27.3	2,695	2,599	764	764
COTWOOD-T	3	.8	9.8	46	0.1	.4	35	35	9	9
WR CEDAR-L	3	.5	20.7	49	0.3	1.2	49	48	31	31
R ALDER-T	2	1.7	9.1	48	0.3	.8	59	59	16	16
TOTAL	*579*	*192.9*	*13.0*	*61*	*49.3*	*177.9*	*17,891*	*17,102*	*5,066*	*5,065*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	7	INF. POP. 10
DOUG FIR-L	59.9	3.8	118	122	127			
DOUG FIR-T	66.8	5.6	110	116	123			
WHEMLOCK-L	46.4	5.2	90	95	100			
WHEMLOCK-T	61.6	6.1	90	96	102			
COTWOOD-T	52.9	36.6	63	100	137			
WR CEDAR-L	6.0	4.1	93	97	101			
R ALDER-T	70.7	66.2	14	40	66			
TOTAL	*61.9*	*2.6*	*109*	*112*	*115*	*153*	*78*	*38*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	116.7	10.2	86	95	105			
DOUG FIR-T	195.2	17.1	24	29	34			
WHEMLOCK-L	184.8	16.2	28	33	39			
WHEMLOCK-T	169.6	14.9	28	32	37			
COTWOOD-T	1071.5	93.9	0	1	1			
WR CEDAR-L	897.0	78.6	0	1	1			
R ALDER-T	832.9	73.0	0	2	3			
TOTAL	*59.0*	*5.2*	*183*	*193*	*203*	*139*	*71*	*35*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	112.3	9.8	85	94	103			
DOUG FIR-T	185.8	16.3	20	24	28			
WHEMLOCK-L	166.1	14.6	25	30	34			
WHEMLOCK-T	170.9	15.0	23	27	31			
COTWOOD-T	966.7	84.7	0	0	1			
WR CEDAR-L	854.8	74.9	0	1	2			
R ALDER-T	803.5	70.4	0	1	1			
TOTAL	*59.5*	*5.2*	*169*	*178*	*187*	*141*	*72*	*35*

PROJECT STATISTICS

PROJECT YAKIMA

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	01	YAKIMA	00U1	THR	310.10	130	579	S	W
29N	06E	12	YAKIMA	RWU3						

CL 68.1	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	120.7	10.6	8,307	9,289	10,272			
DOUG FIR-T	197.4	17.3	2,017	2,439	2,861			
WHEMLOCK-L	173.5	15.2	2,232	2,632	3,033			
WHEMLOCK-T	188.8	16.5	2,169	2,599	3,029			
COTWOOD-T	959.9	84.1	6	35	64			
WR CEDAR-L	888.2	77.8	11	48	85			
R ALDER-T	830.9	72.8	16	59	102			
TOTAL	*70.0*	*6.1*	*16,053*	*17,102*	*18,151*	*196*	*100*	*49*

CL 68.1	COEFF		**V BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	120.7	10.6	88	99	109			
DOUG FIR-T	191.0	16.7	83	100	118			
WHEMLOCK-L	173.5	15.2	75	89	102			
WHEMLOCK-T	186.9	16.4	79	95	111			
COTWOOD-T	852.2	74.7	14	85	157			
WR CEDAR-L	888.2	77.8	9	41	73			
R ALDER-T	830.9	72.8	21	76	132			
TOTAL	*68.7*	*6.0*	*90*	*96*	*102*	*188*	*96*	*47*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S01 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	01	YAKIMA	00U1	157.40	51	214	S	W

T29N R06E S01 T00U1

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	D	2S	6	8.7	754	689	108			100			6		94	36	12	176	1.36	3.9
DF	L	D	3S	62	5.5	6,462	6,105	961	24	76					1	99	37	8	90	0.72	68.0
DF	L	D	4S	29	4.1	2,972	2,852	449	99	1			10	36	24	31	28	5	30	0.32	96.0
DF	L	D	PU	3		267	267	42	62	38			47		12	41	21	6	29	0.37	9.3
DF L Totals				65	5.2	10,456	9,912	1,560	45	48	7		4	11	8	78	32	6	56	0.53	177.2
DF	T	D	3S	77	11.3	427	378	60	15	85						100	38	9	97	0.79	3.9
DF	T	D	4S	21		103	103	16	100					33	67		31	5	34	0.32	3.0
DF	T	D	PU	2		9	9	1	100				100				11	5	10	0.17	.9
DF T Totals				3	9.0	539	490	77	34	66			2	7	14	77	32	7	63	0.59	7.8
WH	L	D	2S	4	24.0	152	116	18			100					100	36	12	150	1.44	.8
WH	L	D	3S	64	2.3	1,770	1,729	272	47	53						100	38	7	78	0.66	22.3
WH	L	D	4S	27	1.6	725	714	112	100				30	41	2	27	25	5	25	0.31	28.4
WH	L	D	PU	5		131	131	21	21	79			46			54	19	7	40	0.58	3.3
WH L Totals				18	3.2	2,779	2,689	423	58	38	4		10	11	1	78	30	6	49	0.52	54.7
WH	T	D	3S	80	6.5	1,712	1,601	252	30	70						100	38	8	86	0.69	18.5
WH	T	D	4S	20	7.3	420	389	61	100				19	53	6	22	24	5	25	0.32	15.9
WH T Totals				13	6.6	2,131	1,990	313	44	56			4	10	1	85	32	7	58	0.56	34.4
RC	L	D	3S	93		65	65	10		100						100	36	8	87	1.50	.7
RC	L	D	PU	7		5	5	1	100				100				11	5	10	0.24	.5
RC L Totals				0		69	69	11	7	93			7			93	26	7	58	1.29	1.2
RA	T	D	4S	100		43	43	7	100					100			23	5	20	0.29	2.1
RA T Totals				0		43	43	7	100					100			23	5	20	0.29	2.1
Type Totals					5.1	16,017	15,194	2,391	47	48	5		5	11	6	79	31	6	55	0.53	277.5

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S01 TCOR1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	01	YAKIMA	COR1	16.20	16	63	S	W

T29N R06E S01 TCOR1

Spp	ST	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	T	D	2S	6	7.5	643	595	10			100					100	40	13	246	1.44	2.4
DF	T	D	3S	56	6.6	5,229	4,883	79	22	78						100	38	8	96	0.75	50.8
DF	T	D	4S	33	9.1	3,147	2,863	46	96	4			2	25	28	45	33	5	34	0.36	84.8
DF	T	D	PU	5		419	419	7	100				76		24		17	5	18	0.25	23.8
DF T Totals				63	7.2	9,439	8,759	142	48	45	7		4	8	10	77	32	6	54	0.51	161.8
WH	T	D	2S	4		252	252	4			100					100	36	12	180	1.28	1.4
WH	T	D	3S	69	3.3	3,597	3,477	56	53	47						100	38	7	73	0.61	47.3
WH	T	D	4S	27	2.0	1,369	1,342	22	100				24	47	5	24	25	5	26	0.31	51.0
WH T Totals				37	2.8	5,218	5,071	82	63	32	5		6	12	1	80	32	6	51	0.50	99.7
Type Totals					5.6	14,657	13,831	224	54	40	6		5	10	7	78	32	6	53	0.51	261.5

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S01 TRWU1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	01	YAKIMA	RWU1	4.10	5	24	S	W

T29N R06E S01 TRWU1

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	T	D	2S	4	11.1	344	305	1			100					100	36	12	160	1.48	1.9
DF	T	D	3S	70	5.9	4,966	4,672	19	12	88						100	38	9	108	0.90	43.2
DF	T	D	4S	26	5.3	1,843	1,746	7	91	9			7	43	50		27	5	28	0.32	62.4
DF T Totals				80	6.0	7,153	6,723	28	32	64	5		2	11	13	74	32	7	63	0.62	107.5
WH	T	D	3S	49		666	666	3		100						100	37	9	114	0.97	5.8
WH	T	D	4S	51		672	672	3	100				11	6	36	46	31	5	31	0.31	21.8
WH T Totals				16		1,339	1,339	5	50	50			6	3	18	73	33	6	48	0.47	27.6
CW	T	D	4S	100		344	344	1		100						100	40	9	120	0.92	2.9
CW T Totals				4		344	344	1		100						100	40	9	120	0.92	2.9
Type Totals					4.9	8,835	8,406	34	33	63	4		2	9	13	75	32	7	61	0.60	138.0

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 T00U2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	00U2	37.60	13	93	S	W

T29N R06E S12 T00U2

Spp	ST	So rt	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	D	2S	22	11.2	5,181	4,602	173			100					100	40	13	199	1.47	23.1
DF	L	D	3S	62	2.0	12,871	12,615	474	24	76						100	39	8	98	0.73	128.3
DF	L	D	4S	14	3.0	3,082	2,991	112	98	2			9	18	19	54	32	5	34	0.30	87.2
DF	L	D	PU	2		250	250	9	100				100				13	5	15	0.19	17.2
DF L Totals				62	4.3	21,383	20,458	769	30	47	22		3	3	3	92	35	7	80	0.66	255.7
DF	T	D	3S	57	1.9	4,590	4,504	169	24	76						100	38	8	94	0.70	47.9
DF	T	D	4S	39	3.8	3,157	3,037	114	100				5	18	27	49	32	5	35	0.31	86.0
DF	T	D	PU	4		253	253	10	100				63	37			19	5	20	0.19	12.6
DF T Totals				24	2.6	8,000	7,794	293	56	44			4	8	11	77	33	6	53	0.45	146.6
WH	T	D	2S	14		661	661	25			100					100	40	13	240	1.61	2.8
WH	T	D	3S	61		2,716	2,716	102	24	76						100	38	8	92	0.69	29.6
WH	T	D	4S	25		1,111	1,111	42	100				13	41	38	8	27	5	32	0.26	35.3
WH T Totals				14		4,488	4,488	169	39	46	15		3	10	9	77	32	7	66	0.55	67.6
RC	L	D	3S	90	10.0	105	94	4		100						100	36	9	90	2.22	1.0
RC	L	D	4S	10		10	10	0	100				100				12	5	10	0.29	1.0
RC L Totals				0	9.1	115	105	4	10	90			10			90	24	7	50	1.74	2.1
RA	T	D	3S	100		307	307	12	100							100	40	6	60	0.37	5.1
RA T Totals				1		307	307	12	100							100	40	6	60	0.37	5.1
Type Totals					3.3	34,294	33,152	1,247	38	46	16		3	5	5	87	34	7	69	0.58	477.1

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 T00U3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	00U3	82.10	31	120	S	W

T29N R06E S12 T00U3

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	D	3S	73	3.8	5,130	4,934	405	51	49						100	38	7	71	0.58	69.3
DF	L	D	4S	26	.6	1,778	1,768	145	100				35	22	11	31	25	5	25	0.27	69.7
DF	L	D	PU	1		13	13	1	100				100				11	5	10	0.20	1.3
DF L Totals				47	3.0	6,921	6,715	551	64	36			9	6	3	82	31	6	48	0.46	140.3
DF	T	D	3S	48	9.0	247	225	18	100							100	36	6	55	0.40	4.1
DF	T	D	4S	52		236	236	19	100				8	45		47	29	5	29	0.26	8.2
DF T Totals				3	4.6	483	461	38	100				4	23		73	32	5	37	0.31	12.3
WH	L	D	2S	1	22.2	104	81	7			100					100	36	12	140	1.47	.6
WH	L	D	3S	76	6.5	3,884	3,633	298	29	71						100	37	8	84	0.67	43.1
WH	L	D	4S	23	2.0	1,095	1,073	88	100				36	35		29	23	5	23	0.28	46.9
WH L Totals				34	5.8	5,084	4,788	393	44	54	2		8	8		84	29	7	53	0.52	90.6
WH	T	D	3S	62	2.4	1,410	1,376	113	82	18						100	39	7	63	0.47	22.0
WH	T	D	4S	38	1.6	831	818	67	100				11	3	14	72	31	5	32	0.28	25.8
WH T Totals				15	2.1	2,241	2,194	180	89	11			4	1	5	89	35	6	46	0.38	47.8
CW	T	D	4S	100		109	109	9	100						100		34	5	40	0.29	2.7
CW T Totals				1		109	109	9	100						100		34	5	40	0.29	2.7
Type Totals					3.9	14,839	14,267	1,171	63	37	1		8	6	3	83	31	6	49	0.45	293.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 TCOR2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	COR2	3.70	4	32	S	W

