

Department of Agriculture, Conservation and Forestry
Maine Forest Service

Interim Report to the 126th Legislature's
Agriculture, Conservation and Forestry Committee
on
Outcome Based Forestry

Prepared by Douglas Denico
Director, Maine Forest Service
13 November 2013

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Introduction

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

The OBF statute was adopted by the 120th Legislature in 2001, shortly after the controversial forestry referendum of 2000 (which followed two other equally divisive forestry referenda and the introduction of several bills attempting to further regulate forest practices).¹

The OBF law had a sunset provision until 2012 when the 126th Legislature removed the provision. Until the sunset clause was removed, interest in OBF had not resulted in an agreement being adopted in spite of repeated attempts by interested landowners to reach an accord, due to 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 appendices).

The OBF 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 FPA.

Key statutory provisions of Outcome Based Forestry

1. The MFS Director will actively pursue the application of OBF policy on public and private lands. No more than six areas may be designated, representing different forest conditions, with initial agreements not to exceed 5 years.
2. OBF is a science-based, voluntary agreement between the state of Maine and a public or private forest landowner that establishes mutually acceptable upon outcomes as an alternative to the FPA. The agreement must demonstrate progress towards achieving statewide sustainability goals while conserving public trust resources and public values.
3. Management of forestlands under an OBF agreement must provide at least the same protection as existing state rules and local regulations and specifically address soil productivity, water resources, timber supply and quality, aesthetic impacts of timber harvesting, biological diversity and public accountability. This set of criteria is collectively referred to as OBF Principles.
4. The Governor appoints a panel of technical experts (for a list of panel members, see appendices) to work with the MFS Director to determine if the OBF Principles are

¹ The original Forest Practices Act was enacted in 1989 following the large scale clearcutting that occurred in large part as a result of the spruce budworm epidemic of the late 1970's to early 1980's.

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being met. The MFS Director, panel members, and landowner must agree on a set of objectives, that, if met, satisfy compliance with OBF Principles.

Progress to date

Two agreements have been signed; one with the Bureau of Parks and Lands (BPL) and the other with Irving Woodlands. The Irving agreement is of a landscape proportion covering their entire Maine ownership, while the BPL Agreement covers several different individual, specific projects.

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.

While not a condition of the OBF policy, independent, third party forest certification has been used to determine if a forest landowner is complying with the statewide forest sustainability standards. Irving is using the Forest Stewardship Council (FSC), while BPL is using the Sustainable Forestry Initiative (SFI). The MFS reviewed the certification auditors' reports of both landowners to determine if they adequately addressed the statewide sustainability standards, which was found to be in the affirmative. The use of the certification audit allowed the panel to focus on other objectives. Even so, the panel accompanied the auditors on Irving's certification review as well as note field and documentation evidence of compliance separate from the certification process.

The panel held several site visits on BPL and Irving lands and reviewed landowner operations plans prior to their implementation. Field visits were very intensive for the first year; several harvest sites on Irving land were visited multiple times. In 2013, panel field inspections have been augmented by a systematic sample by MFS's Forest Policy and Management Division (see appendices).

After a full year under OBF, the panel and the MFS have documented results in annual reports, which are attached.

Examples of public benefits of OBF

- The scientific rationale for each harvest in an OBF agreement is provided,
- Harvest levels by species/products is known;
- Types of harvests, including clearcuts, are tracked for trends;
- Aesthetic impacts discussed before harvesting (see section 10.F. of agreement with Irving regarding required training);
- Cutting edge silvicultural practices, i.e., beech control, managing density of white pine stands for quality growth; and,
- Reduced inspections by Forest Rangers.

Examples of forest landowner benefits from OBF

- Application of optimal silvicultural practices to the land base (see appendixes);
- Reduced administrative time devoted to adhering to FPA numerical limits, e.g. 450 trees/acre of regeneration, 250' separation zones, etc.;
- Construction of an 80,000,000 board foot spruce/fir sawmill in Portage (Irving);
- Reduced costs of trucking, road building/maintenance by applying scientific management to harvest areas; and,

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- Increased wage payments to contractors and woods operators, increased investment in tree planting and thinning of young spruce/fir stands.

Future of OBF policy

Other forest landowners have shown interest in becoming involved in the OBF policy. To that end, the MFS Director has made recommendations for additional panel members.

Other states have shown interest in Maine's OBF policy, as it offers a path for them to follow if scientific forestry is preferred over restrictive and costly legislation.

Outcome based forestry - extracts from statute

OUTCOME BASED FORESTRY - STATUTORY CITATIONS

12 M.R.S. §8003.

Q. The director, in cooperation with public and private landowners, shall actively pursue creating experimental areas on public and private land where the principles and applicability of outcome-based forest policy, as defined in section 8868, can be applied and tested. No more than 6 such areas may be designated. The director shall seek to designate areas representing differing forest types and conditions and from different geographic regions of the State. The term of initial agreements may not exceed 5 years.

12 M.R.S. §8868

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 forest, 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. Plans for experimental areas. Practices applied on an experimental 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 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; and
- F. Public accountability.

The Governor shall appoint a panel of technical experts to work with the director to implement, monitor and assess tests of outcome-based forestry principles. In order to participate in the outcome-based forestry experiment, the landowner, director and technical panel must develop agreed-upon desired outcomes for the experimental area and develop a method for determining if the outcomes have been attained and a system for reporting results to the public.

7-A. Exemption for outcome-based forest policy experimental areas. Outcome-based forest policy experimental areas designated under section 8003, subsection 3, paragraph Q are exempt from the requirements of this subchapter and rules adopted pursuant to this subchapter.

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Forest Practices Act

Subchapter 3-A: FOREST PRACTICES HEADING: PL 1989, C. 555, §10 (NEW)

12 §8866. PURPOSE

The Legislature finds and declares that the State's forests are resources of great significance to the people of the State. These resources have great economic value, environmental value, scenic beauty and unique characteristics and unsurpassed recreational, cultural and historical values of present and future benefit to the citizens of the State. The well-being of communities of the State depends upon sustainable forest management. Liquidation harvesting is a serious and direct threat to forest management, forest industries and rural communities over the landscape of Maine. Liquidation harvesting produces significant adverse economic and environmental effects and threatens the health, safety and general welfare of the citizens of the State. Liquidation harvesting is incompatible with responsible forest stewardship and must be substantially eliminated. [2003, c. 422, Pt. A, §1 (NEW).]

SECTION HISTORY
2003, c. 422, §A1 (NEW).

12 §8867. RULEMAKING

(REPEALED)

SECTION HISTORY
1989, c. 555, §10 (NEW). 1991, c. 528, §G8 (AMD). 1991, c. 528, §RRR (AFF).
1991, c. 591, §G8 (AMD). 1991, c. 722, §11 (AFF). 1991, c. 722, §2 (AMD).
1991, c. 722, §3 (AMD). 1991, c. 722, §4 (AMD). 1997, c. 720, §1 (RP).

12 §8867-A. RULEMAKING

No later than November 1, 1998, the Commissioner of Conservation shall provisionally adopt rules in accordance with Title 5, chapter 375 to implement this subchapter. Rules adopted pursuant to this subchapter are major substantive rules as defined in Title 5, chapter 375, subchapter II-A and must be submitted to the Legislature no later than January 1, 1999 for review. [1997, c. 720, §2 (NEW).]

The Commissioner of Conservation shall consult with the Commissioner of Environmental Protection and the Commissioner of Inland Fisheries and Wildlife to ensure that bureau rules are consistent with wildlife habitat and environmental protection. [1997, c. 720, §2 (NEW).]

SECTION HISTORY
1997, c. 720, §2 (NEW).

12 §8867-B. REGULATION OF TIMBER HARVESTING ACTIVITIES IN AREAS ADJACENT TO RIVERS, STREAMS, PONDS, WETLANDS AND TIDAL WATERS

In accordance with the purposes of chapter 206-A and Title 38, chapter 3 and no later than October 1, 2003, the Commissioner of Conservation shall adopt rules in accordance with Title 5, chapter 375 to establish performance standards for timber harvesting activities in areas adjacent to rivers, streams, ponds, wetlands and tidal waters. The rules must provide the maximum opportunity for flexibility that achieves the goal of protecting the public resources while minimizing the impact on private resources. The initial rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. Subsequent amendments to those rules are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A. [2003, c. 335, §2 (AMD).]

SECTION HISTORY
1999, c. 695, §1 (NEW). 2001, c. 566, §1 (AMD). 2003, c. 335, §2 (AMD).

12 §8867-C. ENHANCEMENT OF COLD WATER FISHERIES HABITAT

By November 1, 2012, the Commissioner of Agriculture, Conservation and Forestry shall adopt rules to allow

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activities that enhance cold water fishery habitat without a permit or fee. The rules must establish standards for the placement of wood in stream channels and specify that only a licensed forester trained by the bureau in cooperation with the Department of Inland Fisheries and Wildlife in techniques to enhance fisheries habitat may implement these techniques. [2011, c. 599, §3 (NEW); 2011, c. 657, Pt. W, §6 (REV).]

In developing standards to enhance brook trout habitat and the training required to implement habitat enhancement, the Commissioner of Agriculture, Conservation and Forestry shall consult with the Department of Inland Fisheries and Wildlife, the Department of Marine Resources and the Department of Environmental Protection. The bureau shall notify the departments of habitat enhancement activities conducted under this section. [2011, c. 599, §3 (NEW); 2011, c. 657, Pt. W, §6 (REV).]

A permit is not required for activities conducted in accordance with the rules adopted under this section in stream segments that have been identified by the Department of Inland Fisheries and Wildlife as lacking desired habitat features. The Department of Marine Resources must be consulted and approve of any habitat enhancement under this section on a stream that is identified as Atlantic salmon habitat. [2011, c. 599, §3 (NEW).]

The initial rules adopted under this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. Subsequent amendments to those rules are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A. This section does not relieve a person from meeting the requirements of section 8867-B or Title 38, chapter 3, subchapter 1, article 2-B. [2011, c. 599, §3 (NEW).]

SECTION HISTORY

2011, c. 599, §3 (NEW). 2011, c. 657, Pt. W, §6 (REV).

12 §8867-D. REGULATION OF TIMBER HARVESTING AND TIMBER HARVESTING ACTIVITIES WITHIN THE UNORGANIZED AND DEORGANIZED AREAS OF THE STATE

Beginning November 1, 2012, the director of the division shall administer and enforce the regulation of timber harvesting and timber harvesting activities in areas classified as protection districts and management districts by the commission in accordance with section 685-A. The Commissioner of Agriculture, Conservation and Forestry shall establish standards in rule to implement this section. [2011, c. 599, §4 (NEW); 2011, c. 657, Pt. W, §§6, 7 (REV).]

The initial rules adopted under this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. Subsequent amendments to those rules are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A. [2011, c. 599, §4 (NEW).]

SECTION HISTORY

2011, c. 599, §4 (NEW). 2011, c. 657, Pt. W, §§6, 7 (REV).

12 §8867-E. REGULATION OF LAND MANAGEMENT ROADS, GRAVEL PITS AND WATER CROSSINGS WITHIN THE UNORGANIZED AND DEORGANIZED AREAS OF THE STATE

1. Regulation. In accordance with section 685-A, subsection 14, beginning November 1, 2012, the director of the division shall administer and enforce the regulation of construction, maintenance and repair of land management roads, water crossings and gravel pits of less than 5 acres in areas designated as protection districts and management districts by the commission.

[2011, c. 599, §5 (NEW); 2011, c. 657, Pt. W, §7 (REV) .]

2. Rules. The Commissioner of Agriculture, Conservation and Forestry shall adopt rules to implement this section. Initial rules adopted under this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. Subsequent amendments to those rules are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A. Rules adopted under this subsection must be adopted in consultation with the commission. The rules must:

- A. Require a permit from the division for activities located within areas of special flood hazard as defined in

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the commission's rules; [2011, c. 599, §5 (NEW); 2011, c. 657, Pt. W, §7 (REV).]

B. Include standards to protect outstanding river segments, historic, scenic, scientific, recreational and aesthetic resources in districts classified by the commission for special protection and delineated on land use maps adopted under section 685-A, subsection 7-A; and [2011, c. 599, §5 (NEW).]

C. Require review by and approval from the commission for any activity in a protection district described in paragraph B that requires a permit. [2011, c. 599, §5 (NEW).]

[2011, c. 599, §5 (NEW); 2011, c. 657, Pt. W, §§6, 7 (REV) .]

SECTION HISTORY

2011, c. 599, §5 (NEW). 2011, c. 657, Pt. W, §§6, 7 (REV).

12 §8867-F. FEE SCHEDULE

The bureau shall establish a schedule of fees through rulemaking for the administration of sections 8867-D and 8867-E. Notwithstanding Title 5, section 8071, subsection 2, paragraph A, rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. The bureau may not issue an approval, certificate, special exception or variance until the required fee has been paid. [2011, c. 599, §6 (NEW).]

SECTION HISTORY

2011, c. 599, §6 (NEW).

12 §8868. DEFINITIONS

As used in this subchapter, unless the context otherwise indicates, the following terms have the following meanings. [1989, c. 555, §10 (NEW).]

1. Clear-cut. "Clear-cut" means any timber harvesting on a forested site greater than 5 acres in size that results in a residual basal area of trees over 4 1/2 inches in diameter measured at 4 1/2 feet above the ground of less than 30 square feet per acre, unless, after harvesting, the site has a well-distributed stand of acceptable growing stock, as defined by rule, of at least 3 feet in height for softwood trees and 5 feet in height for hardwood trees that meets the regeneration standards defined under section 8869, subsection 1.

