



Procurement, Contracting and Payment Services

Request for Bids No. 90003453T

Addendum No. 1

DATE: May 5, 2015

TO: All Bidders

GENERAL NOTES:

1. This addendum shall modify and supplement the bidding documents for the above referenced Request for Bids.
2. All bidders shall acknowledge receipt of this Addendum on the Bid Form found in the RFB document. Failure to do so may be cause for rejection of bid.
3. **The due date for bids has not changed.** Bids remain due **June 16, 2015, at the** same time and location as stated in the Request for Bids document.

MODIFICATION:

1. General Instruction to Bidders/Standard Terms and Conditions located on Pages 3 through 7 of the solicitation have been replaced with General Instruction to Bidders/Standard Terms and Conditions appropriate for the sale of items. The solicitation document has been revised, this date, and attached to this Addendum No. 1. Please use this revised document, dated 5/5/15.

REMINDER:

Vendor shall acknowledge receipt of each and every addendum on the 'Bid Form'.

End of Addendum No. 1



West Virginia University

REQUEST FOR BID

SOLICITATION #: RFB 90003453T

BID DUE DATE AND TIME:

June 16, 2015 @ 3:00 P.M. EST.

RETURN BID TO:

Procurement Contracting and Payment Services (PCPS)

One Waterfront Place; Don Knotts Blvd

Third Floor / Room 3403

Morgantown WV 26501-4976

Phone: 304-293-5711

Visit WVU PCPS on the internet: <http://pcps.wvu.edu>

VENDOR ("BIDDER") NAME AND ADDRESS:

RFB TITLE: Timbersale – West Block Compartment V Stand 17.1

BID FORM

West Block Compartment V Stand 17.1

Species	Mean DBH	Doyle BFV	# Trees	Tons Pulpwood	Bid Price / MBF by Species	Total Price by Species
Yellow Poplar	18	220,167	1,114	69		
Red Oak	20	117,216	505	33		
Red Maple	15	8,196	475	131		
Chestnut Oak	18	11,002	91	11		
Black Cherry	17	5,855	67	10		
Black Oak	18	5,412	39	5		
Black Birch	16	253	21	5		
Black Gum	16	233	20	12		
Sassafras	16	231	19	11		
Hickory	17	654	9	2		
Cucumber	19	962	7	2		
White Oak	21	1,085	6	1		
Sugar Maple	15	79	3	3		
Scarlet Oak	18	110	1	0		
TOTALS		371,455	2,377	295		

SAWTIMBER SUBTOTAL BID 371,455 BFV _____

PULPWOOD SUBTOTAL BID 295 TONS _____
(Minimum price of \$4.00 per ton for pulpwood)

GRAND TOTAL BID FOR ALL SAWTIMBER AND PULPWOOD VOLUMES _____

All bids must be given by Species and with a total price by species. A minimum price for pulpwood of \$4.00 per ton must be shown in the Pulpwood Subtotal Bid and a Grand Total Bid for all Sawtimber and Pulpwood.

ATTACHMENTS: A – State of West Virginia Purchasing Affidavit
 B – Detailed Specifications and Contract Terms and Conditions

Inquiries, written (Send to “Return Bid” Address) or verbal, shall be directed only to the following Procurement Officer:

Name:	<u>Terri Castor, Procurement Officer</u>
Telephone:	<u>(304) 293-8449</u>
Facsimile:	<u>(304) 293-8152</u>
Email:	<u>Terri.Castor@mail.wvu.edu</u>

ADDENDA ACKNOWLEDGEMENT

ADDENDA NUMBER	DATE OF RECEIPT	INDICATE BY SIGNATURE
1	5/5/15	SIGNATURE:
		SIGNATURE:
		SIGNATURE:
		SIGNATURE:
		SIGNATURE:
		SIGNATURE:

GENERAL INSTRUCTION TO BIDDERS ATTACHED
(FULL COPY OF WEST VIRGINIA UNIVERSITY PROCUREMENT MANUAL VISIT)
<http://pcps.wvu.edu>

Bidder shall submit one (1) Bid, signed in ink, on this Bid Form. The Bid Form shall be signed by an authorized agent of the bidder who has the authority to bind the Bidder to the bid price, terms and conditions, and the requirements of this RFB.

By signing this solicitation, the bidder certifies compliance with all general instructions to bidders, terms, conditions and specifications; and further certifies that this bid is made without collusion or fraud.

Authorized Signature: _____ Date: _____

E-mail Address: _____ Phone No: _____

GENERAL INSTRUCTION TO BIDDERS/STANDARD TERMS AND CONDITIONS

Sealed bids for purchasing the Items specified are hereby solicited, and will be received by West Virginia University ("WVU") at the "Return Bid To" address stated above, until the specified due date and time. The following applies to this Solicitation:

- 1. Terms and Conditions.** This Solicitation contains all terms and conditions with respect to the sale of the Items specified herein. Submittal of any contrary terms and conditions may cause the bid to be rejected. By signing and submitting a bid, Bidder agrees that contrary terms and conditions which may be included in its bid are nullified and that this contract shall be construed in accordance with this Solicitation and governed by the laws of the State of West Virginia. The terms and conditions of the WVU Solicitation and Bill of Sale shall solely govern this transaction, and shall not be amended by any Bidder contract, form, etc.
- 2. Incorporation of Solicitation.** All Solicitation terms and conditions shall be made part of any subsequent Bill of Sale as if fully reproduced and included therein, unless specifically amended in the Bill of Sale.
- 3. Interpretation of Solicitation/Bidder Inquiries.** If Bidder is in doubt as to the meaning of any part or requirement of this solicitation, Bidder may submit a written request for interpretation to the Procurement Officer at the address, email, and/or fax number shown above. No Bidder shall communicate with any WVU administrator, faculty, or staff member concerning this Solicitation. Failure to comply with this requirement is grounds for disqualification of Bidder. Written inquiries must be received in the Purchasing Office no later than five (5) calendar days prior to the opening of bids, and shall be clearly cross-referenced to the relevant solicitation/specification in question.
- 4. Incurring Cost of Bids.** WVU shall not be liable for any expense incurred by Bidder in preparation or presentation of its bid.
- 5. Bid Forms.** Bids are to be submitted on and in accordance with the WVU Bid Form provided, and must be signed by an authorized agent of the Bidder. Bids submitted on other forms or in other price formats may be considered informal and may be rejected in part or in their entirety. Bids submitted in pencil and/or bids containing no original signature indicating the Bidder's intent to be bound will not be accepted. Bids submitted less than the minimum acceptable bid, if any, may be rejected in part or in their entirety.
- 6. Addenda.** No decisions or actions shall be executed by any Bidder as a result of oral discussions with any WVU employee or consultant. Any interpretation of the documents will be made by formal addendum only, issued by PCPS, and mailed or otherwise delivered to all Bidders known to have received the Solicitation. WVU shall not be responsible for any other interpretations or assumptions made by Bidder.
- 7. Modification or Withdrawal of Bids.** Prior to the time and date designated for receipt of bids, a bid submitted may be modified or withdrawn by notice to the party receiving bids at the place designated for receipt of bids. Such notice shall be in writing over the signature of the Bidder and shall be received prior to the designated time and date for receipt of bids. A modification shall be worded so as not to reveal the amount of the original bid. A withdrawal may be made by facsimile or electronic transmission. A modification may also be made by facsimile or electronic transmission if the final bid result is not revealed prior to the bid opening.
- 8. Bid Submission Signature.** The bid shall be signed by an authorized agent of the Bidder who has the authority to bind the Bidder to the bid price, terms, conditions, and the requirements of the Solicitation. The bid submitted must have an original signature. All bid information and prices must be legible and typed or written in ink. Where any blank is not relevant to the bid, the Bidder shall acknowledge that blank space by entering "NONE" or "NO BID" as applicable. In cases of errors in extensions or totals, the unit price shall prevail. A legally authorized company representative shall sign in the appropriate space on the Bid Form. Any corrections, erasures, or other forms of alteration to unit prices are to be initialed by the Bidder.
- 9. Certifications.** By signing this Solicitation, the Bidder certifies compliance with all general instructions to Bidders, terms, conditions, and requirements of this Solicitation; and further certifies that this bid is made without collusion or fraud. Bidder has read the entire Solicitation, including all instructions, terms, and conditions.
- 10. Bid Delivery and Receipt.** The bid and other documents required to be submitted with the bid shall be enclosed in a sealed, opaque envelope. The envelope shall be addressed to West Virginia University,

Department of PCPS and shall be identified as a “Sealed Bid,” and shall include the RFSB number, the bid opening time, the bid opening date, and the bid subject matter. Bids shall be delivered and deposited at the designated location prior to the time and date for receipt of bids. Bids received after the time and date for the bid opening will be returned unopened. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of bids. Oral, telephonic, facsimile, or telegraphic bids are invalid and will not receive consideration.

11. **Bid Opening.** Bids shall be publicly opened and read aloud at the designated location for receipt of bids shortly after the time and date bids are due.
12. **Bid Evaluation and Award.** Sale will be made to the highest responsible and responsive Bidder. WVU reserves the right: (1) to sell items separately, grouped, or on an all-or-none basis, as deemed in its best interest; (2) to reject any or all bids; and (3) to waive any informalities.
13. **Rejection of Bids.** WVU shall have the right to reject any and all bids, in whole or part; to reject a bid not accompanied by other items required by the bidding documents; or reject a bid which is in any way incomplete or irregular.
14. **Acceptance of Bid.** Only the issuance of a notification of Sale by an official WVU PCPS representative shall constitute the University’s acceptance of a bid. Bidders agree to honor their Bid prices for a period of sixty (60) days from the deadline for receipt of bids.
15. **Bill of Sale.** Purchase shall be effected by a Bill of Sale, Attachment A, to be executed within thirty (30) days of the date of notification of sale to the successful bidder.
16. **Payment.** Payment is to be made upon receipt of properly executed Bill of Sale and may be made by cashiers or certified check only, made payable to West Virginia University.
17. **Taxes.** The Bidder shall pay any sales, use, personal property, and other taxes arising out of any Bill of Sale and the transactions contemplated hereby. West Virginia University is exempt from Federal and WV State taxes and will not pay or reimburse such taxes.
18. **Insurance.** WVU, in its sole discretion, reserves the right to require Bidder to provide proof of general liability insurance prior to entering upon the WVU campus to remove purchased Items.
19. **WARRANTIES. WEST VIRGINIA UNIVERSITY MAKES NO WARRANTIES AS TO THE ITEMS SOLD. ALL ITEMS ARE SOLD AS IS, WHERE IS, WITHOUT WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE EVEN IF UNIVERSITY WAS MADE AWARE OF THE PARTICULAR USE.**
20. **Applicable Law.** The laws of the State of West Virginia and the Procedural Rules of West Virginia University shall govern all rights and duties under this Solicitation or Bill of Sale, including without limitation, the validity thereof. Any provision incorporated herein by reference which purports to negate this or any other provision in this Solicitation or the Bill of Sale in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Bidder hereby expressly consents to the jurisdiction of the Court of Claims of the State of West Virginia.
21. **Pick-Up.** Bidder is responsible for timely pick-up of the Items in accordance with the Solicitation and Bill of Sale. Pick-up should be coordinated with the WVU Procurement Officer assigned to this Solicitation. Neither WVU nor Bidder shall be liable for any default due to Acts of God, war, fire, flood, epidemic, strikes or freight embargo or other causes beyond control and without fault or negligence.
22. **Default of Bidder.** Failure to pick-up within the time agreed upon by PCPS and Bidder will constitute a default and may be cause for cancellation of the Bill of Sale. Where the University has determined the Bidder to be in default, WVU reserves the right to sell any or all Items covered by the Bill of Sale on the open market and to surcharge the Bidder with the difference. Until such assessed surcharges have been paid, no subsequent bids from the defaulting Bidder will be considered.
23. **Assignment of Contract/Contract Proceeds.** Bidder may not assign any Bill of Sale without the prior written consent of WVU, and any assignment made without such consent shall be void.
24. **Termination for Cause.** WVU may terminate this Solicitation or any Bill of Sale or part hereof at any time for cause in the event Bidder fails to comply with any of the terms and conditions of this Solicitation or Bill of Sale, including, without limitation, late performance, or failure to provide WVU with reasonable assurances of future performance. In the event of termination for cause, WVU shall not be liable to Bidder for any amount, and Bidder shall be liable to WVU for any and all damages sustained by reason of the default which gave rise to the termination.