T29N R06E S12 TCOR2

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	T	D	2S	18	2.3	6,450	6,299	23			100					100	40	13	229	1.51	27.6
DF	T	D	3S	56	2.3	19,523	19,078	71	31	69						100	38	8	92	0.70	208.2
DF	T	D	4S	24	4.6	8,586	8,195	30	100				13	16	26	45	31	5	33	0.30	244.8
DF	T	D	PU	2	63.1	1,675	617	2	100				51	49			22	6	18	0.50	35.3
DF T Totals				96	5.6	36,234	34,189	126	43	39	18		4	5	6	85	34	7	66	0.57	515.8
WH	T	D	2S	80		1,047	1,047	4			100					100	40	13	240	1.66	4.4
WH	T	D	3S	20		262	262	1	100							100	40	6	60	0.56	4.4
WH T Totals				4		1,309	1,309	5	20		80					100	40	10	150	1.11	8.7
Type Totals					5.4	37,543	35,498	131	42	37	21		4	5	6	86	34	7	68	0.58	524.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 TCOR3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	COR3	8.40	8	26	S	W

T29N R06E S12 TCOR3

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	T	D	3S	70	2.8	4,306	4,187	35	74	26						100	38	7	67	0.55	62.5
DF	T	D	4S	30	2.2	1,821	1,781	15	100				45	5	7	43	23	5	24	0.25	75.0
DF T Totals				50	2.6	6,127	5,969	50	82	18			13	2	2	83	30	6	43	0.42	137.5
WH	T	D	3S	75	1.4	4,564	4,500	38	60	40						100	37	7	73	0.56	61.7
WH	T	D	4S	25	4.1	1,522	1,459	12	100				21	25	30	23	24	5	23	0.26	64.6
WH T Totals				50	2.1	6,087	5,959	50	70	30			5	6	7	81	30	6	47	0.44	126.3
Type Totals					2.3	12,213	11,928	100	76	24			9	4	5	82	30	6	45	0.43	263.8

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 TRWU2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	RWU2	.40	1	4	S	W

T29N R06E S12 TRWU2

Spp	ST	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
WH	T	D	3S	46		1,592	1,592	1		100						100	36	11	160	1.42	9.9
WH	T	D	4S	54		1,857	1,857	1	100					16		84	34	5	38	0.35	48.9
WH	**T**	**Totals**		46		3,449	3,449	1	54	46				9		91	35	6	59	0.54	58.9
DF	T	D	3S	77		3,163	3,163	1		100						100	36	10	121	1.08	26.2
DF	T	D	4S	23		922	922	0	100					41	59		30	5	35	0.32	26.2
DF	**T**	**Totals**		54		4,084	4,084	2	23	77				9	13	77	33	7	78	0.74	52.3
Type Totals						7,533	7,533	3	37	63				9	7	84	34	7	68	0.63	111.2

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: YAKIMA

Date 10/12/2015

Time 2:47:21PM

T29N R06E S12 TRWU3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	06E	12	YAKIMA	RWU3	.20	1	3	S	W

T29N R06E S12 TRWU3

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	T	D	3S	44		1,207	1,207	0	100							100	36	6	60	0.63	20.1
DF	T	D	4S	56		1,487	1,487	0	100						100		31	5	30	0.24	49.6
DF T Totals				57		2,695	2,695	1	100						55	45	32	5	39	0.37	69.7
CW	T	D	4S	78		1,576	1,576	0		100				100			30	10	110	0.97	14.3
CW	T	D	PU	22		430	430	0	100						100		32	5	30	0.34	14.3
CW T Totals				43		2,005	2,005	0	21	79				79	21		31	8	70	0.65	28.6
Type Totals						4,700	4,700	1	66	34				34	41	26	32	6	48	0.45	98.3

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**01**	**YAKIMA**	**00U1**	157.40	51	214	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	51	214	4.2		
CRUISE	51	214	4.2	28,174	.8
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	136	112.7	13.2	60	29.4	106.7	10,456	9,912	2,965	2,964
DOUG FIR-T	6	3.9	14.8	71	1.2	4.7	539	490	149	149
WHEMLOCK-L	42	38.8	12.5	52	9.3	32.9	2,779	2,689	845	846
WHEMLOCK-T	27	20.7	13.7	61	5.7	21.2	2,131	1,990	616	616
WR CEDAR-L	2	.7	19.7	49	0.4	1.6	69	69	41	41
R ALDER-T	1	2.1	8.2	44	0.3	.8	43	43	14	14
TOTAL	*214*	*179.0*	*13.1*	*58*	*46.4*	*167.8*	*16,017*	*15,194*	*4,630*	*4,630*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	58.2	5.0	106	111	117			
DOUG FIR-T	32.4	14.4	114	133	153			
WHEMLOCK-L	54.5	8.4	79	86	93			
WHEMLOCK-T	41.4	8.1	98	107	115			
WR CEDAR-L	7.4	7.0	88	95	102			
R ALDER-T								
TOTAL	*56.0*	*3.8*	*102*	*106*	*110*	*125*	*64*	*31*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	82.5	11.5	100	113	126			
DOUG FIR-T	341.3	47.7	2	4	6			
WHEMLOCK-L	136.9	19.1	31	39	46			
WHEMLOCK-T	195.4	27.3	15	21	26			
WR CEDAR-L	714.1	99.9	0	1	1			
R ALDER-T	714.1	99.9	0	2	4			
TOTAL	*44.7*	*6.3*	*168*	*179*	*190*	*80*	*41*	*20*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	77.5	10.8	95	107	118			
DOUG FIR-T	324.7	45.4	3	5	7			
WHEMLOCK-L	118.2	16.5	27	33	38			
WHEMLOCK-T	182.6	25.5	16	21	27			
WR CEDAR-L	714.1	99.9	0	2	3			
R ALDER-T	714.1	99.9	0	1	2			
TOTAL	*39.3*	*5.5*	*159*	*168*	*177*	*62*	*31*	*15*

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	84.5	11.8	8,740	9,912	11,085			
DOUG FIR-T	329.0	46.0	265	490	716			
WHEMLOCK-L	122.0	17.1	2,230	2,689	3,148			

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**01**	**YAKIMA**	**00U1**	157.40	51	214	S	W

CL: 68.1 %
SD: 1.0

NET BF/ACRE

	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
WHEMLOCK-T	180.1	25.2	1,489	1,990	2,491			
WR CEDAR-L	714.1	99.9	0	69	138			
R ALDER-T	714.1	99.9	0	43	86			
TOTAL	*49.3*	*6.9*	*14,146*	*15,194*	*16,242*	*97*	*50*	*24*

CL: 68.1 %
SD: 1.0

V-BAR/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	84.5	11.8	82	93	104			
DOUG FIR-T	329.0	46.0	56	104	152			
WHEMLOCK-L	122.0	17.1	68	82	96			
WHEMLOCK-T	180.1	25.2	70	94	118			
WR CEDAR-L	714.1	99.9	0	44	88			
R ALDER-T	714.1	99.9	0	55	109			
TOTAL	*49.3*	*6.9*	*84*	*91*	*97*	*97*	*50*	*24*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	01	YAKIMA	COR1	16.20	16	63	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	16	63	3.9		
CRUISE	16	63	3.9	3,081	2.0
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T	39	115.1	12.5	56	27.6	97.5	9,439	8,759	2,657	2,656
WHEMLOCK-T	24	75.1	12.1	53	17.2	60.0	5,218	5,071	1,573	1,573
TOTAL	*63*	*190.2*	*12.3*	*55*	*44.9*	*157.5*	*14,657*	*13,831*	*4,230*	*4,229*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

SAMPLE TREES - BF

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	7	INF. POP. 10
DOUG FIR-T	80.1	12.8	94	108	121			
WHEMLOCK-T	58.3	12.1	74	84	94			
TOTAL	*75.8*	*9.5*	*89*	*99*	*108*	*229*	*117*	*57*

TREES/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	90.5	23.3	88	115	142			
WHEMLOCK-T	108.0	27.9	54	75	96			
TOTAL	*41.7*	*10.8*	*170*	*190*	*211*	*74*	*38*	*18*

BASAL AREA/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	91.1	23.5	75	98	120			
WHEMLOCK-T	97.4	25.1	45	60	75			
TOTAL	*38.8*	*10.0*	*142*	*158*	*173*	*64*	*33*	*16*

NET BF/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	108.9	28.1	6,299	8,759	11,220			
WHEMLOCK-T	103.7	26.7	3,715	5,071	6,428			
TOTAL	*53.9*	*13.9*	*11,909*	*13,831*	*15,753*	*124*	*63*	*31*

V-BAR/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	108.9	28.1	65	90	115			
WHEMLOCK-T	103.7	26.7	62	85	107			
TOTAL	*53.9*	*13.9*	*76*	*88*	*100*	*124*	*63*	*31*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**01**	**YAKIMA**	**RWU1**	4.10	5	24	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	5	24	4.8		
CRUISE	5	24	4.8	383	6.3
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T	19	68.7	14.2	59	20.1	76.0	7,153	6,723	2,123	2,122
WHEMLOCK-T	4	21.8	11.6	51	4.7	16.0	1,339	1,339	424	424
COTWOOD-T	1	2.9	16.0	65	1.0	4.0	344	344	105	105
TOTAL	*24*	*93.4*	*13.7*	*58*	*25.9*	*96.0*	*8,835*	*8,406*	*2,652*	*2,651*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	49.4	11.6	110	124	139			
WHEMLOCK-T	84.4	48.2	48	93	137			
COTWOOD-T								
TOTAL	*52.5*	*10.9*	*106*	*119*	*132*	*115*	*59*	*29*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	39.0	19.4	55	69	82			
WHEMLOCK-T	104.0	51.7	11	22	33			
COTWOOD-T	223.6	111.1		3	6			
TOTAL	*29.6*	*14.7*	*80*	*93*	*107*	*43*	*22*	*11*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	47.1	23.4	58	76	94			
WHEMLOCK-T	104.6	52.0	8	16	24			
COTWOOD-T	223.6	111.1		4	8			
TOTAL	*27.2*	*13.5*	*83*	*96*	*109*	*36*	*19*	*9*

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	45.6	22.7	5,198	6,723	8,248			
WHEMLOCK-T	111.0	55.1	600	1,339	2,077			
COTWOOD-T	223.6	111.1		344	726			
TOTAL	*30.0*	*14.9*	*7,153*	*8,406*	*9,658*	*44*	*23*	*11*

CL: 68.1 % COEFF — **V-BAR/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	45.6	22.7	68	88	109			
WHEMLOCK-T	111.0	55.1	38	84	130			
COTWOOD-T	223.6	111.1		86	181			
TOTAL	*30.0*	*14.9*	*75*	*88*	*101*	*44*	*23*	*11*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	12	YAKIMA	00U2	37.60	13	93	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	13	93	7.2		
CRUISE	13	93	7.2	9,873	.9
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	55	126.2	15.7	78	42.7	169.2	21,383	20,458	5,902	5,901
DOUG FIR-T	24	92.2	12.1	65	21.2	73.8	8,000	7,794	2,177	2,176
WHEMLOCK-T	12	38.0	13.3	68	10.1	36.9	4,488	4,488	1,203	1,203
WR CEDAR-L	1	1.0	23.2	50	0.6	3.1	115	105	87	87
R ALDER-T	1	5.1	10.5	56	0.9	3.1	307	307	76	76
TOTAL	*93*	*262.6*	*14.1*	*72*	*76.1*	*286.2*	*34,294*	*33,152*	*9,445*	*9,444*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % SD: 1.0 — **SAMPLE TREES - BF**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	7	INF. POP. 10
DOUG FIR-L	44.6	6.0	176	187	198			
DOUG FIR-T	53.2	11.1	94	106	118			
WHEMLOCK-T	53.5	16.1	129	154	179			
WR CEDAR-L								
R ALDER-T								
TOTAL	*52.6*	*5.4*	*151*	*159*	*168*	*110*	*56*	*28*

CL: 68.1 % SD: 1.0 — **TREES/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	69.5	20.0	101	126	151			
DOUG FIR-T	95.8	27.6	67	92	118			
WHEMLOCK-T	207.5	59.8	15	38	61			
WR CEDAR-L	360.6	103.9		1	2			
R ALDER-T	360.6	103.9		5	10			
TOTAL	*29.6*	*8.5*	*240*	*263*	*285*	*38*	*19*	*9*

CL: 68.1 % SD: 1.0 — **BASAL AREA/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	53.0	15.3	143	169	195			
DOUG FIR-T	90.8	26.2	55	74	93			
WHEMLOCK-T	204.9	59.1	15	37	59			
WR CEDAR-L	360.6	103.9		3	6			
R ALDER-T	360.6	103.9		3	6			
TOTAL	*21.2*	*6.1*	*269*	*286*	*304*	*19*	*10*	*5*

CL: 68.1 % SD: 1.0 — **NET BF/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	54.3	15.6	17,258	20,458	23,658			
DOUG FIR-T	94.0	27.1	5,682	7,794	9,905			
WHEMLOCK-T	206.3	59.5	1,820	4,488	7,157			
WR CEDAR-L	360.6	103.9		105	214			
R ALDER-T	360.6	103.9		307	626			
TOTAL	*21.9*	*6.3*	*31,061*	*33,152*	*35,243*	*21*	*11*	*5*