A. [1997, c. 720, §3 (RP).]

B. [1999, c. 361, §1 (RP).]

[1999, c. 361, §1 (RPR) .]

1-A. Commission. "Commission" means the Maine Land Use Regulation Commission established under section 683.

[2011, c. 599, §7 (NEW) .]

2. Forest management plan. "Forest management plan" means a site-specific document signed by a professional forester outlining proposed activities to ensure compliance with performance standards and regeneration requirements established pursuant to this subchapter.

[1989, c. 555, §10 (NEW) .]

2-A. Parcel. "Parcel" means a contiguous tract or plot of forest land owned by a landowner. Multiple contiguous tracts, plots or parcels of forest land owned by the same landowner are considered a single parcel for the purposes of this subchapter.

[1997, c. 720, §4 (NEW) .]

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 forest, as an alternative to

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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.

[2011, c. 488, §2 (AMD) .]

3. Professional forester. "Professional forester" means a person licensed pursuant to Title 32, chapter 76.

[2001, c. 261, §2 (AMD) .]

3-A. Separation zone. "Separation zone" means an area that surrounds a clear-cut and separates it from other clear-cuts.

[1997, c. 720, §5 (NEW) .]

4. Timber harvesting. "Timber harvesting" means the cutting or removal of timber for the primary purpose of selling or processing forest products.

[1997, c. 720, §6 (AMD) .]

5. Timber harvesting activities. "Timber harvesting activities" means timber harvesting, the construction and maintenance of roads used primarily for timber harvesting, the mining of gravel used for the construction and maintenance of roads used primarily for timber harvesting and other activities conducted to facilitate timber harvesting.

[2011, c. 599, §8 (AMD) .]

6. Liquidation harvesting. "Liquidation harvesting" means the purchase of timberland followed by a harvest that removes most or all commercial value in standing timber, without regard for long-term forest management principles, and the subsequent sale or attempted resale of the harvested land within 5 years.

[2003, c. 422, Pt. A, §2 (NEW) .]

7. Land management road. "Land management road" means a road constructed and used primarily for agricultural or forest management activities.

[2011, c. 599, §9 (NEW) .]

SECTION HISTORY

1989, c. 555, §10 (NEW). 1997, c. 720, §§3-6 (AMD). 1999, c. 361, §1 (AMD). 1999, c. 695, §2 (AMD). 2001, c. 261, §2 (AMD). 2001, c. 339, §2 (AMD). 2003, c. 422, §A2 (AMD). 2005, c. 550, §3 (AMD). 2007, c. 271, §2 (AMD). 2011, c. 488, §2 (AMD). 2011, c. 599, §§7-9 (AMD).

12 §8869. FOREST HARVEST REGULATIONS

To promote a healthy and sustainable forest that contains a balance of age classes necessary for a sustainable timber supply and spatial and compositional diversity, forest harvesting and liquidation harvesting are regulated pursuant to this subchapter. [2003, c. 422, Pt. A, §3 (AMD) .]

1. Standards for regeneration after harvests. The commissioner shall adopt rules to ensure adequate regeneration of commercial tree species on a site within 5 years of completion of any timber harvest. Rules to implement this requirement shall include identification of commercial tree species, minimum stocking standards and methods to mitigate inadequate regeneration. In developing regeneration standards, the commissioner shall take into consideration regional differences in forest types, tree species and physiographic conditions.

[1989, c. 555, §10 (NEW) .]

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2. Performance standards for clear-cuts. The commissioner shall establish, by rule, performance standards for clear-cuts, including limitations on size. These standards shall protect water quality, minimize soil erosion, ensure adequate regeneration, address adverse impacts on wildlife habitat and provide for a healthy and sustainable forest. The commissioner shall incorporate regional variations in developing performance standards that consider growing conditions, tree species and site quality.

[1989, c. 555, §10 (NEW) .]

2-A. Separation zones. A clear-cut must be separated from any other clear-cut by at least 250 feet except where a property line is closer than 250 feet from the edge of the clear-cut. Unless an exemption is provided in rules adopted pursuant to section 8867-A, a separation zone must be equal to or greater than the area clear-cut.

[1999, c. 361, §2 (AMD) .]

3. Forest management plans for clear-cuts over 20 acres. For a clear-cut of 20 acres or more, the landowner, or agent of the landowner, shall develop, prior to harvest, a forest management plan for that clear-cut signed by a professional forester that conforms to the standards set forth in subsections 1 and 2. The plan must state the purpose of the clear-cut. This plan must be kept on file by the landowner or agent of the landowner and be available for inspection by the division until adequate regeneration in accordance with the standards set forth in subsection 1 is established.

[1999, c. 361, §3 (AMD); 2011, c. 657, Pt. W, §7 (REV) .]

3-A. Plans for experimental areas. Practices applied on an experimental 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 principles must address:

- A. Soil productivity; [2001, c. 339, §3 (NEW) .]
- B. Water quality, wetlands and riparian zones; [2001, c. 339, §3 (NEW) .]
- C. Timber supply and quality; [2001, c. 339, §3 (NEW) .]
- D. Aesthetic impacts of timber harvesting; [2001, c. 339, §3 (NEW) .]
- E. Biological diversity; and [2001, c. 339, §3 (NEW) .]
- F. Public accountability. [2001, c. 339, §3 (NEW) .]

The Governor shall appoint a panel of technical experts to work with the director to implement, monitor and assess tests of outcome-based forestry principles. In order to participate in the outcome-based forestry experiment, the landowner, director and technical panel must develop agreed-upon desired outcomes for the experimental area and develop a method for determining if the outcomes have been attained and a system for reporting results to the public.

[2011, c. 488, §3 (AMD) .]

4. Exemption for natural disaster. If the regeneration on a harvested clear-cut, or portion thereof, is destroyed by fire, disease, insect infestation or other natural disaster, the regeneration requirement does not apply. Vegetative cover sufficient to prevent accelerated erosion must be established on the site.

[1989, c. 555, §10 (NEW) .]

5. Variance. The commissioner shall establish, by rule, standards to permit activities that exceed the standards set forth under subsection 2. In developing standards, the commissioner shall consider the unique characteristics of a site and any related economic hardship which would result from noncompliance with these standards.

[1989, c. 555, §10 (NEW) .]

6. Transfer or sale of property. Upon sale or other transfer of ownership of land that has been harvested, the

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transferee becomes responsible for the regeneration requirements on the site. The transferor shall disclose in writing to the transferee the regeneration requirements of this section at, or prior to, the time of sale or transfer. Failure of the transferor to comply with the disclosure requirement shall result in the transferor being responsible for compliance with the regeneration requirements of subsection 1.

[1989, c. 555, §10 (NEW) .]

7. Application. This section applies to all forest lands within the State, including land in municipal and state ownership. Except as provided in subsection 7-A, only state-owned or operated research forests or industrially owned research forests certified by the commissioner are exempt from these requirements.

[2001, c. 339, §4 (AMD) .]

7-A. Exemption for outcome-based forest policy experimental areas. Outcome-based forest policy experimental areas designated under section 8003, subsection 3, paragraph Q are exempt from the requirements of this subchapter and rules adopted pursuant to this subchapter.

[2011, c. 488, §4 (AMD) .]

8. Relationship to municipal rules and regulations. Nothing in this subchapter may be construed to preempt or otherwise limit the existing authority of municipalities to regulate harvesting, except that municipalities regulating timber harvesting shall adopt definitions for forestry terms used in their ordinances that are consistent with definitions in section 8868 and with forestry terms adopted by the commissioner pursuant to this subchapter. Municipal timber harvesting ordinances adopted before September 1, 1990 must meet this standard of compliance with definitions no later than January 1, 2001.

A municipality may not adopt an ordinance that is less stringent than the minimum standards established in this section and in rules adopted by the commissioner to implement this section and section 8867-B. A municipality may not adopt or amend an ordinance that regulates timber harvesting unless the process set out in this subsection is followed in the development and review of the ordinance.

A. A licensed professional forester must participate in the development or amendment of the ordinance.
[1999, c. 263, §1 (AMD) .]

B. A meeting must take place in the municipality during the development or amendment of the ordinance between representatives of the department and municipal officers and officials involved in developing the ordinance. Discussion at the meeting must include, but is not limited to, the forest practices goals of the municipality. At this meeting and subsequently, the department shall provide guidance to the municipality on how the municipality may use sound forestry practices to achieve the municipality's forest practices goals.
[1999, c. 263, §1 (AMD) .]

C. The municipality shall hold a public hearing to review a proposed ordinance or ordinance amendment at least 45 days before a vote is held on the ordinance. The municipality shall post and publish public notice of the public hearing according to the same general requirements of posted and published notice for zoning ordinance public hearings as provided by Title 30-A, section 4352, subsection 9.

In addition, when a municipality proposes to adopt or amend a timber harvesting ordinance pursuant to its home rule authority as provided by Title 30-A, section 3001, the municipality shall mail notice of the hearing by first-class mail at least 14 days before the hearing to all landowners in the municipality at the last known address of the person on whom a property tax on each parcel is assessed. In the case of a timber harvesting ordinance or amendment that applies only to certain zones or land use districts in the municipality, the municipality may meet the requirements of this paragraph by mailing notice only to those landowners whose land is in a zone or land use district or immediately abutting the affected zone or land use district.

Mailed notice to individual landowners is not required under this subsection for any type of amendment to an existing local land use ordinance merely to conform that ordinance to the minimum timber harvesting guidelines required by Title 38, section 439-A, as those guidelines may be subsequently amended, or to conform any timber harvesting ordinance to the requirements of this section for conformity of definitions when the proposed amendments do not substantially change any previously established timber harvesting standards adopted pursuant to home rule authority.

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The municipal officers shall prepare and file with the municipal clerk a written certificate indicating those landowners to whom the notice was mailed and at what addresses, when it was mailed, by whom it was mailed and from what location it was mailed. The certificate constitutes prima facie evidence that notice was sent to those landowners named in the certificate.

Any action challenging the validity of the adoption or amendment of a municipal timber harvesting ordinance based on the municipality's alleged failure to comply with the landowner notice requirement must be brought in Superior Court within 90 days after the adoption of the ordinance or amendment. The Superior Court may invalidate an ordinance or amendment only if the landowner demonstrates that the landowner was entitled to receive a notice under this section, that the municipality failed to send the notice as required, that the landowner had no knowledge of the proposed ordinance or amendment and that the landowner was materially harmed by that lack of knowledge. [1999, c. 263, §1 (AMD) .]

D. The municipal clerk shall notify the department of the time, place and date of the public hearing and provide the department with a copy of the proposed ordinance that will be reviewed at the hearing at least 30 days before the date of the hearing. [1999, c. 263, §1 (AMD) .]

E. At the public hearing, representatives of the department must be provided an opportunity to present and discuss for the municipality's information any reports, articles, treatises or similar materials published by acknowledged experts in the field of sound forestry or silvicultural management to the extent such information is relevant to the proposed ordinance or ordinance amendment.

The proposed ordinance or ordinance amendment may be revised after the public hearing. The ordinance or amendment must be submitted to the legislative body of the municipality in accordance with the procedures the municipality uses for adopting ordinances. [1999, c. 263, §1 (NEW) .]

F. Municipal timber harvesting ordinances may not be unreasonable, arbitrary or capricious and must employ means appropriate to the protection of public health, safety and welfare. [1999, c. 263, §1 (NEW) .]

G. All direct costs incurred by a municipality associated with landowner notification requirements and other required public notice must be paid to the municipality in accordance with a distribution schedule established under Title 30-A, section 5685, subsection 5. All direct costs incurred by a municipality in order to comply with this subsection for the amendment of ordinances adopted before September 1, 1990 must be paid to the municipality in accordance with a distribution schedule established under Title 30-A, section 5685, subsection 5. [1999, c. 263, §1 (NEW) .]

[2003, c. 335, §3 (AMD) .]

9. Centralized listing of municipal ordinances. The division shall maintain for informational purposes a statewide centralized listing of municipal ordinances that specifically apply to forest practices.

A. Within 30 days after the legislative body of the municipality votes on a timber harvesting ordinance developed according to the procedures of subsection 8, the clerk shall notify the division of the outcome and shall file a copy of the ordinance with the division. [1999, c. 263, §2 (RPR); 2011, c. 657, Pt. W, §7 (REV) .]

B. [1999, c. 263, §2 (RP) .]

[1999, c. 263, §2 (RPR); 2011, c. 657, Pt. W, §7 (REV) .]

10. Right of enforcement. Enforcement of this subchapter shall be by any state, county or municipal law enforcement officer, including forest rangers and field foresters of the division and wardens of the Department of Inland Fisheries and Wildlife.

[1989, c. 555, §10 (NEW); 2011, c. 657, Pt. W, §7 (REV) .]

11. Right of entry. Agents of the division have rights of access to all lands within the State to carry out the duties they are authorized by law to administer and enforce. This subsection does not authorize entry into any building or structure.

[1997, c. 694, §1 (AMD); 2011, c. 657, Pt. W, §7 (REV) .]

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12. Right of action. A landowner found in violation of this section and penalized under section 9701 as a result of actions of a harvester has a right of action to recover the penalty against the harvester who undertook the harvest operation found in violation. In addition to all other defenses permitted by law, it is a defense that the harvester operated under the landowner's instructions. For the purposes of this subsection, the terms "harvester" and "harvest operation" have the same meanings as in section 8881.

[1993, c. 217, §1 (NEW) .]

13. Confidential information. Information provided to the division voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy experimental 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 division 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 division, 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.

