



PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
MAINE FOREST SERVICE
22 STATE HOUSE STATION
AUGUSTA, MAINE 04333

WALTER E. WHITCOMB
COMMISSIONER

01 May 2018

Land Use Planning Commission
ATTN: Timothy Beaucage
22 State House Station
Augusta, ME 04333-0022

SUBJECT: Zoning Petition ZP 768, proposed Fish River Lakes Concept Plan

In response to LUPC's request for information regarding outcome based forestry (OBF) and its application to the subject proposal, MFS offers the following responses and additional information.

MFS Information that would be helpful to the LUPC in FRL concept plan hearing process

What is OBF, and how does it operate?

OBF was created after it became clear that the FPA was having unintended consequences on Maine's forests, including but not limited to a significant increase in harvested acreage, forest fragmentation, the creation of unnatural stand boundaries, the establishment of undesirable vegetation in the understory, such as diseased beech arising from root sprouts, and the homogenization of wildlife habitat.

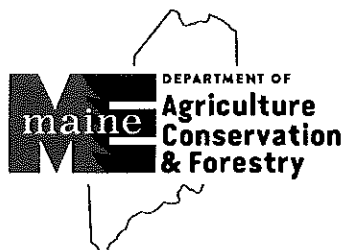
OBF is a regulatory program established in Maine law. It is designed to allow forest landowners the opportunity to practice scientific forest management on their holdings outside the artificial constraints of Maine's Forest Practices Act (FPA) while accounting for the provision or protection of other public values not regulated under FPA, e.g. soils, water quality, biodiversity, etc.

A landowner seeking to participate in OBF is required to present a proposal to MFS. MFS and a panel of experts appointed by the Governor (Attachment 4) perform the following due diligence:

1. review the landowner's proposal for conformity to the state's sustainability standards (Attachment 3);
2. review the landowner's forest management plan, policies, certification audit reports, and any other materials deemed necessary to make an informed decision;
3. meet with the landowner discuss the proposal and information needs; and,
4. meet with the landowner in the field to review past, current, and planned forest management activities.

Once all parties are satisfied that the landowner is a suitable fit for OBF and is willing to proceed, the MFS and panel negotiate the terms of an agreement (see Irving OBF agreement,

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Attachment 6). All agreements are reviewed and approved by the Attorney General's Office before endorsement.

The MFS Director and the landowner sign the agreement, which by law is limited to a five-year term, renewable.

Which standards in law or rule are modified by an OBF agreement? Which standards still apply, regardless of an OBF agreement?

OBF allows only for the modification of MFS rules governing the size, arrangement, separation, and regeneration of clearcuts (MFS Chapter 20 Rules). All other regulatory standards, including but not limited to riparian harvesting, stream crossings, and harvesting in LUPC protection subdistricts remain in force without change. Beyond the current regulatory framework, Irving must conform to the statewide standards of sustainability (Attachment 3).

This is the real benefit of OBF. Irving's commitments exceed current regulatory requirements and demonstrate Irving's commitment to protecting resources other than timber. Finally, Irving is required under the terms of its OBF agreement to maintain independent third-party certification to the Forest Stewardship Council standard. This elevates Irving's certification from what is voluntary for other certified landowners to something required as a matter of practice.

How will the OBF principles and agreement protect the resources that IFW has identified as sensitive and important? Examples are brook trout habitat, IWWHs, vernal pools, DWAs.

Recall that any area or resource that is regulated under state law continues to be regulated by the rules currently in force. For resources that DIFW has chosen not to regulate, OBF agreements contain clauses requiring the participating landowner to properly identify such areas of concern and to manage in such a way as to protect those areas. Agreements also address the identification and protection of important plant communities, late successional forests, and similar landscape features. The standards of the major forest certification programs all require landowners to consult with appropriate agencies to obtain information about important habitats and natural communities; to have policies and programs in place to focus on their protection; and, to protect such areas. Irving takes this one step further and has contracted with agency staff to survey for such areas.

Irving and others have identified some sensitive visual resources. How does OBF protect visual resources?

The OBF agreement contains clauses that require participating landowners to have staff trained in visual resource management; identify moderate- and high value visual resources; and, to manage those resources appropriately. Irving has pointed out such areas to the panel, and the panel has reviewed and critiqued those areas during periodic visits.

How will the audit process that is associated with OBF function? In other words, who checks to make sure the agreement is working, and what standards do they use?

MFS and the panel use several methods to monitor a landowner's implementation of an OBF agreement:

1. MFS and the panel meet once or twice annually with each participating landowner to review the previous period's activities, planned activities, and any new information that may be brought forth. The review typically includes a field visit to verify performance in the most challenging areas scheduled for operations (e.g. riparian areas; high visibility areas; and, steep slopes).
2. MFS foresters systematically review harvest activities - past, in progress, and planned - throughout the year. A participating landowner typically receives 10-20 visits per year.

Reviews are conducted using a standard format which facilitates reporting to the Legislature. Again, reviews focus on the most challenging areas for operations.

3. MFS and the panel observe the landowner's annual forest certification audit and review the full certification audit report to assist in their determination of the landowner's attainment of OBF objectives. The principles and criteria or standards of the two major forest certification programs (SFI and FSC) are roughly equivalent to the state sustainability standards.

MFS synthesizes all of the information gathered through these various processes and produces an annual report to the Legislature regarding its findings.

During the OBF process, is advice sought from agencies or individuals with expertise in the protected resources? How does that happen? What weight is that advice given?

The OBF law established a panel of technical experts to advise MFS in the implementation of OBF agreements (Attachment 4). These panel members collectively bring centuries of academic, technical, and practical knowledge in a wide variety of subject areas to enrich the entire process. Some participants have observed that a meeting with the panel is like a doctoral thesis defense - wide-ranging, probing, and rigorous. If the panel believes that it lacks the information necessary to conduct its work, it is free to solicit advice from subject matter experts on an as-needed basis.

How are changes to timber harvesting practices and procedures made in response to new circumstances? For example, if there is a disease outbreak or a newly listed or delisted E&T species (e.g. lynx potential delisting), is the OBF agreement amended, or are there other mechanisms for adjusting harvesting practices?

One of the greatest benefits of OBF is that it is a living, proactive process that allows for flexibility in the participating landowner's approach to new issues which may emerge on the landscape. If a landowner needs to make major adjustments to their planned management activities due to an unforeseen change in circumstances, the OBF panel must be consulted, and the agreement may need to be amended depending on the circumstances.

What does MFS anticipate the future of OBF to be? Are there any major program changes on the horizon? Is there any way to project what the longevity of the program might be?

OBF exists at the pleasure of the Legislature. MFS does not foresee the need for major program changes. Considering the fact that four landowners which collectively manage nearly 3 million acres now participate in OBF and that the results on the ownerships first in have already yielded benefits, it is difficult to envision a premature end to such a promising program.

Summary Statement

Irving was the first landowner to enter into an OBF agreement with the state, and it has lived up to its commitments. Irving has short- and long-term management plans and policies that address all forest resources: soils, water, biodiversity, etc.; and it is carrying out those plans in conformance with its policies. All of this is verified by the OBF panel, MFS foresters, and certification auditors. MFS also notes a Master's thesis written by a UMaine student that provides further validation (Attachment 11).

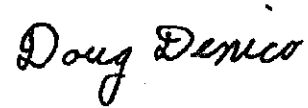
In addition to meeting its commitments under the OBF agreement, Irving has made significant investments in the economic future of northern Maine by building a state of the art, high production sawmill to process smaller diameter spruce and fir logs into lumber. Irving has also endowed a professorship at the University of Maine Fort Kent; OBF is one of the foci of this position.

By participating in OBF, Irving already is making a great deal of sacrifice through the protection of significant resources of public concern well beyond what is required by current regulations.


Now that MFS has the full context of Irving's proposal for its management in the project area to be measured against the standards of OBF, MFS believes that LUPC can be assured that Irving's management will exceed current regulatory requirements.

Thank you for the opportunity to provide these observations.

Sincerely,



Douglas P. Denico
Director, Maine Forest Service



Donald J. Mansius
Director, Forest Policy & Management
Maine Forest Service

cc:

List of attachments

1. OBF statute summary
2. OBF legislative history
3. State sustainability standards
4. Panel bios
5. 2018 report to ACF committee
6. Irving OBF agreement, including 2016 amendment
7. Irving OBF metrics
8. Crosswalk between Irving FSC audit and OBF (2013)
9. MFS OBF monitoring form
10. MFS rule handbook
11. Jon Doty thesis summary

Beaucage, Timothy

From: Mansius, Donald J.
Sent: Tuesday, May 01, 2018 12:18 PM
To: Beaucage, Timothy
Cc: Denico, Doug; Doiron, Rondi
Subject: Irving proposed Fish River Chain of Lakes Concept Plan ZP 768 testimony

Tim:

Maine Forest Service Director Doug Denico will testify on behalf of the Maine Forest Service at the 23 May hearing on the subject proposal.

In the event that Mr. Denico is unable to testify for any reason, testimony will be delivered by Donald Mansius.

If you have any questions, please let me know.

Best regards,

Donald J. Mansius
Director, Forest Policy & Management
Maine Forest Service
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OUTCOME BASED FORESTRY STATUTE

CURRENT AS OF SEPTEMBER 2014 - INCLUDES CHANGES FROM PUBLIC LAW 2013, CHAPTER 542, AN ACT TO CLARIFY OUTCOME-BASED FORESTRY¹

12 M.R.S., §8003, sub-3(Q)

Q. The director, in cooperation with public and private landowners, shall actively pursue creating areas on public and private land where the principles and applicability of outcome-based forest policy, as defined in section 8868, subsection 2-B, can be applied and tested. No more than 6 such areas may be designated. The director shall seek to designate areas of various sizes owned by different landowners. The designated areas must represent differing forest types and conditions and different geographic regions of the State. Prior to entering into an outcome-based forestry agreement, the director and the panel of technical experts under section 8869, subsection 3-A shall conduct a comprehensive review of the proposed outcome-based forestry agreement. The term of initial agreements may not exceed 5 years. The director may renew an agreement if requirements under this section and section 8869, subsection 3-A are met. The term of a subsequent agreement may not exceed 5 years.

12 M.R.S., §8868, sub-§2-B.

2-B. Outcome-based forest policy. "Outcome-based forest policy" means a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the State's forests, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests.

12 M.R.S. §8869, sub-§3-A.

3-A. Plans for outcome-based forestry areas. Practices applied on an area created pursuant to section 8003, subsection 3, paragraph Q must provide at least the equivalent forest and environmental protection as provided by existing rules and any applicable local regulations. At a minimum, tests of outcome-based forestry principles must address:

- A. Soil productivity;
- B. Water quality, wetlands and riparian zones;
- C. Timber supply and quality;
- D. Aesthetic impacts of timber harvesting;
- E. Biological diversity;
- F. Public accountability;
- G. Economic considerations;

¹ Disclaimer: Not official copy of statute.

H. Social considerations; and

I. Forest health.

The Governor shall appoint a panel of at least 6 technical experts to work with the director to implement, monitor and assess tests of outcome-based forestry principles. The panel of technical experts must have expertise in all of the principles listed in paragraphs A to I. In order to participate in an outcome-based forestry project, the landowner, director and technical panel must develop agreed-upon desired outcomes for the outcome-based forestry area and develop a method for determining if the outcomes have been attained and a system for reporting results to the public. The technical panel shall assess whether the practices applied on the outcome-based forestry area provide at least the equivalent forest and environmental protection as provided by rules and regulations otherwise applicable to that outcome-based forestry area. The technical panel may not delegate this assessment to any other person, except that the technical panel may consider information provided by the bureau, the landowner or a 3rd-party forest certification program auditor.

12 M.R.S. §8869, sub-§3-B.

3-B. Reporting and notification; outcome-based forestry projects. The director, in consultation with the technical panel under subsection 3-A, shall report to the joint standing committee of the Legislature having jurisdiction over forestry matters as follows.

A. Beginning March 1, 2015 and annually thereafter, the director shall submit a report detailing the progress on each outcome-based forestry agreement under section 8003, subsection 3, paragraph Q. The report must include an assessment of the landowner's progress toward attaining the outcomes under subsection 3-A. The report must be presented to the joint standing committee of the Legislature having jurisdiction over forestry matters at a public meeting no sooner than 30 days after submission of the report to the committee.

B. When an initial outcome-based forestry agreement is approved by the director as provided by section 8003, subsection 3, paragraph Q, the director shall notify the joint standing committee of the Legislature having jurisdiction over forestry matters within 15 days. In the notification, the director shall address how the proposed agreement will provide at least the equivalent forest and environmental protection as provided by rules and regulations that otherwise would apply to that outcome-based forestry area.

C. When an outcome-based forestry agreement under this section is renewed as provided by section 8003, subsection 3, paragraph Q, the director shall notify the joint standing committee of the Legislature having jurisdiction over forestry matters no later than 15 days after the agreement is renewed.

A report, notification or any information concerning outcome-based forestry projects under this subsection must be placed on the Department of Agriculture, Conservation and Forestry's publicly accessible website.

12 M.R.S. §8869, sub-§7-A.

7-A. Exemption for outcome-based forestry areas. An outcome-based forestry area designated under section 8003, subsection 3, paragraph Q is exempt from the requirements of this section if specifically exempted in the agreement establishing the outcome-based forestry area.

12 M.R.S. §8869, sub-§13.

13. Confidential information. Information provided to the bureau voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forestry areas, as created pursuant to section 8003, subsection 3, paragraph Q, is public unless the person to whom the information belongs or pertains requests that it be designated as confidential and the bureau has determined it contains proprietary information. For the purposes of this subsection, "proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the person submitting the information and would make available information not otherwise publicly available. The bureau, working with the landowner and the panel of technical experts appointed under subsection 3-A, may publish reports as long as those reports do not reveal confidential information.

12 M.R.S. §8879, sub-§1.

1. Content. The report must describe the condition of the State's forests based on historical information and information collected and analyzed by the bureau for the 5-year period. The report must provide an assessment at the state level of progress in achieving the standards developed pursuant to section 8876-A, including an assessment of designated outcome-based forestry projects authorized under section 8003, subsection 3, paragraph Q, including a recommendation to continue, change or discontinue the outcome-based forestry projects. The director shall also provide observations on differences in achieving standards by landowner class. The report must summarize importing and exporting of forest products for foreign and interstate activities. The director shall obtain public input during the preparation of the report through appropriate methods.

MFS ATTACHMENT #2

HISTORY OF OUTCOME BASED FOREST POLICY

- **1999** MFS publishes first State of the Forest Report, advocates for the establishment of outcome based forest policy
- **2001** 120th Legislature enacts PL 1999, c. 339, An Act to Promote Outcome-based Forest Policy
- **2001** MFS publishes second State of the Forest Report, recognizes legislative action establishing outcome based forest policy
- **2005** MFS publishes third State of the Forest Report, reports on efforts to date to implement policy
- **2007** 123rd Legislature enacts PL 2007, c. 271, An Act To Extend the Time Allowed for Outcome-based Forestry (repealed 100,000 acre cap on individual agreements, 200,000 acre overall cap, and requirement to include ownership less than 1,000 acres; extended sunset date an additional five years)
- **2012** 125th Legislature enacts PL 2011, c. 488, An Act To Remove the Repeal Date for Outcome-based Forestry (repealed 5-year sunset date)
- **2014** 126th Legislature enacts PL 2013, c. 542, An Act To Clarify Outcome-based Forestry (clarified procedure for reviewing project proposals and projects in progress, reporting requirements)

MFS ATTACHMENT #3

State of Maine Criteria, Goals, and Outcomes of Forest Sustainability

1. Criterion 1: Soil productivity
 - a. Goal: Maintain site productivity.
 - b. Outcome: Site productivity will be maintained or improved, and the area in roads and yards will be minimized.
2. Criterion 2: Water quality, wetlands and riparian zones
 - a. Goal: Maintain or improve the chemical, physical, and biological integrity of aquatic systems in forested areas and riparian forests.
 - b. Outcomes: Forest management in shoreland areas protects water quality and aquatic and riparian forest biodiversity.
3. Criterion 3: Timber supply and quality
 - a. Goal: Improve the quantity and quality of future timber supply when appropriate.
 - b. Outcome: The management strategy and harvest levels for the lands will increase the quality and quantity of the forest resource as appropriate in the medium and long term (20 - 50 years).
4. Criterion 4: Aesthetic impacts of timber harvesting
 - a. Goal: Minimize adverse visual impacts of timber harvesting.
 - b. Outcomes:
 1. The landowner will minimize visual impacts of harvests, roads, landings and other management activities.
 2. The landowner's planning staff are trained in and apply principles of visual quality management.
 3. The landowner identifies areas with high and moderate visual sensitivity, and takes appropriate measures to avoid significant visual impacts whenever necessary.
5. Criterion 5: Biological diversity
 - a. Goal: Maintain biological diversity with healthy populations of native flora and fauna, forest communities and ecosystems.
 - b. Outcomes:
 1. Management addresses the habitat needs of the full range of species present.
 2. Maintain or manage for acreage in the late successional (LS) condition through management and protection.
 3. Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).
 4. High Conservation Value Forests are properly identified and values are protected on the ownership.
 5. Rare, threatened and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened and endangered species.
 6. Important plant communities are properly identified, and the land is managed to protect important plant communities.

7. Deer wintering areas are properly identified and managed to maintain or improve their value as winter cover for deer.
6. Criterion 6: Public accountability
 - a. Goal: Demonstrate sustainable forestry and build public confidence that forest management is protecting public values for the long-term.
 - b. Outcomes:
 1. The landowner will maintain independent 3rd party certification with a nationally recognized sustainable forestry management certification system without major, unresolved non-conformances on managed lands.
 2. A Licensed Forester within the company will review and approve the landowner's Forest Management Plan.
 3. The landowner will employ Licensed Foresters who are actively involved in the management, planning and supervision of operations on the land.
 4. All timber harvesting contractors will employ at least one person possessing Certified Logging Professional or Qualified Logging Professional certifications or the equivalent.
7. Criterion 7: Economic considerations
 - a. Goal: Optimize benefits to the local and regional economy while also achieving the goals specified for the other criteria, to the extent allowed by market conditions.
 - b. Outcome: The landowner's management activities support as vibrant and diverse a forest products industry as is practicable, including loggers, truckers, and production facilities.
8. Criterion 8: Social considerations
 - a. Goal: The landowner supports the communities surrounding their lands and operations, and except where special circumstances dictate otherwise, the landowner continues to provide historic and traditional recreational opportunities that do not conflict with the landowner's objectives or values.
 - b. Outcome: The landowner provides opportunities for appropriate historic and traditional recreational uses that do not conflict with the landowner's values or objectives.
9. Criterion 9: Forest Health
 - a. Goal: The forest is healthy and vigorous with no serious insect infestations or disease outbreaks.
 - b. Outcome: The landowner does what is prudent and practicable to monitor for and prevent and control insects, disease, and fire, consistent with good practice in the industry and assists MFS in forest health monitoring programs on the ownership.

MES ATTACHMENT #4

Outcome Based Forestry Technical Advisory Panel

Mike Dann is a retired forester from Dixmont, Maine. He earned a BS in Forest Management from the University of Maine Orono and is a Licensed Forester. He has 40 years' experience in natural resource management; 36 years with Seven Islands Land Company and 4 years with SWOAM. He is a member of SWOAM, Maine Forest Products Council, Forest Resources Association, and the Society of American Foresters. He also is a Tree Farmer.

Gary Donovan is a retired wildlife biologist from Holden. He earned a BS in Wildlife Management from the University of Maine and is a Certified Wildlife Biologist since 1980. He is a member of the Wildlife Society, Washington D.C. He worked for the Maine Department of Inland Fisheries and Wildlife from 1969 to his retirement in 1995, and then spent the next ten years working for Champion International Corp in Bucksport and later International Paper when Champion was sold. Since 2006, he has been retained as a habitat biologist by the Wildlife Management Institute. He has won numerous professional awards and served on many special assignments and appointments.

Maxwell McCormack, Jr. BS (forestry) University of Maine; MF, DF (silviculture) Duke University; Research Professor Emeritus of Forest Resources, University of Maine, resides in Unity. He is a Fellow & Golden Member, Society of American Foresters and a Distinguished Member, Northeastern Weed Science Society. Other memberships include the Maine Christmas Tree Association, the Maine Forest Products Council, and the Maine Woodland Owners. He has received several awards for his teaching and forestry research. McCormack is a Maine Licensed Forester.

Chuck Simpson has practiced forestry in Maine for over 40 years. He earned a B.S. in Forest Management from the University of Vermont and an M.B.A. from the University of Maine. He is currently in his 12th year as the Eastern Region Land Manager for the Maine Bureau of Parks and Lands. Prior to that, he was the Woodlands Manager for the University of Maine, where he also coordinated field research studies at both the Dwight B. Demeritt Forest and the Penobscot Experimental Forest. For seven years prior to that, he established and taught a Forestry/Wood harvesting program at Maranacook Community High School in Readfield. He has been a private consulting forester in Maine since 1976. Chuck is a Licensed Forester, a Licensed Wood Scaler, a Certified Forestry/Natural Resources teacher and a Certified Logging Professional.

Dave Struble is the Director of the Maine Forest Service's Forest Health & Monitoring Division, and State Entomologist. His 40+ year career with the Maine Forest Service has focused on monitoring and evaluating forest health and sustainability, and developing pest management options for Maine's forest and shade tree owners. He serves on a number of regional and national task forces and US Forest Service program oversight/management committees. Mr. Struble is a graduate of the University of Maine with a BS in Forestry and an MS in Entomology. He is a licensed Maine forester.

Peter Triandafillou is from Orono and is the current Vice President of Woodlands for Huber Resources Corp. He is a member of the Maine Forest Products Council Board of Directors, North Maine Woods Board of Directors, the Forest Society of Maine Board of Directors, and the Society of American Foresters. He is a licensed Maine Forester and has participated on numerous public boards including outcome based forestry, LURC reform, sustainable forestry, Maine wood supply and state-wide water quality rules. He formerly served on the Maine Development Foundation Board of Directors and the Maine Technology Institute Board of Directors.

MFS ATTACHMENT # 5



PAUL R. LEPAGE
GOVERNOR

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WALTER E. WHITCOMB
COMMISSIONER

28 February 2018

Senator Paul Davis
Representative Michelle Dunphy
Committee on Agriculture Conservation and Forestry
100 State House Station
Augusta, ME 04333-0100

Dear Senator Davis, Representative Dunphy, and members of the committee:

I'm pleased to present to you the 2018 report of the Maine Forest Service (MFS) and the technical panel advising the MFS on Outcome Based Forestry (OBF). This report is required by 12 M.R.S. §8869(3-B).

In 2001, the Maine Legislature enacted legislation that allowed landowners and the state to negotiate agreements for landowners to manage their lands outside the prescriptive confines of the state's Forest Practice Act (FPA) while providing equal or better protection of the forests' many functions and values. This enhancement to the FPA was called "Outcome Based Forestry."

Outcome based forestry is defined as "a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the state's forests, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests."

When the Legislature enacted the OBF law, it allowed for the replacement of the prescriptive requirements imposed by the FPA by higher-level outcomes acceptable to the MFS and a panel of experts chosen by the Governor. This effort currently involves agreements with Irving Woodlands, Katahdin Forest Management, Seven Islands Land Company, and the Bureau of Parks and Lands, and is working very well.

Your committee plays an important public oversight role in the implementation of OBF. We particularly appreciate past committees' willingness to personally meet with Irving Woodlands staff and observe the operation of Irving's OBF agreement. All participating landowners are willing to have the committee visit their lands. We look forward to the committee's continued commitment to its oversight role.

I would be pleased to present this report to the committee at its convenience. If you have any questions, please let me know.

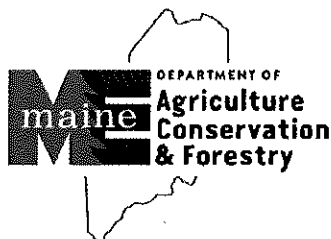
Sincerely,

A handwritten signature in black ink that reads "Doug Denico".

Doug Denico, Director
Maine Forest Service

Enc

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Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report

Report to the 128th Legislature's
Agriculture, Conservation and Forestry Committee
on
Outcome Based Forestry
Submitted pursuant to 12 M.R.S. §8869(§3-B)

Prepared by Douglas Denico, Director
Maine Forest Service
and
The Outcome Based Forestry Technical Review Panel

Mike Dann
Gary Donovan
Maxwell McCormack, Jr.
Chuck Simpson
Dave Struble
Peter Triandafillou

28 February 2018

Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report

Table of Contents

Introduction	1
Progress to date	1
Examples of public benefits of OBF	2
Examples of forest landowner benefits from OBF	2
Panel evaluation of participant performance	3
MFS monitoring evaluation of participant performance	3
Concluding remarks	4
Appendixes	
A. State forest sustainability goals	5
B. Key statutory provisions of OBF	7
C. Biographies of OBF panel members	10

Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report

Introduction

The practice of forestry is a science. Laws that regulate forestry activities do not necessarily promote the use of science-based forest management. The 120th Legislature enacted the Outcome Based Forestry (OBF) law to address aspects of the Forest Practices Act (FPA) that prevented the wise use of scientific forestry in the best interests of the people of Maine and private and public landowners (see appendices). While the FPA was intended to curtail the creation of large, rolling clearcuts and assure their regeneration, OBF addresses these issues and many more issues of public concern. The only law directly impacted by OBF is the FPA.

The OBF statute was adopted by the 120th Legislature in 2001 in response to the forest policy debates of the 1990's. The OBF statute had a sunset provision until 2012 when the 126th Legislature removed the provision. Until the sunset clause was removed, no OBF agreements were achieved due to landowner uncertainty over the law's future. In 2012, shortly after the sunset clause was removed, two landowners signed an agreement with the state (through the signature of the Director of the Bureau of Forestry, aka Maine Forest Service (MFS)). See Appendix B for a statutory summary.

The Governor has appointed a technical review panel (panel) as required by law (Appendix C). The panel works with the MFS Director to implement, monitor and assess OBF agreements. To participate in an OBF project, the landowner, director, and panel must develop agreed-upon desired outcomes, and develop a method for determining if the outcomes have been attained and a system for reporting results to the public. The panel assesses whether the practices applied on areas subject to an OBF agreement provide at least the equivalent forest and environmental protection as provided by rules and regulations otherwise applicable to that area.

The statute clearly states that a participating landowner must manage their holdings in a way that provide a defined suite of public benefits in return for departing from certain requirements of the FPA.

This report documents progress to date on OBF regarding agreements with Irving Woodlands, Katahdin Forest Management, Seven Islands Land Company, and the Maine Bureau of Parks and Lands.

Progress to date

Four agreements covering six areas have been signed: the Bureau of Parks and Lands (BPL), Irving Woodlands (Irving), Katahdin Forest Management (KFM), and Seven Islands Land Company (SILC). The Irving, KFM, and SILC agreements are of a landscape proportion covering the landowners' entire Maine ownerships of 1.25 million acres, 300,000 acres, and 768,000 acres, respectively, while the BPL Agreement covers three different, specific projects on approximately 3,000 acres.

The objectives agreed upon between the forest landowners, panel, and Bureau Director are part of the agreements and found as an appendix to each agreement.

The panel has conducted several site visits on participating lands and reviewed landowner operations plans prior to their implementation. Several harvest sites on Irving land were visited multiple times. Visits of a similar intensity took place during

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

negotiations with KFM and SILC. The panel plans two annual visits to each participating landowner, once in early winter to review the previous year's operations and planned operations for the coming year, and once in late summer to review year-to-date progress. Since 2013, panel field inspections have been augmented with systematic, regular reviews of harvest operations (pre-harvest, during harvest, and post-harvest) by Foresters of MFS's Forest Policy and Management Division.

The Legislature's Agriculture, Conservation and Forestry Committee provides oversight of the panel's work on behalf of the public. The committee visited Irving Woodlands' operations in September 2014 and again in the summer of 2015. MFS and the panel look forward to future visits to active OBF projects by the committee.

Examples of public benefits of OBF

- Assurances that the goals and outcomes of soil and water quality protection and biodiversity are being met;
- Pre-harvest planning to address aesthetic impacts of timber harvesting;
- Investment of \$37 million in construction of an 80 million board foot spruce/fir sawmill in Nashville Plantation (Irving) that employs 60 people and provides a market for small diameter balsam fir and spruce in northern Maine;¹
- Increased negotiated payment rates to contractors and woods operators;
- Access to the scientific rationale for each harvest in an OBF agreement;
- Knowledge of harvest levels by species/products;
- Tracking of types of harvests, including clearcuts, for trends;
- Better implementation of science-based silvicultural practices, e.g., beech bark disease management and managing density of white pine stands for quality growth; and,
- Reduction of inspections by Forest Rangers, freeing up their time for forest protection duties.

Examples of forest landowner benefits from OBF

- Application of optimal silvicultural practices to the land base;
- Reduced administrative time devoted to adhering to FPA numerical limits, e.g. 450 trees/acre of regeneration, 250-foot separation zones, etc.;
- Construction of an 80 million board foot spruce/fir sawmill in Nashville Plantation (Irving) that will improve utilization of smaller diameter balsam fir from Irving's and many adjacent landowners' properties;
- Reduced costs of trucking, road building and maintenance by applying scientific management to harvest areas; and,
- Increased investment in tree planting and thinning of young spruce/fir stands.

¹ Such markets are important for managing balsam fir-dominated stands in anticipation of the impending spruce budworm outbreak. Irving has since expanded production and employment at the mill.

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

Panel evaluation of participant performance

The technical review panel has reviewed each participant's annual operating plans, both *a priori* and retrospectively and harvest operations (in progress and retrospectively); observed and analyzed the participants' independent, third-party certification audits; and, considered the reports of field monitoring conducted by MFS Foresters.