CL: 68.1 % SD: 1.0 — **V-BAR/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-L	54.3	15.6	102	121	140			

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**12**	**YAKIMA**	**00U2**	37.60	13	93	S	W

CL: 68.1 %
SD: 1.0

	COEFF VAR.	S.E.%	V-BAR/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	94.0	27.1	77	106	134			
WHEMLOCK-T	206.3	59.5	49	122	194			
WR CEDAR-L	360.6	103.9		34	69			
R ALDER-T	360.6	103.9		100	203			
TOTAL	*21.9*	*6.3*	*109*	*116*	*123*	*21*	*11*	*5*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**12**	**YAKIMA**	**00U3**	82.10	31	120	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	31	120	3.9		
CRUISE	31	120	3.9	15,721	.8
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-L	57	86.3	12.5	61	20.8	73.5	6,921	6,715	1,974	1,974
DOUG FIR-T	4	10.4	9.5	55	1.7	5.2	483	461	121	121
WHEMLOCK-L	38	51.6	13.2	59	13.5	49.0	5,084	4,788	1,386	1,385
WHEMLOCK-T	20	40.5	10.8	55	7.8	25.8	2,241	2,194	628	629
COTWOOD-T	1	2.7	9.3	45	0.4	1.3	109	109	27	27
TOTAL	*120*	*191.5*	*12.2*	*59*	*44.4*	*154.8*	*14,839*	*14,267*	*4,136*	*4,136*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	39.6	5.2	82	86	91			
DOUG FIR-T	36.0	20.5	38	48	57			
WHEMLOCK-L	37.3	6.0	99	105	111			
WHEMLOCK-T	37.3	8.5	54	59	64			
COTWOOD-T								
TOTAL	*43.8*	*4.0*	*83*	*86*	*89*	*76*	*39*	*19*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	94.8	17.0	72	86	101			
DOUG FIR-T	324.5	58.2	4	10	17			
WHEMLOCK-L	130.9	23.5	39	52	64			
WHEMLOCK-T	130.9	23.5	31	40	50			
COTWOOD-T	556.8	99.9	0	3	5			
TOTAL	*36.0*	*6.5*	*179*	*191*	*204*	*52*	*26*	*13*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	87.8	15.8	62	74	85			
DOUG FIR-T	331.3	59.5	2	5	8			
WHEMLOCK-L	114.8	20.6	39	49	59			
WHEMLOCK-T	117.0	21.0	20	26	31			
COTWOOD-T	556.8	99.9	0	1	3			
TOTAL	*26.5*	*4.7*	*147*	*155*	*162*	*28*	*14*	*7*

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	87.7	15.7	5,658	6,715	7,771			
DOUG FIR-T	338.9	60.8	181	461	741			
WHEMLOCK-L	118.8	21.3	3,767	4,788	5,809			
WHEMLOCK-T	120.2	21.6	1,721	2,194	2,667			
COTWOOD-T	556.8	99.9	0	109	219			
TOTAL	*29.1*	*5.2*	*13,522*	*14,267*	*15,011*	*34*	*17*	*8*

CL: 68.1 % COEFF — **V-BAR/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-L	87.7	15.7	77	91	106			

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	12	YAKIMA	00U3	82.10	31	120	S	W

CL: 68.1 %
SD: 1.0

	COEFF VAR.	S.E.%	V-BAR/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	338.9	60.8	35	89	144			
WHEMLOCK-L	118.8	21.3	77	98	118			
WHEMLOCK-T	120.2	21.6	67	85	103			
COTWOOD-T	556.8	99.9	0	85	170			
TOTAL	*29.1*	*5.2*	*87*	*92*	*97*	*34*	*17*	*8*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	12	YAKIMA	COR2	3.70	4	32	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	4	32	8.0		
CRUISE	4	32	8.0	1,129	2.8
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T	31	300.9	13.7	69	83.6	310.0	36,234	34,189	9,944	9,938
WHEMLOCK-T	1	4.4	20.5	82	2.2	10.0	1,309	1,309	388	388
TOTAL	*32*	*305.3*	*13.9*	*69*	*85.9*	*320.0*	*37,543*	*35,498*	*10,332*	*10,325*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	7	INF. POP. 10
DOUG FIR-T	64.6	11.6	136	154	171			
WHEMLOCK-T								
TOTAL	*63.9*	*11.3*	*140*	*158*	*176*	*163*	*83*	*41*

CL: 68.1 % SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	28.7	16.4	252	301	350			
WHEMLOCK-T	200.0	114.3		4	9			
TOTAL	*28.9*	*16.5*	*255*	*305*	*356*	*44*	*22*	*11*

CL: 68.1 % SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	6.5	3.7	299	310	321			
WHEMLOCK-T	200.0	114.3		10	21			
TOTAL	*10.2*	*5.8*	*301*	*320*	*339*	*5*	*3*	*1*

CL: 68.1 % SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	9.6	5.5	32,306	34,189	36,072			
WHEMLOCK-T	200.0	114.3		1,309	2,804			
TOTAL	*4.2*	*2.4*	*34,648*	*35,498*	*36,348*	*1*	*0*	*0*

CL: 68.1 % SD: 1.0

V-BAR/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	7	INF. POP. 10
DOUG FIR-T	9.6	5.5	104	110	116			
WHEMLOCK-T	200.0	114.3		131	280			
TOTAL	*4.2*	*2.4*	*108*	*111*	*114*	*1*	*0*	*0*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	06E	12	YAKIMA	COR3	8.40	8	26	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	8	26	3.3		
CRUISE	8	26	3.3	1,400	1.9
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T	13	81.7	12.1	62	18.7	65.0	6,127	5,969	1,731	1,731
WHEMLOCK-T	13	84.9	11.8	56	18.9	65.0	6,087	5,959	1,677	1,680
TOTAL	*26*	*166.6*	*12.0*	*59*	*37.6*	*130.0*	*12,213*	*11,928*	*3,408*	*3,410*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

SAMPLE TREES - BF

CL: 68.1 %	COEFF					# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	31.5	9.1	72	79	86			
WHEMLOCK-T	47.4	13.7	71	82	94			
TOTAL	*39.8*	*8.0*	*74*	*81*	*87*	*66*	*34*	*16*

TREES/ACRE

CL: 68.1 %	COEFF					# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	111.8	42.1	47	82	116			
WHEMLOCK-T	69.4	26.2	63	85	107			
TOTAL	*35.1*	*13.2*	*145*	*167*	*189*	*56*	*29*	*14*

BASAL AREA/ACRE

CL: 68.1 %	COEFF					# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	108.8	41.0	38	65	92			
WHEMLOCK-T	65.3	24.6	49	65	81			
TOTAL	*31.8*	*12.0*	*114*	*130*	*146*	*46*	*24*	*12*

NET BF/ACRE

CL: 68.1 %	COEFF					# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	108.9	41.0	3,519	5,969	8,418			
WHEMLOCK-T	67.7	25.5	4,438	5,959	7,481			
TOTAL	*30.0*	*11.3*	*10,577*	*11,928*	*13,279*	*41*	*21*	*10*

V-BAR/ACRE

CL: 68.1 %	COEFF					# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	108.9	41.0	54	92	130			
WHEMLOCK-T	67.7	25.5	68	92	115			
TOTAL	*30.0*	*11.3*	*81*	*92*	*102*	*41*	*21*	*10*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**12**	**YAKIMA**	**RWU2**	0.40	1	4	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	1	4	4.0		
CRUISE	1	4	4.0	30	13.3
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK-T	2	48.9	12.2	53	11.4	40.0	3,449	3,449	1,095	1,095
DOUG FIR-T	2	26.2	16.7	69	9.8	40.0	4,084	4,084	1,267	1,267
TOTAL	*4*	*75.1*	*14.0*	*59*	*21.4*	*80.0*	*7,533*	*7,533*	*2,362*	*2,362*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %
SD: 1.0

	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	7	INF. POP. 10
WHEMLOCK-T	92.2	86.4	16	115	214			
DOUG FIR-T	22.8	21.4	122	155	188			
TOTAL	*50.8*	*29.0*	*96*	*135*	*174*	*135*	*69*	*34*

STATISTICS

PROJECT YAKIMA

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**06E**	**12**	**YAKIMA**	**RWU3**	0.20	1	3	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	1	3	3.0		
CRUISE	1	3	3.0	17	17.9
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T	2	69.7	10.3	50	12.5	40.0	2,695	2,695	831	831
COTWOOD-T	1	14.3	16.0	65	5.0	20.0	2,005	2,005	573	573
TOTAL	*3*	*84.0*	*11.4*	*53*	*17.7*	*60.0*	*4,700*	*4,700*	*1,405*	*1,405*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	7	10
DOUG FIR-T	47.1	44.1	25	45	65			
COTWOOD-T								
TOTAL	*74.2*	*51.3*	*37*	*77*	*116*	*316*	*161*	*79*

TC PSPCTLTCM

Species Summary - Trees, Logs, Tons, CCF, MBF

T29N R06E S01 Ty00U1	157.4
T29N R06E S01 TyCOR	16.2
T29N R06E S12 TyRWU	.2

Project YAKIMA
Acres 310.10

Page No 1
Date: 10/12/2015
Time 2:47:21PM

Species	ST	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
DOUG FIR	L	29,567	49,022	24,243	28.77	17.35	0.53	8,506	8,505	3,018	2,881
WHEMLOCK	L	10,342	16,052	7,898	23.87	15.38	0.52	2,468	2,468	855	816
WHEMLOCK	T	10,064	14,728	7,583	23.55	16.09	0.49	2,370	2,370	836	806
DOUG FIR	T	8,912	13,916	6,239	24.56	15.73	0.48	2,189	2,189	795	756
R ALDER	T	529	529	140	9.63	9.63	0.33	51	51	18	18
WR CEDAR	L	156	268	228	62.59	36.33	1.43	97	97	15	15
COTWOOD	T	239	242	67	11.51	11.38	0.33	28	28	11	11
Totals		59,809	94,757	46,399	26.26	16.58	0.52	15,709	15,708	5,548	5,303

Wood Type Species	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
C	59,040	93,986	46,192	26.47	16.63	0.52	15,631	15,629	5,519	5,274
H	768	771	208	10.21	10.18	0.33	78	78	29	29
Totals	59,809	94,757	46,399	26.26	16.58	0.52	15,709	15,708	5,548	5,303

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

FPA/N No: 2814857
Effective Date: 10/16/2015
Expiration Date: 10/16/2018
Shut Down Zone: 656
EARR Tax Credit: [X] Eligible [] Non-eligible
Reference: Yakima Valley VDT

Forest Practices Application/Notification
Notice of Decision

DECISION:

[] **NOTIFICATION**	Operations shall not begin before the effective date.
[X] **APPROVED**	This Forest Practices Application is subject to the conditions listed below.
[] **DISAPPROVED**	This Forest Practices Application is disapproved for the reasons listed below.
[] **CLOSED**	Applicant has withdrawn FPA/N.

FPA/N CLASSIFICATION

[] Class II [X] Class III [] Class IVG [] Class IVS

Number of Years Granted on Multi-Year Request

[ ] 4yrs [ ] 5 yrs

Conditions on Approval / Reasons for Disapproval

THIS OPERATION IS SUBJECT TO THESE CONDITIONS:

No additional condition.

FOR YOUR INFORMATION:

Notify DNR Northwest Region Office (360-856-3500) 48 business hours before commencing timber harvest operations. Please provide the application number and legal description for your operation.

Issued By: Steven Huang **Region:** Northwest

Title: Skykomish Forest Practice Forester **Date:** 10/16/2015

Copies to: [X] Landowner, Timber Owner and Operator
Issued in Person: [X] Landowner, [ ]Timber Owner [ ] Operator **By:**

Appeal Information

You have thirty (30) days to appeal this Decision and any related State Environmental Policy Act determinations to the Pollution Control Hearings Board in writing at the following addresses:
Physical address: 1111 Israel Rd. SW, Ste 301, Tumwater, WA 98501
Mailing address: P.O. BOX 40903, OLYMPIA, WA 98504-0903
Information regarding the Pollution Control Hearings Board can be found at: http://www.eluho.wa.gov/
At the same time you file an appeal with the Pollution Control Hearings Board, also send a copy of the appeal to the Department of Natural Resources' region office and the Office of the Attorney General at the following addresses:

Office of the Attorney General
Natural Resources Division
1125 Washington Street SE
PO Box 40100
Olympia, WA 98504-0100

And

Department Of Natural Resources
Northwest Region
919 N Township Street
Sedro-Woolley, WA 98284

Other Applicable Laws

Operating as described in this application/notification does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

Hydraulic Project Approval (HPA) (Chapter 77.55RCW and WAC 222-50-020(2))

The Department of Fish and Wildlife (WDFW), as the jurisdictional agency issuing HPAs, has final authority for approving water crossing structures in Type S and F waters. WDFW continues to have authority on Type N waters and may exercise that authority on some Type N waters.