25. **Indemnification.** Bidder agrees to indemnify, defend, and hold whole and harmless WVU, its affiliates, and their respective Board of Governors, officers, employees and agents (collectively, the “Indemnified Parties”) from and against all claims, demands, causes of action, losses, costs and expenses, including without limitation reasonable attorneys’ fees and costs of defense (collectively, “Losses”), arising out of or incident to (a) Bidder’s performance hereunder, (b) the presence of Bidder, its employees, agents or invitees on WVU premises, (c) any breach of any warranty of Bidder contained herein; provided that Bidder shall not be liable for Losses to the extent caused by the negligence or willful misconduct of any Indemnified Party. W. Va. Const. Art. VI § 35 and Art. X § 6 do not allow WVU to hold harmless or indemnify Bidder.
26. **Cancellation for Convenience.** WVU reserves the right at any time for its convenience to cancel this Solicitation.
27. **West Virginia Freedom of Information Act.** All records, documents, and information in WVU’s possession, including any document related to this Solicitation or the performance of any sale, are subject to disclosure pursuant to the West Virginia Freedom of Information Act (W. Va. Code § 29B-1-1 *et seq.*).

ATTACHMENT A

STATE OF WEST VIRGINIA

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code §61-5-3*) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: _____

Authorized Signature: _____ Date: _____

State of _____

County of _____, to-wit:

Taken, subscribed, and sworn to before me this ____ day of _____, 20____.

My Commission expires _____, 20____.

AFFIX SEAL HERE

NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)

ATTACHMENT B

WEST VIRGINIA UNIVERSITY SCHOOL OF NATURAL RESOURCES TIMBER SALE PROSPECTUS

1. INTRODUCTION: This prospectus furnishes sufficient information to enable prospective bidders to decide whether further investigation is warranted. **The sale area should be inspected before submitting a bid. Bidders are encouraged to contact the Procurement Officer if they have questions about bidding on this sale.** The contract terms and conditions are included herein.

West Virginia University offices/contacts are as listed below:

Dr. Joseph F. McNeel, Director
School of Natural Resources
P.O. Box 6125
Morgantown, WV 26506
(304) 293-4412
E-mail: jmcneel@wvu.edu

Terri Castor, Procurement Officer
WVU Procurement, Contracting and Payment Services
One Waterfront Place
P.O. Box 6024
Morgantown, WV 26506
(304) 293-8449
E-mail: Terri.Castor@mail.wvu.edu

Robert E. Driscole
Forest Manager
WVU Research Forest
1397 Chestnut Ridge Road
Bruceton Mills, WV 26525
(304) 594-1003
E-mail: rdriscol@wvu.edu

2. LOCATION OF AREA: The sale area is located on the property of West Virginia University in the West Block Compartment V Stand 17.1. It contains approximately 21.7 acres for this harvest operation. Access will be along forest roads. All current forest roads used for this sale must be kept at or returned to pre-harvest condition at the completion of the contract.

3. DESCRIPTION OF TIMBER AND VOLUME: The timber, to be removed from this area, consists of both saw timber and pulpwood size trees (see Table 1). The estimated volumes shown for this area were determined from 100% tally for the 21.7 acres of harvested area. The volumes have been determined by applying the Doyle tree scale at Form Class (FC) 78, unless otherwise stated in Table 1, as standard for saw timber. Some allowances were made for defect. Volumes from any additional trees, which must be harvested for the successful completion of this sale, will be determined using this same scale and FC and paid for at contract price.

TABLE 1
100% Tally Summary by Species
West Block Compartment V Stand 17.1

Inventory Summary by Species (Total Tract)				
Species	Mean DBH	Doyle BFV	Total # Trees	Tons Pulpwood
Yellow Poplar	18	220,167	1,114	69
Red Oak	20	117,216	505	33
Red Maple	15	8,196	475	131
Chestnut Oak	18	11,002	91	11
Black Cherry	17	5,855	67	10
Black Oak	18	5,412	39	5
Black Birch	16	253	21	5
Black Gum	16	233	20	12
Sassafras	16	231	19	11
Hickory	17	654	9	2
Cucumber	19	962	7	2
White Oak	21	1,085	6	1
Sugar Maple	15	79	3	3
Scarlet Oak	18	110	1	0
Total		371,455	2,377	295

4. ROADS: Access will be along forest roads. Roads must be kept open and passable at all times. All current forest roads, skidder trails, and log landings necessary to harvest this area will be the responsibility of the Buyer and must be kept at or returned to pre-harvest condition at the completion of the contract.

5. PERIOD OF CONTRACT: Duration of the contract will be twelve (12) months from the date of signing. All contractual obligations must be completed during this time period. An extension of the completion date may be granted for conditions beyond the control of the Buyer and the University.

6. PAYMENT: Payment for stumpage and related charges will be required in advance of the start of operation. Only a certified or cashier's check, made payable to West Virginia University, will be accepted for payment.

7. PERFORMANCE BOND: The buyer will provide a performance bond in the amount of \$10,000 at the time of signing the contract. The Performance Bond must be on the form provided by the Owner.

8. BIDS: A bid guarantee, in the amount of **10% (ten percent)** of the bid price must accompany the submitted bid form. The guarantee from the successful bidder will be retained and applied to the purchase price. All other monies due unsuccessful bidders will be promptly returned. The bid guarantee shall be a money order, certified check or cashier's check, made payable to West Virginia University.

The Director of the School of Natural Resources, West Virginia University reserves the right to reject any or all bids.

9. INSPECTION (PRE-SALE) TOUR: A conducted inspection of the sale area can be arranged by contacting Robert E. Driscoll, Forest Manager, at the WVU Research Forest Office, 1397 Chestnut Ridge Road, Bruceton Mills, WV 26525, (304) 594-1003, Office. It is recommended that all prospective bidders attend the pre-sale tour so they fully understand the terms and conditions for this sale.

A conducted inspection of the sale area will be held:

Date: June 2, 2015

Time: 1:00pm at the WVU Research Forest Office

10. PROOF OF INSURANCE: The successful bidder shall provide WVU Procurement Department and the WVU School of Natural Resources with written proof of the following insurance coverage, as specified in Section 31, prior to the award of this contract.

A. Comprehensive general liability insurance policy in the minimum amount of \$1,000,000 combined single limit per occurrence.

B. Worker's Compensation Insurance

11. INDEMNIFICATION: The successful bidder shall at all times hereafter indemnify and hold harmless the University and its officers, employees, agents and other representatives (collectively, the "Representatives") from and against any and all liability, detriments, damages, losses, claims, demands, suits, costs, penalties and expenses (including attorneys' fees), which the University or its Representatives may suffer, sustain or be subjected to, directly or indirectly, by reason of this timber sale, or in connection with this contract, except to the proportional extent that such are caused by reason of acts, inactions, omissions, negligence, reckless or intentional misconduct of the University or its Representatives.

CONTRACT TERMS AND CONDITIONS

THIS CONTRACT, dated this _____ day of _____ **2015**, is made and entered into by and between the West Virginia University School of Natural Resources, hereinafter called the "University", and (Vendor name and address), hereinafter called the "Buyer".

WITNESSETH THAT: Pursuant to the terms and conditions contained herein, the University hereby agrees to sell and the Buyer hereby agrees to purchase the timber stumpage hereinafter identified and described from the tracts managed by the School of Natural Resources, West Virginia University.

1. LOCATION OF TIMBER AREA

The timber area subject to this contract (the "Timber Area") is located on the property of the West Virginia University and consists of approximately 21.7 acres (more or less) for the entire harvest area. The property is located in West Block Compartment V Stand 17.1 of the West Virginia University Research Forest (WVURF), see Exhibit A for map. Access will be along forest roads. These roads must be kept open and passable at all times. All roads, skidder trails, and log landings necessary to harvest this area will be the responsibility of the Buyer.

2. GRANT OF LIMITED LICENSE

University does hereby grant and convey unto Buyer a nonexclusive, limited license for the sole purpose of entering onto the Timber Area, with the right of ingress and egress, to carry out its obligations hereunder. The license granted herein shall expire or terminate at the same time as the expiration or termination of this contract, and shall otherwise be subject to all of the terms and conditions set forth herein. Except as otherwise expressly set forth herein, the parties acknowledge and agree that the Buyer shall have no property interest or right in connection with the contract, and no such interest or right is given to the Buyer hereunder.

3. DIRECTORS AND FOREST MANAGER DEFINED

The term "Director" wherever used in this contract refers to the Director of the School of Natural Resources, West Virginia University, in charge of the lands within which the Timber Area is located. The term "Forest Manager" wherever used in this contract refers to the Forest Manager who is under the direct supervision of the Director, and who has been designated by him to supervise this sale.

4. TREE GIRDLE DEFINED

An acceptable tree girdle must be two (2) cuts of a chain saw, approximately four (4) inches apart and at least one (1) inch deep, completely encircling the trunk and be as near as practicable to the ground.

5. DURATION OF CONTRACT AND OCCUPANCY OF THE TIMBER AREA

- (a) This contract shall expire one year from the effective date listed above. Buyer's contractual obligations must be fully performed during this time period. An extension of the completion date may be granted for conditions beyond the control of the Buyer and the University.
- (b) Buyer shall not occupy the Timber Area or other University land for any purpose whatsoever in connection with this contract before this contract is properly executed and a copy returned to the Buyer. The Buyer must also supply the University a copy of the Timbering Notification Form, issued by the West Virginia Division of Forestry, Department of Commerce before occupying the Timber Area or other University land in connection with the contract.

6. VOLUMES AND PRICE BID PER MBF BY SPECIES

Inventory Summary by Species

West Block Compartment V Stand 17.1

Bid Price by Species (Total Tract)						
Species	Mean DBH	Doyle BFV	Total # Trees	Tons Pulpwood	Bid Price / MBF by Species	Total Price by Species
Yellow Poplar	18	220,167	1,114	69		
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Black Birch	16	253	21	5		
Black Gum	16	233	20	12		
Sassafras	16	231	19	11		
Hickory	17	654	9	2		
Cucumber	19	962	7	2		
White Oak	21	1,085	6	1		
Sugar Maple	15	79	3	3		
Scarlet Oak	18	110	1	0		
Total		371,455	2,377	295		

SUBTOTAL SAWTIMBER BID PRICE 371,455 BFV _____

SUBTOTAL PULP BID PRICE 295 TONS _____

(Minimum price of \$4.00 per ton for pulpwood)

GRAND TOTAL BID FOR ALL SAWTIMBER AND PULPWOOD VOLUMES _____

7. VOLUME COMPUTATION AND ADJUSTMENTS

(a) The timber to be removed from this area consists of both saw timber and pulpwood size trees (see Table under Section 6). The estimated volumes shown for this area were determined from 100% tally for the 21.7 acres of harvested area. The volumes have been determined by applying the Doyle tree scale at Form Class (FC) 78, unless otherwise stated in Table 1, as standard for saw timber. Some allowances were made for defect. Volumes from any additional trees, which must be harvested for the successful completion of this sale, will be determined using this same scale and FC and paid for at contract price.

(b) Volume from any additional trees, which must be harvested for the successful completion of this sale, will be determined using this same scale and form class and paid for at bid price.

(c) The University's estimation of volumes is not guaranteed and no volume adjustments will be made.