Based on field observations and consideration of the various data and information obtained from multiple sources, the panel finds that the four participating landowners: Irving Woodlands, Katahdin Forest Management, Seven Islands Land Company, and the Bureau of Parks and Lands, have all attained compliance with the state's forest sustainability goals (Appendix A).

All participating landowners have:

- Maintained their certification to one or more independent, third-party standards (Forest Stewardship Council and/or Sustainable Forestry Initiative). If a certification audit has revealed any observations or non-conformances, they have been minor and quickly corrected by the landowner. Panel members have had the opportunity to observe the landowners' certification audits and to review certification audit reports.
- Management plans prepared by Maine licensed foresters. Foresters oversee all timber harvesting and other forest management operations.
- Policies and procedures in place that exceed state regulatory requirements regarding timber harvesting operations in riparian areas. All participating landowners effectively implement state Best Management Practices for protecting water quality.
- Policies and procedures in place to address other forest resources and values, such as wildlife habitat and aesthetics.

Panel members have had the opportunity to participate in any landowner advisory committee meetings. Panel members believe that they have had ample opportunity to review certification audit reports, records, discuss practices and policies, and to observe field operations. Their expectations and needs for explanations and answers to questions were satisfied. Field operations provided effective illustrative support of the Panel's findings.

MFS monitoring evaluation of participant performance

MFS has assigned a Regional Enforcement Coordinator and District Foresters from the Forest Policy and Management Division to periodically monitor Irving, KFM, and SILC harvest operations to document conformance to the terms of the participants' agreements. These Foresters monitored roughly two dozen harvests on the Irving and KFM land bases over the last year.² Some harvests were visited before the harvest began; others while the harvest was in progress; and more post-harvest. Some harvests were visited at various stages for purposes of continuity in monitoring. The Foresters report that the participants are operating in conformance with policies that

² SILC's agreement became effective in December, 2017.

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

exceed the minimum regulatory requirements, particularly with respect to the protection of water quality. The Foresters found no significant issues during their visits.

Concluding remarks

To accommodate the possibility of increased interest in OBF, and recognizing the significant commitment that panel members make, the MFS Director has made recommendations for additional panel members. The regular, systematic reviews of harvest operations by Foresters of MFS's Forest Policy and Management Division have facilitated the panel's work.

Other states have shown interest in Maine's OBF policy, as it offers a path for them to follow where scientific forestry is preferred over restrictive and costly legislation. In Canada, British Columbia has had a "results based forestry" regime in place on its Crown Forests for over a decade. New Brunswick recently adopted a "results based forestry" strategy for its Crown Forests as well. Maine remains the only state in the U.S. to offer outcome based forestry as an option for regulatory compliance.

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

Appendix A. State Forest Sustainability Goals

1. Criterion 1: Soil productivity
 - a. Goal: Maintain site productivity.
 - b. Outcomes: Site productivity will be maintained or improved, and the area in roads and yards will be minimized.
2. Criterion 2: Water quality, wetlands and riparian zones
 - a. Goal: Maintain or improve the chemical, physical, and biological integrity of aquatic systems in forested areas and riparian forests.
 - b. Outcomes: Forest management in shoreland areas protects water quality and aquatic and riparian forest biodiversity.
3. Criterion 3: Timber supply and quality
 - a. Goal: Improve the quantity and quality of future timber supply when appropriate.
 - b. Outcome: The management strategy and harvest levels for the lands will increase the quality and quantity of the forest resource as appropriate in the medium and long term (20 - 50 years).
4. Criterion 4: Aesthetic impacts of timber harvesting
 - a. Goal: Minimize adverse visual impacts of timber harvesting.
 - b. Outcomes:
 1. The landowner will minimize visual impacts of harvests, roads, landings and other management activities.
 2. The landowner's planning staff are trained in and apply principles of visual quality management.
 3. The landowner identifies areas with high and moderate visual sensitivity, and takes appropriate measures to avoid significant visual impacts whenever necessary.
5. Criterion 5: Biological diversity
 - a. Goal: Maintain biological diversity with healthy populations of native flora and fauna, forest communities and ecosystems.
 - b. Outcomes:
 1. Management addresses the habitat needs of the full range of species present.
 2. Maintain or manage for acreage in the late successional (LS) condition through management and protection.
 3. Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).
 4. High Conservation Value Forests are properly identified and values are protected on the ownership.
 5. Rare, threatened and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened and endangered species.
 6. Important plant communities are properly identified, and the land is managed to protect important plant communities.

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

7. Deer wintering areas are properly identified and managed to maintain or improve their value as winter cover for deer.

6. Criterion 6: Public accountability

- a. Goal: Demonstrate sustainable forestry and build public confidence that forest management is protecting public values for the long-term.
- b. Outcomes:
 - 1. The landowner will maintain independent 3rd party certification with a nationally recognized sustainable forest management certification system without major, unresolved non-conformances on managed lands.
 - 2. A Licensed Forester within the company will review and approve the landowner's Forest Management Plan.
 - 3. The landowner will employ Licensed Foresters who are actively involved in the management, planning and supervision of operations on the land.
 - 4. All timber harvesting contractors will employ at least one person possessing Certified Logging Professional or Qualified Logging Professional certifications or the equivalent.

7. Criterion 7: Economic considerations

- a. Goal: Optimize benefits to the local and regional economy while also achieving the goals specified for the other criteria, to the extent allowed by market conditions.
- b. Outcomes: The landowner's management activities support as vibrant and diverse a forest products industry as is practicable, including loggers, truckers, and production facilities.

8. Criterion 8: Social considerations

- a. Goal: The landowner supports the communities surrounding their lands and operations, and except where special circumstances dictate otherwise, the landowner continues to provide historic and traditional recreational opportunities that do not conflict with the landowner's objectives or values.
- b. Outcomes: The landowner provides opportunities for appropriate historic and traditional recreational uses that do not conflict with the landowner's values or objectives.

9. Criterion 9: Forest Health

- a. Goal: The forest is healthy and vigorous with no serious insect infestations or disease outbreaks.
- b. Outcomes: The landowner does what is prudent and practicable to monitor for and prevent and control insects, disease, and fire, consistent with good practice in the industry and assists MFS in forest health monitoring programs on the ownership.

Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report

Appendix B. Key statutory provisions of Outcome Based Forestry

12 M.R.S., §8003 (3)(Q)

Q. The director, in cooperation with public and private landowners, shall actively pursue creating areas on public and private land where the principles and applicability of outcome-based forest policy, as defined in section 8868, subsection 2-B, can be applied and tested. No more than 6 such areas may be designated. The director shall seek to designate areas of various sizes owned by different landowners. The designated areas must represent differing forest types and conditions and different geographic regions of the State. Prior to entering into an outcome-based forestry agreement, the director and the panel of technical experts under section 8869, subsection 3-A shall conduct a comprehensive review of the proposed outcome-based forestry agreement. The term of initial agreements may not exceed 5 years. The director may renew an agreement if requirements under this section and section 8869, subsection 3-A are met. The term of a subsequent agreement may not exceed 5 years.

12 M.R.S., §8868 (2-B)

2-B. **Outcome-based forest policy.** "Outcome-based forest policy" means a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the State's forests, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests.

12 M.R.S. §8869 (3-A)

3-A. **Plans for outcome-based forestry areas.** Practices applied on an area created pursuant to section 8003, subsection 3, paragraph Q must provide at least the equivalent forest and environmental protection as provided by existing rules and any applicable local regulations. At a minimum, tests of outcome-based forestry principles must address:

- A. Soil productivity;
- B. Water quality, wetlands and riparian zones;
- C. Timber supply and quality;
- D. Aesthetic impacts of timber harvesting;
- E. Biological diversity;
- F. Public accountability;
- G. Economic considerations;
- H. Social considerations; and
- I. Forest health.

The Governor shall appoint a panel of at least 6 technical experts to work with the director to implement, monitor and assess tests of outcome-based forestry principles. The panel of technical experts must have expertise in all of the principles listed in paragraphs A to I. In order to participate in an outcome-based forestry project, the landowner, director and technical panel must develop agreed-upon desired outcomes for the outcome-based forestry area and develop a method for determining if the outcomes have been attained and a system for reporting results to the public. The technical panel shall assess whether the practices applied on the outcome-

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

based forestry area provide at least the equivalent forest and environmental protection as provided by rules and regulations otherwise applicable to that outcome-based forestry area. The technical panel may not delegate this assessment to any other person, except that the technical panel may consider information provided by the bureau, the landowner or a 3rd-party forest certification program auditor.

12 M.R.S. §8869 (3-B)

3-B. Reporting and notification; outcome-based forestry projects. The director, in consultation with the technical panel under subsection 3-A, shall report to the joint standing committee of the Legislature having jurisdiction over forestry matters as follows.

A. Beginning March 1, 2015 and annually thereafter, the director shall submit a report detailing the progress on each outcome-based forestry agreement under section 8003, subsection 3, paragraph Q. The report must include an assessment of the landowner's progress toward attaining the outcomes under subsection 3-A. The report must be presented to the joint standing committee of the Legislature having jurisdiction over forestry matters at a public meeting no sooner than 30 days after submission of the report to the committee.

B. When an initial outcome-based forestry agreement is approved by the director as provided by section 8003, subsection 3, paragraph Q, the director shall notify the joint standing committee of the Legislature having jurisdiction over forestry matters within 15 days. In the notification, the director shall address how the proposed agreement will provide at least the equivalent forest and environmental protection as provided by rules and regulations that otherwise would apply to that outcome-based forestry area.

C. When an outcome-based forestry agreement under this section is renewed as provided by section 8003, subsection 3, paragraph Q, the director shall notify the joint standing committee of the Legislature having jurisdiction over forestry matters no later than 15 days after the agreement is renewed.

A report, notification or any information concerning outcome-based forestry projects under this subsection must be placed on the Department of Agriculture, Conservation and Forestry's publicly accessible website.

12 M.R.S. §8869 (7-A)

7-A. Exemption for outcome-based forestry areas. An outcome-based forestry area designated under section 8003, subsection 3, paragraph Q is exempt from the requirements of this section if specifically exempted in the agreement establishing the outcome-based forestry area.

12 M.R.S. §8869 (13)

13. Confidential information. Information provided to the bureau voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forestry areas, as created pursuant to section 8003, subsection 3, paragraph Q, is public unless the person to whom the information belongs or pertains requests that it be designated as confidential and the bureau has determined it contains proprietary information. For the purposes of this subsection, "proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the person submitting the information and would make available information not otherwise publicly

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

available. The bureau, working with the landowner and the panel of technical experts appointed under subsection 3-A, may publish reports as long as those reports do not reveal confidential information.

12 M.R.S. §8879 (1)

1. Content. The report must describe the condition of the State's forests based on historical information and information collected and analyzed by the bureau for the 5-year period. The report must provide an assessment at the state level of progress in achieving the standards developed pursuant to section 8876-A, including an assessment of designated outcome-based forestry projects authorized under section 8003, subsection 3, paragraph Q, including a recommendation to continue, change or discontinue the outcome-based forestry projects. The director shall also provide observations on differences in achieving standards by landowner class. The report must summarize importing and exporting of forest products for foreign and interstate activities. The director shall obtain public input during the preparation of the report through appropriate methods.

**Department of Agriculture, Conservation and Forestry - Maine Forest Service
2018 Outcome Based Forestry Report**

Appendix C. Biographies of OBF panel members

Mike Dann is a retired forester from Dixmont, Maine. He earned a BS in Forest Management from the University of Maine Orono and is a Licensed Forester. He has 40 years' experience in natural resource management; 36 years with Seven Islands Land Company and 4 years with SWOAM. He is a member of SWOAM, Maine Forest Products Council, Forest Resources Association, and the Society of American Foresters. He also is a Tree Farmer.

Gary Donovan is a retired wildlife biologist from Holden. He earned a BS in Wildlife Management from the University of Maine and is a Certified Wildlife Biologist since 1980. He is a member of the Wildlife Society, Washington D.C. He worked for the Maine Department of Inland Fisheries and Wildlife from 1969 to his retirement in 1995, and then spent the next ten years working for Champion International Corp in Bucksport and later International Paper when Champion was sold. Since 2006, he has been retained as a habitat biologist by the Wildlife Management Institute. He has won numerous professional awards and served on many special assignments and appointments.

Maxwell McCormack, Jr. BS (forestry) University of Maine; MF, DF (silviculture) Duke University: Research Professor Emeritus of Forest Resources, University of Maine, resides in Unity. He is a Fellow & Golden Member, Society of American Foresters and a Distinguished Member, Northeastern Weed Science Society. Other memberships include the Maine Christmas Tree Association, the Maine Forest Products Council, and the Maine Woodland Owners. He has received several awards for his teaching and forestry research. McCormack is a Maine Licensed Forester.

Chuck Simpson has practiced forestry in Maine for over 40 years. He earned a B.S. in Forest Management from the University of Vermont and an M.B.A. from the University of Maine. He is currently in his 12th year as the Eastern Region Land Manager for the Maine Bureau of Parks and Lands. Prior to that, he was the Woodlands Manager for the University of Maine, where he also coordinated field research studies at both the Dwight B. Demeritt Forest and the Penobscot Experimental Forest. For seven years prior to that, he established and taught a Forestry/Wood harvesting program at Maranacook Community High School in Readfield. He has been a private consulting forester in Maine since 1976. Chuck is a Licensed Forester, a Licensed Wood Scaler, a Certified Forestry/Natural Resources teacher and a Certified Logging Professional.

Dave Struble is the Director of the Maine Forest Service's Forest Health & Monitoring Division, and State Entomologist. His 40+ year career with the Maine Forest Service has focused on monitoring and evaluating forest health and sustainability, and developing pest management options for Maine's forest and shade tree owners. He serves on a number of regional and national task forces and US Forest Service program oversight/management committees. Mr. Struble is a graduate of the University of Maine with a BS in Forestry and an MS in Entomology. He is a licensed Maine forester.

Peter Triandafillou is from Orono and is the current Vice President of Woodlands for Huber Resources Corp. He is a member of the Maine Forest Products Council Board of Directors, North Maine Woods Board of Directors, the Forest Society of Maine Board of Directors, and the Society of American Foresters. He is a licensed Maine Forester and has participated on numerous public boards including outcome based forestry, LURC reform, sustainable forestry, Maine wood supply and state-wide water quality rules. He formerly served on the Maine Development Foundation Board of Directors and the Maine Technology Institute Board of Directors.

MFS ATTACHMENT #6

Outcome-based forestry agreement #2015-1
07 May 2015

OUTCOME-BASED FORESTRY AGREEMENT #2015-1

This agreement by and between IRVING WOODLANDS LLC (the "Participant"), the DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY, MAINE FOREST SERVICE (the "MFS") is entered into pursuant to 12 M.R.S. § 8003(3)(Q), § 8868 (2-B) and § 8869 (3-A) and (7-A), and in accordance with MFS Forest Policy and Management Division procedures.

Whereas, the Maine Legislature has defined outcome-based forestry as "a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the State's forests, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests;" 12 M.R.S. § 8868 (2-B) and

Whereas, in its 1999 State of the Forest report, the MFS stated that the state has "reached the limits of what a command and control regulatory framework has to offer [with respect to regulation of forest practices]. Command and control regulation has many limitations and may result in unintended consequences, such as forest fragmentation and premature harvesting to recover equity in a forest investment. The Maine Forest Service believes that the state should begin to focus more on outcome-based forestry regulation, on the premise that this approach will do more to promote, stimulate and reward excellent forest management yet still provide a baseline of regulatory protection for critical public resources;" and

Whereas, the Maine Legislature has endorsed outcome-based forestry and directed the MFS to pursue outcome-based forestry agreements consistent with legislative direction; and,

Whereas, outcome-based forestry is intended to be a long term approach to ensuring the sustainable management of Maine's forests; now therefore,

The Participant and the MFS agree as follows:

1. Authority: Pursuant to 12 M.R.S. Chapters 801 and 805, subchapter 3-A, the MFS has regulatory authority over the activities described herein.
2. Partner to this agreement: The Participant is a landowner and/or involved in forest management in the state of Maine. The Participant's primary office is located in St. John Plantation, Maine.
3. Location: The Participant manages approximately 1.25 million acres in the state of Maine.
4. Application of this agreement; forest management plan: This agreement applies to all forest management activities on lands owned by Allagash Timberlands, LP,

Aroostook Timberlands, LLC, and Maine Woodlands Realty (as described in the Forest Management Plan) that are managed by the Participant in Maine (the "Property"). The J.D. Irving Northern Maine Woodlands 2013 - 2037 Strategic Forest Management Plan dated July 2013 (the "Forest Management Plan") is incorporated in this agreement by reference, as it will guide the Participant on its activities on the Property. The Participant's Forest Management Plan has outlined targets for opening size, age class distribution, and harvest levels by silvicultural prescription. The Forest Management Plan will be updated and revised from time to time at the discretion of the Participant's Chief Forester to reflect substantive changes.

5. Interpretation of this agreement: In the context of this agreement, the use of terms including, but not limited to, "maximize," "minimize," and "optimize," and other similar terms are understood to mean that the landowner will take reasonable measures to achieve the specific outcomes identified.

6. Panel of technical experts: As required by 12 M.R.S. § 8869 (3-A); the Governor of Maine has established a panel of technical experts (the "panel") to work with the Director of the Maine Forest Service to implement, monitor and assess the results of outcome-based forestry agreements. The makeup of the panel may change from time to time at the discretion of the Governor of Maine. Present membership on the panel is:
 - A. Michael Dann, Forester;¹
 - B. Gary Donovan, Certified Wildlife Biologist;
 - C. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
 - D. David B. Struble, State Entomologist, Maine Forest Service;
 - E. Peter Triandafilou, VP Woodlands, Huber Resources; and,
 - F. Robert G. Wagner, Director, Center for Research on Sustainable Forests, University of Maine, and Henry W. Saunders Distinguished Professor in Forestry.

7. Desired outcomes of Outcome-based Forestry:
 - A. Compliance with the state's forest sustainability goals and outcomes for soil productivity; water quality; wetlands and riparian zones; timber supply and quality; aesthetic impacts of timber harvesting; biological diversity; public accountability; economic and social considerations; and, forest health (see Appendix).

¹ Mr. Dann recused himself from working on this agreement to avoid the appearance of a conflict of interest.

- B. Improve timber quality and quantity through active forest management while reducing the forest's susceptibility to disease, insect infestations and damage caused by fire, wind and climate change.
 - C. Increase reforestation success, growth rates, and/or timber quality on site specific areas and on a landscape basis, using a variety of forest management techniques that may include but are not limited to the establishment of planted areas, vegetation management, matching species to site, tree improvement techniques, fertilization, and pre-commercial and commercial thinning.
 - D. Implement a credible program to maintain and protect adequate critical deer wintering habitat. The Participant shall confer with the Department of Inland Fisheries and Wildlife during the preparation and any necessary implementation of the program.
 - E. Continued certification to the standards of a nationally recognized sustainable forest management certification program.
8. Exemptions from certain requirements of 12 M.R.S. § 8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards: Provided that the Participant satisfies the conditions set forth in Section 7 of this agreement, the Participant is exempt from the following requirements of law and rule:
- A. Chapter 20 Rule Sections 5.A. and 6. The Participant will not create clearcuts larger than 250 acres without securing express written approval from the MFS.
 - B. 12 M.R.S. § 8869 (2-A) and Chapter 20 Rule Section 5.B. (clearcut separation zones).
 - C. 12 M.R.S. § 8869 (3) and Chapter 20 Rule Section 5.C. (forest management plans for individual clearcuts larger than 20 acres).
 - D. 12 M.R.S. § 8883-B (1) and Chapter 20 Rule, Section 3.A.3. (prior notification, submission of harvest plans to the MFS for individual clearcuts larger than 75 acres).
 - E. Chapter 20 Rule, Section 5.C.3.b. (certification of establishment of clearcuts).
 - F. Chapter 20 Rule, Sections 4.C. and 5.C.3.a. (certification of regeneration of clearcuts). Notwithstanding such exemption, the Participant will measure regeneration success on clearcuts, the results of which shall be made available for inspection by the MFS and the panel. In cases where regeneration is found to be inadequate, the Participant will implement a reforestation strategy in a timely fashion.
9. Modifications to certain requirements of 12 M.R.S. § 8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards: The Participant may operate subject to the following modifications of law and rule:

A. Chapter 20 Rule, Section 3.A.3. The Participant must file one harvest notification per township harvested per two years. The Participant is not required to file harvest notification amendments with the MFS. However, the Participant is required to internally maintain adequate documentation of harvest activities by township to permit harvest inspections by the MFS and to facilitate work of the panel.

10. Participant commitments: The Participant agrees to and commits to the following as good faith demonstrations of its commitment to practice forestry in a manner that provides at least the equivalent forest and environmental protection provided by existing rules and any applicable local regulations:

A. The Participant shall maintain certification status with a nationally recognized sustainable forest management certification program.

B. A member of the panel or a mutually agreeable designee shall be permitted to participate in any independent third party review of the Participant's forest management practices, and to provide input to the independent third party on behalf of the panel.

C. The Participant shall invite one member of the panel or a mutually agreeable designee to attend meetings and provide input to the Participant's Forest Research Advisory Committee.

D. As per the understanding reached with the Legislature's Agriculture, Conservation and Forestry Committee during its deliberations on Public Law 2013, Chapter 542, An Act To Clarify Outcome-Based Forestry, the Participant shall annually invite members of the committee to review the Participant's operations and management in the field.

E. The Participant shall document results of its efforts to improve measurably the quantity and/or quality of its timber resource. In addition to documentation of compliance with applicable certification standards, the Participant shall provide evidence of attainment of the desired outcomes described in Section 7 of this agreement through the use of metrics outlined in Section F, below.

F. The Participant shall annually report to the MFS information about its harvest management and silvicultural metrics including, but not limited to:

1. Acres of high risk separation zones harvested during the past year.

2. Trends in silvicultural investments, including, but not limited to precommercial thinning and competition control, organized by Forest Operations Notification number or where commercial harvesting has not taken place in a township, by individual township.

3. Estimates of harvest acreage summarized for the coming five-year period by silvicultural prescription, including overstory removal, commercial thinning, shelterwood, and clearcut.
 4. A more specific annual harvesting plan that describes the planned acreage for harvest for the upcoming year in each township by prescription, with clearcuts exceeding 250 acres individually mapped and identified.
 5. Annual harvest summary for the previous year, provided within 60 days of year end, a summary of the area harvested over the previous year by prescription (actual versus plan) and total volumes. Information will be made available for sites visited by the panel. The Participant will continue to provide information on acres harvested by harvest type, by township, as required on the "Confidential Report of Timber Harvest."
 6. Annual regeneration report for clearcuts. Acres planted by species and site class, organized by Forest Operations Notification number or where commercial harvesting has not occurred in a township, by individual township. Where available, information will be provided for sites where the panel conducts field verifications.
 7. Road density (miles per acre of ownership by township).
 8. Harvest opening size distribution (acres by opening size class for each harvest prescription by township).
 9. Development stage distribution (acres by development stage within each broad cover type class by township). Development stages to be reported are: regeneration, sapling, young, immature, mature, and overmature.
- G. The Participant shall prepare and submit a report of the average clearcut size and total clearcut areas on an annual basis.
- H. A Maine Licensed Forester in the employ of the Participant shall review and approve the landowner's Forest Management Plan.
- I. Harvests will be laid out with consideration for visual aesthetics in areas of moderate and higher visual sensitivity. The Participant's forest management staff will be proficient in managing and receive periodic training for visual aesthetics.
- J. The Participant will prepare an annual report regarding its efforts and any active management undertaken to maintain and protect critical deer wintering habitat.
- K. The Participant will accommodate other reasonable requests for information made by the MFS and the panel as mutually agreed upon.

11. Sale and purchase of lands:

- A. The Participant will be permitted to add any lands their ownership group purchases to this agreement, provided that the Participant promptly includes those same additional lands in its forest certification program and its management strategy and plans, and provided the Participant manages the lands to the same standards as the rest of its ownership. Similarly, this agreement does not prohibit the Participant from selling some or its entire ownership group lands to an unaffiliated third party.
- B. Any lands sold would immediately upon transaction closing be removed from governance under this agreement and would be required to fully comply with all forest practices regulations for all subsequent activity. Any remaining lands managed by the Participant would continue to be governed by this agreement provided the lands remain credibly third party certified and managed according to the strategy outlined in the management plan.
- C. The Participant shall notify the MFS of any sales or purchases of land covered under this section within 30 days of closing.

12. Confidentiality:

- A. The parties recognize that portions of documents and other information that the Participant may be required, or may elect, to provide or make available to the MFS or the panel (irrespective of the form or manner in which such information is provided or made available) pursuant to or in connection with this agreement may contain information that constitutes a trade secret (as defined in 10 M.R.S. § 1542 (4)) or proprietary information (as defined in 12 M.R.S. § 8869 (13)), the public disclosure of which, or the use of which, other than for the express purposes set forth in this agreement could result in competitive harm and/or economic loss to the Participant or its subsidiaries and affiliates.
- B. The parties also recognize that pursuant to the Maine Freedom of Access Act ("FOAA"), the MFS, as a division of an agency of the state of Maine, has an obligation to make records in its possession available to members of the public, except in limited and defined circumstances. 1 M.R.S. § 402 (3) and § 408 (1). Some of those exceptions may apply to documents and other information provided or made available by the Participant to the MFS or the panel.
- C. Specifically, 1 M.R.S. § 402(3)(A) exempts from disclosure "[r]ecords that have been designated confidential by statute." Two statutes may apply to information the Participant provides or makes available pursuant to this agreement and may exempt some information from disclosure under the FOAA.
- D. 10 M.R.S. § 1542(4) designates certain information as trade secrets and not subject to disclosure by governmental subdivisions or agencies. Maine statute defines a trade secret as follows:



1. "Trade secret" means information, including, but not limited to, a formula, pattern, compilation, program, device, method, technique or process, that:
 - a. Derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use; and
 - b. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

E. In addition, 12 M.R.S. § 8869 (13) provides:

Confidential information.

Information provided to the bureau² voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forestry areas, as created pursuant to section 8003, subsection 3, paragraph Q, is public unless the person to whom the information belongs or pertains requests that it be designated as confidential and the bureau has determined it contains proprietary information. For the purposes of this subsection, "proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the person submitting the information and would make available information not otherwise publicly available. The bureau, working with the landowner and the panel of technical experts appointed under subsection 3-A, may publish reports as long as those reports do not reveal confidential information.

F. Therefore, if the Participant believes that information it is providing to the MFS or the panel "voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy areas," is "proprietary information" as defined in 12 M.R.S. § 8869 (13), it must request that the information be designated as confidential by the MFS. If the MFS determines that the information being provided contains "proprietary information," the MFS will designate that information as confidential. The MFS will notify the Participant whether the information has been designated as confidential or not within a reasonable period of time.

Notwithstanding the foregoing, the parties agree and acknowledge that the information listed or described on Schedule A to this Agreement shall be treated as having been designated by the MFS as proprietary and confidential without the requirement of a review on a case-by-case basis.

G. If the MFS receives a request for information under the FOAA that it has designated as confidential, it will notify the Participant of that request within a

² "Bureau of Forestry" and "bureau" are the statutory references to the Maine Forest Service.

reasonable of time. The MFS will also notify the Participant if it plans to disclose the information or deny the request.

- H. The Participant may require any panel member participating in the forest management certification audit to sign a confidentiality agreement. This agreement must be similar in scope and content to any confidentiality agreement required by the Participant of the auditor and/or any other participants in the audit. Information designated hereunder as confidential or proprietary shall not be made available to any panel member who has not executed such a confidentiality agreement.
 - I. The parties recognize that the final determination about whether information is exempt from disclosure under the FOAA rests exclusively with Maine's courts. The parties also recognize that the MFS is bound by any decision rendered by a Maine court and that the MFS will comply with any final decision issued by a Maine court. The MFS reserves the right to appeal a decision issued by a Maine court if it determines in good faith that the decision contains an erroneous interpretation of the FOAA. 10 M.R.S. § 1542(4) or 12 M.R.S. § 8869 (13). The Participant also remains free to exercise its legal rights, including any appeal rights it might have, regarding any decision issued by a Maine court.
13. Representations and Warranties. The MFS hereby represents and warrants to the Participant that as contemplated by 12 MRS § 8003 (3)(Q), after giving effect to this agreement, the MFS will not have designated more than six (6) outcome-based forestry agreement areas.
14. Reimbursement: The Participant shall pay the MFS a reasonable annual fee for its participation in outcome-based forestry, not to exceed \$10,000 annually.
15. Duration of this agreement: This agreement takes effect on 01 June 2015 and terminates on 31 May 2020. It is renewable at any time by mutual, written agreement between the MFS and the Participant.
16. Amendments; Entire Agreement: This agreement may be amended at any time by mutual, written consent of the parties. This agreement constitutes the entire agreement between or among the parties hereto with respect to the subject matter hereof, and supersedes any and all prior oral or written expressions, agreements or understandings with respect thereto.
17. Termination of this agreement: This agreement may be terminated prior to the expiration of the term:
- A. By mutual agreement of the parties.
 - B. By the Participant, effective upon at least ninety (90) days prior written notice to the MFS.

- C. By the MFS effective upon at least ninety (90) days prior written notice to the Participant in the event that the Participant has materially breached any provision of this agreement and has failed to cure such breach to the reasonable satisfaction of the MFS within such ninety (90) day period (or, in the event that such cure cannot reasonably be effectuated within such ninety (90) day period, such longer period as may reasonably be required, provided that the Participant continues to diligently pursue such cure.

The parties agree and acknowledge that the termination of this agreement shall result only in the prospective loss to the Participant and the Property of the exemptions set forth in Section 8 hereof, and that any actions, omissions, conditions or circumstances arising or prevailing prior to such termination or expiration shall be covered by the exemptions provided pursuant to Section 8 hereof.

