



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

PAUL R. LEPAGE
GOVERNOR

28 February 2017

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

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

I'm pleased to present to you the 2017 report of the Maine Forest Service (MFS) and the technical panel advising the MFS on Outcome Based Forestry (OBF). This report is required by 12 M.R.S. §8869(3-B).

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

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

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

Your committee plays an important public oversight role in the implementation of OBF. We particularly appreciate past committees' willingness to personally meet with Irving Woodlands staff and observe the operation of Irving's OBF agreement in 2014 and 2015. All participating landowners are willing to have the committee visit their lands. We look forward to the committee's continued commitment to its oversight role.

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

Sincerely,

Doug Denico, Director
Maine Forest Service

Enc

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

Prepared by Douglas Denico, Director
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Introduction

The practice of forestry is a science. Laws that regulate forestry activities do not necessarily promote the use of science-based forest management. The 120th Legislature 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 FPA.

The OBF statute was adopted by the 120th Legislature in 2001 in response to the forest policy debates of the 1990's. The OBF statute had a sunset provision until 2012 when the 126th Legislature removed the provision. Until the sunset clause was removed, 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 Appendix B for a statutory summary.

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

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

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

Progress to date

Three agreements have been signed: the Bureau of Parks and Lands (BPL), Irving Woodlands (Irving),¹ and Katahdin Forest Management (KFM). The Irving and KFM agreements are of a landscape proportion covering the landowners' entire Maine ownerships of 1.25 million acres and 300,000 acres, respectively, while the BPL Agreement covers several different individual, specific projects on approximately 3,000 acres.²

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.

¹ Irving renewed its agreement in May 2015.

² The three tracts involved in the project cover approximately 60,000 acres.

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The panel has conducted several site visits on participating 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. Visits of a similar intensity took place during negotiations with KFM. The panel attempts to make two annual visits to each landowner, once in early winter to review the previous year's operations and planned operations for the coming year, and once in late summer to review year-to-date progress. Since 2013, panel field inspections have been augmented with systematic, regular reviews of harvest operations (pre-harvest, during harvest, and post-harvest) by Foresters of MFS's Forest Policy and Management Division.

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

Examples of public benefits of OBF

- Assurances that the goals and outcomes of soil and water quality protection and biodiversity are being met;
- Pre-harvest planning to address aesthetic impacts of timber harvesting;
- Investment of \$37 million in construction of an 80 million board foot spruce/fir sawmill in Nashville Plantation (Irving) that employs 60 people and provides a market for small diameter balsam fir and spruce in northern Maine;³
- Increased wage payments to contractors and woods operators;
- Access to the scientific rationale for each harvest in an OBF agreement;
- Knowledge of harvest levels by species/products;
- Tracking of types of harvests, including clearcuts, for trends;
- Better implementation of science-based silvicultural practices, e.g., beech bark disease management and managing density of white pine stands for quality growth; and,
- Reduction of inspections by Forest Rangers, freeing up their time for forest protection duties.

Examples of forest landowner benefits from OBF

- Application of optimal silvicultural practices to the land base;
- Reduced administrative time devoted to adhering to FPA numerical limits, e.g. 450 trees/acre of regeneration, 250-foot separation zones, etc.;
- Construction of an 80 million board foot spruce/fir sawmill in Nashville Plantation (Irving) that will improve utilization of smaller diameter balsam fir from Irving's and many adjacent landowners' properties;

³ Such markets are important for managing balsam fir-dominated stands in anticipation of the impending spruce budworm outbreak. Irving has since expanded production and employment at the mill.

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- Reduced costs of trucking, road building and maintenance by applying scientific management to harvest areas; and,
- Increased investment in tree planting and thinning of young spruce/fir stands.

Panel evaluation of participant performance

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

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

All participating landowners have:

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

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

MFS monitoring evaluation of participant performance

MFS has assigned two Foresters to periodically monitor Irving and KFM harvest operations to document conformance to the terms of the participants' agreements. The Foresters monitored roughly two dozen harvests on each land base over the last year. Some harvests were visited before the harvest began; others while the harvest was in progress; and more post-harvest. Some harvests were visited at various stages for purposes of continuity in monitoring. The Foresters report that the participants are

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

Concluding remarks

Other forest landowners have shown interest in entering into an OBF agreement. Those discussions may bear fruit in 2017. To accommodate the possibility of increased interest in OBF, and recognizing the significant commitment that panel members make, the MFS Director has made recommendations for additional panel members. The regular, systematic reviews of harvest operations by Foresters of MFS's Forest Policy and Management Division have facilitated the panel's work.

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

Appendix A. State Forest Sustainability Goals

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

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

6. Criterion 6: Public accountability

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

7. Criterion 7: Economic considerations

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

8. Criterion 8: Social considerations

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

9. Criterion 9: Forest Health

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

Appendix B. Key statutory provisions of Outcome Based Forestry

12 M.R.S., §8003 (3)(Q)

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

12 M.R.S., §8868 (2-B)

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

12 M.R.S. §8869 (3-A)

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

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

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

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

12 M.R.S. §8869 (3-B)

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

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

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

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

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

12 M.R.S. §8869 (7-A)

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

12 M.R.S. §8869 (13)

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

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

12 M.R.S. §8879 (1)

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

Appendix C. Biographies of OBF panel members

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

Gary Donovan is a retired wildlife biologist from Holden. He earned a BS in Wildlife Management from the University of Maine and is a Certified Wildlife Biologist since 1980. He is a member of the Wildlife Society, Washington D.C. 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.

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

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

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

Robert Wagner is the Director of the Center for Research on Sustainable Forests and the Cooperative Forestry Research Unit of the University of Maine's School of Forest Resources. He holds the Henry W. Saunders 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. Dr. Wagner left the panel during 2016 to accept employment out of state.