[2011, c. 488, §5 (AMD); 2011, c. 657, Pt. W, §7 (REV) .]

14. Substantial elimination of liquidation harvesting. The commissioner shall adopt rules to substantially eliminate liquidation harvesting. Rules adopted pursuant to this subsection are major substantive rules as defined in Title 5, chapter 375, subchapter 2-A.

[2003, c. 422, Pt. A, §4 (NEW) .]

SECTION HISTORY

1989, c. 555, §10 (NEW). 1991, c. 863, §1 (AMD). 1993, c. 217, §1 (AMD). 1995, c. 122, §1 (AMD). 1995, c. 122, §2 (AFF). 1997, c. 694, §1 (AMD). 1997, c. 720, §§7,8 (AMD). 1999, c. 263, §§1,2 (AMD). 1999, c. 361, §§2,3 (AMD). 2001, c. 339, §§3-6 (AMD). 2003, c. 335, §3 (AMD). 2003, c. 422, §§A3,4 (AMD). 2005, c. 550, §§4-6 (AMD). 2007, c. 271, §§3-5 (AMD). 2009, c. 567, §9 (AMD). 2011, c. 488, §§3-5 (AMD). 2011, c. 657, Pt. W, §7 (REV) .

12 §8870. PENALTIES

1. Civil violation. A person who violates a rule adopted pursuant to section 8869, subsection 14 or a condition or term of a permit, variance or decision issued by the director or the commissioner in accordance with rules adopted pursuant to section 8869, subsection 14 commits a civil violation.

[2003, c. 694, §1 (NEW) .]

2. Penalty. Except as provided in subsection 3, the following penalties apply to violations of this section.

A. A person who violates this section commits a civil violation for which a fine of not less than \$100 and not more than \$1,000 may be adjudged for each day of that violation. [2003, c. 694, §1 (NEW) .]

B. A person who violates this section after having previously been adjudicated of a violation of this section within the previous 5-year period commits a civil violation for which a fine of not less than \$1,000 but not more than \$2,000 may be adjudged for each day of that violation. [2003, c. 694, §1 (NEW) .]

[2003, c. 694, §1 (NEW) .]

3. Economic benefit. If the economic benefit resulting from the violation exceeds the applicable penalties under subsection 2, the maximum fines may be increased. The maximum fine may not exceed an amount equal to twice the economic benefit resulting from the violation. The division shall consider as economic benefit, without limitation, the costs avoided or the enhanced value accrued at the time of the violation by the violator as a result of not complying with the applicable legal requirements.

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[2003, c. 694, §1 (NEW); 2011, c. 657, Pt. W, §7 (REV) .]

4. Effective date.

[2005, c. 514, §1 (RP) .]

5. Supplemental environmental projects. In settling a civil enforcement action for any violation of this subchapter or any rule adopted under this subchapter, the parties may agree to a supplemental environmental project that mitigates not more than 80% of the assessed penalty. "Supplemental environmental project" means an environmentally beneficial project primarily benefiting the public health or the environment that a violator is not otherwise required or likely to perform.

A. An eligible supplemental environmental project is limited to the following categories:

- (1) Environmental enhancement projects in the same ecosystem or geographic area of the violation that significantly improve an area beyond what is required to remediate any damage caused by the violation that is the subject of the enforcement action;
- (2) Community forestry projects in the same ecosystem or geographic area of the violation that are conducted in accordance with the purposes of section 8705;
- (3) Environmental awareness projects substantially related to the violation that provide training, publications or technical support to members of the public and that are regulated by the Department of Agriculture, Conservation and Forestry; or
- (4) Scientific research and data collection projects that advance the scientific basis on which regulatory decisions are made. [2005, c. 514, §2 (NEW); 2011, c. 657, Pt. W, §5 (REV) .]

B. A supplemental environmental project may not be used in the following situations:

- (1) Repeat violations of the same or a substantially similar law administered by the Department of Agriculture, Conservation and Forestry by the same person;
- (2) When a project is required by law;
- (3) If the violator had previously planned and budgeted for the project;
- (4) To offset any calculable economic benefit of noncompliance;
- (5) If the violation is the result of reckless or intentional conduct; or
- (6) If the project primarily benefits the violator. [2005, c. 2, §11 (COR); 2011, c. 657, Pt. W, §5 (REV) .]

Any settlement that includes a supplemental environmental project must provide that expenditures are not tax deductible.

[2005, c. 2, §11 (COR); 2011, c. 657, Pt. W, §5 (REV) .]

6. Costs permitted. In any action or proceeding brought by the Attorney General under this section, the court may award litigation costs, including court costs, reasonable attorney's fees and reasonable expert witness fees, to be deposited in the General Fund of the State if the State or any of its officers or agencies is a prevailing party in the action or proceeding and the defendant's defense was not substantially justified. For the purposes of this subsection, a defense is "substantially justified" if the defense had a reasonable basis in law or fact at the time it was raised.

[2009, c. 536, §1 (NEW) .]

SECTION HISTORY

2003, c. 694, §1 (NEW). RR 2005, c. 2, §11 (COR). 2005, c. 514, §§1,2 (AMD). 2009, c. 536, §1 (AMD). 2011, c. 657, Pt. W, §§5, 7 (REV).

Bios 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. He is an FSC forest management and chain of custody auditor.

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. Since his retirement in 2006, he has served as the Habitat Management Coordinator for the Wildlife Management Institute in Washington and since 2010 has been Maine's Habitat Management Coordinator for the Northern and Appalachian Mountain Young Forest Initiatives. 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. He has won numerous professional awards and served on many special assignments and appointments.

Maxwell McCormack, Jr. is a retired professor of silviculture from the Maine School of Forestry and a Research Professor Emeritus of Forest Resources at the University of Maine. He currently is a consultant from his home in Unity. He is a member of many professional organizations including the Society of American Foresters, the Weed Society of America, the Northeastern Weed Science Society, Maine Forest Products Council, Maine Christmas Tree Association, The Nature Conservancy, SAM and many more. He received numerous honors throughout his distinguished career. Dr. McCormack is a graduate of the University of Maine with a BS in Forestry, earned both an MF and DF in Silviculture from Duke University. He is a licensed Maine forester.

David 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 Trandafillou 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, the North Maine Woods and the Society of American Foresters. He is currently a licensed Maine Forester and participated on numerous public boards including outcome based forestry, LURC reform, sustainable forestry, Maine wood supply and state-wide water quality rules. He currently serves on the Maine Development Foundation Board of Directors and formerly was on the Maine Technology Institute Board of Directors.

Robert Wagner is the Director of the University of Maine's School of Forest Resources and Center for Research on Sustainable Forests. He holds the Henry W. Saunders

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Distinguished Professor in Forestry. His 30-year research career has focused on forest resource issues in New England, Canadian boreal forest, and Pacific Northwest. He has authored well over 100 publications in the fields of silviculture, forest ecology, and vegetation management. Dr. Wagner has a Ph.D. in silviculture from Oregon State University, a M.S. in forest ecology from the University of Washington, and a B.S. in forest management from Utah State University.

OUTCOME BASED FORESTRY AGREEMENT #2011-1

This agreement by and between IRVING WOODLANDS LLC (hereinafter "Participant"), the DEPARTMENT OF CONSERVATION, MAINE FOREST SERVICE (hereafter "MFS") is entered into pursuant to Title 12 M.R.S., § 8003, sub-§ 3.Q. and § 8869, sub-§ 3-A and 7, 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;

Whereas, in its 1999 State of the Forest report, 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;"

Whereas, the Maine Legislature has endorsed outcome based forestry and directed MFS to pursue experimental 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,

Participant and the MFS agree as follows:

1. **Authority:** Pursuant to Title 12 M.R.S. Chapters 801 and 805, subchapter 3-A, MFS has regulatory authority over the activities described herein.
2. **Partner to this agreement:** Participant is a landowner and/or involved in forest management in the state of Maine. Participant's primary office is located in Fort Kent, Maine.
3. **Location:** 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 Participant in Maine (the "Property").

The J.D. Irving Northern Maine Woodlands 2007 - 2031 Strategic Forest Management Plan dated September 2010 (the "Forest Management Plan") is incorporated in this agreement by reference, as it will guide Participant on its activities on the Property. The landowner'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 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, sub-§ 3-A; the Governor of Maine has established a panel of technical experts (hereinafter "panel") to work with the Director of the Maine Forest Service to implement, monitor and assess tests of outcome-based forestry experiments. 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. Gary Donovan, Certified Wildlife Biologist;
 - B. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
 - C. William A. Patterson IV, The Nature Conservancy;
 - D. Peter Triandafillou VP Woodlands, Huber Resources; and,
 - E. Robert G. Wagner, Director, University of Maine, School of Forest Resources, 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).
 - 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. Continued certification to the standards of a recognized certification system (for example, American Tree Farm System, Forest Stewardship Council (FSC) and/or Sustainable Forestry Initiative (SFI), will be prima facie evidence that Participant has achieved compliance with the state's sustainability goals and outcomes and satisfied the conditions of this Section 7. Certification is a continuous process that involves regular surveillance audits and periodic recertification audits; therefore, any discovered departures from the standards will be rectified in a timely manner. Participant is currently enrolled in both SFI and FSC and uses the latter for benchmarking compliance with the state's sustainability standards.
8. Exemptions from certain requirements of 12 M.R.S. § 8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards: Provided that Participant satisfies the conditions set forth in Section 7 of this agreement, Participant is exempt from the following requirements of law and rule:
- A. Chapter 20 Rule Sections 5.A. and 6. Participant will not create clearcuts larger than 250 acres without securing express written approval from MFS.
 - B. 12 M.R.S. § 8869, sub-§ 2-A and Chapter 20 Rule Section 5.B. (clearcut separation zones).
 - C. 12 M.R.S. § 8869, sub-§ 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, sub-§ 1 and Chapter 20 Rule, Section 3.A.3. (prior notification, submission of harvest plans to 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, Participant will measure regeneration success on clearcuts, the results of which shall be made available for inspection by MFS and the panel. In cases where regeneration is found to be inadequate, 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: Participant may operate subject to the following modifications of law and rule:
- A. Chapter 20 Rule, Section 3.A.3. Participant must file one harvest notification per township harvested per two years. Participant is not required to file harvest notification amendments with MFS. However, Participant is required to internally maintain adequate documentation of harvest activities by township to permit harvest inspections by MFS and to facilitate work of the panel.



10. Participant commitments: 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 as provided by existing rules and any applicable local regulations:
- A. Participant shall maintain certification status with a nationally recognized sustainable forest management certification system.
 - 1. Participant shall act promptly to satisfactorily address any Corrective Action Request or Nonconformance associated with its certification.
 - 2. A member of the panel or a mutually agreeable designee shall be permitted to participate in the forest management certification audit field visits, and to provide input to the third party lead auditor on behalf of the panel.
 - 3. Participant shall invite one member of the panel or a mutually agreeable designee to attend meetings and provide input to Participant's Forest Research Advisory Committee.
 - B. 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, 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 C, below.
 - C. Participant shall annually report to 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 which 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. 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.
- D. Participant shall prepare and submit a report of the average clearcut size and total clearcut areas on an annual basis.
- E. A Maine Licensed Forester within the company shall review and approve the landowner's Forest Management Plan.
- F. Harvests will be laid out with consideration of visual aesthetics in areas of moderate and higher visual sensitivity. Participant's forest management staff will be proficient in managing for visual aesthetics and receive periodic training.
- G. Participant will accommodate other reasonable requests for information made by MFS and the panel as mutually agreed upon.

11. Sale and purchase of lands:

- A. Participant will be permitted to add any lands their ownership group purchases to be included within this agreement, provided that Participant promptly includes those same additional lands in their forest certification program and their management strategy and plans, and provided Participant manages the lands to the same standards as the rest of their ownership. Similarly, this agreement does not prohibit 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 Participant would be 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. Participant shall notify MFS of any sales or purchases of land covered under this subsection within 30 days of closing.

12. Confidentiality:

- A. The parties recognize that portions of documents and other information that Participant may be required, or may elect, to provide or make available to 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") MFS, as a division of an agency of the State, 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 Participant to 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 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 [MFS] voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy



experimental 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 [MFS] 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 [MFS], 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. § 8869(13) (emphasis added).

- F. Therefore, if Participant believes that information it is providing to MFS or the panel "voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy experimental areas," id., it must request that the information be designated as confidential by MFS. If MFS determines that the information being provided contains "proprietary information" as defined in 12 M.R.S. § 8869(13), MFS will designate that information as confidential. MFS will notify 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 MFS as proprietary and confidential without the requirement of a review on a case-by-case basis.

- G. If MFS receives a request for information under the FOAA that it has designated as confidential, it will notify Participant of that request within a reasonable of time. MFS will also notify Participant if it plans to disclose the information or deny the request.
- H. 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 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 ultimately rests with Maine's courts. The parties also recognize that MFS is bound by any decision rendered by a Maine court and that MFS will comply with any final decision issued by a Maine court. 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). 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. MFS hereby represents and warrants to the Participant that as contemplated by 12 MRS § 8003(3)(Q), after giving effect to this agreement, MFS will not have designated more than six (6) experimental areas.
14. Reimbursement: Participant shall pay 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 11 May 2012 and terminates on 10 May 2017. It is renewable by mutual agreement between MFS and 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 Participant, effective upon at least ninety (90) days' prior written notice to MFS.
 - C. By MFS effective upon at least ninety (90) days' prior written notice to Participant in the event that Participant has materially breached any provision of this agreement and has failed to cure such breach to the reasonable satisfaction of 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 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 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 #2012-1
10 May 2012

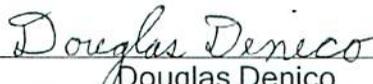
IN WITNESS WHEREOF, the parties hereto have executed this Outcome Based Forestry Agreement consisting of 13 (thirteen) pages, including Schedule A and the Appendix.

