Maine Public Lands Papers

Feb. 4, 2016

Papers on Maine Bureau of Public Lands Harvest Level Issues

Over several years, pressures have been building to increase the level of harvesting on the forest lands managed by the Bureau of Parks and Lands. In 2014, a revised Annual Allowable Cut (AAC) was adopted by the Bureau. This past year the LePage Administration proposed an additional increase, planning to allocate the additional revenues to support a low income heating assistance program. Because of the complex legal history of these lands, and their important recreation and environmental values, this has placed the Bureau on front pages and in Op-Ed columns to a degree not seen in literally decades. During summer 2015, a Legislative Commission was formed to deal with the issues. The Commission issued its report in December. You can find it at:

http://legislature.maine.gov/legis/opla/publiclandsmgmt.htm.

This package assembles a number of related papers into one place. These should be useful as a start point to anyone interested in these issues.

- LCI

Chain of Ponds – Public Lands line the shores of these scenic ponds and favorite fishing spots. You will never drive to Coburn Gore and see rows of cottages or other developments along these shores. Visitors from Quebec will see Maine at its best here.



Author photo.

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Bigelow Preserve

This 36,000 acre unit protects a key stretch of the Appalachian Trail and the southern shoreline of Flagstaff Lake. Despite its name this land is managed lightly for timber. In this view from the Sugarloaf ski area, I bet you can't see any sign of roads or timber cutting.

Photo by author.

Reading List:

Maine's Public Land Timber Controversies

This list is intended as a short primer and cannot fully discuss all issues. If you need to drill deeper, here are some places to start.

The Commission studying the issue in fall 2015 has placed a large volume of materials on its website:

http://legislature.maine.gov/legis/opla/publiclandsmgmtmatrls.htm

State and DOC Documents

BPL 2000. Integrated Resource Policy (IRP).

BPL 2014 Lands Annual Report.

Department of Conservation, June 10, 2015. "Re-inventory shows Maine Public lands under harvested" Augusta. Includes letter from E. Bowling of Sewall Company analyzing inventory data.

Opinion of the Attorney General. 1992. 1992 Me. AG LEXIS 7.

Opinion of the Justices. 308 A 2d 253 (1973) decided June 21, 1973.

AG letter, 2015 (in this package)

In 2008, a commission of respected individuals reported on public lands issues. A useful place to start.

State of Maine 123d Legislature, First regular session. Final report of the governor's task force regarding the management of public lands and publicly-held easements. Augusta. 13 pp. + attachments. Jan. 31, 2008.

Some Background on the Allowable Cut issues

Lloyd C. Irland, "Maine's Public Lands -- How can the revenues be used?, How much timber should be cut? Do we need to change how they are managed? Unpublished paper, Sep 4, 2015. Irland Group, Wayne, Maine 13 pp.

NRCM. 5.7.2015. "Public lands income. Operating expenses, and account balances". Augusta. Financial data from 2010 to 2014.

Irland, "Policies for Maine's public lands: a long-term view," *In:* Maine Choices, 1999. Augusta: Maine Center on Economic Policy. pp. 7-21.

Sherwood, D. Assessing Maine's certified sustainable harvest. Seymoursherwood13full.pdf. http://www.nsrcforest.org

Views of Some interested Organizations (not comprehensive)

Forest Guild. June 15, 2015. Forest Guild Statement on Maine Forest Policy. http://www.forestguild.org/publications/policy/Position_2015_ME_Forest_policy.pdf NRCM -- see document in this package

Press and opinion:

Bangor Daily News, Editorial. "Maine can't cut more trees from its public forests on a whim" Aug 14, 2015.

"Public lands caught in vise" Central Maine Newspapers, Mar 22, 2015, p. B4

Maine Forest Products Council Newsletter Mar 19 summarizes a number of stories including one on the Committee hearing.

Christine Parrish, Logjam – questions arise about over-cutting timber on Maine's public lands.

Story (source misplaced) Jan 29, 2015.

Irland and Barringer, 2015. "In land we trust" Maine Sunday Telegram May 3d. Insight section p. D-1.

http://www.pressherald.com/2015/05/03/commentary-proposed-use-of-revenue-from-maines-managed-lands-raises-concerns/

Kevin Miller, "Panel guts LePage's timber harvest plan". Kennebec Journal, Apr 18, 2105, p. 1.

KJ Staff, "Saviello, Hickman, named co-chairmen of land management fund commission". Kennebec Journal, Aug 27.

A good newsclip file is on the Facebook Page of the Friends of Maine's Public Lands. https://www.facebook.com/pages/Friends-of-Maine-Public-Lands/1606645459549774

More technical Materials on Allowable Cut Planning and Sustainable Harvesting:

An excellent **introduction** to the issues is found in this forest management text:

P. Bettinger et al, 2009. Forest management and planning. Amsterdam. Elsevier/Academic Press. 331 pp.

Especially chapters 10 and 11.

Maine materials dealing with broad issues of calculating annual allowable cut at a stage level include:

McCaskill, G. 2014. Forests of Maine 2013. USDA FS Northern Research Station, Resource Update FS-16. (includes growth and removals data by major species)

Gadzik, C., J. H. Blanck, and L. E. Caldwell. 1998. Timber supply outlook for Maine: 1995 – 2045. Augusta: Maine Forest Service. Processed. 39 pp.

Hennigar, C. et al. Applying a Spruce Budworm Decision Support System to Maine: Projecting Spruce-Fir Volume Impacts under Alternative Management and Outbreak Scenarios. Journal of Forestry Sept. 2011.

A major bulletin was commissioned by MFS and issued by Maine Agr & For Exp Sta: it does not seem to be on Web.

Irland, Dimond, Baum, Falk, and Stone. 1988. <u>The Spruce Budworm Outbreak in Maine in the 1970's -- Assessment and Directions for the Future</u>. Orono: University of Maine Agr. Exp. Sta. Bull. 819. 119 pp.

(MFPC has now scanned this bulletin – too large to e-mail - it's at

http://maineforest.org/wp-content/uploads/2013/07/The-Spruce-Budworm-Outbreak-in-Maine-in-the-1970s.pdf)

Irland and Dimond, "IPM and the spruce budworm: lessons learned in Maine 1950-1985". Forest Ecology and Management, 39(1991):263-273.

Irland and Runyon, "Economics of spruce budworm management strategy," In: D. M. Schmitt, D. G. Grimble, and J. L. Searcy, eds., Managing the Spruce Budworm in Eastern North America. USDA-FS, Agr. Handbook 620. Oct. 1984, pp. 65-81.

The Irland Group. 2000. Future sustainable timber yield in Maine's forests. Report to Maine's Forest Heritage Council. 35 pp.

Laustsen, K. M. 2009. 2006 Mid-cycle report on inventory and growth of Maine's forests. Augusta: MFS. March 29. 159 pp.

Seymour, R. S. and R. Lemin. 1989. Timber supply projections for Maine, 1980-2080. Univ. Maine CFRU Res Bull No. 7. Maine Ag & For Exp Sta Misc Rep 337. 39 pp.

Wagner, R.G., E. H. Bowling, and R. S. Seymour. 2003. Assessing silviculture research priorities for Maine using wood supply analysis. Maine Agr. and For. Exp. Sta. Tech. Bull. 186. 105 pp.

The Department of Conservation's Timber Harvesting Proposals

LePage's plan to use timber resources to lower heating costs based on sound science

George Danby | BDN

By Doug Denico, Special to the BDN Posted Sept. 30, 2015, at 10:44 a.m.

Gov. Paul LePage continues to propose better utilization of Maine's renewable timber resources to effectively lower the energy bills of low-income households. The LePage administration, led by the Maine Department of Agriculture, Conservation and Forestry, is able to achieve this goal by harvesting timber at a rate that is well under its annual growth rate, in a manner that is Forest Stewardship Council- and Sustainable Forestry Initiative-certified and based on sound science and proper forest management practices.

This paper's <u>recent editorial</u>, "Reason, science and the law: Where LePage's public forest plans fall short," on Sept. 25 fails to share the facts of the governor's comprehensive plan, which provides significant opportunity to lower energy costs through modern heating systems and increased efficiency. The Maine people own this land, and they should benefit from increased timber revenue.

Maine's public lands are indeed managed for multiple public uses: wildlife habitat, outdoor recreation and timber harvesting. State professionals have continually refined the methods, techniques and practices that allow for successful management of lands that are owned by all Maine citizens. Sound management of our public lands also allows us to mitigate the damaging effects of forest pests, including the spruce budworm, for which an outbreak appears imminent. Maine citizens benefit from the many opportunities afforded by the wildlife habitat and outdoor recreational opportunities available to them on public reserved lands. We are missing an opportunity for Mainers to benefit even more from better management of a renewable resource, timber. And it can be done through better utilization of this resource without jeopardizing any of the objectives for which public lands are managed.

For several decades, the timber inventory on public lands has been accumulating at a rate significantly higher than the annual allowable cut, or AAC. Public lands foresters have used a conservative growth rate to determine an AAC of 141,500 cords based on the

2011 inventory. The AAC is not the sustainable harvest level; it is the harvest level selected by Public Lands for a variety of reasons, including available harvesting contractors, existing road network, available employees, written harvest plans and revenue needs. The best professional estimates and data available to us indicate that an annual harvest of 160,000 cords or more per year will not reduce the amount or quality of timber on public lands.