8. PAYMENTS

- (a) When this contract, upon execution by Buyer, is returned to the Procurement, Contracting and Payment Services, One Waterfront Place – Third Floor, PO Box 6024, Morgantown, WV 26506, it shall be accompanied by a money order, certified check or cashier's check, made payable to West Virginia University, in the amount of \$ _____. This amount equals the bid total (\$ _____) minus the retained bid guarantee (\$ _____).
- (b) Payment in full must be made for the marked and/or designated timber on cutting block or blocks where the Buyer will start logging operations.
- (c) Before logging operations may be started on any remaining cutting blocks, the marked and/or designated timber on that block must be paid for in full.
- (d) Should Buyer start logging operations on any cutting block before having made payment in full for said cutting block, the Forest Manager, shall in writing immediately suspend operations on all cutting blocks until said cutting block has been paid in full.
- (e) Buyer shall also be responsible for, and promptly pay in full, any other payments required by the University pursuant to any other provisions of this contract.

9. TITLE TO TIMBER

- (a) The title to all marked and/or designated timber stumpage shall remain with the University until it has been paid for by Buyer as herein provided.
- (b) The title to all standing or felled timber, which Buyer has paid for and which remains on University lands after the termination or expiration of this contract, shall revert to the University.

10. LOSS OF TIMBER AFTER PAYMENT

The risk of loss from any cause whatsoever of any marked and/or designated timber after payment for same, by Buyer, shall rest with the Buyer.

11. TIMBER DAMAGE

- (a) Buyer shall do everything which, in the opinion of the Forest Manager, is practicable to prevent damage or injury to trees which Buyer must leave standing.
- (b) Buyer shall pay the University the bid stumpage price, by species, and at the following rate as determined by the Forest Manager for damaged trees. The Forest Manager will determine all volume. Should damage occur to tree species not covered in bid stumpage price, the Forest Manager shall establish payment rates.
- i. Three times the stumpage value for damage to all merchantable trees and One Dollar (\$1.00) for damage to each non-merchantable tree, when said damage, in the opinion of the Forest Manager, is the result of the carelessness or negligence of Buyer.
 - ii. The stumpage value for damage to all merchantable trees, when said damage, in the opinion of the Forest Manager, is the result of other than the carelessness or negligence of Buyer.

- (c) The Forest Manager may restrict or prohibit the further use of any equipment, when in the opinion of the Forest Manager; there is a risk of damage to unmarked trees by the further use of such equipment.
- (d) The Director will invoice Buyer for damaged trees, which either must be left standing or felled, as required by the Forest Manager. All damaged trees required to be felled may be utilized by Buyer.

12. FOREST BOUNDARY TREES

Forest boundary trees, which are marked with the customary blazed and white paint above stump height, must not be felled.

13. TREES MARKED AND DESIGNATED BY UNIVERSITY

- (a) Buyer must fell and skid all marked trees. Marked trees shall consist of:
 - i. All trees marked at stump and above stump height with a spot or slash of paint.
 - ii. All cull trees marked with the Letter "X" above stump height with paint. Buyer may utilize said cull trees without charge.
- (b) Damaged trees to be felled, trees to be felled for rights-of-way and unmarked trees to be felled in order to release lodged trees, are or will be marked above and below stump height with a spot of paint by or under the direct supervision of the Forest Manager.
- (c) Buyer shall pay the University Five Dollars (\$5.00) for each tree which it fails to fell as required by sections 13(a) and 13(b) of this contract. The Director shall invoice Buyer for said payments.
- (d) Buyer shall pay the University five (5) times the stumpage value for trees felled which have not been designated by this contract for felling, or which have been marked with paint by anyone other than the Forest Manager or those under the supervision of the Forest Manager. The Director will invoice Buyer for said payments. The title to trees felled or marked in violation of this article shall remain with the University and, upon such violation; the University may terminate this contract and declare Buyer ineligible to purchase other University Forest timber.

14. LOGGING

- (a) Buyer shall notify, in writing, the Forest Manager one week (1) prior to start of haul road construction or improvement and prior to start of logging operations so that Forest Manager may arrange to be present on each occasion.
- (b) The Forest Manager shall approve the plan and method of logging operations on each cutting block.
- (c) Rubber tired skidder and crawler tractor combination shall be used in order to keep skid road construction to a minimum. Skidder shall operate only on skid road system. TIRE CHAINS ARE NOT TO BE USED ON SKIDDERS.
- (d) Logging operations, including cleanup, must be completed to the satisfaction of Forest Manager on one cutting block before logging operations may be started on another cutting block unless modified in writing by the Forest Manager. Buyer shall not start logging operations on a new cutting block until permission in writing has been received from Forest Manager. Insofar as practicable, all phases of logging shall keep pace with one another and proceed with reasonable diligence.

- (e) All trees bent or held down by felled trees shall be released promptly by Buyer. Broken trees (snags) shall be felled by Buyer before leaving the cutting block at issue.
- (f) No trees shall be left lodged in the process of felling. Unmarked trees which must be cut in order to release lodged trees must not be felled before they have been marked with paint, by the Forest Manager.
- (g) No stump shall exceed 12 inches in height, measured on the side next to the highest ground.
- (h) Each tree shall be felled away from live or dry drainage channels when such is practicable.
- (i) All limbs and stubs shall be removed from all trees and logs prior to skidding. Tops of felled trees shall be cut to within four feet of ground.
- (j) No Forest boundary line tree, witness tree, corner tree or corner markers shall be removed, altered, mutilated or destroyed.
- (k) Skidding on or across improved Forest roads or public highways is prohibited.
- (l) Hauling, skidding, placing fills or other obstructions in live or intermittent streams is prohibited. Skidding across live or intermittent streams is prohibited except over bridges or culverts that are approved by the Forest Manager. Hauling across live or intermittent streams is permissible over bridges or culverts that are approved by the Forest Manager.
- (m) Buyer shall not haul or skid on or across any right-of-way located on University land without the written approval of owner or lessee of right-of-way. Buyer shall, in advance of such hauling or skidding, furnish the Forest Manager with a copy of said approval secured from each right-of-way owner or lessee.
- (n) All transmission lines, pipelines, fences and other improvements adjoining or crossing the Timber Area shall be protected as far as practicable by Buyer. Buyer shall be liable for all damages which an owner of any of said improvements suffers directly or indirectly as the result of the action of Buyer.

15. DISPOSAL OF TOPS AND SLASH

- (a) The term "tops" as used in this contract refers to that part of a felled tree, which is left beyond the top merchantable portion of tree. The term "slash" as used in this contract means all debris resulting from logging operations including stems, limbs and parts thereof.
- (b) No tops or slash shall be left within 100 feet of buildings, or officially designated picnic areas, vistas or forest monuments.
- (c) No tops or slash shall be left on any transmission line or pipeline right-of-way, private land, live stream courses or area to be seeded.
- (d) No tops or slash shall be left within 20 feet measured from the edge of cleared rights-of-way, along designated University forest roads, public roads or within 50 feet of any dam or lake edge. Within an adjacent 20-foot strip all tops and slash shall be lopped and scattered so as to lie within 2 feet of the ground.
- (e) No tops or slash shall be left within a distance of 20 feet of any University Research Forest boundary.
- (f) No tops or slash shall be left within a distance of 20 feet, on either side of any designated hiking trail.
- (g) No tops or slash shall be left piled against living trees.

- (h) In no instance shall disposal of tops and slash be allowed to fall behind cutting. However, when the depth of snow or other conditions make such disposal impracticable, the Forest Manager may grant permission in writing to postpone disposal.

16. STRUCTURES, IMPROVEMENTS AND EQUIPMENT

- (a) Subject to the terms set forth in this contract, the Buyer is authorized to install equipment on University land, which shall be used only for logging and road maintenance.
- (b) Buyer shall remove from University land or otherwise dispose of in a manner, which meets with the prior approval of the Forest Manager, all said equipment, including debris, rubbish, etc., prior to termination or expiration of this contract. Should Buyer fail to remove or dispose of said equipment, the University, by giving Buyer written notice, may either assume title to said equipment or have said equipment removed at the expense of Buyer.
- (c) Buyer shall pay University the net stumpage value, as determined by the Forest Manager, for all merchantable unmarked and/or undesignated trees, which Buyer must remove in order to make way for equipment. Said trees will be marked by Forest Manager above and below stump height with paint. The Director's Office will invoice Buyer for said merchantable trees, which shall become the property of the Buyer.

17. HAUL AND SKID ROADS AND SKID TRAILS

- (a) Buyer shall construct main haul roads and improve existing haul roads, including the installation of bridges and culverts at stream crossings, as marked on the ground. Construction and improvement shall be to the specifications shown in "WV Silvicultural Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations", attached hereto and made a part of this contract. Said haul roads and skid trails required for the operation of this sale shall be constructed or improved, maintained and abandoned by Buyer at his own expense in accordance with haul road, skid road and skid trail specifications and sketches contained in "WV Silvicultural Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations". All timber shall be removed from haul and skid road right-of-way before final excavation begins.
- (b) Haul roads may be constructed through cutting blocks for which payment has been made. Buyer shall pay University the stumpage value as determined by the Forest Manager for all unmarked merchantable timber, which must be removed from said roads and have been marked by the Forest Manager at and above stump height with paint. The Director will invoice Buyer for said merchantable trees, which will become the property of the Buyer.
- (c) All material used by the Buyer in the construction or improvement of haul roads, skid roads and skid trails shall become or remain the property of University, except as noted by the Forest Manager.
- (d) Subject to the following conditions and pursuant to the terms of this contract, Buyer may use all University forest roads, which lead into or which are within the Timber Area.
- i. The use of University roads by Buyer must not prevent or interfere with the customary use of said roads by University and the public. Roads must be kept passable at all times.
 - ii. Buyer shall remove immediately from University roads, all trees, logs, tops, slash, brush or debris resulting from this timber operation.

- iii. Buyer shall repair immediately, in a manner that meets with the approval of the Forest Manager, any damage to University roads, resulting from their use during this timber operation, general wear and tear excepted.
- iv. Forest Manager may notify Buyer to temporarily suspend use of any of the above said roads whenever, in his opinion, such action is necessary to prevent serious damage. The Forest Manager will confirm suspensions immediately in writing.
- v. The University does not guarantee Buyer the use of any other public roads for this sale.

18. SANITATION AND STREAM POLLUTION

- (a) Buyer shall not permit human waste, refuse, manure, oil etc. or any other substance harmful or destructive to human or aquatic to enter any spring, stream, water course, ponds or lakes.
- (b) Oil drained from equipment shall be placed in suitable containers and disposed of as directed by Forest Manager.
- (c) Refuse shall not be buried or otherwise disposed of on University lands.
- (d) When, as a result of this logging operation, stream turbidity becomes excessive (exceeding 75 to 80 Jackson Turbidity Units) operations shall be halted until source of turbidity has been located and corrected.

19. FOREST FIRE PREVENTION AND CONTROL

- (a) During the time this contract remains in force, Buyer shall independently and in cooperation with the University take all reasonable and practicable action to prevent and extinguish forest fires on or in the vicinity of the Timber Area and shall require its employees, contractors and other agents or representatives to do likewise.
- (b) Buyer shall maintain an adequate spark arrestor on all saws, skidders, dozers and other power units.
- (c) No refuse, brush, slash, debris or other material shall be burned on University lands.
- (d) During periods of abnormal forest fire danger, Forest Manager may suspend all or part of operations on all or part of the Timber Area until the forest fire danger subsides. The Forest Manager will confirm suspensions immediately in writing.
- (e) The Buyer shall be responsible for furnishing minimum fire tools for his immediate wood crew.

20. COMPLAINTS

- (a) Complaints of Buyer arising from any action taken by the Director or the Forest Manager under the terms of this contract shall not be considered unless such complaints are made in writing to the Director within thirty (30) days following the alleged unsatisfactory action.
- (b) Logging operations shall be suspended while complaints are resolved.