Irving Woodlands LLC

By:  Date: May 18, 2012
James D. Irving
Co-Chief Executive Officer
J.D. Irving, Limited



Department of Conservation, Maine Forest Service

By:  Date: 5-17-12
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 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 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 #2012-2

This agreement by and between the Bureau of Parks and Lands (hereinafter "BPL") and the Department of Conservation, Maine Forest Service (hereafter "MFS") is entered into pursuant to Title 12 M.R.S., §8003, sub-§3.Q. and §8869, subs-§3-A and 7, 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;

Whereas, in its 1999 State of the Forest report, 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;"

Whereas, the Maine Legislature has endorsed outcome based forestry and directed MFS to pursue experimental 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,

BPL and the MFS agree as follows:

1. **Authority:** Pursuant to Title 12 M.R.S. Chapters 801 and 805, subchapter 3-A, MFS has regulatory authority over the activities described herein.
2. **Partner to this agreement:** BPL is a land manager involved in forest management on Public Reserved Lands in the state of Maine. BPL's primary office is located in Augusta, Maine.
3. **Location:** BPL Lands Division manages approximately 0.6 million acres in the state of Maine.
4. **Application of this agreement; forest management plan:** This agreement applies to management activities on selected lands managed by BPL in Maine. The BPL Forest Management Plan for these selected areas (see Appendix 2) has outlined targets for opening size, residual stand objectives, and harvest levels by silvicultural

prescription. The selected areas include, but may not be limited to, lands in BPL's Round Pond, Donnell Pond, and Richardson Units.

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, sub-§ 3-A; the Governor of Maine has established a panel of technical experts (hereinafter "panel") to work with the Director of the Maine Forest Service to implement, monitor and assess tests of outcome-based forestry experiments. 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. Gary Donovan, Certified Wildlife Biologist;
 - B. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
 - C. William A. Patterson IV, The Nature Conservancy;
 - D. Peter Triandafillou VP Woodlands, Huber Resources; and,
 - E. Robert G. Wagner, Director, University of Maine, School of Forest Resources, 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 (Appendix 1).
 - B. Continued certification to the standards of a recognized certification system, for example, American Tree Farm System, Forest Stewardship Council (FSC) and/or Sustainable Forestry Initiative (SFI), will be prima facie evidence that BPL has achieved compliance with the state's sustainability goals and outcomes. Certification is a continuous process that involves regular surveillance audits and periodic recertification audits; therefore, any departures from the standards will be discovered and rectified in a timely manner. BPL is currently enrolled in both SFI and FSC and uses the former for benchmarking compliance with the State's Sustainability Standards.
 - C. Enhance deer wintering areas by accelerating the progression of young softwoods into winter cover status, increasing the availability of hardwood browse

in close proximity to winter cover, and providing additional edge habitat. (Note: Both 7.C and 7.D are more fully described in Appendix 2.)

- D. Ensure successful establishment of forest regeneration of high value species, especially yellow birch, sugar maple, and white pine, and increase growth rates and/or timber quality on site specific areas, using a variety of forest management techniques that may include but are not limited to varying intensity of timber harvest, vegetation management, matching species to site, tree improvement techniques, pre-commercial and commercial thinning, etc.
 - E. Conduct harvests with consideration for visual aesthetics.
8. **Exemptions from certain requirements of 12 M.R.S. §8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards:** Provided that BPL satisfies the conditions set forth in Section 7 of this agreement, BPL is exempt from the following requirements of law and rule on the selected areas shown in the attached document:
- A. 12 M.R.S. §8869, sub-§2-A and Chapter 20 Rule Section 5.B. (clearcut separation zones).
 - B. 12 M.R.S. §8869, sub-§3 and Chapter 20 Rule Section 5.C. (forest management plans for individual clearcuts larger than 20 acres).
 - C. 12 M.R.S. §8883-B, sub-§1 and Chapter 20 Rule, Section 3.A.3. (prior notification, submission of harvest plans to MFS for individual clearcuts larger than 75 acres).
 - D. Chapter 20 Rule, Section 5.C.3.b. (certification of establishment of clearcuts).
 - E. Chapter 20 Rule, Sections 4.C. and 5.C.3.a. (certification of regeneration of clearcuts). Notwithstanding such exemption, BPL must regenerate all clearcuts within five years of completing any timber harvest that creates a clearcut, except for instances where wide-spaced pine management results in an overstory with less than 30 square feet of basal area, and maintain internal documentation available for inspection by MFS and the panel.
9. **Modifications to certain requirements of 12 M.R.S. §8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards:** BPL may operate subject to the following modifications of law and rule:
- A. Chapter 20 Rule, Section 3.A.3. BPL must file one harvest notification per township harvested per two years. BPL is not required to file harvest notification amendments with MFS. However, BPL is required to internally maintain adequate documentation of harvest activities by township to permit harvest inspections by MFS and to facilitate work of the panel.

10. **BPL commitments:** BPL 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 as provided by existing rules and any applicable local regulations:

- A. BPL shall maintain its current Forest Stewardship Council and/or Sustainable Forestry Initiative certifications (FSC: BV-FM/COC-017429; SFI: BV-SFIS-US004629-1).
 - 1. BPL shall act promptly to satisfactorily address any Corrective Action Request or Nonconformance associated with its FSC and/or SFI certifications.
 - 2. A member of the panel or a mutually agreeable designee shall be permitted to participate in the forest management certification audit field visits, and to provide input to the third party lead auditor on behalf of the panel.
 - 3. BPL shall invite one member of the panel or a mutually agreeable designee to attend meetings of and provide input to BPL's Silvicultural Advisory Committee.
- B. BPL shall document and periodically provide results of its efforts to improve measurably the quantity and/or quality of its timber resource on those areas included in this application. In addition to documentation of compliance with applicable certification standards, BPL shall periodically provide evidence of attainment of the desired outcomes described in Section 7 of this agreement through the use of metrics outlined in Section C. below.
- C. BPL shall report to MFS its harvest management and silvicultural metrics for the selected areas included in this application including, but not limited to:
 - 1. Estimates of harvest acreage for the entire projects summarized for the coming five year period by silvicultural prescription; overstory removal, commercial thinning, shelterwood, clearcut, etc.
 - 2. More specific annual harvesting plan which shows the planned acreage for harvest for the upcoming year (mapped and numerical count) by prescription, and with clearcuts exceeding 60 acres individually identified.
 - 3. Annual harvest summary, provided within 60 days of year end, showing the areas harvested over the previous year by prescription (actual versus plan.) Information will be made available for sites visited by the panel. BPL will continue to provide information on acres harvested by harvest type, by township as required on the "Confidential Report of Timber Harvest." BPL will report on how its management activities are influencing white pine growth and the progression of thinned softwood (fir-dominated) stands into conforming deer winter cover.

4. Regeneration targets and success for natural stands. Where available, information will be provided by site at the time the panel conducts field verifications.
 - D. A Maine Licensed Forester within the Bureau shall review and approve BPL's Forest Management Plan.
 - E. Harvests will be laid out with consideration of visual aesthetics in areas of moderate and higher visual sensitivity. BPL's forest management staff will be proficient in managing for visual aesthetics.
 - F. BPL will accommodate other reasonable requests for information made by MFS and the panel as mutually agreed upon.
11. **Reimbursement:** Panel members will be reimbursed for reasonable expenses incurred in the course of their work; specifically, mileage for travel in personal vehicles at the state rate; lodging costs, and per diem at the federal rate. Reimbursement will be made by MFS; BPL shall reimburse MFS by journal for documented expenditures.
 12. **Duration of this agreement:** This agreement takes effect on 11 May 2012 and terminates on 10 May 2017. It is renewable by mutual agreement between the MFS and BPL.
 13. **Amendments:** This agreement may be amended at any time by mutual, written consent of BPL and MFS, with the concurrence of the panel.
 14. **Termination of this agreement:** This agreement may be terminated by either party with 90 days notice. As soon as notice is either given by the landowner or received from the state by the landowner, the landowner is obliged to comply with all regulations then in effect for all harvests started after delivery or receipt of such notice.
 15. **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.

IN WITNESS WHEREOF, the parties hereto have executed this Outcome Based Forestry Agreement consisting of 20 pages.

Department of Conservation, Bureau of Parks and Lands

By: *Willard Harris* Date: 5-11-12

Willard Harris
Director, Bureau of Parks and Lands

Department of Conservation, Maine Forest Service

By: *Douglas Denico* Date: 5-11-12

Douglas Denico
Director, Maine Forest Service

Appendix 1. 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 Bureau 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 the MFS in forest health monitoring programs on the ownership.

Appendix 2.

Summary: North Region - Hardwood Seed-Tree Harvest, Round Pond

--Desired outcome: Replacing beech-dominated regeneration with a mix of yellow birch, sugar maple, beech and spruce.

--Method: Seed-tree harvests in blocks of 20 to 50+ acres, leaving 10-25 square feet basal area of good quality yellow birch and sugar maple, and spruce if windfirm.

--Benefit of OBF: Under FPA, clearcuts larger than 20 acres require considerable added administrative work. Furthermore, it is a bit unclear whether the above method meets any of the acceptable reasons for larger clearcuts shown in the FPA rules, Ch 20, sec 5,C,1,b,(8), which might also require the Bureau to obtain a variance. Operating under OBF would relieve the Bureau of this additional office/fieldwork required under the general FPA rules, while permitting a practice that should increase future timber values while providing near-term browse and edge for wildlife.

--The seed-tree practice will be accompanied by an initial commercial thinning in young mixedwood - aspen/birch above spruce/fir. This will accelerate the development of quality winter shelter for deer, adjacent to an important zoned deer wintering area, while increasing growth on valuable timber species. This practice, per se, does not require the provisions of OBF, but is an integral part of the two-pronged strategy to provide value to both wildlife and timber.

Summary: East and West Regions - Low Density Pine Management

--Desired outcome: Maintaining/accelerating growth rates on high quality white pine, especially on the first sawlog where the bulk of a tree's timber value is usually found.

--Method: Thinning (East) and partial overstory removal (West) of blocks of 20 to 50 acres, leaving 15-30 square feet basal area of the better quality white pine. In the East, this harvest will be followed by pruning to 17 feet, to allow production of very high value clear lumber. In the West, the pines are somewhat older and are naturally pruned. In the East, this thinning will allow lowbush blueberries to capture the ground layer, providing abundant food for wildlife and berry-picking opportunities for recreational users, as the stand lies within a short distance of Route 182.

--Benefit of OBF: Much the same as with the hardwood seed-tree harvest, above, except that the low density pine management clearly falls outside the acceptable reasons in FPA for larger clearcuts. The Bureau will be able to carry out this cutting edge pine management for maximizing high-value lumber production without the administrative burden necessary under the general FPA provisions.

--In the West, this pine management will be part of the second entry into 1,700 acres of spruce-pine stands thinned 1996-2002. Another 500 acres considered too small in 1996 for commercial thinning can now be treated, and about 90 acres of this stand lie within

the Mosquito Brook deer wintering area. Thinning these acres will retain longer live crown ratios on residual trees, thus enhancing their potential as primary winter cover.

Outcome based forestry - Bureau of Parks and Lands

Note: All operation dates are tentative, depending on job layout and contract development.

NORTH REGION: ROUND POND, Mixedwood Semi-commercial Thinning, Hardwood Seed-Tree Harvest, Alder/Aspen Patchcuts for Early Successional Habitat

Summary of Concept:

This is a two-pronged strategy aimed at improving deer habitat on an important wintering-area township while managing for high value timber products. The tract has considerable acreage in younger stands with good fir and spruce content but overtopped by aspen and white birch. It also holds a smaller but significant area in northern hardwoods of modest quality, relatively near to those younger stands, and also close to zoned deer wintering area with good cover. The proposal seeks to accelerate the young stands' development into core winter cover while the current cover is still useful, by removing the taller hardwoods. At the same time, the harvest in hardwoods will provide abundant browse nearby to cover areas, and should increase the stocking of valuable species in the new stand, especially yellow birch.

WILDLIFE (More details are found under Wildlife/Timber)

Semi-commercial thinning in sapling/pole stands:

This would be done mainly in mixedwood stands, some possible in softwood stands. General tree-selection objectives;

--Release overtopped softwoods

--Remove most hardwoods, retaining good quality sugar maple and yellow birch

--Retain cedar and spruce, also any pine (and hemlock, if any are encountered.)

--Fir is the most abundant species on most of these acres, and though it (and aspen) will be the major species harvested, fir will still be the leading species after treatment. It is a good shelter species though short-lived and susceptible to spruce budworm. This and subsequent entries can move composition toward longer-lived species like spruce and cedar while utilizing the fir before it becomes overmature.

Outcome:

Maintain or increase softwood component in these stands. Most lie within the HMA area and some have nearly achieved primary cover character. This will promote earlier progression of these stands into suitable winter shelter for deer, thus providing

increased acreage of shelter, and will also enhance habitat for marten by adding both horizontal and vertical softwood structure to the treated stands.

Early Successional Habitat Component

--Create small openings in hardwood dominated stands and in alder runs.

Outcome:

This will quickly become suitable woodcock singing grounds and brood habitat, and will develop into hare habitat, and thus benefitting lynx, at 12-15 years post-treatment. It will also create edge and produce food for deer.

