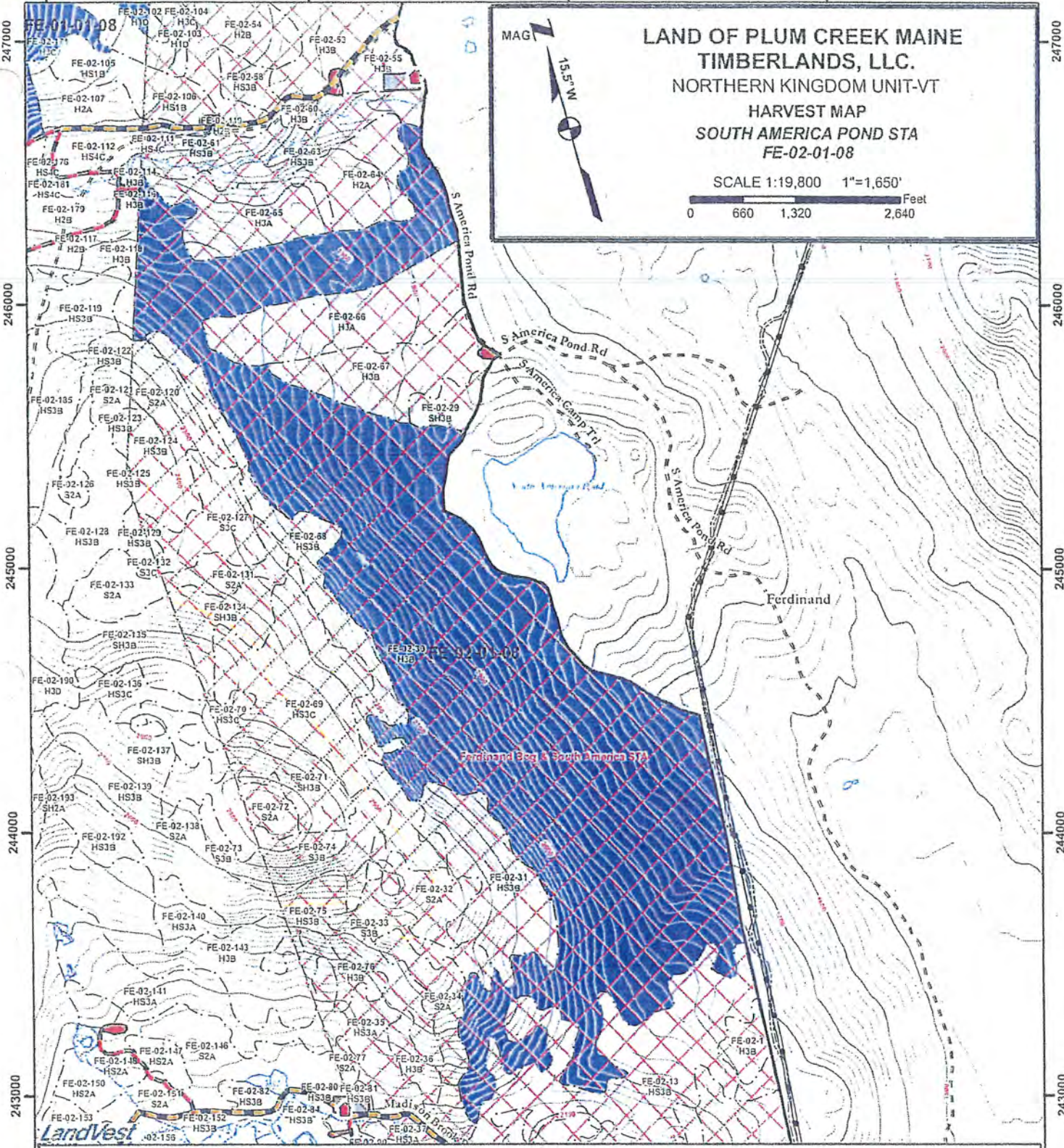


558000 VT STATE PLANE NAD 83 METERS 55900 560000 561000

**LAND OF PLUM CREEK MAINE
TIMBERLANDS, LLC.
NORTHERN KINGDOM UNIT-VT
HARVEST MAP
SOUTH AMERICA POND STA
FE-02-01-08**



SCALE 1:19,800 1"=1,650'
0 660 1,320 2,640 Feet



Town: FERDINAND
County: ESSEX
Compartment: FE-02
Forester: JCH
Job Number: FE-02-01-08
Contractor: TBD

STAND_NUMB	STRATA	OS	TYPE	SILV_PRES	ACRES
FE-02-30	H3B		H3B	GPS	604.1

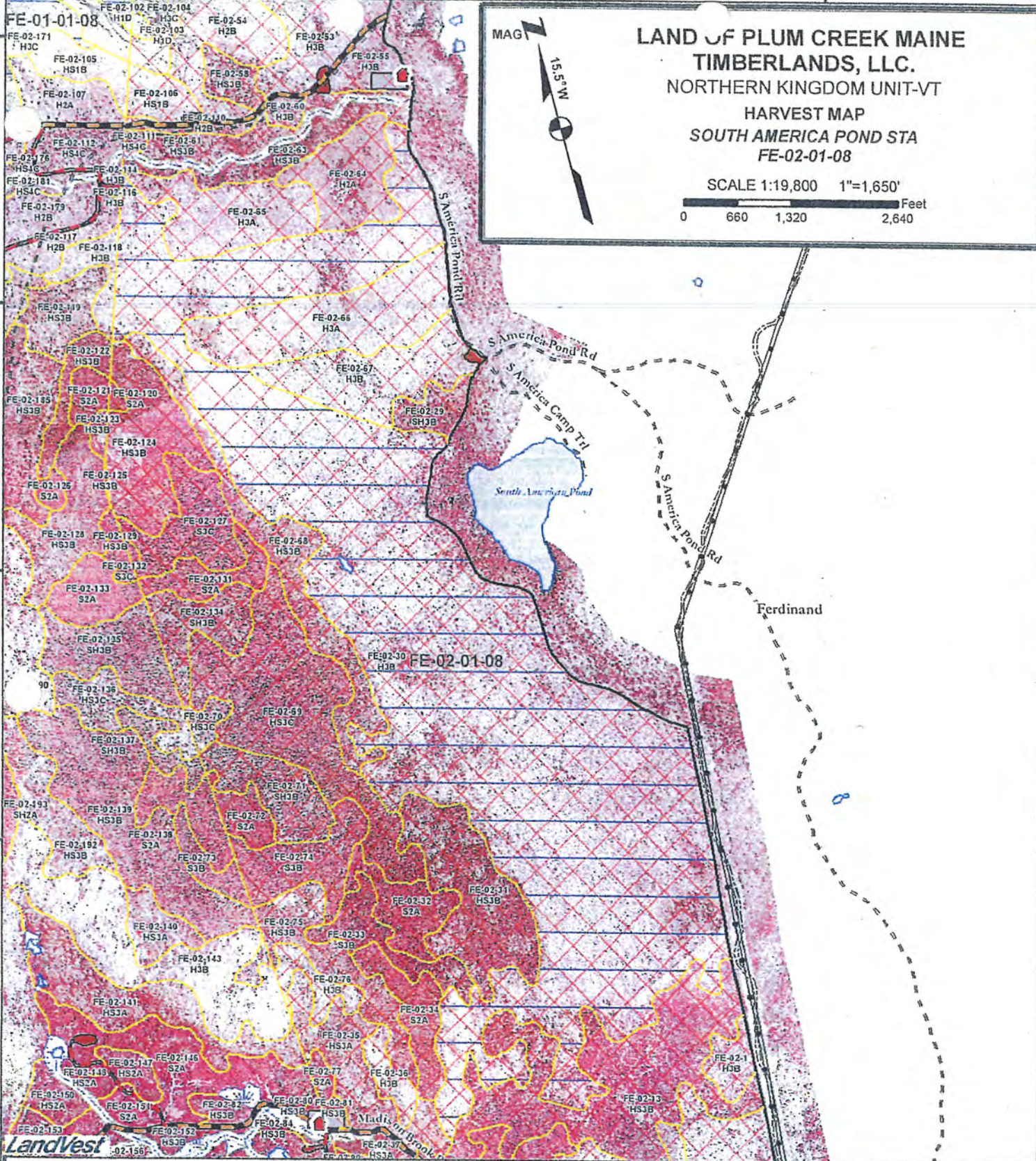
- PROPOSED HARVEST
- ACTIVE HARVEST
- COMPLETE HARVEST
- POSTPONED HARVEST
- APPROVED HARVEST
- FLOWAGE BOD
- GRVEL PIT
- LANDING
- OPEN AGRICULTURAL
- RIPARIAN ZONE
- SPECIAL TREATMENT AREA (STA)
- WATER
- COUNTY LINE
- TOWN LINE
- STREAM
- STAND LINE
- COMPARTMENT LINE
- GATE
- CAMP
- PAVED PUBLIC ROAD
- GRVEL PUBLIC ROAD
- YEAR ROUND GRVEL
- SUMMER ROAD (UNLIMITED GRVEL)
- IMPROVED WINTER ROAD
- UNIMPROVED WINTER ROAD
- SAID TRAIL (UNMAINTAINED ROADWAY)
- UNKNOWN ROAD SURFACE
- CUT/HS EDGE

Map Document (D:\map_projects\VT\clients\PLUM_CREEK_7056\HARVEST_UNITS\FE-02-01-08.mxd)
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558000 559000 560000 561000

VISUAL PLANE
NAD 83 METERS



MAG

**LAND OF PLUM CREEK MAINE
TIMBERLANDS, LLC.**
NORTHERN KINGDOM UNIT-VT
HARVEST MAP
SOUTH AMERICA POND STA
FE-02-01-08

SCALE 1:19,800 1"=1,650'

0 660 1,320 2,640 Feet

Town: FERDINAND
County: ESSEX
Compartment: FE-02
Forester: JCH
Job Number: FE-02-01-08
Contractor: TBD

STAND_NUMB	STRATA	OS_TYPE	SILV_PRES	ACRES
FE-02-30	H3B	H3B	GPS	604.1

- PROPOSED HARVEST
- ACTIVE HARVEST
- COMPLETE HARVEST
- POSTPONED HARVEST
- APPROVED HARVEST
- FLOWAGE/BOG
- GRAVEL PIT
- OPEN AGRICULTURAL
- RIPARIAN ZONE
- SPECIAL TREATMENT AREA (STA)
- WATER
- COUNTY LINE
- TOWN LINE
- STREAM
- STAND LINE
- COMPARTMENT LINE
- 20 FT CONTOUR
- 100 FT CONTOUR
- 2500 FT CONTOUR
- GATE
- CAMP
- PAVED PUBLIC ROAD
- GRAVEL PUBLIC ROAD
- YEAR ROUND GRAVEL
- SUMMER ROAD (NO LIMITED GRAVEL)
- IMPROVED WINTER ROAD
- UNIMPROVED WINTER ROAD
- SKID TRAIL/UNMAINTAINED ROADWAY
- UNKNOWN ROAD SURFACE
- CUT/HU EDGE

Map Document: (D:\map_projects\VT\clients\PLUM_CREEK_7086\HARVEST_UNITS\FE-02-01-08.mxd)
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MANAGEMENT SCHEDULE
USE VALUE APPRAISAL FOREST MANAGEMENT PLAN

STAND NO.	YEAR	MANAGEMENT PRACTICES TO BE ACCOMPLISHED DURING NEXT 10 YEAR PLAN:	Silvicultural Guide or Tech Ref. Prescription #/Letter, if appropriate
FE-02-30	2011-12	Stand 30 will receive Group Selection Cuts (GPS) not exceeding 2 acres in size and treating 1/3 of the total acreage. The groups will be targeting pockets mature and declining stems with poor form and a lack acceptable regeneration. The groups will target the removal of beech when possible to promote the regeneration of Yellow Birch and Sugar maple. The harvest layout will be designed to avoid the pockets of established acceptable regeneration and pockets with high levels of acceptable pole stocking. The stand has a high percentage of legacy trees that have been reserved from the last harvest, these well be identified and maintained if located in a patch for wildlife and Coarse Woody Debris recruitment.	Guide:
			Guide:

LANDOWNER'S SIGNATURE: *Jonathan Horton* DATE: 11/24/08
 PREPARED BY: Jonathan Horton DATE: 11/11/2008
 CERTIFIED BY: *Matthew R. Pyle* DATE: 7.29.09

AM

State of Vermont
Department of Forests, Parks and Recreation
103 South Main Street, 10 South
Waterbury, VT 05671-0601
www.vtfpr.org

[fax] 802-244-1481
[tdd] 800-253-0191

Agency of Natural Resources

May 20, 2010



Chris Fife, Senior Resource Forester
Plum Creek Timber Co.
P.O. Box 260
Colebrook, NH 03576

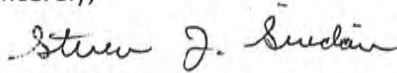
Dear Chris:

The field work on the site of the suspected violation is complete, and a write-up by Matt Langlais, the County Forester, has been completed. This write-up, along with copies of maps and plans which were posted April 30, was forwarded to the Waterbury Office for review. They were sent to the Department of Taxes, Property Valuation and Review, recommending that the property be removed from UVA for harvesting contrary to the management plan.

Until all actions related to the potential UVA violation are completed, FPR will not be in a position to approve any new activities in the area referred to as Clough Brook North. Matt will be working on the plans and requests that have been submitted for any other Plum Creek harvest areas as well.

If you have any questions, please call me at 802-241-3680.