Notice: The HPA water crossing requirements supersede what is indicated on the FPA. Landowners are required by law to follow the provisions as directed on the HPA.

Transfer of Forest Practices Application/Notification (WAC 222-20-010)

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices Division website: http://www.dnr.wa.gov/businesspermits/forestpractices. Notify DNR of new Operators within 48 hours.

Continuing Forest Land Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)

Obligations include reforestation, road maintenance and abandonment plans, conversions of forest land to non-forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

Before the sale or transfer of land or perpetual timber rights subject to continuing forest land obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forest land obligation, the seller must pay the buyer's costs related to continuing forest land obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forest land obligation against the seller.

Failure by the seller to send the required notice to the DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forest land obligation prior to sale.

DNR affidavit of mailing:

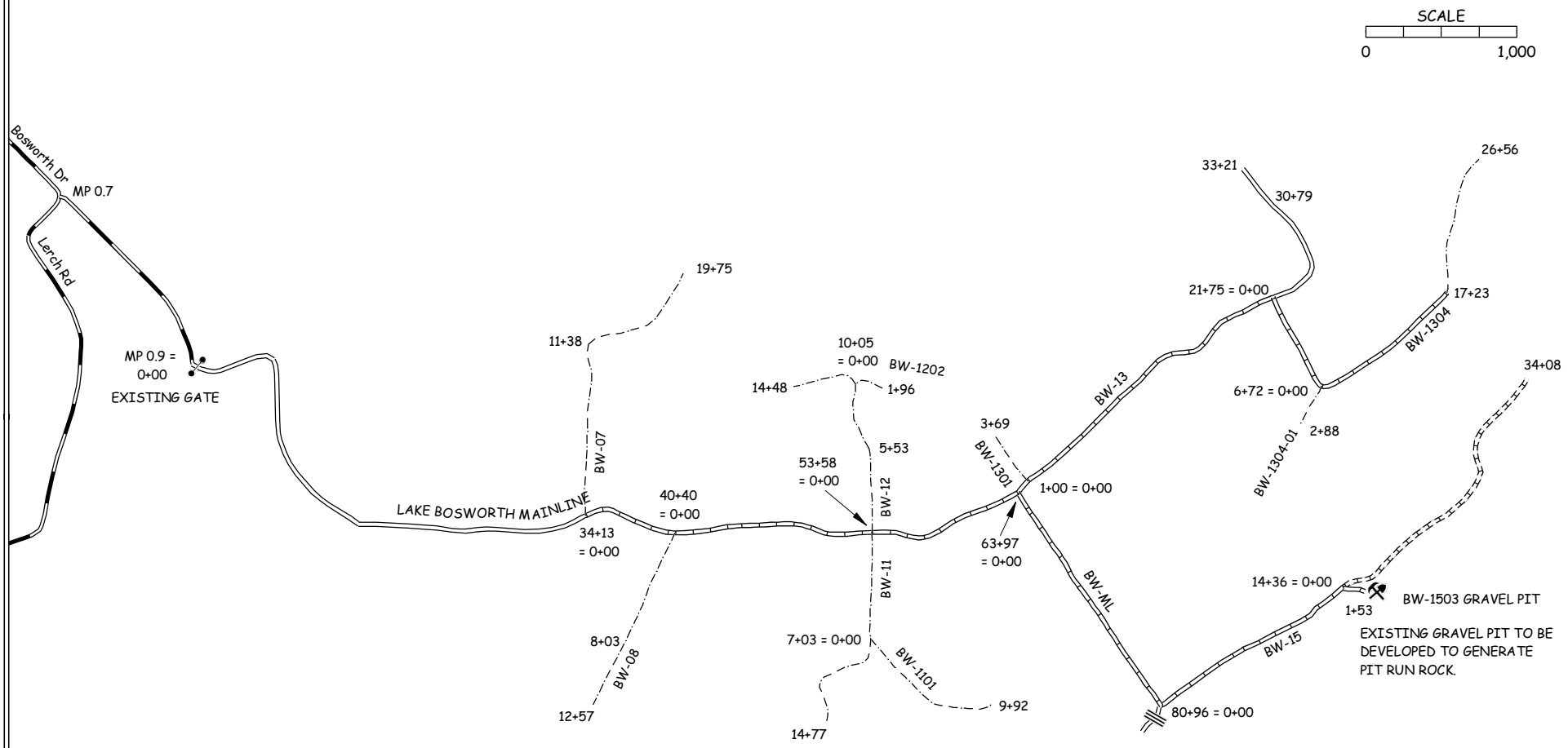
On this day _____, I placed in the United States mail at Sedro-Woolley, WA, postage paid,
a true and accurate copy of the attached document. Notice of Decision FPA #_____

_____L Utgard_____ _____
(Printed name) (Signature)

WASHINGTON STATE
DEPT. OF NATURAL RESOURCES
NORTHWEST REGION

ROAD PLAN AND SPECIFICATIONS
#30-092545 YAKIMA VALLEY VDT

CASCADE DISTRICT STARBIRD UNIT
S1,12 - T29N - R06E S6,7 - T29N - R07E



SHEET INDEX

LEGEND

- REQUIRED CONSTRUCTION
- OPTIONAL CONSTRUCTION
- REQUIRED RECONSTRUCTION
- OPTIONAL RECONSTRUCTION

DESIGNED BY	REVIEWED BY	APPROVED BY	PLAN DATE	SHEET
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STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

YAKIMA VALLEY THIN TIMBER SALE ROAD PLAN
SNOHOMISH COUNTY
STARBIRD UNIT CASCADE DISTRICT

AGREEMENT NO.: 30-092545 STAFF ENGINEER: SYMMANK

DATE: APRIL 21, 2015

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

0-2 REQUIRED ROADS

The specified work on the following roads is required.

Road	Stations	Type
BW-ML	34+13 to 80+96	RECONSTRUCTION
BW-13	0+00 to 21+75	RECONSTRUCTION
BW-1304	0+00 to 17+23	RECONSTRUCTION
BW-15	0+00 to 14+36	RECONSTRUCTION
BW-1503	0+00 to 1+53	RECONSTRUCTION

0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser shall meet all the specifications in the road plan.

Road	Stations	Type
BW-07*	0+00 to 11+38	CONSTRUCTION
BW-07	11+38 to 19+75	CONSTRUCTION
BW-08*	0+00 to 12+57	CONSTRUCTION
BW-11*	0+00 to 14+77	CONSTRUCTION
BW-1101*	0+00 to 9+92	CONSTRUCTION
BW-12*	0+00 to 5+53	CONSTRUCTION
BW-12	5+53 to 14+48	CONSTRUCTION
BW-1202	0+00 to 1+96	CONSTRUCTION
BW-1301	0+00 to 3+69	CONSTRUCTION
BW-1304*	17+23 to 26+56	CONSTRUCTION
BW-1304-01*	0+00 to 2+88	CONSTRUCTION
BW-15	14+36 to 34+08	RECONSTRUCTION

* Construction is on previously abandoned road grades.

0-4 CONSTRUCTION

Construction includes, but is not limited to clearing, grubbing, excavation and embankment to sub-grade, landing and turnout construction, culvert installation, geotextile installation, and application of pit run rock.

0-5 RECONSTRUCTION

Reconstruction includes, but is not limited to blading, shaping, and ditching the road surface, culvert installation, existing culvert clean out, spot application of 3-inch-minus ballast rock, and application of pit run rock.

0-12 DEVELOP ROCK SOURCE

The Purchaser shall develop existing rock sources. Development will involve clearing, stripping, drilling, shooting, and processing rock to generate riprap, 3-inch-minus ballast, and pit run rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to relocation, extension, change in design, or adding roads; a revised road plan shall be submitted, in writing, to the Contract Administrator for consideration. The State must approve the submitted plans before road work begins.

1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions or Purchaser's choice of construction season or techniques shall be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

1-3 ROAD DIMENSIONS

Unless controlled by construction stakes, road work shall be performed in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan.

1-4 ROAD TOLERANCES

Road work shall be performed within the tolerance listed below. The tolerance class for each road is listed on the TYPICAL SECTION SHEET.

Tolerance Class	A	B	C
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

1-5 DESIGN DATA

Design data is available at the Department of Natural Resources Northwest Region Office in Sedro Woolley, WA upon request.

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

The Purchaser is responsible for the repair or replacement of all materials, roadway infrastructure, and road components damaged during road work or operation activities. Repairs and replacements shall be directed by the Contract Administrator. Repairs to structural materials will be made according to the manufacturer’s recommendation.

1-9 DAMAGED METALLIC COATING

Any damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes shall be cleaned and treated with a minimum of two coats of zinc rich paint.

1-18 REFERENCE POINT DAMAGE

The Purchaser, at their own expense, shall reset reference points (RPs) that were moved or damaged at any time during construction to their original locations. Excavation and embankment shall not proceed on road segments controlled by said RPs until the Purchaser resets all moved or damaged RPs.

1-21 HAUL APPROVAL

The Purchaser shall not use roads under this road plan for hauling other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not permitted during the listed closure period(s) unless authorized in writing by the Contract Administrator.

Activity	Closure Period
Rock hauling, construction, reconstruction, or abandonment	November 1 to March 31

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION the Purchaser shall provide a maintenance plan to include further protection of state resources. The Contract Administrator must approve the maintenance plan in writing, and preventative measures shall be put in place, before operation in the closure period. The Purchaser shall be required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan shall be developed. All parties shall follow this plan.

1-29 SEDIMENT RESTRICTION

Silt-bearing runoff shall not be permitted to go into streams.

1-33 SNOW PLOWING RESTRICTION

Snowplowing shall be permitted only after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact Administrator upon request.

SECTION 2 – MAINTENANCE

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

Purchaser shall perform maintenance on roads listed in Contract Clause C-050 PURCHASER ROAD MAINTENANCE AND REPAIR in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

Purchaser shall clean the ditchlines, culvert headwalls, and catch basins. Work shall be completed before application of rock and shall be done in accordance with the TYPICAL SECTION.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

Fell all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries **<**and within waste and debris areas,**>** or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing shall be completed before starting excavation and embankment.

3-10 GRUBBING

Remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Those stumps outside the grubbing limits but with undercut roots shall also be removed. Grubbing shall be completed before starting excavation and embankment.

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clauses G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the clearing limits as shown on the TYPICAL SECTION SHEET.

3-21 DISPOSAL COMPLETION

All disposal of organic debris shall be completed before the application of rock.

3-23 PROHIBITED DISPOSAL AREAS

Organic debris shall not be deposited in the following areas:

- Within 30 feet of a cross drain culvert.
- Within 30 feet of a live stream, or wetland.
- On embankments.
- On slopes greater than 40%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush will fall into the ditch or onto the road surface.
- Against standing timber.

3-24 BURYING ORGANIC DEBRIS RESTRICTED

Organic debris shall not be buried unless otherwise stated in this plan.

3-25 SCATTERING ORGANIC DEBRIS

Organic debris shall be scattered outside of the clearing limits in natural openings unless otherwise detailed in this road plan.

SECTION 4 – EXCAVATION

4-2 PIONEERING

Pioneering shall not extend past construction that will be completed during the current construction season. Pioneering shall not extend more than 500 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions shall be taken as pioneering progresses:

- Drainage shall be provided on all uncompleted construction.
- Road pioneering operations shall not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings shall be installed during pioneering operations prior to embankment.

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

The following road grade and alignment standards shall be followed:

- Grade and alignment shall have smooth continuity, without abrupt changes in direction.
- Maximum grade shall not exceed 18 percent favorable and 15 percent adverse.
- Minimum curve radius is 50 feet at centerline.
- Sag vertical curves shall not have a grade change greater than 5% in 100 feet.
- Crest vertical curves shall not have a grade change greater than 4% in 100 feet.

4-5 CUT SLOPE RATIO

Unless construction staked or designed excavation slopes shall be constructed no steeper than shown on the following table:

Material Type	Excavation Slope Ratio	Excavation Slope Percent
Common Earth (on side slopes up to 55%)	1:1	100
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

Unless construction staked or designed embankment slopes shall be constructed no steeper than shown on the following table:

Material Type	Embankment Slope Ratio	Embankment Slope Percent
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	1¼:1	80

4-7 SHAPING CUT AND FILL SLOPE

Excavation and embankment slopes shall be constructed to a uniform line and left rough for easier revegetation.

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

Embankment widening shall be applied equally to both sides of the road to achieve the required width.

