

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.

Attachment: Why BPL Should Not Plan to Harvest at the Level of Measured Growth

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.

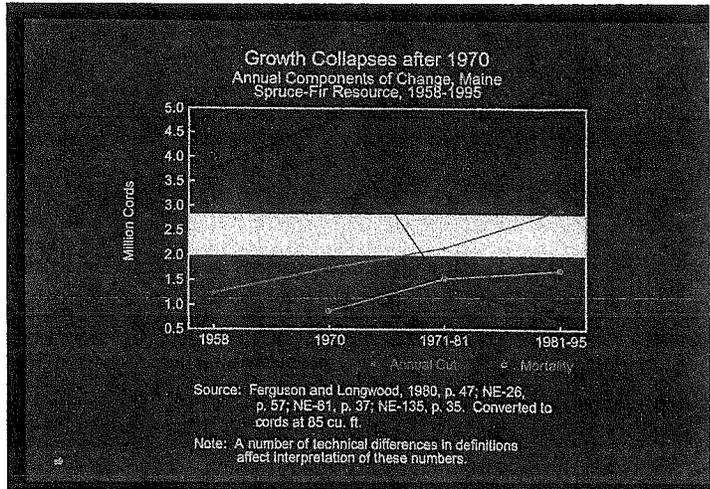
Current Growth May Not Equal Long-Term Sustained Yield (LTSY). Net growth measures *current* growth rates between measurement periods. Often these represent averages over a recent time period. Forest managers are cautious when using net annual growth, as it is a measure derived from measures of inventory 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:

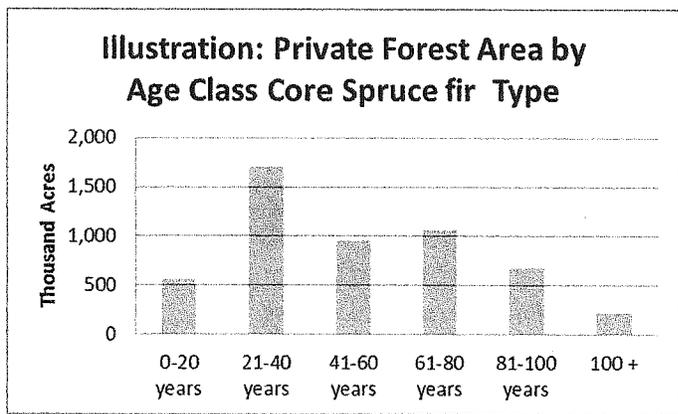
- (a) A band indicating two independent estimates of what LTSY would be for the spruce fir resource.
- (b) Lines indicating the movements of net annual growth, showing the impact of budworm; of the annual cut; and of the estimated mortality up to 1981-95.

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 cost-effective, 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".

Outdoor Recreation and Job Creation Strategy

Five Commissioners' Response to Question asked by Commission on PRL Funding on Sept. 29, 2015

In our letter to the Commission presented at its September 29 meeting we advocated that Maine develop an Outdoor Recreation and Job Creation Strategy, citing similar efforts underway in the states of NJ, NC, SC, and FL. The Commission requested that we provide further details. As a point of departure for your staff's research, we offer the South Carolina agency's official website www.scpert.com that describes SC's efforts in detail and references similar efforts in VA and AZ. Below is an excerpt from the SCPRT's webpage:

"The South Carolina Department of Parks, Recreation & Tourism (SCPRT) is a cabinet agency assigned to operate and manage South Carolina's 47 state parks, to market the state as a preferred vacation destination, and to provide assistance to communities for parks, recreation and tourism development and promotion. The agency is perhaps most widely recognized for its leadership role in promoting and supporting South Carolina's number one industry – tourism.

"SCPRT's vision to enhance the economic well-being and improve the quality of life of all South Carolinians guides its operations, and provides a benchmark for hundreds of employees to measure their day-to-day contributions. It also is the basis for South Carolina's new Tourism Action Plan, a statement that projects a bright future if proper investments are made in tourism. Details about the agency's activities can be found throughout this website."

Maine already has strong elements in hand for moving forward on this concept, with the recently completed economic impact survey on which the Commission was briefed, and the 2015 State Comprehensive Outdoor Recreation Plan prepared by the BPL, at http://www.maine.gov/dacf/parks/publications_maps/statewide_recreation_plan.html

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? If 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 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:

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.