Edge and Browse - Yellow Birch and Sugar Maple Seed Tree Harvest:

These heavy harvests, designed to foster regeneration of valuable hardwood timber species, would be located in relatively close proximity to primary and secondary deer cover. The harvests would create extensive edge habitat and establish abundant browse on acres convenient to deer yarding areas.

WILDLIFE/TIMBER

Semi-commercial thinning in (mostly) sapling stands:

The former landowner conducted moderate to heavy diameter limit harvests west of the Allagash during the mid-late 1960s. These harvests created a number of small to medium clearcuts where stands had been mostly large softwoods, and these younger stands are mainly small poletimber at present. Removing most aspen and birch along with the scattered older fir bypassed in the 1960s would leave the residual fir and spruce with more growing room, promoting conforming winter cover at an earlier date than would otherwise be the case. The proposed treatments, in addition to making the stands more valuable for future harvests, will also restore the forest on this area to what had been there prior to the 1960s harvests.

These stands typically hold 10-40 sq.ft. basal area in older stems (usually spruce, fir and RM), with over 100 sq.ft. in trees established or released by the 1960s harvests. The younger stratum is mainly aspen over fir, with some white birch and spruces. Aspen is mostly 6-12" dbh, with most stems of other species 4-7". The stands are 10+ years older than those east of the river, and the trees may be large enough to allow a roundwood harvest, though having a biomass component might yield a total harvest double the roundwood-only estimate of 7-10 cords per acre.

There are nearly 600 acres potentially suitable for this treatment, although logistics and variable stocking of young softwoods may cut this to perhaps 300 acres. Many of these stands lie in close proximity to the hardwood stands for which a seed tree harvest is proposed. The combination of treatments would produce edge and browse located near to stands which are presently cover or will soon attain that character.

There are also 2,200 acres of somewhat similar stands east of the Allagash. These are about 10 years younger and lack the scattered overstory, as they are the result of stands clearcut in the 1970s and treated (with modest success) with herbicides in 1981. Although outside of this specific proposal, in part because extensive roadwork will be required for access, these areas offer additional opportunity to enhance deer winter cover in the near future.

Seed-tree Harvest in Hardwood Stands:

About 350 acres of potentially suitable hardwood stands are found outside of zoned AWW visual areas on the lands between Schedule Brook and the Blanchet Road. These stands are heavy to poor quality beech both in the overstory and regeneration strata, but have sufficient stocking and distribution of yellow birch and sugar maple on most acres to make a seed tree harvest a viable option. These are also among the more windfirm of Maine's tree species. Yellow birch in particular is adapted to widespread distribution of seed, often due to the small seed being blown across the surface of snow.

Parameters of these stands (weighted averages):

Basal area: 110 sq.ft., 100 in trees 5"+

Average diameter: 11.6" (for trees 5"+)

Composition: BE 44%, SM 31%, RM 10%, S/F 9%, YB 5%, CE 1%.

The seed-tree harvest would make clearcuts of 20-30 acres, selecting as residual trees those which appear healthy and vigorous, of mid to large size - 12" to 24"+. Approximately 8-15 such trees per acre (probably 10-30 sq.ft. per acre basal area), reasonably well distributed, would suffice to reseed the openings. Given YB basal area in these stands, it would likely make up 1/3 to 1/2 of the leave trees, with the remainder SM, and possibly some spruce or smooth-barked beech where they are located near the edge of a patch. All beech regeneration would be felled or crushed, with sugar maple, yellow birch and softwoods retained where economically practical for machine and operator. These retained saplings would be as "gravy", not especially necessary but useful in giving some acres a heads start. However, they will almost certainly be too few to have the harvest meet the standards for an overstory removal. The plan would include a protocol for monitoring of subsequent regeneration of these clearcuts, both the species and stocking of seedlings and a qualitative record of browsing by moose and deer.

The goal would be to retain a scattered overstory of larger trees which would modify somewhat the environmental conditions of the openings, in favor of yellow birch and sugar maple rather than more aspen and/or paper birch. This overstory would also retain some late successional character where trees are left near the clearcut edges. The regeneration forming the new stand would have high stocking of the more valuable hardwood species and provide abundant edge plus a major supply of preferred browse. Having this edge/browse relatively close to winter cover would make it quite valuable for

deer health. Should beech dominate the post-harvest regeneration, the Bureau will consider the use of herbicide, the chemical and application rate chosen so as to target beech while retaining most/all of the more desirable hardwood species and all softwoods. This would be done by skidder-mounted sprayer, as the acreage is too modest to warrant setting up an aerial project.

For the hardwood stands on this part of the Unit, the seed-tree harvests would probably be done over a 2-3 year period. There may be opportunity to conduct similar harvests east of the river, in proximity to the much larger young mixedwood stands suitable for the semi-commercial thinning. Entry into these east side hardwoods, if they are good candidates, would take place 3-5 years from now. This delay is due to the need to re-establish access, but would extend the browse availability for several additional years. According to 1999 inventory points, some areas within H2A, H2B, and H3B types may be suitable. H2C and H3C points averaged less than 20 sq.ft. BA in SM+YB, with about 2/3 the 5"+ stocking in AS/PB+spruce-fir, and thus do not appear viable prospects for this treatment. Some parameters for A and B density hardwood stands, weighted by number of inventory points:

Basal area: 133 sq.ft., 104 in trees 5"+

Average diameter: 10.0" for TH species 5"+

Composition (5"+): SM 37%, AS/PB 20%, RM 18%, BE 9 % S/F 9%, YB 6%, WP 1%.

The 2-4" composition: SM 32%, BE 19%, AS/S-F/OH each 13%, YB 5%, RM/PB each 3%.

Measuring Outcomes:

Semi-commercial thinning: Harvest areas should be visited semi-annually to track their progression to secondary and/or primary deer cover, with evidence of deer use also recorded. Permanent growth plots could be established along with some controls in areas not thinned. These latter could be in areas where proximity to the Waterway make extensive harvests less practical.

Early successional habitat: At the same time the semi-commercial harvests are monitored, these hardwood/alder patchcuts could be visited to check on resprouting. Spring visits to check for potential woodcock use would also be useful.

Hardwood seed-tree harvests: An initial visit at harvest plus two years could evaluate several of the clearcuts for regeneration species and stocking. However, the success of yellow birch and sugar maple regeneration will not be fully apparent before year five or later, as trees grow up through the inevitable rubus. Results from elsewhere give confidence that desirable regeneration will be present in sufficient numbers to produce a high value stand dominated with yellow birch and sugar maple, with some healthier-appearing beech also retained to ensure mast production.

DRAFT PROPOSAL - LOW-DENSITY PINE MANAGEMENT

Summary of Concept:

Dr. Robert Seymour of the University of Maine has established a six-acre research plot to evaluate low density management of white pine for high quality sawtimber production. His idea is that if white pine crop trees were managed under much wider spacing than is conventional wisdom, they should develop into large sawtimber trees much more quickly with greater economic return. This assumes these trees would be pruned to a height that would result in at least the first sawlog providing clear lumber for optimum value. It also assumes control of competing vegetation so trees are free to grow.

WEST REGION: Richardson Cut-to Length Stands

Initial Thinning

During the period 1996-2002, the Bureau conducted low thinnings on 1,700 acres of spruce-dominated poletimber on this township, utilizing a small, 4-tired processor. These stands had originated mainly from the hurricanes of 1938 and 1944, thus the overstory trees are about 70 years old, give or take a few years. Average pre-treatment basal area for these stands was 200-220 sq.ft., with perhaps 30% of that in stems smaller than 5" dbh. Thinning from below reduced the basal area to about 120-125 sq.ft., nearly all 5"+, while raising the average stem diameter from an average of 6.0" to about 7.5". The operation produced over 24,000 cords, only 135 of which were hardwood, another 150 or so pine, the rest spruce and fir. Average volume harvested was 14 cords per acre. Since then the basal area has climbed only a bit more than 5 sq.ft., due to significant mortality, much of which occurred with the severe storm of July 5, 1999. This event caused major windthrow throughout western Maine, in both recently cut and uncut stands.

Although establishment of regeneration was not an objective for these thinnings, it has occurred on nearly all treated acres, and consists of spruce and fir with a significant pine component in many places. The presence of this desirable regeneration plus a significant overstory component of white pine form the basis for this portion of the proposal.

Only those pine with blister rust or unavoidably on forwarder trails were cut, with the bulk of harvested pine coming from salvage of July, 1999 blowdowns. Two untreated 0.02-acre control plots and 15 thinned plots 0.05 acre were established in February 1997 and three more thinned plots added in October 1998. Pine made up 10-12% of the pre-treatment stand basal area. Due to its being retained, its basal area as of October 1998 was 22.6 sq.ft., about 18% of the stands' total. By the most recent remeasure in June 2010, pine BA was 31.3 sq.ft., and was now 24% of the stand.

Divisions in the pine population

By Plot: Using the thinned growth plots as surrogates for the 1,700 treated acres, one

can divide the area into three populations. The first, "high pine", covering perhaps 40% of this area, currently holds over 30 sq.ft. in pine, with the average being over 50 and some areas with 70 or more. The second, "medium pine" with 20% of thinned acres, has pine basal area at 20-30 sq.ft., while "low pine", with about 40% of the thinnings area, has very little pine - plots average 5 sq.ft. basal area. This proposal looks only at the first two, as the third holds insufficient pine.

By Tree: The 29 surviving pines on thinned growth plots can be looked at as two distinct groups. The first is all the pines as large or larger than the average spruce, 8.6" dbh, and the second being the smaller pines, 5.6" to 7.5" as of June 2010. The 22 larger pines have all, with the exception of one sick 14" tree, added at least 1.4" (average 2.22") in dbh during the eleven years ending in June 2010. None of the seven smaller trees have grown more than 1.3" during that time (average is 0.64") and only one has grown even 0.10". In managing both the high and medium pine areas, the smaller pines will generally not be retained, as they have shown very low potential for response.

High pine: The larger pine (8.6" dbh and larger) on these plots average 42 per acre and 15.0" dbh, for 52 sq.ft. basal area. These plots also hold 85 sq.ft. basal area of spruce. Harvesting all of the spruce that can be taken without causing machine damage to any pines would produce about 20 cords per acre, perhaps 2/3 sawlogs. The residual pines would be nearly at the standard basal area for low-density management, but below the recommended stems per acre. Due to their age and the low number, they would be unlikely to close crowns, but could be expected to continue or accelerate diameter growth. Most of these pines have two clear or nearly clear logs due to natural pruning in past decades, so much of the growth would be on top grade sawlogs.

Assuming the growth plots are somewhat representative of the total 1,700 acres of thinnings, the high pine stands would cover some 680 acres. That is probably more than the actual acreage with over 30 sq.ft. in pine, and logistics plus regeneration status probably would limit this proposal to treating less than half the high pine acres, perhaps 150 acres total in patches of 5 to 25 acres. Probably few of these patch harvests would qualify as clearcuts under FPA, and it is extremely unlikely any would produce clearcuts in excess of 20 acres. Precise location of patches to be treated will require considerable on-ground surveillance. Not all high pine areas would be treated, as in some places the spruce-under-pine mixture should continue to be managed.

Medium pine: The large pine on these plots average only 20 per acre and 14.2" dbh, making 22 sq.ft. basal area. Spruce basal area is 122 sq.ft., and harvesting all of it that is feasible would produce 25-30 cords per acre, with sawlog proportion a bit lower than on the high pine areas because the spruce here is about ½" smaller in average diameter. The residual pines would be far fewer than the recommended number for low-density management, and would be more like the scattered (and very fast-growing) residual pines studied by Dr. Seymour in 2009-10. Regeneration in these areas would be very close to fully released, and height growth should quickly accelerate. White pine weevil incidence is fairly low in the general area, so this degree of release should not allow too much deformity from this insect.

Using the same plot-proportion rationale as for the high pine areas would give an estimated 340 acres in the medium pine stands, and this is probably less likely to be an overestimate than is the calculation for high pine acres. The same caution about regeneration status is in play, given similar total basal areas (about 140 sq.ft.) for both high and medium pine plots. Perhaps 200 acres of this type could feasibly be treated, in patches of similar size (5-50 acres, also requiring fieldwork to determine locations) as for high pine stands. Between the high basal area and the heavy harvest, it is unlikely that there would be sufficient tall regeneration for these treatments to qualify as overstory removals. Thus these harvests would be FPA clearcuts if larger than 5 acres, and would normally trigger the additional qualifications and reporting if larger than 20 acres. Though the entire harvest regime, including the low thinning of additional spruce stands, is included in the Richardson portion of this proposal, it is the work in these medium pine stands that justifies its inclusion in the Objective-Based Forestry process.

Low pine: Growth plots in these areas held only 5 sq.ft. basal area of pine. While any well-formed and sizable pines on these acres will be retained, harvesting will be aimed at favoring the best spruce and nurturing desirable regeneration. These acres are not considered to be part of the OBF proposal.

Low Thinning of Spruce

This portion of the Richardson proposal is included not because it requires the flexibility of OBF related to FPA, but that it provides a companion harvest to the pine management which should increase interest among potential contractors, and because it includes a distinct wildlife objective. Including it as part of OBF may also reduce the paperwork needed for harvesting within a zoned deeryard.

When the spruce poletimber stands were being examined in preparation for the low thinnings conducted during 1996-2002, an area of more than 500 acres lying south of Mosquito Brook was considered to have stems too small on average for a commercial harvest, even with the small processor. Most of these acres have since grown to where a thinning is economically and practically feasible. The thinning would have two objectives. The first would be to produce the same financial and silvicultural results and opportunities as did the earlier thinnings. The second would be to improve the condition and future potential of the Mosquito Brook deer wintering area.