4-21 TURNOUTS

Turnouts shall be intervisible with maximum of 1,000 feet between turnouts unless shown otherwise on drawings. Locations shall be adjusted to fit the final subgrade alignment and sight distances. Turnout locations shall be subject to written approval by the Contract Administrator. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

The Purchaser shall construct or reconstruct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Excavated slopes shall be consistent with Clause 4-5 CUT SLOPE RATIO. Ditches shall be constructed concurrently with construction of the subgrade.

4-28 DITCH DRAINAGE

Ditches shall drain to cross-drain culverts and ditchouts.

4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

4-36 DISPOSAL OF WASTE MATERIAL

Waste material may be sidecast on side slopes up to 50% if the waste material is compacted and free of organic debris. On side slopes greater than 50%, all excavation shall be end hauled or pushed to designated embankment sites and waste areas.

4-38 PROHIBITED WASTE DISPOSAL AREAS

Waste material shall not be deposited in the following areas, except as otherwise specified in this plan:

- Within 30 feet of a cross drain culvert.
- Within 30 feet of a live stream or wetland.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.

4-55 ROAD SHAPING

The road subgrade and surface shall be shaped as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape shall ensure runoff in an even, un-concentrated manner, and shall be uniform, firm, and rut-free.

4-60 FILL COMPACTION

All embankment and waste material shall be compacted by routing equipment over the entire width of each lift.

4-61 SUBGRADE COMPACTION

Constructed or reconstructed subgrades shall be compacted by routing equipment over the entire width.

4-70 SUBGRADE REINFORCEMENT

On the following road(s), the Purchaser shall provide and install geotextile fabric. Subgrade reinforcement shall be installed to a width that is 2 feet more than the subgrade width, including turnouts. Geotextile fabric shall be overlapped by a minimum of 2 feet at all joints. The geotextile fabric will then be covered with a minimum of 18 inches of compacted pit run rock. Geotextile fabric shall meet the specifications in Clause 10-3 GEOTEXTILE FOR STABILIZATION.

Road	Stations
BW-12	5+53 to 10+05
BW-1301	0+00 to 3+69

SECTION 5 – DRAINAGE

5-5 CULVERTS

Culverts shall be installed as part of this contract. Culverts shall be installed concurrently with subgrade work and shall be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on MATERIALS LIST. Culvert, downspout, and flume lengths shall be adjusted to fit as-built conditions and shall not terminate directly on unprotected soil. Culverts shall be new or used and meet the material specifications in Clauses 10-15 through 10-23. The quality of used culverts must be approved by the Contract Administrator before installation.

5-11 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the MATERIALS LIST that are not installed shall become the property of the state. Purchaser shall stockpile materials as directed by the Contract Administrator.

5-15 CULVERT INSTALLATION

Installation shall be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures."

5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Installation of culverts 36 inches in diameter and over shall be subject to written approval by the Contract Administrator before making backfill.

5-17 CROSS DRAIN SKEW AND SLOPE

Cross drains, on road grades in excess of 3%, shall be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road, culverts shall not be skewed. Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

5-25 CATCH BASINS

Catch basins shall be constructed to resist erosion in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long with backslopes consistent with Clause 4-5 CUT SLOPE RATIO.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Headwalls shall be constructed in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock used for headwalls shall weigh at least 50 pounds. Rock shall be placed on shoulders, slopes, and around culvert inlets and outlets. Rock shall not restrict the flow of water into culvert inlets or catch basins. No placement by end dumping or dropping of rock shall be allowed.

5-27 ARMORING FOR CULVERTS

Purchaser shall place rip rap in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the MATERIALS LIST or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed. Rip rap must meet the specifications in Clause 6-50 LIGHT LOOSE RIP RAP and 6-51 HEAVY LOOSE RIP RAP.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following sources on state land at no charge to the Purchaser. Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using, or desire to use the rock sources, a joint operating plan shall be developed. All parties shall follow this plan.

Source	Location	Rock Type
PK-1101 Hardrock Pit	STA 7+60 of the PK-11 road	3-inch-minus ballast, riprap
BW-1503 Gravel Pit	STA 1+53 of the BW-1503 road	pit run rock
FG-01 Gravel Pit	STA 6+16 of the FG-ML road	pit run rock alternate

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following existing stockpile on state land at no charge to the Purchaser. Purchaser shall remove no more than 374 cubic yards of 3-inch-minus ballast rock. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Stockpiles not listed shall not be used without prior written approval from the Contract Administrator.

Source	Location	Rock Type	Quantity
PK-1101 Hardrock Pit	STA 7+60 of the PK-11 road	3-inch-minus ballast	374 CY

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources will be subject to written approval by the Contract Administrator before their use.

6-11 ROCK SOURCE DEVELOPMENT PLAN BY PURCHASER

All rock source development and use at the following sources, shall be in accordance with a written ROCK SOURCE DEVELOPMENT PLAN to be prepared by the Purchaser. The plan is subject to written approval by the Contract Administrator before any rock source development or use. Upon completion of operations, the rock source shall be left in the condition specified in the ROCK SOURCE DEVELOPMENT PLAN, and approved in writing by the Contract Administrator.

Source
PK-1101 Hardrock Pit
BW-1503 Gravel Pit
FG-01 Gravel PIt

Rock source development plans prepared by the Purchaser shall show the following information:

- Rock source location.
- Rock source overview showing access roads, development areas, stockpile locations, waste areas, and floor drainage.
- Rock source profiles showing development areas, bench locations including widths, and wall faces including heights.

6-23 ROCK GRADATION TYPES

Purchaser shall manufacture rock in accordance with the types and amounts listed in the TYPICAL SECTION and MATERIALS LIST. Rock shall meet the following specifications for gradation and uniform quality when placed in hauling vehicles or during manufacture and placement into a stockpile. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator.

6-34 3-INCH MINUS BALLAST ROCK

Ballast rock shall be 100% equal to, or smaller than, 3 inches in at least one dimension.

Rock shall contain no more than 5 percent organic debris, dirt, and trash. All percentages are by weight.

6-41 PIT RUN ROCK

No more than 50 percent of the rock may be larger than 8 inches in any dimension and no rock may be larger than 12 inches in any dimension. Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-50 LIGHT LOOSE RIP RAP

Rip rap shall consist of angular, hard, sound, and durable stone. It shall be free from segregation, seams, cracks, and other defects. Light loose rip rap shall be free of rock fines, soil, organic debris or other extraneous material, and shall meet the following requirements:

At Least/Not More Than	Weight Range
20% / 90%	300 lbs. to 1 ton
80% / --	50 lbs. to ½ ton
10% / 20%	50 lbs. max

6-51 HEAVY LOOSE RIP RAP

Rip rap shall consist of angular, hard, sound, and durable stone. It shall be free from segregation, seams, cracks, and other defects. Heavy loose riprap shall be free of rock fines, soil, organic debris or other extraneous material, and shall meet the following requirements:

At Least/Not More Than	Weight Range	Size Range
30% / 90%	1 ton to 3 ton	36”- 54”
70% / 90%	500 lbs. to 1 ½ ton	24”- 42”
10% / 30%	50 lbs. max	3”- 8”

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the TYPICAL SECTION are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements, and are not subject to reduction.

6-70 APPROVAL BEFORE ROCK APPLICATION

Subgrade drainage installation including culvert installation, ditch construction, ditch reconstruction, headwall construction, and headwall reconstruction, shall be completed and approved in writing by the Contract Administrator, before rock application.

6-71 ROCK APPLICATION

Rock shall be applied in accordance with the specifications and quantities shown on the TYPICAL SECTION. Rock shall be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator shall direct locations for rock that is to be applied as spot patching. Road surfaces shall be compacted in accordance with the TYPICAL SECTION by routing equipment over the entire width.

6-73 ROCK FOR WIDENED PORTIONS

Turnarounds, turnouts, and areas with curve widening shall have rock applied to the same depth and specifications as the traveled way.

SECTION 8 – EROSION CONTROL

8-15 REVEGETATION

Purchaser shall spread seed and fertilizer on all exposed soils within the grubbing limits resulting from road work activities. Covering of all exposed soils shall be accomplished by manual dispersal of grass seed and fertilizer. Other methods of covering must be approved in writing by the Contract Administrator.

8-17 REVEGETATION TIMING

The Purchaser shall perform revegetation during the first available opportunity after road work is completed. Soils shall not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for seed if revegetation occurs between July 1 and March 31. The protective cover shall consist of, but not be limited to dispersed straw, jute matting, or clear plastic sheets as approved by the Contract Administrator. The protective cover requirement may be waived by the Contract Administrator, in writing, if the Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 ASSURANCE FOR SEEDED AREA

The Purchaser shall be responsible to ensure a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. The Purchaser shall reapply the seed and fertilizer in areas that have failed to germinate or have been damaged through any cause, before approval from the Contract Administrator. The Purchaser shall restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the seed and fertilizer at no addition cost to the state.

8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 50 pounds per acre of exposed soil. Grass seed shall meet the following specifications:

1. Weed seed shall not exceed 0.5% by weight.
2. All seed species shall have a minimum 90% germination rate, unless otherwise specified.
3. Seed shall be certified.
4. Seed shall be furnished in standard containers the show the following information:
    a. Common name of seed
    b. Net weight
    c. Percent of purity
    d. Percentage of germination
    e. Percentage of weed seed and inert material
5. Seed shall conform to the following mixture.

Kind and Variety of Seed in Mixture	% by Weight
Creeping Red Fescue	50
Elf Perennial Rye Grass	25
Highland Colonial Bentgrass	15
White Clover	10
Inert and Other Crop	0.5

8-27 FERTILIZER

Purchaser shall evenly spread the fertilizer listed below on all exposed soil inside the grubbing limits at a rate of 200 pounds per acre of exposed soil. Fertilizer shall meet the following specifications:

Chemical Component	% by Weight
Nitrogen	16
Phosphorous	16
Potassium	16
Sulphur	3
Inerts	49

SECTION 9 – POST-HAUL ROAD WORK

9-3 REMOVAL OF CULVERT MATERIAL FROM STATE LAND

Culvert material removed from roads becomes the property of the Purchaser and must be removed from state land.

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface as approved, in writing, by the Contract Administrator.

9-12 LANDING EMBANKMENT REMOVAL

The Purchaser shall reduce or relocate landing embankment, in a manner approved, in writing, by the Contract Administrator. Excavated material shall be placed in a waste area designated by the Contract Administrator.

9-21 ROAD ABANDONMENT

The following road(s) shall be abandoned by the Purchaser before the termination of this contract.

Road	Stations
BW-07	STA 0+00 to 19+75
BW-08	STA 0+00 to 12+57
BW-11	STA 0+00 to 14+77
BW-1101	STA 0+00 to 9+92
BW-12	STA 0+00 to 14+48
BW-1202	STA 0+00 to 1+96
BW-13	STA 30+79 to 33+21
BW-1301	STA 0+00 to 3+69
BW-1304	STA 0+00 to 26+56
BW-1304-01	STA 0+00 to 2+88
BW-15	STA 14+36 to 34+08 Past gravel pit

9-22 ABANDONMENT

- Remove all ditch relief culverts. The resulting slopes shall be 1:1 or flatter. The removed fill material shall be placed and compacted in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Remove all culverts in natural drainages. The resulting slopes shall be 1:1 or flatter. Strive for matching the existing native stream bank gradient. The natural streambed width shall be re-established. The removed fill material shall be placed and compacted in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Transport all removed culverts off site. All removed culverts shall become the property of the Purchaser.
- Construct non-drivable waterbars at natural drainage points and at a spacing that will produce a vertical drop of no more than 20 feet between waterbars and with a maximum horizontal spacing of 400 feet.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars shall be outsloped to provide positive drainage. Outlets shall be on stable locations.

- Inslope or outslope the road as appropriate.
- Remove bridges and other structures.
- Pull back unstable fill that has potential of failing and entering any Type 1 through 5 waters or wetlands. Removed material shall be placed and compacted in a stable location.
- Remove berms except as designed.
- Block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.
- Apply grass seed to all exposed soils resulting from the abandonment work and in accordance with Section 8 EROSION CONTROL.

SECTION 10 MATERIALS

10-3 GEOTEXTILE FOR STABILIZATION

Geotextiles shall meet the following minimum requirements for strength and property qualities, and shall be designed by the manufacturer to be used for stabilization or reinforcement, and filtration. Material shall be free of defects, cuts, and tears.

	ASTM Test	Requirements
Type	--	Woven
Apparent opening size	D 4751	No. 40 max
Water permittivity	D 4491	0.10 sec^{-1}
Grab tensile strength	D 4632	315 lb
Grab tensile elongation	D 4632	50%
Puncture strength	D 6241	620 lb
Tear strength	D 4533	112 lb
Ultraviolet stability	D 4355	50% retained after 500 hours of exposure

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts shall meet AASHTO M-36 (ASTM A-760) specifications. Culverts shall be galvanized (zinc coated meeting AASHTO M-218).