Sincerely,

 VJA

Steven J. Sinclair, Director of Forests

cc: Matt Langlais, Essex/Caledonia County Forester
Meghan Purvee, General Counsel
Kathleen Decker, District 5 Forest Manager
Dick Greenwood, Heavy Cut Forester, D-5



**FORESTRY
CENTENNIAL
CELEBRATION**



FPR5
Vermont Agency of Natural Resources
Department of Forests, Parks & Recreation
103 South Main Street, 10 South
Waterbury, VT 05671-0601

Return Service Requested

Chris Fife, Senior Resource Forester
Plum Creek Timber Co.
P.O. Box 260
Colebrook, NH 03576

Matt Langlais, Caledonia/Essex County Forester

Department of Forests, Parks & Recreation

1229 Portland Street, Suite 201
St. Johnsbury, VT 05819-2099

[phone] 802-751-0111

[fax] 802-748-6687

www.vtfpr.org

[email] matt.langlais@state.vt.us

Chris Fife
Plum Creek Maine Timberlands, LLC
PO Box 260
Colebrook, NH 03576

April 27, 2010

Dear Chris,

Please find enclosed a copy of a report sent to Ginger Anderson, Chief of Forest Management, recommending that lands owned by Plum Creek Maine Timberlands, LLC be removed from the Use Value Appraisal Program. Inspection of the 2009-10 harvesting operations found that 139.54 acres had been cut contrary to the forest management plan on file. This recommendation for discontinuance is also predicated upon the failure of Plum Creek to implement the minimum acceptable standards for maintaining water quality (AMP's) during forest management operations. After a parcel of managed forest land has been removed from Use Value Appraisal due to an adverse inspection, a new application for Use Value Appraisal will not be considered for a period of five years, and then shall be approved by the Department of Forests, Parks & Recreation only if a compliance report has been filed with the new application certifying that appropriate measures have been taken to bring the parcel into compliance with minimum acceptable standards for forest management. If you wish to aggrieve the decision that your property has been cut contrary you may appeal to the Commissioner of the Department of Forests, Parks, & Recreation. Please do call if you have any questions.

Regards,



Matthew Langlais
Caledonia/Essex County Forester

Cc: Ginger Anderson
Kathy Decker
Dan Kilborn

Matt Langlais, Caledonia/Essex County Forester

Department of Forests, Parks & Recreation

1229 Portland Street, Suite 201

St. Johnsbury, VT 05819-2099

www.vtfpr.org

[phone] 802-751-0111

[fax] 802-748-6687

[email] matt.langlais@state.vt.us

MEMORANDUM

To: Ginger Anderson, Chief of Forest Management

From: Matthew Langlais, Caledonia/Essex County Forester

Subject: UVA Violation: Plum Creek Maine Timberlands, LLC 139.54 acres cut contrary

Date: April 26, 2010

Landowner: Plum Creek Maine Timberlands, LLC
999 Third Avenue, Suite 4300
Seattle, WA 98104

SPAN #: 348-108-10039

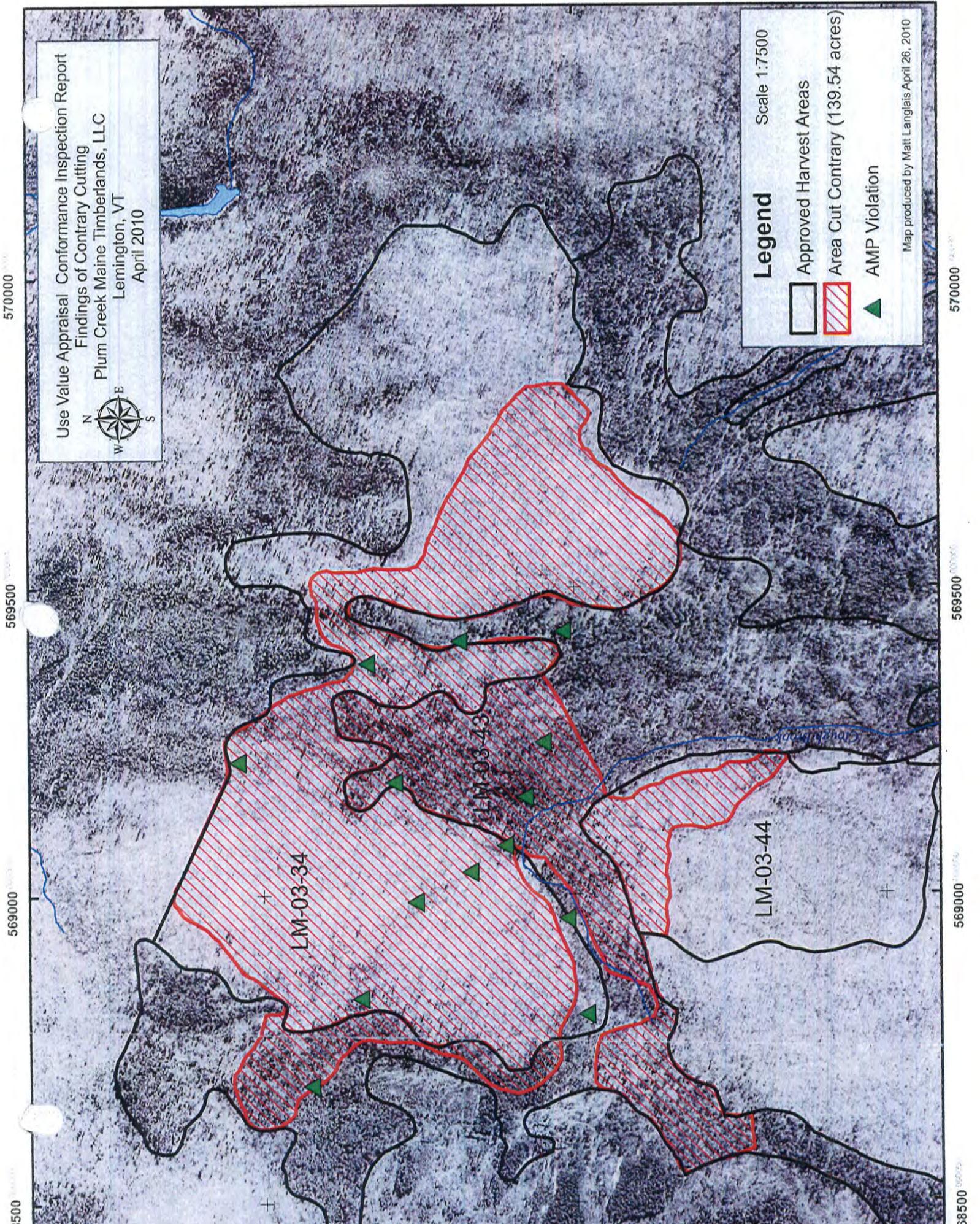
Parcel Town: Lemington (contiguous with lands in Bloomfield, Averill, Avery's Gore, Lewis, Brighton, Morgan & Brunswick)

The purpose of this memorandum is to report an adverse inspection of the Plum Creek Maine Timberlands LLC property that is enrolled in the Use Value Appraisal Program in Essex County. Please find attached a map detailing those acres considered cut contrary (139.54 acres). Violations include cutting contrary to the approved forest management plan as well as failure to implement AMP's, discharge resulting (see attached letters).

1. Clough Brook North Harvest (LM-03-01-09), Stand LM-03-34
 - a. Management Plan Data/Prescription
 - i. Northern Hardwood; 8.4 MSD; 82/35 AGS/UGS BA; Two stage shelterwood prescribed with 30-40 square feet residual basal area.
 - b. Inspection Findings
 - i. Stand has been cut contrary to prescribed silviculture. Stand inventoried on 2/10/2010 and 2/12/2010. Residual basal area across 90.91 acres of the stand reduced to 19.7 square feet (36 inventory points with 2.63 standard error).
 - ii. AMP Violations-discharge resulting include:
 1. Landing located within 50' stream side protection zone (AMP # 16)
 2. Unnecessary crossings—3 crossings installed on one brook whereas none actually needed (AMP #9)
 3. Protective strip not maintained (AMP #14)
 4. Machinery operated/skid trails placed within 25' streamside protection buffer (AMP #14)
 5. Stream channel excavated/altered to allow for the movement of water (AMP # 10)
 6. Equipment in headwater stream and or headwater wetland causing rutting (AMP # 10)

2. Clough Brook North Harvest (LM-03-01-09), Stand LM-03-43
- a. Management Plan Data/Prescription
- i. Mixed wood; 8.2 MSD; 88/38 AGS/UGS BA; 410 Stems per acre regeneration; Two stage shelterwood prescribed with 60 square feet residual basal area and overstory removal on 30-40% of the stand where understory is well stocked with seedling and sapling sized red spruce.
- b. Inspection Findings
- i. 40.15 acres of stand cut contrary to plan. Stand inventory on 3/17/10 and 4/13/10 found 23.3 square feet of basal area and 15.38% of regeneration plots stocked (39 inventory points with 4.18 standard error) . Neither regeneration plots nor residual stand basal area describes successful implementation of prescribed silviculture.
- ii. AMP Violations-discharge resulting include:
1. Protective strip not maintained (AMP #14)
 2. Machinery operated/skid trails placed within 25' streamside protection buffer (AMP #14)
 3. Equipment in headwater stream/wetland causing 1-2 foot rutting (AMP # 10)
 4. Equipment crossing brooks without crossing structures in place (AMP #10).
 5. Two unnecessary stream crossings (AMP #9).
3. Clough Brook North Harvest (LM-03-01-09), Stand LM-03-44
- a. Management Plan Data/Prescription
- i. Northern Hardwood; 7.6 MSD; 97/42 AGS/UGS BA; Intermediate thinning to residual basal area of 60 square feet.
- b. Inspection findings
- i. 8.47 acres of stand cut contrary to plan. Stand inventory on 3/26/10 found 16.3 square feet of basal area (8 inventory points with 4.60 standard error).

Cc: Kathy Decker
Jeff Briggs
Dan Kilborn



Use Value Appraisal Conformance Inspection Report
 Findings of Contrary Cutting
 Plum Creek Maine Timberlands, LLC
 Lemington, VT
 April 2010



Legend Scale 1:7500

- Approved Harvest Areas
- Area Cut Contrary (139.54 acres)
- AMP Violation

Map produced by Matt Langlais April 26, 2010



Agency of Natural Resources
103 South Main St., 10 South
Waterbury, Vermont 05671-0601
Dept. of Forests, Parks and Recreation

[fax] 802-244-1481
[tdd] 800-253-0191
(device for the deaf)

State of Vermont
Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation

May 24, 2010

Michelle Wilson
Property Valuation and Review
P.O. Box 1577
Montpelier, VT 05601-1577

Dear Michelle:

This is a request to have a portion of a Forest UVA parcel in Essex County removed from the Use Value Appraisal Program. Attached to this letter is documentation by Matt Langlais, Essex/Caledonia County Forester regarding an adverse inspection that found 139.54 acres of the property was cut contrary to the owner's UVA plan. I also submit a copy of a report that documents the prompt resolution by Plum Creek of the AMP issues mentioned in the text of Matt's memo to me.

Plum Creek is Vermont's largest landowner enrolled in UVA, with parcels in several towns in Essex County. The SPAN # for this parcel is 348-108-10039.

Please call me or Matt if you have any questions.

Sincerely,

Virginia Anderson
Chief, Forest Resource Management
VT Dept. FPR

cc: Matt Langlais



Matt Langlais, Caledonia/Essex County Forester

Department of Forests, Parks & Recreation

1229 Portland Street, Suite 201

St. Johnsbury, VT 05819-2099

www.vtfpr.org

[phone] 802-751-0111

[fax] 802-748-6687

[email] matt.langlais@state.vt.us

MEMORANDUM

To: Ginger Anderson, Chief of Forest Management

From: Matthew Langlais, Caledonia/Essex County Forester *ML*

Subject: UVA Violation: Plum Creek Maine Timberlands, LLC 139.54 acres cut contrary

Date: April 26, 2010

Landowner: Plum Creek Maine Timberlands, LLC
999 Third Avenue, Suite 4300
Seattle, WA 98104

SPAN #: 348-108-10039

Parcel Town: Lemington (contiguous with lands in Bloomfield, Averill, Avery's Gore, Lewis, Brighton, Morgan & Brunswick)

The purpose of this memorandum is to report an adverse inspection of the Plum Creek Maine Timberlands LLC property that is enrolled in the Use Value Appraisal Program in Essex County. Please find attached a map detailing those acres considered cut contrary (139.54 acres). Violations include cutting contrary to the approved forest management plan as well as failure to implement AMP's, discharge resulting (see attached letters).

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- a. Management Plan Data/Prescription
- i. Mixed wood; 8.2 MSD; 88/38 AGS/UGS BA; 410 Stems per acre regeneration; Two stage shelterwood prescribed with 60 square feet residual basal area and overstory removal on 30-40% of the stand where understory is well stocked with seedling and sapling sized red spruce.
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- i. Northern Hardwood; 7.6 MSD; 97/42 AGS/UGS BA; Intermediate thinning to residual basal area of 60 square feet.
- b. Inspection findings
- i. 8.47 acres of stand cut contrary to plan. Stand inventory on 3/26/10 found 16.3 square feet of basal area (8 inventory points with 4.60 standard error).

Cc: Kathy Decker
Jeff Briggs
Dan Kilborn



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VERMONT

Agency of Natural Resources
Department of Forests, Parks & Recreation
103 South Main Street, 10 South
Waterbury, VT 05671-0601

Chris Fife
Plum Creek Maine Timberlands, LLC
PO Box 260
Colebrook, NH 03576



State of Vermont
Department of Taxes
133 State Street
Montpelier, VT 05633-1401
July 9, 2010

Agency of Administration

Corporate Tax Department
Plum Creek Maine Timberlands, LLC
999 Third Avenue, Suite 4300
Seattle, WA 98104

32A
(also ex H)

RE: Discontinuance of Plum Creek parcel from Use Value Appraisal Program

Dear Tax Department:

I am writing to notify you that the Vermont Department of Taxes, Division of Property Valuation and Review has received from the Vermont Department of Forests, Parks and Recreation an adverse inspection report on a Plum Creek Maine Timberlands, LLC parcel of land located in Essex and Orleans Counties. See the attached schedule for the location and acreage affected by this report. Consequently, the entire parcel is removed from the Use Value Appraisal Program effective April 1, 2011. 32 V.S.A. § 3756(i) (Director of Property Valuation and Review shall remove from use value appraisal the *entire* parcel of managed forest land when Department has received adverse inspection report) (emphasis added). A new application for Use Value Appraisal for this parcel will not be considered for five years after the removal. 32 V.S.A. § 3755(d). Any appeal from an adverse inspection report must be made to the Commissioner of the Department of Forests, Parks and Recreation within 30 days of the date of this notice. 32 V.S.A. § 3758(d).