At the same time, the balance of the Public Reserved Lands Management Fund has swelled to \$8 million and continues to grow. The governor repeatedly has proposed utilizing some of that money to establish a program to assist low-income, rural Mainers with heating costs in a manner that is in the public trust. This is a proposal, however, that has been rejected by legislators.

The conservative management approach applied on public lands was confirmed last June, when a review and reconciliation of timber production on public lands showed timber growth on public lands is approximately at the 180,000-cord level on an annual basis. The <u>results of this finding were confirmed</u> in a letter of opinion by professional foresters of the James W. Sewall Company of Old Town, Maine. The independent review revealed that the growth rate on Bureau lands is in the range of 0.432 to 0.449 cords per acre per year, or 180,800 cords per year to 188,000 cords per year on the 418,572-acre area.

The independent review reinforces that we are appropriately managing our public lands. It further demonstrates that we are following science to manage our lands. Critics continue to oppose LePage's efforts to lower energy costs for all Mainers and using part of the \$8 million in accumulated funds to lower energy bills of low-income households. However, persistent attacks against increased utilization of renewable timber resources that would be harvested under their annual growth rate are not based on science or sound forest management practices.

Doug Denico is the State Forester and director of the Maine Forest Service, part of the Maine Department of Agriculture, Conservation and Forestry.

For Immediate Release

Wednesday, June 10, 2015

Contact: Doug Denico, 207-287-2795

Re-inventory shows Maine public lands under harvested

Governor LePage renews call for action on bill to lower heating costs for low-income Mainers

AUGUSTA – Governor Paul R. LePage renewed his call for legislative action on his proposal to assist low-income Maine residents with high heating costs by utilizing surplus revenue from timber harvest on public lands. His appeal follows a reconciliation and re-inventory of timber production on public lands (418,572 acres) managed by the Maine Department of Agriculture, Conservation and Bureau of Public Lands that showed timber growth on public lands is at or above the 180,000 cord level on an annual basis.

The results of this finding were confirmed in a letter of opinion (attached) by the James W. Sewall Company of Old Town, Maine, professional foresters. Their independent review reveals that the growth rate on Bureau lands is in the range of 0.432 to 0.449 cords/acre/year, or 180,800 cords/year to 188,000 cords/year on the 418,572 acre area. The current Annual Allowable Cut (AAC) is 141,500 cords. The AAC is not the sustainable harvest level; it is the harvest level selected by Public Lands for a variety of reasons, including available harvesting contractors, existing road network, available employees, written harvest plans and revenue needs.

"This independent review reinforces that we are appropriately managing our public lands. While liberal groups have attacked our efforts to harvest our public lands this report demonstrates that we are following science to manage our lands." said Governor LePage. "I encourage the public to look at the facts and not follow the hollow attacks from special interest groups on our management practices."

Governor LePage's Proposal:

The Public Reserved Lands Management Fund, which receives revenue from the sale of timber from public lands, currently has a balance of roughly \$8 million from higher

prices for timber cut on Maine's public lands and a higher cut level. The result of the reconciliation and re-inventory of timber production on public lands, confirmed by an independent review, indicates that the fund could swell even further without jeopardizing Maine's professional forest certifications.

L.D. 1397 "An Act To Establish the Affordable Heating from Maine's Forests Fund" allows the transfer from the current balance and future balances from the Public Reserved Lands Management Fund to Efficiency Maine Trust to lower heating costs for rural and low-income households. It requires that any transfer may not result in the loss of independent certification systems and requires that the Administration not transfer an amount that would undermine the stewardship obligations of these public reserved lands. Funding into the Public Reserved Lands Management Fund has gone up, while funding to assist households lower their heating bills is going down.



May 18, 2015

Mr. Doug Denico
Director
Maine Forest Service
Department of Agriculture, Conservation, and Forestry
22 State House Station
Augusta, Maine 04333

Dear Mr. Denico:

You asked Sewall to provide an opinion on the calculation of the current forest level growth rate for lands managed for timber production by the Bureau of Parks and Lands (approximately 418,572 acres).

The Bureau provided Sewall with summaries of three studies that have been done to support a growth calculation. Sewall has reviewed the results of these studies. Based on the information that was provided, Sewall reviewed the methodology used to conduct the studies. However, Sewall has not done an in depth reviewed of the methodologies used.

The first is the result of a study by the Maine Forest Service, which summarized growth by landowner class using United States Forest Service Forest Inventory and Analysis (FIA) data. The FIA plot system is a nationwide system of permanent sample plot locations that are used to monitor change that occurs in the forest. This study used FIA plot data for the growth period from 1999-2001 to 2004-2006. The net growth rate for the "Public" ownership class was 0.432 cords/acre/year. The "Public" ownership class includes land that is not owned and managed by the Bureau, but the Bureau lands represent a significant part of the "Public" ownership.

Permanent sample plots represent one of the only ways to directly measure growth in the forest.

The second was the result of an inventory reconciliation that was done by the Bureau. A forest inventory project on Bureau lands was completed in 2011. The lands were previously inventoried in 1999. The study looked at the difference in inventory from 1999 to 2011 and added harvest during that time period to infer a growth rate. The net growth rate resulting from this study was 0.449 cords/acre/year.

It is common practice for landowners to do this sort of reconciliation after conducting a reinventory. While variation from inventory to inventory is common and expected, and there can be difficulty converting units of measure from those used for the sale of forest products to those used for the inventory, it is common to do this sort of reconciliation as a means to derive a growth rate.



Denico/Maine Forest Service 18 May 2015 Page 2 of 2

The third study that we were provided was presented at the fall 2012 CFRU Advisory Committee meeting. This summarized FIA growth (using plots remeasured during 2006 to 2010) by stand size and stocking class. The Bureau classified their land by a similar system and applied the FIA growth rates by size and stocking class to the Bureau lands. The result of this study was a growth estimate of 0.440 cords/acre/year for Bureau lands.

These studies all produce a similar net growth rate (0.432 to 0.449 cords/acre/year). The FIA plot analysis and the inventory reconciliation provide the most compelling evidence. Both are scientifically valid means of measuring and deriving growth rates.

Based on the data that we were provided and our review of that data, we believe that it is reasonable to conclude that the growth rate on Bureau lands is in the range of 0.432 to 0.449 cords/acre/year, or 180,800 cords/year to 188,000 cords/year on the 418,572 acre area.

Sincerely,

Ernest H. Bowling Forest Biometrician

JAMES W. SEWALL COMPANY

Information provided by Director Denico can be found at http://legislature.maine.gov/legis/opla/publiclandsmgmtmatrls.htm

JANET T. MILLS ATTORNEY GENERAL

TEL: (207) 626-8800

TTY USERS CALL MAINE RELAY 711



STATE OF MAINE
OFFICE OF THE ATTORNEY GENERAL
6 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0006

October 26, 2015

REGIONAL OFFICES 84 HARLOW St. 2ND FLOOR BANGOR, MAINE 04401 Tel: (207) 941-3070 Fax: (207) 941-3075

415 CONCRESS ST., STE. 301 PORTLAND, MAINE 04101 Tel: (207) 822-0260 FAX: (207) 822-0259

14 Access Highway, Ste. 1 Caribot, Maine 04736 Tel: (207) 496-3792 Fax: (207) 496-3291

Senator Thomas Saviello, Chair Representative Craig Hickman, Chair Commission To Study the Public Reserved Lands Management Fund c/o Legislative Information 100 State House Station Augusta ME 04333-0100

Dear Senator Saviello and Representative Hickman:

You have asked for guidance from this Office as to whether certain proposed uses of revenue from Public Reserved Lands would be consistent with the public trust limitations on the use of such revenue. These limitations are embodied in Article X of the Maine Constitution. Since courts have not yet had occasion to draw a bright line between permissible and impermissible uses of this trust revenue, and the proposed uses have been presented only conceptually but not yet as draft legislation, it is not possible to reach firm conclusions as to their constitutionality. Even so, I offer the following summary of the two available legal authorities addressing the public trust limitations, together with some analysis as to how these opinions should inform your decision-making.

The 1973 Opinion of the Justices

When the Commonwealth of Massachusetts created and sold townships in Maine, it reserved "public lots" within those townships to support the local ministry and public education. When Maine became a state, Article X of the Articles of Separation, which became Article X of the Maine Constitution, designated the public lots "for the benefits of the Schools, and of the Ministry..." Opinion of the Justices, 308 A.2d 253, 254 (Me. 1973). Between 1824 and 1850, Maine enacted various legislation governing the use and management of the public lots, all of which specified that these lands were to be used to support the educational and religious uses identified in the Articles of Separation. Id. at 254-56.

In 1973 the Legislature considered a bill to direct that, among other things, (1) the public lots be used and managed for the benefit of the State as a whole; (2) the public lots be managed as multiple use state forests, and (3) income from the public lots be used for their management and for the acquisition of addition public lands to be managed under the same principles. *Id.* at 256-57. The Legislature requested an advisory opinion from the Justices of the Maine Supreme

Judicial Court as to whether the bill was consistent with the public trust limitations on the use of the public lots. The Justices issued an Opinion that the two uses designated in the Articles of Separation, "schools" and "ministry," were intended to be "illustrative" of permitted uses, but not "an exclusive listing." *Id.* at 253, 271. The Opinion of the Justices found that the uses of the public lots proposed in the pending legislation – to support the management of the public lots as multiple use forests, and to acquire additional public lands for the same purposes – did not violate the public trust limitations embodied in Article X of the Maine Constitution. *Id.* at 261-64, 270-71. The Justices also opined that the Legislature's foremost obligation is to "hold and preserve" the lands so that they remain available for permitted public uses. *Id.* at 271.