21. SUSPENSION OF OPERATIONS AND TERMINATION OF CONTRACT

All or any of the operations on the sale area including the removal of felled timber, may be suspended upon written notice by the Director or Forest Manager, if Buyer fails to comply with any condition or requirement contained in this contract. Failure of Buyer to comply with any said conditions or requirements, if persisted in

for ten (10) days after delivery of the above referenced notice, shall be sufficient cause for the termination of this contract by the University. In the event of such termination, Buyer shall be liable for any damages sustained by the University arising from Buyer's operations hereunder, and the University may declare the Buyer ineligible to purchase University timber. In addition, the University shall have the right to terminate this contract, for any reason or no reason at all, upon thirty (30) days written notice to Buyer.

22. RESERVATIONS

The University reserves the right to use the lands subject to this timber sale contract for any or all purposes not incompatible with the rights herein granted.

23. INSPECTION OF RECORDS

All of Buyer's records pertaining to this contract shall be made available for inspection at any time by the University for the purpose of conducting research and with the understanding that the information obtained is for University use only and shall be treated by the University as it treats its own confidential information.

24. REMEDIES

All payments collected by University under section 11(b), 13(c) and 13(d) of this contract shall be considered liquidated damages. Except as specifically set forth in the preceding sentence, the University shall have the right to pursue any and all remedies available to it at law or in equity, in connection with this contract.

25. ASSIGNMENT

This contract shall not be assigned in whole or in part by Buyer without the advance written approval of the University.

26. SUCCESSION

The interests, rights, powers, duties and liabilities of the parties hereto shall attach to the benefit of, and shall be binding upon, each party's respective successors, assigns and other legal representatives.

27. AMENDMENTS

Unless otherwise specifically provided for in this contract, none of the terms of this contract shall be amended, varied or modified without the written approval of the University and the Buyer.

28. WAIVER

All conditions, covenants, duties and obligations contained in this contract can be waived only by written agreement of the parties hereto. Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor in any way limit the legal or equitable remedies available to that party.

29. RIGHTS-OF-WAY OVER PRIVATE LAND

Buyer shall secure and maintain at its own expense all necessary rights-of-way over private land.

30. INDEMNIFICATION

Buyer shall at all times hereafter indemnify and hold harmless the University and its officers, employees, agents and other representatives (collectively, the "Representatives") from and against any and all liability, detriments, damages, losses, claims, demands, suits, costs, penalties and expenses (including attorneys' fees), which University or its Representatives may suffer, sustain or be subjected to, directly or indirectly, by reason of this timber sale, or in connection with this contract, except to the proportional extent that such are caused by reason of acts, inactions, omissions, negligence, reckless or intentional misconduct of the University or its Representatives.

31. PROOF OF LIABILITY INSURANCE

Buyer agrees, at its own expense, to purchase and maintain a comprehensive general liability insurance policy in the minimum amount of \$1,000,000 combined single limit per occurrence and Worker's Compensation Insurance. The Buyer shall furnish proof of coverage prior to execution of a contract. All such insurance policies shall provide for at least thirty (30) days prior written notice of cancellation to the University. The Certificate of Coverage shall be signed by an authorized agent and listing WVU Procurement, Contracting and Payment Services; PO Box 6024; Morgantown, WV 26506-6024, as Certificate Holder and as additional insured. The Certificate of Insurance must also indicate the policy number(s), the names(s) of, and contact information for, the issuing company or companies, policy effective and expiration dates, and the limits of liability for the coverage.

32. PERFORMANCE DEPOSIT

- (a) In order to secure the faithful performance of the conditions of this contract, Buyer delivers herewith a Performance Bond in the amount of \$10,000.00 and does further agree that said deposit upon failure on the part of Buyer to fulfill any of the conditions and requirements herein set forth or made a part hereof, shall be retained by University.
- (b) The Buyer does further agree that should the sureties on said bond hereafter in connection with the sale become unsatisfactory to the University, the Buyer shall, within thirty (30) days of receipt of demand furnish a new bond with sureties solvent and satisfactory to the University. The Director will suspend operations on the Timber Area until Buyer has furnished a new bond satisfactory to the University.
- (c) Performance bond must be to the satisfaction of the University before the contract will be executed, and before operations can begin on the Timber Area.

33. FORCE MAJEURE

Neither party shall be liable to the other or be deemed to be in breach of this contract for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include, but are not limited to, acts of God or of a public enemy, fires, floods, epidemics, quarantine restrictions, strikes, or unusually severe weather. Subject to the section that follows, dates or times of performance shall be extended to the extent of delays excused by this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

34. EXTENSION OF EXPIRATION DATE OF CONTRACT

The expiration date of this contract may be extended at the discretion of the University on the basis of actual need due to conditions, which have developed beyond the control of Buyer. If Buyer chooses to leave the Timber Area, before completion of the harvesting operation and the contract expiration date must be extended, it will be at the University's discretion to enact the following penalties. A monthly charge of two (2) percent of the value of the contract will be made for the first two (2) month extension and a monthly charge of five (5)

percent for each additional one (1) month extension granted by the University. If sale is completed before the end of the extension period, no refund of charge for extension will be made. Buyer must make payment in full for each extension by certified check or cashier's check, made payable to WVU School of Natural Resources, when its request for extension is transmitted to the Forest Manager.

35. COMPLIANCE WITH APPLICABLE LAWS, RULES AND REGULATIONS

The Buyer shall comply with all applicable federal, state and local laws, regulations, ordinances, orders and requirements, as well as with all applicable policies, rules and regulations of the University.

36. CHOICE OF LAW

This contract shall be governed by, and construed in accordance with, the laws of the State of West Virginia.

37. ENTIRE AGREEMENT

The parties hereto understand and agree that this contract and attachments (if any) supersede all other verbal and written agreements and negotiations by the parties relating to the subject matter of this contract.

38. NOTICES

Unless otherwise specifically provided for in this contract, any notice hereunder shall be in writing, addressed to the persons and addresses indicated below, and shall become effective at the time of receipt by the intended party.

This Contract/Agreement is entered into as of the Effective Date first written above:

OWNER: West Virginia University

BUYER:

Signature

Signature

Dr. Joseph F. McNeel

Printed Name

Printed Name

Director, School of Natural Resources

Printed Title

Procurement Officer

Printed Title

322 Percival Hall, Morgantown, WV 26506-6125

Address

PO Box 6024, Morgantown, WV 26506-6024

Address

Signature

Robert E. Driscole

Printed Name

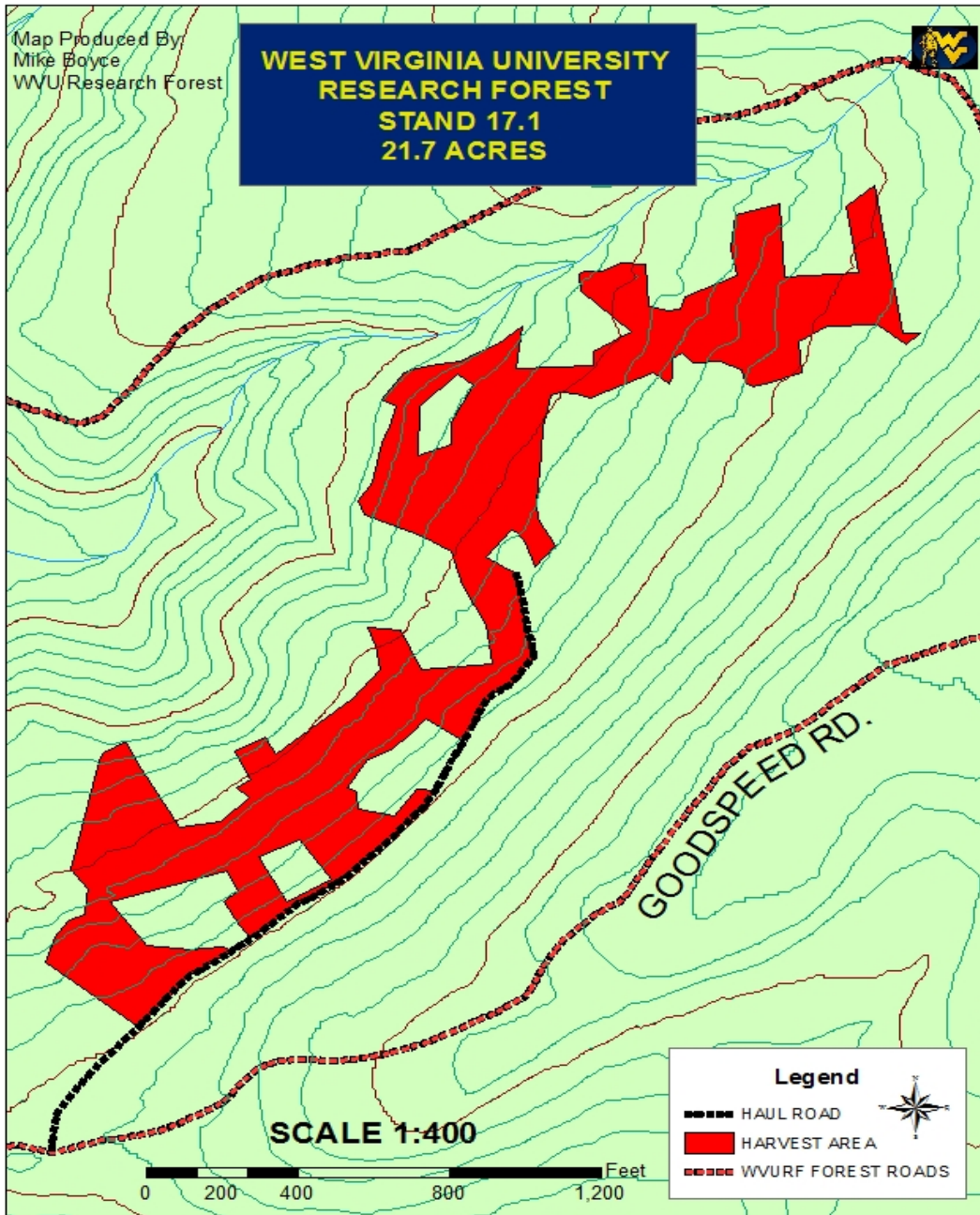
Forest Manager, WVU Research Forest

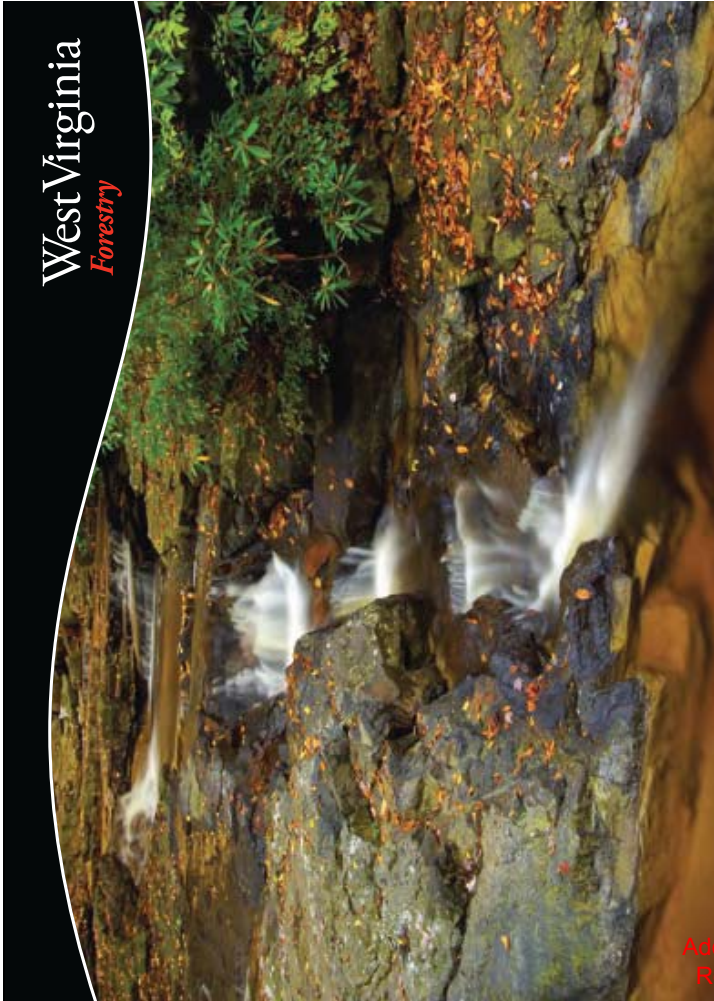
Printed Title

1397 Chestnut Ridge Road, Bruceton Mills, WV 26525

Address

Fire Tower Comp V Stand 17.1



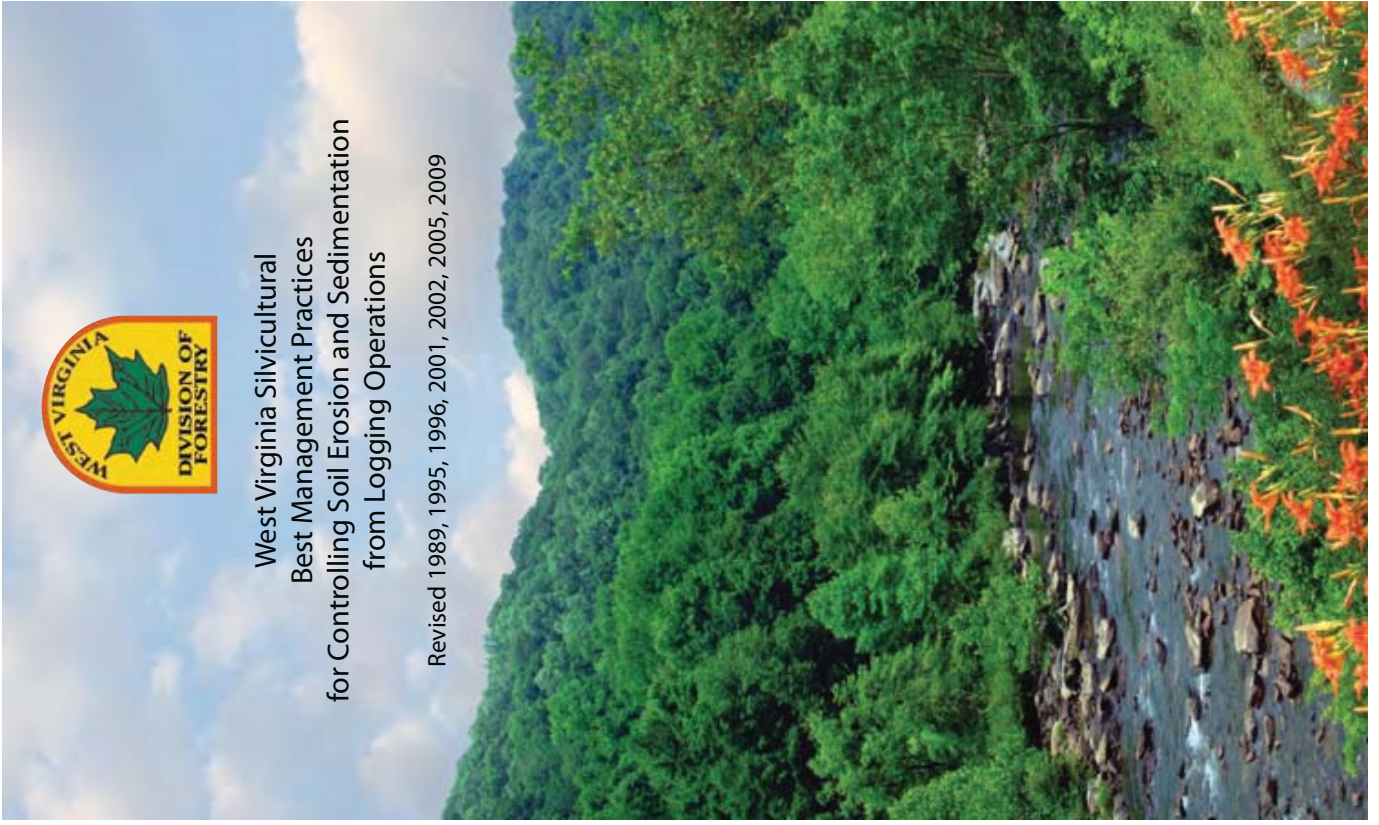


Addendum No. 1
Revised 5/5/15

WV DIVISION OF FORESTRY

West Virginia Silvicultural Best Management
Practices for Controlling Soil Erosion and
Sedimentation from Logging Operations

West Virginia
WEST VIRGINIA



West Virginia Silvicultural
Best Management Practices
for Controlling Soil Erosion and Sedimentation
from Logging Operations

Revised 1989, 1995, 1996, 2001, 2002, 2005, 2009

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Acknowledgements

The West Virginia Division of Forestry wishes to thank the following individuals for serving on the 2008 Best Management Practices Study Committee:

Charles R. Dye, Chairman
West Virginia Division of Forestry

Pamela Edwards
USDA Forest Service

Ben Spong
Appalachian Hardwood Center
West Virginia University

Alvan Gale
West Virginia Department of Environmental Protection
Division of Water and Waste Management

William Dempsey
Plum Creek Timber Company

Jim Scronce
Blankenship Logging Company

Jennifer Newland
Canaan Valley Institute

Introduction

West Virginia is the second most forested state in the nation and produces some of the highest-value hardwoods in the country. The state's timbering industry is a major component of West Virginia's economy. Although it is a proven fact that cutting trees does not cause erosion, if done incorrectly logging operations and related activities can contribute to erosion and sedimentation.

The federal Clean Water Act of 1972, amended in 1977, specified under section 208 that states must reduce silvicultural non-point source (NPS) pollution. This law led West Virginia to enact the Logging Sediment Control Act (LSCA), West Virginia Code 19-1B in 1992. The LSCA mandates the use of Best Management Practices (BMPs) to limit and control erosion and soil movement into streams.

The silvicultural BMPs recommended in this booklet are the most commonly utilized. Although situations will arise that require custom or alternative practices to minimize erosion and sedimentation as mandated by the LSCA, West Virginia Code 19-1B-7(g), requires that BMPs be used to control erosion and soil movement into streams. The primary goal of BMPs is to limit erosion and sedimentation by handling water in small amounts.

The West Virginia Division of Forestry (DOF) will assume that the logging operation will be complete on the date specified on the notification form unless otherwise informed. Reclamation needs to be completed before the operation can be considered completed. The operator needs to keep the DOF notified of any changes in the completion date so the inspecting forester can schedule a final inspection. The final inspection will be comprehensive, and a final inspection report will indicate that BMPs required to limit and prevent erosion and sedimentation have been satisfactorily installed.

BMPs have sometimes been rendered ineffective after final inspection by the breaching of water bars by ATVs, tractors or trucks, or by the destruction of the stabilization materials and seed. If such occurrences result in stream sedimentation, it is then the responsibility of the landowner to correct these situations, and such violations may be enforced by the West Virginia Department of Environmental Protection (DEP) under WV State Code Chapter 22C.



Logging Sediment Control Act Summary

1. Logger Licensing
2. Logger Certification
3. Timbering Operation Notification
4. Logging Operation Posting
5. Enforcement for activities causing erosion and/or stream sedimentation or the potential thereof.
6. Reclamation to be complete within seven days of the planned completion date on the notification form. If it can not be done within seven days, the DOF must be contacted. (See Page 29)

The DOF was designated by the West Virginia Legislature as the agency responsible to carry out the mandates and provisions of the LSCA.

The law provides that anyone conducting a logging operation, buying timber or buying logs for resale after Sept. 1, 1992, is required to be licensed by the DOF. The annual licensing fee is \$50. This fee covers any single or combination of the above three categories stated. Any individual or business entity applying for a license must be registered and in compliance with the West Virginia Department of Tax and Revenue and Worker's Compensation and Unemployment Compensation laws. Acceptance of the license implies that the operator will protect environmental quality through the judicious use of silvicultural BMPs.

Another provision of the LSCA is for the certification of loggers. The annual fee for certification also is \$50. The requirement for certification is the satisfactory completion of courses in tree felling safety and personal equipment, first aid, and silvicultural BMPs. An initial certification or recertification can be renewed for two successive years, provided the logger training is less than three years old. Retraining is required every three years.

Each logging crew is required to be supervised by a certified logger any time the timbering operation is being conducted. The certified logger must be on-site to observe and supervise logging crew personnel while engaged in logging activities, including the severing and delimiting of trees, cutting and delimiting of logs, preparation of skid and haul roads, repairing and fueling equipment, installation of BMPs and administering first aid procedures.

A third LSCA stipulation states that loggers must submit a timbering operation notification form within three days of starting a new harvesting operation. Along with this notification, the timber operator is required to post the operation with a sign listing the timber operator's name and license numbers in letters that are at least three inches high. A posted sign must remain on each active log landing of the operation.

The law empowers the DOF to issue compliance orders to correct problems,

and when necessary, suspend a logging operation until specified corrections are made. Instances for suspension include when human life is endangered, uncorrectable erosion or sedimentation or the potential thereof is present, an operation is not licensed, no notification has been submitted for the operation or when no certified logger is present and supervising the operation. Licenses may be suspended if the person is found to be in violation twice in any two-year period. Licenses may be revoked if the logger is found in violation for a third time in any two-year period.

The DOF also may issue citations to any person who commits one of the following violations of the LSCA. If found guilty in magistrate court that person shall be fined not less than \$250 and not more than \$500 for each violation.

1. Conducts timbering operations or purchases timber or buys logs for resale without holding a valid license from the Director/State Forester of the DOF
2. Conducts timbering operations or severs trees for sale at a location in this state, without providing the Director/State Forester of the DOF notice of the location where the timbering harvesting operation is to be conducted
3. Conducts a timbering operation in this state that is not supervised by a certified logger who holds a valid certificate from the Director/State Forester of the DOF.
4. Continues to conduct timbering operations in violation of an existing suspension order or revocation order that has been issued by the Director/State Forester of the DOF or a conference panel.

The Director/State Forester of the DOF also may seek civil penalties for violations of the law in the circuit court of the county in which the violation occurred, in an amount not to exceed \$2,500 for the first offense and \$5,000 for any subsequent offense. All penalties collected are deposited in the Timbering Operations and Enforcement Fund for use in administering the law.

The law provides that all state agencies shall cooperate with the Director/State Forester of the DOF in administering the law and that the Director/State Forester of the DOF shall cooperate with all other state agencies in the enforcement of their related responsibilities and duties.

There are exceptions provided in the law for forestry activities not directly related to the severing or removal of standing trees from the forest as a raw material for commercial processes or purposes. These exemptions include:

- The severing of evergreens grown for and severed for the traditional Christmas holiday season
- The severing of trees incidental to ground-disturbing construction activities, including well sites, access roads and gathering lines for oil and natural gas operations
- The severing of trees for maintaining existing, or during construction of, rights-of-way for public highways or public utilities

- Any company subject to the jurisdiction of the federal energy regulatory commission unless the trees so severed are being sold or provided as raw material for commercial wood product purposes
- The severing of trees by an individual on the individual's own property for the individual's use provided that the individual does not have the severing done by a person whose business is the severing or removal of trees.

An exemption from licensing and certification may be obtained from the DOF provided that a person who severs or removes standing trees from his or her own land, or hires or contracts with someone else to do so, is specifically exempted from the timbering operations licensure requirement of this section. The collective stumpage value for all trees severed or removed by or for this owner during any calendar year must not exceed \$15,528.

Also, a person who has been hired or contracted to sever or remove standing trees from someone else's land is specifically exempted from the timbering operations licensure requirement of this section as long as the collective stumpage value for all trees severed or removed by this person during any calendar year does not exceed \$15,528. This exemption does not remove liability for any damage to water quality or exempt the use of BMPs as defined in this manual. To apply for an exemption contact one of the DOF offices listed on Page 28.