You will receive a Notice of Assessment in a separate mailing for the land use change tax that is due, pursuant to 32 V.S.A. § 3757(a), with respect to the portion of the parcel that has been developed, as defined in 32 V.S.A. § 3752(5).

Sincerely,

William E. Johnson, Director
Property Valuation and Review

Cc: Chris Fife, Plum Creek
Virginia Anderson, FP&R
Town Assessing Officials





State of Vermont
Department of Taxes
133 State Street
Montpelier, VT 05633-1401

Agency of Administration

July 9, 2010

Plum Creek Maine Timberlands, LLC

Land Discontinued due to A.N.R. Adverse Inspection

<u>Municipality</u>	<u>Acres Discontinued</u>	<u>SPAN</u>
Averill	14,639	020 255 10079
Averys Gore	8,224	022 256 10002
Bloomfield	9,112	066 020 10090
Brighton	5,269	090 028 10364
Brunswick	2,277	105 033 10027
Lemington	9,907	348 108 10039
Lewis	6,673	351 259 10008
Morgan	497	411 128 10241
<hr/> Total	<hr/> 56,604	





CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
OID -

NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 ALL FIELDS REQUIRED FOR PROCESSING			
Name of Landowner Plum Creek Maine Timberlands, LLC		Town Averill	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300		Parcel Identification No. 100011.2	Number of Acres Withdrawn 14,639.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 202-522-10079
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

<input type="checkbox"/> Voluntary withdrawal from appraisal program <input type="checkbox"/> Disqualified but no development <input type="checkbox"/> Withdrawal due to development <input checked="" type="checkbox"/> Full parcel of land withdrawn <input type="checkbox"/> Portion of parcel withdrawn (please describe)	<p><i>Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.</i></p>
---	--

Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

THIS NOTICE MUST BE PRINTED AND MAILED WITH AN ORIGINAL SIGNATURE OF ALL LAND OWNERS
If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____

SECTION 2 TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION		
5-24-10 Date of Determination	<i>Waller</i> Signature - Director, Property Valuation & Review	7-9-10 Date Issued
		# Acres Withdrawn # Acres Developed

LU-1 Rev. 1/09
MAIL COMPLETED FORM AND MAPS TO:
Property Valuation & Review Division
Current Use Program
133 State Street
Montpelier, VT 05633-1401



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
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NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 | ALL FIELDS REQUIRED FOR PROCESSING

Name of Landowner Plum Creek Maine Timberlands, LLC		Town Averys Gore	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300	Phone	Parcel Identification No. 100099.9	Number of Acres Withdrawn 8,224.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 022-256-10002
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

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If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____

SECTION 2 | TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION

5-24-10 *William E. [Signature]* **7-9-10**
 Date of Determination Signature - Director, Property Valuation & Review Date Issued

Acres Withdrawn
Acres Developed



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
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NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 | ALL FIELDS REQUIRED FOR PROCESSING

Name of Landowner Plum Creek Maine Timberlands, LLC		Town Bloomfield	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300	Phone	Parcel Identification No. 1002-	Number of Acres Withdrawn 9,112.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 066-020-10090
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

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Entire parcel of managed forestland.

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Adverse inspection report received from Department of Forests, Parks, & Recreation.

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If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
Owner Signature: _____ Date: _____
Owner Signature: _____ Date: _____

SECTION 2 | TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION

5-24-10 Date of Determination	 Signature - Director, Property Valuation & Review	7-9-10 Date Issued	# Acres Withdrawn # Acres Developed
---	---	------------------------------	--



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
OID -

NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 | ALL FIELDS REQUIRED FOR PROCESSING

Name of Landowner Plum Creek Maine Timberlands, LLC		Town Brighton	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300	Phone	Parcel Identification No. 00TR25.09R	Number of Acres Withdrawn 5,269.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 090-028-10364
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

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If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
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Owner Signature: _____ Date: _____

SECTION 2 | TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION

5-24-10
Date of Determination

William Z. Johnson
Signature - Director, Property Valuation & Review

7-9-10
Date Issued

Acres Withdrawn

Acres Developed



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
OID -

NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 | ALL FIELDS REQUIRED FOR PROCESSING

Name of Landowner Plum Creek Maine Timberlands, LLC		Town Brunswick	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300	Phone	Parcel Identification No. 0509516.	Number of Acres Withdrawn 2,277.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 105-033-10027
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

THIS NOTICE MUST BE PRINTED AND MAILED WITH AN ORIGINAL SIGNATURE OF ALL LAND OWNERS
If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
Owner Signature: _____ Date: _____
Owner Signature: _____ Date: _____

SECTION 2 | TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION

5-24-10 Date of Determination	<i>William J. [Signature]</i> Signature - Director, Property Valuation & Review	7-9-10 Date Issued	# Acres Withdrawn
			# Acres Developed



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
OID -

NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 ALL FIELDS REQUIRED FOR PROCESSING			
Name of Landowner Plum Creek Maine Timberlands, LLC		Town Lemington	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300		Parcel Identification No. 00000000R8-14	Number of Acres Withdrawn 9,907.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 348-108-10039
			Number of Acres Developed 139.540

Check appropriate reasons for withdrawal or disqualification and explain below:

<input type="checkbox"/> Voluntary withdrawal from appraisal program <input type="checkbox"/> Disqualified but no development <input type="checkbox"/> Withdrawal due to development <input checked="" type="checkbox"/> Full parcel of land withdrawn <input type="checkbox"/> Portion of parcel withdrawn (please describe)	<p><i>Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.</i></p>
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Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

THIS NOTICE MUST BE PRINTED AND MAILED WITH AN ORIGINAL SIGNATURE OF ALL LAND OWNERS
If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____

SECTION 2 TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION		
5-24-10 Date of Determination	<i>Wellea J. [Signature]</i> Signature - Director, Property Valuation & Review	7-9-10 Date Issued
		# Acres Withdrawn # Acres Developed

MAIL COMPLETED FORM AND MAPS TO:
Property Valuation & Review Division
Current Use Program
133 State Street
Montpelier, VT 05633-1401



CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

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NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 | ALL FIELDS REQUIRED FOR PROCESSING

Name of Landowner Plum Creek Maine Timberlands, LLC		Town Lewis	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300	Phone	Parcel Identification No. 100011.4	Number of Acres Withdrawn 6,673.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 351-259-10008
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

THIS NOTICE MUST BE PRINTED AND MAILED WITH AN ORIGINAL SIGNATURE OF ALL LAND OWNERS
If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____

SECTION 2 | TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION

5-24-10 Date of Determination	<i>Deborah A. [Signature]</i> Signature - Director, Property Valuation & Review	7-9-10 Date Issued	# Acres Withdrawn _____ # Acres Developed _____
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CURRENT USE PROGRAM
133 STATE STREET
MONTPELIER, VT 05633-1401

FOR DEPARTMENT USE ONLY
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NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM
(TO BE COMPLETED BY LANDOWNER OR DIRECTOR OF PVR)

SECTION 1 ALL FIELDS REQUIRED FOR PROCESSING			
Name of Landowner Plum Creek Maine Timberlands, LLC		Town Morgan	Date of Development or Discontinuance 05/24/2010
Street or PO Box 999 Third Avenue, Suite 4300		Parcel Identification No. 800-2526.07	Number of Acres Withdrawn 497.000
City Seattle	State WA	Zip Code 98104	SPAN - School Property Account No. 411-128-10241
			Number of Acres Developed 0.000

Check appropriate reasons for withdrawal or disqualification and explain below:

- Voluntary withdrawal from appraisal program
- Disqualified but no development
- Withdrawal due to development
- Full parcel of land withdrawn
- Portion of parcel withdrawn (please describe)

Maps: If a portion of the land is being withdrawn, you must submit 3 copies of maps and map charts of the entire parcel delineating the revised enrolled and excluded acreage remaining. Maps must be drawn to the orthophoto mapping standards.

Description
Entire parcel of managed forestland.

Reason for Withdrawal
Adverse inspection report received from Department of Forests, Parks, & Recreation.

THIS NOTICE MUST BE PRINTED AND MAILED WITH AN ORIGINAL SIGNATURE OF ALL LAND OWNERS
If signature is other than owner(s), attach copy of recorded power of attorney or other recorded authorization.

Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____
 Owner Signature: _____ Date: _____

SECTION 2 TO BE COMPLETED BY THE PROPERTY VALUATION & REVIEW DIVISION		
<u>5-24-10</u> Date of Determination	<u>Walter E. [Signature]</u> Signature - Director, Property Valuation & Review	<u>7-9-10</u> Date Issued
		# Acres Withdrawn # Acres Developed

LU-1 Rev. 1/09
MAIL COMPLETED FORM AND MAPS TO:
Property Valuation & Review Division
Current Use Program
133 State Street
Montpelier, VT 05633-1401

INSTRUCTIONS FOR NOTICE OF DEVELOPMENT OR DISCONTINUANCE FROM LAND USE VALUE APPRAISAL PROGRAM

Section 1 – Development/Discontinuance

This form is to be used to notify Property Valuation and Review of the development or discontinuance of land from the use value appraisal program. If development or discontinuance is occurring on only a portion of the land enrolled, 3 copies of a revised map are required to be filed with this notice. This form and maps must be filed by the landowner by completing Section 1 and mailing the completed form and all maps to:

Property Valuation & Review, Current Use Program, 133 State Street, Montpelier, VT 05633-1401.

The fair market value of the land being discontinued will be determined by Property Valuation and Review. If any land has been or is to be developed, the value of the developed land will also be determined. There is a land use change tax of twenty percent of the fair market value of the developed land. The tax will be ten percent if the owner demonstrates to the satisfaction of the director that the parcel has been enrolled more than ten years. If the developed land is a portion of a parcel, the fair market value of the developed land shall be the fair market value of the developed land prorated on the basis of acreage divided by the common level of appraisal. The tax is due 30 days after the tax notice is mailed to the taxpayer and shall be collected in accord with and subject to the penalty, interest and enforcement provisions 32 V.S.A., Chapter 151. If you wish to prepay the tax and have the lien removed from discontinued property that has not yet been developed, you may do so by contacting Property Valuation and Review and requesting that a Notice of Assessment be issued for the amount due.

“Development” means, for the purposes of determining whether a land use change tax is to be assessed under 32 V.S.A. §3757, the construction of any building, road or other structure, or any mining, excavation or landfill activity. “Development” also means the subdivision of a parcel of land into two or more parcels, regardless of whether a change in use actually occurs, where one or more of the resulting parcels contains less than 25 acres each. If subdivision is solely the result of a transfer to one or more of a spouse, parent, grandparent, child, grandchild, niece, nephew or sibling of the transferor, or to the surviving spouse of any of the foregoing then “development” shall not apply to any portion of the newly-created parcel or parcels which qualifies for enrollment and for which, within 30 days following the transfer, each transferee applies for reenrollment in the use value appraisal program. “Development” also means the cutting of timber on property appraised under this chapter at use value in a manner contrary to a forest or conservation management plan as provided for in 32 V.S.A. §3655(b), or contrary to the minimum acceptable standards for forest management; or a change in the parcel or uses of the parcel in violation of the conservation management standards established by the commissioner of forest, parks and recreation. The term “development” shall not include the construction, reconstruction, structural alterations, relocation or enlargement of any building, road or other structure for farming, logging, forestry or conservation purposes, but shall include the subsequent commencement of a use of that building, road or structure for other than farming, logging or forestry purposes.

APPEALS

How to Appeal an Eligibility or Change in Use Decision

If you wish to appeal the development/discontinuance of enrolled property determined to be no longer eligible or undergone a change in use, you must file your appeal with the Director of Property Valuation & Review within 30 days of the Notice of Development or Discontinuance. If still aggrieved, an appeal of the director's decision may be made to the Superior Court (\$250.00 filing fee) or State Appraiser via the Director of Property Valuation and Review (\$70.00 fee) in the same manner and under the same procedures as an appeal from a decision of the board of civil authority, as set forth in 32 V.S.A., Chapter 131, Subchapter 2.