The subject area includes about 90 acres zoned P-FW, a deer wintering area along Mosquito Brook. Although winter use of this area by deer is light at present, the cover is currently suitable. However, the very dense stocking is causing crown length to be reduced, which will shorten the period for which these stands will remain effective cover. The low thinning will open up the stand somewhat, but will allow for lengthening and thickening of crowns, as well as establishing/releasing regeneration and providing a short period of browse availability.

Possible timetable

Harvesting with cut-to-length technology can be done at almost any season. Given the fieldwork necessary for full implementation, a start-up would be unlikely to happen

before the summer of 2012 and may not occur until later, perhaps beginning in 2013. Once under way, the two projects - pine management and low thinning - would probably take at least four years. In this instance it will probably be longer, as those stands thinned 1996-2002 but not part of the two OBF projects are also ready for their next entry. It makes both economic and silvicultural sense to include these harvests with those included in the proposal. The attached map displaying past and proposed harvest areas shows the logistical benefit of rolling them into one contract if possible.

Summary of Objectives

Low-density pine management:

--To produce rapid growth of high value knot-free sawtimber by releasing overstory pines from competition by other trees.

--To release and nurture desirable regeneration, especially of pine but with spruce also important, such that the stand becomes two-storied, with high quality trees in both height classes.

--To increase the edge area in these stands by creating low-density overstories in proximity to those with much higher stocking.

Low thinning of spruce poletimber

--To duplicate the success of the 1996-2002 thinnings on the acres holding trees deemed too small at that time, concentrating growth on the best and most vigorous spruce and pine, while increasing the proportion of those species (especially pine, outside the DWA) within the stand.

--To allow vigorous spruce to increase their live crown ratio, width, and density, so that they remain as core winter cover for deer for many decades, while also establishing the next generation of spruce and fir, and providing for a period of increased browse.

Measurement of Outcomes

--Remeasures of the 18 existing growth plots should continue at intervals of two or three years. Additional plots may need to be established, both in the low-density pine management acres and in the first-entry low thinnings. In the latter these should mostly be within the DWA, assuming that the residual stand there is similar to that outside the zoned P-FW. In the low-density area, existing plots should be augmented as necessary to have at least five each in the high pine and medium pine areas.

--Monitoring of deer use within the Mosquito Brook deeryard should be done on a continuing basis, though it need not be done too frequently (perhaps biannually) until that use becomes significant. Once that occurs, monitoring should include comparisons of treated and untreated acres within and proximate to the P-FW.

EAST REGION: Tunk-Donnell Mixedwood/Pine Stands

In 2007 and 2008, a commercial harvest on Compartments 50 and 51 of the Donnell Pond Unit was completed. One mixedwood area of about 50 acres was well stocked with white pine trees of varying diameters, the highest quality pines being 6-10" dbh and about 40 years old. A light thinning removed most hardwoods and some softwoods around potential pine crop trees. The site is well suited for pine. A quick survey of the stand in 2011 indicated a basal area of 130 sq.ft. per acre, with 80 sq.ft. of white pine, the remainder being some red pine, aspen, and other hardwoods. This proposal would call for a reduction of total basal area to a residual average of 20-35 square feet per acre of exclusively white pine depending on the average stem diameter. Under the Maine Forest Practices Act, a residual basal area of less than 30 would be considered a clear-cut and trigger other requirements such as justifications and separation zones. With the proposed residual basal area so close to the threshold, a considerable amount of post-harvest cruising would be needed to determine whether the stand was above or below 30 sq.ft. Including the harvest in the Objective-Based Forestry proposal makes such intensive inventory unneeded, while allowing the proper spacing and stocking throughout the stands.

The proposal is to thin up to 50 acres of the former Stands #1 and 8 in Compartment 351 (Map attached) of the Donnell Pond Unit to a low density stocking of 80-100 white pine trees per acre. Given an average diameter of 6-10" for the best quality pines, this would translate to the 20-35 sq.ft. basal area shown above. All residual trees would be identified prior to harvest as final crop trees and marked to retain. A whole tree harvesting operation would then remove all other stems two inches diameter at breast height and up, excepting that a few of the largest pine (18" or so) with decent form could be left for legacy purposes. The crop trees would then be pruned to a height of 17' or 1/3 maximum of total tree height, whichever is less, to ensure a good live crown ratio. A basal herbicide application would then follow to remove other stems that may compete with final crop trees. The objective in the understory would be to encourage wild blueberry growth, which is already present in large amounts. This would deter hardwood competition for water and nutrients while providing a pleasing appearance and a readily accessible location for berry picking.

Desired Outcome:

Timber production is the primary emphasis of this project. The desired outcome will be the production of clear pine sawlogs in shortened rotations. Enhanced wild blueberry production under the forest stand will provide some additional benefits for wildlife such as black bear and turkeys. The area would also provide opportunities for the public to pick blueberries for consumption.

Project Timeline: (tentative)

Warm season 2012 - Proposal evaluation and approval (if approved)

Winter 2012-2013 - Lay out harvest operation

Winter 2013 - Conduct harvest on frozen/snow cover conditions to protect blueberries

Outcome based forestry agreement #2012-2
11 May 2012

Spring/Summer 2013 - Contract pruning up to 5,000 crop trees

Fall 2013 - Contract basal herbicide application to control woody competition

Summer/Fall 2015- Monitor growth and survival of crop trees (start a five year rotation of monitoring)

Attachments: Maps of proposed areas

OUTCOME BASED FORESTRY

TECHNICAL REVIEW PANEL

PROGRESS REPORT

ON AGREEMENT WITH

IRVING WOODLANDS, LLC

JULY 2013

Introduction:

This report summarizes the comments of the panel of technical experts appointed by the Governor to review and advise the Maine Forest Service (MFS) and Irving Woodlands LLC (Irving) on the outcome based forestry agreement executed between the two parties in May 2012. The comments pertain to the annual report required by the agreement, and which was provided to MFS in February 2013.

Panel of technical experts reviewing Irving's report:

1. Gary Donovan, Certified Wildlife Biologist;
2. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
3. William A. Patterson IV, The Nature Conservancy;¹
4. Peter Triandafillou VP Woodlands, Huber Resources; and,
5. Robert G. Wagner, Director, University of Maine, School of Forest Resources, and Henry W. Saunders Distinguished Professor in Forestry.

Desired outcomes of Outcome Based Forestry:

1. 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, p. 7).

Findings: Riparian areas have important wildlife habitat functions in addition to protecting water quality. Irving biologists are currently developing a BMP manual to insure that these important habitats are consistently managed throughout their ownership.

Irving's riparian zone management appears to be consistent with Maine regulations and is done with the goal of managing structure, which is beneficial for many kinds of habitat. The company's consistent attention to water quality, wetlands, and riparian zones is especially commendable. Benefits were especially notable relative to soils evaluations and site productivity.

Irving is trying to take a more strategic approach to riparian buffer management by pairing the proper equipment with specially trained crews. Such specialized management of riparian buffers will improve forest health and productivity for the long term but, in limited instances, may reduce the extent of unmanaged riparian buffers as compared to practices under FPA that tended to locate separation zones in riparian zones.

It is important to note that clearcut separation zones required by the FPA rule (pre-outcome based forestry) were temporary features that could be held on the landscape for as little as ten years and did not preclude harvesting. Under outcome based forestry, Irving can take a more strategic approach to creating blocks of mature and late successional forest that should result in more, better protected areas of these forests.

Efficiency gains in harvesting operations and road improvements resulting from outcome based forestry-based opportunities are readily apparent.

¹ Mr. Patterson resigned from the panel on 01 August 2013.

Irving has a sophisticated GIS process that foresters use to identify rare resource issues that exist on their ownership. This information includes data from Maine Natural Areas Program, Maine Department of Inland Fisheries and Wildlife, Irving staff and others. Foresters have been trained to identify rare features and any new findings are added to the database. Standard operating procedures are applied to protect these rare features as well as to provide habitat elements (snags, large woody material, etc.) across the ownership. Irving management policy also specifies that ten percent of acres in five major cover types will be managed in a late successional condition at all times. Foresters are actively working to achieve this goal and they are being audited for compliance to this commitment.

The FSC auditor will review progress toward this goal in fall 2013, with regard to specific 2012 additions to the Late Succession database. The panel may, if it chooses, use this information to evaluate the tradeoffs between Irving's plans for late successional protection and any mature forest stands that may have been retained under FPA separation zone regulations.

As for the remaining vertebrate species indigenous to the ownership, the panel received information from Irving's 2007 forest management plan which shows the development stage distribution by cover type in each town that Irving manages. The panel used this information to assess size class and forest type distribution on Irving's land and to compare results with the simple model developed by the USDA Forest Service. Updated information also will be reported in a new forest management plan scheduled to be completed later this year.

Of equal concern to providing mature and late successional forest stands, is providing an adequate amount of dense young forest habitats. The majority of forest wildlife species have a primary or secondary dependence on regenerating or young age classes among all forest types for survival. There appears to be a varied distribution of forest size classes and types throughout the ownership to support native forest wildlife species..

2. 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.

Findings: Under outcome based forestry, Irving gains substantial timber harvest benefits in terms of reduced harvest costs, layout efficiencies and access to wood that was temporarily tied up in clearcut separation zones under the forest practices rules. Irving's management activities, including cleaning up senescent timber, removing timber prone to windthrow, and the like, lead to improved growth rates in younger stands, reduce mortality losses, and better position the forest to endure the next spruce budworm epidemic. Management activities in higher risk separation and riparian zones appear to be progressing. At the same time, Irving is specifically identifying other areas that provide valuable mature forest habitat that could be retained. Irving considers it likely that there will be areas of better protected, late successional forest over time as it takes a more strategic approach to implementation of the forest management plan as opposed to the temporary nature of such forests when they are retained in clearcut separation zones.

3. 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.

Finding: Irving is addressing the problems of undesirable beech site occupation in a positive way.

4. Continued certification to the standards of a recognized certification system (for example, American Tree Farm System, Forest Stewardship Council (FSC) and/or Sustainable Forestry Initiative (SFI), will be prima facie evidence that Participant has achieved compliance with the state's sustainability goals and outcomes and satisfied the conditions of this section. Certification is a continuous process that involves regular surveillance audits and periodic recertification audits; therefore, any discovered departures from the standards will be rectified in a timely manner. Participant is currently enrolled in both SFI and FSC and uses the latter for benchmarking compliance with the state's sustainability standards.

Overall findings: Irving personnel consistently exhibited knowledge and practical know-how that illustrated and verified that executing the established standards of OBF enabled a higher level of ecologically sound forestry with a more enhanced level of productivity and improved cost effectiveness than would have occurred by strict adherence to Maine's forest practices rules. The panel finds that Irving Woodlands LLC has maintained its certification to the FSC standard and has made good progress in attaining the other desired outcomes.

Participant commitments: 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 as provided by existing rules and any applicable local regulations:

1. Participant shall maintain certification status with a nationally recognized sustainable forest management certification system.
 - A. Participant shall act promptly to satisfactorily address any Corrective Action Request or Nonconformance associated with its certification.
 - B. A member of the panel or a mutually agreeable designee shall be permitted to participate in the forest management certification audit field visits, and to provide input to the third party lead auditor on behalf of the panel.
 - C. Participant shall invite one member of the panel or a mutually agreeable designee to attend meetings and provide input to Participant's Forest Research Advisory Committee.

Overall findings: Irving has maintained its certification to the FSC standard and has acted promptly to address any Corrective Action Requests and Observations. Panel members have been invited to participate in the audit and to attend meetings of Irving's Forest Research Advisory Committee. Panel members believe that they had ample opportunity to review 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.

2. 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, Participant shall provide evidence of attainment of the desired

outcomes described in Section 7 of the Outcome Based Forestry agreement through the use of metrics outlined in Section 3, below.

Findings: Irving has documented its efforts to improve measurably the quantity and/or quality of its timber resource (see 3, below).

3. Participant shall annually report to MFS information about its harvest management and silvicultural metrics including, but not limited to:
 - A. Acres of high risk separation zones harvested during the past year.
 - B. 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.
 - C. Estimates of harvest acreage summarized for the coming five-year period by silvicultural prescription, including overstory removal, commercial thinning, shelterwood, and clearcut.
 - D. A more specific annual harvesting plan which describes the planned acreage for harvest for the upcoming year in each township by prescription, with clearcuts exceeding 250 acres individually mapped and identified.
 - E. 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. Participant will continue to provide information on acres harvested by harvest type, by township as required on the "Confidential Report of Timber Harvest."
 - F. 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.
 - G. Road density (miles per acre of ownership by township).

Finding: Irving has documented its road densities as required, and its efforts in this regard are commendable. Well-designed transportation systems (year around and winter only roads) are important to Irving. The panel found that roads were built for safe, efficient access to markets that meet or exceed MFS Best Management Practices for protecting Maine's water quality. Road density by township is an indicator of potential water quality problems sites (potential stream crossings) and reduction of forest habitat. With three exceptions, townships had a road density of less than two percent of the township area, and many had less than one percent. However, higher road densities can be a reflection of more intensive management of particular, higher productivity sites, so a primary focus on reducing road densities may be misleading.
 - H. Harvest opening size distribution (acres by opening size class for each harvest prescription by township).
 - I. 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.

Finding: Irving provided the required documentation.