10-16 CORRUGATED ALUMINUM CULVERT

Aluminum culverts shall meet AASHTO M-196 (ASTM A-745) specifications.

10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts shall meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene. Culverts shall be Type S – double walled with a corrugated exterior and smooth interior.

10-21 METAL BAND

Metal coupling and end bands shall meet the AASHTO specification designated for the culvert and shall have matching corrugations. On culverts 24 inches and smaller, bands shall have a minimum width of 12 inches. On culverts over 24 inches, bands shall have a minimum width of 24 inches.

10-22 PLASTIC BAND

Plastic coupling and end bands shall meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer shall be used.

10-23 GAGE AND CORRUGATION

Unless otherwise stated, metal culverts shall conform to the following specifications for gage and corrugation as a function of diameter.

Diameter	Gage	Corrugation
18"	16 (0.064”)	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
24" to 48"	14 (0.079”)	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
54" to 96"	14 (0.079”)	3" X 1"

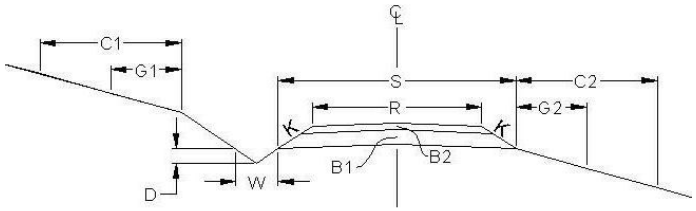
SECTION 11 SPECIAL NOTES

11-1 RECONSTRUCTION NOTES

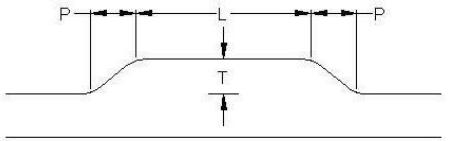
Road	Location	Action/Remarks
BW-ML	34+13 to 80+96	• Blade, shape and ditch. Clean out existing culverts. • Location of spot surfacing of 3-inch-minus ballast is as directed by the contract administrator and is intended for use over water crossings. • Install silt fencing at water crossings as directed by the contract administrator.
BW-13	0+00 to 21+75	• Blade, shape and ditch. Clean out existing culverts. • Location of spot surfacing of 3-inch-minus ballast is as directed by the contract administrator and is intended for use over water crossings. • Install silt fencing at water crossings as directed by the contract administrator.
BW-1304	0+00 to 17+23	• Blade, shape and ditch. Clean out existing culverts.
BW-15	0+00 to 34+08	• Blade, shape and ditch. Clean out existing culverts.

ROAD #		BW-ML	BW-ML	BW-07[2]	BW-07
REQUIRED / OPTIONAL		Required	Required	Optional	Optional
CONSTRUCT / RECONSTRUCT		Reconstruction	Reconstruction	Construction	Construction
TOLERANCE CLASS (A/B/C)		C	C	C	C
STATION / MP TO		34+13	63+97	0+00	11+38
STATION / MP		63+97	80+96	11+38	19+75
ROAD WIDTH	R	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3
DITCH WIDTH	W	3	3	2	2
DITCH DEPTH	D	1	1	1	1
TURNOUT LENGTH	L	50	50	25	25
TURNOUT WIDTH	T	10	10	10	10
TURNOUT TAPER	P	25	25	25	25
GRUBBING	G1	--	--	5	5
	G2	--	--	5	5
CLEARING	C1	-	-	10	10
	C2	--	--	10	10
ROCK FILLSLOPE	K:1	1½	1½	1½	1½
❖ BALLAST DEPTH	B1	--	--	6	18
CUBIC YARDS / STATION		--	--	37	124
➢ TOTAL CY BALLAST		272[1]	--	422	1038
❖ SURFACING DEPTH	B2	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--
➢ TOTAL CY SURFACING		--	--	--	--
➢ TOTAL CUBIC YARDS		272	--	422	1038
SUBGRADE WIDTH	S	--	--	13.5	16.5
BRUSHCUT (Y/N)		N/A	N/A	N/A	N/A
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	N/A	N/A

TYPICAL SECTION



TURNOUT DETAIL (PLAN VIEW)



SYMBOL NOTES

❖ Specified Rock Depth is FINISHED COMPACTED DEPTH in inches.

➢ Specified Rock Quantity is LOOSE MEASURE (Truck Cubic Yards) needed to accomplish specified FINISHED COMPACTED DEPTH. Rock quantities include volume for turnouts, curve widening and landings.

1 Use 3-inch-minus ballast from the PK-1101 Hardrock Pit. All other roads may use pit run rock.

2 These are previously abandoned road grades.

ROAD #		BW-08[2]	BW-08[2]	BW-11[2]	BW-1101[2]	BW-12[2]	BW-12	BW-1201
REQUIRED / OPTIONAL		Optional	Optional	Optional	Optional	Optional	Optional	Optional
CONSTRUCT / RECONSTRUCT		Construction	Construction	Construction	Construction	Construction	Construction	Construction
TOLERANCE CLASS (A/B/C)		C	C	C	C	C	C	C
STATION / MP TO		0+00	8+03	0+00	0+00	0+00	5+53	0+00
STATION / MP		8+03	12+57	14+77	9+92	5+53	14+48	1+96
ROAD WIDTH	**R**	12	12	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3
DITCH WIDTH	**W**	2	2	2	2	2	2	2
DITCH DEPTH	**D**	1	1	1	1	1	1	1
TURNOUT LENGTH	**L**	25	25	25	25	25	25	25
TURNOUT WIDTH	**T**	10	10	10	10	10	10	10
TURNOUT TAPER	**P**	25	25	25	25	25	25	25
GRUBBING	**G1**	5	5	5	5	5	5	5
	G2	5	5	5	5	5	5	5
CLEARING	**C1**	10	10	10	10	10	10	10
	C2	10	10	10	10	10	10	10
ROCK FILLSLOPE	**K:1**	1½	1½	1½	1½	1½	1½	1½
❖ **BALLAST DEPTH**	**B1**	12	18	12	12	12	18	18
CUBIC YARDS / STATION		78	124	78	78	78	124	124
➢ **TOTAL CY BALLAST**		627	563	1153	774	432	1110	244
❖ **SURFACING DEPTH**	**B2**	--	--	--	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--	--	--	--
➢ **TOTAL CY SURFACING**		--	--	--	--	--	--	--
➢ **TOTAL CUBIC YARDS**		627	563	1153	774	432	1110	244
SUBGRADE WIDTH	**S**	15	16.5	15	15	15	16.5	16.5
BRUSHCUT (Y/N)		N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLADE, SHAPE, & DITCH (Y/N)		N/A	N/A	N/A	N/A	N/A	N/A	N/A

ROAD #		BW-13	BW-1301[2]	BW-1304	BW-1304[2]	BW-1304-01[2]	BW-15	BW-15
REQUIRED / OPTIONAL		Required	Optional	Required	Optional	Optional	Required	Optional
CONSTRUCT / RECONSTRUCT		Reconstruction	Construction	Reconstruction	Construction	Construction	Reconstruction	Reconstruction
TOLERANCE CLASS (A/B/C)		C	C	C	C	C	C	C
STATION / MP TO		0+00	0+00	0+00	17+23	0+00	0+00	14+36
STATION / MP		21+75	3+69	17+23	26+56	2+88	14+36	34+08
ROAD WIDTH	R	12	12	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3
DITCH WIDTH	W	3	2	3	2	2	3	2
DITCH DEPTH	D	1	1	1	1	1	1	1
TURNOUT LENGTH	L	50	25	50	25	25	50	25
TURNOUT WIDTH	T	10	10	10	10	10	10	10
TURNOUT TAPER	P	25	25	25	25	25	25	25
GRUBBING	G1	--	5	--	5	5	--	--
	G2	--	5	--	5	5	--	--
CLEARING	C1	-	10	-	10	10	-	-
	C2	--	10	--	10	10	--	--
ROCK FILLSLOPE	K:1	1½	1½	1½	1½	1½	1½	1½
❖ BALLAST DEPTH	B1	--	18	--	6	12	--	--
CUBIC YARDS / STATION		--	124	--	37	78	--	--
➢ TOTAL CY BALLAST		102[1]	458	--	346	225	--	--
❖ SURFACING DEPTH	B2	--	--	--	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--	--	--	--
➢ TOTAL CY SURFACING		--	--	--	--	--	--	--
➢ TOTAL CUBIC YARDS		102	458	--	346	225	--	--
SUBGRADE WIDTH	S	--	16.5	--	13.5	15	--	--
BRUSHCUT (Y/N)		N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLADE, SHAPE, & DITCH (Y/N)		Y	N/A	Y	N/A	N/A	Y	Y

ROAD #		BW-1503						
REQUIRED / OPTIONAL		Required						
CONSTRUCT / RECONSTRUCT		Reconstruction						
TOLERANCE CLASS (A/B/C)		C						
STATION / MP TO		0+00						
STATION / MP		1+53						
ROAD WIDTH	**R**	12						
CROWN (INCHES @ C/L)		3						
DITCH WIDTH	**W**	3						
DITCH DEPTH	**D**	1						
TURNOUT LENGTH	**L**	50						
TURNOUT WIDTH	**T**	10						
TURNOUT TAPER	**P**	25						
GRUBBING	**G1**	--						
	G2	--						
CLEARING	**C1**	-						
	C2	--						
ROCK FILLSLOPE	**K:1**	1½						
❖ **BALLAST DEPTH**	**B1**	12						
CUBIC YARDS / STATION		78						
➢ **TOTAL CY BALLAST**		120						
❖ **SURFACING DEPTH**	**B2**	--						
CUBIC YARDS / STATION		--						
➢ **TOTAL CY SURFACING**		--						
➢ **TOTAL CUBIC YARDS**		120						
SUBGRADE WIDTH	**S**	15						
BRUSHCUT (Y/N)		N/A						
BLADE, SHAPE, & DITCH (Y/N)		Y						

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			**Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:** **Diameter / Gage / Corrugation** **18" / 16 / 2 2/3" x 1/2"** **24" – 48" / 14 / 2 2/3" x 1/2"** **54" – 96" / 14 / 3" x 1"**
BW-07	9+91	48	36	GM	--	--	8	8	H/L	NT	C	Temporary fish passage pipe. Install with a flat lay. Countersink a minimum of 20% of pipe diameter.
BW-08	0+00	18	40	XX			2	3	L	NT	C	
	2+54	18	30	XX			2	3	L	NT	C	
	4+60	24	30	XX			4	6	H/L	NT	C	
	5+50	18	30	XX			2	3	L	NT	C	
	8+03	18	30	XX			2	3	L	NT	C	
	8+95	24	30	XX			4	6	H/L	NT	C	
BW-11	1+10	24	30	XX			4	6	H/L	NT	C	
	3+00	24	30	XX			4	6	H/L	NT	C	
	3+29	24	30	XX			4	6	H/L	NT	C	
	5+02	18	30	XX			2	3	L	NT	C	
	10+37	--	--	--			--	6	L	NT	C	Ditchout to right
	11+66	48	36	XX			8	8	H/L	NT	C	Temporary fish passage pipe. Install with a flat lay. Countersink a minimum of 20% of pipe diameter.
	12+07	--	--	--			--	6	L	NT	C	Ditchout to right
BW-1101	4+96	18	30	XX			2	3	L	NT	C	
BW-12	3+72	18	30	XX			2	3	L	NT	C	
	5+53 to 10+05	--	--	--	--	--	--	--	--	--	C	Geotextile
	5+76	18	30	XX			2	3	L	NT	C	
	8+45	36	30	XX			4	6	H/L	NT	C	Temporary fish passage pipe. Install with a flat lay. Countersink a minimum of 20% of pipe diameter.
	9+44	18	30	XX			2	3	L	NT	C	
	10+32	18	30	XX			2	3	L	NT	C	

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall PD – Polyethylene Pipe Dual Wall AM – Aluminized Metal C – Concrete XX – PD or GM
H – Heavy Loose Riprap L – Light Loose Riprap SR – Shot Rock NT – Native (Bank Run) QS – Quarry Spalls

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			**Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:** **Diameter / Gage / Corrugation** **18" / 16 / 2 2/3" x 1/2"** **24" – 48" / 14 / 2 2/3" x 1/2"** **54" – 96" / 14 / 3" x 1"**
BW-1301	1+52	36	30	XX			4	6	H/L	NT	C	Temporary fish passage pipe. Install with a flat lay. Countersink a minimum of 20% of pipe diameter.
BW-1304	19+66	24	30	XX			4	6	H/L	NT	C	
	20+37	18	30	XX			2	3	L	NT	C	
	23+58	18	30	XX			2	3	L	NT	C	
BW-1503	0+73	18	30	XX			2	3	L	NT	C	

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall PD – Polyethylene Pipe Dual Wall AM – Aluminized Metal C – Concrete XX – PD or GM
H – Heavy Loose Riprap L – Light Loose Riprap SR – Shot Rock NT – Native (Bank Run) QS – Quarry Spalls

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

Surface

- Grade and shape the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET. Inslope or outslope as directed to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.