The 1992 Opinion of the Attorney General

In 1992 the Legislature enacted an appropriations bill that required an across-the-board transfer of 0.9% of the balance in all state accounts to the General Fund in order to address a budget shortfall. The Commissioner of the Department of Finance sought an Opinion of the Attorney General as to whether this general legislation applied to accounts that the State holds in trust for designated purposes, including the Public Reserved Lots Management Fund. *Op. Me. Att'y Gen. 92-07*, December 15, 1992. The Attorney General opined that the budget bill did not apply to this trust account, both because the Legislature did not express a specific intent to exercise its trust responsibilities in the bill, and because it is doubtful that such an expenditure would be consistent with the public trust limitations. *Id.*

Together, the Opinion of the Justices and the Opinion of the Attorney General show that:

(1) The Legislature's foremost obligation as trustee of the Public Reserved Lands is to "hold and preserve" them for future public use — in effect protecting the trust's principal; (2) The Legislature has some flexibility in determining appropriate uses of the Public Reserved Lands and income derived from them, and is not restricted to the original uses designated in the Articles of Separation; (3) The management of the Public Reserved Lands as multi-purpose forests for recreation, sustainable timber harvesting, and wildlife habitat, as well as the acquisition of additional land for the same purposes, are permitted uses; (4) The Legislature must specifically express its intent to exercise its trust responsibility in legislation that purports to make use of these monies; and (5) Income derived from the Public Reserved Lands is not interchangeable with General Fund revenue, and may not be diverted to the General Fund for undifferentiated use.

In considering possible uses for the public lots, it is useful also to consider the provisions of Art. IX sec. 23 of the Maine Constitution, ratified by the people shortly after the 1992 Opinion of the Justices. This provision narrowly restricts what can be done with the proceeds of the sale of any public lots and requires a 2/3 vote by each House for any proposal to reduce or substantially alter the uses of public lots. While Art. IX sec. 23 may not relate to the specific proposals under consideration by your Commission, it provides a useful backdrop regarding the intent of the Legislature and of the Maine people regarding the preservation of these unique public lands and their current uses.

Uses Now under Consideration

Your letter seeks guidance on three proposed, new uses of this public trust income: (1) the purchase of heating equipment for low-income families in rural areas; (2) the transfer of trust monies to the Bureau of Parks and Lands for state park purposes; and (3) the purchase of other real estate of various types. Drawing upon the legal analysis above, I offer the following observations.

While the purchase of heating equipment for low-income rural families is a laudable goal, as is public assistance for food, shelter and health care, it is not easy to draw a connection between these types of uses and the preservation of the Public Reserved Lands. Under the very limited language of the Opinion of the Justices, this proposed use would likely meet great skepticism from the Court.

The transfer of trust monies to the Bureau of Parks and Lands to administer state parks raises a different concern. The use of trust money for this purpose would displace, dollar-for-dollar, General Fund revenue that is now used for this purpose, effectively making trust money interchangeable with General Fund revenue, which is not permitted.

The validity of purchasing "real estate of various types" as a proposed use of trust money depends on the characteristics of the property and the uses to which it would be dedicated. The *Opinion of the Justices* approved the use of trust money to acquire additional Public Reserved lands to be managed as multiple use forests. *Opinion of the Justices*, 308 A.2d 261-64, 270-71. Acquisition of property that is not designated as Public Reserve Lands, but that is dedicated to the same or substantially similar uses, might also be permitted. However, legislation authorizing the expenditure of trust monies for this purpose would have to include specific fact-finding to address why the property acquisition is consistent with the Legislature's public trust responsibilities, and it would have to ensure that the acquired property will be managed in accordance with public trust principles. Thus narrowed to resemble the proposal before the Court in 1972, such a proposal would have a decent chance to pass constitutional muster, much more so than the other two proposals.

I hope this information is helpful to the Committee.

Sincerely,

Janet T. Mills Attorney General

Sept 23, 2015

Commission to Study the Public Reserved Lands Management Fund % Office of Policy and Legal Analysis 215 Cross State Office Building Augusta, Maine, 04330

Dear Chairpersons Saviello and Hickman, and Members of the Commission:

We are five former Commissioners of the Maine Department of Conservation. From 1975 through 2010 it was our privilege to serve five Maine Governors – one Republican, two Democrat, and two independent – and the people of Maine, as Cabinet-level administrators of the public trust lands of the State of Maine. It is not our habit to look over the shoulders of our successors in office, or to offer unsolicited advice. Your Commission is now at work on issues that demand and deserve the most serious and timely public discussion. These issues compel us to speak and, with respect, to offer our views to you and to the people of Maine. We cannot here explain ourselves in detail; we shall be brief and to the point.

As Assistant Attorney General Gerald Reid has briefed the Commission, the lands in question – Maine's Public Reserved Lands (or "Public Lots") – have a complex and most compelling history. They are constitutionally provided-for and protected, and are managed in trust by the State for the benefit of all the people of Maine, for all future time. As trust lands, their management, their use and disposition, and the revenues they produce must adhere to their long-term trust requirements. These are not matters subject to the momentary policy preferences of appointed administrators, such as we once were, or even of elected Governors. The State is legally bound to adhere to its fiduciary obligations.

1.Surplus Revenues. Traditionally, the Bureau of Parks and Lands has used modest revenues from these lands for the multiple-use management of the lands, themselves, which have only in recent times yielded revenue surpluses. While worthy options may exist for use of surplus revenues, they must be made only after the utmost care and deliberation by the Legislature. We believe that any surplus revenues will be best and constitutionally used to finance needed capital and infrastructure improvements (only) to lands within the jurisdiction of the Bureau of Parks and Lands, to advance outdoor recreation and job creation opportunities for Maine people, especially in Maine's rural places.

To this end, we recommend that the Legislature direct the DACF and DECD jointly to develop a first, five year plan to implement an Outdoor Recreation and Job Creation (ORJC) strategy for Maine, similar to plans in the States of NJ, NC, SC, and FL; and to submit this plan no later than April 2016 to their two committees of legislative oversight for review, then to the Governor for approval. (We understand the bureau has an overall backlog of some \$55-60 million in needed capital improvements identified in Resource Management Plans adopted after public involvement.)

- 2. Agency Realignment. Having worked long and closely with the State Parks, Public Reserved Lands, and Maine Forest Service, we find no virtue and believe there can be no administrative gains, cost savings, or public benefits from merging any of the responsibilities and authorities of the Bureau of Parks and Lands with the Maine Forest Service. The histories, traditions, missions, programs, interested constituencies, and skill sets of the two agencies differ significantly, and are at times even contradictory and in conflict. Focus and clarity of mission, as well as clear public accountability will only be compromised by the merger of these agencies. Rather, the DACF must continuously pursue and incentivize sharing across the department of the professional expertise that resides within its several bureaus.
- 3. Harvest Levels. We are sufficiently familiar with the issues involved in calculating sustainable timber yields to respect the significant advances made by the Bureau of Parks & Lands in this regard, as well as its enlightened judgment concerning management practices. The bureau's Integrated Resource Management Policy has served the state very well over these last 40 years, and provides sound direction for the future of these lands. We believe the lands involved and the general public will each be best served by maintaining the current allowable harvest level (141,500 cords/yr.) throughout this decade, then to do a new inventory and consider whether an increase will be wise. Meanwhile, because of the budworm threat, the bureau should be allowed to cut as much at-risk fir as they may in an orderly fashion, as "unregulated" (that is, beyond "allowable") harvest.

We expect the Commission will fully examine the complex technical issues at stake here, as well as the larger policy goals of mission and management; and hope you will develop broad policy guidance for scientific, allowable-cut determination that will wisely balance production and financial needs with broad goals of sustaining a healthy forest and a more prosperous Maine.

We thank you for your consideration, will be happy to amplify upon these remarks at your pleasure, and wish you every success in this most important and historic undertaking.

Sincerely yours,

Behard Barringer

Richard Barringer, Portland (1975-81)

Richard B. andleson

Richard Anderson, Portland (1981-86)

El Meadous

C. Edwin Meadows, Old Orchard Beach (1988-1995)

Ronald Lovaglio, Augusta (1995-2003)

Patrick McGowan, Winthrop (2003-2010)

Patrick McGwan/25

File: Five Commissioners Ltr Sep 23

Relation between Net Annual Growth and Annual Allowable Cut for Maine Public Lands

Note from Five Former Maine DOC Commissioners as Requested by the PR Lands Funding Commission on Sept 29, 2015

October 22, 2015

Brief Answer to your Question on AAC:

We believe the estimate of 180,000 cords net annual growth presented recently to the Commission is plausible. It is supported by plot data and it amounts to about 2% of inventory. It is not sound, however, to assume out-of-hand that BPL can cut its measured annual growth every year, except under certain conditions:

- Managers must understand the relationship between current measured growth and long-term sustained yield;
- Annual growth may only be cut if the age class distribution is balanced;
- Annual Allowable Cut (AAC) must be consistent with long-term condition goals;
- Net growth measures must ensure that *quality renewal* as being achieved in addition to *volume* renewal.

As these conditions are a bit complex, we offer amplifying explanations below. Based on these factors we consider prudent a 10 year period with AAC at 141,500 cords.