How to Appeal an Adverse Inspection Report or Denied Management Plan Approval

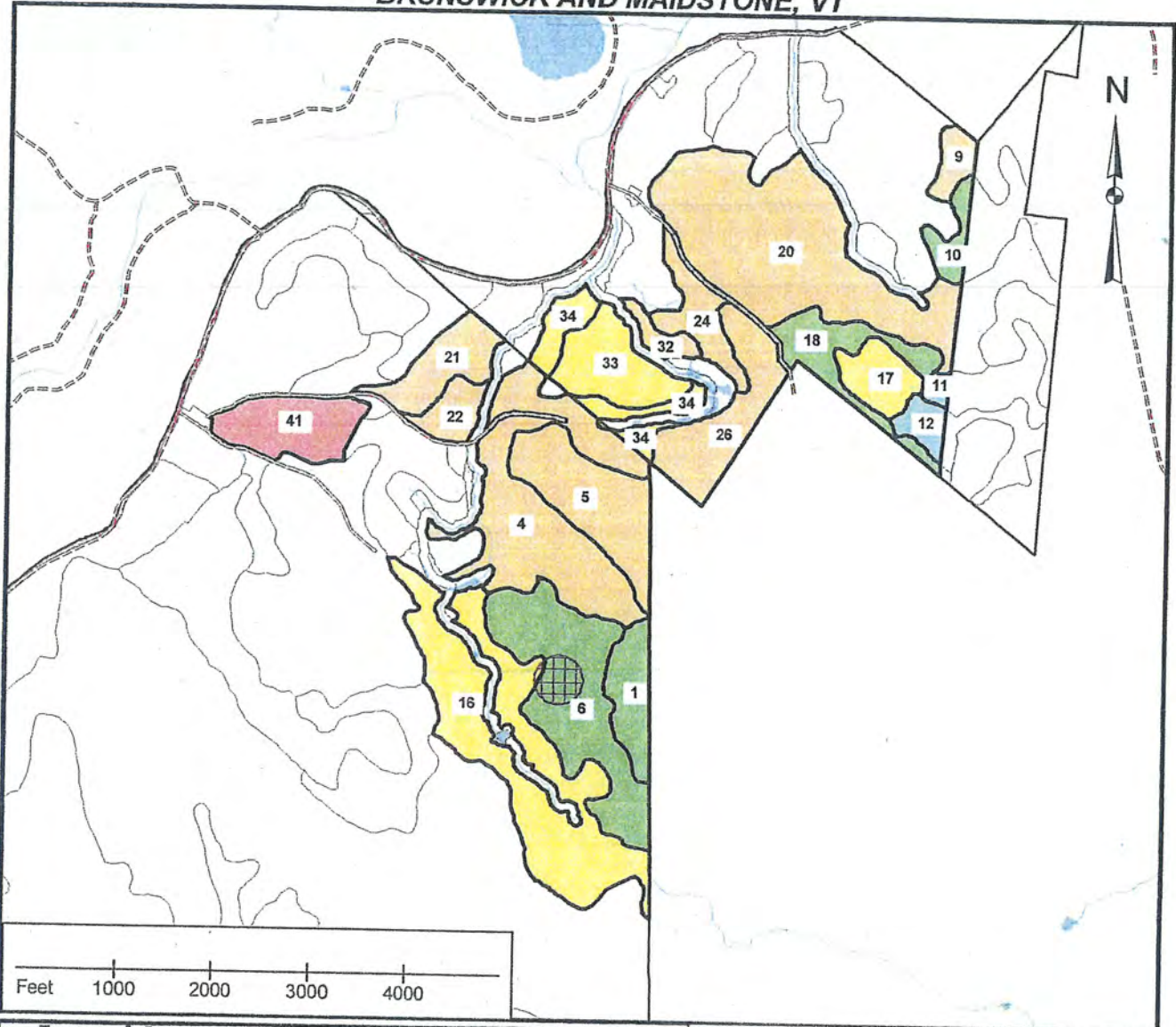
If you wish to appeal the development/discontinuance resulting from a decision of the Department of Forests, Parks and Recreation concerning the filing of an adverse inspection report or the denial of approval of a management plan, you must file an appeal with the commissioner of the Department of Forests, Parks and Recreation within 30 days of the Notice of Development or Discontinuance. If still aggrieved, an appeal of the commissioner's decision may be made to the Superior Court (\$250.00 filing fee) in the same manner and under the same procedures as an appeal from a decision of the board of civil authority, as set forth in 32 V.S.A., Chapter 131, Subchapter 2.

If you have any questions regarding this form, please contact the Division of Property Valuation and Review, Current Use Program, 133 State Street, Montpelier, VT 05633-1401. Telephone (802) 828-5861.



PlumCreek

**LAND OF PLUM CREEK
MAINE TIMBERLANDS, L.L.C.
NORTHERN KINGDOM UNIT-VT
"MAIDSTONE NORTH"
BRUNSWICK AND MAIDSTONE, VT**



Town	Stand Number	Stand Type	Prescription	Acres
Brunswick	9	H3B	SW	5.49
Brunswick	10	S3A	PCC	5.95
Brunswick	11	H3B	IMP	1.91
Brunswick	12	HS3A	IMP	5.36
Brunswick	17	SH3A	IMP/SW	10.75
Brunswick	18	H4B	PCC	16.80
Brunswick	20	H4C	SW	77.23
Brunswick	24	H4C	SW	12.34
Brunswick	26	H4B	SW	24.61
Brunswick	32	H3C	SW	4.31
Brunswick	33	H3C	IMP/SW	19.29
Brunswick	34	HS3B	IMP/SW	13.50
Maidstone	1	SH3B	PCC	13.01
Maidstone	4	HS3B	SW	54.10
Maidstone	5	H4B	SW	28.81
Maidstone	6	H4C	PCC	46.23
Maidstone	16	HS3B	IMP/SW	65.67
Maidstone	21	HS3D	SW	15.14
Maidstone	22	HS3B	SW	7.64
Maidstone	41	HS3B	ST	19.05
				447.19

- IMPROVEMENT THINNING
- SEED TREE
- IMPROVEMENT THINNING/SHELTERWOOD
- SHELTERWOOD
- PATCH CLEARCUT
- LAKE/POND
- STREAMS
- VERNAL POOL (UNVERIFIED)

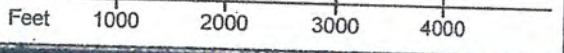
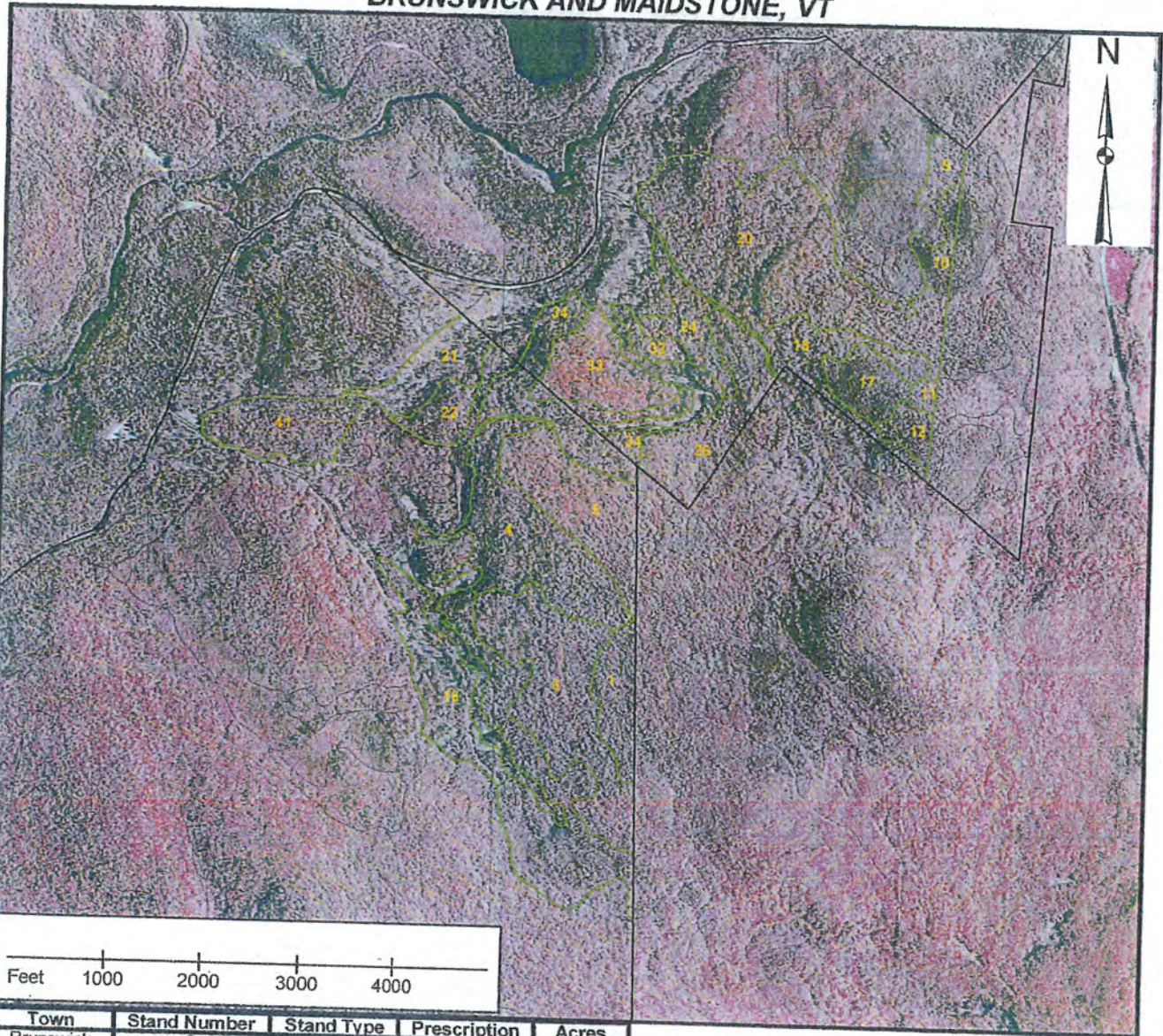
3" = Mile

NAD 1983 UTM Meters Zone 19N




PlumCreek

LAND OF PLUM CREEK
MAINE TIMBERLANDS, L.L.C.
NORTHERN KINGDOM UNIT-VT
"MAIDSTONE NORTH"
BRUNSWICK AND MAIDSTONE, VT



Town	Stand Number	Stand Type	Prescription	Acres
Brunswick	9	H3B	SW	5.49
Brunswick	10	S3A	PCC	5.95
Brunswick	11	H3B	IMP	1.91
Brunswick	12	HS3A	IMP	5.36
Brunswick	17	SH3A	IMP/SW	10.75
Brunswick	18	H4B	PCC	16.80
Brunswick	20	H4C	SW	77.23
Brunswick	24	H4C	SW	12.34
Brunswick	26	H4B	SW	24.61
Brunswick	32	H3C	SW	4.31
Brunswick	33	H3C	IMP/SW	19.29
Brunswick	34	HS3B	IMP/SW	13.50
Maidstone	1	SH3B	PCC	13.01
Maidstone	4	HS3B	SW	54.10
Maidstone	5	H4B	SW	28.81
Maidstone	6	H4C	PCC	46.23
Maidstone	16	HS3B	IMP/SW	65.67
Maidstone	21	HS3D	SW	15.14
Maidstone	22	HS3B	SW	7.64
Maidstone	41	HS3B	ST	19.05
				447.19

 HARVEST UNIT STANDS

3" = Mile

NAD 1983 UTM Meters Zone 19N

**MANAGEMENT SCHEDULE
USE VALUE APPRAISAL FOREST MANAGEMENT PLAN**

STAND NO.	YEAR	MANAGEMENT PRACTICES TO BE ACCOMPLISHED DURING NEXT 10 YEAR PLAN:	Silvicultural Guide or Tech Ref. #/Letter, if appropriate
Maidstone: Std 1 (13 Acs)	2014	Will receive an Overstory removal where there are patches of established YB-RS regeneration. In other areas the stand will receive a Shelterwood cut, reducing residual basal area to approximately 70-80 square feet. There may be about 1-2 acres of low density shelterwood where the BA will be about 30 - 40 Sq. ft./Ac. Quality hemlock, yellow birch, and spruce shall be retained individually and in groups for leave trees. Individual mature trees shall be left in pockets of quality regeneration where undesirable damage would otherwise occur.. UVA Codes 3, 4.	Guide: USDA-FS Research Paper NE-603
Maidstone: Std 6 (46 Acs) Brunswick: Stds 10, 17, 18 (34 Acs)	2014	Will receive Patch Regeneration Cuts/ Progressive Clearcuts (PCC - UVA Code 6) due to the lack of advanced regeneration, low overstory BA, and the high levels of unacceptable growing stock. The patches will target pockets of unacceptable growing stock that are at risk or mature. If accessible, all of Stand 10 shall be cut (6 acres), otherwise the patches will be 5 - 10 acres in size and treat approximately 1/2 of the total stand area (43 acres total). Re-entry is expected in 10-15 years. Spruce and hemlock shall be retained as much as possible. Where found, Legacy trees shall be retained. UVA Code 6.	
Maidstone: Std 41 (26 Acs)	2014	Will receive a seed tree cut due to the lack of advanced regeneration and difficult operability due to slope. The leave trees for seed shall be in groups of at least 3 trees, targeting residuals of yellow birch, sugar maple, hemlock, and spruce. Groups shall be spaced approximately 150 feet apart. Where found, Legacy trees shall be retained and incorporated into seed groups. Seed trees shall be vigorous, of good quality, and at least 10" dbh. Pockets of RS, BF, YB and SM saplings shall be avoided/protected. UVA Code 5.	
Maidstone: Stds 4, 5, 21, 22 (106 acres) Brunswick: Stds 9, 11, 12, 20, 24, 26 (203 acres)	2014	Will have a shelterwood/group shelterwood with groups (patches) NTE 2 acres over about 30% of the stands. Shelterwood areas shall have a residual BA of 60 sq. ft./acre, with low density shelterwood (down to 30 sq. ft. BA) covering about 20% of the stands. Outside group cuts, residual BA will be about 60 Sq. ft./acre. Where feasible, quality SM and YB in the 16" to 18" class shall be retained in accordance with the Conservation Easement. UVA Code 3.	

Std 16 (41 acres)

Brunswick:
Sids 33, 34
(53 acres)

will receive an improvement cut/thinning &/or shelterwood removing approximately 30% to 40% of the basal area. Where softwood significant component, the residual BA shall be targeted at about 80-90 Sq. ft. BA due to stand-firmness criteria. Softwoods, primarily spruce, shall mostly be left in small groups and pockets. Fir shall be targeted as a species to remove due to life span and quality. About 20% of the area will receive patch cuts up to 2 acres large. The patch cuts shall occur in areas of poor regeneration and/or high-risk overstory. Outside patch cuts, residual BA will be about 60-70 Sq. ft. /acre. About 20% of the area (where there are poor quality hardwoods) shall receive low-density shelterwood cuts, leaving about 30 Sq. ft. BA. Hemlock and spruce shall be retained where feasible. Occasional quality SM and YB in the 16" to 18" class shall be retained for structural diversity. UVA Codes 2 & 3.