- 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?

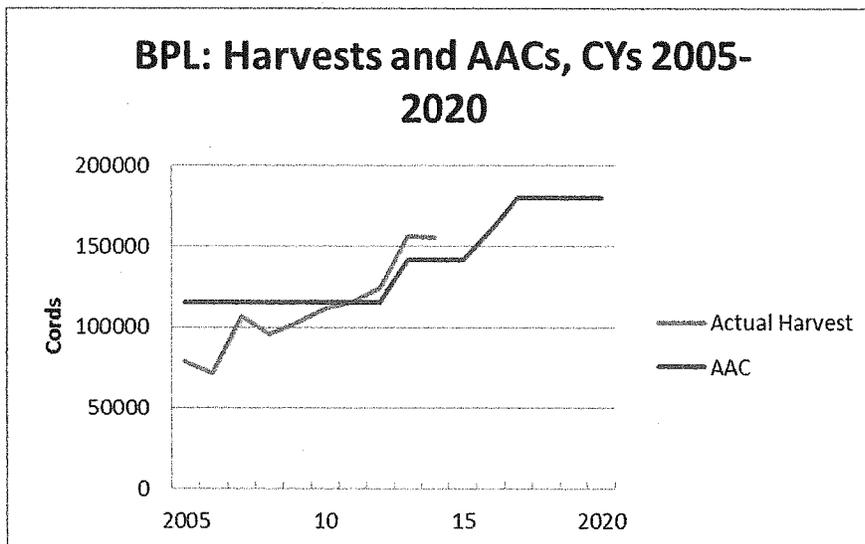
These questions are handled in complex computer models.

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.

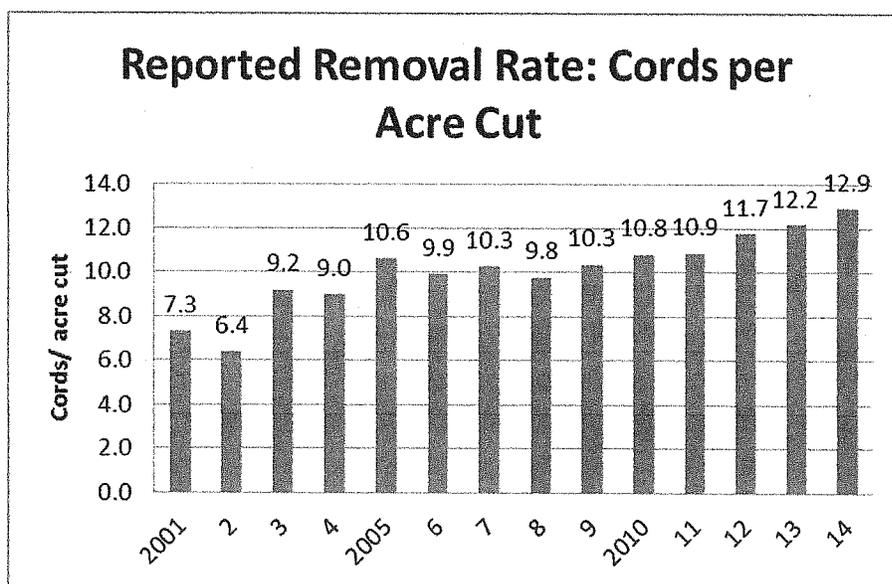
Using the average removal rate of 2013/14 (higher than in the comparison above) we can see the effect of a higher AAC on acres cut, cut per managed acre, and cut relative to inventory. If pursued for a decade or so, these changes would probably be noticed by few recreational users. Nor would they materially 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.

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.

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.

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 re-organizing 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 organizations.
- 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.

List of Information Resources

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

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

BPL 2000. Integrated Resource Policy.

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.

"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.

Forest Guild. June 15, 2015. Forest Guild Statement on Maine Forest Policy.
http://www.forestguild.org/publications/policy/Position_2015_ME_Forest_policy.pdf

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/>

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

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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>

BPL HARVEST AND AAC

Calendar years

Calendar Years	Volume cut not inc biomass			Annual Acres cut (note: 14,000 in FY2014)	
	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 area	
19		180,000			
2020		180,000		for last 6 yr rmvls 10 cd +	
		cum short 05 to 12	114,099 at 115 AAC; much larger at new		
		or	1.0 years of AAC		