We are not in principle opposed to an increase in the level of cut; but **the land has never sustained a harvest at 141,500 cords for a decade, and we strongly believe it should have a chance to do so before the AAC is increased further.** We emphasize that we believe the Legislature ought to continue its past practice of setting broad guidance and reviewing progress, and not set specific AAC levels.

Given the conditions cited above, we recommend that the Commission empanel an independent group of several specialists to examine these matters and report their views. This might be a recommendation of the Commission, as there may not be time to complete this task in time for the Commission's report.

In reaching our conclusions, we have reviewed materials submitted By MFS Director Doug Denico and also have relied on a short paper by Lloyd C. Irland, a former BPL Director, attached; we ask that this paper be formally entered into the Commission's record.

Why BPL Should Not Plan to Harvest at the Level of Measured Growth Note by The Irland Group

Measurement of current net annual growth (hereafter, "growth") is but one component in setting an annual allowable cut for a forest property. It is also a useful way to compare actual cutting levels with estimated productivity. But the relationship between current measured growth and AAC is not an accounting identity.

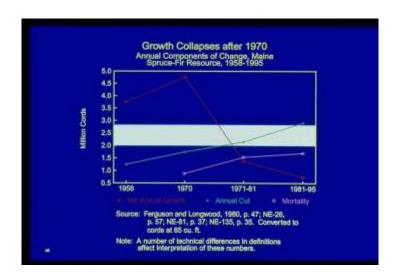
Current Growth May Not Equal Long-Term Sustained Yield (LTSY). Net growth measures *current* growth rates between measurement periods. Often these represent averages over a recent time period. Forest managers are cautious when using net annual growth, as it is a measure derived from measures of inventory change, mortality, and other factors, all of which are measured with sampling error. The decision rule for using growth to determining AAC should be:

Limit harvesting to no more than the annual growth estimated to be sustainable in the longrun (LTSY), given current forest structure, condition goals, knowledge of growth, merchantability factors, and management practices that will be applied in the future.

There is no certainty that current measured growth would be identical to LTSY. Further, current measured growth can fluctuate, as it has in the spruce/fir resource. The chart below shows two things:

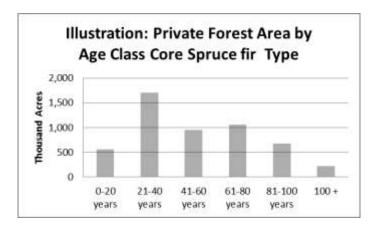
- (a) A band indicating two independent estimates of what LTSY would be for the spruce fir resource.
- (b) Lines indicating the movements of net annual growth, showing the impact of budworm; of the annual cut; and of the estimated mortality up to 1981-95.

Note how measured net annual growth changed over this period. Up until 1970 it was very high. This was because roughly half of the measured growth was "ingrowth"—trees just becoming large enough to be harvested (usually 5" dbh). If you have a balanced age class distribution, you may cut your ingrowth; but if you don't you must be careful. Not until the 70's did harvesting catch up with net growth. Because of the inventory surplus and large amount of dying spruce and fir, it was not a problem to cut above growth during the years when growth was so low.



Today, however, BPL may have an inventory surplus in its spruce/fir, but we do not know how large it is. We are now facing an AAC proposal that leaves no margin for error either in the growth estimates or in the effects of age class distribution.

Age Class Distribution – Is It Balanced? Traditionally, a key management goal is to improve the distribution of age classes in the forest. In the past, the goal was a uniform (balanced) distribution of age classes. It was assumed that for a commercial property, age classes beyond planned rotation age would virtually disappear. This approach is *not* followed on public lands. To illustrate, the chart below shows 20-year age classes for all spruce fir in the Northern Forest States (NY, VT, NH, ME); Maine accounts for the bulk of this. The 21-40 year bar is the wood that will become merchantable in the coming 20 years. It will appear in net growth as "ingrowth". If we cut that ingrowth, the next 20 years will have a shortage, as the area aged 0-20 years is far smaller.



We do not have a similar chart for the Maine Public Lands. If we did, we could see to what degree the age class distribution is balanced or lopsided. Only if the age class distribution is balanced is it sound to base the AAC on cutting all of the current measured growth.

Goals for Future Forest Condition. Forest planners often talk of a Desired Future Condition, or DFC. This may include many variables, including allocations to different management regimes,

goals for retention of deeryards or late-successional area, or areas to be devoted to multi-aged silviculture for habitat, aesthetic, or other reasons. Ideally AAC would fall out from a determination of the DFC and what path of management, including harvesting, would efficiently move the forest toward that long-term condition. Computer models are necessary for making these estimates. It may be that the inventory and stand characterizations now available would not support highly sophisticated analysis of this kind.

Quality Renewal – Not Measured by Growth in Cords. It is natural to use a summary measure such as cords to bring together all products that are measured and sold in different units. The goal of management, however, is not only to sustain *volume* yields, but to sustain and improve *quality* yields. While we believe that BPL silviculture is now doing this, it is clear that the higher one pushes yields in cords, the more important it becomes to ensure that *quality renewal* is being achieved. We do not want to merely sustain quality but to improve it. Net growth measured in cords cannot tell us whether we are doing this or not.

Some Related Issues

How Many Separate AAC's Does BPL Need? This is subject to discussion. Given the size of the land-base and the inevitable uncertainty in measuring growth, not more than 3 would be reasonable on a geographic basis; perhaps 2 would do. We see no management need for a multiplicity of separate geographic AAC's. Also, the sample size in the inventory would probably not support any degree of accuracy. Perhaps more importantly, there might be more merit in setting separate AAC's for pine, spruce-fir, and northern hardwoods. The Denico testimony to the Commission shows that the Bureau considers this.

Merchantability Limits. As timber supply has grown tighter, mills have reduced minimum sizes of wood they will accept, and lowered quality standards. The changing energy situation and public policies have incentivized the use of biomass for energy. These factors have enabled the removal of more biomass tonnage from every acre. This cannot be confused with improved productivity -- the basic productivity has not changed, only the amount that is used. Further, the additional volumes have generally been those of the lowest unit values. Nor can higher sawlog yields that result from lower minimum log sizes be considered actual productivity gains.

Should Measured Growth be Discounted to reach AAC? We believe it should, for several reasons. First, growth is an estimate with an unavoidable range of statistical uncertainty. Second, on a property-wide basis, *growth surprises* are often negative ones. Finally, with a looming budworm outbreak, it is likely that spruce-fir growth will be depressed for a period of time, though we do not know when or by how much.

Is a New Inventory Needed? We don't know. This cannot be answered until a careful look is taken at what is now known in light of the above questions. The Bureau is acquiring Woodstock, a forest simulation model, and will be developing the skills needed to use it. We think a brief review by a small panel of outside experts should review the Bureau's current data and GIS capabilities. They would see to what extent these compare with best-practice private owner capabilities for properties of similar size. The group could then offer a judgment as to

whether a new inventory is needed. There may be better uses for the funds. It would cost little to wait until 2020/2021 for new inventory. Inventory technology is changing rapidly. New LIDAR technology is very promising and will only get better by 2020. Tentatively, we would be comfortable deferring an inventory if the Department were to adopt our suggestion that the AAC be maintained at 141.5.

Meaning of High Removal Rate per Acre Harvested? We are concerned that the removal rates per harvested acre previously reported by the Bureau look very high to us, and we do not understand why. We hope the Commission will probe this question with DOC officials and learn what the answer is.

Is Allowing Spruce/Fir Salvage or Pre-salvage in Anticipation of a Budworm Outbreak as "Unregulated Cut" a Loophole? In our previous note, we suggested this. Some may feel that this is questionable. We don't think so, as it is a customary practice in forest management. Our suggestion is tied to our recommended retention of the 141,500 cord AAC. At higher levels, this idea does become more problematic. We assume that such harvests would be costeffective, would be conducted in an orderly manner with sound silviculture, and would be reported to the Legislature in its annual reviews. By "unregulated" we do not mean unplanned, unreported, or undisclosed. We just mean "not charged against the annual allowable cut".

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Foresters Speak Against 'Cut 'em Now' Logging

National Forest Guild weighs in on Maine Public Lands debate

Forests are the heart of Maine's identity, economy, and our natural heritage. The 432,000 acres of Public Reserve Lands in Maine are one of our state's most valuable public assets - owned by every Maine citizen. Public forests provide for recreation and long-term forest management that increases the proportion of ecologically rich, large, old trees across our landscape. Since the 1820 Articles of Separation, these lands have functioned as a public trust.

The institution of careful, long-term management of Maine's public forestlands has been threatened this year by legislative and budget proposals. Together, these proposals could impact the future of public forest lands and the benefits Maine citizens receive from them. This is a time for Maine's public representatives to practice transparency, public consultation, and accountability, and to respect the long tradition of thoughtful stewardship associated with Maine's forestlands.

Sustainable management of public forestlands means balancing ALL of the values forests provide, including clean air, clean water, fish and wildlife, recreation, and forest products. The good news is that with careful, long-term management, our forests can supply all of those values.

While the legislature has debated the annual allowable cut (AAC), a sort of "magic number" of sustainability, forest sustainability is about much more than harvest levels. Unfortunately, this debate is being conducted in the absence of complete information.