4. Participant shall prepare and submit a report of the average clearcut size and total clearcut areas on an annual basis.

Finding: Irving provided the required documentation.

5. A Maine Licensed Forester within the company shall review and approve the landowner's Forest Management Plan.

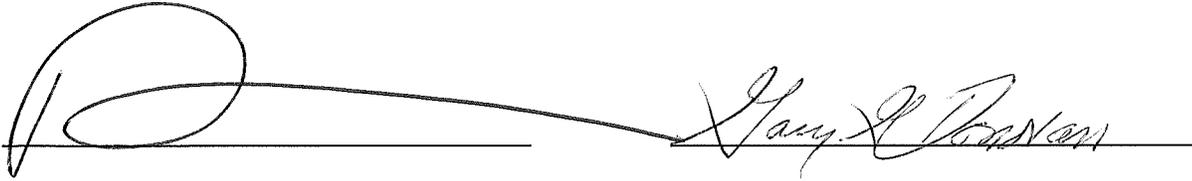
Finding: Irving has certified that a Maine Licensed Forester has reviewed and approved its Forest Management Plan.

6. Harvests will be laid out with consideration of visual aesthetics in areas of moderate and higher visual sensitivity. Participant's forest management staff will be proficient in managing for visual aesthetics and receive periodic training.

Findings: Irving has addressed aesthetic concerns, particularly in situations involving larger clearcuts, scenic areas such as the AWW, certain areas along public ways and sensitive viewscapes. Irving may wish to give more thought to post mechanical harvest aesthetics in winter vs. summer. Patterns not apparent during summer, leaves-on conditions are quite apparent from a distance in winter (well beyond any defined corridors). Participant will accommodate other reasonable requests for information made by MFS and the panel as mutually agreed upon.

Finding: Irving has willingly provided any additional information requested by the panel. Irving reports that at the time of implementation of the outcome based forestry agreement, it had approximately 53,000 acres tied up in unexpired separation zones. During the first year of operation of the agreement, Irving harvested approximately 3.9% of that total, or just over 2,000 acres.

Report submitted 08 July 2013

A large, stylized handwritten signature in black ink, written over a horizontal line. The signature is cursive and appears to read "Gary J. Bennett".

A handwritten signature in black ink, written over a horizontal line. The signature is cursive and appears to read "Nigel Pennock".

A handwritten signature in black ink, written over a horizontal line. The signature is cursive and appears to read "Doug Demco".

A handwritten signature in black ink, written over a horizontal line. The signature is cursive and appears to read "Robert W. Jones".

Background on the state's Outcome Based Forestry Agreement with Irving Woodlands LLC

In 2001, the Maine Legislature enacted legislation (Exhibit A) 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 (OBF)." Outcome based forestry is defined as "a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the state's forest, 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."

The prescriptive steps required of landowners by the FPA were replaced by practices (called outcomes) acceptable to the Maine Forest Service (MFS) and a panel of experts chosen by the Governor.

In 2011, the Governor chose a panel of 5 experts (Exhibit B) in anticipation of a landowner request to enter into an OBF agreement. In the spring of 2012, The MFS signed such an agreement with Irving Woodlands LLC(Exhibit C).

The Agreement includes several significant sections:

1. The outcomes mutually agreed upon by the MFS and panel, including:
 - Conformance with Maine's forest sustainability standards;
 - Improving timber quality and quantity and forest health;
 - Increasing timber growth and reforestation on specific sites; and,
 - Remaining certified to the standards of a recognized forest certification system. Continued forest certification is accepted as proof by the MFS and panel that the state's sustainability standards are being met.
2. The landowner is exempt from specific requirements of the FPA, such as individual harvest plans for clearcuts larger than 20 acres and clearcut separation zones.
3. The landowner makes specific commitments, including:
 - The provision of supplemental performance data;
 - A commitment to achieve the outcomes;
 - provide an annual report;
 - Forestry plans are approved by a licensed forester;
 - Aesthetics are considered in harvest layout; and,

Background on the state's Outcome Based Forestry Agreement with Irving Woodlands LLC

- Other reasonable requests asked by the MFS, panel and mutually agreed to by the landowner will be followed.
4. Certain proprietary information will be made available to the panel and the MFS but excluded from public availability.
 5. Termination and land exchange protocols.

Other critical elements include:

- Only FPA rules are subject to OBF agreements. The landowner must comply with all other rules (e.g. shoreland area harvesting).
- By remaining in conformity with the standards of a recognized forest certification system, the panel accepts that Maine's forest sustainability standards are being met. Any issues between the panel or the MFS with a certification report are not part of an Outcome Based Forestry Agreement or panel report.
- Unless specifically included within the agreement, resolution of new issues must be mutually agreed to by the panel, MFS and the landowner.

Initial agreements are for a five-year term as permitted by the enabling statute. Agreements can be renewed.

The panel and MFS met with the landowner to review forest plans and followed up with field inspections to verify conformity a number of times. Reviews of forest management/harvesting plans and field inspections were carried out twice for an annual cutting cycle (Summer 2012 through winter/spring of 2013).

In addition, MFS staff made six, independent multiple-day field trips to further verify Irving's conformity to the agreement. MFS personnel field also checked several 2013 winter harvests conducted within riparian zones to see if any activities had created sedimentation issues. None were found.

The MFS found significant improvement in forest management practices under OBF as compared to the FPA. Forest practices are consistently based on sound silviculture, and harvest areas and prescriptions follow natural soil, forest type and structure boundaries.

The OBF and forest certification system were considered together by both panel members and certification auditors. This was an unexpected but very positive synergy between the two programs.

Both the landowner and MFS realized significant time savings from the OBF process as compared to operations under the FPA. These savings have allowed Irving to reinvest more in the land through planting, competition control, and spacing. The landowner's forest practices as defined in the agreement's outcomes also improved significantly.

As the panel moves into its second year of the agreement with Irving, monitoring of the Agreement will be conducted more efficiently with some field monitoring being passed on to the MFS.

Background on the state's Outcome Based Forestry Agreement with Irving
Woodlands LLC

The MFS thanks the panel, Irving Woodlands, and the FSC certifiers for their successful involvement in this significant legislative program. The following panel report is provided as the documentation of Irving's successful conformity to its OBF agreement.

Doug Denico

Douglas P. Denico

Director, Maine Forest Service

Exhibit A. Legislation Creating Outcome Based Forestry

PUBLIC LAWS OF MAINE
First Regular Session of the 120th

CHAPTER 339
S.P. 544 - L.D. 1690

An Act to Promote Outcome-based Forest Policy

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 12 MRSA §8003, sub-§3, ¶Q is enacted to read:

Q. The director, in cooperation with public and private landowners, shall actively pursue creating experimental areas on public and private land where the principles and applicability of outcome-based forest policy, as defined in section 8868, can be applied and tested. No more than 6 such areas may be designated, a single area may not exceed 100,000 acres and the total area under agreement may not exceed 200,000 acres. One area must be owned by a landowner holding fewer than 1,000 acres statewide. The director shall seek to designate areas representing differing forest types and conditions and from different geographic regions of the State. The term of initial agreements may not exceed 5 years. This paragraph is repealed July 1, 2006.

Sec. 2. 12 MRSA §8868, sub-§2-B is enacted to read:

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 forest, 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. This subsection is repealed July 1, 2006.

Sec. 3. 12 MRSA §8869, sub-§3-A is enacted to read:

3-A. Plans for experimental areas. Practices applied on an experimental 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 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; and
- F. Public accountability.

Background on the state's Outcome Based Forestry Agreement with Irving Woodlands LLC

The Governor shall appoint a panel of technical experts to work with the director to implement, monitor and assess tests of outcome-based forestry principles. In order to participate in the outcome-based forestry experiment, the landowner, director and technical panel must develop agreed-upon desired outcomes for the experimental area and develop a method for determining if the outcomes have been attained and a system for reporting results to the public. This subsection is repealed July 1, 2006.

Sec. 4. 12 MRSA §8869, sub-§7, as enacted by PL 1989, c. 555, §10, is amended to read:

7. Application. This section ~~shall apply~~ applies to all forest lands within the State, including land in municipal and state ownership. ~~Only~~ Except as provided in subsection 7-A, only state-owned or operated research forests or industrially owned research forests certified by the commissioner are exempt from these requirements.

Sec. 5. 12 MRSA §8869, sub-§7-A is enacted to read:

7-A. Exemption for outcome-based forest policy experimental areas. Outcome-based forest policy experimental areas designated under section 8003, subsection 3, paragraph Q are exempt from the requirements of this subchapter and rules adopted pursuant to this subchapter. This subsection is repealed July 1, 2006.

Sec. 6. 12 MRSA §8869, sub-§13 is enacted to read:

13. Confidential information. Information provided to the bureau voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy experimental areas, as created pursuant to section 8003, subsection 3, paragraph Q, is designated as confidential for the purposes of Title 1, section 402, subsection 3, paragraph A if the bureau has determined that failure to designate the information as confidential would provide competitors an opportunity to obtain business or competitive advantage over the person to whom the information belongs or pertains or would result in loss or other significant detriment to that person. 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. This subsection is repealed July 1, 2006.

Sec. 7. 12 MRSA §8879, sub-§1, as enacted by PL 1997, c. 720, §13, is amended to read:

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 biennium. The report must provide an assessment at the state level of progress in achieving the standards developed pursuant to section 8876-A, including progress of the outcome-based forestry experiment authorized under section 8003, subsection 3, paragraph Q. 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

Background on the state's Outcome Based Forestry Agreement with Irving Woodlands LLC

interstate activities. The director shall obtain public input during the preparation of the report through public hearings and other appropriate methods.

Sec. 8. Report to the Legislature on outcome-based forestry. By December 31, 2005, the Director of the Bureau of Forestry within the Department of Conservation, in consultation with the panel of technical experts established pursuant to the Maine Revised Statutes, Title 12, section 8869, subsection 3-A, shall submit a report to the 122nd Legislature on the feasibility of implementing outcome-based forestry as a basis for forest policy. The report must include the results of the experiment in outcome-based forestry, established in the Maine Revised Statutes, Title 12, section 8003, subsection 3, paragraph Q, and an assessment of the feasibility of this program as an effective means to improve forest management. If the director recommends outcome-based forestry as an effective and desirable means to attain forest policy goals, the report must also include:

1. Justification for establishing such a policy, based on the results of the experiment, including an analysis of the improvements in forest management likely under outcome-based forestry;
2. Steps needed to arrive at broadly supported outcomes, based on the principles of soil productivity; water quality, wetlands and riparian zones; timber supply and quality; aesthetic impacts of timber harvesting; biological diversity; and public accountability;
3. The conditions under which landowners would be allowed to participate in the program and be exempt from certain rules and regulations, such as bureau approval of outcome-based forestry plans;
4. The bureau's plan to assess compliance with outcome-based forestry plans and to determine thresholds for noncompliance;
5. A discussion of outcome-based forestry's potential to improve public accountability and confidence in forest management, including specific tools that can be used to improve accountability and public confidence in forestry; and
6. An overall implementation plan, including general recommendations, recommendations for statutory changes and regulatory changes and the estimated costs to implement such a plan.

Effective September 21, 2001, unless otherwise indicated.

Background on the state's Outcome Based Forestry Agreement with Irving Woodlands LLC

Exhibit B. Outcome Based Forestry Panel Members

1. Gary Donovan, Certified Wildlife Biologist;
2. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
3. William A. Patterson IV, The Nature Conservancy;²
4. Peter Triandafillou VP Woodlands, Huber Resources; and,
5. Robert G. Wagner, Director, University of Maine, School of Forest Resources, and Henry W. Saunders Distinguished Professor in Forestry.

² Mr. Patterson resigned from the panel on 01 August 2013.

Introduction:

This report summarizes the comments of the panel of technical experts appointed by the Governor to review and advise the Maine Forest Service (MFS) and the Bureau of Parks and Lands (BPL) on the outcome based forestry agreement executed between the two parties in May 2012. The comments pertain to the annual report required by the agreement, and which was provided to MFS in February 2013.

Panel of technical experts reviewing BPL's report:

1. Gary Donovan, Certified Wildlife Biologist;
2. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
3. William A. Patterson IV, The Nature Conservancy;¹
4. Peter Triandafillou VP Woodlands, Huber Resources; and,
5. Robert G. Wagner, Director, University of Maine, School of Forest Resources, and Henry W. Saunders Distinguished Professor in Forestry.

Desired outcomes of Outcome Based Forestry:

1. 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, p. 5).

Findings: BPL has largely attained compliance with a majority of the state's forest sustainability goals.

BPL received two major nonconformances in its most recent certification audit report:

1 - Timber supply and quality: "[BPL] has not developed criteria for adequate regeneration stocking levels/species composition and does not have a process in place to determine if those criteria have been met. This issue was addressed as a minor CAR during last year [sic] renewal audit and no corrective action implementation has occurred. This minor CAR has been re-issued as a major CAR."

2 - Public accountability: "[BPL] did not have specific requirements for contractor safety and professional qualifications included in harvesting contracts. This issue was addressed as a minor CAR during last year [sic] renewal audit in the FSC standard and no corrective action implementation has occurred. This minor CAR has been issued as a major CAR in both FSC and SFI standards."

The first nonconformance is in the process of being closed; the second nonconformance has been closed.

Although the certification audit report contains insufficient data to make findings as regards "economic considerations" and "forest health," BPL staff provided additional information to support a positive finding in these two areas.

¹ Mr. Patterson resigned from the panel on 01 August 2013.