(Maidstone North 2012)

LANDOWNER'S SIGNATURE:



PREPARED BY:

Dale Conroy

CERTIFIED BY:

DATE: 1-12-2012

DATE: 1-12-2012

DATE: _____

MANAGEMENT PLAN SUMMARY FORM

Parcel For Data Entry (by state) # _____ amendment² change of ownership Page 1 of 2
 Year of Plan _____ "FP&R COUNTY REGISTER USE ONLY"
 Year of Entry _____ Year of Last Inspection _____

) Landowner Name (last name, first name) Plum Creek
) Landowner Address (Street, PO Box) P.O. Box 260
 (Town) Colebrook (State) NH (Zip Code) 03576
) Town That Parcel Is Located: Brunswick, Maidstone 4) Total Forestry Acres in Parcel 522 (Grand list acreage, minus agricultural or non-productive land and exclusions)
) Plan Preparer (last name, first name) Covey, Dale 6) Previous Owner (last name, first name) Essex Timber Company
) Signature Dale Covey 8) Date signed 1-12-2012

Stand information: (this information is for data entry only and does not override what is in actual plan)

Stand #	Acres	Even-aged ⁽¹⁾ Uneven-aged ⁽²⁾ (existing)	Predominant Site Class: (1, 2, 3 or 4)	Timber Type	Quadratic M.S.D. (inches)	Total BA	AGS BA	Mgmt. Activities	Scheduled Date (± 3 yrs.)
Maidstone									
1	13	1	2	11	8.2	104	76	3,4	2014
6	46	1	2	6	11.0	111	40	6	2014
4	54	1	2	6	8.9	96	53	3	2014
5	29	1	2	6	8.2	86	52	3	2014
16	41	1	2	11	8.1	111	44	2,3	2014
21,22	23	1	2	6	10.0	86	54	3	2014
41	26	1	2	11	8.8	90	30	5	2014
Brunswick									
9	5	1	2	6	7.7	95	48	3	2014
10	6	1	2	11	7.4	111	51	6	2014
11, 12	7	1	2	11	6.7	80	45	3	2014
17	11	1	2	11	7.3	70	20	6	2014
18	17	1	2	11	7.1	90	35	6	2014
20	77	1	2	11	7.5	82	51	3	2014
20, 24, 26	114	1	2	6	10.0	92	60	3	2014
33	20	1	2	11	8.6	79	56	2,3	2014
34	33	1	2	11	8.6	79	56	2,3	2014

Update of an existing plan that includes all new stand descriptive data. Generally done on a 10-year cycle.
 Change to an existing plan, generally due to purchase or sale of a portion of the property, or a change in prescription. Does not change the 10-year cycle of the existing plan. If this form filed with an amendment, indicate the amended information in the appropriate stand, and write an explanation in section 13. Amendments must be signed by the landowner(s).

HARVEST PRESCRIPTION FACT SHEET

PROJECT CODE: 7086 CONTRACT NUMBER: AV-05-02-08 FORESTER: DGS

TOWN: Averill/Lewis COMPARTMENT: 05/01 PHOTO: 212264, 212268

STANDS: AV: 03, 09, 10, 11, and 21 LW: 136

ROADS: East Branch

JOB DESIGNATION: Camp 12 North

TOTAL ACRES IN STANDS: 280 +/-

TOTAL ACRES IN STANDS TO BE TREATED: 124 +/-

HARVESTING EQUIPMENT RESTRICTIONS OR REQUIREMENTS: A CTL crew would be best for this job to minimize residual stand damage, but a tree length crew could also function effectively.

CURRENT STAND CONDITIONS:

This harvest unit is comprised of six Northern Hardwood and Mixed-wood stands in various conditions in terms of stocking, site quality and harvest history. These stands have not seen any harvest activity in 20+/- years when Champion last operated the unit. Species composition in the Northern Hardwood stands consists of Sugar maple, Yellow birch, American beech, and Red maple with Red spruce, Eastern hemlock and Balsam fir associates. Species composition in the Mixed-wood stands consists of Balsam fir, Red spruce, and Yellow birch with Sugar maple and Red maple associates. All of these stands show signs of residual damage and high-grading as a result of previous operations.

Stand AV-03 is a 38 acre hardwood dominated mixed-wood type that is stocked with a declining suppressed overstory. The overstory is dominated by Yellow birch (57 %) and Sugar maple (20%) with Red maple and Red spruce as associates. The stand contains 100 sq.ft./acre of basal area with only 23 sq.ft./acre of acceptable growing stock. The MSD is 11". The diameter distribution is weighted heavily toward the sawlog class. The high level of unacceptable stems can be attributed to stem decline as a result of residual logging damage, remnant suppressed stems and past unregulated forest management. Regeneration is scattered throughout the stand. The majority of this regeneration is dominated by beech and Striped maple in the 1-3" class. In areas that have openings in the canopy an established seedling class can be found. Mil acre plots showed 163+/- seedlings per acre of acceptable regeneration.

Stand AV-09 is a 66 acre Northern Hardwood typed that is stocked with a declining overstory. The overstory is dominated by Sugar maple (54%) American beech (24%) and Yellow birch (22%). The stand contains 83 sq.ft./acre of basal area with 18 sq.ft./acre of acceptable growing stock. The MSD is 9". The diameter distribution is weighted toward the sawlog class. The high level of unacceptable stems can be attributed to stem decline as a result of residual logging damage, remnant suppressed stems and past unregulated forest management. The AGS levels are low. However areas exist throughout the stand containing groups of acceptable stems that have potential for future growth. Advanced regeneration is established throughout the stand with 160 acceptable trees per acre in the 1-4" class. American beech is the dominate species in this size class with Sugar maple and Red spruce associates. Regeneration in the seedling class is present but scattered, mil acre plots reviled 209 acceptable seedlings per acre.

Stand AV-10 is a 46 acre mixed-wood type that is stocked with an overstory of declining Yellow birch intermixed with vigorous Red spruce stems. The overstory is slightly more dominated by hardwood (66%) then softwood. The overstory consists of Yellow birch (44%) and Red spruce (36%) with Balsam fir, Sugar maple and Red maple associates. The stand contains 125 sq.ft./acre of basal area with 70 sq.ft./acre of acceptable growing stock. The MSD is 9". The diameter distribution is weighted toward the sawlog class. Regeneration is scattered evenly throughout the stand with 250+/- Balsam fir seedlings per acre.

35

Stand AV-11 is a 35 acre Northern Hardwood type dominated by unacceptable growing stock. The overstory is dominated by Sugar maple (54%) and Yellow birch (27%). The stand contains 65 sq.ft./acre of basal area with 3 sq.ft./acre of acceptable growing stock. The MSD is 9". The diameter distribution is weighted toward the large pole timber/ small sawlog size class. The high level of unacceptable stems can be attributed to stem decline as a result of residual logging damage, remnant suppressed stems, past unregulated forest management and site conditions. The higher elevation portions of this stand are slowly reverting back to a softwood dominated mixed-wood type. Red spruce saplings are scattered throughout the stand. Regeneration is varied throughout and is not considered adequate in most areas. Mil acre plots showed 250 seedlings per acre of acceptable regeneration. The majority of this occurs in areas that have natural openings in the canopy.

Stand AV-21 is a 33 acre Northern Hardwood type dominated by unacceptable growing stock. The overstory is dominated by Yellow birch (32%), Sugar maple (34%), White birch (27%) with American beech and Red spruce associates. The stand contains 82 sq.ft./acre of basal area with 10 sq.ft./acre of acceptable growing stock. The MSD is 8". The diameter distribution is weighted toward the large pole timber size class. The higher elevation portions of this stand are slowly reverting back to a softwood dominated mixed-wood type. Scattered advanced Red spruce regeneration is established throughout the stand. The understory is not adequately stocked with 250+/- acceptable seedlings per acre dispersed evenly throughout the stand. Many of the larger Yellow and White birch stems are over-mature and show signs of decline. The unacceptable levels in this stand can be attributed to crown decline as a result from residual logging damage and unregulated forest management.

Stand LW 136 is a 63 acre Northern Hardwood type. The overstory is evenly dominated by Sugar maple (51%) and Yellow Birch (29%) with American beech and Red maple associates throughout. The stand contains 68 sq.ft./acre of basal area with 15 sq.ft./acre of acceptable growing stock. The MSD is 11". The diameter distribution is weighted heavily towards the saw timber class. Mil acre plots show that regeneration is not at suitable levels with 210 acceptable seedlings per acre throughout the stand. Many of the overstory stems are in decline and/or exhibit poor form. The high level of unacceptable stems can be attributed to stem decline as a result of residual logging damage, remnant suppressed stems, and past unregulated forest management.

REGENERATION:

Much of the regeneration found in this unit is as variable as the overstories they are associated with (see #'s provided in the previous section). The regeneration that occurs throughout this harvest unit is primarily in the 1"-4" class and is evenly distributed throughout the stand. Extra care will need to be taken by the contractor to protect this advanced regeneration during this entry.

ELEVATION & TERRAIN:

The elevation of this harvest runs from approximately 1,800 to 2,100 feet. The terrain is of moderate steepness with an eastern aspect. The soil conditions throughout the harvest unit are generally deep and rich moderately to poorly drained soils.

SURROUNDING LANDSCAPE

The harvest unit is located along the west side of the East Branch of the Nulhegan River. It is just north of Camp 12 (Camp Lease 2). Although this is a large unit much of the overstory will remain intact post harvest. Blue-line stream buffers and Surface Water Buffer zones are located near this unit reducing the water quality impacts to the surrounding watershed. The total area treated is less than one percent of the entire ownership. It's the intent through this treatment to begin to bring regulation back to this stand by establishing a new stand so as to develop a more sustainable forest resource in the future.

DESIRED GOAL OF HARVEST:

- Capture value in declining timber
- Retain good quality trees as seed source and retained value for the long term
- Improve stand quality and allow for future regulated management
- Provide openings for natural regeneration to occur where it is deficient
- Protect and release desirable advanced regeneration
- Protect riparian zones and wetland habitat

RECOMMENDED TREATMENT PRESCRIPTION:

For Stand AV-03 the primary treatment will utilize Even-Aged Group selection (GPE) due to the current stand conditions. This treatment will target small clusters of trees (1-10) to large groups (up to 2 acres) that are over-mature and at risk as well as UGS. One third of the stand acreage is targeted for removal during this entry. It's the intent through this entry to release quality stems and encourage regeneration. Areas containing acceptable regeneration will be avoided and retained during this treatment. Generally wind firm Red spruce will be retained around the edges of the larger openings.

Stands AV-09, 11, and LW 136 will utilize Strip Cut Harvest (STR) techniques. The goal will be implement narrow strips no wider than one and a half times tree height to remove one third of the stand during this entry. During this entry every third strip will be removed, the next third will be removed in two to four years with the last third two to four years after that depending upon regeneration levels. Advanced regeneration of acceptable species will be protected from harvest as much as possible. Vigorous softwood stems that occur within the strips will generally be reserved from harvest as a source of seed.

Stand AV-21 will receive Patch Regeneration Cuts (PTC) due to the lack of advanced regeneration and the high levels of unacceptable growing stock. The patches will target pockets of unacceptable growing stock that are at risk or mature and lacking a regenerated understory. Vigorous Yellow birch and Red spruce stems will be reserved as a seed source for the regeneration of the cut patches. The patches will be 2+/- acres in size and treat 1/3 of the total stand. These patches will be laid out as long narrow rectangles to promote more tolerant regeneration. Areas within the stand that contain higher levels of AGS will not be targeted during this entry.

Stand AV-11/ LW-136 will receive Patch Regeneration Cuts (PTC) due to the lack of advanced regeneration and the high levels of unacceptable growing stock. These patches will treat the portions of the stand not treated by the STR treatment. These patches will be located in areas of the stand above 1920'+/- in elevation. The patches will target pockets of unacceptable growing stock that are at risk or mature and lacking a regenerated understory. The patches will be 10+/- acres in size and treat 1/2 of the total area above 1920'. Some Yellow birch seed trees and wind firm Red spruce will be reserved as a source of seed inside the patch area.

Stand AV-10 will receive an Even-Aged Group (GPE) selection to target over-mature and at risk hardwood stems. The group size will be small (several trees – ¼ acre). The residual basal area will be b-line across the stand. This entry will release desirable softwood and hardwood stems while providing openings for regeneration to become established.

Pre-harvest layout will include:

- Identify and protect streams and significant wetlands using blue flagging.
- Identify any potential problems and address them with the Plum Creek Operations Forester.
- Identify former skid trails that can be used in current operations and flag new trails where needed using orange flagging.
- Flag stream crossings with blue flagging, and designate stream crossing method with written instructions on pink flagging at crossing location and shown on LV's stream crossing worksheet.
- Minimize skid trails to limit site disturbance.
- Establish bounds of harvest in pink flagging with the designation

DESIGNATION OF TIMBER FOR HARVEST:

All stands within this unit receiving the same treatment will be marked with pink florescent flagging delineating treatment boundary. Trees marked with a "W", "X", "LX" or "SB" should not be harvested since their designations refer to wildlife trees (w), no cut trees (x), no cut-line trees (LX) and stream buffer (SB).

STREAM / LEGACY BUFFER PRESCRIPTION:

All streams identified in the conservation easement will have a minimum of a 50-foot no harvest buffer. Buffers will be identified where appropriate on associated wetlands and other associated features. Under no circumstance should there be timber harvested within this buffer. Smaller order streams will be identified by their centerlines. The stream designations will be established in blue flagging either on the boundary edge or down the centerline of the stream.

TRUCK ROAD CONDITIONS:

This unit has one option for trucking access gained from the East Branch road. This road is in good shape and needs no improvements.

HARVEST TIME LINE:

This unit will be harvested based on the best current ground conditions for the harvest unit.

SKID TRAILS:

Trails will be established by LV staff and designated in orange flagging. Existing trails will be utilized where applicable. Any unacceptable trails will be identified as unsuitable and new trails will be put in place where needed.