Streamside Management Zones (SMZ)

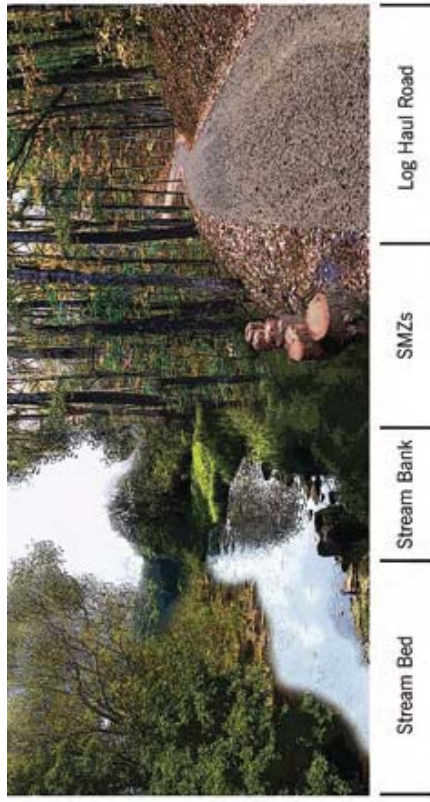
Definitions

Perennial Stream - Identified by well-defined banks and natural channels. Has continuously flowing water in all but severe drought years. Usually shown on a topographic map (USGS 7.5 minute series) as a solid blue line.

Intermittent Stream - Has well-defined banks and natural channels but typically has flowing water only for a portion of the year. Usually shown on a topographic map as a broken blue line.

Ephemeral Stream - A channel that lacks a base flow (groundwater) and only flows as a result of wet weather. Definition may vary depending on soil type, but all show evidence of repeated water flow and scouring of soil. Not directly shown on a topographic map.

Streamside Management Zone (SMZ) - Forestland adjacent to perennial, intermittent, ephemeral streams, ponds, lakes or any other body of water requiring special attention during forestry operations. This area of undisturbed forest soil provides a protective zone to filter out suspended sediments from water movement before it reaches the stream. Forestry operations should seek to protect and enhance this area while meeting the landowner's objectives. This



is not to be confused with a shade strip as defined below.

Shade Strip - Also known as a buffer strip, this area is a no- or limited-cut area along a body of water that provides adequate shading of the water's surface to prevent thermal contamination which could modify or change the biological composition of the water body. Shade strips currently are not required by the West Virginia LSCA.

Conditions Where SMZs Apply

SMZs, should be maintained along all watercourses with nearby truck haul roads or skid roads or other locations where soil has been exposed and water movement could potentially carry sediment to the stream. SMZs should be no less than 100 feet wide on either side of a perennial or intermittent stream, and no less than 25 feet on either side of an ephemeral stream.

SMZ Requirements

- The minimum SMZ width or distance between exposed or disturbed soil and a perennial or intermittent stream should be no less than 100 feet slope distance on either side of the stream from the top or edge of the channel. On ephemeral streams it should be no less than 25 feet slope distance on each side from the edge of the channel or visible scour.
- The SMZ should be protected to prevent exposure of mineral soil and subsequent erosion. Equipment operation in this area should be limited to points where the stream must be crossed. Pulling cut trees from this area is permitted by cable. When mineral soil is exposed it shall be stabilized immediately by seeding and mulching, as well as any other

additional measures that may be necessary to prevent sediment from entering the stream.

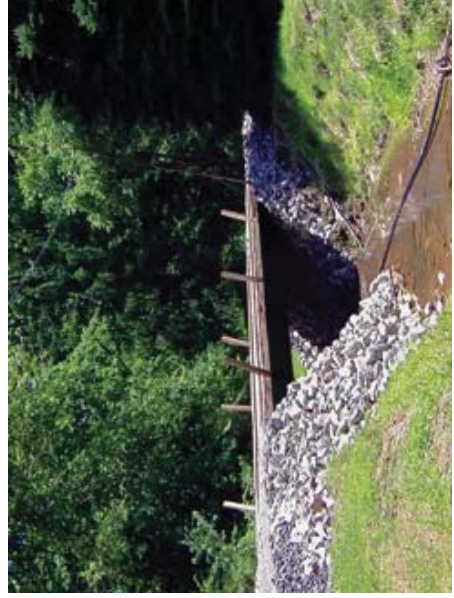
- Log landings will be located outside the SMZ where practical. If circumstances do not allow or prevent alternative placement of the landing, then the location will be treated as a sensitive area and additional protective measures such as a silt fence, wooden mats and additional gravel will be used.
- Any mineral soil disturbed within the SMZ by the timbering operation will be seeded, mulched and stabilized immediately after the disturbance.
- Roads should not be permitted to be located within the SMZ except when entering and leaving stream crossings.
- Truck haul roads built under specific circumstances and reasons within the SMZ should be graveled and the fill slopes seeded, mulched and stabilized immediately after construction.
- Existing roads within the SMZ may be utilized only if their use will cause less damage than constructing a new road. Existing roads will be maintained in accordance with all requirements of haul and skid roads meant to reduce soil erosion and sedimentation.
- Recommended spacing of drainage structures such as culverts, water bars, turn outs and broad-based dips should be used on truck and skid roads to intercept and properly discharge runoff in small quantities so the filtering capacity of the SMZ will not be exceeded.
- Rip Rap erosion control will be installed at culvert outlets or discharge points into or within the SMZ. (See Page 21)
- To minimize erosion sources, cut and fill slopes within the SMZ should be minimized in accordance with other safety and design criteria.
- Skid road fill slopes within the SMZ will be seeded, mulched and stabilized immediately after construction.
- Sediment barriers, such as a silt fence and/or hay/straw bales, shall be used between streams and disturbed areas to prevent sediment from entering streams.
- Wooden mats can be used on roads and landings to control rutting. These mats should be placed before trucking begins.
- Keep the water from your road system separate from the aquatic system. All drainage devices and ditches should be constructed to filter the contaminated water into the filter strip in small quantities. Do not construct drainage ditches or devices that directly input runoff from disturbed soil into the stream.

Logging Debris and Tops in Streams

Directional felling will be used to minimize stream disturbance. Felled tops in streams will be pulled from the stream channel on all perennial or intermittent streams.



Encroachment on SMZ with silt fence for control



Temporary bridge installation in SMZ

Truck Haul Roads

Definition- A road system, temporary or permanent, utilized for transportation of wood products by truck from the harvest site.

Purpose- Haul roads should provide for an efficient, safe transportation system to effectively protect forestland and water quality when removing forest products from the harvest site. After harvest these roads may be used for recreation, wildfire control or other forest management activities.

Conditions Where Practice Applies

Haul roads are constructed or reopened when a road system is necessary to provide vehicular access for the purpose of harvesting and removing forest products.

Specifications

- Final center line road grade should be 10 percent or less. Final center line gradients not exceeding 15 percent are permissible for distances no more than 200 feet. By breaking or changing grade frequently, erosion problems can be lessened in comparison with long straight continuous grades. There should be a minimum running surface of 12 feet on the cut surface (not fill.)



Haul road with use of timber mats for stabilization.



*Haul Road fording creek.
Note significant limestone surfacing.*

- Streams should be crossed as close to a right angle as possible. Bridges or culverts should be sized to not impede the stream flow, in keeping with good drainage practices. (See "Pipe Culverts" on Page 20) Stream fords are permissible only as a last resort only when the stream bottom is rock-based or stabilized with added limestone rock. Approaches to the stream should be graveled for a minimum of 100 feet on either side.
- Road gradients approaching water crossings should be broken and surface water dispersed so that it will not flow directly into the stream. Roads should be located (with the exception of stream crossings) a minimum of 100-foot slope distance or more from perennial or intermittent streams, and 25-foot slope distance or more from ephemeral streams. Distance is measured from the disturbed soil at the toe of the fill to the top of the stream bank. (See "Streamside Management Zone Requirements" on Page 4) If the recommended SMZ distances cannot be maintained then alternative practices will be used, such as placing gravel on the road surface and immediately seeding, mulching and stabilizing all fill areas.
- Roads may be out-sloped for cross drainage. On side hills where a curb, fender or berm is necessary to protect the fill slope, the road should be in-sloped with cross drainage installed. (See "Pipe Culverts" on Page 20 or "Broad-based Drainage Dip" on Page 26) Where roads

- are in-sloped, cross drain interception of surface water is necessary.
- Truck haul roads should not be located on level areas with wet floodplain soils or where drainage is difficult to establish.
- Truck roads that intersect public roads should have gravel or other aggregate up to 200 feet to keep mud from being tracked onto the highway. (Check county Division of Highways requirements for entering public roads.)

Maintenance

- During construction, road surfaces must be adequately drained on a day to day basis using temporary cross drainage, turn-outs or water bars. This must be done in the event of storm flows prior to completion and the permanent installation of drainage devices.
- During the harvest operation, roads and their drainage systems should be maintained to perform to standard. This may include additional seeding and mulching of fill slopes within the SMZ.
- Operations that are likely to cause adverse erosion and sediment problems should be stopped in times of extreme weather conditions.

Post-Harvest

If roads are to be used after logging, broad-based dips, culverts and bridges, should be left intact and be periodically maintained by the landowner. If not to be used, drainage structures should be removed and road surfaces restored to a natural drainage by smoothing and out-sloping the road surface to a three percent grade. Leave existing dips and establish water bars.

Skid Roads and Trails

Definition- An unsurfaced trail or road, as narrow as safety will allow, used for skidding harvested products.

Purpose- To skid logs, tree lengths or other wood products from the stump to a common landing or concentration area.

Conditions Where Practice Applies

This practice is used where harvesting products requires concentration of wood products for sizing or loading onto trucks or trailers and where topography and size of the operation make skidding the primary means of collecting trees, logs or other wood products.



Well-constructed skid road

Specifications

Locate the landings first and then lay out skid road approaches with minimum grade. Major skid roads should have planned locations to reduce erosion and sedimentation, minimize damage to the residual stand and provide the most desirable method for skidding products.

- Roads should be planned and laid out to maintain an average spacing of about 200 feet. Less soil disturbed is less potential for erosion and less reclamation.
- Gradients should be no steeper than 15 percent, with the exception of short, steep segments not exceeding 20 percent.
- Cross-drainage, including turn-outs, water bars or grade breaks for dispersing road surface water, should be installed at least every 100 feet and maintained daily during logging operations.
- Skid roads should be located away from streams according to the SMZ requirements starting on Page 6.
- Any skid road necessitating the crossing of a stream will require a bridge or culvert of acceptable design. Logs will not be skidded through any stream. Plan your roads to eliminate or minimize stream crossings.
- Approaches to stream crossings will be as near to right angles as the conditions and topography allows.
- Never skid in or directly through a stream.

EXHIBIT B

Skid road in process of being properly reclaimed. Note that it is smoothed and water-barred and berms on outside have been removed.



Poor landing location



Properly reclaimed landing



- When skidding is completed on a road, the logger should stabilize and retire that road before commencing skidding on others. This should be done by first removing the outer berm, out sloping and smoothing the skid road. Next, establish water bars as recommended on Page 17. Water bars should be installed at a near 30-40 degree angle down slope, with ends open to prevent water accumulation behind them. Scattered logging slash should be used to supplement water bars and assist in road stabilization.

Log Landings

Definition- An area where logs and other roundwood products are concentrated for the purpose of sawing, sorting or loading onto trucks for transportation.

Specifications

This practice, though necessary, almost always results in the disturbance of mineral soil. Extra care should be taken to locate areas properly in order to minimize the chance of erosion and sedimentation.

- Do not locate log landings inside the SMZ unless there is no other alternative. See SMZ requirements starting on Page 6 for more detail.
- Log landings should be located on dry, firm sites and have a slight slope to allow for drainage.
- Provide for adequate draining on approach roads. Whenever possible design roads so that they come upslope slightly into the landing to avoid road drainage entering the landing area.
- Install a diversion ditch around the uphill side of landings where seepage or lateral flow of water could be a problem. The only water that should be on the landing is the water that falls there.
- When servicing equipment on-site, drain old oil, etc., into containers and dispose of it properly in accordance with environmentally safe disposal procedures.
- Seed and mulch landings immediately following completion of operations or use of the landing. See reclamation requirements on Page 16.
- Landing size should be kept to the minimum needed to accommodate the equipment and work safely. Smaller landings mean less disturbed soil and less potential for erosion and sedimentation problems. A smaller landing also means less reclamation costs.