2. Continued certification to the standards of a recognized certification system, for example, American Tree Farm System, Forest Stewardship Council (FSC) and/or Sustainable Forestry Initiative (SFI), will be prima facie evidence that BPL has achieved compliance with the state's sustainability goals and outcomes. Certification is a continuous process that involves regular surveillance audits and periodic recertification audits; therefore, any departures from the standards will be discovered and rectified in a timely manner. BPL is currently enrolled in both SFI and FSC and uses the former for benchmarking compliance with the state's Sustainability Standards.

Findings: BPL has maintained its certification; however, two minor nonconformances were elevated to major nonconformances (see earlier) because BPL did not act to correct them within the specified time period. One of the nonconformances has now been closed; the second is in the process of being closed.

3. Enhance deer wintering areas by accelerating the progression of young softwoods into winter cover status, increasing the availability of hardwood browse in close proximity to winter cover, and providing additional edge habitat.

Findings: It is too soon to evaluate this element.

4. Ensure successful establishment of forest regeneration of high value species, especially yellow birch, sugar maple, and white pine, and increase growth rates and/or timber quality on site specific areas, using a variety of forest management techniques that may include but are not limited to varying intensity of timber harvest, vegetation management, matching species to site, tree improvement techniques, pre-commercial and commercial thinning, etc.

Findings: It is too soon to evaluate this element; however, BPL staff report that they consistently find acceptable regeneration in good position on harvested sites.

5. Conduct harvests with consideration for visual aesthetics.

Findings: BPL pays close attention to aesthetic concerns as regards all of its harvesting

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 as provided by existing rules and any applicable local regulations:

1. BPL shall maintain its current Forest Stewardship Council and/or Sustainable Forestry Initiative certifications (FSC: BV-FM/COC-017429; SFI: BV-SFISUS004629- 1).
 - A. BPL shall act promptly to satisfactorily address any Corrective Action Request or Nonconformance associated with its FSC and/or SFI certifications.
 - B. A member of the panel or a mutually agreeable designee shall be permitted to participate in the forest management certification audit field visits, and to provide input to the third party lead auditor on behalf of the panel.
 - C. BPL shall invite one member of the panel or a mutually agreeable designee to attend meetings of and provide input to BPL's Silvicultural Advisory Committee.

Findings: BPL has maintained its certification to the SFI standard; however it had two major nonconformances in its most recent audit report; one of which is in the process of closure, the other has been closed. There have been no audits since the agreement was

reached in 2012. One panel member is a member of BPL's Silvicultural Advisory Committee. Panel members believe that they had ample opportunity to review records, discuss practices and policies, and to observe field operations. Their expectations and needs for explanations and answers to questions were satisfied.

2. BPL shall document and periodically provide results of its efforts to improve measurably the quantity and/or quality of its timber resource on those areas included in this application. In addition to documentation of compliance with applicable certification standards, BPL shall periodically provide evidence of attainment of the desired outcomes described in the agreement through the use of metrics outlined below.

Findings: It is too soon to evaluate this element.

3. BPL shall report to MFS its harvest management and silvicultural metrics for the selected areas included in this application including, but not limited to:
 - A. Estimates of harvest acreage for the entire projects summarized for the coming five year period by silvicultural prescription; overstory removal, commercial thinning, shelterwood, clearcut, etc. This was provided - back pages of agreement.
 - B. More specific annual harvesting plan which shows the planned acreage for harvest for the upcoming year (mapped and numerical count) by prescription, and with clearcuts exceeding 60 acres individually identified. This was provided.
 - C. Annual harvest summary, provided within 60 days of year end, showing the areas harvested over the previous year by prescription (actual versus plan.) Information will be made available for sites visited by the panel. BPL will continue to provide information on acres harvested by harvest type, by township as required on the "Confidential Report of Timber Harvest." BPL will report on how its management activities are influencing white pine growth and the progression of thinned softwood (fir-dominated) stands into conforming deer winter cover. This was provided.
 - D. Regeneration targets and success for natural stands. Where available, information will be provided by site at the time the panel conducts field verifications. This was provided.
4. A Maine Licensed Forester within the Bureau shall review and approve BPL's Forest Management Plan.

Findings: BPL's regional managers - all Licensed Foresters - reviewed and approved BPL's Forest management and harvest plans.

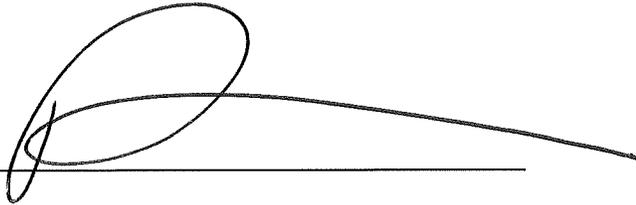
5. Harvests will be laid out with consideration of visual aesthetics in areas of moderate and higher visual sensitivity. BPL's forest management staff will be proficient in managing for visual aesthetics.

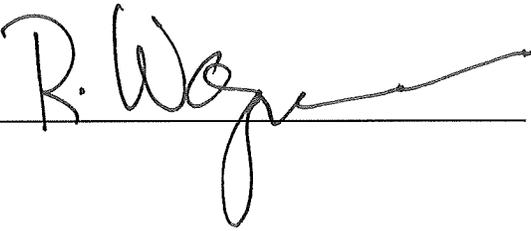
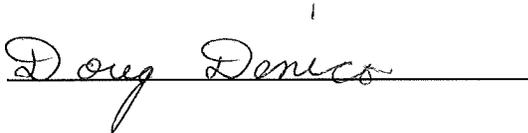
Findings: BPL pays close attention to aesthetic concerns as regards all of its harvesting.

6. BPL will accommodate other reasonable requests for information made by MFS and the panel as mutually agreed upon.

Findings: BPL willingly provides any additional information requested by the panel.

Report submitted 13 August 2013

 Gary Pookan

 R. Wayne  Doug Dennis

 W. J. Carmack Jr.

Pictures illustrating consequences of FPA

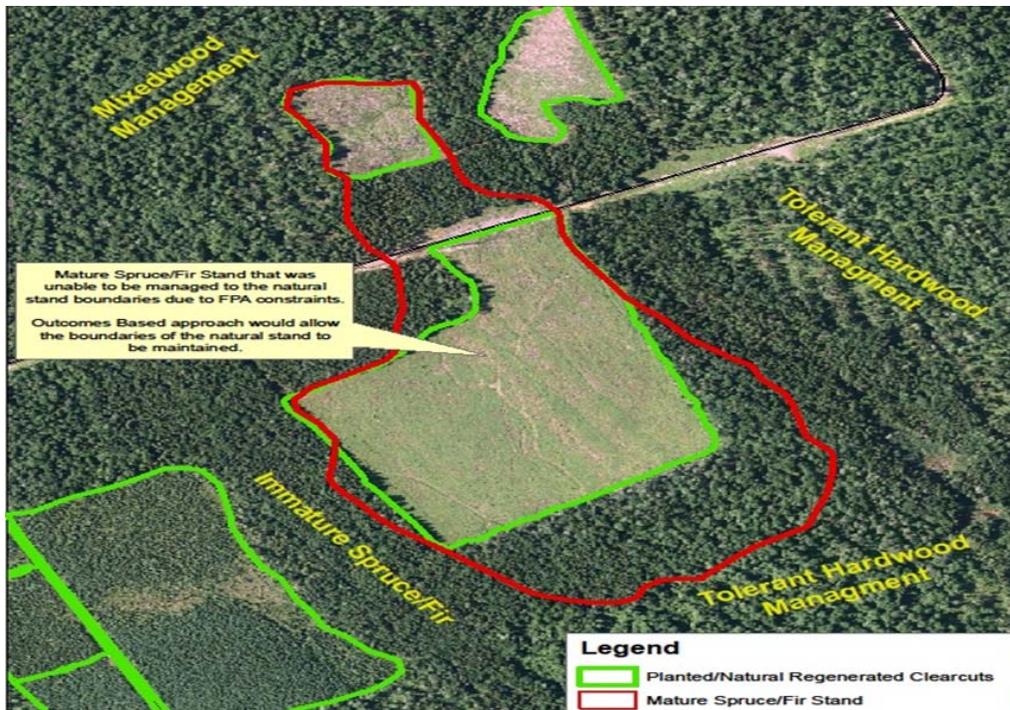
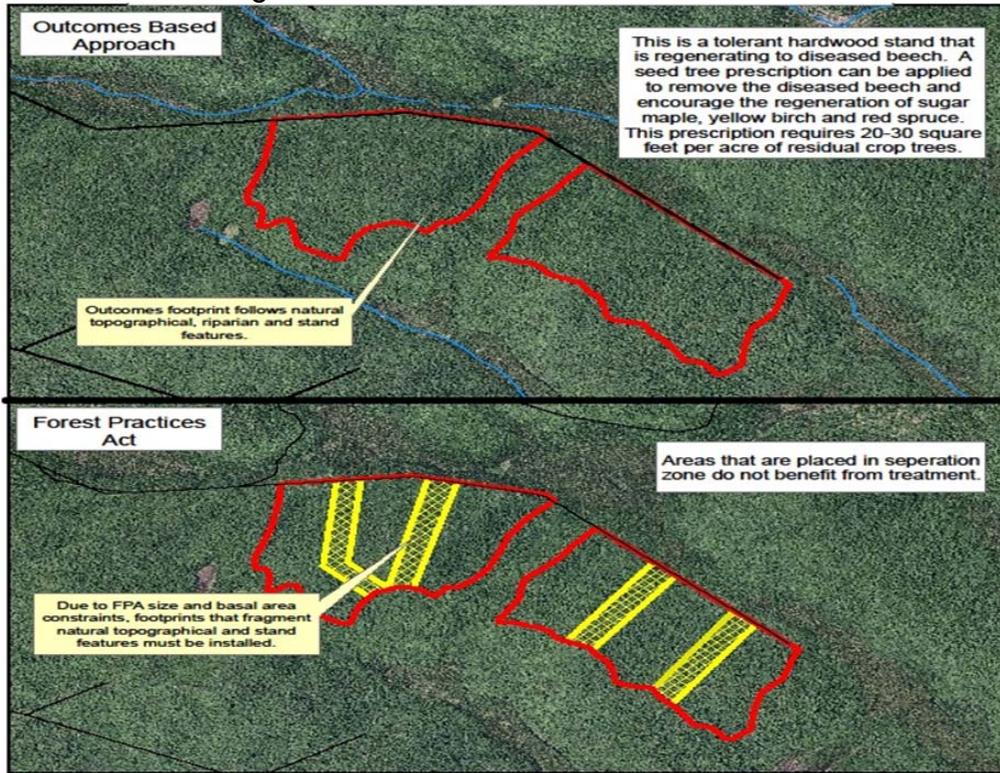


The picture above depicts an “FPA avoidance” harvest. The harvest left enough residual trees to comply with FPA; however, the residual stand is of poor quality. This is not what the framers of the FPA had in mind.



The picture above depicts a 40-acre stand where diseased beech and poor quality hardwoods were removed from the understory to leave a quality spruce stand. This is a sound silvicultural treatment; however, with a residual basal area of 25 square feet, it would be considered a clearcut that required a harvest plan and separation zone. Fortunately, the surrounding area met the separation zone standards. This is an unintended consequence of the FPA.

Pictures illustrating benefits of OBF



Department of Agriculture, Conservation and Forestry
Maine Forest Service

Letter from Irving Woodlands regarding OBF implementation



J.D. Irving, Limited

P.O. Box 5777, 300 Union Street, Saint John, New Brunswick, Canada E2L 4M3
Tel.: (506) 632-7777 Fax: (506) 632-6451

January 25, 2013

Governor Paul LePage
Office of the Governor
#1 State House Station
Augusta, ME 04333-0001

Dear Governor LePage,

I want to express my personal thanks for your interest and efforts to initiate and implement an "OUTCOME BASED FORESTRY AGREEMENT" for our timberlands in Maine. We had been working on this for several years, but your leadership, and the "let's get it done" attitudes of Commissioner Beardsley, Doug Denico and Don Mansius made this opportunity into a reality.

We are confident that this Agreement will provide us with a means to be more efficient and more productive and most importantly, do better forest management in Maine. We believe that outcome based forestry is the best way to ensure that the State's goals and objectives for forest sustainability are achieved. While the Agreement has only been in effect less than a year, I can tell you that it has already made a significant improvement to the efficiency of our management and operations, including the profitability of local woods contractors and wood workers.

I am also happy to report that the results from our most recent 2012 external audit has confirmed that we are in full conformance with the **FOREST STEWARDSHIP COUNCIL (FSC)** forest certification program. As you are aware this is a condition for participation in this outcome based forestry agreement.

Doug Denico, Don Mansius and the Panel of Technical Experts you appointed have also spent time on the ground reviewing and auditing the results. I believe they also agree this outcome based regulatory approach is more sustainable and responsible.

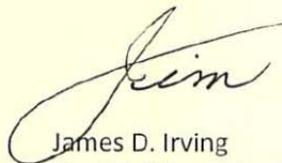
We are proud of our forest management and we look forward to continuing this trial agreement long into the future, and demonstrating it to be the new standard "BEST PRACTICE".

We hope that this summer you can spend some time in the woods with us reviewing our forest management operations.

Thank you for making this improvement. Your leadership and the efforts of Bill Beardsley, Doug Denico and Don Mansius are greatly appreciated.

Yours truly,

J.D. Irving, Limited

A handwritten signature in black ink that reads "Jim". The signature is fluid and cursive, with a large initial "J" and "I".

James D. Irving
Co-Chief Executive Officer

c.c. Bill Beardsley
Doug Denico
Don Mansius