LANDINGS:

Landings from previous harvests will be re-used. Two landings will need to be pushed back and resurfaced and one will need a temporary culvert to cross a ditch.

REGULATORY CONSIDERATIONS:

N/A

PERMIT REQUIREMENTS:

Heavy Cut (Act 15)

HABITAT RETENTION DESIGNATION

N/A

THREATENED & ENDANGERED SPECIES CONSIDERATIONS:

N/A

SIGNAGE / NOTIFICATION REQUIREMENTS:

Approval from VLT & UVA

SPECIAL CONDITIONS:

None

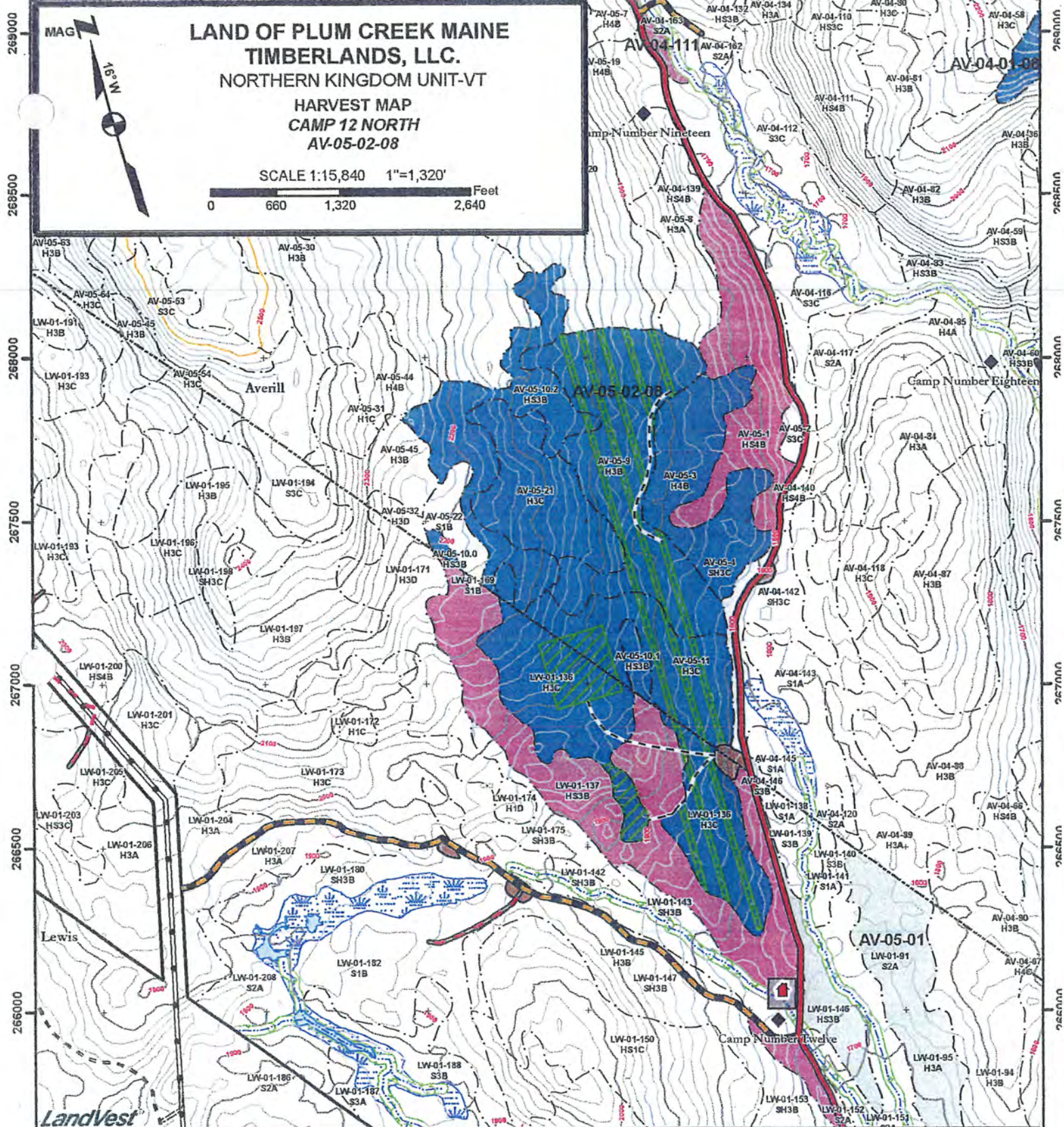
CLOSE OUT REQUIREMENTS:

Refer to contract for specs.

561000 VT STATE PLANE 561500 562000 562500 563000 563500
 NAD 83 METERS

**LAND OF PLUM CREEK MAINE
 TIMBERLANDS, LLC.
 NORTHERN KINGDOM UNIT-VT
 HARVEST MAP
 CAMP 12 NORTH
 AV-05-02-08**

SCALE 1:15,840 1"=1,320'
 0 660 1,320 2,640 Feet



Towns: AVERILL & LEWIS
 County: ESSEX
 Compartments: AV-05 & LW-01
 Forester: DGS
 Job Number: AV-05-02-08
 Contractor: TBD

STAND NUMB	STRATA	OS TYPE	SILV PRES	ACRES
AV-05-03	H4C/HS2B	H4B	GPE	38.0
AV-05-09	H3B/H2B	H3B	STR	66.2
AV-05-10.0	HS3B	HS3B	GPE	1.2
AV-05-10.1	HS3B	HS3B	GPE	3.8
AV-05-10.2	HS3B	HS3B	ITH	41.3
AV-05-11	H3C/H1B	H3C	STR/PTC	34.8
AV-05-21	H3C/H1B	H3C	PTC	32.6
LW-01-136	H3C/H1B	H3C	STR/PTC	62.7
TOTAL (Acres derived from GIS)				280.5

- PROPOSED HARVEST
- ACTIVE HARVEST
- COMPLETE HARVEST
- APPROVED HARVEST
- ▨ PATCHES AND STRIPS
- FLOWAGE/BOG
- GRAVEL PIT
- LANDING
- OPEN/AGRICULTURAL
- RIPARIAN ZONE
- SPECIAL TREATMENT AREA
- WATER
- COUNTY LINE
- TOWN LINE
- STAND LINE
- COMPARTMENT LINE
- 20 FT CONTOUR
- 100 FT CONTOUR
- 2500 FT CONTOUR
- PAVED PUBLIC ROAD
- GRAVEL PUBLIC ROAD
- YEAR ROUND GRAVEL
- SUMMER ROAD (NO/LIMITED GRAVEL)
- IMPROVED WINTER ROAD
- UNIMPROVED WINTER ROAD
- SKID TRAIL/UNMAINTAINED ROAD/WAY
- UNKNOWN ROAD SURFACE
- CUTBANK EDGE
- GATE
- CAMP

Map Document: (D:\map_projects\VT\clients\PLUM_CREEK_7086\HARVEST_UNITS\AV-05-02-08.mxd)
 02/27/09 - 3:27:23 PM

561000 561500 562000 562500 563000 563500


AV-05-02-08

MANAGEMENT SCHEDULE
USE VALUE APPRAISAL FOREST MANAGEMENT PLAN

STAND NO.	YEAR	MANAGEMENT PRACTICES TO BE ACCOMPLISHED DURING NEXT 10 YEAR PLAN:	Silvicultural Guide or Tech Ref. Prescription #/Letter, if appropriate
AV-05-09, AV-05-11, LW-01-136	2011	Stands AV-09, 11, and LW 136 will utilize Strip Cut Harvest (STR) techniques. The goal will be implement narrow strips no wider than one and a half times tree height to remove one third of the stand during this entry. During this entry every third strip will be removed, the next third will be removed in two to four years with the last third two to four years after that, depending upon regeneration levels. Advanced regeneration of acceptable species will be protected from harvest as much as possible. Vigorous softwood stems that occur within the strips will generally be reserved from harvest as a source of seed.	
AV-05-21	2011	Stand AV-21 will receive Patch Regeneration Cuts (PTC) due to the lack of advanced regeneration and the high levels of unacceptable growing stock. The patches will target pockets of unacceptable growing stock that are at risk or mature and lacking a regenerated understory. Vigorous yellow birch and Red spruce stems will be reserved as a seed source for the regeneration of the cut patches. The patches will be 2+/- acres in size and treat 1/3 of the total stand. These patches will be laid out as long narrow rectangles to promote more tolerant regeneration. Areas within the stand that contain higher levels of AGS will not be targeted during this entry.	
AV-05-11, LW-01-136	2011	Stand AV-11/LW-136 will receive Patch Regeneration Cuts (PTC) due to the lack of advanced regeneration and the high levels of unacceptable growing stock. These patches will treat the portions of the stand not treated by the STR treatment. These patches will be located in areas of the stand above 1920'+/- in elevation. The patches will target pockets of unacceptable growing stock that are at risk or mature and lacking a regenerated understory. The patches will be 10+/- acres in size and treat 1/2 of the total area above 1920'. Some Yellow birch seed trees and wind firm Red spruce will be reserved as a source of seed inside the patch area.	

LANDOWNER'S SIGNATURE:  DATE: 1/5/09

PREPARED BY: Dan Singleton DATE: 12-07-08

CERTIFIED BY:  DATE: 1/9/09

MANAGEMENT SCHEDULE
USE VALUE APPRAISAL FOREST MANAGEMENT PLAN

STAND NO.	YEAR	MANAGEMENT PRACTICES TO BE ACCOMPLISHED DURING NEXT 10 YEAR PLAN:	Silvicultural Guide or Tech Ref. Prescription #/Letter, if appropriate
AV-05-10 AV-05-03	2011	Stand AV-10 and 03 will receive an Even-Aged Group (GPE) selection to target over-mature and at risk hardwood stems. The group size will be small (1 tree - 1/4 acre). The residual basal area will be b-line across the stand. This entry will release desirable softwood and hardwood stems while providing openings for regeneration to become established. Although this is called a GPE treatment because of the short rotation time, the technique is a progressive clear cut treatment.	

LANDOWNER'S SIGNATURE:

[Handwritten Signature]

DATE: 1/5/09

PREPARED BY: Dan Singleton

DATE: 12-07-08

CERTIFIED BY:

[Handwritten Signature]

DATE: 1/9/09

Robbo Holleran

Forester

211 Green Mountain Tpk Chester, VT 05143 (802) 875-3021 Fax: 875-2337
Providing a complete forest management service since 1982

David L. Grayck, Esq.
Cheney, Brock & Saudek, P.C.
159 State Street
Montpelier, VT 05602

36

Re: Plum Creek

September 15, 2011

David:

I have completed a thorough field review of the Clough Brook North harvest area and related documentation. I have concluded that Plum Creek did not cut contrary to its management plan because stands 34, 43, and 44 are each within the state-approved prescription parameters for applicable total basal area and forest regeneration.

I. Introduction

The timber harvest requirements for the Clough Brook North harvest area are set forth on the documentation submitted by Plum Creek and approved by the State. The documentation provided was a (i) Harvest Prescription Fact Sheet; (ii) Management Plan Summary Form - Form 4; (iii) Use Value Appraisal Forest Management Plan - Form 2; (iv) Map, dated and timed 10/21/09 - 11:27:20 AM; and (v) Ortho-Photo Map, dated and timed 10/21/09 - 11:27:20 AM. These documents are provided as **Exhibit 1**, and are paginated as Exhibit 1-1 through 1-16.

The "Management Practices to be Accomplished" for stands 34, 43, and 44 authorize an irregular (as opposed to uniform) set of treatments with generally low residual stocking. **Exhibit 1-13 and 1-14**. The expected result of this is an area that is heavily cut, but variable, and within the parameters of the state-approved prescription requirements.

The measured pre-harvest, base-line acceptable growing stock (AGS) for each of these stands is less than the C line. As a result, the appropriate silvicultural treatment for these stands is to "regenerate the stands with clearcutting, strip cutting, or shelterwood cutting when commercially feasible". This is the exact silvicultural prescription identified for these types of stands by the "Silvicultural Guide for Northern Hardwood Types in the Northeast (revised)" by Dr. William B. Leak, et al., published by the United States Department of Agriculture, Research Paper NE-603 (the "Guide"). The Guide is also commonly referred to as the "Blue Book." The Guide is provided as **Exhibit 2**.

My investigation of the Clough Brook North harvest area found no active erosion or water quality problems. The partial harvest that took place (as the approved prescriptions

have not yet been fully completed) was not a haphazard harvest or liquidation cut. Rather, the partial harvest of stands 34, 43, and 44 was applied silviculture in accordance with the Guide and the approved harvest prescriptions.

First, I have prepared a summary table of my inventory findings:

Table 1. Plum Creek: Clough Brook North, (total basal area, AGS + UGS)

Stand	Un-cut portion	Alleged cut contrary	Stand total BA	Harvest Complete
34	83.3 (9 pts/30 ac.)	28.5 (79 pts/91 ac.)	47.4 (39 pts)	No
43	Minimal	53.1 (39 pts/40 ac.)	73.5 (37 pts)	No
44	131 (7 pts/29 ac.)	36 (10 pts/8 ac.)	107 (10 pts)	No

In conducting my field assessment of the Clough Brook North harvest area, I was assisted by Ben Vicere (who is my employee), and Steve Hardy (who is a person I contract with on an as-needed basis). Ben Vicere has 5 years of experience working for me, plus a BS in Forestry from Unity College. Steve Hardy has been in the forestry profession for 30 years. I have the utmost confidence in their work. My resume and qualifications are set forth on **Exhibit 3**.

Our field assessment took place on August 10, 11, 31 and September 1, 2011. We measured over 200 sample plots for our field assessment. The sample plots were taken in accordance with standard professional practice. These are "10-factor" variable radius plots measured from a point, with a prism. These sample plots, or points, were taken to the highest standards of measurement, with borderline trees measured for limiting distance, many trees measured with a diameter tape, and plots systematically randomly located and marked with numbered yellow flagging.