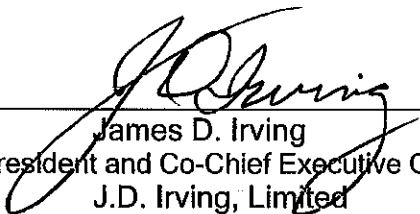
- 18. Official Record: This agreement shall not be effective nor become part of the official record unless and until it is signed by the Director of the Maine Forest Service.



Outcome-based forestry agreement #2015-1
07 May 2015

IN WITNESS WHEREOF, the parties hereto have executed this Outcome-based Forestry Agreement consisting of 13 (thirteen) pages, including Schedule A and the Appendix.

Irving Woodlands LLC

By:  Date: June 22, 2015
James D. Irving
Co-President and Co-Chief Executive Officer
J.D. Irving, Limited



Department of Agriculture, Conservation and Forestry, Maine Forest Service

By: Douglas Denico Date: June 25, 2015
Douglas Denico
Director, Maine Forest Service

Schedule A. List of Proprietary and Confidential Information

The Participant has requested and the Director of the Maine Forest Service has determined that the following information which may be provided to the Panel is either considered confidential or proprietary information and must not be further circulated.

1. Annual Reporting Metrics that are currently provided to the MFS in the landowner reports of timber harvesting activities (confidential under 12 M.R.S. § 8885 (4)).
Exception: Annual reporting on trends in silvicultural investments is not confidential by agreement of the Participant.
2. Maine management plan information that is not part of the annual Irving Woodlands Public Summary, such as:
 - a. Information regarding quantity and quality of the timber resource;
 - b. Information regarding sustainable and planned harvest levels; and,
 - c. Information regarding forest inventory and/or cover type and/or area distribution (confidential under 36 M.R.S. § 579).
3. Employee or contractor, supplier or customer lists or employee or contractor specific information (proprietary information).
4. Pay rate and/or cost information (proprietary information).



APPENDIX. State of Maine Criteria, Goals, and Outcomes of Forest Sustainability.

1. Criterion 1: Soil productivity

- a. Goal: Maintain site productivity.
- b. Outcome: Site productivity will be maintained or improved, and the area in roads and yards will be minimized.

2. Criterion 2: Water quality, wetlands and riparian zones

- a. Goal: Maintain or improve the chemical, physical, and biological integrity of aquatic systems in forested areas and riparian forests.
- b. Outcomes: Forest management in shoreland areas protects water quality and aquatic and riparian forest biodiversity.

3. Criterion 3: Timber supply and quality

- a. Goal: Improve the quantity and quality of future timber supply when appropriate.
- b. Outcome: The management strategy and harvest levels for the lands will increase the quality and quantity of the forest resource as appropriate in the medium and long term (20 - 50 years).

4. Criterion 4: Aesthetic impacts of timber harvesting

- a. Goal: Minimize adverse visual impacts of timber harvesting.
- b. Outcomes:
 - 1. The landowner will minimize visual impacts of harvests, roads, landings and other management activities.
 - 2. The landowner's planning staff are trained in and apply principles of visual quality management.
 - 3. The landowner identifies areas with high and moderate visual sensitivity, and takes appropriate measures to avoid significant visual impacts whenever necessary.

5. Criterion 5: Biological diversity

- a. Goal: Maintain biological diversity with healthy populations of native flora and fauna, forest communities and ecosystems.

b. Outcomes:

1. Management addresses the habitat needs of the full range of species present.
2. Maintain or manage for acreage in the late successional (LS) condition through management and protection.
3. Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).
4. High Conservation Value Forests are properly identified and values are protected on the ownership.
5. Rare, threatened and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened and endangered species.
6. Important plant communities are properly identified, and the land is managed to protect important plant communities.
7. Deer wintering areas are properly identified and managed to maintain or improve their value as winter cover for deer.

6. Criterion 6: Public accountability

- a. Goal: Demonstrate sustainable forestry and build public confidence that forest management is protecting public values for the long-term.

b. Outcomes:

1. The landowner will maintain independent 3rd party certification with a nationally recognized sustainable forestry management certification system without major, unresolved non-conformances on managed lands.
2. A Licensed Forester within the company will review and approve the landowner's Forest Management Plan.
3. The landowner will employ Licensed Foresters who are actively involved in the management, planning and supervision of operations on the land.
4. All timber harvesting contractors will employ at least one person possessing Certified Logging Professional or Qualified Logging Professional certifications or the equivalent.



7. Criterion 7: Economic considerations

- a. Goal: Optimize benefits to the local and regional economy while also achieving the goals specified for the other criteria, to the extent allowed by market conditions.
- b. Outcome: The landowner's management activities support as vibrant and diverse a forest products industry as is practicable, including loggers, truckers, and production facilities.

8. Criterion 8: Social considerations

- a. Goal: The landowner supports the communities surrounding their lands and operations, and except where special circumstances dictate otherwise, the landowner continues to provide historic and traditional recreational opportunities that do not conflict with the landowner's objectives or values.
- b. Outcome: The landowner provides opportunities for appropriate historic and traditional recreational uses that do not conflict with the landowner's values or objectives.

9. Criterion 9: Forest Health

- a. Goal: The forest is healthy and vigorous with no serious insect infestations or disease outbreaks.
- b. Outcome: The landowner does what is prudent and practicable to monitor for and prevent and control insects, disease, and fire, consistent with good practice in the industry and assists MFS in forest health monitoring programs on the ownership.



**OUTCOME-BASED FORESTRY AGREEMENT #2015-1
AMENDMENT #1**

The Outcome-Based Forestry Agreement (agreement) between Irving Woodlands LLC and the Department of Agriculture, Conservation and Forestry, dated 07 May 2015 is amended as follows to correct certain references to statute and rule.

I. Section 8 is amended as follows:

8. Exemptions from certain requirements of 12 M.R.S. § 8869 and § 8883-B, MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards, and MFS Chapter 26 Rule, Forest Operations Notification Standards: Provided that the Participant satisfies the conditions set forth in Section 7 of this agreement, the Participant is exempt from the following requirements of law and rule:
- A. Chapter 20 Rule Sections 4.A. and 5. The Participant will not create clearcuts larger than 250 acres without securing express written approval from the MFS.
 - B. 12 M.R.S. § 8869 (2-A) and Chapter 20 Rule Sections 4.B.1. and 4.C.2. (clearcut separation zones).
 - C. 12 M.R.S. § 8869 (3) and Chapter 20 Rule Section 4.C.1. (forest management plans for individual clearcuts larger than 20 acres).
 - D. 12 M.R.S. § 8883-B (1), Chapter 20 Rule, Section 4.C.1.d. and Chapter 26 Rule, Section 3.B. (prior notification, submission of harvest plans to the MFS for individual clearcuts larger than 75 acres).

II. Section 9 is amended as follows:

9. Modifications to certain requirements of 12 M.R.S. § 8883-B and MFS Chapter 26 Rule, Forest Operations Notification Standards: The Participant may operate subject to the following modifications of law and rule:
- A. Chapter 26 Rule, Section 3. The Participant must file one harvest notification per township harvested per two years. The Participant is not required to file harvest notification amendments with the MFS. However, the Participant is required to internally maintain adequate documentation of harvest activities by township to permit harvest inspections by the MFS and to facilitate work of the panel.

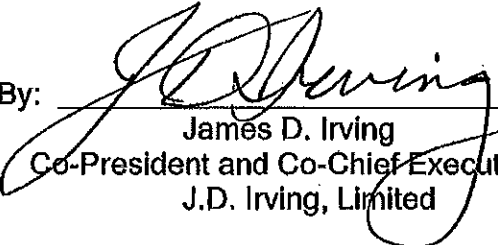
III. Section 10.K. is renumbered as Section 10.L., and the following is inserted as Section 10.K.:

- K. The Participant will measure regeneration success on clearcuts, the results of which shall be made available for inspection by the MFS and the panel. In cases where regeneration is found to be inadequate, the Participant will implement a reforestation strategy in a timely fashion.

Outcome-Based Forestry Agreement #2015-1/Amendment #1
25 January 2016

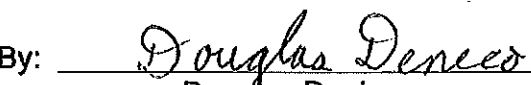
IN WITNESS WHEREOF, the parties hereto have executed this amendment to
Outcome-Based Forestry Agreement #2015-1 consisting of 2 (two) pages.

Irving Woodlands LLC

By:  _____
James D. Irving
Co-President and Co-Chief Executive Officer
J.D. Irving, Limited

Date: April 18th, 2016.

Department of Agriculture, Conservation and Forestry, Maine Forest Service

By:  _____
Douglas Denico
Director, Maine Forest Service

Date: 1-12-16

MFS ATTACHMENT #7

IRVING WOODLANDS OUTCOME BASED FORESTRY AGREEMENT METRICS

"The Participant shall annually report to the MFS information about its harvest management and silvicultural metrics including, but not limited to:

1. Acres of high risk separation zones harvested during the past year.
2. Trends in silvicultural investments, including, but not limited to precommercial thinning and competition control, organized by Forest Operations Notification number or where commercial harvesting has not taken place in a township, by individual township.
3. Estimates of harvest acreage summarized for the coming five-year period by silvicultural prescription, including overstory removal, commercial thinning, shelterwood, and clearcut.
4. A more specific annual harvesting plan that describes the planned acreage for harvest for the upcoming year in each township by prescription, with clearcuts exceeding 250 acres individually mapped and identified.
5. Annual harvest summary for the previous year, provided within 60 days of year end, a summary of the area harvested over the previous year by prescription (actual versus plan) and total volumes. Information will be made available for sites visited by the panel. The Participant will continue to provide information on acres harvested by harvest type, by township, as required on the "Confidential Report of Timber Harvest."
6. Annual regeneration report for clearcuts. Acres planted by species and site class, organized by Forest Operations Notification number or where commercial harvesting has not occurred in a township, by individual township. Where available, information will be provided for sites where the panel conducts field verifications.
7. Road density (miles per acre of ownership by township).
8. Harvest opening size distribution (acres by opening size class for each harvest prescription by township).
9. Development stage distribution (acres by development stage within each broad cover type class by township). Development stages to be reported are: regeneration, sapling, young, immature, mature, and overmature."

OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS

UPDATED 15 JANUARY 2013

Source documents:

- 1 - 08 December 2009 FSC certification report
- 2 - 10 November 2010 FSC field audit report
- 3 - Draft 2011 FSC surveillance audit report
- 4 - 07 December 2012 FSC (third) surveillance audit report

Maine Criterion 1: Soil productivity

Goal: Maintain site productivity.

Outcome: Site productivity will be maintained or improved, and the area in roads and yards will be minimized.

FSC Audit results:

Conformance to Principle 1 (compliance with laws and FSC principles)

1.1.b. Forestry operations meet or exceed the current state forest practice regulations, best management practices for forestry, and other protective measures for water quality that exist within the state(s) or other appropriate jurisdiction(s) in which the operations occur.

Finding: Conforms. "A review of FPA violations did not reveal any cited riparian violations within the last ten years. A single clearcut buffer violation was noted in March of 2004, however JDI responded to the violation in an appropriate manner by conducting a root cause analysis and a new policy for buffer retention. There were noted weaknesses in the application of water bars on at least one active harvest site. However, a state official from the Maine Forest Service who was present during the audit did not find it concerning. Sediment in a stream crossing was observed at one active harvest site, caused by a failure in road maintenance and recent heavy rainfall. Overall, however, the vast majority of stream crossings appeared to be well constructed and maintained. At one particular harvest site, trucking roads were temporarily shut down to minimize runoff into streams and prevent road damage." [1, p. 55] This finding remains current in the 2012 audit. [4, p. 13]

The auditors made one observation relevant to this principle: "JDI maintains a plan identifying all areas in the transportation network where road conditions are in disrepair, and prioritizes them for repair based on their potential for ecological impacts and the disruption of traffic. A large mudhole was observed on a road in the Blackstone district, adjacent to a paved county road that was not identified as being in need of repair on JDI's road maintenance plan. The explanation was given that the road was traveled infrequently, and that the road maintenance issue in question was not close to impacting an area of high ecological value. The audit team agrees with this position, but still finds that JDI could improve its road maintenance practices by identifying road maintenance issues outside of areas that are undergoing active operations." The auditor recommended that JDI could improve its system for identifying poor road conditions on areas of the transportation network not used for regular timber operations. The observation was closed in December, 2012 ("JDI has modified its road maintenance policy to include the requirement that any road not used within the past 3 years will be surveyed to determine if any environmental concerns exist. The audit team thinks this new requirement addresses the concern of the Observation."). [4, p. 8-9]

OUTCOME BASED FORESTRY - JD IRVING CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES WITH FSC AUDIT RESULTS

Conformance to Principle 5 (benefits from the forest):

5.1.c. Investment and reinvestment in forest management are sufficient to fulfill management objectives, ensure economic viability and maintain and/or restore forest health and productivity.

Finding: Conforms. "Investments in silviculture, road systems and management are made to support economic performance. Investments made to reduce budworm and other threats to forest health, including road systems to address and enable response to forest fire risks." [1, p. 69]

5.1.e. Management practices and silvicultural techniques lead to improvements in productivity and quality. (see Criterion 5.6. and 8.2.1). For example: stands are well-stocked; advanced regeneration is protected; quality crop trees are retained and protected; regenerated stands are fully stocked.

Finding: Conforms. "Metrics are tracked for improved productivity at the district level. Forest sites observed to be well stocked with advanced regeneration. JDI uses silvicultural techniques to improve productivity including tree improvement, planting, pre-commercial and commercial thinning." [1, p. 70]

Conformance to Principle 6 (environmental impact):

6.1.a. Using available science and local expertise, an assessment of current conditions is completed that includes: (1) ecological processes, such as disturbance regimes; (2) unique, vulnerable, rare, and threatened natural communities; (3) habitat for other species, as indicated by forest cover type and inventory data; (4) rare and imperiled species, including those that are state or federally listed (5) water resources; (6) soil resources; (see also 7.1.a and b) and (7) attributes of High Conservation Value Forests (see Principle 9).

Finding: Conforms. "JDI utilizes available science and local expertise, such as MNAP inventories for natural communities and rare plants... JDI has developed their HCVF inventory and is utilizing water table depth mapping..." [1, p. 74]

6.3.c.2. Post-harvest management activities maintain soil fertility, structures, and functions. For example: slash is randomly distributed across the harvest area; burning is used where it is appropriate to the natural disturbance regime.

Finding: Conforms. "Soil fertility is maintained by distributing slash on site and preventing rutting. No serious rutting was observed during the assessment." [1, p. 78]

6.3.c.4. If soil quality degradation occurs, as indicated by declining fertility or forest health, forest owners or managers modify soil management techniques. For example:

Limbs and small branches are scattered throughout the site after harvest.

Stem-only harvesting is used on low-fertility sites.

Low- ground pressure equipment is used on soils that are sensitive to compaction.

Finding: Conforms. "Steps are taken to avoid soil quality degradation, including to a large degree leaving residual limbs and branches. When limbs and tops are not used for biomass, the slash is turned back into the forest." [1, p. 79]

6.3.c.5. Roads are designed and constructed to minimize disruption of nutrient movement and hydrologic regimes.

Finding: Conforms. "Roads are being constructed to new standards with consideration for wetlands and sensitive areas. The amount of new road is consistent with current access

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

conditions and harvest levels. Road construction and stream crossing are well designed and road maintenance is being performed. [1, p. 79]

6.5. Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and to protect water resources.

Finding: Conforms. "Though notable for their conciseness/brevity, there are written guidelines for controlling erosion, minimizing forest damage during harvesting and protecting water resources. Adequate conformity to this Criterion is confirmed." [1, p. 81]

6.5.a. The forest owner or manager minimizes the impacts of the road network, log landings, and skidding systems in a manner consistent with management objectives for hydrology and plant and animal habitat while simultaneously and safely serving the needs of transportation and hauling.

Finding: Conforms. "Roads are being constructed to avoid wetlands and sensitive areas. The amount of new road is minimized to harvest areas. Log landings and skidding systems are minimized in consistency with management objectives for hydrology and plant and animal habitat while simultaneously and safely serving the needs of transportation and hauling." [1, p. 81] "JDI's Standard Operating Procedures and SFM Report Card inspection system, Forest Road Construction Guidelines and other management documents address the elements of this Criteria." [4, p. 31]

6.5.b. The environmental impacts of the road network and harvest system are minimized through design and planning, careful construction and harvest, and ongoing monitoring and management.

Finding: Conforms. "Road layout is designed during the block planning phase. The maintenance approach for the road network includes the EMS and a road maintenance list. This approach to construction and maintenance seems sufficient." [1, p. 81] "Site visits confirm that appropriate BMPs are being implemented." [4, p. 31]

6.5.c. The forest owner or manager develops (through management plans, policies, and harvesting guidelines) and implements a strategy for protecting river and stream corridors, steep slopes, fragile soils, wetlands, vernal pools, seeps and springs, lake and pond shorelines, other hydrologically sensitive areas, and minimizes damage from site-preparation.

Finding: Conforms. "Management plans, policies, and harvesting guidelines protect river and stream corridors. It was observed that stream crossings, fragile soils, wetlands, vernal pools, seeps and springs were well protected. The protection of many sensitive areas is inherent in their designation as HCVF. Buffer retention for streams was especially notable." [1, p. 81] "Logging equipment is selected in order to limit damage to soil. JDI's SOPs address soil compaction and rutting; site visits confirm appropriate application of the SOPs. Harvesting on steep slopes has been limited to specialized machinery. Slash was not concentrated and appropriately used to minimize rutting." [4, p. 32]

The switch to more single grip processor systems is resulting in less ground cover disturbance and will reduce the amount of whole-tree harvesting

6.5.d. The forest owner or manager develops and implements a strategy that meets or exceeds all applicable "best management practices" guidelines for soil and water protection.

Finding: Conforms. "Most state BMPs were being met, except in one observation during an active harvest regarding water bars. However, the state representative accompanying the audit was not concerned about the apparent lack of installation. Little rutting was observed

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

and the policy metric of 30% of trails with ruts is conservative. Buffer allotment was beyond expectation." [1, p. 81] "Access to a large portion of the JDI lands is controlled through North Maine Woods. Access to roads is blocked if there is a perceived environmental risk. All road construction is planned to minimize the amount of road on the landscape, minimize stream crossings, and avoid significant wildlife habitat and travel corridors where possible. Site visits to new road construction and several stream crossings confirm that erosion and sediment discharge are being minimized and that free upstream and downstream passage for aquatic organisms is being provided for. Access to unneeded roads is being blocked and stream crossings removed and/or stabilized. In response to an observation by last year's audit team, all roads are now being periodically surveyed to determine if there are any environmental issues that need to be addressed." [4, p. 32-33]

Conformance to Principle 7 (management plan)

7.1.b.1. The management plan describes the timber, fish and wildlife, harvested non-timber forest products, soils, and non-economic forest resources.

Finding: Conforms. "The management plan is complete in this regard." [1, p. 87]

7.1.c.1. Silvicultural prescriptions have a primary objective of perpetuating a sustainable forest ecosystem based on ecological parameters such as soil types, past harvest history, natural community types, and successional trends.

Finding: Conforms. "The management plan is complete in this regard." [1, p. 87]

7.1.h.1. The management plan includes maps of the forest's characteristics, such as: relevant landscape-level factors; property boundaries; roads; timber production areas; forest types; topography; soils; riparian zones; springs and seeps; wetlands; archaeological sites; cultural and customary use areas; locations of and habitats for sensitive, rare, threatened, and endangered species; representative samples of existing ecosystems, and designated High Conservation Value Forests.

Finding: Conforms. "The management plan is complete in this regard." [1, p. 88]

Principle 8: Monitoring and assessment

8.2.d.1. The forest manager or owner assesses the environmental impacts of management activities; the condition of soil, water and timber resources; and effectiveness of management policies. A monitoring program is in place to monitor requirements of Criterion 6.5.

Finding: Conforms. "The EMS is designed to assess the impacts of BMPS for environmental impacts. Also, an auditing program of EMS assessments is captured in the SFM Scorecard. JDI also uses a Harvest Operations Checklist." [1, p. 91] "Site specific monitoring occurs as a part of JDIs EMS. Monitoring of sites post-harvest is done prior to closing out a site. Effects of harvesting activities are also tracked on the sustainable forest management report card." [4, p. 39]

Assessment of this criterion: The FSC audit demonstrates that JD Irving has attained the identified goal and outcome for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 2: Water quality, wetlands and riparian zones

Goal: Maintain or improve the chemical, physical, and biological integrity of aquatic systems in forested areas and riparian forests.

Outcome: Forest management in shoreland areas protects water quality and aquatic and riparian forest biodiversity.

FSC Audit results:

Conformance to Principle 1 (compliance with laws and FSC principles)

1.1.b. Forestry operations meet or exceed the current state forest practice regulations, best management practices for forestry, and other protective measures for water quality that exist within the state(s) or other appropriate jurisdiction(s) in which the operations occur.

Finding: Conforms. "A review of FPA violations did not reveal any cited riparian violations within the last ten years. A single clearcut buffer violation was noted in March of 2004, however JDI responded to the violation in an appropriate manner by conducting a root cause analysis and a new policy for buffer retention. There were noted weaknesses in the application of water bars on at least one active harvest site. However, a state official from the Maine Forest Service who was present during the audit did not find it concerning. Sediment in a stream crossing was observed at one active harvest site, caused by a failure in road maintenance and recent heavy rainfall. Overall, however, the vast majority of stream crossings appeared to be well constructed and maintained. At one particular harvest site, trucking roads were temporarily shut down to minimize runoff into streams and prevent road damage." [1, p. 55]

Conformance to Principle 5 (benefits from the forest)

5.5.b. The forest owner or manager places aquatic and riparian resources, including water quality, above forest product objectives within designated riparian zones of adequate dimensions to assure resource protection. (see Criterion 6.5.c)

Finding: Conforms (but see Observation 2009.8 below). [1, p. 72]

Riparian zone buffers are consistently implemented and recorded within Work Orders, GPS, etc. SOPs address concerns and appropriate protections and actions. Cooperation with IFW on river inventory and management and managing culverts and road maintenance. JDI could retain more basal area within stands (particularly within or adjacent to riparian zones) to increase wind firmness (OBS 2009.8).

The auditors made one observation regarding this principle: "The FSC NE Standard requires that the forest owner or manager places aquatic and riparian resources, including water quality, above forest product objectives within designated riparian zones of adequate dimensions to assure resource protection." The auditor recommended that "JD Irving could retain more basal area within stands (particularly within or adjacent to riparian zones) to increase wind firmness." [1, p. 50]

Could not find reference to this in 2010 annual audit report.

Conformance to Principle 6 (environmental impacts)

6.3.c.5. Roads are designed and constructed to minimize disruption of nutrient movement and hydrologic regimes.

Finding: Conforms. "Roads are being constructed to new standards with consideration for wetlands and sensitive areas. The amount of new road is consistent with current access

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

conditions and harvest levels. Road construction and stream crossing are well designed and road maintenance is being performed." [1, p. 79]

6.5.a. The forest owner or manager minimizes the impacts of the road network, log landings, and skidding systems in a manner consistent with management objectives for hydrology and plant and animal habitat while simultaneously and safely serving the needs of transportation and hauling.

Finding: Conforms. "Roads are being constructed to avoid wetlands and sensitive areas. The amount of new road is minimized to harvest areas. Log landings and skidding systems are minimized in consistency with management objectives for hydrology and plant and animal habitat while simultaneously and safely serving the needs of transportation and hauling." [1, p. 81] "JDI's Standard Operating Procedures and SFM Report Card inspection system, Forest Road Construction Guidelines and other management documents address the elements of this Criteria." [4, p. 31]

6.5.c. The forest owner or manager develops (through management plans, policies, and harvesting guidelines) and implements a strategy for protecting river and stream corridors, steep slopes, fragile soils, wetlands, vernal pools, seeps and springs, lake and pond shorelines, other hydrologically sensitive areas, and minimizes damage from site-preparation.

Finding: Conforms. "Management plans, policies, and harvesting guidelines protect river and stream corridors. It was observed that stream crossings, fragile soils, wetlands, vernal pools, seeps and springs were well protected. The protection of many sensitive areas is inherent in their designation as HCVF. Buffer retention for streams was especially notable." [1, p. 81] "Logging equipment is selected in order to limit damage to soil. JDI's SOPs address soil compaction and rutting; site visits confirm appropriate application of the SOPs. Harvesting on steep slopes has been limited to specialized machinery. Slash was not concentrated and appropriately used to minimize rutting. The switch to more single grip processor systems is resulting in less ground cover disturbance and will reduce the amount of whole-tree harvesting." [4, p. 32]

6.7.c. Equipment is not parked where fluids may leak into riparian management zones, sinkholes, or ground water supplies.

Finding: Conforms. "Fueling is done away from these areas in designated locations." [1, p. 83] "JDI SOPs prohibit fuel storage or fueling within 100' of water. Site visits showed no evidence on persistent fuel leaks on any equipment." [4, p. 36]

Conformance to Principle 7 (management plan):

7.1.h.1. The management plan includes maps of the forest's characteristics, such as: relevant landscape-level factors; property boundaries; roads; timber production areas; forest types; topography; soils; riparian zones; springs and seeps; wetlands; archaeological sites; cultural and customary use areas; locations of and habitats for sensitive, rare, threatened, and endangered species; representative samples of existing ecosystems, and designated High Conservation Value Forests.

Finding: Conforms. "The management plan is complete in this regard." [1, p. 88]

Assessment of this criterion: The FSC audit demonstrates that JD Irving has attained the identified goal and outcomes for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 3: Timber supply and quality

Goal: Improve the quantity and quality of future timber supply when appropriate.

Outcome: The management strategy and harvest levels for the lands will increase the quality and quantity of the forest resource as appropriate in the medium and long term (20 - 50 years).

FSC Audit results:

Conformance to Principle 1 (compliance with laws and FSC principles):

1.6.c. Forest owners or managers document strategies and silvicultural treatments for several harvest entries that meet the FSC Principles and Criteria (see Principle 7).

Finding: Conforms. "JDI has a long-term perspective as indicated by a long-term sustained yield at 80 years and demonstrated silvicultural strategies on the ground. The provided management plan is for 25 years based on this overall 80 year projection and scheduled harvest entries are made and are tracked over time." [1, p. 57]

Conformance to Principle 5 (benefits from the forest):

C5.6. The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

Finding: Conforms. However, the auditors found a nonconformance with indicator 5.6.a. which resulted in a Corrective Action Request [1, p. 72]. This CAR was closed in the 2010 annual audit report [2, p. 10]. "The defined planning unit is all of the JDI forestland in Maine. In addition to the "managed forest", a different annual allowable cut is calculated for each constrained zone (for example deer wintering areas, riparian buffers, etc.). Forest Modeling is based on forest inventory information gathered on the lands. A long-term (multi-rotational) allowable harvest is calculated. Interviews with David Young, Ked Coffin, Blake Brunston and Scott MacDougall confirm that they are on track to complete a project that involves new aerial photography, new forest stand typing, a new forest inventory, and new forest modeling work that will result in a new forest management plan at the end of 2013. A harvest summary provided at the audit shows that total allowable harvest levels are slightly below planned levels and that no species groups are being disproportionately harvested. Site visits confirm that appropriate silvicultural techniques are employed. JD Irving and the State of Maine have entered into an "Outcome Based Forestry" (OBF) agreement, in which certain restrictions in the Maine Forest Practices Act are waived in return for continued third party certification. This agreement has allowed Irving to practice better stand level silviculture. Field sites were inspected, along with members of the State OBF oversight committee, and all agreed that the agreement has thus far produced desired results on the ground." [4, p. 24-25]

Assessment of this criterion: JD Irving agreed to request forest inventory data collected on its ownership by the USDA Forest Service Forest Inventory and Analysis, and provide access to MFS staff under confidentiality agreement for review and analysis. Once the inventory information has been provided to MFS, JD Irving will have demonstrated that it has attained the identified goals and outcomes for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 4: Aesthetic impacts of timber harvesting

Goal: Minimize adverse visual impacts of timber harvesting.

Outcomes:

1. The landowner will minimize visual impacts of harvests, roads, landings and other management activities.
2. The landowner's planning staff are trained in and apply principles of visual quality management.
3. The landowner identifies areas with high and moderate visual sensitivity, and takes appropriate measures to avoid significant visual impacts whenever necessary.

FSC Audit results: The summary of JD Irving's management objectives (section 1.4 of audit report) states, "We will consider and incorporate aesthetics in our management activities where visual impacts may be of concern." [1, p. 13]

Conformance to Principle 4 (Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and communities)

4.4.a. The forest owner or manager understands the likely social impacts of management activities, and incorporates this understanding into management planning and operations. Social impacts include effects on:

- Archeological sites and sites of cultural, historical and community significance (on and off the FMU);
- Public resources, including air, water and food (hunting, fishing, collecting);
- Aesthetics;
- Community goals for forest and natural resource use and protection such as employment, subsistence, recreation and health;
- Community economic opportunities;
- Other people who may be affected by management operations.

A summary is available to the CB.

Finding: Conforms. "Management of aesthetics is specifically included in the plan, have identified many unique sites with aesthetic concerns, and operational plans have been adjusted to compensate for them. Harvests within the visual zone of the Allagash Wilderness Waterway were viewed during the audit." [4, p. 21]

Assessment of this criterion: The December 2012 FSC audit addressed the identified goal and outcomes for this criterion. This issue is addressed explicitly in the agreement between JD Irving and the state.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 5: Biological diversity

Goal: Maintain biological diversity with healthy populations of native flora and fauna, forest communities and ecosystems.