Drainage

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.

Preventative Maintenance

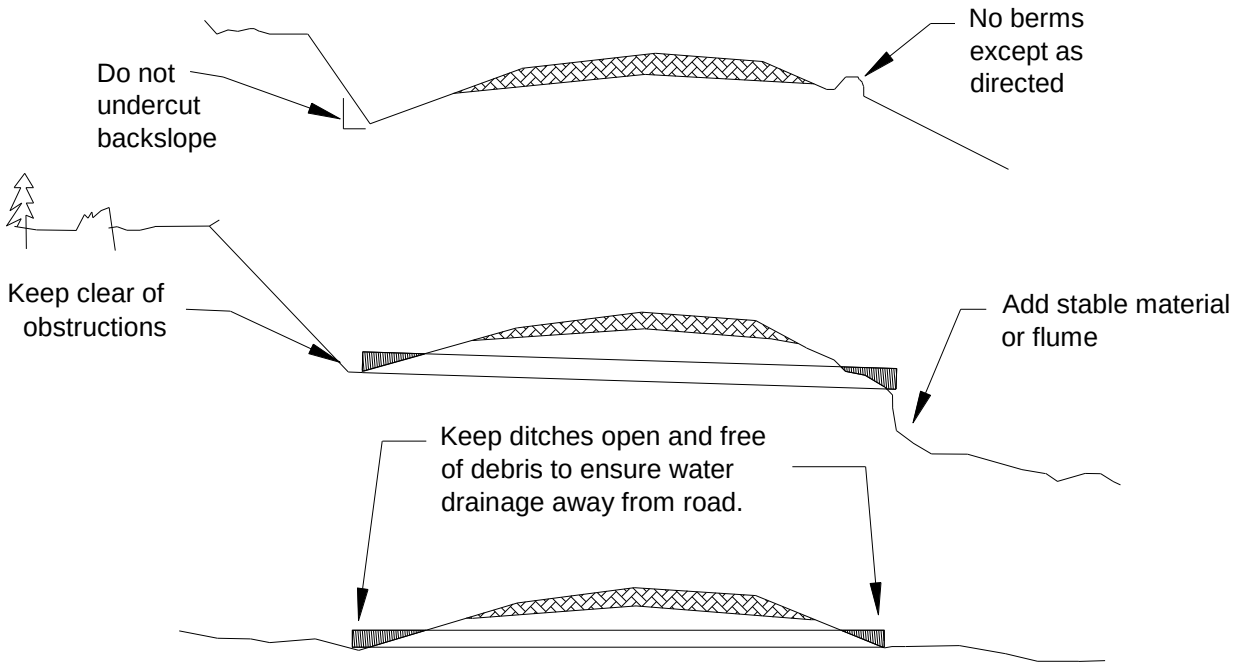
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

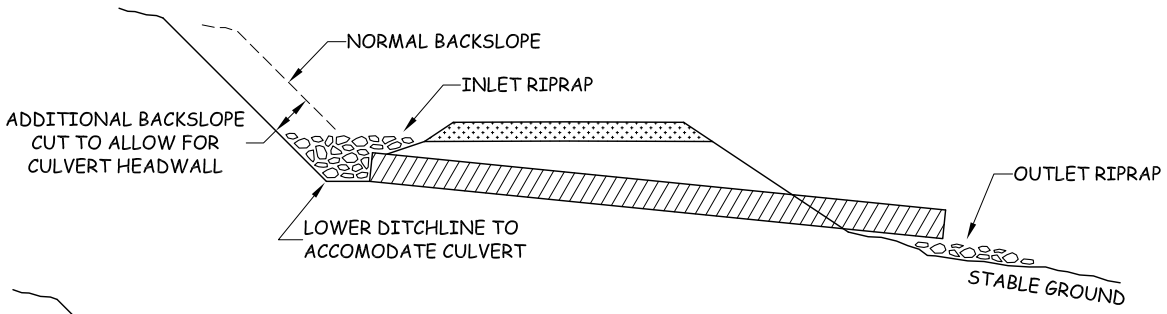
Debris

- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.

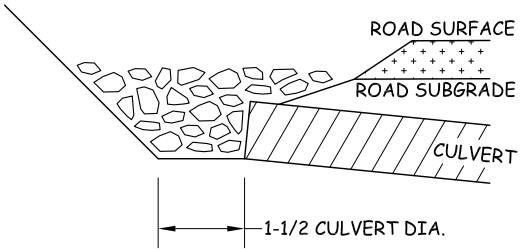


CULVERT AND DRAINAGE SPECIFICATIONS

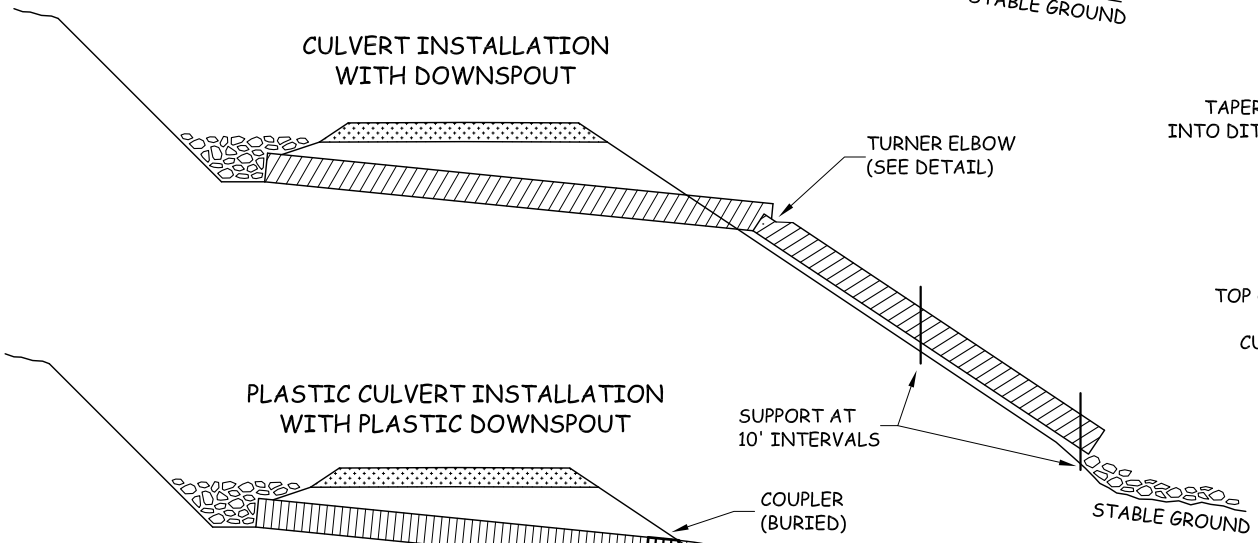
CULVERT INSTALLATION (TYPICAL)