On Maine's public lands, timber harvest levels have traditionally been determined through science based on comprehensive data with consideration for wildlife, rare natural communities, scenic beauty and other non-timber values, and with a robust public consultation process. This history of exemplary management for multiple values has resulted in diverse forests that are rich in both ecological and economic value. These traditions are what make our public forestlands in Maine unique.

The Bureau of Parks and Lands' 2014 annual report to the Agriculture, Conservation, and Forestry Committee proposed an increase in harvest levels based on several assumptions, including the risk of tree mortality from factors such as spruce budworm. In the same report, the Bureau acknowledged that it lacks the up-to-date timber typing and a spatially explicit timber harvest model needed to make an accurate harvest level assessment. Without these critical pieces of information, it is not possible to calculate sustainable harvest levels on Public Reserve Lands, and it is not the right time to establish increased harvest levels in legislation.

Each Public Reserve Lands management unit is unique and follows a plan that provides a nuanced ground-level assessment of appropriate management strategies and operational needs. However, three Public Reserve Lands units have no management plans, and seven plans have not been updated since the Integrated Resource Policy was substantially revised in 2000. Updated

land management plans should be fundamental for any state-level decision to increase harvesting levels.

Any changes in harvest targets or management approach must also be accompanied by the resources to achieve established goals, without compromising other values. The career foresters and resource managers who care for Maine forests must be empowered to uphold multiple use values and maintain the long-established culture of practicing exemplary silviculture (the art and science of forest management) on our public lands.

A related legislative proposal (LD 1397) to re-direct revenues from Maine forests also needs more careful consideration. Maine forests are not a "golden goose" capable of producing increasing revenue every year without consequences. As supported by legal decisions in 1973 and 1992, revenues from activities on public lands must be used first to meet the immediate and long-term management needs of those lands. LD 1397 threatens the balance of the management and mission of Maine's public lands by proposing to direct timber revenues into an unrelated program. Once that door is open, Maine's public forestlands would be under pressure to be cut more than we can truly afford.

The LePage administration's proposal to restructure the Maine Bureau of Parks and Lands and the Maine Forest Service also requires much more consideration. These two agencies both serve important, but distinct, missions. Such a significant change should be considered through an open, thoughtful, and thorough process that includes public consultation.

All of the proposals that have been introduced this year affecting Maine's forests are worthy of debate. Currently, however, the available information and public scrutiny have been insufficient to ensure that legislators or our state agencies can make informed decisions to effectively care for Maine's forestlands.

The process through which these proposed changes have emerged falls short of Maine's traditions of transparency, public consultation, and accountability. Let's encourage our public representatives to seek good, comprehensive information before casting votes that will inevitably shape our public forestlands for many years to come.

Amanda Mahaffey, Forest Guild Northeast Region Director, Freeport, www.forestguild.org.

lelated Links:

Forest Guild, online

Increased Timber Harvesting on Public Lands

Experts in public lands management and forestry agree that the LePage Administration's proposal to increase timber harvesting on Public Lands is not scientifically justified and threatens the values that public lands are managed for: wildlife habitat, public recreation, and sustainable forestry.

Background

In 2014, the Agriculture, Conservation, and Forestry Committee expressed significant concern over increasing the annual harvest on public lands above the sustainable harvest level without scientific justification. In 2013, based on new inventory information, the Bureau had raised their sustainable harvest level and annual allowable cut to 141,500 cords/year, without opposition.

The committee also opposed proposals to divert revenue from timber harvesting to programs outside of the mission of the Bureau of Parks & Lands (BPL). By law, all revenue from timber harvesting on public lands is dedicated to managing the forestry, wildlife and recreation activities on public lands.

Current proposals not scientifically or legally justified

BPL has failed to scientifically justify increasing the harvest level above the 141,500 cords/year sustainable harvest level and reducing the amount of timber on the land (aka "stocking"). The Governor has also, once again, expressed his desire to use timber revenue for unrelated purposes. High tree mortality, spruce budworm risk, and excessive stocking have been cited as reasons for the increased cut. All purported scientific justification has been debunked by forestry experts:

"Tree mortality is no higher on public lands than geographically similar private lands in the Unorganized Territory. Even if it were, modern forestry teaches that dead trees have ecological value and should not always be viewed as some kind of "waste" or evidence the bureau has been negligent." – Prof. Robert Seymour, School of Forest Resources at the University of Maine & Member of BPL's Silvicultural Advisory Committee

"The susceptibility of stands on Public Lands [to spruce budworm risk] has been . . . greatly exaggerated. Fir [the main host of spruce budworm] composes only about 9% of public lands." – George Ritz, Retired BPL District Forester

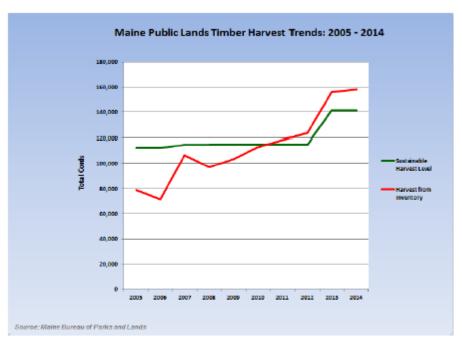
"Nearly 60 percent of Maine's public forests are dominated by large, valuable trees, so of course their stocking is high relative to surrounding private lands that are managed more aggressively. This result of patient, conservative stewardship by the bureau's foresters should be celebrated, not criticized. There is absolutely no scientific justification to reduce this stocking...." – Prof. Robert Seymour

Forestry experts agree that the LePage Administration's initiative to increase harvesting on public lands is politically driven, devoid of scientific justification, and threatens public values:

"I [continue to be impressed] with the thoughtful, scientifically-based forestry balancing all the public's values the Bureau practiced. To disregard this long history of fine forest management in the public interest and turn the public's forest land into a 'piggy bank' that can be raided at the whim of government officials anytime they want some ready cash is irresponsible at best and a total disregard for the public's interest at worst." – Michael Dann, member of the Outcome Based Forestry Panel & former member of the BPL's Silvicultural Advisory Committee

The Bureau of Parks & Lands should continue to harvest at the scientifically justified sustainable harvest level (141,500 cords/year). Revenue generated from timber harvesting should remain in a dedicated fund to support public lands programs.

The Natural Resources Council of Maine 3.30.15 Ever since Governor LePage took office in 2011, Public Lands have been cut above the sustainable harvest level.



George Smith OpEd BDN Oct 27

Maine people tell Governor: You're wrong!

October 27, 2015 Conservation, Environmental Issues, Legislative News, Outdoor Recreation By George Smith

It is time for the Governor to realize he isn't going to get his wish of diverting funding away from Maine's public lands, and do the right thing: release those Land for Maine's Future Bonds. Maine people strongly agree on this, and an opinion issued yesterday by Janet Mills, Maine's Attorney General, should put this issue to rest.

By the huge margin of 74 percent to 16 percent, Maine people in a recent poll said the Governor should release voter-approved bond funds. Only 16% side with the idea that the Governor should not release LMF funds.

You must be aware that Governor Paul LePage wants to cut more of your trees and divert that money to causes outside of your lands. His inability to convince legislators to do this led to another tantrum and his refusal to sell the Land for Maine's Future bonds jeopardized more than 30 land conservation projects. In September the Governor forbid the LMF Board and staff from spending any money on legal work on present projects, or any existing bond money to complete projects.

Today, a special commission organized by the legislature to study and report on these issues meets at 11 am to hear responses to their many questions and put together preliminary recommendations. They'll meet one more time in November and then issue their findings and recommendations in early December.

Attorney General's Opinion

In response to questions from the Public Lands Commission about the diversion of Public Lands money, the Attorney General reported yesterday that, "While

the purchase of heating equipment for low-income rural families is a laudable goal, as is public assistance for food, shelter and health care, it is not easy to draw a connection between these types of uses and the preservation of the Public Reserved Lands. Under the very limited language of the Opinion of the Justices, this proposed use would likely meet great skepticism from the Court."

Attorney General Mills was referring to a 1973 and 1992 Court decisions on the uses of Public Lands Funds. Her thoughtful three-page response to the Commission's questions included a 1992 Attorney General's opinion and a Constitutional amendment ratified by Maine voters in 1992. As she explains, "That provision narrowly restricts what can be done with the proceeds of the sale of any public lots and requires a 2/3 vote of each House for any proposal to reduce or substantially alter the uses of public lots. While Article IX Section 23 may not relate to the specific proposals under consideration by your Commission," she wrote, "it provides a useful backdrop regarding the intent of the Legislature and of the Maine people regarding the preservation of these unique public lands and their current uses."

She also noted that "income derived from the Public Reserved Lands is not interchangeable with General Fund revenue and may not be diverted to the General Fund for undifferentiated use." That seems pretty definitive and clear to me. How about you?

Commission's First Meeting

At the Public Lands Commission's first meeting in September, I told them that public lands are very important to Maine sportsmen. Growing up in Winthrop, Dad and I could hunt anywhere. I don't recall every seeing a No Trespassing sign. So well into adulthood, I didn't think we needed a lot of public land. Boy, has that changed!

Today, lots of land is posted and one of my favorite places to hunt and fish is in the 6,000 acres of public land called the Kennebec Highlands, 10 minutes from my home. When I worked for the Sportsman's Alliance of Maine, we supported a successful initiative by BPL's Tom Morrison to open the undeveloped sections of state parks to hunting. We appreciated Tom's effort and needed that.