Outcomes:

1. Management addresses the habitat needs of the full range of species present.

FSC Audit results: 6.1.c. JDI contracted with MNAP to assess its current system of special/unique areas. MNAP ... identified potential gaps in the current assessment of forest types and natural communities. Much of the work has now been completed by MNAP and is incorporated into the JDI management system (1, p. 75). The company has designed and implemented a comprehensive assessment of current habitat conditions for non-RTE species and, based upon the outcome of the assessment, identified and implemented actions aimed at addressing specific habitat deficiencies. [2, p. 7]

2. Maintain or manage for acreage in the late successional (LS) condition through management and protection.

FSC Audit results: JDI must formally seek and duly consider scientific advice on the ecological appropriateness/adequacy of the 7%/3% targets for old forest and very old forest cover as well as the definition (age delineations) for "old" and "very old."

As part of the audit, JDI provided specific comments on its late-successional policy from members of its Research Advisory Committee, which includes notable forest ecologists from Maine and New Brunswick. Comments from these experts were considered and incorporated into the company's current late-successional forest policy.

The company's response is in full compliance with the requirement of the CAR. [2, p. 7]

JDI must survey/analyze its Maine forest estate for the presence of intact old growth forests and un-entered old growth stands (as defined by the Regional Standard). Any areas found to meet the definition of un-entered or intact old growth must be managed in conformity to NE Regional Indicator 6.4.c.

At the time of the audit, JDI presented its Old Growth Stand Risk map and explained how it has collaborated with the Maine Natural Areas Program and Manomet to develop protocols and training programs for identifying late-successional and old growth stands.

Implementation of these programs was also presented at one of the field stops during the audit. The company also presented protocols for the conservation of late-successional and old growth stands, in accordance with Indicator 6.4.c.

The audit team concludes that the response fully complies with the intent of the CAR. [2, p. 8-9]

The December, 2012 audit report added the following Observation: "A clarification of the protocol under which forest operations can take place adjacent to known or potential old growth stands would improve conformance. (Finding 2012.1)" [4, p. 10]

3. Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).

FSC Audit results: 6.3.b.2. JDI protects, maintains and enhances habitat diversity by reserving wildlife trees and snags during harvest; utilizing retention areas; and distributing fine and large woody debris during most harvest operations.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

6.3.c.1. Most prescriptions seem to adequately retain coarse woody debris, though some additional debris could be retained during clearcuts. [1, p. 78]

4. High Conservation Value Forests are properly identified and values are protected on the ownership.

FSC Audit results: 9.1.a. Irving has contracted with the MNAP for several years to perform ecological inventories designed to identify the occurrence of individuals or habitat for rare, threatened, and endangered (RTE) plants or natural communities. Irving also collaborates with the MDIFW and the USFWS regarding the location of RTE animals or their habitat.

Irving also has professional biologists and ecologists on staff who conduct ecological inventories that would identify potential HCVF sites.

Irving has a long-standing Unique Areas Program that encompasses a wide range of rare or interesting features, including some areas designated as HCVF. Areas can be entered into the Unique Areas Program via nominations from the public, stakeholder groups, State or Federal agency staff, or Irving employees.

To date, Irving has identified 6 areas, totaling approximately 3,700 acres, as HCVF. These areas include watershed protection areas for Long Lake, Yankeetuladi Old Growth Hardwood Forest, Cross Lake Fen, Orchard Bog, Chase Pond Lakes, and the St. Francis Floodplains. [1, p. 93]

There is no evidence suggesting that HCVF may be potentially degraded. Via the Unique Areas Program Irving has developed long-range management plans for ensuring the conservation of HCVF attributes in identified areas. [1, p. 94]

"HCVFs were originally identified in cooperation with biologists at the Maine Natural Areas Program. A report documenting the annual surveillance of all identified HCVFs on the JDI lands was reviewed at the audit. Annual monitoring has not indicated any increased risks to HCFV attributes." [4, p. 41]

5. Rare, threatened and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened and endangered species.

FSC Audit results: 6.2.a. MNAP has been assessed for company lands and provides information about the presence of species and natural communities. Additionally, JDI trains staff and contractors to identify rare, threatened and endangered species [1, p. 75]. Based on the MNAP assessment and observed sightings, several conservation zones have been set aside from active management. Most of these conservation zones function to connect viable habitat on the landscape. [1, p. 76] "The Maine Natural Areas Program biologists have done an evaluation of all JDI lands and recorded the presence or likelihood of RTE and unique communities. JDI foresters are trained to recognize the most likely RTE species. JDI staff biologist is consulted when any area is suspected of containing RTE species or a unique community. JDI staff biologist is an expert botanist and is able to recognize rare plants and natural communities of the region and develop appropriate protection measures when such resources are present." [4, p. 26]

6. Important plant communities are properly identified, and the land is managed to protect important plant communities.

FSC Audit results: Same as above. Protected areas include exemplary examples of red spruce and sugar maple stands. ... Additionally, other stands identified by the MNAP analysis were integrated into the protected areas program. [1, p. 79]

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

7. Deer wintering areas are properly identified and managed to maintain or improve their value as winter cover for deer.

FSC Audit results: All identified Deer Wintering Areas (DWA) are managed consistent with habitat objectives developed in consultation with Maine's Inland Fisheries and Wildlife Department. [1, p. 13]

Related FSC Audit results:

The 2009 audit identified several biodiversity-related non-conformances and observations. These nonconformances were closed in the 2010 annual audit report) [1, p. 43-45; 2, p. 7-9].

The 2011 audit contained the following observation: "JDI has developed an innovative approach to identifying and recruiting old and very old stands. A scorecard for rating stands that may qualify as old or very old, based on stand age and late seral characteristics such as presence of lichens and fungus. The end goal is to recruit target areas of 7% old and 3% very old forest, which is currently under-represented on the landscape. Once these targets are met, areas may be ranked for conservation value using the scorecard, and areas of lower conservation value may be moved out of late-successional protection if new areas of higher value are identified. While the processes in place for identifying old growth will likely result in additional protected areas. However, the definitions as stated in the "Policy for Maintaining Late-Successional Forests" do not exactly correspond to the new Type 1 and Type 2 old growth definitions in FSC-US standard. In particular, the policy does not contain the area requirements contained in the standard. In addition, the policy of allowing trading out of lower quality old growth stands would violate the requirement that old growth be protected. However, this finding is only an observation, since the reality of the amount of late successional forest on JDI's land is such that the target area goals have not been met, and thus no trading out is foreseeable in the near future. The auditors made the following recommendation: "Old growth definitions and protection measures should be updated, in order to guard against the possibility that newly identified areas or changes in management practices do not lead to a non-conformance." [3, p. 6-7] This observation has been closed.

The 2011 audit also contained the following observation: "JDI's "Policy for Maintaining Diversity in Harvested Areas" was reviewed for conformance to the new definition of legacy trees. The definition in the new standard identifies legacies trees as, "a tree, usually mature or remnant of old growth, that provides a biological legacy. For the purposes of this Standard, it is an individual old tree that functions as a refuge or provides other important structural habitat values." The standard requires that legacy trees are not harvested when they are present. The current policy identifies that vertical structure in the form of islands are to be maintained, and that when features such as trees containing stick nests are found, the islands should take advantage of these trees. However, this general guidance is not the same as requiring that legacy trees not be harvested when they are present. In addition, it is unclear what protection measures would be in place in harvested areas under 10 ha, and thus not requiring islands under the policy. This finding is only graded as an observation, since conversations with staff during the field tour indicated that trees meeting the definition would be protected, and no specific examples of trees meeting the definition were found in planned harvest areas. However, the policy could be updated to prevent the possibility of a non-conformance." The auditors made the following request for corrective action: "Management plans, or other appropriate documents, must ensure that legacy trees, as defined by the FSC-US Forest Management Standard, are not harvested." [3, p. 7-8] This observation has been closed.

The 2009 audit contained one observation which remains open: "The FSC NE Standard requires that the forest owner or manager places aquatic and riparian resources, including water quality, above forest product objectives within designated riparian zones of adequate

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

dimensions to assure resource protection.” The auditors made the following recommendation: “JDI could retain more basal area within stands (particularly within or adjacent to riparian zones) to increase wind firmness.” [1, p. 50; 2, p. 13-14] This observation has been closed.

The 2012 audit contains the following observation: “JDI’s current Legacy Tree definition is broader than the FSC definition, resulting in trees such as snags and nest trees being defined as Legacy Trees in addition to those meeting the FSC definition.” The audit team recommended that, “While all trees currently protected under the JDI policy are valuable stand components that warrant protection under the Indicator, a clarification and/or redefinition of “Legacy Tree” in the JDI policy would help ensure conformance with the Indicator (Finding 2012.2).” [4, p. 11]

Assessment of this criterion: The FSC audit demonstrates that JD Irving largely has attained the identified goal and outcomes for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 6: Public accountability

Goal: Demonstrate sustainable forestry and build public confidence that forest management is protecting public values for the long-term.

Outcomes:

1. The landowner will maintain independent 3rd party certification with a nationally recognized sustainable forestry management certification system without major, unresolved non-conformances on managed lands.
2. A Licensed Forester within the company will review and approve the landowner's Forest Management Plan.
3. The landowner will employ Licensed Foresters who are actively involved in the management, planning and supervision of operations on the land.
4. All timber harvesting contractors will employ at least one person possessing Certified Logging Professional or Qualified Logging Professional certifications or the equivalent.

FSC Audit results: JD Irving has obtained its FSC certification without major, unresolved non-conformances on its managed lands.

Assessment of this criterion: JD Irving has largely attained the goal and outcomes identified for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 7: Economic considerations

Goal: Optimize benefits to the local and regional economy while also achieving the goals specified for the other criteria, to the extent allowed by market conditions.

Outcome: The landowner's management activities support as vibrant and diverse a forest products industry as is practicable, including loggers, truckers, and production facilities.

FSC Audit results:

Conformance to Principle 5: Benefits from the forest

C5.1.d. Appropriate to the scale and intensity of management, the forest owner or manager reinvests in the local economy through ongoing capital investment.

Finding: Conforms. "Long-term investments have been made within the company (buildings, trucks, equipment, tools, roads, etc) and within the community. Community support is provided for schools, community events, and special activities."

C5.1.e. Management practices and silvicultural techniques lead to improvements in productivity and quality.

Finding: Conforms. "Metrics are tracked for improved productivity at the district level. Forest sites observed to be well stocked with advanced regeneration. JDI uses silvicultural techniques to improve productivity including tree improvement, planting, pre-commercial and commercial thinning."

5.2.a. Preference is given to local, financially competitive, value-added processing and manufacturing facilities.

Finding: Conforms. "A list of buyers was provided by JDI to confirm sale of materials to local facilities, including internal mills." "A customer sales list provided by Roy Bernard at the audit showed a range of sales from 4GMT for personal use to 35,000 GMT to a local mill. Local contractors are used to harvest, load and truck forest products." [4, p. 23]

5.2.b. New markets are explored and/or developed for an expanded diversity of forest products and logging by-products.

Finding: Conforms. "New markets have been developed for biomass utilization. Value added product development is actively pursued. Seeking certification is in large part driven by the effort to engage in certified wood product markets. Pulpwood, sawlogs, tie logs, and other products are also utilized." "A forest products specification sheet provided at the audit shows that a complete range of products, from high end specialty logs to pulpwood are harvested. Site visits confirm this." [4, p. 23]

5.2.c. Some sales of forest products or contracts for services are scaled or structured to allow small businesses to bid competitively.

Finding: Conforms. "Evidence of small scale services and a diversified customer list were provided for review by the team. The list confirmed the inclusion of small scale sales of forest products and contracts."

5.4.a. Forest management diversifies forest uses and products, while maintaining forest composition, structures, and functions.

Finding: Conforms. "A diversity of forest products are harvested and provided through management. These products include chips, sawlogs, studs and tissue." "Outside Sales spreadsheet provided by Roy Bernard showed that JDI sold a wide variety of products to 50+ different area mills and individuals." [4, p. 24]

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

5.4.b. Management optimizes the multiple economic benefits derived from the forest while maintaining the social and ecological standards required for certification.

Finding: Conforms. "Participation in North Maine Woods contributes to recreational tourism related economic development and business opportunities. More recently, JDI has begun to explore possible non-timber forest product opportunities." "Outside Sales spreadsheet provided by Roy Bernard showed that JDI sold a wide variety of products to 50+ different area mills and individuals." [4, p. 24]

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 8: Social considerations

Goal: The landowner supports the communities surrounding their lands and operations, and except where special circumstances dictate otherwise, the landowner continues to provide historic and traditional recreational opportunities that do not conflict with the Landowner's objectives or values.

Outcome: The landowner provides opportunities for appropriate historic and traditional recreational uses that do not conflict with the landowner's values or objectives.

FSC Audit results:

Conformance to Principle 4: Community relations and workers' rights

C4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

Finding: Conforms. "Irving does provide opportunities for employment to residents of the communities in and nearby the forest estate. There remain opportunities to further improve the tenor and substance of working relationships with contract loggers and haulers."

4.1.b. Forest owners or managers negotiate with contractors with the goal of developing relationships that are long-term and stable.

Finding: Conforms. There has been improvement in negotiations as evidenced by conversations about productivity assumptions and JDI attempts to use a "win-win" approach to their relationship with contractors to facilitate long-term relationships. However, there are opportunities for JDI to improve the manner in which it arrives at terms of engagement with its contractors in order to more truly engage in bilateral negotiations arriving at mutual benefit (see OBS 2009.4)."

4.1.c. Employment conditions (e.g., remuneration, benefits, safety equipment, training, and workman's compensation) are consistent for both local and non-local workers doing equivalent jobs.

Finding: Conforms. "There was no evidence of inconsistency for local and non-local workers, which included Irving employees and bonded contractors not employed by Irving. JDI must review the current state and terms of relations with contract loggers and truckers in order to identify and implement actions that would lead to improved contractor satisfaction with the terms of their relationships with JDI (see CAR 2009.2)." [1, p. 64]

JD Irving conforms to the remaining social and work environment criteria under Principle 4.1. A full recitation is omitted to conserve space.

Assessment of this criterion: The Corrective Action Request is closed; the FSC audit demonstrates that JD Irving has attained the identified goal and outcome for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Criterion 9: Forest Health

Goal: The forest is healthy and vigorous with no serious insect infestations or disease outbreaks.

Outcome: The landowner does what is prudent and practicable to monitor for and prevent and control insects, disease, and fire, consistent with good practice in the industry and assists the MFS in forest health monitoring programs on the ownership.

FSC Audit results:

Conformance to Principle 5 (Benefits from the forest):

5.1.c. Investment and reinvestment in forest management are sufficient to fulfill management objectives, ensure economic viability and maintain and/or restore forest health and productivity.

Finding: Conforms. "Investments in silviculture, road systems and management are made to support economic performance. Investments made to reduce budworm and other threats to forest health, including road systems to address and enable response to forest fire risks." [1, p. 69]

Conformance to Principle 6 (Environmental impact):

6.3.c.3. Prescriptions for salvage harvests balance ecological and economic considerations (see indicator 5.6.b). For example:

- Coarse woody debris is maintained.
- Den trees and snags are maintained.
- Natural background levels of 'pest' populations are allowed before pest control actions are carried out.

Finding: Conforms. "There were no large scale or observed salvages. If there were salvage then the EMS would require balancing ecological and economic considerations in the prescription." [1, p. 78]

6.3.h The forest owner or manager assesses the risk of, prioritizes, and, as warranted, develops and implements a strategy to prevent or control invasive species, including:

1. a method to determine the extent of invasive species and the degree of threat to native species and ecosystems;
2. implementation of management practices that minimize the risk of invasive establishment, growth, and spread;
3. eradication or control of established invasive populations when feasible: and,
4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species.

The 2011 audit report contained the following finding: "As described in CAR 2011.1, the current invasive species policy does not meet all the required elements of indicator 6.3.j [sic?]. This finding is listed separately since the standard references the previous indicator, and FSC procedures prohibit CARs from being issued to indicators from more than one criterion. The auditors issued a minor CAR: "The management plan shall describe invasive species conditions, applicable management objectives, and how they will be controlled (see Indicator 6.3.j [sic?])" [3, p. 10-11]

OUTCOME BASED FORESTRY - JD IRVING CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES WITH FSC AUDIT RESULTS

The 2011 audit report contained the following observation: "The audit team reviewed the "Revised Policy to Control Invasive Species on J.D. Irving, Ltd. Freehold Lands" dated August 25, 2011. This policy requires that any flora or fauna being introduced be reviewed by company managers, introduce invasive plant recognition into annual training sessions, and report occurrences of invasive species to interested regulatory bodies. In addition, a training presentation given by the ... Department of Conservation on how to identify common invasive species in Maine, such as Japanese Knotweed [sic]. Interviews with staff indicate that the current amount of invasives on JDI's land is low, probably due to the remote nature of much of the forest ecosystem in Maine.

While this policy and related training have begun the process of has identified some of the issues, it does not meet all the required elements of the new indicator covering invasive species management. In particular, the policy does not indicate how JDI will determine the extent of invasives and the threat they pose, what eradication or control efforts would take place, and how such control efforts would be monitored."

The audit team issued the following minor CAR: "JDI shall develop a strategy to prevent or control invasive species, including: ...

3. eradication or control of established invasive populations when feasible: and,
4. monitoring of control measures and management practices to assess their effectiveness in preventing or controlling invasive species [3, p. 6]"

The 2012 audit made the following finding and observation: "JDI's current strategy to assess the risk of, prioritizing, and implementing a strategy to prevent or control invasive species contains the 4 elements listed in the Indicator. An assessment of the invasive plant Phragmites was reviewed by the audit team. The assessment concluded that control of Phragmites was not feasible, but documentation for how this conclusion was reached was general in nature. The assessment was found to meet the intent of the Indicator. JDI should, however, develop a report with more explicit information on extent, costs, control alternatives, and consultation with State and regional experts to guide future assessments of invasive species (Finding 2012.3)." [4, p. 11-12]

6.6.a. Forest owners and managers demonstrate compliance with FSC Policy paper: "Chemical Pesticides in Certified Forests, Interpretation of the FSC Principles and Criteria, July 2002" available at http://www.fsc.org/en/whats_new/documents/Docs_cent/2.

Finding: Conforms. "JDI appears to be in compliance with the FSC policy paper." [1, p. 82] "Review of pesticide use showed no products on the FSC list of Highly Hazardous Pesticides being used." [4, p. 35]

6.6.b. Forest owners or managers employ silvicultural systems, integrated pest management, and strategies for controlling vegetation that minimize negative environmental effects. Non-chemical techniques are preferred in the implementation of these strategies. For example, components of silvicultural systems, integrated pest management, and strategies to control vegetation may include:

- creation and maintenance of habitat that discourages pest outbreaks;
- creation and maintenance of habitat that encourages natural predators;
- evaluation of pest populations and establishment of action thresholds;
- diversification of species composition (see Glossary) and structure;
- use of low impact mechanical methods;

OUTCOME BASED FORESTRY - JD IRVING CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES WITH FSC AUDIT RESULTS

- use of prescribed fire.

Finding: Conforms. "For planted stands, JDI uses mixed species and numerous other strategies to minimize the potential effect of budworm outbreaks. In conjunction with the state, JDI also monitors budworm population levels and trends. JDI avoids planted stands by using natural regeneration and has attempted to use sheep on many other treatments as alternatives to chemical techniques." [1, p. 82] "JDI's pesticide use is governed by an overall strategy document titled "Policies and Guidelines for Pesticide use in Forest Management". This contains policies that require consideration of safety, environmental impact, efficacy, and cost prior to use. In practice, the aerial spraying of glyphosate and the minor use of Arsenal and Oust has been determined to meet these criteria." [4, p. 35]

6.6.c. Forest owners or managers develop written strategies for the control of pests as a component of the management plan (see Criterion 7.1).

Finding: Conforms. "Written strategies are presented under Forest Health strategies section of the management plan. This section describes a variety of insects and insect traps. JDI also participates in the state's insect and disease monitoring program." [1, p. 82] "The selection of Glyphosate (and the minor usage of Arsenal and Oust) addresses the non-target species concern. Ground spraying is considered as an alternative to aerial application in cases where there are environmental or social concerns. Adequate buffer zones are employed." [4, p. 35]

6.6.d. Whenever chemicals are used, a written prescription is prepared that describes the site-specific hazards and environmental risks, and the precautions that workers will employ to avoid or minimize those hazards and risks, and includes a map of the treatment area.

Chemicals are applied only by workers who have received proper training in application methods and safety. They are made aware of the risks, wear proper safety equipment, and are trained to minimize environmental impacts on non-target species and sites.

The 2011 audit report contained the following observation: "Conformance to the indicator would be enhanced if JDI prepared comprehensive written prescriptions meeting the requirements of 6.6.d in a single document prior to chemical's being used." [3, p. 9-10]

Finding: Conforms. "JDI's pesticide use is governed by an overall strategy document titled "Policies and Guidelines for Pesticide use in Forest Management." In response to an Observation during the previous audit, these Policies and Guidelines have been amended to include site specific maps and documentation that show specific hazards, environmental risk areas and the management strategies used to avoid and/or minimize them. A site visit to an aerial herbicide site treated this year along with the associated documentation and map showed conformance. Chemicals are applied only by State-licensed personnel." [4, p. 35-36] "The applicable indicator requires that written prescription describing site-specific hazards, environmental risks, and precautions that workers will employ to avoid or minimize those hazards and risks. JDI does not prepare a standard written pesticide prescription prior to each application of pesticides. Individual areas are selected for pesticide application by based on the level of competing vegetation, as analyzed by aerial observation and field investigation. Individual maps of pesticide application areas are prepared indicating site-specific hazards such as watercourses. These maps are referenced in an herbicide plan, a spreadsheet that lists the individual applications, their locations, sizes, and the species composition of the target stand. Only a single type of pesticide and single application method is used (aerial spraying of glyphosate). Taken in total, this system meets the all the elements of the indicator, and is thus narrowly in conformance, but the system does not produce a single document that includes all elements of the prescription as envisioned by the indicator." This observation was closed in December, 2012 ("JDI revised their pesticide

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

application program to include a document that summarizes site-specific hazards and environmental risks, precautions taken to minimize those risks, and a map of the treatment area. Examples of this document were reviewed at the audit. The audit team concludes that this meets the requirements of the Observation.”). [4, p. 9]

6.6.g. (6.6.e. in 2012 audit) If chemicals are used, the effects are monitored and the results are used for adaptive management. Records are kept of pest occurrences, control measures, and incidences of worker exposure to chemicals.

Finding: Conforms. “Chemical effects are monitored by walking and flying the applications sites. Adaptive management is used based on the outcome of the application. Detailed records are maintained, including application plans and maps.” [1, p. 83] “All applications are monitored for effectiveness with one goal of minimizing the amount of pesticide required to achieve satisfactory results. Records of applications and worker exposures (none) are kept.” [4, p. 36]

C6.8. Use of biological control agents shall be documented, minimized, monitored, and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

Finding: Conforms. “JDI does not use chemicals found on the FSC’s prohibited list. GMO organisms are not deployed within the subject forest estate. Chemical use is limited in its extent of use. Overall, adequate conformity to this Criterion was confirmed.” [1, p. 84] “No biological control agents are used on JDI lands.” [4, p. 37]

Assessment of this criterion: The FSC audit demonstrates that JD Irving generally has attained the identified goal and outcomes for this criterion.

**OUTCOME BASED FORESTRY - JD IRVING
CORRELATION OF STATE CRITERIA, GOALS, AND OUTCOMES
WITH FSC AUDIT RESULTS**

Overall assessment of the criteria and indicators: The 2012 FSC audit demonstrates that JD Irving generally has attained the identified goals and outcomes for the nine criteria and associated indicators. Previous audits identified several observations and minor corrective action requests; all of these have been closed. JD Irving is expected to close any future CAR's and observations in a timely manner. There are no significant departures from the state's goals and outcomes.

4-2017

The Forestry Rules of Maine 2017: A Practical Guide for Foresters, Loggers and Woodlot Owners - 2nd Edition

Maine Forest Service
Forest Policy and Management Division

Maine Department of Agriculture, Conservation & Forestry

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The Forestry Rules of Maine 2017

A Practical Guide for Foresters, Loggers and
Woodlot Owners

2nd Edition

Maine Department of Agriculture, Conservation & Forestry
Maine Forest Service
Helping Landowners Make Informed Decisions Since 1891

The Maine Forest Service

The Maine Forest Service was established in 1891 to ensure Maine's citizens the greatest economic and social benefits from the trees and forestlands of the state.

The primary responsibilities of the Maine Forest Service include:

To develop through information, education and formal publications a greater public awareness and appreciation of forests as Maine's basic economy and renewable resource;

To provide advice and assistance in forest management to woodland owners;

To maintain and improve the scenic beauty, wildlife habitat and recreational values of Maine;

To encourage and promote appropriate forestland management practices;

To protect Maine's forests from fire, insects, diseases, and other natural enemies; and

To enforce Maine's forestry laws and rules by preventing violations, intervening with potential problems and, as a last resort, taking enforcement action.



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Cover Photo: Region II Forestry Class Harvesting in Merrill. Maine Forest Service.

A Message from the State Forester

The Maine Forest Service (MFS) enjoys a long history of protecting Maine's forests from insect and disease outbreaks, wildfires and poor forest practices, as well as providing timely information to help foster informed decisions. These various MFS activities focus on ensuring that Maine's forests are more enjoyable, productive, healthy and well managed.

One of our many responsibilities involves the administration of Maine's forestry laws and rules. These laws and rules are complex and, at times, confusing. As you can see in our regulatory philosophy set forth below, we focus our efforts on ensuring that the forestry community knows and understands these laws and rules so that they can comply with them.

Our measure of success is the very small number of timber harvests each year where we discover a violation that requires enforcement action. Maine's forestry community should be proud of its achievements in protecting Maine's forest resources – timber, wildlife habitat, water quality, and more.

We hope that you find this book useful and we welcome your suggestions for improvement.

Doug Denico

Doug Denico, Director



A NEW WAY TO VIEW THE FORESTRY RULES

Use a smart phone to scan this QR Code to access the Rulebook and the integrated links with your device

Acknowledgements

The Forestry Rules of Maine is the product of a collaborative effort between the Maine Forest Service and our partners in the forestry community. The input and direction provided by the outside review team was critical to the success of this project.

The following individuals assisted the Maine Forest Service as members of the review team:

- Dr. Jeffrey Benjamin, former Associate Professor of Forest Operations, University of Maine
- Barry Burgason, Wildlife Biologist, Huber Resources
- Ted Shina, Forester, Huber Resources
- Pat Sirois, Director, Maine's Sustainable Forestry Initiative
- Brian Souers, logging contractor, Treeline, Inc.

The following individuals from the Maine Forest Service assisted with writing *The Forestry Rules of Maine*:

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- Kevin Doran, Natural Science Educator
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- Dan Jacobs, District Forester
- Allison Kanoti, Forest Entomologist
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- Greg Miller, GIS Programmer Analyst
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Table of Contents

Introduction.....	5
State Agencies That Can Help.....	6
Harvest Planning Checklist	9
Section I. Water Quality	10
Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas (SWS).....	11
Standards for Placing Wood into Stream Channels to Enhance Cold Water Fisheries Habitat (“Chop and Drop”)	17
Maine Department of Environmental Protection (DEP) Mandatory Shoreland Zoning Act.....	20
Natural Resources Protection Act (NRPA)	26
Standards for Timber Harvesting and Timber Harvesting Related Activities within Unorganized and Deorganized Areas of the State	28
Section II. Harvest Notifications, Clearcutting, and Liquidation Harvesting Rules	39
Forest Operations Notifications (FONs).....	40
Forest Practices Act (FPA).....	43
Liquidation Harvesting (LQH).....	47
Section III. Forest Protection, Access and Boundary Lines ...	51
Slash Laws.....	52
Boundary Lines	55
Timber Theft and Trespass.....	58
Prior Approval and Stop Work Orders	60
Spark Arresters	62
Christmas Trees and Evergreen Boughs.....	64
Discontinuance of Forest Roads.....	66
Section IV. Licensing, Wood Measurement, Transportation, and Quarantines	68
Forester Licensing	69
Arborist Licensing.....	71
Wood Measurement.....	73
<i>Wood Scaler Licensing</i>	73
<i>Accurate and Verifiable Measurements</i>	75
<i>Fuel Wood Definitions</i>	78
Payment for Trees Harvested	80

Trip Tickets	81
Transportation of Forestry Equipment	83
Highway Entrance Rules for Forestry	85
Common and Undivided Land	86
Forestry Related Quarantines	87
Pesticide Application.....	91
Section V. Wildlife	94
Threatened and Endangered Species	95
Deer Wintering Areas, MFS Chapter 27	97
Nuisance Animal Control.....	99
Section VI. Tax Programs and Landowner Liability	101
Tree Growth Tax Law (TGTL)	102
Workers' Compensation and Landowner Liability	107
<i>Workers' Compensation</i>	107
<i>Landowner Liability</i>	109
Section VII. Change of Use	110
Change of Use Rules	111
<i>Chapter 20 – Forest Practices Act</i>	111
<i>Chapter 23 – Liquidation Harvesting</i>	113
<i>Chapter 26 – Forest Operations Notifications</i>	115
<i>Storm Water Management</i>	116
Section VIII. Maine Forest Service Recommendations	117
Timber Sale Contracts	118
Working with a Forester.....	120
Appendix A. Sample Trip Ticket	124
Appendix B. Acronyms and LUPC Subdistricts	125
Appendix C. Filter Strip Distances for Chapters 27 & 10....	127
Appendix D. Culvert Sizing Tables.....	128
Appendix E. Other Maine Forest Service Publications	132
Appendix F. Ranger District Map.....	133
Maine Forest Service Professional Forester	
Field Team	Back Cover

Introduction

Maine's forestry regulations are complex, and compliance with these laws and rules is important to avoid violations and to protect Maine's natural resources.

This guide provides descriptions for most of the forestry regulations in Maine. The user-friendly format is intended to help foresters, loggers and landowners navigate the regulations that pertain to timber harvesting in Maine.