EXHIBIT B

Reclaimed SMZ



The importance of soil stabilization with mulch



Properly reclaimed landing



Properly reclaimed skid road



Reclaimed haul road entrance



Reclamation

Definition- The proper restoration of disturbed soil to ensure proper drainage and to eliminate the potential for erosion and sedimentation problems from the harvest site. The goal of reclamation is to protect the forest soils and water quality, while returning the site to a condition as good as or better than it was before logging began.

All reclamation will be done within seven days of the closure of the job. If reclamation cannot be completed within this seven-day time frame, notification shall be given to the relevant DOF office. Ideally, reclamation should be an ongoing procedure during the day-to-day operation of the job.

Seeding and Mulching Specifications

- All landings will be seeded and mulched.
- All mineral soil disturbed within the SMZ will be seeded and mulched. Road fills and other disturbed soil that are not part of a road surface should be seeded and mulched immediately after construction.
- Any road that exceeds 15 percent slope and is not effectively stabilized with an alternate material must be seeded and mulched.
- All areas seeded and mulched must develop a vegetative cover of 50 percent of the disturbed surface area . Lime and fertilizer are not required but proper application may reduce the number of return trips to ensure vegetative catch.
- Compacted soils should be scarified to a depth of two to three inches to ensure good seed germination and rooting.
- Straw is the preferred mulch. Use of hay is permissible but not encouraged due to the risk of spreading invasive or exotic species.
- For each section of the planned logging operation, all exposed mineral soil areas that are to be seeded and mulched should have the high berms removed, out sloped, smoothed, water barred and then seeded and mulched immediately after they are no longer needed. Don't wait!

Recommended Seed Mixtures (Rates per Acre)

- Shaded Areas**
1. 30 lbs. lathco flat pea, 20 lbs. perennial ryegrass
 2. 30 lbs. creeping red fescue, 10 lbs. perennial ryegrass
 3. 20 lbs. tall fescue (endophyte-free), 20 lbs. lathco flat pea
 4. 50 lbs. winter wheat, 8 lbs. orchard grass, 10 lbs. tall fescue (endophyte-free)

Wildlife Mix for Landings

1. 8 lbs. bird's foot trefoil, 3 lbs. red top, 4 lbs. orchard grass
2. 8 lbs. tioga deer tongue, 6 lbs. ladino clover
3. 25 lbs. phlyster fescue or johnstone fescue, 2 lbs. ladino clover
4. 25 lbs. phlyster fescue or johnstone fescue, 5 lbs. annual rye grass, 2 lbs. orchard grass, 3 lbs. tioga deer tongue, 2 lbs. bird's foot trefoil, 4 lbs. foxtail millet
5. 50 lbs. winter wheat, 8 lbs. orchard grass, 4 lbs. ladino clover, 6 lbs. timothy

Erosion Control for Grassland or Pasture

1. 8 lbs. bird's foot trefoil, 4 lbs. timothy
2. 1 lbs. white clover, 6 lbs. Kentucky bluegrass, 2 lbs timothy
3. 10 lbs. orchard grass, 2 lbs. ladino clover, 3 lbs. redtop
4. 50 lbs. winter wheat, 8 lbs. orchard grass, 6 lbs. timothy

Sensitive Areas

1. 25 lbs. tall fescue (endophyte-free), 5 lbs. ladino clover
2. 50 lbs. winter wheat, 25 lbs tall fescue (endophyte-free)

Seeding Dates and Recommendations

- Best months to ensure seeding success are March through June and late August to early October.
- The worst months to seed are July, early October, November, December and January. Seeding can be done during these times, but weather conditions may hinder vegetative establishment.
- Frost seeding or seeding on snow is more likely to succeed in February or early March.
- All legume seeds must be inoculated before seeding.
- Add 8 lbs./acre of annual rye grass, or 50 lbs./acre of winter wheat to seed mixtures to help provide quick ground cover and soil stabilization.
- Lime and fertilizer, though not required, will help to ensure vegetative cover on exposed subsoil and dry sites.

Temporary Water Bars

Definition- A water control structure that is constructed across a skid road at a 30-45 degree angle to intercept and divert water from the road surface. A temporary water bar is usually cut into the road surface from six inches to one foot in depth.

Conditions Where Practice Applies

Temporary water bars should be used on any sloping road where surface runoff may cause erosion of the exposed road during construction or active use of a road.

Specifications

- Installation should be at a 30-45 degree down slope or more to turn surface water from the road or trail.
- Spacing for temporary water bars should not exceed 100 feet.
- The depth of a temporary water bar should be six inches to one foot. It is especially important that this be cut into the road surface to minimize the effect of wheel compaction.
- Temporary water bars will be used for temporary shut down of an operation and should be installed and maintained daily on an active operation and during construction.



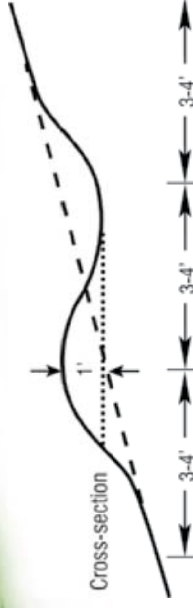
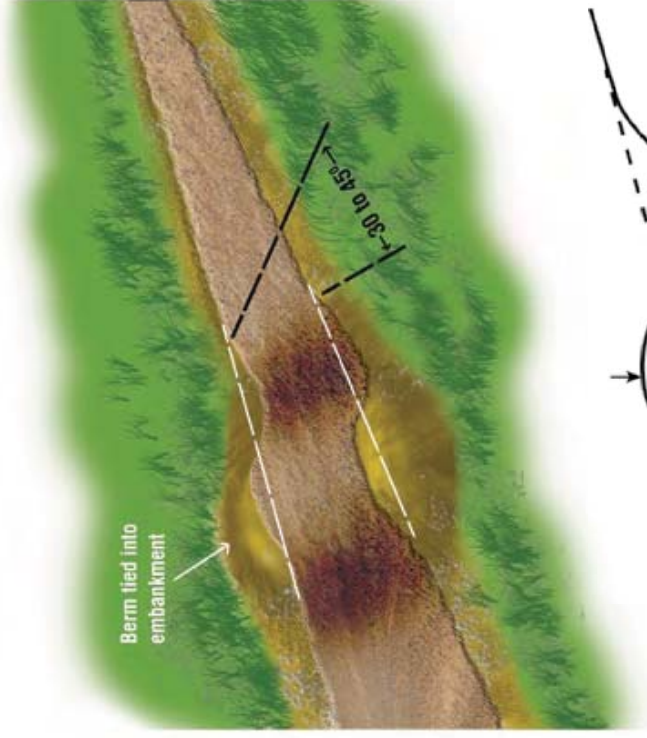
A good water bar. Note outflow end is open and proper construction angle across road.

Permanent Water Bars

Definition- A water control structure that is constructed across a skid road at a 30-45 degree angle to intercept and divert water from the road surface. A permanent water bar is cut into the road surface at least eight inches in depth.

Conditions Where Practice Applies

Permanent water bars should be used on any sloping road where road surface runoff may cause erosion of the exposed road after use is complete.



Specifications

- Installation should be at a 30-45 degree down slope or more to turn surface water from the road or trail.
- Proper spacing of permanent water bars can be determined in the following table. As a general rule if you are seeing evidence of water scour or sheet erosion between your water bars they are too far apart.
- Additional water bars may need to be installed to handle water sources such as spring seeps or drains.
- Fill dirt from the cut water bar should be pushed up onto the road surface and left intact.
- The uphill side of the water bar should extend beyond any cut ditch lines to fully intercept any ditch flows.
- The outflow end of the water bar should be fully open and allow road surface run off to be directed onto the undisturbed forest floor.

Permanent Water Bar Spacing

Minimum Grade %	Maximum Distance Feet
Less than 5%	100
5%-20%	50
Greater than 20%	40

Always install a water bar at least 25 feet uphill from a stream crossing or landing to divert surface water.

Cross drainage pipe culvert



Pipe Culverts for Cross Drainage

Definition- A hollow pipe or tube of suitable material that is placed under haul roads or skid roads to carry water from the uphill side under the road surface to the downhill side.

Conditions Where Practice Applies

Cross drainage culverts are commonly used in combination with ditch lines where water from in-sloped roads or spring seeps needs to be gathered and passed under the road surface to be filtered on the undisturbed forest floor. On skid roads they are commonly used to gather water from seeps and small drains to keep the road base from becoming saturated and unstable.

Specifications

- Pipe length should be long enough to extend beyond the side slope toe. The accepted minimum is 25 feet on truck haul roads and 20 feet on skid roads and trails, though longer lengths are commonly needed to achieve the desired result.
- The minimum diameter pipe for use is 15 inches, although 18-inch pipe is strongly recommended. Smaller diameter pipes may be used for temporary installations as long as they are adequately sized to carry expected peak flows.
- When used in conjunction with a ditch line, the culvert gradient should match the gradient of the ditch line to avoid pooling of water and possible blockage.
- Installation should be skewed at a downhill angle of about 30-45 degrees, similar to a water bar.
- Erosion protection such as rip rap should be used on the downhill end of the pipe to break up the force of the water and keep it from eroding the fill. It also may be necessary to install rip rap or construct a head wall on the intake side of the pipe to help avoid blockage and properly channel storm flows.
- Water turn-outs and diversion ditches can be constructed to help move water from roadbeds and ditches.
- When the pipe is placed into the roadbed it should be hand tamped to approximately half the depth of the pipe and then covered to a depth of at least one foot or half the diameter of the pipe, whichever is greater.
- For proper spacing of culverts for ditch drainage refer to the table below:

Culvert Spacing Guide for Cross Drainage (Ditch Drainage)

Minimum Grade %	Maximum Distance Feet
2	400
4	350
6	300
8	250
10	200
12	150
14	100
16	50



Open Top Pipe Culvert

Open Top Pipe Culvert

Definition- An eight- to 10-inch diameter steel-walled pipe with three-inch by 24-inch slots cut along the top at six-inch intervals for use in handling surface drainage, ditch drainage or both.

Conditions Where Practice Applies

Open top pipe culverts are best used on firm, well-maintained haul roads where grades are steeper than 10 percent and the use of broad-based dips is impractical. They are capable of handling both ditch water and surface runoff.

Specifications

- Recommended spacing is the same as for a broad-based dip: at least 100 feet apart, but not greater than 150 feet.
- Open top pipe culverts should be installed at a 30-45 degree down slope angle across the road surface, with the top being level with the road surface.
- Open top pipe culverts will require far more maintenance than most other types of cross drainage and should not be used for situations where maintenance may be unlikely or infrequent.



Pipe Culverts for Stream Crossings

Definition- A plastic or metal pipe of suitable material and design to carry stream water underneath a road surface without impeding the natural flow of the stream.

Conditions Where Practice Applies

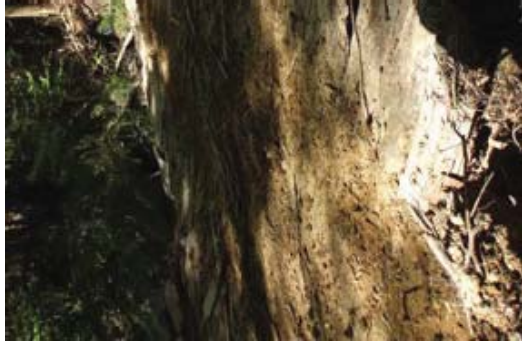
Culverts may need to be used for stream crossings on haul roads to avoid creating a ford and where a bridge is not practical. They also are necessary on skid roads where avoiding stream crossings simply is not possible. Note that the specifications in this section are meant for temporary crossings only that will be removed after the operation is complete. Permanent installations will require permitting and possibly other special requirements. Please contact a DOF office to obtain more information.