It was great to see Tom, who retired last year as Acting Director of the Bureau of Parks and Lands, and Will Harris, his predecessor, at the Commission's first meeting. Both made very informative presentations. Harris noted that our public lands, "are not the state's woodlot." Morrison reminded Commission members that while Public Lands "is in the best financial shape it's ever been, it's taken years and years and that bucket doesn't quickly refill." A good warning to not hastily move to divert BPL's current surplus.

I chimed in, urging the Commission to focus some of its time on the great needs I've seen throughout our public lands for infrastructure and other improvements. Tom Morrison noted that most Mainers don't even know where their public lands are located.

LMF Poll

Not long ago we received news about a poll taken by the Republican polling firm Public Opinion Strategies and the Democratic firm Fairbank, Maslin, Maullin, Metz & Associates. The poll found that Maine Democrats, Independents and Republicans from every part of the state overwhelmingly support the release of all voter-approved Land for Maine's Future funds even when they hear a simulation of the debate that has been occurring on the issue.

Given a brief, neutral explanation of the two perspectives on LMF funding, 74% of Maine people say the Governor should release voter-approved bond funds. Only 16% side with the idea that the Governor should not release LMF funds. Those supporting the release of LMF funds include 91% of Democrats, 76% of independents and 54% of Republicans. More than 70% of Mainers in every region of the state agree: coastal Maine (75%), Northeast (76%), South (76%) and Central (72%)

By a margin of 79% to 16%, Mainers reject withholding LMF bonds until the Legislature approves an unrelated law to use revenue from timber harvests on state lands to fund a separate government program to help low-income Maine residents upgrade their heating systems. Seventy-nine percent chose, instead, to support the view that "once the people of Maine have spoken at the ballot box, no one individual – even the Governor – ought to have the right to veto that decision."

By a margin of 73% to 12%, Mainers believe that LMF funds benefit all Mainers and visitors versus only benefiting "wealthy landowners." Governor LePage insists that public lands only benefit the wealthy. It's actually just the opposite. The rich have their own lands. The rest of us depend on public lands.

"This poll is the latest indication that Maine people, across the state and from all walks of life, are benefitting from and valuing the economic importance of Land for Maine's Future investments," shared Maine Coast Heritage Trust President Tim Glidden. "It is time policymakers empower this popular land conservation program, so that it can once again fulfill the wishes of Maine voters."

"Understanding how valuable LMF investments are to strengthening our economy, especially in rural areas, I am not at all surprised by these numbers" added Sportsman's Alliance of Maine Executive Director David Trahan. "Sportsmen and women and outdoor groups know that LMF benefits all Mainers, not the rich. We again ask the Governor and legislators to listen and release LMF funds now."

"We have heard months of debate and suggestions that LMF only benefits the wealthy or that voter-approved bond funds can be used as political leverage," said Tom Abello, Senior Policy Advisor at The Nature Conservancy in Maine. "What this poll tells us is that voters know better and are not buying any of it. We hope Legislators are listening."

"We are not surprised to see such strong support for LMF regardless of political affiliation or region in Maine," said Wolfe Tone of The Trust for Public Land. "Voters have overwhelmingly approved these bonds at the ballot box six times. With more than 30 projects in limbo across the state, Mainers understand how withholding LMF funds is hurting their own local economy. It is time to release LMF funding and allow these investments to move forward."

I'll be at today's meeting of the Public Lands Commission and will have a report for you soon after.

Comments on Report of Public Lands Commission Jan 2016

Lloyd C. Irland, Wayne.

A condensed version of this note appeared in the FreepressOnline, Jan. 14, 2016.

The people of Maine ought to be grateful to the Commission for its hard work over this past fall on Public Reserved Lands funding. Chairs Senator Tom Saviello and Rep. Clifford Hickman deserve special recognition for this time-consuming task. The Commission met 4 times, heard testimony from a variety of sources, and received abundant administrative materials from the Department. Much of this is on their website, as is the final report

(http://legislature.maine.gov/legis/opla/publiclandsmgmt.htm).

Their work has helped to educate Commission members, and will be available to other interested legislators and the wider community.

Commission Recommendations: (my comments in italic)

- 1. Maintain a \$2.5 million bank balance at all times. *Makes sense*.
- 2. Conduct a detailed inventory, at a cost of \$50 100 K, every 5 years. See below.
- 3. Allow experts including the Bureau's Advisory Committee to "advocate" an Annual Allowable Cut (AAC), and receive public views before Committee adopts an amount. Same.
- 4. Locate areas where deeded access to Public Lands is absent, set priorities, and begin acquiring access to those places. An excellent idea; I should have thought of it myself.
- 5. Develop a list of recreation infrastructure projects that would benefit nearby community economic development. *Another good idea. High time*.
- 6. They offer a series of five suggested uses of funds that they believe ought to pass legal muster. I think they are reasonable. The Commission commendably resisted Administration pressure to break the link between Public Lands revenues and conservation purposes.
 - 7. All uses of funds to be approved by the Legislature. *Fine.*
 - 8. Some administrative improvements to the timber sale procedures. *Fine.*
- 9. They suggest that the /Commission be extended for further work in view of the complexity of the issues. They do not identify what specific topics they wish

to address, but a continuing focus for this kind of discussion would be desirable. See below.

Most of these are reasonable, represent progress, and need no detailed comment.

I do harbor a few reservations, however.

- 1. I do not believe in inventory for inventory's sake. It looks like the decision on the AAC is being held hostage to an inventory for the sake of form. By itself a new inventory will not tell us the desirable AAC. It is uncertain whether it will have sufficient statistical precision for the three BPL regions as suggested. Using present methods, I doubt that an inventory every 5 years would be money well spent. There are better ways to improve forest management and to ensure that calculated AAC's are attainable given existing condition goals, standards, and guidelines and the spruce budworm outlook.
- 2. Perhaps more importantly, new remote sensing technology appears to be more precise, more detailed and more cost effective than current methods. It costs us little to await availability of this method. The Bureau was the first major landowner to do a "biomass inventory" of all the Public Lots in the mid 70's. Let them pioneer a new technology again.
- 3. Determining the right AAC is not simply a mechanical matter of calculating the current measured net annual growth. In response to a question on this point, the Five former Commissioners (dubbed by some "the Big Five"), gave a detailed answer you can find it on the Commission website. But it seems the Commission did not deem the topic worth discussing.
- 4. The Public Lands are not in one large block, but instead are sprinkled across the state in chunks ranging from 300 acres or less up to entire townships of 20,000 acres or more. Obtaining meaningful inventory data for such a landbase is daunting. A property-wide inventory is needed from time to time but cannot replace the kind of more localized information needed for year to year operations and planning.
- 5. Beyond proposing a general process for setting future AAC's and recommending an inventory, the Commission left a disappointing loose end. In

September, the Legislature had set an AAC, following months of controversy, of 160,000 cords. This was higher than the Bureau's recommended level (141,500 cords). This action has been acknowledged as a "political compromise". Doubtless some legislators held their noses while doing it. They thought it better than the alternative -- a unilateral administration move to 180,000 cords. (whether existing staff could prepare that much volume for sale promptly, or currently depressed wood markets would buy it all, is uncertain)

6. The Commission's silence on the status of the 160,000 cord level was deafening. It left many of us perplexed as to what the Commission intended. Was this amount acceptable to them as a decadal AAC? Or only as an interim level pending the Commission's consideration of this technical, jargon-laden topic? It is striking that the Commission fell silent on this highly controversial issue, and spent little time even talking about it. Was it classic politics, "at all costs, avoid difficult decisions"?

I for one would be much gratified if one legislator close to this process would go onto the public record stating roughly this:

"Last September, the Legislature adopted a proposed AAC for the Public Lands as a result of a political compromise in order to move forward with budget planning in a highly polarized situation. This figure was well above the Bureau's own professionally based recommendation. It also contravened strong recommendations by well-informed outside persons. We regret the political necessity of doing this. It is our earnest hope that this important decision will never be made in this manner again."

This discussion is not over. Hopefully the Commission will deal with these loose ends in the same careful way it has already acted. Hopefully people and groups interested in Maine's heritage of public lands will review the detailed materials and judge for themselves the merit of what I am saying here.

The author: Irland's professional career includes work on allowable cut issues in the western states, conducting a detailed Congressionally mandated assessment of harvest potential on the Tongass National Forest in Alaska, assessing timber supplies in different regions for private clients, and dealing with these issues while serving in the Bureau of Public Lands. He also participated in Forest Stewardship Council

Environmental audits of major forest properties in the Northeast focusing on socioeconomic issues, including allowable cut estimates.

Maine's Public Lands – How can the Revenues be used? How much Timber should be Cut? Do we need to change how they are managed?

Lloyd C. Irland The Irland Group, Wayne, Maine revised Sep 4, 2015

In the early 70's, the Public Reserved Lands of the state were a controversial issue. Regular committee hearings were held at the Legislature, often to extensive publicity. Newspaper cartoons lampooned public officials (including this writer). As the process of building out the system of lands we have today was completed, the controversies sank back into the woodwork, to become the province of specialists and one legislative committee.

The issues are now back on the public agenda -- and making the front pages again. After such a long time of hearing little about them, citizens are wondering, what is this all about? I wondered too and so I collected publicly available info and ran it through some comparisons I usually use in thinking about these things. I ended up putting together this little working paper. I hope it is useful.

If you like you can skip to my suggestions at the end.