The book is divided into eight sections by topic. Sections I through VII contain the state laws and rules most pertinent to timber harvesting. Section VIII is devoted to suggestions that can improve the success of foresters, loggers and landowners when harvesting timber. The book also contains a list of state agencies (pages 6-8) that can provide assistance with Maine's forestry laws and rules. Further, a harvest planning checklist can be found on page 9. This list can be used by foresters, loggers and landowners to help prepare for a timber harvest.

For additional assistance with any of Maine's forestry regulations, please **call** the Maine Forest Service at (207) 287-2791 or in-state toll free (800) 367-0223 **before you cut**.

Disclaimer

This book does NOT contain full and complete versions of any law or rule. For complete laws and rules, follow the internet links provided or contact the appropriate state agency. Complete versions of all the laws listed can also be obtained by using the Statute Search function at www.mainelegislature.org/legis/statutes/search.htm and entering the law title and section provided in this book. In addition, interpretations for many Maine Forest Service rules are located at www.maineforestservice.gov.

State Agencies That Can Help

With the Rules in This Book

Maine Forest Service

Forest Policy and Management Division

Laws and Rules Enforced

- Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas (SWS)
- Standards for Placing Wood into Stream Channels to Enhance Cold Water Fisheries Habitat (“Chop and Drop”)
- Natural Resources Protection Act (NRPA)
- Standards for Timber Harvesting and Timber Harvesting Related Activities within Unorganized and Deorganized Areas of the State (Chapter 27)
- Forest Operations Notifications (FONs)
- Forest Practices Act (FPA)
- Liquidation Harvesting (LQH)

Contact

Phone: (207) 287-2791

Email: forestinfo@maine.gov

Website: www.maineforestservice.gov

See District Forester Map on the Back Cover

Forest Protection Division

Laws and Rules Enforced

- Slash Laws
- Boundary Lines
- Timber Theft and Trespass
- Prior Approval and Stop Work Orders
- Spark Arresters
- Christmas Trees and Evergreen Boughs
- Discontinuance of Forest Roads
- Payment for Trees Harvested
- Trip Tickets

Contact

Main Phone: (207) 287-4990

Northern Region Office: (207) 435-7963

Central Region Office: (207) 827-1800

Southern Region Office: (207) 624-3700

Email: maine.forestrangers@maine.gov

Website: www.maineforestservice.gov

See Ranger District Map in Appendix F

Forest Health and Monitoring Division

Laws and Rules Enforced

- Forestry Related Quarantines

Contact

Phone: (207) 287-2431

Email: forestinfo@maine.gov

Website: www.maineforestservice.gov

Department of Environmental Protection

Laws and Rules Enforced

- Mandatory Shoreland Zoning
- Natural Resources Protection Act (NRPA)
- Storm Water Management

Contact

Main Phone: (207) 287-2111

Northern Regional Office: (207) 764-0477

Eastern Regional Office: (207) 941-4570

Southern Regional Office: (207) 822-6300

Website: www.maine.gov/dep

Department of Inland Fisheries and Wildlife

Laws and Rules Enforced

- Threatened and Endangered Species
- Deer Wintering Areas (Chapter 27)
- Nuisance Animal Control

Contact

Phone: (207) 287-8000

Website: www.maine.gov/ifw

Department of Transportation

Laws and Rules Enforced

- Highway Entrance Rules for Forestry

Contact

Phone: (207) 624-3000

Website: www.maine.gov/mdot/

Land Use Planning Commission

Laws and Rules Enforced

- Land Use Districts and Standards (Chapter 10)

Contact

Main Phone: (207) 287-2631

Ashland Regional Office: (207) 435-7963

E. Millinocket Regional Office: (207) 746-2244

Greenville Regional Office: (207) 695-2466

Downeast Regional Office: (207) 941-4052

Rangeley Regional Office: (207) 670-7493

Website: www.maine.gov/dacf/lupc/index.shtml

Maine Revenue Services, Property Tax Division

Laws and Rules Enforced

- Tree Growth Tax Law (TGTL)

Contact

Phone: (207) 624-5600

Website: www.maine.gov/revenue

Maine Workers' Compensation Board

Laws and Rules Enforced

- Workers' Compensation

Contact

Phone: (207) 287-3751

Website: www.maine.gov/wcb

Board of Pesticides Control

Laws and Rules Enforced

- Pesticide Application

Contact

Phone: (207) 287-2731

Website: www.maine.gov/dacf/php/pesticides

Harvest Planning Checklist

The checklist below is provided to help landowners, loggers and foresters navigate the state laws and rules that pertain to timber harvesting. This checklist does not cover local ordinances or federal regulations, and should only be used as a guide. To ensure compliance with local ordinances, always check with the code enforcement officer in organized towns prior to beginning harvest operations.

1. Are the boundary lines of the parcel accurately marked prior to harvest? If No, see page 55.
2. Has a Forest Operations Notification (a.k.a. Intent to Harvest form) been completed and mailed to the Maine Department of Agriculture, Conservation and Forestry prior to harvest? If No, see page 40.
3. Will harvesting be within 250 feet of any water body? If Yes and in an organized town, see pages 11 and 20. If Yes and in an unorganized or deorganized town, see page 28.
4. Will a permanent water crossing be needed to access the harvest area? If Yes and in an organized town, see pages 11 and 26. If Yes and in an unorganized or deorganized town, see page 28.
5. Is the property enrolled in the Tree Growth Tax program? If Yes, see page 102.
6. Does the landowner own less than 100 acres in the state of Maine? If Yes, skip 7 and 8 below.
7. Has the landowner owned this property for less than five years? If Yes, see page 47.
8. Will the harvest contain any clearcuts? If Yes, see page 43.
9. Are there any state listed threatened or endangered species or critical habitats in the proposed harvest area? If Yes, see page 95.

Section I. Water Quality



Photo: Maine Forest Service

Recent Changes to Maine's Water Quality Regulations

The regulations that pertain to water quality vary by town. One of the following regulations will apply when you work near water bodies: the Mandatory Shoreland Zoning Act (MSZA), Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas (SWS), or Maine Forest Service Rule Chapter 27. While Chapter 27 applies in unorganized and deorganized areas of the state, the MSZA and SWS apply in organized towns. Some towns have adopted SWS and the remaining towns have kept the MSZA. Check with your town or use the "town list" web link on page 11 to determine which rules apply.

Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas (SWS)

Introduction

This rule regulates timber harvesting and related activities near and adjacent to water bodies in many organized towns. The enforcement of this rule is done by the Maine Forest Service (MFS), often in cooperation with the individual towns.



Photo: Maine Forest Service

Proper Name of the Rule

Maine Forest Service – Chapter 21
Statewide Standards for Timber Harvesting and Related Activities in
Shoreland Areas

Where Does This Rule Apply?

Many of the organized towns in Maine have adopted these rules. The current list of towns can be found at www.maine.gov/dacf/mfs/policy_management/water_resources/sws/sws.html

When Does This Rule Apply?

When harvesting timber near streams, lakes, ponds or wetlands, or when building logging roads near or across streams, lakes, ponds, or wetlands. *These rules do not apply to clearing land for development.*

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/dacf/mfs/policy_management/water_resources/sws/sws.html

Brief Overview

A. Key definitions:

1. Stream Channel: Has defined banks, a lack of terrestrial vegetation or a bed, and is connected to other water bodies.
2. Great Pond: Any natural inland body of water greater than 10 acres or any man-made body of water greater than 30 acres.

B. SWS for timber harvesting apply to the following areas:

1. Adjacent to all streams, and most ponds and wetlands, **shoreline integrity must be protected.**
2. Within 75 feet of streams that drain between 300 acres and 25 square miles (see Figures 1 and 2).
3. Within 250 feet of many lakes, ponds, rivers, streams, and non-forested wetlands as well as all tidal waters (see Figures 1 and 2).

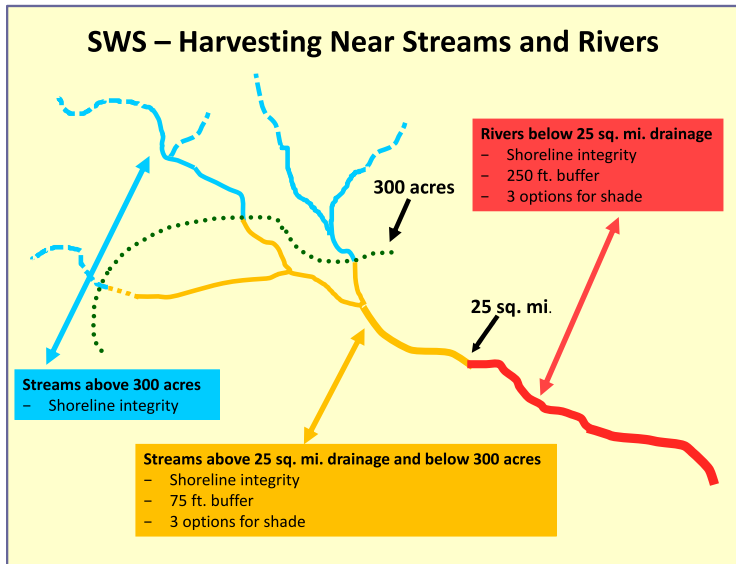


Figure 1: Harvesting rule summary by drainage area for towns that have adopted Statewide Standards.

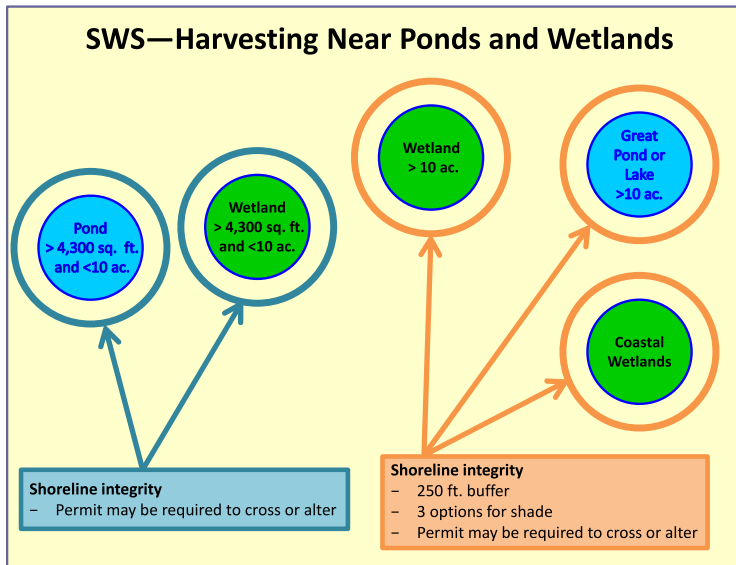


Figure 2: Harvesting rule summary for ponds and wetlands for towns that have adopted Statewide Standards.

Diagrams are for informational purposes only. In case of discrepancy the written rule shall govern.

C. Restrictions on timber harvesting and related activities in the shoreland zone:

1. In areas with 75 foot buffer zones:
 - a. “40% Option”: Harvesting no more than 40% of the total volume of trees 4.5 inches DBH or greater in any 10 year period; **or**
 - b. “BA Option”: The residual stand must contain an average basal area of at least 60 square feet per acre of woody vegetation, 40 square feet per acre must be greater than or equal to 4.5 inches DBH; **or**
 - c. “Outcome Based Option”: An alternative method, signed by a licensed forester or certified wildlife biologist may be proposed to the Maine Forest Service.
 - d. A well-distributed and windfirm stand of trees must be maintained.
 - e. There must be no cleared openings.
2. In areas with 250 foot buffer zones:
 - a. The “40% Option”; **or**
 - b. The “BA Option”; **or**
 - c. The “Outcome Based Option.”
 - d. A well-distributed and windfirm stand of trees must be maintained.
 - e. No cleared openings within 75 feet of the normal high water mark. At distances greater than 75 feet, the maximum opening size is 14,000 square feet. Openings greater than 10,000 square feet must be at least 100 feet apart.

3. Slash must not be left within 50 feet of the normal high water line of most ponds, streams, wetlands, and all tidal waters.

D. Road building in the shoreland zone: Roads require minimum setbacks that increase with slope.

1. 25 feet from the normal high water line of streams draining less than 300 acres and ponds or non-forested wetlands between 1/10 acre and 10 acres.
2. 50 feet from the normal high water line of streams draining between 300 acres and 25 square miles.
3. 100 feet from the normal high water line of a great pond, rivers draining more than 25 square miles, non-forested freshwater wetlands 10 acres or larger, any tidal water, and any pond or freshwater wetland identified by Maine Inland Fisheries & Wildlife as significant or essential wildlife habitat.

E. Water crossings:

1. All water crossings:
 - a. Natural stream flow and fish passage must be maintained.
 - b. Temporary crossing structures must be removed when the harvest is complete and exposed soil must be stabilized.
 - c. Temporary bridges and culverts may be smaller than required under E.2.b. and E.3.b. if the natural course of water flow is maintained and sedimentation is avoided.
 - d. Streams must not be used as travel routes unless frozen and undisturbed.

2. Skid trail crossings:
 - a. Sedimentation of surface waters must be avoided.
 - b. Bridges and culverts must be used where rivers and streams drain more than 25 square miles. They must be sized to have a capacity of 3.0 times the cross sectional area of the stream (see tables in Appendix D).
 - c. Temporary crossings may be smaller.
3. Land management road crossings:
 - a. Sedimentation of surface waters must be avoided.
 - b. Permanent crossings must be sized to have a capacity of 3.0 times the cross sectional area of the stream if maintained and 3.5 times the cross sectional area if not maintained (see tables in Appendix D).
 - c. The crossing of freshwater wetlands must be avoided.
4. Permanent water crossings require a permit. Contact the Maine Forest Service for direction on the application process. Applications can be found at http://www.maine.gov/dacf/mfs/policy_management/water_resources/downloads/mfs_pbr_fillable.pdf.

F. **Drainage point maps for individual towns are located at:**
www.maine.gov/dacf/mfs/policy_management/water_resources/sws/sws_maps.html

Standards for Placing Wood into Stream Channels to Enhance Cold Water Fisheries Habitat (“Chop and Drop”)

Introduction

This rule streamlines the process for implementing cold water fisheries enhancement projects that involve adding wood to stream channels. It applies to treatments where wood will be placed below the bankfull elevation and that rely on the size of the wood for stability.



Photo: Maine Forest Service

Proper Name of the Rule

Maine Forest Service – Chapter 25

Standards for Placing Wood into Stream Channels to Enhance Cold Water Fisheries Habitat

Where Does This Rule Apply?

Statewide in designated reaches.

When Does This Rule Apply?

When implementing cold water fisheries habitat enhancement projects that involve the placement of wood into streams.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_25_rules.pdf

Brief Overview

- A. This rule applies to treatments where wood will be placed below the bankfull elevation of streams to enhance fisheries habitat. These treatments rely on the size of wood for stability. Wood may not be artificially anchored under this rule.
- B. Wood addition projects must be supervised by a licensed forester that has completed training in wood addition techniques approved by MFS or the Maine Department of Inland Fisheries and Wildlife (IF&W).
- C. Wood addition treatments done under this rule are only allowed in stream reaches designated by IF&W or the Maine Department of Marine Resources (DMR).
 - 1. Designated reaches must have a treatment plan prepared or approved by an IF&W or DMR biologist.
 - 2. The MFS will maintain a list of designated reaches.

- D. Wood placement standards include the following:
1. Species, diameter and length requirements for **key pieces**.
 2. Maximum wood loading rates.
 3. Wood orientation and placement guidance.
- E. Wood addition treatments must include measures to avoid sedimentation and bank disturbance, and must protect downstream infrastructure.
- F. **Forest Operations Notifications (FONs)**: Refer to the Chapter 26 rule for the FON requirements that pertain to this rule.

Maine Department of Environmental Protection (DEP) Mandatory Shoreland Zoning Act

Introduction

This law regulates timber harvesting and related activities near and adjacent to water bodies in many organized towns. The enforcement of this law is done by the individual towns and DEP.

Proper Name of the Law

Title 38 Sections 435 to 449. Mandatory Shoreland Zoning Act

Where Does This Law Apply?

In organized towns that have **not** adopted the Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas (SWS).

When Does This Law Apply?

When undertaking any activity on or adjacent to rivers, streams, lakes, ponds and wetlands.

What Agency Can Provide Assistance With This Law?

Contact the Maine Department of Environmental Protection at www.maine.gov/dep or (207) 287-2111.

Where is the Complete Law Located?

www.maine.gov/dep/land/slz/#state

Brief Overview

- A. The Mandatory Shoreland Zoning Act and the Department of Environmental Protection Rule - Chapter 1000 sets the minimum standards for regulating timber harvesting and related activities in the shoreland zone in many organized towns. This law and rule is included in the municipal zoning ordinance of towns that have not adopted SWS. Because municipalities can adopt more restrictive standards than those set in this law and rule, **shoreland zoning requirements are not the same in every town.**

B. Key definitions for Shoreland Zoning and the Natural Resources Protection Act:

1. Protected Natural Resource: Coastal sand dunes, coastal wetlands, fragile mountain areas, freshwater wetlands, great ponds, rivers, streams, brooks, significant wildlife habitat, and public water systems.
2. Coastal Sand Dune Systems: Sand and gravel deposits within a marine beach system including, but not limited to, beach berms, frontal dunes, dune ridges, back dunes, and other sand areas deposited by wave or wind action.
3. Coastal Wetland: All tidal and subtidal lands; all areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous lowland that is subject to tidal action.
4. Fragile Mountain Area: Areas above 2,700 feet in elevation from mean sea level.
5. Great Pond: Any natural inland body of water greater than 10 acres and any man-made body of water greater than 30 acres.
6. River, Stream or Brook: A channel between defined banks that is created by the action of surface water. It has two or more of the following characteristics:
 - a. It is depicted as a solid or dashed blue line on the most recent U.S. Geological Survey 7.5-minute or 15-minute series topographic map.
 - b. In most years, it contains flowing water continuously for a period of at least six months.
 - c. The channel bed is primarily composed of mineral material such as sand and gravel, parent material or bedrock that has been deposited or scoured by water.

- d. The channel contains aquatic animals such as fish, aquatic insects or mollusks.
 - e. The channel contains aquatic vegetation and is essentially devoid of upland vegetation.
 - f. “Rivers, streams or brooks” do not include drainage ditches or grass swales.
7. Significant Wildlife Habitat: The following resources as mapped by the Department of Inland Fisheries and Wildlife:
- a. Vernal pools.
 - b. Waterfowl and wading bird habitat, including nesting and feeding areas.
 - c. Shorebird nesting, feeding and staging areas.
 - d. Deer wintering areas and travel corridors.
 - e. Sea bird nesting islands.
 - f. Critical spawning areas for Atlantic salmon.

C. Areas typically regulated by Shoreland Zoning (see Figure 3):

- 1. Within 250 feet of the following:
 - a. Great ponds (natural ponds greater than 10 acres).
 - b. Rivers (below the 25 square mile drainage point).
 - c. Tidal waters and coastal wetlands.
 - d. Non-forested freshwater wetlands greater than 10 acres (these areas are often zoned as “Resource Protection,” “Limited Residential” or “General Development”).
- 2. Within 75 feet of streams below the outlet of a great pond, or below the juncture of two 1st order streams (these areas are typically designated as “Stream Protection”).

3. Key points:

- a. Towns may choose to zone additional areas.
- b. All towns must have a Shoreland Zoning map available to the public.
- c. Looking at the town Shoreland Zoning map is the only way to be certain how a particular area is zoned.

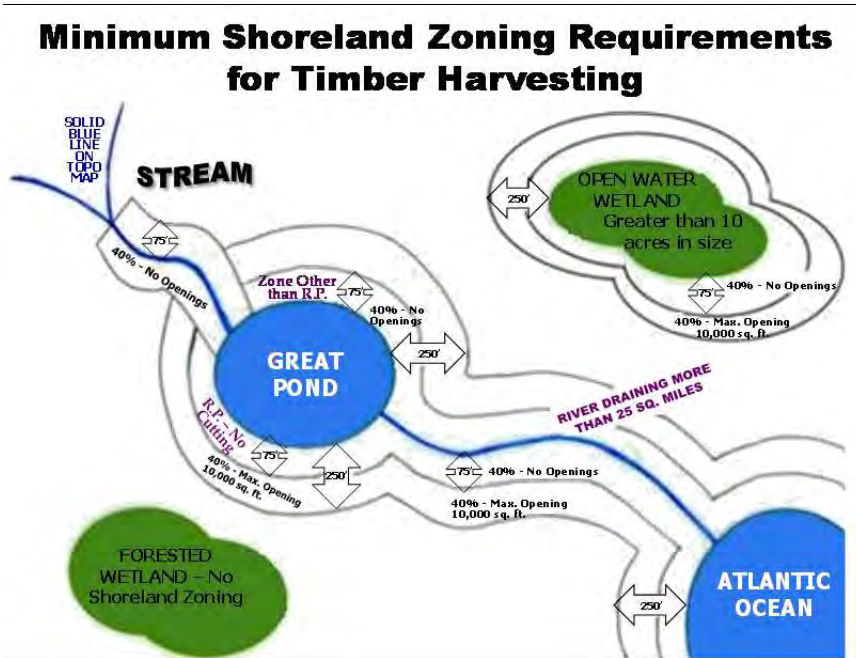


Figure 3: Shoreland zoning requirements including zone width. Diagram provided by DEP.

D. Restrictions on timber harvesting and related activities.

Timber harvesting is allowed in most shoreland areas, though there are several restrictions. **Timber harvesting does not include clearing land for development.** The following standards pertain only to timber harvesting and related activities:

1. For great ponds in areas zoned as Resource Protection, there is **no timber harvesting** within 75 feet of the water (except to remove safety hazards). Towns may adopt an ordinance that allows up to 30% of the volume of trees to be removed in any 10 year period, if marked by a licensed forester and removed during frozen ground conditions. In such cases, a permit from the planning board is required.
2. In all shoreland areas, with the exception of Resource Protection areas identified in D.1. above, **no more than 40% of the volume** may be cut in any 10 year period. Town planning boards may issue permits to exceed 40% if it is necessary for sound forest management.
3. No **cleared openings** are allowed within 100 feet of a great pond or river flowing to a great pond, or within 75 feet of other affected water bodies and wetlands.
4. Beyond these distances noted in D.3. above, no openings may be greater than 10,000 square feet. Openings greater than 5,000 square feet must be at least 100 feet apart.
5. Slash must be removed from water bodies, and no accumulation of slash may be left within 50 feet of any water body under Shoreland Zoning. Slash in all shoreland areas must be lower than four feet above the ground.
6. Streams may not be used as travel routes (unless frozen and undisturbed).
7. Stream crossings of flowing water in any Shoreland Zone require a bridge or culvert, unless there is a hard stream bottom and firm banks that will not be disturbed.

8. Skid trail approaches to water crossings must not carry runoff directly to the water body.
9. Temporary crossing structures shall be removed within seven months of installation and areas of exposed soil shall be revegetated.
10. All equipment shall operate in a way that prevents the **exposure of mineral soil** within 75 feet (or more on sloping ground) of most water bodies.

E. Restrictions on road building in Shoreland Areas:

1. **Road building requires a permit from the town's planning board.** No roads may be built in shoreland areas zoned as Resource Protection unless they access other permitted uses, or there is no reasonable alternative. Any permitted roads must be set back at least 100 feet from great ponds, and 75 feet from other water bodies and wetlands under shoreland zoning.
2. Permanent water crossings and water crossings for land management roads are regulated under the Natural Resources Protection Act (see pages 26 and 27).

Natural Resources Protection Act (NRPA)

Introduction

This law regulates forestry and related activities in and adjacent to certain wetlands, water bodies, sand dunes, significant wildlife habitats, and fragile mountain areas.



Photo: Maine Forest Service

Proper Name of the Law

Title 38 Sections 480-A to 480-HH. The Natural Resources Protection Act

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When performing earth disturbing activities in or adjacent to Protected Natural Resources (see page 21 for definition).

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Law Located?

www.maine.gov/dep/land/nrpa/index.html

Brief Overview

- A. **NRPA rules apply to the following areas:** Within a 75 foot buffer surrounding Protected Natural Resources. Protected Natural Resources include coastal sand dunes, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, public water systems, great ponds, rivers, streams, and brooks.
- B. **A permit is not required** for temporary stream crossings that do not use fill. Temporary means in place less than seven months.
- C. **Activities that may require a permit:**
 - 1. Any activity, including timber harvesting, within a Protected Natural Resource.
 - 2. Installation or alteration of a permanent stream crossing.
 - 3. Any earth disturbing activity within the buffer of a Protected Natural Resource.
 - 4. For permits in both organized and unorganized towns, contact the Maine Forest Service. Permit by Rule applications can be found at http://www.maine.gov/dacf/mfs/policy_management/water_resources/downloads/mfs_pbr_fillable.pdf.

Standards for Timber Harvesting and Timber Harvesting Related Activities within Unorganized and Deorganized Areas of the State

Introduction

The two rules that regulate timber harvesting in the unorganized and deorganized areas of the state are MFS Chapter 27 and LUPC Chapter 10. Prior to 2013, similar rules fell under the jurisdiction of LURC.



Proper Name of the Rules

Maine Forest Service – Chapter 27

Standards for Timber Harvesting and Timber Harvesting Related Activities within Unorganized and Deorganized Areas of the State

Maine Land Use Planning Commission’s Rules and Standards – Chapter 10

Land Use Districts and Standards

Where Do These Rules Apply?

Unorganized and deorganized areas of the state.

When Do These Rules Apply?

When harvesting timber, building or upgrading land management roads, installing water crossings, or extracting gravel.

What Agency Can Provide Assistance with These Rules?

The agency that administers these rules depends on the land use subdistrict and the activity.

The Maine Forest Service regulates forestry and related activities in all Management and most Protection subdistricts. The standards can be found in MFS Rule Chapter 27 or contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

The Land Use Planning Commission regulates forestry and related activities in Development Subdistricts and Development Areas within P-RP subdistricts. The standards can be found in LUPC Chapter 10 or contact LUPC at www.maine.gov/dacf/lupc/index.shtml or (207) 287-2631.

Maps showing the location of subdistricts by township are located at: www.maine.gov/dacf/lupc/plans_maps_data/zoning_maps/index.shtml
See sample Land Use Guidance Map (Figure 4) on page 38.

Where are the Complete Rules Located?

MFS Chapter 27

www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_27_rules.pdf

LUPC Chapter 10

www.maine.gov/dacf/lupc/laws_rules/ch10.html

Brief Overview

Permit Requirements by Subdistrict and Activity

Subdistrict	ACTIVITY		
	Harvesting and Skid Trail Crossings	Roads and Crossings	Gravel Pits < 5 acres
P-SL1	S27	M	P
P-SL2	S27	S27	P
P-GP	S27	M	M
P-WL	S27	P	S27
P-FW	F	F	M
P-RR	P	P	P
P-MA	M	M	N
P-FP	S27	M	M
P-RP	S27	S27	AP
P-RT	M	M	P
P-SG	M	M	M
P-AL	S27	M	M
P-AR	S27	M	M
P-UA	M	M	M
D-RS	L	L	N
D-RF	L	L	N
D-PD	L	P	AP
D-GN	L	L	N
D-PR	L	L	AP
D-CI	L	L	L
D-MT	N	N	N
M-GN	S27	S27	S27
M-HP	S27	S27	S27
M-NC	S27	S27	S27
A list of the full subdistrict names can be found in Appendix B on page 126.			

Key to Codes			
S27	Chapter 27 Standards	P	Permit in Some Cases
M	MFS Permit	L	LUPC permit
F	Consult with IF&W	AP	Refer to LUPC Approved Plan
N	Not Allowed		

Table 1: Permit requirements by subdistrict and activity.

Permits Applications and Variance Petitions

For activities requiring a permit, variance, or supplemental paperwork from Maine Forest Service, use the link http://www.maine.gov/dacf/mfs/rules_regs/chap_27.html

For LUPC application forms, use the link https://www1.maine.gov/dacf/lupc/application_forms/application_list.shtml

Timber Harvesting and Skid Trail Crossings

A. Permits:

1. A permit is required from MFS for timber harvesting in P-MA, P-SG, P-RT, and P-UA subdistricts. In many cases, a permit is required to harvest timber in P-RR subdistricts. Skid trail crossings of all flowing waters in P-RR and P-RT subdistricts also require a permit from MFS (see Table 1).
2. Operating in a P-FW requires consultation with IF&W and may require a permit from MFS. Refer to the complete Chapter 27 rules for more information.
3. Timber harvesting requires a permit from the LUPC in most Development Subdistricts. However, timber harvesting is not allowed in D-MT subdistricts.
4. Timber harvesting that does not require a permit may be subject to the standards (or requirements) set in Chapter 27 and Chapter 10.

B. Requirements (or standards) that apply to timber harvesting in Protection Subdistricts (where a permit is not needed):

1. **Crossing a PSL-1:** Skid trail crossings require a bridge or culvert unless the surface is frozen.

2. **Timber harvesting in a P-SL1 or P-GP:**
 - a. No clearcutting within 50 feet of the high water mark.
 - b. From 50 feet to 250 feet, no single openings greater than 14,000 square feet. Openings greater than 10,000 square feet must be 100 or more feet apart.
 - c. Harvesting cannot remove more than 40% of the volume in any 10 year period of trees greater than 6 inches DBH.
 - d. No accumulation of slash is allowed within 50 feet of the normal high water mark. At distances greater than 50 feet, slash must be less than 4 feet in height.
3. **Crossing a P-SL2:** Skid trails must cross stream channels by the shortest possible route unless the channel is frozen or a bridge or culvert is used.
4. **Timber harvesting in a P-SL2** (with drainage areas greater than 300 acres): Sufficient vegetation must be retained to provide shade on the watercourse.
5. **Timber harvesting in a P-WL:** Timber harvesting is allowed within all P-WL subdistricts, but sedimentation of surface waters must be avoided.
6. **All Protection Subdistricts:**
 - a. Timber harvesting must avoid sedimentation of surface waters.
 - b. Unscarified filter strips are required between the high water mark and all areas of exposed soil.
 - c. No slash is allowed below the high water mark in most cases.