Plots were located by creating an evenly spaced grid on DeLorme TopoQuads software, loading the points into Garmin handheld GPS units, and walking to the pre-determined locations. These are generally within ten meters of accuracy for horizontal location. Trees were measured to either a 1" or 2" diameter class, recording the species, and status as either acceptable (AGS) or unacceptable growing stock (UGS). We also made observations of regeneration (young trees) at each sample point. The data we collected is summarized in Table 1, with additional information in Tables 2-9. Because of the methodology we used, the State could verify our reported basal area or regeneration data by re-measuring these plots if they so choose.

We have sampled all of stands 24, 34, 43, and 44 with moderate intensity (one plot per 3.4 acres), and used a higher intensity of plots (one plot per 1.1 acres) in the alleged "cut contrary" portions of stands 34, 43, and 44. This gives us a more reliable value for basal area in the alleged "cut contrary" portions.

The total stand averages are based only on the moderate intensity plots which are distributed across the entire stand. The alleged "cut contrary" data is based on all the plots in that portion of the stand. Figures 1-4 demonstrate the described methodology.

For example, for stand 34 (Figure 2), the black lines and numbers are the moderate intensity plots. The blue lines and numbers are the high intensity plots only taken in the “cut-contrary” area. The black numbered plots are used for the total stand area and the blue number plots are only applicable to the alleged cut-contrary area. The blue number plots along with the black numbered plots in the cut contrary area make up the total sample of that area.

For stand 34, for the total stand stocking, I used the black number plots as distributed throughout the entire stand. For the un-cut portion, I used the black number plots in the pink outlined portion. For the alleged cut-contrary portion, I used both the blue and black numbered plots distributed across that portion. I used this methodology to avoid disproportionate averaging and to have highly reliable data for the disputed cut-contrary area.

The values in Tables 1-9 are an accurate representation of the stocking. Since the residual stocking in the harvest areas is variable (due to the variable nature of the original stand, and the subsequent harvest), the plot data, even with a high intensity of sample, is quite variable. For example, the variability is shown on Figure 2, for stand 34, where the northern-most black line with five plots shows residual basal area ranging between 10 and 80. The standard deviation is shown in the statistical analysis for each stand. (See Tables 2- 9.) The uncut portions have a more reasonable standard deviation, since it is more uniform.

Standard deviation, or standard error, is a measure of the variability, and hence, reliability of the average value. It is arrived at with a complicated formula involving the sum of the squares of all the values, compared with the square of the sum of the values. I use a standard Excel spread-sheet program to perform these calculations. The calculation results are on Tables 2-9. The standard error is an expression of reliability, where the true value is expected to be within a range of the average, plus or minus the standard error.

The average basal area (BA) for each entire stand is reported in Table 1 above. In each case it is at or above the allowable stocking for the stand prescription. The average total BA for stand 34 is 47.4, and the expected residual stocking is at least 30. The average total BA for stand 43 is 73.5, and the expected residual stocking is at least 36. The average total BA for stand 44 is 107, and the expected residual stocking is about 60.

The alleged “cut contrary” sections are above or near the minimum stocking for the prescription. Standard professional forestry practice requires these values be taken in context with the remainder of the stand and allowable variations based on the stand prescription. The State acknowledges this in the November 30, 2011 Decision by Commissioner Sarah Clark (the “Decision Memo”). The Decision Memo is provided as **Exhibit 4**. The Decision Memo states at page 3: “the unit of measure for forest management purposes and UVA is the stand...” and “a harvest prescription needs to have some flexibility as stand conditions vary” and “...they are meant to be applied and

measured within the treatment area.” The 2006 Use Value Program Manual (the “Program Manual”), pages 32-36 (**Exhibit 5**), refers to description and prescription across a forested stand. This refers to the stand as approved in the plan. The Guide refers to the stand as the management unit throughout the text. Standard professional forestry practice requires that a cut-contrary decision be made across the entire stand, not some lesser portion of it. There are two exceptions to when a cut-contrary decision would not be made across the entire stand.

First, if you have a stand that was not scheduled for treatment, and it was partially harvested, then that stand would be out of compliance with UVA standards and requirements, and would be cut-contrary to the management plan.

Second, if a stand was described as being uniform, and the approved prescription requires a uniform treatment, and furthermore, no variation was found during the harvest layout, then, a portion of the stand that was clearly cut contrary to the prescription could be determined.

In its cut-contrary decision, the State redefined the stands as the cut portions of the previously mapped and approved stands. Redefining the stands as the cut portions of the previously mapped and approved stands goes against accepted professional standards, since Plum Creek’s case does not fall within the two exceptions described above. Redefining the stands could be done either in favor of the state’s argument or in favor of Plum Creek’s argument, and is irrelevant to the cut-contrary issue, since the entire stand is the unit of approval, or disapproval, as is self-evident from the terminology of Forms 2 and 4 for the Clough Brook North harvest area.

The prescriptions for stands 34, 43 and 44 are broad, and reflect the variable nature of these large stands. **Exhibit 1-13 and 1-14**. The stands’ variable nature is due substantially to differences in soils, prior harvesting over the past 100 years, insects and disease, and mortality. The plot data reflects the variable nature of the results on the ground, and the overall stocking values and distribution reflect compliance with the prescriptions. This reiterates that the State’s permission to harvest is granted on the basis of stand data, with the stand as the unit of compliance or lack there-of.

I have prepared maps of each stand (Figures 1-4), showing the total basal area per plot, which give a sense of the variability of residual stocking, along with locations of sparsely and well stocked plots in relation to the alleged “cut contrary” area.

II. Stand 34

Stand 34 is clearly in compliance. The description of stand 34 pre-harvest shows a total basal area of 82, with only 35 of acceptable growing stock. **Exhibit 1-8**. This was a low quality stand, with AGS below the C-line. **Guide (Exhibit 2), p. 17**. Stand damage, Beech Nectria, and crown dieback are noted. The Guide recommends “regenerate the stand, with clearcutting, strip cutting or shelterwood cutting.” **Guide (Exhibit 2), p. 27, Prescription I**.

By the standards set forth in the Guide, zero residual basal area would be an acceptable treatment. The approved stand 34 prescription calls for Low Density Shelterwood with a total average basal area of 30-40 across the entire stand at completion. It states that stocking will be irregular (not evenly distributed) and patch cuts of 1-2 acres will be included. "The patches (and implied lower density shelterwood sections) will not affect the overall stand residual basal area of 30-40 sq. ft." **Exhibit 1-13.**

This prescription makes it clear that the results would be variable, with patches cut, higher and lower density shelterwood sections, and riparian corridors retained, with a total basal area between 30 and 40 at completion of the entire stand. By definition, this means that portions of Stand 34 will be below a residual basal area of 30, and portions will be above a residual basal area of 40, upon the completion of the timber harvest for Stand 34.

This has to be the case because the prescription for Stand 34 includes patches, and the residual basal area for a patch is zero. We found the alleged "cut contrary" portion (91 acres), with 80 plots to be 28.5 sq. ft BA. Of the 80 plots there are 23 plots with a residual basal area of 40 or more sq ft. See Table 1 and Figure 2. The 28.5 BA is just below the required 30-40 BA, and includes the allowed patch cuts with zero stocking. In addition, we found the residual BA for the uncut portion is 83.3 sq ft BA. We also found a total BA of 47.4 for this stand, well above the 30-40 required.

Stand 34 is 137 acres as mapped and approved. Approximately 105 acres were harvested. The State's April 26, 2010 Adverse Inspection Report (the "Report") alleges that 91 of the 105 acres were "cut contrary." **Report (Exhibit 6), p. 1.** About 30 acres remains uncut (shown in pink in Figure 2). The basal area in the uncut portion remains at about 83.3, similar to Plum Creek's initial stocking report. However, the AGS in this portion was noted as 72 BA, (See Table 5) which is much higher than the average for the stand. This confirms that this portion of the stand included a higher proportion of quality trees than the other portions of stand 34.

The State's cut-contrary decision makes several allegations regarding stand 34.

First, the State's cut-contrary decision finds the residual basal area to be 19.7 for the 91 acres allegedly "cut contrary." **Report (Exhibit 6), p. 1.** In contrast, we found this area to be extremely variable, including patch cuts, shelterwood of varying density and riparian corridors, with a total BA of 28.5. See Figure 2. We tallied former understory trees that were released. It is possible that the State did not count them, which would bias their data toward a lower total BA. The Program Manual for inventory on even aged, or two aged stands, calls for counting all trees in or touching the main crown canopy, excluding suppressed trees. **Program Manual (Exhibit 5), p. 33, ¶ 10e.** These small trees are main canopy trees now that they are released.

When approaching this stand on the timber access road, the viewer first sees a slope of 20-30 acres that is heavily cut. This portion may be 20 BA, or even less. This was the lowest quality portion, and includes the State approved patch cuts. Even if the entire 91

acres is about 19.7 BA, as the State alleges, and the remaining portion could be harvested to 52 BA or more, then the overall average is above 30: $(0.66 \times 19.7) + (0.33 \times 52) = 30.5$.

This treatment (BA of 52 or greater) would be entirely appropriate for these 30 acres, as this was a higher quality portion of the stand, and has a higher percent of sugar maple, instead of yellow birch. As the Guide allows, basal area of 52 or more would be appropriate for a sugar maple shelterwood, as opposed to more daylight required in a yellow birch shelterwood. **Guide (Exhibit 2), p. 14-15.**

Second, the State alleges that the remaining trees do not have adequate crowns for effective shelterwood, and refers to this as a commercial clearcut. **Decision Memo (Exhibit 4), p. 4.** The State alleges that the residual trees are 10-12", and imply that they lack the crown size needed to provide for shelterwood conditions. The approved stand description states the average diameter as 8.4 inches dbh. **(Exhibit 1-8)** Therefore, 10-12" trees will be above average in diameter and crown size. Our data shows many of the residual trees in the 10-18" diameter classes, well above the average. Trees were selected for species and form, unlike a commercial clearcut. A commercial clearcut would have left the poorest quality individuals without regard to species, which was clearly not the case. Larger crowned sugar maple and yellow birch were retained, and generally they are trees with stems of decent form. These are desirable seed sources and provide an adequate mix of shade and daylight for desired regeneration, especially yellow birch.

Third, the State alleges that Plum Creek was "considering shade from trees over a kilometer away (in the uncut portion of the stand)." **Decision Memo (Exhibit 4), p. 4.** But this is not so.

Plum Creek clearly stated in the approved stand prescription that the residual BA would be irregular, with patch cuts and low density shelterwood, with a total residual BA of 30-40 across the entire stand. **Exhibit 1-13.** So the trees on the east side of the stand do not provide shade to seedlings over a kilometer away. But they do count as basal area in the approved stand total, merely because the stand is more than a kilometer across.

My conclusion is consistent with the Guide. Dr. William Leak is the Guide's lead author. Dr. Leak wrote the previous version (1969), and he is lead author on the current revision, scheduled for publishing in 2012. The 1986 version is the first reference listed on page 78 of the Program Manual **(Exhibit 5)**, and is frequently used by every field forester in the northeast. Dr. Leak is the foremost silviculturist for Northern Hardwoods, and has conducted workshops across Vermont and the Northern Hardwood region and has many visits to Plum Creek land specifically.

In numerous presentations by Dr. Leak he has made the point that in low-density shelterwood, the sunlight and ground disturbance are more important for yellow birch, than the shade maintained for tolerant regeneration (e.g. sugar maple) in higher density shelterwoods.

Dr. Leak also makes the point that low density shelterwood can be as low as 20 BA, and it should be that low for effective regeneration of yellow birch. *Technical Guide to Wildlife Habitat in New England*, DeGraaf, Yamasaki, Leak and Lester, University of Vermont Press (2006), p. 102 -103 (which is provided as **Exhibit 7**).

While the whole stand would be compliant with the Guide at 30 BA, even the portions of the stand that are as low as 20 BA are consistent with the latest science regarding low-density shelterwood. **Guide (Exhibit 2), p. 15.**

Plum Creek complies with the approved stand prescription of retaining an average stocking across the whole stand of 30-40 square feet of basal area. The 30-40 square feet of basal area is what Forms 2 and 4 require and authorize. **Exhibit 1-5, 1-8, and 1-13.**

III. Stand 43

Stand 43 is also clearly in compliance. Stand description, prior to cut, shows a total basal area of 88, with only 38 BA of acceptable growing stock. **Exhibit 1-9.** This was a low quality stand, with AGS below the C-line. **Guide (Exhibit 2), p. 18.** Stand damage, Beech Nectria, and decline in paper birch and balsam fir are noted. The Guide recommends “regenerate the stand, with clearcutting, strip cutting or shelterwood cutting.” **Guide (Exhibit 2), p. 27, Prescription I.** By the Guide’s standards, zero residual basal area would be an acceptable treatment. The approved prescription calls for Two-Staged Shelterwood with a total basal area of 60 on 60-70% of the stand, and Overstory Removal (zero basal area) on 30-40% of the stand. **Exhibit 1-13.** It states that stocking will be irregular (not evenly distributed) and gaps (group cuts of 1-2 acres) will be included.

By applying a zero basal area (Overstory Removal (OSR)) to 40% of the stand, and 60 basal area (Two Staged Shelterwood (2SS)) to 60% of the stand, the minimum average overstory stocking for the entire stand to comply with the prescription is 36 sq. ft. $((0 \times .4) + (60 \times .6) = 36)$. Again, by definition, portions of the stand will be below and above 36 BA, upon completion of the timber harvest prescription.

Our inventory of the entire stand shows 73.5 BA, with 37 plots well distributed. See Table 1 and Figure 3. The prescription calls for an irregular treatment, and that is exactly what we found. Table 7 shows 10 out of 37 plots (27%) that are below 36 BA scattered over the whole stand, which can be seen as lower density shelterwood or overstory removal. This clearly exceeds the required residual stocking for this stand. Our more intensive review of the alleged “cut contrary” portion shows 53.1 total BA, on 39 plots distributed on the 40 acres. See Table 1. Plot data alternates from above 36 to below 36 all throughout the alleged “cut contrary” area. See Figure 3. We also found 92% of plots in the alleged “cut contrary” area stocked with regeneration.