Specifications

- Plan the road system to avoid or minimize places where a stream crossing is needed. These are the points of greatest risk for introduction of sediment into a stream.
- Culverts should only be installed if a bridge is not available or practical as the installation of culverts and soil into the stream channel could potentially be damaging to the natural flow.
- If the stream is a perennial stream you should seek special advice from your local DOF office. See SMZ section starting on Page 4 for the definition of a perennial stream.



Haul road bridge



Simple but effective skid road bridge

Drainage Table*

Estimated culvert diameter needed to carry storm flow from forested areas ranging from 10 to 400 acres at probable storm recurrence intervals of 50 years. Accuracy of values for areas exceeding 100 acres is uncertain. Land use, disturbance and soil types above culvert locations can affect water flow peak levels and therefore should be considered when using this table.

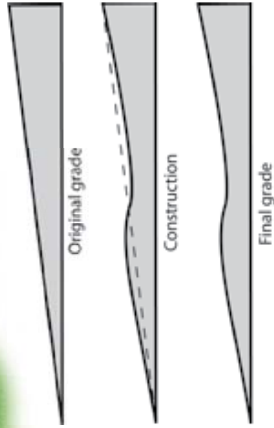
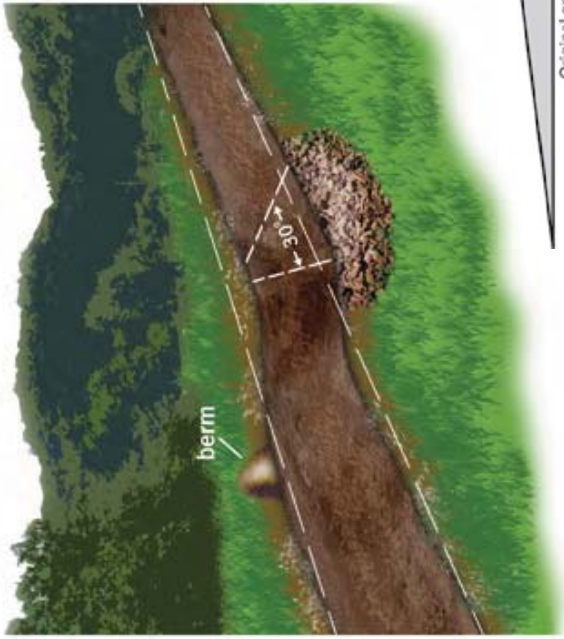
Area Acreage	Inches in Diameter
2-8	15
10	18
20	20
30	24
40	26
50	28
60	28
70	30
80	30
90	32
100	34
125	36
150	38
175	40
200	42
250	26
300	48
350	54
400	54

- Pipe length should be long enough to ensure that both ends extend beyond both side slope toes. The accepted minimum is 25 feet on truck haul roads and 20 feet on skid roads and trails, though longer lengths are commonly needed to achieve the desired result.
- The pipe should be sized large enough to handle the maximum high-water flow. A good rule of thumb is that the pipe should be the same size as the stream channel. See the following drainage table for more specific guidelines.
- The pipe should be installed to match the natural direction and slope of the channel with as little alteration to the stream channel as necessary.
- Multiple pipes are to be used only as a last resort when a single pipe can not be installed to handle the flow. A temporary bridge may be a better solution.
- Multiple culverts must be sized carefully. For example, it takes two 18-inch pipes to equal the carrying capacity of one 24-inch pipe, and it takes two 36-inch pipes to handle the carrying capacity of one 48-inch pipe. In multiple pipe-crossing installations the pipes must be placed at least half the diameter of the pipe apart.
- When the pipe is placed into the stream channel it should be hand tamped to approximately half the depth of the pipe and then covered to a depth of at least one foot or half the diameter of the pipe, whichever is greater.

*Table modified from: Helvey, J. David, and Kochenderfer, James N., 1988. Culvert Sizes Needed for Small Drainage Areas in the Central Appalachians. USDA Forest Service, Northeastern Forest Experiment Station, Parsons, WV. Areas with clay soil may require larger diameter pipes if used as a permanent structure.

Specifications

- Installation takes place following roadbed construction.
- A 20-foot, 3 percent reverse grade is cut into the existing roadbed by cutting from upgrade of the dip location and using cut material for the reverse grade section.
- Spacing should be approximately 100 feet apart but never more than 150 feet.
- The cross drain out slope will be approximately 2 percent -3 percent in the lowest portion of the dip.
- The dip and reverse grade section requires bedding with 20 tons of three- inch crushed stone to avoid rutting of the road surface.
- Rip rap is used to control erosion on the loose fill below the dip.
- Broad based dips are not maintenance-free, especially during active use, and will require additional maintenance, stone and grading to keep the roadbed in the dip from rutting.



Addendum No. 1
Revised 5/5/15

Broad-based Drainage Dip

Definition- A dip and reverse slope in a road surface that is out-sloped to provide for natural cross drainage of the road surface. They are not meant to handle stream flow.

Conditions Where Practice Applies

Broad-based dips can be used on truck haul roads and heavily used main skid trails having a gradient of 10 percent or less. They are not to be used for cross draining live streams. This practice may be used in place of, or in combination with, other cross drain procedures such as ditching and culverting on permanent road systems for easier long-term maintenance.

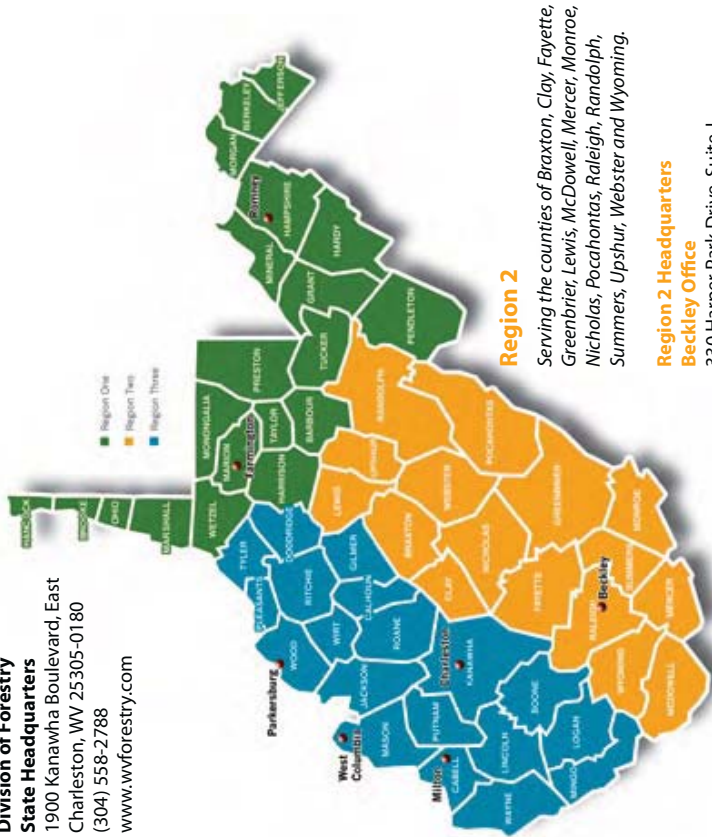


West Virginia Division of Forestry Offices

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Addendum No. 1
 Revised 5/5/15

Region 1

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Logging Sediment Control Act Review

The following information is to provide you a basic understanding of the law. Questions can be directed to the nearest DOF office.

- All logging companies, timber buyers, buyers of logs for resale or other contractors working on a timbering operation MUST HAVE a "Timbering License" for their company. This license costs \$50 annually and can be obtained at the DOF State Headquarters at Guthrie. Allow two weeks for processing.
- All companies and individuals doing business in West Virginia MUST:
 - Be registered with the State Tax Department and have a West Virginia business number;
 - Be in compliance with West Virginia Worker's Compensation laws and supply proof of coverage with the timbering license application;
 - And be in compliance with the West Virginia Unemployment Compensation Division and include an original letter of compliance with the timbering license application.
- Each logging operation MUST be supervised by a "Certified Logger." To become a certified logger, an individual needs to have successfully completed training classes in First Aid, Best Management Practices, and Tree Felling and Logging Safety. Retraining is required each three years or after the second renewal. A photo card, similar to a driver's license, will be issued to all Certified Loggers in West Virginia. The cost of logger certification is \$50 annually, payable to the DOF State Headquarters at Guthrie. This certification is in addition to the Timbering License. The law requires only one certified logger per logging operation but does stipulate that one must be on the job at all times.
- A "Timbering Operation Notification Form" MUST be sent to the appropriate DOF office for EACH logging operation no more than three days from the start of operations. A topographic map with the harvest area specifically outlined, including the location of haul roads, landings and stream crossings is a required part of the notification.
- Each logging operation MUST have a sign at the active landing showing the company name and license number. Lettering on the sign must be at least three-inches tall and visible at all times.
- The DOF must be notified if operations are stopped or completed more than seven days before the predicted finish date listed on the notification form. Notification also is needed if the finish date is changed.

EXHIBIT B

- Reclamation should be completed within seven days of the completion of logging on the job. If reclamation will be delayed, notify the appropriate DOF office of the new date.
- Logging operations are required to use BMPs to control soil erosion and prevent sediment pollution of streams. Violations can result in enforcement actions being taken against your company up to and including suspension, citations and fines.



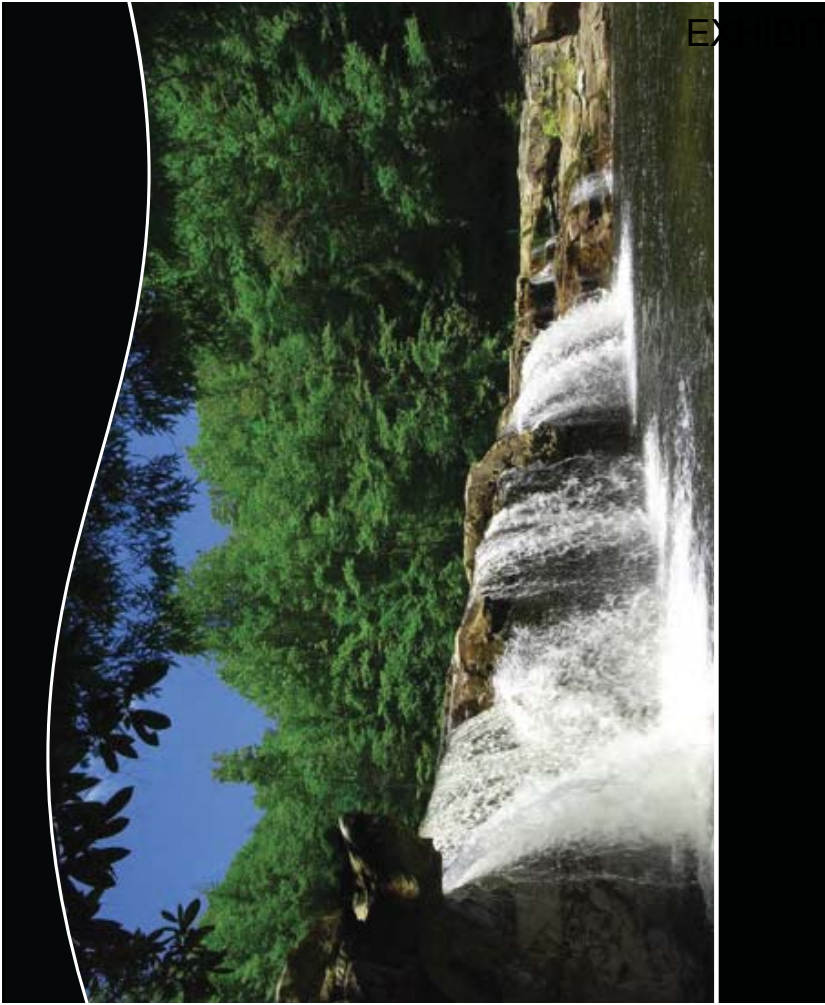
Citation being issued



DOF employees giving advice



Skidder hard at work



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