Road and Water Crossing Requirements

A. Permitting:

1. Land management roads and water crossings for roads require a permit from the MFS in the following subdistricts and zones:
 - a. P-SL1, P-GP, P-AL, P-AR, P-FP, P-MA, P-RT, P-SG and P-UA subdistricts.
 - b. Federal Emergency Management Agency (FEMA) zones A, AE, A1-30 and VE.
 - c. A permit from MFS may be required for road work in P-WL and P-RR subdistricts.
2. Land management roads require a permit from the LUPC in the following Development Subdistricts: D-CI, D-ES, D-GN, D-RS, D-PR and D-RF. Land management roads are not allowed in some Development Subdistricts.
3. Land management roads and water crossings that do not require a permit may be subject to the standards set in Chapter 27 and Chapter 10.

B. Standards that apply in P-WL, P-SL, P-FP and P-GP subdistricts and all Development Subdistricts:

1. Construction and maintenance of roads:
 - a. Areas of exposed mineral soil outside roadbed within 75 feet of water must be stabilized to prevent sedimentation.
 - b. Road banks must have a slope of 2:1.
 - c. Unscarified filter strips (see Appendix C – Table 2) must be used to prevent road surface drainage from directly entering into water bodies.
 - d. Drainage ditches for roads approaching water crossings must empty into unscarified filter strips.

2. Water crossings of unfrozen waters:
 - a. Bridges and culverts must be sized 2.5 times the cross-sectional area of the stream channel (see Appendix D – Tables 4 and 6).
 - b. Culverts utilized in water crossings must:
 - 1) Be installed at or below stream bed elevation.
 - 2) Have soil compacted halfway up the sides.
 - 3) Be covered by a minimum of one foot of soil.
 - 4) Have an inlet headwall stabilized by riprap.
3. Land management roads through wetlands must:
 - a. Avoid wetland crossings whenever possible.
 - b. Maintain existing hydrology of wetlands by:
 - 1) Installing adequate cross drainage.
 - 2) Using culverts or porous layers in road fill.
 - 3) Using free draining granular material when cross drainage structures are not used.
4. Road discontinuance requirements (for closing roads):
 - a. Install waterbars.
 - b. For water crossings:
 - 1) Size the crossing to 3.5 times the cross-sectional area of stream channel (see Appendix D – Tables 5 and 6); **or**
 - 2) Remove the structure to avoid sedimentation of the water body.

5. Trail crossings of minor flowing waters:
 - a. Trail crossings of minor flowing waters are exempt from the water crossing standards described above provided they:
 - 1) Reasonably avoid sedimentation.
 - 2) Cause no disturbance to the stream bed.
 - 3) Cause no substantial disturbance to the banks.
 - 4) Do not impede the flow of water or the passage of fish.
 - b. Trail crossings that are not exempted are subject to water crossing standards for roads.

Gravel Extraction Less than Five Acres in Size

A. Permits and general restrictions:

1. Permits are required from MFS for gravel pits in the following:
 - a. P-AL, P-AR, P-FP, P-FW, P-GP, P-SG and P-UA subdistricts.
 - b. In some cases, P-RR and P-RT subdistricts.
 - c. Gravel pits between two acres and five acres in size in P-SL subdistricts require a permit from the MFS.
 - d. FEMA zones A, AE, A1-30 and VE.
 - e. Gravel pits are not permitted in Protection Subdistricts not listed above.
2. Unless otherwise indicated, gravel pits may not exceed five acres in size.

3. Gravel pits must not exceed one acre in size in P-FW and P-WL subdistricts.
4. Refer to the LUPC Chapter 10 Rules for gravel extraction in development subdistricts.

B. Standards for gravel extraction in all subdistricts:

1. The following vegetative buffer strip widths are required between the disturbed area and the specified water resource:
 - a. 75 feet of the normal high water line of any body of standing water less than 10 acres in size, any flowing water draining less than 50 square miles, tidal water, or wetlands identified as a P-WL1 subdistrict.
 - b. 100 feet of the normal high water line of any body of standing water 10 acres or greater in size or flowing water draining 50 square miles or more.
2. Disturbed soil must be greater than 250 feet from any public roadway, or from any property line without written agreement of the owner.
3. Within 250 feet of any water body, the extraction area must be protected from soil erosion.
4. A natural vegetative screen at least 50 feet wide must be retained at any facility intended primarily for public use.
5. Within 250 feet of a property line, public road, or public facility, discontinued gravel pits must be graded to a 2:1 slope or flatter.

C. In addition to the previous requirements, gravel extraction in P-AL, P-RR and P-RT subdistricts established to protect flowing waters must:

1. Not be visible from the water.
2. Avoid the use of these subdistricts whenever possible.
3. Not exceed two acres in size in P-RR and P-RT subdistricts.

D. For gravel extraction for road purposes in P-FW subdistricts, the landowner or designated agent must confer with an IF&W biologist to develop a plan for the proposed activity.

Gravel Extraction Greater than Five Acres in Size

The LUPC has enforcement authority for gravel pits greater than 5 acres. Refer to the LUPC Chapter 10 rules to determine which Management and Protection Subdistricts allow gravel pits greater than 5 acres in size, and whether the use is allowed by standards or requires a permit.

Variances in Protection and Management Subdistricts

For proposed activities that do not meet the standards or permit requirements, the landowner or landowner's agent can apply to MFS for a variance.

Sample Land Use Guidance Map Portion of T11R11 WELS

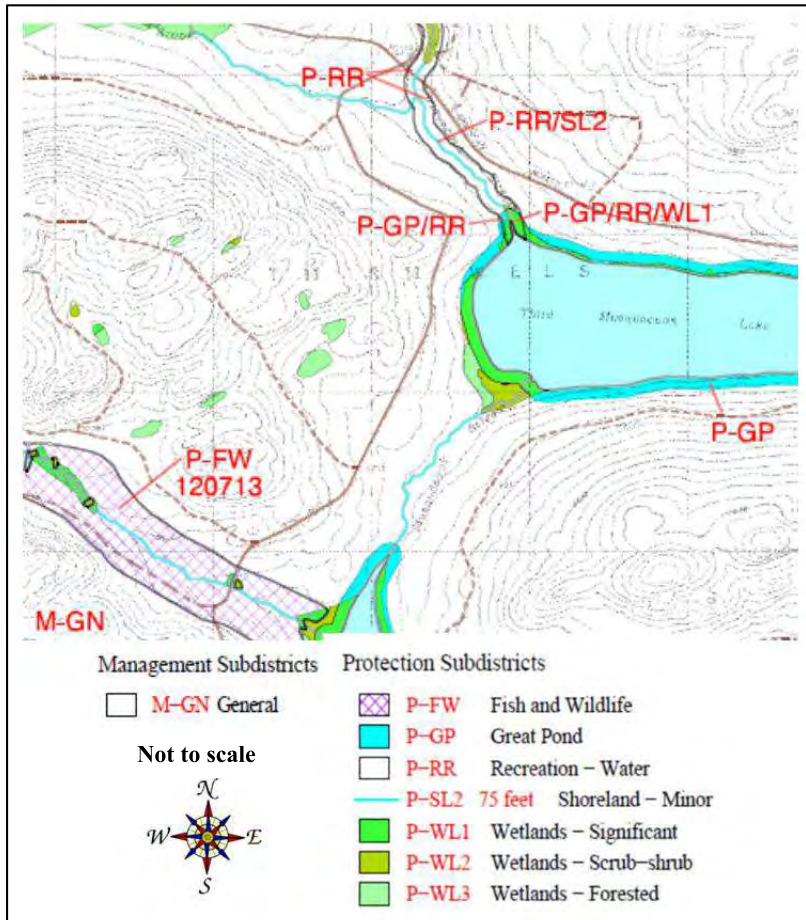


Figure 4. Sample Land Use Guidance Map.

Section II. Harvest Notifications, Clearcutting, and Liquidation Harvesting Rules



Photo: Maine Forest Service

Forest Operations Notifications (FONs)

Introduction

This rule establishes the procedures for notifying the Department of Agriculture, Conservation and Forestry of proposed timber harvesting activities.



Proper Name of the Rule

Maine Forest Service – Chapter 26
Forest Operations Notification Standards

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

Unless specifically exempted, this rule applies to all timber harvests.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

<http://www.maine.gov/sos/cec/rules/01/669/669c026.docx>

Brief Overview

A. Notification form and process:

1. Prior to conducting a timber harvest, the landowner or designated agent must submit a Forest Operations Notification (FON) to MFS.
2. All parties named must sign the FON.
3. See the complete rule for the exemption pertaining to landowners that employ licensed foresters.

B. Notification requirements for Category 3 clearcuts (greater than 75 acres): :

1. The FON must be sent to MFS 60 days prior to commencing the timber harvest.
2. A harvest plan (as specified in the Chapter 20 Rule) must be submitted with the FON.
3. A meeting on site, between the MFS and the landowner, is required within the 60 day "waiting period".
4. The MFS must approve or disapprove the FON and harvest plan within 10 days of the site visit.

C. Notification requirements for landowners participating in Chapter 25 (“Chop and Drop”):

Prior to implementing a wood addition project, a licensed forester must submit a FON to MFS. The FON must include the following additional information:

1. A map of the treatment area.
2. A copy of the treatment plan prepared by IF&W or DMR. Treatment plans for streams in Atlantic salmon areas require a signature from DMR.

D. FON requirements for individuals certified in erosion control practices by DEP:

Refer to the Chapter 26 information on page 115 in the Change of Use Section.

E. Exemptions from the FON requirement:

1. Removal of single trees or small groups of trees from residential yards.
2. Hazard tree removal, right of way and driveway clearance, and lot clearance for home construction on areas less than two acres.
3. Timber harvests where the forest products are for personal use by the landowner.
4. Timber harvests less than 2 acres, completed within a 12 month period, and performed by the landowner (found in the law, not in Chapter 26).

F. Landowner/agent requirements after submitting a FON:

1. FON numbers must be posted at or near the principal yard or landing, or at the boundary line for parcels accessed by private roads.
2. FON numbers must remain posted until the harvest is complete.

Forest Practices Act (FPA)

Introduction

This rule regulates the size, arrangement, regeneration and management of clearcuts.



Photo: Maine Forest Service

Proper Name of the Rule

Maine Forest Service – Chapter 20
Forest Regeneration & Clearcutting Standards – Forest Practices Act

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When timber is harvested and sold.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/sos/cec/rules/04/058/058c020.doc

Brief Overview

A. Key definitions:

1. Acceptable Growing Stock: Live trees with the potential to produce commercial forest products, and that meet the following criteria:
 - a. Trees must have survived two or more growing seasons.
 - b. Trees do not lean more than 30 degrees from vertical.
 - c. Trees do not have a broken, dead or missing main stem.
 - d. Trees greater than 8 inches DBH do not have damage greater than 50% of stem circumference.
 - e. Trees less than 8 inches DBH do not have damage greater than 33% of stem circumference.
 - f. Trees do not have greater than 1/3 visible damage to root spread.
2. Commercially Valuable Species: Any tree species except grey birch, flowering dogwood, willow, pin cherry, striped maple, and mountain maple.
3. Clearcut: A harvest area that is greater than 5 acres and has a residual basal area of less than 30 square feet per acre.
4. Overstory Removal: A harvest that is not a clearcut but removes the overstory trees and is stocked with advanced regeneration. It must contain at least 450 trees per acre of softwoods that are at least 3 feet tall and/or hardwoods that are at least 5 feet tall. The residual trees must be well distributed.
5. Separation Zone: The area that surrounds and separates clearcuts. The separation zone must be forestland. It may

contain forested wetland and logging trails, but not non-forested areas or roads.

B. Forest Operations Notifications (FONs): Refer to the Chapter 26 section for the FON requirements that pertain to this rule.

C. Clearcutting standards:

1. There are three categories, based on size, for clearcuts:
Category 1 = 5-20 acres, Category 2 = 21-75 acres, and
Category 3 = 76-250 acres.
2. The maximum size allowed for a clearcut is 250 acres.
3. Separation zone (buffer) requirements for clearcuts:
 - a. Category 1 (5-20 acres) clearcuts must be separated from other clearcuts by a 250 foot wide strip of non-clearcut forestland. The separation zone must meet one of the following requirements:
 - 1) It must contain at least 30 square feet of basal area of trees greater than 4.5 inches DBH. The residual trees must be well distributed.
 - 2) It must contain at least 450 trees per acre of softwoods that are at least 3 feet tall and/or hardwoods that are at least 5 feet tall. The residual trees must be well distributed.
 - b. Category 2 (21-75 acres) and Category 3 (76-250 acres) clearcuts must be surrounded by a separation zone that is at least 250 feet wide and equal in size to the area of the clearcut. The separation zone must meet one of the following requirements:
 - 1) It must contain at least 60 square feet of basal area of trees greater than 1.0 inch DBH. At least 40 square feet of basal area must be greater than 4.5 inches DBH. The residual trees must be well distributed.

- 2) It must contain at least 300 trees per acre of softwoods that are at least 10 feet tall and/or hardwoods that are at least 20 feet tall. The residual trees must be well distributed.
4. Separation zones must be maintained until one of the following conditions is met:
 - a. The clearcut is regenerated with at least 300 trees per acre of softwoods that are at least 10 feet tall and/or hardwoods that are at least 20 feet tall.
 - b. 10 years has elapsed since the clearcut was completed.
5. Category 2 (21-75 acres) and Category 3 (76-250 acres) clearcuts require a harvest plan prepared by a licensed forester prior to harvesting. See the complete Chapter 20 rules for the harvest plan requirements.
6. The additional notification (FON) requirements for Category 3 (76-250 acres) clearcuts can be found in the Chapter 26 rules.

D. Exemptions to clearcutting standards:

1. Landowners who own 100 acres or less (all land types) statewide.
2. Land that will be changed from forestry to non-forestry use. The change of use must be completed within two years.

E. Regeneration of clearcuts: All clearcuts must be regenerated within 5 years after the harvest is completed to 450 stems per acre of acceptable growing stock. There are no exemptions to the regeneration requirements.

F. A landowner can petition the MFS for a variance to harvest in a manner inconsistent with these rules. The burden of proof is on the landowner to demonstrate that the harvest cannot comply due to specific conditions and that the public interest is otherwise served.

Liquidation Harvesting (LQH)

Introduction

This rule establishes standards for timber harvesting on lands that are sold or offered for sale within five years of the date of purchase of the parcel. It also specifies exemptions from these rules.



Photo: Maine Forest Service

Proper Name of the Rule

Maine Forest Service – Chapter 23

Timber Harvesting Standards to Substantially Eliminate Liquidation Harvesting

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When woodlots are purchased and harvested, and sold or offered for sale within five years of acquisition.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/sos/cec/rules/04/058/058c023.doc

Brief Overview

A. Key definitions:

1. Liquidation Harvesting: The purchase of timberland followed by a harvest that removes most or all of the commercially valuable forest products with no regard for long-term forest management; followed by the sale or attempted sale of the property within five years of its acquisition.
2. Timberland (or Forestland): Land primarily covered with trees, and where timber harvesting is not precluded by law.

B. The effective date of this rule is January 2, 2005.

C. Exemptions from the rule:

1. The property was purchased before the rule went into effect or has been owned for more than five years.
2. The land being sold has received independent third party certification.
3. The land is being managed by a Certified Resource Manager who is following the requirements of the certification program.
4. The area is being harvested by a Certified Master Logger and is 1,000 acres or less.
5. The landowner owns 100 acres or less of forestland statewide.

6. Before the harvest starts, the landowner has received all the required permits to convert the land to a non-forest use. These permits must be submitted with the Forest Operations Notification. **There are additional limitations to this exemption. Refer to the complete rule.**
 7. The parcel being harvested has less than 20 acres of forestland.
 8. The parcel is a bona fide gift or inherited from a family member.
 9. The parcel or any portion of the parcel is taken by eminent domain.
 10. The parcel is partitioned as a result of breaking up a common and undivided ownership.
 11. The parcel or a portion of the parcel is sold for bona fide roads or rights of way.
 12. The wood is harvested for personal use by the landowner.
- D. **Compliance options:** If one of the twelve exemptions does not apply, there are four options for compliance:
1. **Option 1:** Less than 50% of the volume of trees greater than 4.5 inches DBH is harvested. The harvest must not remove only the most valuable trees (high grading) and existing regeneration must be protected.
 2. **Option 2:** The harvest is 100 acres or less, and the landowner employs a licensed forester or uses a logging contractor, either of whom has been trained and accredited by the Maine Forest Service.

3. **Option 3:** A harvest plan that demonstrates the silvicultural need must be prepared prior to harvesting. The plan requires very specific information, a justification for the proposed harvest, and must be kept on file by the landowner for seven years. See the complete rule for the plan requirements.
 4. **Option 4:** The landowner demonstrates that unforeseen economic circumstances arose after the harvest and the property must be sold within five years of purchase. Written authorization is required from the Maine Forest Service and this option can only be used for one parcel in any five year period.
- E. **All parties involved with a liquidation harvest can be held responsible for violating the rule.** This may include the forester, logger, landowner, and designated agent.

Section III. Forest Protection, Access and Boundary Lines



Photo: Maine Forest Service

Slash Laws

Introduction

The following laws pertain to the proper disposal of slash and the required “set back” in designated areas.



Photo: Maine Forest Service

Proper Name of the Law

Title 12 Sections 9331 to 9335. Disposal of Slash

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When conducting forest management activities or road construction and maintenance.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Brief Overview

A. Slash definition (Section 9331):

1. Slash is defined as branches, bark, tops, wood chunks, cull logs, uprooted stumps and broken trees left on the ground as a result of logging, land clearance or road construction.
2. The complete law is located at:
www.mainelegislature.org/legis/statutes/12/title12sec9331.html

B. Disposal along highways or public roads (Section 9332):

1. Slash with a diameter of less than 3 inches is not permitted within 50 feet of public roads. Slash greater than 3 inches in diameter, and not removed, must be limbed and in ground contact.
2. The complete law is located at:
www.mainelegislature.org/legis/statutes/12/title12sec9332.html

C. Disposal along railroads and power lines (Section 9333):

1. Slash is not permitted within 25 feet of railroads or utility lines.
2. The complete law is located at:
www.mainelegislature.org/legis/statutes/12/title12sec9333.html

D. Disposal near property lines (Section 9334):

1. When the slash is determined to be a fire hazard, it is not permitted within 25 feet of a property line.
2. The complete law is located at:
www.mainelegislature.org/legis/statutes/12/title12sec9334.html

E. Disposal near dwellings (Section 9335):

1. When the slash is determined to be a fire hazard, it is not permitted within 100 feet of a building used for human occupancy.
2. The complete law is located at:
www.mainelegislature.org/legis/statutes/12/title12sec9335.html

Boundary Lines

Introduction

This law pertains to the marking and cutting of boundary line trees when harvesting timber. In most cases, boundary lines must be marked prior to harvesting timber.



Photo: Maine Forest Service

Proper Name of the Law

Title 17 Section 2511. Harvesting Timber Near Property Line

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When harvesting in close proximity to boundary lines.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

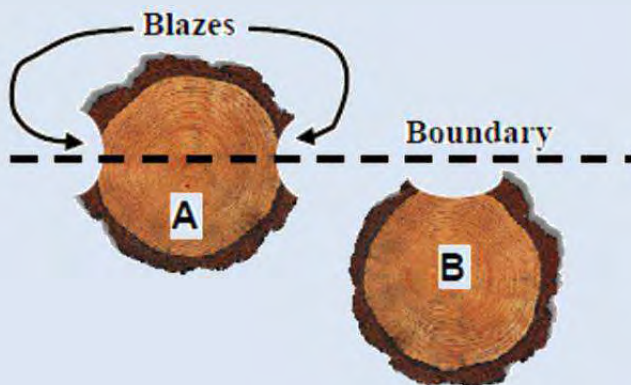
Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/17/title17sec2511.html

Brief Overview

- A. **A landowner (or landowner representative) shall clearly mark any established property lines within 200 feet of the area to be harvested.** The marking must be completed prior to the start of the timber harvest and must be clearly visible. Trees may be marked with blazes and paint, paint alone, or with flagging. There are four exemptions to this law. For private woodland owners, the most applicable exemption is likely for harvesting on parcels less than five acres.
- B. **“Established property line”** means a line demarcated by monuments, signs, markings, pins, reference points or other markers that denote a change in ownership between abutting properties. The markers must have been placed upon mutual agreement of the abutting landowners, based on historical physical evidence of a preexisting boundary line, or established by a licensed professional surveyor.
- C. **Cutting of line trees:** A line tree (a tree located on a boundary line that has been blazed or painted) cannot be cut without first obtaining permission from the abutting landowner. For more information on boundary lines, see Figure 5 and refer to MFS Information Sheet #4 at www.maine.gov/dacf/mfs/publications/information_sheets.html

Commonly Used Painting and Blazing System for Boundary Lines



1. If the boundary line passes through the middle of a tree, blaze and paint on both sides of that tree where the line passes through it (Tree A).
2. Where the line passes adjacent to the tree, blaze and paint one point only, immediately adjacent to the line (Tree B).
3. Be sure to blaze and paint both sides of the line so that it can be seen from either side. This will help prevent accidental trespass.

Taken from MFS Information Sheet #4

Figure 5: Commonly used painting and blazing system for boundary lines.

Timber Theft and Trespass

Introduction

The following laws pertain to timber trespass and timber theft. In other words, these laws apply to harvesting timber without the owner's permission.

Proper Name of the Laws

Title 17 Section 2510. Unlawful Cutting of Trees

Title 17-A Section 353. Theft by Unauthorized Taking or Transfer

Where Do These Laws Apply?

Statewide.

When Do These Laws Apply?

When timber is harvested, either accidentally or intentionally, without the owner's permission.

What Agency Can Provide Assistance With These Laws?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Brief Overview

Unlawful Cutting of Trees

- A. Cutting down (or harvesting) trees without the owner's permission is a civil violation that may result in the payment of restitution to the owner plus fines payable to the state of Maine. The forfeiture values provided in Title 17 Section 2510 may be adjudged for each tree over 2 inches in diameter. In most cases, stump diameter is used.
- B. A person commits a civil violation, even if they did not personally cut down or fell the tree, if they are legally accountable for the conduct of the person that did.

C. Exemptions:

1. Department of Transportation employees performing certain duties.
2. Public utilities in emergency situations.
3. Municipal employees or agents acting in the course and scope of their employment.

D. The complete law is located at:

www.mainelegislature.org/legis/statutes/17/title17sec2510.html

Theft by Unauthorized Taking or Transfer

- A. Theft occurs when a person obtains or exercises unauthorized control over property with the intent to deprive another person of that property.
- B. At a minimum, theft is considered a Class E crime.
- C. **The complete law is located at:**
www.mainelegislature.org/legis/statutes/17-A/title17-Asec353.html

Prior Approval and Stop Work Orders

Introduction

This rule establishes the Maine Forest Service (MFS) approval process for anyone convicted of *Unlawful Cutting of Trees* two or more times in the past five years. In addition, it establishes the justification and process for the issuance of stop work orders.



Photo: Maine Forest Service

Proper Name of the Rule

Maine Forest Service – Chapter 30
Prior Approval Process and Stop Work Orders

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When timber is harvested by anyone convicted of *Unlawful Cutting of Trees* two or more times in the past five years.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov, or (207) 287-4990.

Where is the Complete Rule Located?

www.maine.gov/sos/cec/rules/01/669/669c030.docx

Brief Overview

- A. Prior to harvesting timber, anyone convicted of *Unlawful Cutting of Trees* two or more times in the past five years must:
1. Ensure that a Forest Operations Notification (FON) is submitted 30 days prior to starting the harvest operation.
 2. With the FON, submit a contract stating that any violations are the contractor's responsibility.
 3. Obtain written approval from the Bureau of Forestry before commencing the harvest operation.
 4. Purchase a \$500,000 (minimum) performance bond to guarantee that contract conditions are met.
- B. A MFS Forest Ranger may issue a stop-work order when anyone subject to this rule fails to comply with the contract conditions or violates the following laws:
1. Title 17 Section 2510. Unlawful Cutting of Trees
 2. Title 17 Section 2511. Harvesting Timber Near a Property Line
 3. Title 17 Section 2512. Failure to Pay for Trees Harvested
 4. Title 17-A Chapter 15. Theft

When a stop-work order is issued, forest operations and wood transportation must cease immediately. The order will remain in effect until released by the Director of the Bureau of Forestry.

Spark Arresters

Introduction

This law requires the use of spark arresters on certain types of forestry and logging equipment.



Photo: Maine Forest Service

Proper Name of the Law

Title 12 Section 9601. Spark Arresters

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When operating any vehicle, tool or equipment with an internal combustion engine within 1,000 feet of any forestland.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/12/title12sec9601.html

Brief Overview

All power driven equipment, with an internal combustion engine, must have a USDA approved spark arrester if operated within 1,000 feet of any forested land. **NOTE: Spark arresters are not required for turbo charged equipment or boat motors.**

Christmas Trees and Evergreen Boughs

Introduction

This law pertains to the cutting and transportation of Christmas trees and evergreen boughs.



Photo: Maine Forest Service

Proper Name of the Law

Title 12 Section 8842-A. Owner's Permission Required

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When cutting Christmas trees and evergreen boughs on land of another, and during the transportation of the trees and boughs.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/12/title12sec8842-A.html

Brief Overview

It is unlawful to cut Christmas trees or evergreen boughs (tips) on land of another without written permission or a bill of sale from the owner. Written permission is also required when transporting these products.

Discontinuance of Forest Roads

Introduction

This law pertains to the blockage or obstruction of forest management roads.



Photo: Maine Forest Service

Proper Name of the Law:

Title 12 Section 9602. Obstruction of Discontinued Road Prohibited

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When the use of a forest management road is discontinued.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/12/title12sec9602.html

Brief Overview

Unless authorized by the director of the Maine Forest Service, no person shall obstruct any forest management road that may be reasonably utilized for preventing or suppressing forest fires. This law does not prohibit a landowner from his right to close such roads with chains or gates.

Section IV. Licensing, Wood Measurement, Transportation, and Quarantines



Photo: Great Northern Paper

Forester Licensing

Introduction

This law establishes the licensing requirement to practice forestry in Maine.



Recommendation from the Maine Forest Service

The Maine Forest Service highly recommends landowners work with a licensed professional forester for forest management and timber harvesting activities.

Proper Name of the Law

Title 32 Sections 5501 to 5516. Forester Licensing

Where Does This Law Apply?

Statewide.

What Agency Can Provide Assistance With This Law?

Contact the Board of Licensure of Professional Foresters at (207) 624-8521.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/32/title32sec5501.html

Brief Overview

- A. **A license is required to practice forestry in Maine.**
- B. **Forester** means a person licensed to practice forestry.
- C. **Forestry** means services requiring the application of forestry principles and techniques including, but not limited to, investigation, consultations, timber inventory, development of forest management plans, responsible supervision of forest management, forest utilization, appraisal of severed or unsevered timber, forest economics or other forestry activities as carried out in connection with any public or private lands.
- D. **Forestry** does not include services for the cutting, hauling, handling, scaling, or processing of forest products.

Arborist Licensing

Introduction

This law establishes the licensing requirement for arborists or professionals working with shade and ornamental trees.



Proper Name of the Law

Title 7 Sections 2173, 2174, and 2179. License Required (Section 2179)

Where Does This Law Apply?

Statewide.

What Agency Can Provide Assistance With This Law?

Contact the Division of Animal and Plant Health at (207) 287-3891.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/7/title7sec2179.html

Brief Overview

- A. **A license is required to advertise or engage in the business of an arborist.**
- B. **Arborist** means a person who takes down (or fells), diagnoses the condition of, or supervises the treatment of shade or ornamental trees for compensation.
- C. **Shade tree** means a tree grown or used to screen people, grounds, or structures from wind, sun, or sound.
- D. **Ornamental tree** means a tree with shade or landscape value.
- E. **Exemptions from licensing:**
 - 1. Landowners working on their own property.
 - 2. State, county, or municipal employees conducting regular duties.
 - 3. Public utility employees conducting regular duties.
 - 4. Foresters, pathologists and entomologists performing diagnostic or advisory services.
 - 5. Highway contractors performing construction and maintenance work.

Wood Measurement

Wood Scaler Licensing

Introduction

The following law and rule establishes the licensing requirements and compliance standards for wood scalers.



Photo: Great Northern Paper.

Proper Name of the Law and Rule

Title 10 Section 2365-A. Licensing of Measuring and Scaling Operators

Department of Agriculture, Conservation and Forestry, Division of
Quality Assurance and Regulations Rule –
Chapter 385: Licensing of Wood Scalers

Where Does This Law and Rule Apply?

Statewide.

What Agency Can Provide Assistance With This Law and Rule?

Contact the Division of Quality Assurance and Regulations at www.maine.gov/dacf/qar/index.shtml or (207) 287-3841.

Where are the Complete Law and Rule Located?

Licensing of Measuring and Scaling Operators

www.mainelegislature.org/legis/statutes/10/title10sec2365-A.html

Wood Measurement Rule

www.maine.gov/sos/cec/rules/01/001/001c385.doc

Brief Overview

The licensing law gives the state sealer authority to license wood scalers and to issue wood measurement rules. The licensing rule establishes the procedures for licensing scalers and for ensuring compliance with the licensing requirements. In short, no person may scale or measure for wood transactions without obtaining a wood scaler license.

Accurate and Verifiable Measurements

Introduction

This law requires that the method of scaling or measurement used in wood transactions is accurate and verifiable. The Wood Measurement Rules govern all wood transactions in which measurement forms the basis of payment. However, these rules do not apply to the measurement of firewood in consumer transactions.