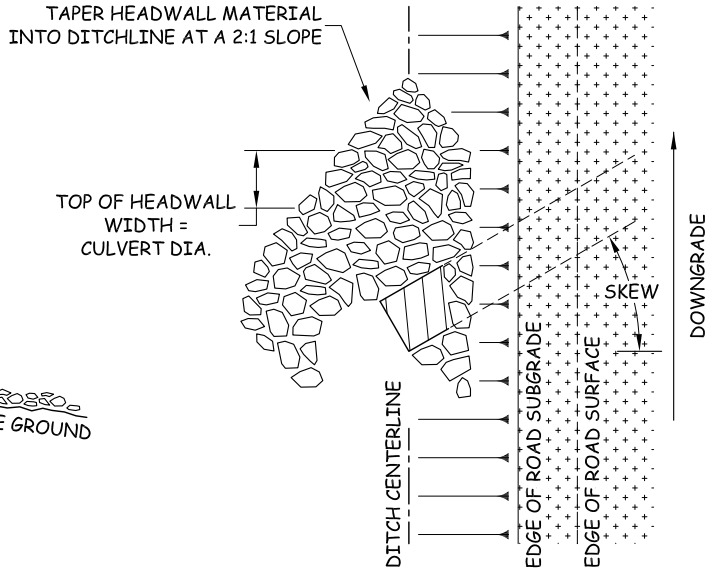
CULVERT HEADWALL - SECTION VIEW



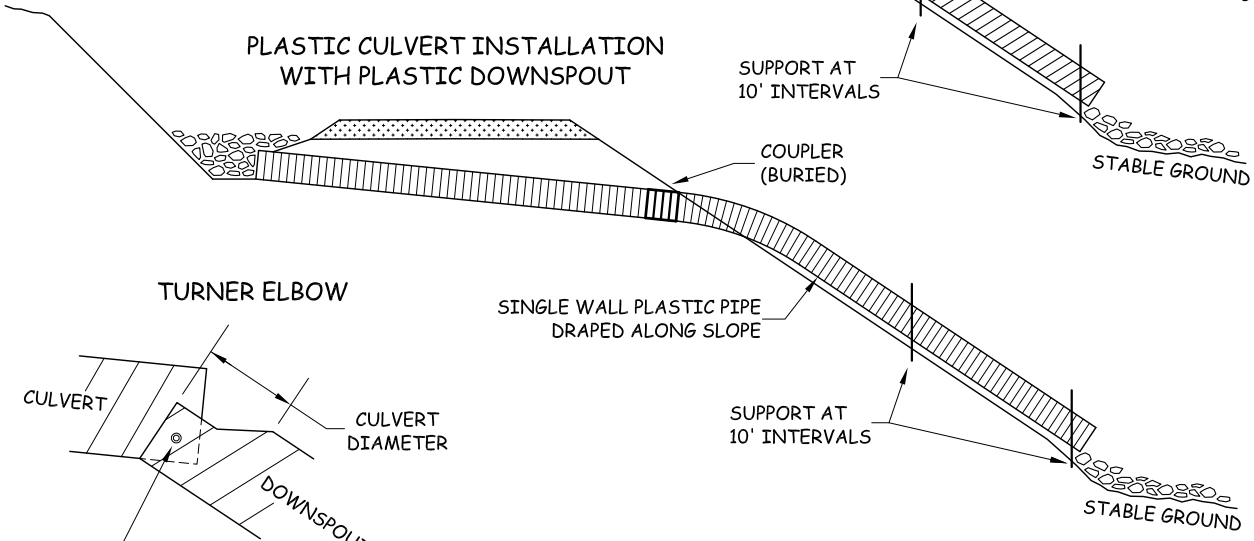
CULVERT INSTALLATION WITH DOWNSPOUT



CULVERT HEADWALL - PLAN VIEW



PLASTIC CULVERT INSTALLATION WITH PLASTIC DOWNSPOUT



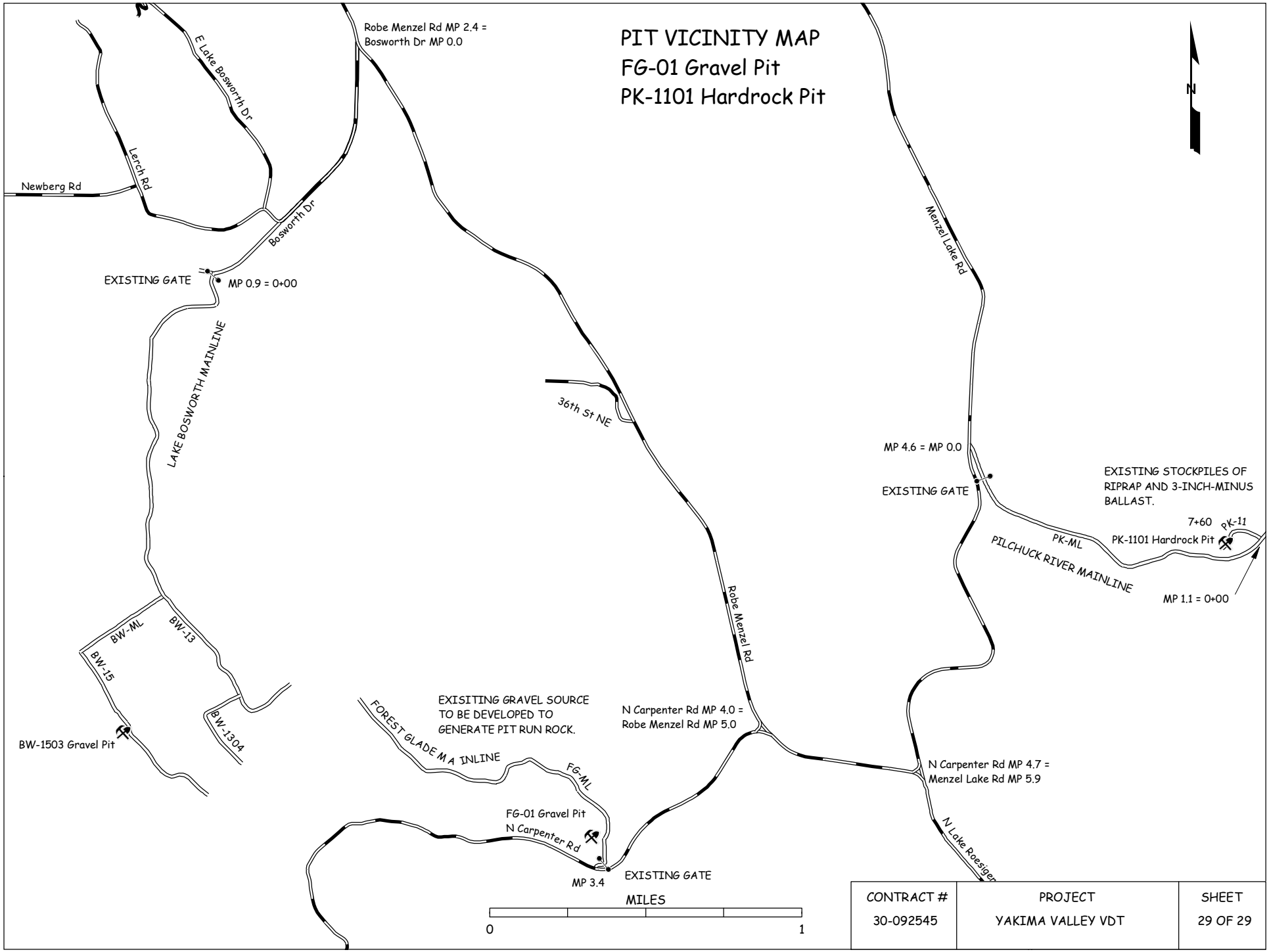
TURNER ELBOW

HEADWALL NOTE:

HEADWALL TO BE CONSTRUCTED OF IMPERVIOUS MATERIAL THAT WILL RESIST EROSION AND ARMORED WITH RIPRAP QUANTITY SPECIFIED IN ROAD PLAN.

CONTRACT #	PROJECT	SHEET
30-092545	YAKIMA VALLEY VDT	28 OF 29

PIT VICINITY MAP
FG-01 Gravel Pit
PK-1101 Hardrock Pit



CONTRACT #	PROJECT	SHEET
30-092545	YAKIMA VALLEY VDT	29 OF 29

SUMMARY - Road Development Costs

REGION: NW
DISTRICT: Cascade

SALE/PROJECT NAME: Yakima Valley Thin CONTRACT #: 30-092545

ROAD NUMBERS:	BW-07, BW-08, BW-11, BW-1101, BW-12, BW-1202, BW-1301, BW-1304, BW-1304-01	BW-ML, BW-13, BW-1304, BW-15, BW-1503	-
ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	89.35	74.59	0.00
CLEARING & GRUBBING:	$5,788	$1,360	
EXCAVATION AND FILL:	$8,269	$4,080	-
MISC. MAINTENANCE:	$0	$0	-
ROAD ROCK:	$53,747	$7,650	-
ROCK STOCKPILE PROD:	$0	$0	-
CULVERTS AND FLUMES:	$9,922	$2,210	-
STRUCTURES:	$0	$0	-
MOBILIZATION:	$4,961	$1,700	-
TOTAL COSTS:	$82,687	$17,000	$0
COST PER STATION:	$925	$228	$0
ROAD DEACTIVATION & ABANDONMENT COSTS:		$3,862	

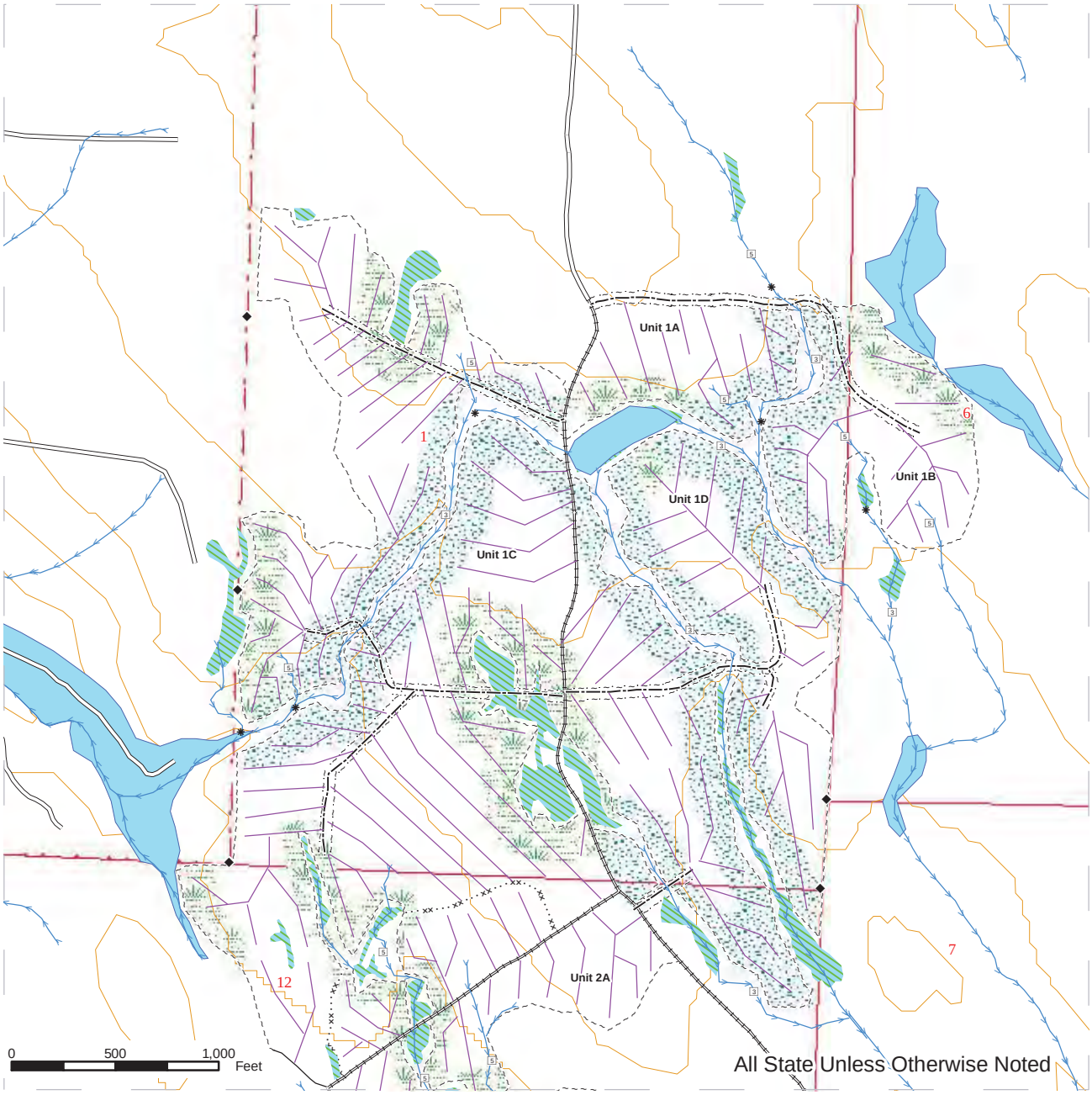
	TOTAL (All Roads) =	**$103,549**
Est.	**SALE VOLUME MBF =**	**2,334**
	TOTAL $/MBF =	**$44**

Compiled by: Symmank Date: 05/26/15

LOGGING PLAN MAP

SALE NAME: YAKIMA VALLEY VDT
AGREEMENT#: 92545
TOWNSHIP(S): T29R06E, T29R07E
TRUST(S): Community College Forest Reserve(12)

REGION: Northwest Region
COUNTY(S): SNOHOMISH
ELEVATION RGE: 520-757



- Ground
- Wetland Mgt Zone
- Riparian Mgt Zone
- Sale Boundary Tags
- Right of Way Tags
- Timber Sale Boundary - No Tags
- Special Mgt Area Tags
- Existing Road
- Optional Construction
- Required Reconstruction
- Streams
- Stream Type
- Stream Type Break
- Monumented Corners
- Ground based corridors

N

Prepared By: dtri490

Creation Date: 5/12/2015

Modification Date: 6/18/2015

LOGGING PLAN MAP

SALE NAME: YAKIMA VALLEY VDT
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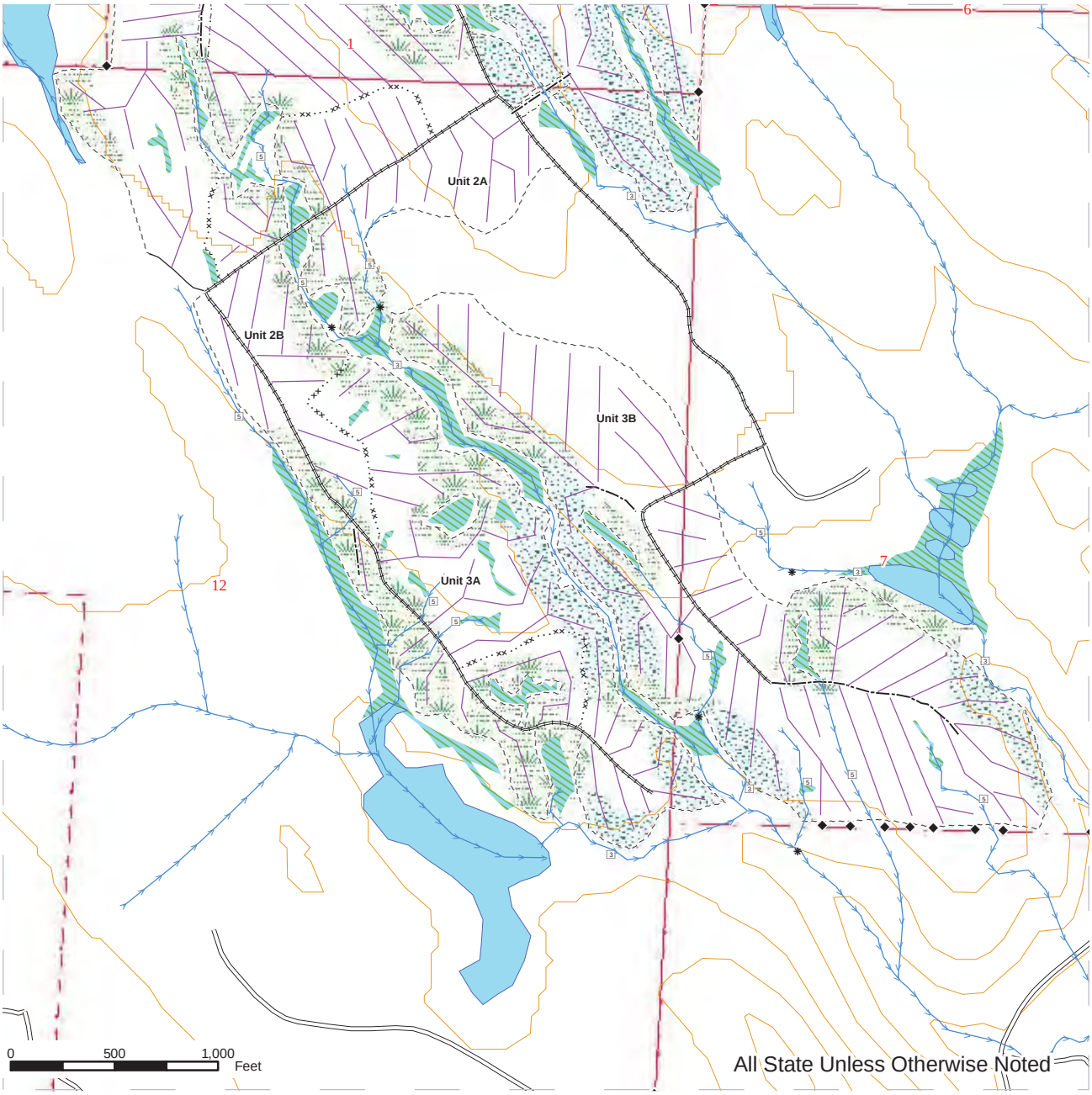

- Ground
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- Timber Sale Boundary - No Tags
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- Ground based corridors

N

Prepared By: dtri490

Creation Date: 5/12/2015

Modification Date: 6/18/2015