As of this Labor Day weekend, there are new developments. Over the summer, the Legislature set an a new allowable cut limit in a last minute political compromise. It established a commission to assess the issues, many of which are discussed in this note. The group is to report in early December.

As I read the news, there are three principal questions. We must hope the questions will be settled following due deliberation and involvement and not in a rush to meet artificial deadlines. It could be that in recent years not enough has been done to

improve outdoor recreation opportunities on these lands. But that is a separate issue. It is not clear that the timber policy issues discussed here will affect many recreational users. The issues related to Land for Maine's Future bonds and whether Maine has too much public land are treated in a separate paper.

Three Questions

There are 3 questions at issue now:

- 1. How should any future Public Lands revenue surpluses be used?
- 2. Should we be cutting more timber on the state's Public Lands?
- 3. Would the lands be better managed, all things considered, if Parks and Lands were merged with the Maine Forest Service?

How should any Surplus Public Lands Revenues be Used?

First, most of the BPL's managed timberland is Public Reserved Land. To spare you the history, we can just say that these are trust lands held by the state for all the people. They are not mere real estate investments. The legal rules governing trust lands come from obscure areas of law. They mandate that the lands be retained by the state; they cannot be sold except by legislative action, and they must be managed for trust purposes. The trust purposes governing these lands have been ruled to include conservation and public recreation, and the supply of materials for Maine's economy.

Revenues from trust assets should be used for trust purposes and not for whatever purpose is appealing at the moment. The current proposal is for loans to promote use of wood heat in Maine, a goal which many voters would surely support. The question is, is this a proper trust purpose, or not? If it is, where lies the boundary distinguishing trust purposes from impermissible uses of these funds? It there are indeed unmet needs for recreation, might this be a suitable use for these funds? Key legislators understand this, but the point has not received much mention in the press so far.

During the years when the Bureau's mission and landholdings expanded dramatically, the Legislature was assured that this enlarged public estate would not become a burden on Maine taxpayers. And it hasn't. Until recently, though, there has been little formal discussion of how surplus revenues might be applied, since such surpluses have been meager at best. The costs of initiating management, planning,

roads, and other activities for a large area of property have consumed much of the revenue over the years. Today, though, there is a surplus in the Bureau's accounts.

Within the Bureau, several dedications already exist. In Organized Towns, the Bureau pays 25% of gross land revenues to the towns where the lands are located. Revenues from Submerged Lands are small but they are used to defray costs of administering leases on those lands. In the early 80's the Legislature dedicated revenues from camplot leases to developing recreational opportunities on the Public Lands. Now that the lands appear capable of earning a surplus above immediate needs, it is timely to ask what the specific boundaries are that define legally appropriate uses for them.

Some might be concerned that making BPL revenues available for other purposes could create incentives for cutting too much or in ways not fully consistent with the Bureau's multiple use mandate. Others might be concerned about creating a "use it or lose it" mentality that could result in unnecessary expenditures -- the opposite condition from the stinginess with which the Public Lots were handled up to the 70s.

So this question has no clear answer. A 1973 Opinion of the Justices offered the Law Court's views on a number of issues related to the PRL. (Op J. 308 A 2d 253 (1973) decided June 21, 1973). A careful inspection of this opinion might give guidance. A later Opinion of the Attorney General (1992) addresses far more specific issues, but is likely relevant. I am not aware that the Administration ever consulted the Attorney General's office while developing its proposals.

At present, the Bureau and the Legislature face proposals to increase future harvesting for a period of time to raise revenues. So, what is at issue here?

How much timber should be cut?

This section is intended as an overview for the general reader. It makes many assumptions that in a full treatment would require much more space and make far greater demands on reader patience.

Timber sale revenues dominate the Bureau's annual revenues. While the price of standing timber has varied significantly with the market, the volumes cut and sold also affect revenue. While managers can control when and how much wood is sold, they have less control over when that wood is actually cut¹. The high volume cut in

¹ As an aside, it is for this reason that the US Forest Service manages to an "Allowable Sale Quantity" (ASQ) instead of an AAC.

2014 resulted from excellent logging weather as well as good markets. The harvest of the ten year planning period is still below the AAC (Annual Allowable Cut).

Any large forest property is managed under a management plan. Part of this plan explains the basis for calculating an AAC which represents the amount of wood that can be cut over time, based on predicted forest growth, goals for forest condition, and the constraints imposed to protect nontimber resources. For this discussion we must leave aside many interesting complexities. Complex computer models are used to simulate forest growth and inventories over long future periods, in order to set sound harvesting levels. The Bureau's general approach is described in the Integrated Resource Policy (2000).

The Bureau manages roughly 600,000 acres of land, of which roughly 400,000 are considered available for active forest management. The other lands are too steep, wet, or protected for other dominant uses. Those 200,000 acres will continue to develop under natural forces as before. On the managed lands, the Bureau's enabling statute requires exemplary multiple use management, not revenue maximizing management. This is the law, not a whim of purist foresters or "liberal environmentalists".

The Bureau's goal is to manage a forest distinctively older in age and more mature in condition than an industrial owner or investor, paying taxes and earning profits, would do. This it has done, using practices that are generally praised for their effectiveness, environmental concern, and professionalism. It has been aided in this by its freedom from paying taxes and dividends, and by the fact that much of the land under its supervision had been lightly managed in the past. Maine's forests badly need some places, spread around the state, that are managed for distinctively larger trees and more natural conditions than the general average.

In estimating sustainable harvest volumes, many questions are asked. Since forest conditions and markets change, and science changes, plans are usually revised every ten or 15 years. Key questions include:

- What is the desired future condition of the forest?
- What is the forest's condition now, and
- How will it change under alternative methods of management and different levels of cutting?

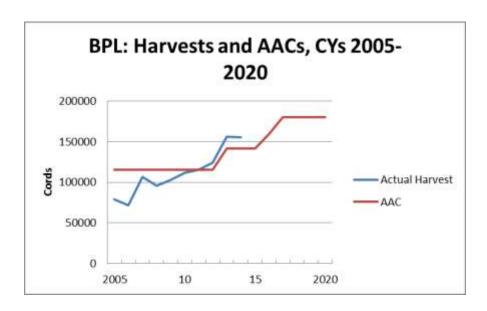
These questions are handled in complex computer models.

The result of all this calculating is termed an Annual Allowable Cut, or "AAC". The AAC is customarily applied as a decadal total, recognizing that ups and downs in lumber and

pulp markets will result in some years falling short of the annual average, other years exceeding it.

Harvests have increased since the mid 00s because lumber markets were devastated by the housing crash – US lumber production fell by half in just a few years. A market rebound has enabled the Bureau to bring its harvest into the range of its previously planned AAC. It is easy to see why a chart, without context, showing the trend would appear threatening. The hint that this increase is something sinister is not warranted. Certainly, an increase from the 2005-2014 average of 112,000 cords to the Department's proposed level of 180,000 looks very large. But when compared to the then applicable AAC of 115,000 cords, the cumulative shortfall 2005 to 2012 was equal to one full year of AAC. Charges of "overcutting", based on one single year's production, are off the mark. I argue below that the real issues are far more serious.

Note: I have not updated data in this section beyond what was available in May 2015.



Notes to figure: AAC was 115,000 cds up to 2012.

Average harvest 2005-2014: about 112,000 cds

Based on new inventory, increased to 141,500 by BPL.

During winter 2015, the Department proposed an AAC 180,000 to take full effect in 2017 and run for 20 yr. (this level shown in chart)

At session's end, Legislature set an interim 160,000 cords for coming year.

How is this cutting affecting the land? In 2014, 14,000 acres were cut. This would mean an annual entry of 3.4% of the managed area per year (or 2.3% of the total acreage). At this pace, it would take 29 years to get over the land fully. In some areas and to meet stand goals, shorter cutting cycles are usually warranted. Much of the area harvested consists of partial cuts that are largely invisible to passersby once slash has lost its leaves. Academic studies and practical experience suggest that aesthetics are often improved by letting a little "Light into the swamp" in the right places. At this recent pace, a sizable area would be treated even in a decade, addressing any issues of overstocked stands that may exist.

Using the average removal rate of 2013/14 (higher than in the comparison above) we can see the effect of a higher AAC on acres cut, cut per managed acre, and cut relative to inventory. If pursued for a decade or so, these changes would probably be noticed by few recreational users. Nor would they materially affect wildlife habitat or other multiple use values. Assuming these operations continue to be handled in the professional manner seen in the past, outright harm is unlikely². Over 20 years, then, more of the managed area would be entered at the 180,000 cord level, compared to the current AAC. This level of activity ought to put any issues of overstocking in the past. Indeed, a decade at 141.5 would also make significant progress on that point.

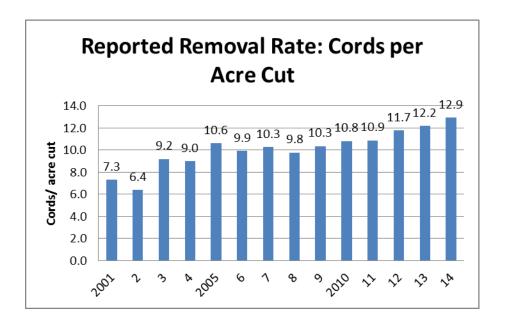
Analysis:	AAC at	at	at
	115	141.5	180
Est acres cut	10,358	11,170	14,516
Pct of managed acres cut	2.5%	2.7%	3.5%
Years to reach all mgd acres	40	37	28
Cords cut per managed acre	0.28	0.35	0.44
Cords cut per acre operated	11.1	12.7	12.4
Cut as % of inventory	1.24%	1.52%	1.94%

The harvest as percent of inventory and the implied cutting cycle, on these numbers, seem consistent with a conservative management program.