Proper Name of the Law and Rule

Title 10 Section 2364-A. Accurate and Verifiable Measurements

Department of Agriculture, Conservation and Forestry, Division of Quality Assurance and Regulations Rule –
Chapter 380 to 384: Wood Measurement Rules

Where Does This Law and Rule Apply?

Statewide.

What Agency Can Provide Assistance With This Law and Rule?

Contact the Division of Quality Assurance and Regulations at www.maine.gov/dacf/qar/index.shtml or (207) 287-3841.

Where are the Complete Law and Rule Located?

Accurate and Verifiable Measurements
www.mainelegislature.org/legis/statutes/10/title10sec2364-A.html

Wood Measurement Rules

www.maine.gov/sos/cec/rules/01/001/001c380.doc

Brief Overview

- A. The Wood Measurement Rules govern all wood transactions in which measurement forms the basis of payment.
- B. For measurement purposes, the state sealer recognizes two types of wood transactions: payment for services in the harvesting and hauling of wood, and sales involving the transfer of title to wood. The purchase of stumpage is a sale transaction provided that the purchaser acquires title to the wood and full rights of marketability.
- C. **Key definitions:**
 - 1. **Payment for Services:** Payment made for services in or incidental to harvesting, hauling, or chipping wood. It does not involve the transfer of title to the wood.
 - 2. **Sale of Wood:** A transaction involving the transfer of title to wood.
- D. **General provisions for payment for services:**
 - 1. When payment is made for harvesting or hauling services, all wood shall be measured in full with no deductions from gross scale.
 - 2. Written cutting and hauling specifications shall be provided to the person providing wood harvesting or hauling services and shall be signed by the person requiring the service (see Chapter 381, Section 4 for details).
 - 3. The person requiring the services shall measure the wood and furnish the service provider a completed measurement tally sheet within 15 days of harvesting or hauling. The requirements for tally sheets are found in Section 2 of Chapter 383.

E. Conversion between measurements systems is only allowed under the following circumstances:

1. There is an absolute conversion factor (for example, cubic feet to cubic meters).
2. The conversion is for inventory not payment purposes.
3. A descriptive term represents a standard unit of measure.

F. In a wood sale, the party responsible for measuring the wood will measure and provide a completed measurement tally sheet to the other party within 15 days of delivery to the purchaser. The requirements for tally sheets are found in Section 2 of Chapter 383.

G. Complaints of inaccurately measured wood must be filed with the State Sealer within 15 days of discovery. Violations of the Wood Measurement Law or the Wood Measurement Rules are a civil offense that may result in significant fines.

Fuel Wood Definitions

Introduction

This law establishes the standards for the measure of fuel wood.



Photo: Maine Forest Service

Proper Name of the Law

Title 10 Section 2302. Definitions

Where Does the Law Apply?

Statewide.

What Agency Can Provide Assistance With This Law?

Contact the Division of Quality Assurance and Regulations at www.maine.gov/dacf/qar/index.shtml or (207) 287-3841.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/10/title10sec2302.html

Brief Overview

The following units of measure are accepted for fuel wood transactions in Maine:

- A. **Standard cord** is the cubic foot measurement of 4 foot long wood stacked 4 feet high and 8 feet long (or its equivalent). The stack contains 128 cubic feet of wood, bark and air space.
- B. **Loose cord** is a unit of measure used for fuel wood sold loose and not ranked and well stowed. The volume of a loose cord is the amount of wood, bark and air contained in a space of:
 - 1. 180 cubic feet for a cord of 12 or 16 inch length wood.
 - 2. 195 cubic feet for a cord of 24 inch length wood.
- C. **Face cord** is a unit of measure 4 feet high and 8 feet long, or its equivalent, containing 32 square feet of surface area. The length of sticks shall be agreed upon by both parties.

Payment for Trees Harvested

Introduction

This law regulates stumpage payments to landowners and requires certain information be provided to them following delivery of forest products to a handling or processing facility.

Proper Name of the Law

Title 17 Section 2512. Failure to Pay for Trees Harvested

Where Does the Law Apply?

Statewide.

When Does the Law Apply?

When timber is harvested and forest products have been delivered to a handling or processing facility.

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/17/title17sec2512.html

Brief Overview

Unless otherwise agreed upon in a contract, timber harvesters shall pay the landowner, in full, within 45 days of delivering the harvested forest products to the handling or processing facility. Copies of wood measurement sheets must also be provided to the landowner for each truckload of forest products delivered.

Trip Tickets

Introduction

This law pertains to trip tickets and the information required on them when transporting wood to mills, wood yards, or other places of purchase.



Photo: Kevin Brannen

Proper Name of the Law

Title 10 Section 2364-B. Transportation of Wood

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When transporting wood from a harvest site to any mill, wood yard, or other place of purchase. **This law does not apply to consumer transactions of firewood or when transporting wood after its first measurement.**

What Agency Can Provide Assistance With This Law?

Contact the Maine Forest Service, Forest Protection Division at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-4990.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/10/title10sec2364-B.html

Brief Overview

Each truck load of wood transported to a mill or other place of purchase must be accompanied by a trip ticket (see Appendix A). The trip ticket must include the following information:

- A. Date the wood is hauled.
- B. Landowner name.
- C. Town of origin.
- D. Harvest notification (FON) number.
- E. Contractor name.
- F. Cutting crew name.
- G. Name of hauler.
- H. Destination of wood, both town and customer.
- I. Signature of truck driver.

Note: No trip ticket is required when transporting wood after its first measurement or for consumer firewood sales.

Transportation of Forestry Equipment

Introduction

The following laws regulate the operation of forestry equipment on paved and public roads.

Proper Name of the Laws

Title 29-A Section 1924. Chains on Skidders

Title 29-A Section 1752. Motor Vehicles Exempt from Inspection, Woods Tractor

Where Do These Laws Apply?

Statewide.

When Do These Laws Apply?

When forestry equipment is moved to and from job sites on public roads.

What Agency Can Provide Assistance With These Laws?

Contact the Maine State Police or local law enforcement.

Where are the Complete Laws Located?

Chains on Skidders

www.mainelegislature.org/legis/statutes/29-A/title29-Asec1924.html

Motor Vehicles Exempt from Inspection, Woods Tractor

www.mainelegislature.org/legis/statutes/29-A/title29-Asec1752.html

Brief Overview

Chains on Skidders

Chains attached to the tires or wheels of a skidder must be removed prior to operation on paved roads.

Woods Tractor Exemption

The following applies to motor vehicles converted for use as tractors for logging:

- A. They are exempt from registration.
- B. They can operate only during daylight hours within a 10 mile radius of the premises where they are customarily kept, and only between these premises and the following:
 - 1. A woodlot used for logging purposes by the owner.
 - 2. A filling station or garage for fuel and repairs.
- C. They must have a partial annual inspection.

Highway Entrance Rules for Forestry

Introduction

This rule sets basic safety standards for public and private access onto state and state aid highways outside the urban compact areas. It also establishes a permit by rule (PBR) process for forest management and farming access.

Proper Name of the Rule

Maine Department of Transportation – Chapter 299
Highway and Driveway Entrance Rules

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When creating access to state or state aid highways for forestry activities.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Department of Transportation (MDOT) at www.maine.gov/mdot/, maine.dot@maine.gov or (207) 624-3000.

Where is the Complete Rule Located?

www.maine.gov/sos/cec/rules/17/chaps17.htm

Brief Overview

A permit is required prior to constructing access for forestry operations onto state or state aid highways. A simplified permit by rule process is in place for forest management and farming activities. The permit by rule application can be found at www.maine.gov/mdot/traffic/docs/accessmgmt/appenf7.pdf.

Forestry and farming access must also meet the basic safety standards for sight distance, driveway width, corner clearance, turnaround areas, drainage, and intersection angles. The specifics of each safety standard are found in the complete rule.

If a change of use from forestry or farming is planned, a permit must be obtained (for the access) from MDOT prior to the change.

Common and Undivided Land

Introduction

This law pertains to land ownership where the property is not physically or legally divided into individual parcels for each owner.

Proper Name of Law:

Title 14 Section 7505. No Waste by Part Owner Without Notice

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When a timber harvest or related activity is planned and implemented on a common and undivided parcel.

Who Can Provide Assistance With This Law?

Anyone seeking legal advice about property law should consult a private lawyer.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/14/title14sec7505.html

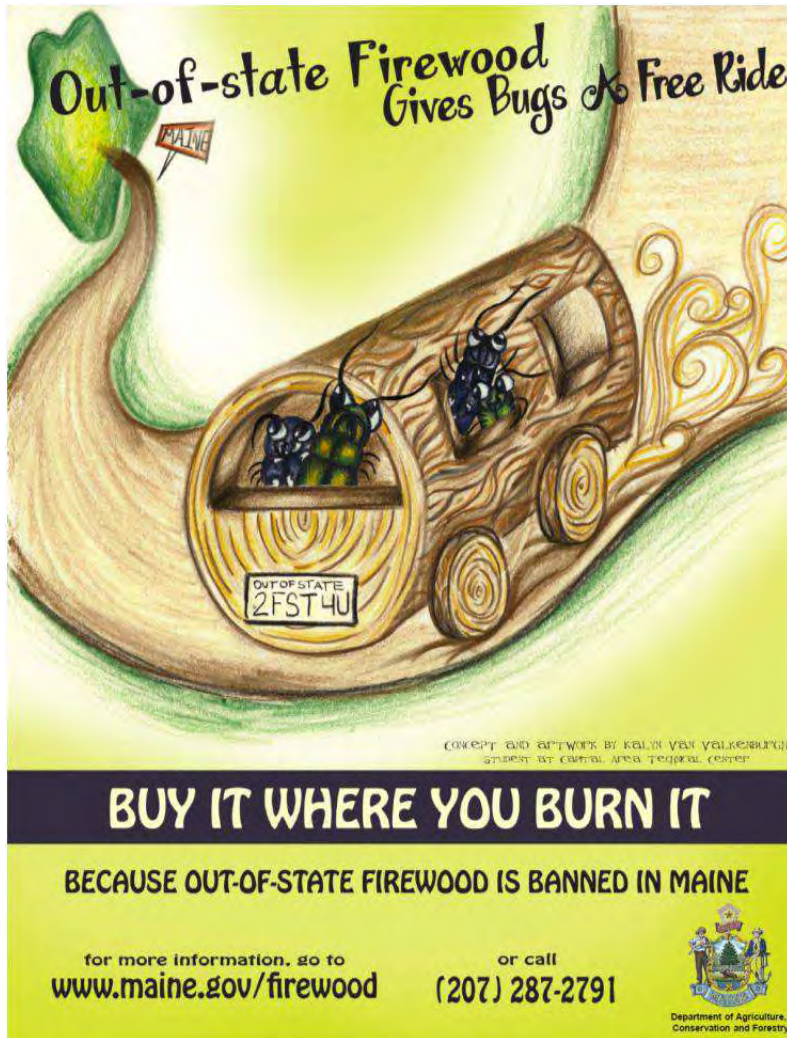
Brief Overview

Written notice must be provided to all common owners (or their agent) of undivided land for the following: cutting trees, harvesting timber, removing anything of value, or making physical improvements. The notice must be provided at least 30 days in advance of commencing the activity. All owners must receive their share (based on percentage of common ownership) of any timber sale income.

Forestry Related Quarantines

Introduction

Forestry-related quarantines in Maine regulate the movement of raw forest products including, but not limited to, logs and chips. Quarantines are enacted to protect forests not yet affected by specific forest pests.



Proper Name of the Rules

Department of Agriculture, Conservation and Forestry

Division of Animal and Plant Health Rule –
Chapter 266: Hemlock Woolly Adelgid Quarantine

Division of Plant Industry Rules –
Chapter 268: Pine Shoot Beetle Quarantine
Chapter 271: Gypsy Moth Quarantine
Chapter 272: European Larch Canker Quarantine

Maine Forest Service –
Chapter 1: White Pine Blister Rust, Quarantine on Currant and
Gooseberry Bushes

Where Do These Rules Apply?

Statewide.

When Do These Rules Apply?

When forest products originating in regulated areas (places where regulated pests are known to occur) are transported outside regulated areas. Further, the rules sometimes even apply to products traversing unregulated areas.

What Agency Can Provide Assistance With These Rules?

For movement within Maine, gypsy moth permits, the hemlock woolly adelgid quarantine, and the *Ribes* quarantine, contact either:

The Maine Forest Service, Forest Health and Monitoring at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2431.

The Animal and Plant Health, State Plant Resource Officer at www.maine.gov/dacf/php/index.shtml or (207) 287-3891.

For movement between states and out of the country:

Contact the USDA Animal and Plant Health Inspection at (207) 848-0001.

Where are the Complete Rules Located?

Summary of the quarantines in Maine

www.maine.gov/dacf/mfs/forest_health/quarantine_information.html

Federal plant pests

www.aphis.usda.gov/plant_health/plant_pest_info/index.shtml

Federal quarantines in Canada

www.inspection.gc.ca/plants/plant-protection/pests/regulated-pests/eng/1363317115207/1363317187811

Brief Overview

Maine's forestry related quarantines slow the movement of exotic pests through our forest resource. They also protect forests in other areas from pests already in Maine. There may be restrictions or conditions on movement of forest products from areas regulated for a pest (see Figure 6). Maine is partially regulated for European larch canker, gypsy moth, hemlock woolly adelgid and pine shoot beetle. In addition, there is a quarantine on plants in the genus *Ribes*. *Ribes* is a host of the fungus that causes white pine blister rust.

There are also federal quarantines on pests not yet found in Maine, but of concern because of their potential to impact our trees and forests. These include, but are not limited to, emerald ash borer, Asian longhorned beetle and brown spruce longhorned beetle.

Note on gypsy moth permits: Products harvested and then stored exclusively in areas outside of the gypsy moth quarantine zone can be moved to Canada under a state-issued gypsy moth permit. Permits are available from the state entomologist. For more information contact the Maine Forest Service, Forest Health and Monitoring Division.

Pesticide Application

Introduction

These rules establish standards to protect surface water and to minimize spray drift during pesticide application.



Proper Name of the Rule

Board of Pesticides Control – Chapter 22
Standards for Outdoor Application of Pesticides by Powered Equipment
in Order to Minimize Off-Target Deposition

Board of Pesticides Control – Chapter 29
Standards for Water Quality Protection

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

These rules regulate the application of pesticides with powered equipment and the application of pesticides near surface water.

What Agency Can Provide Assistance With This Rule?

Contact the Board of Pesticides Control at www.maine.gov/dacf/php/pesticides or (207) 287-2731.

Where is the Complete Rule Located?

<http://www.maine.gov/dacf/php/pesticides/laws.shtml>

Brief Overview

- A. The following is a brief summary of Chapter 22:
1. These regulations apply to the outdoor application of pesticides with powered equipment.
 2. Spray application shall not be undertaken when weather conditions favor drift onto Sensitive Areas.
 3. Pesticide application shall not occur when wind speed is greater than 15 miles per hour.
 4. The applicator must identify and record the existence of any Sensitive Area within 500 feet of the target area.
 5. Pesticide application must be done in a manner that minimizes exposure to humans, livestock, and domestic animals.
 6. For aerial application of pesticides, the person contracting shall provide the applicator with a site plan. See the complete Chapter 22 rule for details.
 7. Buffer zones must be employed for aerial applications adjacent to Sensitive Areas Likely to Be Occupied.

8. Aerial application of pesticides within 1000 feet of a Sensitive Area Likely to Be Occupied must be done when the wind speed is between 2 and 10 miles per hour.

B. The following is a brief summary of Chapter 29:

1. Mixing and loading of pesticides is not allowed within 50 feet of the high water mark of any surface water. See the complete Chapter 29 rule for the exemptions.
2. The broadcast application of pesticides is not allowed within 25 feet of the high water mark of any lake, pond, river, stream, wetland, or marine water. See the complete Chapter 29 rule for the exemptions.

C. **Key definitions:**

1. Sensitive Area: Apiaries, all drinking water sources, streams, brooks, rivers, ponds, lakes, estuaries, marine waters, wetlands, and areas used for agriculture.
2. Sensitive Areas Likely to Be Occupied: Residential buildings, school buildings, commercial buildings, and maintained recreational areas.
3. For the complete list of definitions, see the Board of Pesticides Control Rules – Chapter 10.

D. **Tip:** For more information on pesticide labeling, use, and applicator licensing, visit the Board of Pesticides Control website at www.maine.gov/dacf/php/pesticides/public .

Section V. Wildlife



Photo: Gordon Mott

Threatened and Endangered Species

Introduction

The Maine Endangered Species Act prohibits the intentional taking of a species listed as endangered or threatened. Under Inland Fisheries and Wildlife's Endangered Species rule, forest management and related activities are prohibited within Essential Habitat without approval from the Commissioner.

Proper Name of the Law and Rule

Title 12 Sections 12801 and 12809. Endangered Species Act

Department of Inland Fisheries and Wildlife Rule – Chapter 8:
Endangered Species

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When timber harvesting or related activities may result in the direct mortality (taking) of a listed species or may impact Essential Habitat.

What Agencies Can Provide Assistance With This Law?

To identify areas that may contain listed species or Essential Habitats contact the Maine Natural Areas Program (MNAP) at www.maine.gov/dacf/mnap/index.html or (207) 287-8044.

For assistance with harvesting and managing in areas that may contain endangered species contact the Maine Department of Inland Fisheries and Wildlife at www.maine.gov/ifw or (207) 287-8000.

A list of Maine's threatened and endangered species is located at www.maine.gov/ifw/wildlife/endangered/listed_species_me.htm

Where are the Complete Law and Rule Located?

Maine Endangered Species Act

www.mainelegislature.org/legis/statutes/12/title12sec12801.html

Maine Endangered Species Rule

<http://www.maine.gov/sos/cec/rules/09/chaps09.htm>

Brief Overview

Maine's endangered species regulations protect wildlife listed as endangered or threatened, as well as Essential Habitat for listed species. Contact the Maine Department of Inland Fisheries & Wildlife (IF&W) before harvesting timber in areas that may contain listed species or Essential Habitat.

Be aware, wildlife species not listed in Maine may be protected by the Federal Endangered Species Act (ESA) or other federal laws. Under the ESA, the "taking" of a threatened or endangered species is only allowed with an incidental take permit. Further, forest management projects funded or authorized by federal agencies are subject to review by the U.S. Fish and Wildlife Service prior to commencing. For assistance with the Federal Endangered Species Act, contact the U.S. Fish and Wildlife Service at (413)-253-8200 or visit www.fws.gov/northeast/endangered/. Further, a list of federally threatened or endangered species can be found at www.fws.gov/endangered/?ref=topbar.

Deer Wintering Areas, MFS Chapter 27

Introduction

This rule applies to timber harvesting in areas zoned as deer wintering areas (P-FWs) in the unorganized and deorganized areas of the state.



Photo: Maine Department of Inland Fisheries & Wildlife

Proper Name of the Rule

Maine Forest Service – Chapter 27
Standards for Timber Harvesting and Timber Harvesting Related
Activities within Unorganized and Deorganized Areas of the State

Where Does This Rule Apply?

Unorganized and Deorganized areas of the state.

When Does This Rule Apply?

When harvesting timber in P-FW subdistricts.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

For assistance with the management of deer wintering areas, contact a regional wildlife biologist at the Maine Department of Inland Fisheries and Wildlife (IF&W) <http://www.maine.gov/ifw/aboutus/contactus.htm>

Where is the Complete Rule Located?

www.maine.gov/dacf/mfs/rules_and_regulations.html#chap_27

For LUPC zoning maps, go to www.maine.gov/dacf/lupc/plans_maps_data/zoning_maps/index.shtml

Brief Overview

The following steps must be taken in order to harvest within a P-FW subdistrict:

- A. The landowner or designated agent must confer with an IF&W biologist and agree on the how harvesting will be conducted in the P-FW.
- B. If an agreement cannot be reached with IF&W, then the landowner or designated agent will need a permit from MFS prior to commencing operations.
- C. If a plan with IF&W is accepted by the landowner or designated agent, then a copy of the IF&W Field Investigation Report must be submitted to MFS.
 1. The landowner may proceed with the operation if not contacted by the MFS within 14 days of submitting the IF&W Field Investigation Report.
 2. The landowner or designated agent must notify the MFS when the operation is completed.

When planning a timber harvest in a deer wintering area in an organized town, contact the local code enforcement officer or the local IF&W biologist. Note: IF&W promotes cooperative management of both zoned and unzoned deer wintering areas.

Nuisance Animal Control

Introduction

These two laws regulate the control of beavers and the removal of beaver dams.



Proper Name of Laws

Title 12 Section 12404. Specific Animals

Title 38 Section 480-Q. Activities for Which a Permit is not Required

Where Do These Laws Apply?

Statewide.

When Do These Laws Apply?

When beavers cause damage to property, including timber and forest management roads.

What Agency Can Provide Assistance With These Laws?

Contact a game warden or regional wildlife biologist with IF&W at www.state.me.us/ifw/aboutus/contact.htm or (207) 287-8000.

Where are the Complete Laws Located?

Specific Animals

www.mainelegislature.org/legis/statutes/12/title12sec12404.html

Activities for Which a Permit is not Required

www.mainelegislature.org/legis/statutes/38/title38sec480-q.html

Brief Overview

A landowner may not take or kill a beaver that is damaging property without specific permission from IF&W. Removal by licensed trappers during the open season is preferred. Outside the legal trapping season, landowners must use Animal Damage Control (ADC) agents for removal.

Beaver dams, but not beaver houses, may be removed when authorized by a game warden. Appropriate measures must be taken to minimize erosion and sedimentation in protected resources.

Tip: Before taking action against a nuisance beaver, contact IF&W at www.state.me.us/ifw/aboutus/contact.htm or (207) 287-8000.

Section VI. Tax Programs and Landowner Liability



Photo: Maine Forest Service

Tree Growth Tax Law (TGTL)

Introduction

This law establishes a voluntary program that bases property tax valuations on the land's ability to grow trees rather than its "highest and best use." **Classified forestland must be used primarily for the growth of trees to be harvested for commercial use.**

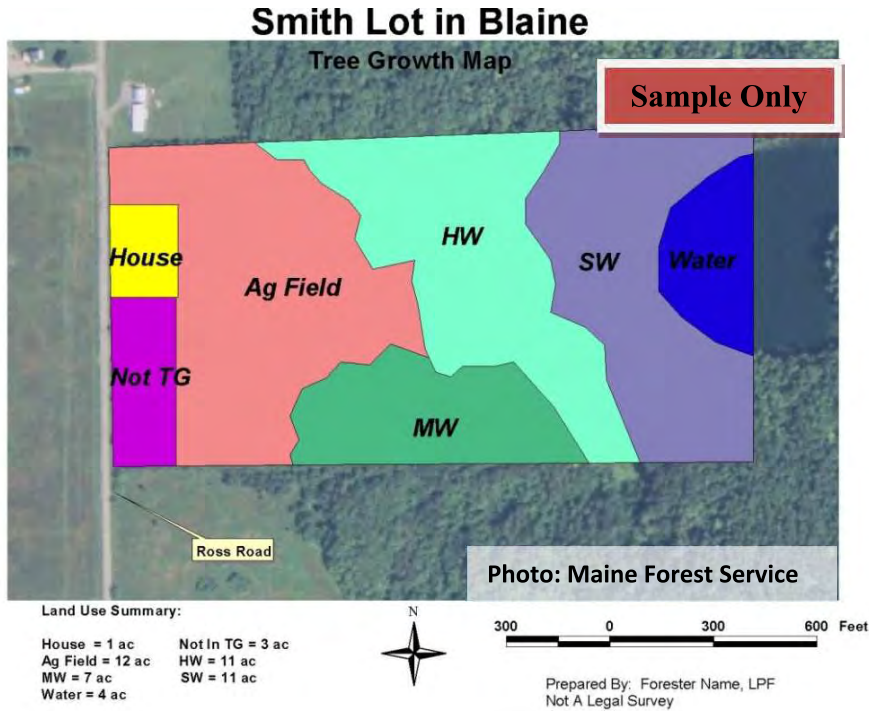


Figure 7: Sample Tree Growth Map

Proper Name of the Law

Title 36 Sections 571-584-A. Tree Growth Tax Law

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When land is enrolled in the Tree Growth current use property tax program.

What Agency Can Provide Assistance With This Law?

In organized towns, contact the local tax assessor. Otherwise, contact Maine Revenue Service at (207) 624-5600 or www.maine.gov/revenue/propertytax/homepage.html

Where is the Complete Law Located?

Tree Growth Tax Law

www.mainelegislature.org/legis/statutes/36/title36sec571.html

Property Tax Bulletin No. 19 (explanation of the law):

www.maine.gov/revenue/forms/property/pubs/bull19.pdf

Brief Overview

A. TGTL definitions (see Title 36 Section 573 for the complete list):

1. Commercial Harvesting or Harvesting for Commercial Use: Harvesting forest products that have commercial value.
2. Forest Land: Land used primarily for the growth of trees to be harvested for commercial use. Land shall not be excluded because of:
 - a. Multiple use for public recreation.
 - b. **Statutory or governmental restrictions which prevent commercial harvesting of trees.**
 - c. Deed restrictions prior to 1982.
 - d. Use for mineral exploration.
3. Forest Management and Harvest Plan: A written document that outlines activities to regenerate, improve and harvest a standing crop of timber. The plan must include the location of water bodies and wildlife habitat identified by the

Department of Inland Fisheries and Wildlife. The plan must be prepared by a licensed forester or the landowner. If the plan is prepared by the landowner, it must be certified by a licensed forester as consistent with this subsection and with sound silvicultural practices.

4. Forest Products that have Commercial Value: Logs, pulpwood, veneer, bolt wood, wood chips, stud wood, poles, pilings, biomass, fuel wood, Christmas trees, maple syrup, nursery products used for ornamental purposes, wreaths, bough material, or cones and other seed products.

B. Requirements for classification:

1. **Minimum size:** Parcels must contain at least 10 acres of forestland.
2. **Use:** The land must be used primarily for the growth of trees to be harvested for commercial use.
3. **Forest management and harvest plan:** A forest management and harvest plan must be prepared for the parcel and updated every ten years. The landowner must comply with the plan and every ten years submit a sworn statement from a licensed forester stating that the landowner is complying with the plan.
4. **Attestation:** Beginning August 1, 2012, the landowner must provide an attestation that the primary use for the Tree Growth classified forestland is to grow trees for commercial use or that the forestland is land described in Title 36 Section 573(3)(A), (B), (C) or (E).

C. General provisions:

1. **Filing:** Owners must file an application with the assessor of the jurisdiction where the parcel is located by April 1 of the year in which classification is first requested:
 - a. Separate applications must be filed for each non-contiguous parcel and for each part of a parcel if the parcel is located in more than one municipality or county.
 - b. The application must be accompanied by a map showing the location of the different forest types (softwood, hardwood, mixed wood) for land being classified. The map must also illustrate the location of land not classified in the parcel to at least the nearest whole acre.
2. **Reclassification:** Owners of classified land are responsible for reporting changes in forest types or changes in land use of the classified forestland.

D. Transfer of classified forest land:

1. Within one year of the date of transfer, one of the following must be filed with the assessor:
 - a. A sworn statement indicating that a new forest management and harvest plan has been prepared; **or**
 - b. A statement from a licensed forester that the land is being managed in accordance with the plan prepared for the previous landowner.
2. A new owner of classified land may not harvest or authorize the harvest of forest products for commercial use until the statement described above (D.1.a. or D.1.b.) is filed with the assessor.

E. Withdrawal from Tree Growth classification:

1. **Forest land may be withdrawn from Tree Growth taxation in one of two ways:**
 - a. **Withdrawal by landowner:** The landowner may withdraw any parcel or portion of a parcel by certifying to the assessor in writing that the land will no longer be classified under the Tree Growth Tax Law.
 - b. **Withdrawal by assessor:** If the assessor determines that classified forestland no longer meets Tree Growth Tax Law requirements, the assessor must withdraw the parcel from taxation under this law.
2. Withdrawal of land from Tree Growth will result in a financial penalty (refer to Property Tax Bulletin No. 19).

F. Ten year updates:

1. Every ten years the landowner must:
 - a. Have a licensed forester update or certify the forest management and harvest plan for the next ten years.
 - b. Provide an updated application schedule and map to the town / tax assessor.
 - c. Have a licensed forester certify compliance with the forest management and harvest plan for the previous ten year period.
2. Noncompliance with the ten year update and recertification will result in a financial penalty (refer to Property Tax Bulletin No. 19).

Workers' Compensation and Landowner Liability

Workers' Compensation

Introduction

Landowners may be liable for workers' compensation costs if a logger or his/her assistant is injured on their property while conducting a timber harvest. The following law provides three options to avoid this liability.

Proper Name of the Law

Title 39-A Section 401. Liability of Employer

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When timber is harvested by someone other than the landowner.

What Agency Can Provide Assistance With This Law?

Contact the Workers' Compensation Board at www.maine.gov/wcb or (207) 287-3751.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/39-A/title39-Asec403.html

Brief Overview

A. Three options to avoid liability for workers' compensation:

1. **Require proof of workers' compensation insurance:** A landowner who engages a timber harvester to cut a woodlot must ask for and receive a certificate of workers' compensation insurance issued by the insurance carrier, **and** must annually request and receive similar certificates as the work proceeds. If the insurance is cancelled during the time of the contract, the logger must notify the landowner in

writing within three days of the cancellation. ***If the logger does not provide proof of this insurance, the landowner may be liable for any injuries to the logger or the logger's employees.***

2. **Require proof of Independent Status:** A logger may receive from the Workers' Compensation Board a *Certificate of Independent Status*. This is issued by the Board on an annual basis to a logger, certifying that the logger harvests forest products in a manner that would not make him an employee of the landowner. These certificates apply to all timber harvesting jobs carried out by the logger for the year of issuance provided the circumstances under which the certificate was issued do not change.
3. **Obtain Predetermination of Independent Contractor Status:** A landowner can submit to the Maine Workers' Compensation Board an *Application for Predetermination of Independent Contractor Status to Establish Conclusive Presumption*. The "conclusive presumption" will be based on the application and the wood harvesting contract. The responses to the questions on the application will be evaluated to ensure that the wood harvester is an independent contractor and not an employee. Also, the contract will be checked to see that it contains the following mandatory language: **"The independent contractor will not hire any employees to assist in the wood harvesting without first providing the required certificate of insurance to the landowner."**

B. **Forms are located at the following web address:**

<http://www.maine.gov/wcb/forms/index.html>

C. **Tip:** Written timber sale contracts can help minimize the risk of liability (see page 118).

Landowner Liability

Introduction

This law protects landowners from liability in some instances.