The State alleges that 40.15 acres are cut contrary to the prescription, with the residual basal area too low, finding 23.3 BA. **Report (Exhibit 6), p. 1.** The prescription calls for 30-40% of the stand to be overstory removal. With 115 acres in the stand, up to 46 acres

(40%) could be zero stocking in the overstory. Even if the basal area is as low as 23.3, this would be acceptable overstory stocking, even a bit high, for the approved overstory removal. The alleged “cut contrary” portion includes 18% of plots in riparian strips and leave tree groups with BA of over 100, and 61% of plots with densities in a shelterwood range of 20-80. See Table 7 and Figure 3.

The State further alleges that the area is homogeneous. **Decision Memo (Exhibit 4), p. 3.** The plot data (See Figure 3 for plot locations and values), and the standard deviation, clearly indicate that this is not homogeneous, but rather highly irregular stocking, which fits the prescription (Shelterwood, Overstory Removal and gaps), especially since up to 46 acres would be allowed to be zero stocking. **Exhibit 1-13.**

The State contends that Plum Creek submitted a revision of the cutting map for stand 43, and that the revised map “splits out the area proposed for an overstory removal (OSR) versus a shelterwood.” **Decision Memo (Exhibit 4), p. 4.** I have reviewed the map (which is **Exhibit 8**). The State’s contention regarding the map is wrong because it conflicts with the prescription authorized and required by Forms 2 and 4 for Stand 43, and it conflicts with the natural variability found in the stand.

The approved prescription indicates that the stand is irregular, and treatments will be irregular across the stand. **Exhibit 1-13.** The State acknowledges this in the Decision Memo: “a harvest prescription needs to have some flexibility as stand conditions vary.” **Decision Memo (Exhibit 4), p. 3.** Also, accepted professional standards acknowledge that “specific silvicultural treatments often differ from place to place due to natural stand variability.” **Program Manual (Exhibit 5), p. 34, ¶ 2.** Furthermore, the outlined OSR area is only about 27 acres. Since the stand prescription approves up to 40% of the stand as OSR ($.4 \times 115 \text{ acres} = 46 \text{ acres}$) there is an additional 19 acres of authorized OSR removal that is approved for Stand 43 that is outside of the outlined OSR area.

Our plot data makes it quite clear that:

- a.) The portion indicated for overstory removal had a mix of treatments, ranging from no treatment, to shelterwood and overstory removal, and very little was cut as Overstory Removal;
- b.) The portion indicated as 2-stage shelterwood had a mix of treatments, ranging from no treatment, to shelterwood and overstory removal, and
- c.) The entire stand has a basal area well above the required minimum stocking (73.5 BA, See Table 1).

Additionally, the same map indicates that Stand 24, which was not cited for a cut-contrary, had areas designated for Overstory Removal and 2 Stage Shelterwood. Our plot data (See Figure 1) indicates that this was not precisely followed here either, and was approved by the State.

The portion of stand 43 which the State alleges was cut contrary is 40.15 acres. Our plot data shows this to be stocked at 53.1 BA. The state found this to be stocked at 23 BA. This is a significant difference. But even an overview of the post-harvest air photos, or a walk through, shows that the 40.15 acres was not cut as heavily as stand 34. I believe 53 square feet of basal area is an accurate assessment of the stocking. More importantly, the plot data (see Figure 3) shows irregular spacing of low and higher density areas throughout the stand, and throughout the alleged cut-contrary portion, in accordance with the approved silvicultural prescription for both overstory removal, shelterwood treatments, and gaps or groups.

The state also alleges that regeneration is not adequate to comply with the prescription for the overstory removal portions. "The treatment also missed the goal of releasing well-stocked seedling/sapling red spruce regeneration by overstory removal. The regeneration survey found only 15% of the plots was stocked with regeneration." **Report (Exhibit 6), p. 1; Decision Memo (Exhibit 4), p. 4.**

In the alleged "cut contrary" section, we found 92% of the plots to be stocked with regeneration. It would be difficult to walk through this stand without stepping on young trees. These are (mostly) not new seedlings, but existing seedlings, saplings or seedling sprouts that are more than 1' tall already. I do not know how the State can come to such a different conclusion on the condition of the regeneration as this not a subjective assessment. Perhaps the State conducted its regeneration inventory while there was still snow cover on the ground when small seedlings and sprouts were covered.

In contrast, we found mostly hardwood regeneration. It is possible that the State was only counting softwoods, since the prescription called for releasing spruce regeneration. However, hardwoods are clearly a desirable, commercial species that is acceptable in this context. The Program Manual standards call for evaluating regeneration after 3 growing seasons, and this area has had only 2. **Program Manual (Exhibit 5), p. 29.** Giving another growing season to properly evaluate regeneration success would make it more obvious that the site is regenerating effectively.

This stand clearly exceeds the basal area, and regeneration requirements to comply with the prescription.

IV. Stand 44

Stand 44 is also clearly in compliance. Stand description, prior to cut, shows a total basal area of 97, with only 42 BA of acceptable growing stock. **Exhibit 1-10.** This was also a low quality stand, with AGS below the C-line. **Guide (Exhibit 2), p. 17.** Stand damage, decline, and Beech Nectria were noted. The Guide recommends "regenerate the stand, with clearcutting, strip cutting or shelterwood cutting." **Guide (Exhibit 2), p. 27, Prescription I.**

By the standards set forth in the Guide, zero residual basal area would be an acceptable treatment. The approved prescription calls for Intermediate Thinning with a targeted

basal area of 60, for the likely reason that this was slightly better quality and less mature than the other stands. The prescription includes opening up gaps for regeneration. This implies that stocking will be irregular (not evenly distributed) and gaps (group cuts of 1-2 acres) will be included. **Exhibit 1-14.**

Our review of the entire stand shows a BA of 107. Most of this stand was uncut, with a BA of 131 on the uncut portion. See Table 1. One edge of the stand was cut, including two landings and two truck roads with a significant swath of influence for travel lane and ditches. See Figure 4. In the cut portion, we have 10 plots with an average BA of 36, and standard error of 14.3. See Table 9.

The State alleges that 8.47 acres are cut contrary to the prescription, finding 16.3 BA. **Report (Exhibit 6), p. 2.** I am not sure how the State accounted for the road and landings, but we have mapped out and subtracted 2.5 acres, finding about 6 acres of the stand harvested, and included in the "cut contrary" acreage.

On these 6 acres, we have 10 plots, mostly along the edges, or with road offsets, since it is just a narrow strip. See Figure 4. The prescription calls for Intermediate Thinning, with gaps. We found the BA to be 36, with a standard deviation of 14. I don't know how the State is able to report a 4.6 standard error with their 8 plots. My statistical analysis indicates that stocking might range between 22 and 50, which is close to compliance with the prescription. We had several plots with a BA of 50, which is close to the target residual BA of 60. These plots indicate that there is irregular stocking, and some portions can be considered stocked and the other portions groups or "gaps". With the two landings and truck roads, it is also the area at which many skid trails converge, where stocking is normally lower than average. The plots at the northern edge of the stand more closely fit the description of stand 43 (Hardwoods mixed with softwoods and an established understory). **Exhibit 1-9.** These fall in an area that obviously had been cut before, with some softwood and abundant established understory regeneration, which does not fit the description of stand 44. With stands of similar age, soils, and harvest history, stand boundaries are often transitional zones between the types with inclusion of the opposite type on either side of the stand boundary. This is why accepted professional standards acknowledge that "specific silvicultural treatments often differ from place to place due to natural stand variability." **Program Manual (Exhibit 5), p. 34, ¶ 2.** The uncut areas (77% of the stand) are well-stocked at 131 BA, (See Table 9) so harvesting the remainder of the stand could easily yield an overall BA well above 60, meeting the overall residual stocking requirement, with gaps or groups as noted.

V. AMP

With respect to the issue of AMP violations, the letter of April 26, 2010 indicates that everything required for AMP compliance was completed by that date. I am not aware of any tracts that have been excluded from UVA based entirely on AMP problems, including enforcement actions. I have heard Ginger Anderson, who is employed by the

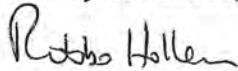
based on AMP problems alone. The state water quality foresters are routinely called out for complaints, discharges, and technical assistance, and as problems are resolved, it has not, to my knowledge, been grounds for an adverse inspection. We found no active erosion or current water quality problems in our review, with 10 man-days spent all throughout the Clough Brook North harvest unit.

VI. Summary

In conclusion, it is my opinion that Plum Creek did not cut contrary to their management plan. Harvest activities need to be evaluated in terms of compliance with the scheduled Management Practices to be Accomplished (**Exhibit 1-13**). The pre-existing conditions in each stand were variable, and the prescriptions reflect this, calling for several different treatments, irregularly located in portions of these stands. Therefore, by definition, some areas will be above or below the targeted average residual basal area. The stands need to be evaluated across the entire stand. My opinion is that the portions of the stands which have been harvested are within the allowed parameters in **Exhibit 1**, and reflect the variable conditions. Furthermore, it is my opinion that if the harvests were completed, upon completion each stand would be in compliance with the required and authorized prescription treatment activity.

I would like to add some subsequent observations. This was not a haphazard liquidation cut in clear violation of a plan. Roads and trails were well planned, and stabilized at completion. We did not see any active erosion problems, even three days after hurricane Irene. Stand boundaries were marked and riparian zones were protected. High value sawlogs, even veneer hardwoods, were not plucked from these zones. Leave trees were marked, and selected for species (primarily yellow birch and sugar maple), form and crown class. Large 'Heritage' trees were left. Most of the beech was removed, and areas of poor regeneration (beech, striped maple and hobblebush) were scarified to effectively re-start the regeneration process, in compliance with accepted professional standards.

Respectfully submitted,



Robbo Holleran

Glossary:

AGS: Acceptable growing stock as defined in Use Value Standards. Trees with the potential to produce a USFS number 2 grade sawlog or better quality product, now or in the future.

AMP: Acceptable Management Practices to protect water quality to be applied on logging jobs in Vermont.

Ave dbh: Average diameter at breast height (4.5 feet from the ground) in inches.

Basal Area: Measurement of forest stocking, expressed in square feet of area at breast height.

Clearcut: A harvesting and regeneration method that removes all trees within a given area. Most commonly used in pine and hardwood forests that require full sunlight to regenerate and grow efficiently.

Commercial clearcut: a harvest cut that removes all merchantable timber from the area, retaining sub-merchantable trees of poor species and form.

Even-Aged Management: A forest management method used to produce stands that are all the same age or nearly the same age by harvesting all trees in an area at one time or in several cuttings over a short time. This management method is commonly applied to shade-intolerant conifers and hardwoods.

Forest Type: General category of forest, considering species composition, age, and softwood percent.

Gaps: harvested groups, generally from 1/20 to 2 acres in size.

group selection: A process of harvesting patches of trees to open the forest canopy and encourage the reproduction of unevenaged stands.

High-Grading: To remove all mature, good quality trees from a stand and leave inferior species and individuals. High grading should be distinguished from even-aged management in which mature and immature trees are removed to aid regeneration.

Landing: A cleared area within a timber harvest where harvested logs are processed, piled, and loaded for transport to a sawmill or other facility.

Northern Hardwood Forest type: An association of tree species common to the Northeastern United States that includes sugar maple, red maple, yellow birch, hemlock, and American beech. Red oak, ash, and spruce-fir may also be included.

Overstory: The level of forest canopy that includes the crowns of dominant, codominant, and intermediate trees.

Overstory Removal: Even aged management technique to remove the overstory trees to release existing regeneration.

Plot: forest sampling area. In this report, this refers to "10-factor" point samples with variable radius based on tree diameter.

Regeneration: The growth of new trees in one of the following ways without human assistance: (a) from seeds carried by wind or animals, (b) from seeds stored on the forest floor, or (c) from stumps that sprout.

Release: To free a tree from competition with its immediate neighbors or overstory by removing the surrounding trees. This occurs naturally and artificially.

Residual Goal: Forest stocking in basal area expected to remain after each treatment.

Residual Stand: Trees remaining after a harvest treatment.

Riparian Zone: An area adjacent to a stream in which vegetation is maintained or managed to protect water quality.

Shade-Intolerant Species: Trees that require full sunlight to thrive and cannot grow in the shade of larger trees, such as birches, poplar and cherry.

Shade-Tolerant Species: Trees that have the ability to grow in the shade of other trees and in competition with them, such as sugar maple, beech and hemlock.

Shelterwood Harvest: Removing trees in the harvest area in a series of two or more cuttings so that new seedlings can grow from the seeds of older trees. This method produces an even-aged forest.

Silviculture: The art, science and practice of establishing, tending and reproducing forest stands of desired characteristics. It is based on knowledge of species' characteristics and environmental requirements.

Stand: A contiguous group of trees that is sufficiently uniform in age class distribution, composition and structure and growing on a site of sufficient uniform quality, to be a distinguishable unit.

Stand cruise data: Basal area plots taken with a 10-factor prism to determine forest stocking and other attributes.

Stocking: Forest Density expressed relative to A, B, and C lines on appropriate stocking guides. The A line represents the average density of undisturbed even aged stands. (overstocked) The B line is the minimal density for maximum cubic foot growth. The C line is minimum stocking below which a stand is being regenerated.

Thinning: A tree removal practice that reduces tree density and competition between trees in a stand. Thinning concentrates growth on fewer, high-quality trees, provides periodic income and generally enhances tree vigor. Heavy thinning can benefit wildlife through the increased growth of ground vegetation.

UGS: Unacceptable growing stock as defined in Use Value Standards. These are low quality, crooked, diseased or non-commercial species. See AGS.

Understory: The area below the forest canopy that comprises shrubs, and small shade tolerant trees under the main canopy.