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² One newspaper story referred to the proposed increase as "more forestry". This is a misuse of words. It would be more logging. The management program would be forestry then as now. Forestry is land management, including the attention given to the 200,000 acres of reserves. Further, there is simply no evidence that proposed increase would harm other resource uses or values. If such evidence arises, it needs to be considered in the management plan. If urgent, amendments can be made.

The average removal per acre operated averaged 12.4 cords in 2013 and 2014. This was up considerably from earlier years (chart below). This cannot be compared with the average stocking as the stands being cut are not the average ones. Stands receiving treatment are a mix of improvement cuts, overstory removals, and final harvests. Still, this removal rate looks high to me. Whether it is an artifact of the way data are compiled, a result of aggressive removal of low-value wood, or from some other cause needs to be explained.



Some stands have histories of light management, so that early cuts usually run heavy to low value wood. The objective is to improve these stands for future growth. The value of the wood -- for the Bureau's revenues, and for the Maine economy -- will improve in the future, as these stands receive their next entries.

One element in allowable cut considerations is the annual rate of net growth. In a letter made public by the Department, Ernest Bowling of the Sewall Company, who is well experienced in these matters, affirmed the Department's judgments that net growth supports an AAC in the range of 180,000 cords. From the letter's content it does not appear that he was assigned to consider the other elements of AAC that are listed in this note.

The Bureau reviews its activities and plans annually with the Legislative Committee. Given that technical matters of this kind have not been controversial and are sleep-inducing to most people, little press attention has accompanied them. The Bureau's detailed annual reports, as well, are not exactly sold on the drugstore

paperback stand. The result is that only a small circle within the Department and the Legislature are aware of the Bureau's plans and the reasoning underlying them.

On the basis of the above information it is hard to argue that the Public's lands are in imminent danger of destruction. But it is reasonable to be concerned about an additional increase in AAC, following immediately on the heels of a carefully deliberated recent increase. Happily, many legislators expressed opposition to this increase. Unfortunately, in the final moments of the session, the leadership made a compromise, setting an AAC of 160,000 cords to run for ten years.

The oncoming spruce budworm outbreak has been noted as a reason to boost the cut. Others have challenged that reasoning. For example, much of the fir, the most vulnerable species, is small in size and is highly scattered. While we know there will be an outbreak, much uncertainty remains as to when it will arrive, how widespread it will be, and how it will affect our forests, which differ markedly from those of the 1970's. Two assumptions would be prudent: (1) there will be an outbreak and mortality will occur; and (2) getting to vulnerable stands before they are dead is wise. To deal with situations such as these, classic forest management uses the concept of "unregulated cut", or "harvest not chargeable to AAC". It would be reasonable to decide that fir in high risk areas and stands will be harvested when feasible, but the volumes would not be charged against the current AAC.

It would also be reasonable to consider accelerating the harvest of whatever low-grade pulpwood material still exists in the inventory. I have often suggested to landowners to harvest this wood, on a planned basis, before the market shrinks further. This does not mean a frantic rush, but a calculated program to improve residual stands by harvesting this material somewhat faster than traditional AAC calculations might suggest. Done well, a likely benefit would be improved value growth in residual stands, and stands better suited to yielding high value growth over longer rotations.

None of these points lead me to any confidence, though, in suggesting what the AAC ought to be. One must hope, however, that the unfortunate process used this summer will be disavowed by cooler heads in the future.

Questions for Stewardship

The Legislature must take good care, then, to answer some big questions before making its next moves on this issue. It must calmly deliberate over the questions raised in this note, concerning the legal limits on how revenues of Public Reserved Lands may

be applied. Other questions related to financial and budget policy and operational practice could be raised, so this list is not intended to be comprehensive.

- 1. Is there a persuasive argument for another increase in the AAC, beyond 141,500 cords, based on resource condition, age class structure, budworm, or other issues?
 - 2. The high removal rates per acre noted above need to be explained.
- 3. Why is the issue being discussed in terms of inventory per acre instead of conditions such as age class structure, amount of late-successional forest, or other relevant measures of forest condition?
- 4. How would the proposed increase in volume cut affect the annual area treated, the typical cutting cycle, and the total area entered over the 20 year period?
- 5. If an AAC at 160,000 cords were kept in place for a time, it would generate forces for continuing that might resist any downward adjustments needed in the future. Normal bureaucratic momentum, industry demands for wood, and state financial needs would create strong pressures against later reductions.
- 6. Put another way, how is the Public Lands program to be protected against becoming yet another fiscal gimmick?
- 7. Given the pressures on staff levels, how can we sure the necessary staff will be added to maintain high silvicultural standards?
- 8. It is not fanciful to wonder if increased financial pressures would lead to cutting trees or stands that ought to be handled differently or left to grow.
- 9. The Legislature needs to consider carefully the question of who should decide on some of these matters and what the process should be.

Further, a worry -- tho perhaps little can be done about it. It is worrisome when long serving public officials can be driven out of their jobs for resisting policy changes. This is bound to be noticed by future office holders.

Merge BP & L with Maine Forest Service?

Full disclosure: in the late 70s and early 80's, this writer worked for both agencies.

In the 1970s, the Bureau of Public Lands was created to do two things: first, develop a program of active management of the state's lands which had been generally ignored. Previously, the state had expected little more than strict economy in handling

those lands, and that is what it got. Second, it was to conduct a program of land trades to swap out of dozens of scattered "public lots" and assemble them into large manageable tracts protecting important scenic and recreational resources. This task has been accomplished, to great and enduring public benefit.

There is a good deal to be said for clear focus on mission in forestry. The Bureau manages land, State Parks and Public Reserved Lands. Forestry manages fire control, administers forest practice regulations, and provides other services assisting private landowners. This division of functions seems sensible to most of us who have worked in the Department and to most observers. No case has been made that merging the two bureaus would lead to material savings or improvements in effectiveness. Informal chats with former Commissioners tell me that they agree.

Some people like clean organization charts, or enjoy the feeling that by reorganizing we've actually got something done. Or, like to pretend they've "eliminated bureaucracy". Already, management experts would tell you that Maine's Governor has a "span of control" (number of direct reports) that is far too wide. Merging these two agencies will not change that.

Reorganizing is often a substitute for actions that might make a difference.

Do we need to merge the 2 agencies? No.

What I'd do:

- Hold the AAC at 141.5 for a decade, then do a new inventory and re-evaluate. If 160 or 180 seems advisable at that time, explain why.
- Apply AAC as a decadal control total as is customary in many other ogranizations.
- Allow BPL to harvest as much at-risk fir as they can do in an orderly way, as "unregulated cut" not chargeable against AAC. No target should be set for this amount.
- Follow up on State Forester Doug Denico's suggestion that an external review of the AAC issue be made by a qualified expert.
- Develop and pass legislation, following legal consultation, establishing a considered, longterm policy for how any future surplus BPL revenues are to be spent.
- Don't re-organize BPL and MFS.

■ Empanel a Joint Select Committee to review these and other issues of longterm stewardship for the Public Lands, in light of their fundamental trust purposes. (Irland and Barringer, 2015)

My Box Score

Since the above list was written in May, the Legislature and Administration have taken several actions. How did I do with my recommendations?

- They did not follow my recommendation to hold the AAC at 141.5 pending further analysis.
- They did set up a commission to review the issues, with fairly comprehensive terms of reference.
- Review of the AAC was done but only on one element -- net growth; hopefully the Commission will review the larger picture.
- A tentative step toward reorganizing was made, by appointing a joint Director for Forestry and PB & L, while not formally merging the agencies.
- The other points can be handled by the newly appointed Commission.

The Upshot

Everybody now has time to take a deep breath, and initiate some serious thinking and discussion about the issues raised here and by others. We hope the work of this coming autumn will make the best of this opportunity.

	BPL HARVI	ST AND A	AAC			
			Calendar	years		
					Annual Ac	res cut
Calendar	Volume cut	not inc bio	mass		(note: 14,000 in FY2014)	
Years	cords	AAC	diff.		Acres cut	cds/a
2001	48,561				6636	7.3
2	49,577				7796	6.4
3	66,902				7284	9.2
4	89,534				9983	9.0
2005	78,715	115,000	36,285		7,437	10.6
6	71,773	115,000	43,227		7,249	9.9
7	106,504	115,000	8,496		10,385	10.3
8	95,547	115,000	19,453		9,786	9.8
9	102,715	115,000	12,285		9,945	10.3
2010	111,767	115,000	3,233		10,346	10.8
11	115,167	115,000	-167		10,606	10.9
12	123,713	115,000	-8,713		10,534	11.7
13	155,840	141,500	-14,340		12,814	12.2
14	155,152	141,500	-13,652		12,007	12.9
2015		141,500		total	132,808	
16		160,000		ave	9,486	
17		180,000		or	32%	
18		180,000			of mgd are	ea
19		180,000				
2020		180,000			for last 6 y	r
					rmvls	10 cd +
		cum short	114,099	at 115 AA	C; much lar	ger at new
		05 to 12				
		or	1.0	years of A	ars of AAC	