Proper Name of the Law

Title 14 Section 159-A. Limited Liability for Recreational or Harvesting Activities

Where Does This Law Apply?

Statewide.

When Does This Law Apply?

When recreational or harvesting activities are being performed by someone other than the landowner.

Who Can Provide Assistance With This Law?

Anyone seeking legal advice on property law should consult with a private lawyer.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/14/title14sec159-a.html

Brief Overview

Landowners are protected from liability under Maine statute when their land is used by others for recreational activities or harvesting nontimber forest products.

Section VII. Change of Use

Conversion from Forest to Non-Forest Use



Photo: Maine Forest Service

Change of Use Rules

Introduction

Four regulations must be considered when converting forestland to a use that does not include growing forest products. These regulations include Title 38 Section 420-D Storm Water Management and Maine Forest Service Rules Chapter 20 (FPA), Chapter 23 (LQH) and Chapter 26 (FONs).

Chapter 20 – Forest Practices Act **(Exemption for Change of Use)**

Proper Name of the Rule

Maine Forest Service – Chapter 20
Forest Regeneration & Clearcutting Standards – Forest Practices Act

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When timber is harvested and sold. An **exemption** to this rule applies when land is converted from forest to nonforest use.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/dacf/mfs/rules_and_regulations.html#chap_20

Brief Overview

- A. **A change of use** means that following timber harvesting the subsequent use for a particular area does not include growing forest products. Change of land use may include, but is not limited to, conversion to pasture, sites for growing agricultural crops, residential units, development sites, or gravel pits.
- B. **Exemption from clearcutting standards:** The clearcutting standards do not apply to the portion of a harvested area where there is a change of land use, provided:
 - 1. The change of land use is completed by the end of the second full calendar year following the year of the timber harvest, and the intent to change the land use is properly indicated on the FON form submitted to MFS.
 - 2. If the change of land use is to residential dwelling units, then the exemption is limited to the actual size of the lot or five acres, whichever is smaller.
- C. **A more thorough description of Chapter 20 can be found on page 43.**

Chapter 23 – Liquidation Harvesting **(Exemption for Change of Use)**

Proper Name of the Rule

Maine Forest Service – Chapter 23
Timber Harvesting Standards to Substantially Eliminate Liquidation
Harvesting

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When woodlots are purchased, harvested, and sold (or offered for sale) within five years of acquisition. An **exemption** to this rule applies when land is converted from forest to nonforest use.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

www.maine.gov/dacf/mfs/rules_and_regulations.html#chap_23

Brief Overview

- A. **A change of use** means that following timber harvesting the subsequent use for a particular area does not include growing forest products. Change of land use may include, but is not limited to, conversion to pasture, sites for growing agricultural crops, residential units, development sites, or gravel pits.
- B. **Exemption from the liquidation harvesting rules requires:**
 - 1. The landowner to obtain, prior to commencing timber harvesting, the necessary permits from federal, state and/or local governments to change the land use from forest to non-forest. Only the exact area converted qualifies for exemption.

2. A copy of the permit or permits be submitted with the Forest Operations Notification.
- C. If the land use change is conversion to a subdivision, the exemption for each lot is limited to five acres or the lot size specified in the permit, whichever is smaller.
- D. The exemption applies once the conversion is complete. Land that is sold prior to the conversion being completed will still be subject to Chapter 23 Rules.
- E. **A more thorough description of Chapter 23 can be found on page 47.**

Chapter 26 – Forest Operations Notifications **(For Change of Use)**

Proper Name of the Rule

Maine Forest Service—Chapter 26
Forest Operations Notification Standards

Where Does This Rule Apply?

Statewide.

When Does This Rule Apply?

When timber is harvested and sold. This portion of the Chapter 26 rule applies when land is converted from forest to nonforest use.

What Agency Can Provide Assistance With This Rule?

Contact the Maine Forest Service at www.maineforestservice.gov, forestinfo@maine.gov or (207) 287-2791.

Where is the Complete Rule Located?

http://www.maine.gov/dacf/mfs/publications/rules_and_regs/chap_26_rules.pdf

Brief Overview

For individuals certified in erosion control practices by DEP, FONs may be used in multiple municipalities under the following conditions:

- A. The harvest is less than 10 acres and is necessary for a change of land use.
- B. The person filing the FON is responsible for controlling erosion and sedimentation on the harvest site.
- C. The person filing the FON maintains a separate record of each landowner's name, the name of the municipality, the acreage harvested and the volume harvested.
- D. **A more thorough description of Chapter 26 can be found on page 40.**

Storm Water Management **(Exemption for Forestry Use)**

Proper Name of the Law

Title 38 Section 420-D. Storm Water Management

Where Does This Law Apply?

In organized towns.

When Does This Law Apply?

When a project results in one acre or more of disturbed soil and is not related to forest management.

What Agency Can Provide Assistance With This Law?

Contact the Department of Environmental Protection at www.maine.gov/dep or (207) 287-2111.

Where is the Complete Law Located?

www.mainelegislature.org/legis/statutes/38/title38sec420-D.html

Brief Overview

- A. Projects that include one acre or more of disturbed soil require a permit from DEP prior to commencement. This law applies to projects, or any portion of a project, located within an organized town.
- B. **Exemptions from the Storm Water Management law:**
 - 1. Forest management activities, including the construction of forest management roads and landings.
 - 2. See the complete law for other exemptions.
- C. **Tip:** When land is converted from forestry to non-forestry use and soil is disturbed, the exemption to this law **may not apply**.

Section VIII. Maine Forest Service Recommendations



Photo: Maine Forest Service

Timber Sale Contracts

Written Contracts – A Good Idea

Written contracts between landowners and loggers are not required by law, but are strongly recommended to protect the interests of both parties. A licensed professional forester (LPF) can help write an individualized timber sale contract. At a minimum, the contract should specify or describe the following:

- **The contract period:** State clearly when the contract begins and when it ends, and whether there are periods during which operations may be suspended (such as during spring thaw).
- **Access:** Define how the logger will get to the stands to be cut, and in what condition any access roads and log landings will be left.
- **The trees to be harvested:** Describe what trees will be cut, what trees will be left uncut, and how they will be identified in the forest.
- **The harvest boundaries:** Indicate in the contract and in the field where the harvest should take place. If the harvest is near the property line, marking the boundary is a legal requirement and prevents expensive mistakes.
- **Slash treatment:** Specify how slash (tree tops and branches left on a site after a timber harvest) will be treated.
- **BMP implementation:** Identify who is responsible for implementing Best Management Practices to protect water quality.
- **Payment for wood:** Spell out the basis for payment by unit of measure and type of product (sawlogs, veneer, pulpwood, boltwood, etc.) and remedies for late payment or default. Consider requiring a deposit or performance bond before harvesting begins.

- **Insurance requirements:** Clearly state what insurance certificates, including workers' compensation, must be in hand before the contract is valid. Refer to page 107 for more information.
- **Independent contractor status:** Include a statement that the landowner (sometimes called the "seller") and the logger (sometimes called the "purchaser") are independent contractors with no other relationship between them. Refer to page 107 for more information.

If for any reason a landowner has a dispute with the logger, a timber harvest contract signed by all parties can help clarify expectations and resolve disputes.

Working with a Forester

The Maine Forest Service recommends that Maine woodland owners work with a licensed professional forester (LPF). No matter what reasons landowners have for owning their woods—growing and harvesting timber, improving wildlife habitat, providing privacy around homes or increasing personal recreational opportunities—a LPF can help enhance these and other values.

Reasons to work with an LPF

Forests are complicated systems. LPFs know how trees grow, how forests develop, and how carefully planned actions can help landowners reach their goals.

Although many LPFs are employed by forestry consulting firms, others are employed by large landowners, wood consuming businesses, and state agencies. Private consulting LPFs usually contract with landowners and represent their interests.

Ideally, woodland owners develop long-term relationships with LPFs. Working with these highly trained professionals, landowners can have confidence their values and goals will be paramount in the planning and operational aspects of forest management.

The role of an LPF

An LPF is a licensed professional who represents the interests of their clients.

In Maine, **all** individuals who practice forestry are required to be licensed and the Licensed Forester's Code of Ethics requires that they:

- Work in the interest of their client.
- Understand their client's objectives.
- Provide written confirmation of the scope, cost and duration of the project.
- Disclose the cost of services before beginning work.

- Only provide services they are qualified to perform.
- Keep their client's affairs confidential.
- Give fair notice of delays and prompt notice of changes in cost estimates.
- Avoid conflicts of interest and disclose potential conflicts.

Services provided by LPFs

LPFs help landowners make decisions about managing their woods to achieve long-term goals. Two of the most important services LPFs provide are developing written management plans and timber sale administration.

- **Forest management plans often include:**
 - A legal description of the property.
 - A forest stand type map.
 - An inventory of the forest resources.
 - Estimates of timber volume/value/quality by tree species and product.
 - Insect and disease conditions.
 - Presence of invasive plants.
 - Recommendations for management actions (management prescriptions).
 - An outline of applicable rules and regulations.

- **Timber sale administration often includes:**
 - Help selecting a logger.
 - Planning and layout of harvest areas.
 - Developing a timber sale agreement or contract.
 - Finding the best markets for forest products.
 - Monitoring harvest activities.
 - Protecting the interests of the client.

Finding an LPF

Initial assistance on managing forestland or locating an LPF is available, free of charge, from the Maine Forest Service. Maine Forest Service District Foresters can answer questions and provide general forestry guidance. The Maine Forest Service is available to help both new and seasoned woodlot owners.

To locate a Maine Forest Service District Forester, please visit www.maine.gov/dacf/mfs/policy_management/district_foresters.html.

To obtain a statewide list of LPFs, contact the Board of Licensure of Foresters at (207) 624-8521.

For more information on finding an LPF, go to the Maine Forest Service Woodland Owners web page at http://www.maine.gov/dacf/mfs/woodland_owners.html

Selecting an LPF

The Maine Forest Service strongly suggests that landowners contact more than one LPF to make an informed choice. Ideally, this will result in a mutually beneficial working relationship that lasts for many years.

Landowners can prepare to meet prospective LPFs by gathering maps, deeds, past management plans, timber sale receipts, or other records. Ask about the LPF's experience, background, range of services, and specific expertise or credentials. In particular, look for an LPF who listens and communicates well, provides quality work in a timely way,

and delivers results that meet customer expectations. Tell the LPF, as specifically as possible, the goals and objectives for the woodlot. Ultimately landowners should feel confident choosing the person or firm that best suits their needs. Note that most LPFs work in multiple counties, and a working area of up to one hour or greater travel time from their business location is common.

A Forestry Services Contract

Before engaging an LPF, it is important to have a clear understanding of the specific services the LPF will provide, what the fee(s) will be, and how compensation will be handled. A Maine LPF is ethically bound to serve the interests of his or her client, and to disclose any potential conflict of interest. All of this should be spelled out in a written forestry services contract. A forestry services contract is usually **not** the same as a contract to harvest timber.

Tip: Landowners should understand what services the LPF is providing, on whose behalf, and how the LPF will be compensated. Full disclosure is the best approach.

For more information on forester licensing in Maine contact:

Department of Professional and Financial Regulation
Board of Licensure of Foresters
#35 State House Station, Augusta, Maine 04333
www.maine.gov/pfr/professionallicensing/index.shtml
(207) 624-8521

Appendix A. Sample Trip Ticket

TRIP TICKET

Forest Operations Notification #: _____

Scale slip #: _____

Landowner: _____

Date wood hauled: _____

Town (origin of harvest): _____

Name of contractor: _____

Cutting crew (names): _____

Name of hauler: _____

Destination of Wood:

Town: _____

Customer name: _____

Certification: *I certify that the information in this trip ticket is true, correct and complete:*

Trucker's signature

Printed name

Appendix B. Acronyms and LUPC Subdistricts

Acronyms

BA	Basal Area
DBH	Diameter at Breast Height
DEP	Maine Department of Environmental Protection
DMR	Maine Department of Marine Resources
FEMA	Federal Emergency Management Agency
FON	Forest Operations Notification
FPA	Forest Practices Act
IF&W	Maine Department of Inland Fisheries and Wildlife
LPF	Licensed Professional Forester
LQH	Maine Forest Service Rule, Chapter 23: Timber Harvesting Standards to Substantially Eliminate Liquidation Harvesting
LUPC	Land Use Planning Commission
MDOT	Maine Department of Transportation
MFS	Maine Forest Service
MNAP	Maine Natural Areas Program
MSZA	Mandatory Shoreland Zoning Act
NRPA	Natural Resources Protection Act
PBR	Permit By Rule
SWS	Maine Forest Service Rule, Chapter 21: Statewide Standards for Timber Harvesting and Related Activities in Shoreland Areas
TGTL	Tree Growth Tax Law
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service

LUPC Subdistricts

P-AL	Protection – Accessible Lake
P-AR	Protection – Aquifer
P-FP	Protection – Flood Prone Areas
P-FW	Protection – Fish and Wildlife
P-GP	Protection – Great Ponds
P-MA	Protection – Mountain Areas
P-RP	Protection – Resource Plan
P-RR	Protection – Recreation
P-RT	Protection – Special River Transition
P-SG	Protection – Soils and Geology
P-SL	Protection – Shoreland
P-UA	Protection – Unusual Areas
P-WL	Protection – Wetlands
D-CI	Development – Commercial Industrial
D-ES	Development – Extended Settlement
D-GN	Development – General Management
D-MT	Development – Maritime
D-PD	Development – Planned
D-PR	Development – Planned Recreation Facility
D-RF	Development – Recreational Facility
D-RS	Development – Residential
M-GN	Management – General
M-HP	Management – Highly Productive
M-NC	Management – Natural Character

Maps showing the location of subdistricts by township are located at:
www.maine.gov/dacf/lupc/plans_maps_data/zoning_maps/index.shtml

Appendix C. Filter Strip Distances for Chapters 27 & 10

Average slope of land between exposed mineral soil and normal high water (percent)	Width of strip between exposed mineral soil and normal high water line (feet along surface of the ground)
0	25
10	45
20	65
30	85
40	105
50	125
60	145
70	165

Table 2: Unscarified filter strip width requirements for exposed mineral soil created by roads and their associated drainage ditches

Appendix D. Culvert Sizing Tables

To use the culvert sizing tables, follow these steps:

1. Determine the average depth and width of the stream in the vicinity of the proposed crossing.
 - a. Take width and depth measurements upstream and downstream from the crossing, and also at the crossing location.
 - b. Measure the width and depth based on the high water mark of the active channel.
 - c. An average of three measurement depths at each location is best (see Figure 8 below).

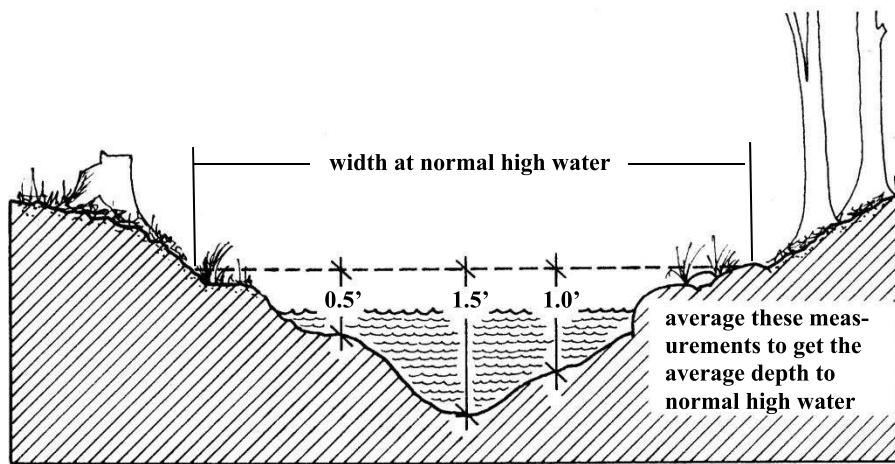


Figure 8: Measuring streams for culverts

2. Use Tables 4 and 5 (page 130) to determine the cross sectional area of the culvert opening required.
 - a. The regulations on opening size vary by town. **Refer to Table 3 for guidance (page 129).**

- b. **Tip:** In organized towns that have not adopted Statewide Standards for Timber Harvesting, check with the town code enforcement officer.
3. Use Table 6 (page 131) to determine the required culvert diameter.
 - a. Always use the higher value listed in the table.
 - b. Note: Culverts are not the best crossing solution for all streams. Many other options are available.

Sizing Requirement by Regulation			
Regulation	Town Type	Multiplier for Stream Size	
		Maintained	Non-Maintained
MFS Chapter 27	Unorganized	2.5	3.5
MFS Chapter 21	Organized towns that have adopted Chapter 21	3.0	3.5
NRPA-PBR	Organized towns that have not adopted Chapter 21	3.0	3.5

Table 3: Quick reference table for the required opening size by forestry regulation.

Important Note: Organized towns that have not adopted Statewide Standards (Chapter 21) may have sizing requirements that are stricter than those required by NRPA-PBR.

10-year Flood				
Crossing Opening Size (square feet)				
Stream Width*	Average Stream Depth* (feet)			
Feet	0.5	1.0	1.5	2.0
1	1.25	2.50	3.75	5.00
2	2.50	5.00	7.50	10.00
3	3.75	7.50	11.30	15.00
4	5.00	10.00	15.00	20.00
5	6.25	12.50	18.80	25.00
6	7.50	15.00	22.50	30.00

* At normal high water mark.
Bold: Bridges, arches, or multiple pipes may be preferred on these larger streams

Table 4: Opening size at 2.5X the cross sectional area of stream.
 Copied from the MFS "BMP Manual"

25-year Flood				
Crossing Opening Size (square feet)				
Stream Width*	Average Stream Depth* (feet)			
Feet	0.5	1.0	1.5	2.0
1	1.75	3.50	5.25	7.00
2	3.50	7.00	10.50	14.00
3	5.25	10.50	15.80	21.00
4	7.00	14.00	21.00	28.00
5	8.75	17.50	26.30	35.00
6	10.50	21.00	31.50	42.00

* At normal high water mark
Bold: Bridges, arches, or multiple pipes may be preferred on these larger streams

Table 5: Opening size at 3.5X the cross sectional area of stream.
 Copied from the MFS "BMP Manual"

Go to page 131 for culvert diameter.

Culvert Diameter and Opening Sizes	
Opening Size (square feet)	Diameter (inches)
0.20	6
0.80	12
1.25	15
1.75	18
2.40	21
3.15	24
4.90	30
7.05	36
9.60	42
12.55	48
15.90	54
19.65	60
23.75	66
28.26	72

*Table 6: Culvert diameter for required opening sizes.
Copied from the MFS "BMP Manual"*

Appendix E. Other Maine Forest Service Publications



Best Management Practices for Forestry: Protecting Maine's Water Quality
https://www1.maine.gov/dacf/mfs/publications/handbooks_guides/bmp_manual.html

Forest Health and Monitoring Information Sheets
www.maine.gov/dacf/mfs/forest_health/insect_disease_fact_sheets.html



Forest Policy and Management Information Sheets
www.maine.gov/dacf/mfs/policy_management/information_sheets.html

Stumpage Price Reports
www.maine.gov/dacf/mfs/publications/annual_reports.html#stumpage

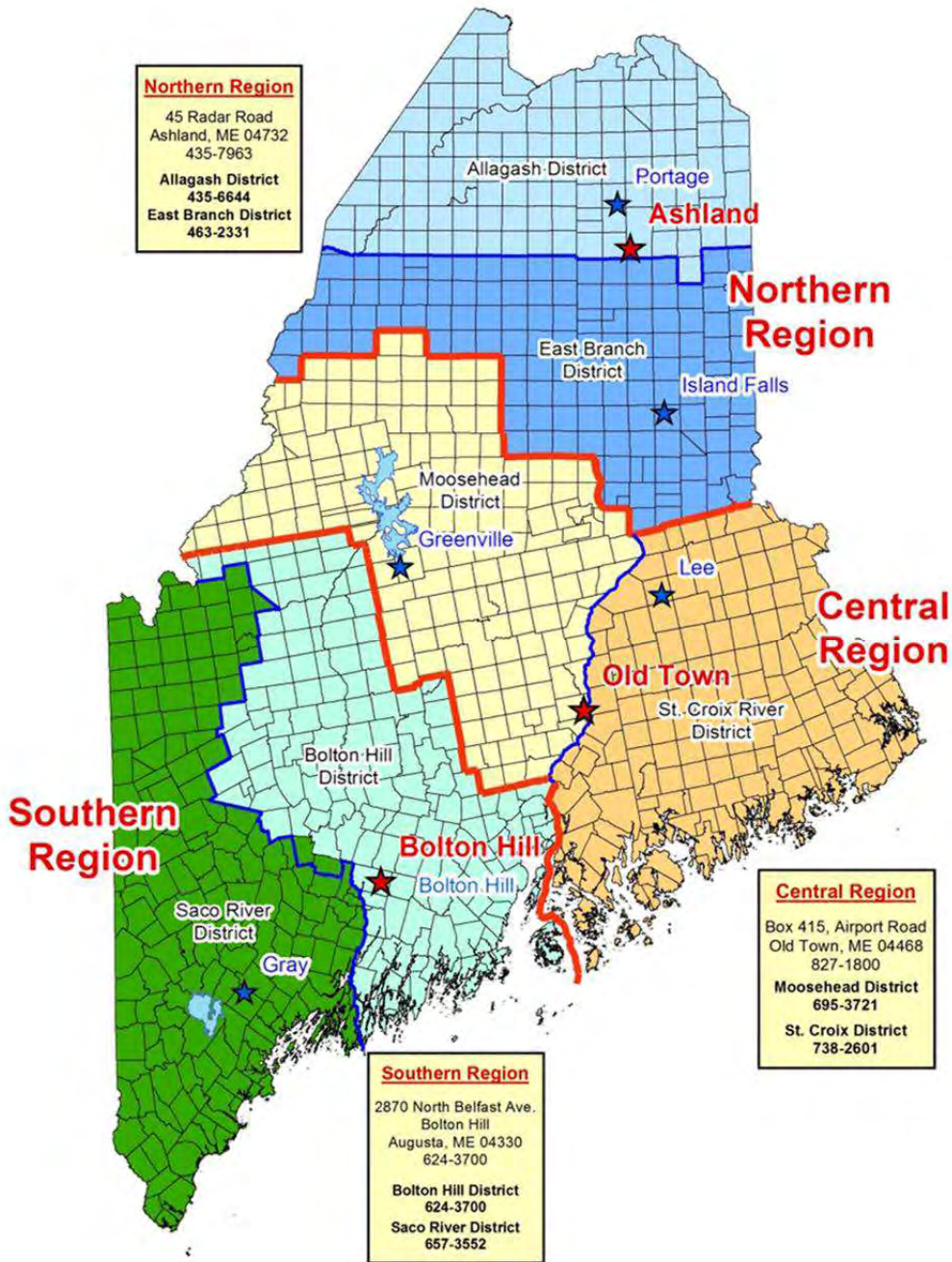


The Forest Trees of Maine
www.maine.gov/dacf/mfs/publications/handbooks_guides/forest_trees/index.html

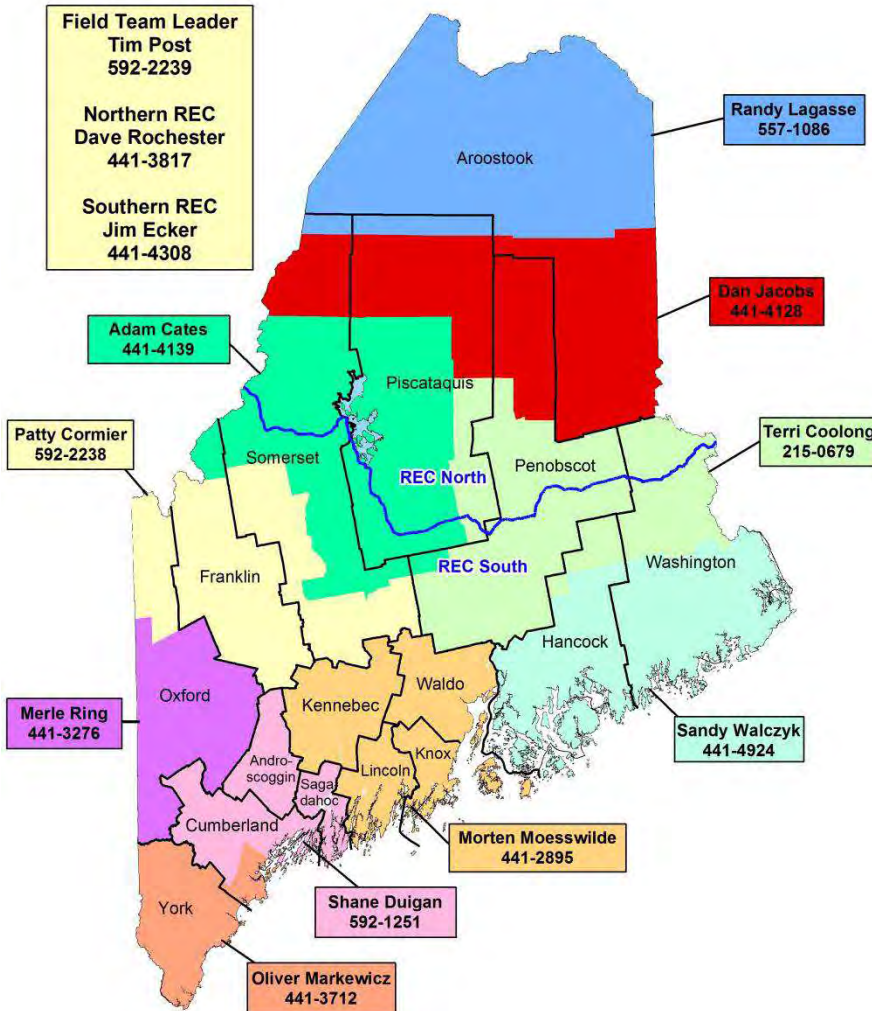
*** A NEW WAY TO VIEW PUBLICATIONS**

Use a smart phone to scan these QR Codes to access the publications and the integrated links with your device.

Appendix F. Ranger District Map



Maine Forest Service Professional Forester Field Team



Do you have questions about the forestry regulations? The Maine Forest Service provides free advice to help you understand the laws and rules. The following link can be used to find your district forester:

http://www.maine.gov/dacf/mfs/policy_management/district_foresters.html.

MES ATTACHMENT #11

**Outcome-Based Forestry: A Case Study of the First Private
Landowner's Implementation of an Alternative to Maine's
Forest Practices Act**

Jon Doty

Master of Forestry
Final Project Report

School of Forest Resources
University of Maine

Graduate Committee:

Dr. Robert G. Wagner
Dr. Sandra De Urioste Stone
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Dr. Erin Simons-Legaard

Outcome Based Forestry: A Case Study of the First Private Landowner's Implementation of an Alternative to Maine's Forest Practices Act

ABSTRACT

Outcome-based Forestry (OBF) was approved by the Maine State Legislature in 2001 as an alternative policy to Maine's 1989 Forest Practices Act (FPA). In 2012, Irving Woodlands (IW) became the first private forest landowner to sign an agreement with the Maine Forest Service to implement OBF on its 1.25 million-acre land base in northern Maine. Given the experimental nature of OBF, it is important to understand how this policy is being implemented and its effects on forest management, the landscape, the company, and forest managers implementing the policy. The objectives of this study were to: (1) document how IW is implementing OBF and meeting each of the sustainability goals under the OBF agreement; (2) explore the perceptions of IW foresters about implementing OBF at the corporate, social, and individual level; and (3) investigate the likely landscape-level impacts of OBF policy relative to the FPA. To accomplish these objectives, we documented how IW has incorporated OBF into their forest management planning and operations, and how they are specifically meeting each of the nine sustainability outcomes under their OBF agreement. We interviewed two IW foresters about their perceptions of the advantages and disadvantages of OBF to their corporation, to society, and to their personal responsibilities as professional foresters. To quantify the relative effects of OBF and FPA policies on forest fragmentation and other landscape attributes, we used a 6,000-acre area of IW ownership that had been harvested under the FPA over a 16-year period, and compared how IW foresters would have harvested the same landscape under OBF and FPA policies over the same time period.

We found that IW has incorporated OBF policy into their forest planning and operations using Key Performance Indicators to document their compliance with each outcome, as well as provide the feedback loops needed to monitor and correct for any non-compliance. Forest managers indicated that OBF policy has increased operational efficiencies in their sector planning approach relative to under the FPA, reduced costs for the company, and increased pay for logging contractors. Foresters also indicated that their duties have shifted from spending more time on regulatory compliance under the FPA, to responsibilities they believed were more important, such as focusing on better silvicultural prescriptions and protecting the environment. We found that hypothetical harvest plans written under the constraints of OBF led to lower rates of fragmentation relative to FPA-based harvest plans, as well actual harvesting conducted upon the same landscape under the FPA. This reduction in fragmentation was attributed to spatial and temporal aggregation of harvesting, as clearcut size and frequency did not differ between policies. The percentage of land proposed to be partially harvested also did not differ under the OBF and FPA policies.