

NOVA SCOTIA FOREST POLICY CHRONOLOGY

- 1899 The Big Lease. Following Quebec and Ontario's lead, NS attempts to leverage Oxford Paper Company to build a paper mill by granting access to Crown land in Cape Breton. No paper mill was built and the government actually had to buy the rights back from the company.
- 1912 Commission of Conservation of Canada publishes B.E. Fernow's *Forest Conditions of Nova Scotia*. (<https://digital.library.yorku.ca/yul-649833/forest-conditions-nova-scotia#page/1/mode/2up>) With a budget of \$6,000 Fernow and his team conducted a 'reconnaissance' of the province's timber land. Each member of the team was assigned a specific area where he interviewed owners of timber lands, surveyors and woodsmen about forest conditions. Inspections on the ground were conducted in remote areas. The information was recorded on survey plats of land grants, creating 'probably the most detailed description of land conditions in existence for such a large territory (21,000 square miles, on this continent at least.' (p. 4) Fernow found that Nova Scotia's forest resource was 'in danger of exhaustion within the next two decades'. (p. 2)
- 1946 Pulp/paper replaces lumber as NS's top forest product
- Small Tree Act is passed. No spruce, pine or hemlock less than 10" in diameter was allowed to be harvested unless authorized by permit system. Driven by political pressure from the saw mill industry, which was concerned about the impact of indiscriminate clearcutting on the future supply of saw logs, this was the first-ever legislation passed in Canada that was designed to limit/control forestry activities on privately owned land.
- 1958 First provincial forest inventory completed. ~25% of NS forests were over 80 years old.
- 1961 Province leases 1.5 million A of Crown land to Swedish pulp and paper giant Stora Kopparberg. Stora builds mill at Port Hawkesbury in return for 50-year control of 40% of the Province's Crown lands (11% of Nova Scotia's land mass).
- 1965 Scott Maritimes Act passed, granting the new pulp mill in Pictou County access to 50,000 cords/year.
- Forest Improvement Act passed, but never implemented.
- 1970's/early 80's Budworm battles in Cape Breton
- 1977 First Canada-NS Subsidiary Agreement, the first of a series of

Federal/provincial funding agreements to help fund silviculture. By the late 1970's it became clear that NS had a wood supply problem. From this point forward, the sustainability of NS harvest rates was based on assumptions of future growth tied to investments in silviculture.

- 1984 Royal Commission on Forestry reports.
- 1989 Whole slew of legislation introduced; Forests Act, Crown Lands Act, Forest Enhancement Act, Wildlife Act, Provincial Parks Act
- 1993 Curtis Report? (audit of previous federal-provincial funding agreements)
- 1995 End of Federal-Provincial funding agreements (feds pull out).
- Coalition of Forest Interests process aims to replace federal/provincial funding with levy system to fund silviculture that is proposed by government, supported by industry and rejected by landowners.
- Forest inventory data indicates that less than 3% of NS forests are older than 80yrs
- 1997 In the same year that NS set a new record for harvest rates in a single year, government released "Towards Sustainable Forestry" discussion paper released, indicating that harvest levels on small, private woodlots, are unsustainable. This leads to another wave of forestry legislation renewal (Wildlife Habitat & Watercourse Protection Regulations, Forest Sustainability Regulations, Registry of Buyers)
- 1995-2005 Period of extensive clearcutting encouraged by high wood prices and adoption of capital intensive harvesting and milling equipment.
- April, 2007 *Environmental Goals and Sustainable Prosperity Act* becomes law. Public consultation on resource strategy is announced.
- 2008 Public consultation on resource strategy begins. Some 2,000 people attend 27 community meetings held between May 12 and June 17. 600 written submissions were received.
- The Forest Stewardship Council approves a Maritime Standard for accreditation.
- March, 2009 Final report on resource strategy public consultation states that 'the status quo cannot sustain the biodiversity of our natural environment, enhance the economy, or preserve the rural lifestyle so valued by the citizens of this province' (*Our Common Ground*, p. 3. See HFC website for full report) 'Nova Scotians strongly told the committee that those resources, along with

the economies and communities that depend on them, are in decline and at further risk.' (*Ibid.* p. 8)

May

NDP government elected.
Mills Committee of senior civil servants set up to consider policy options if any of the three NS pulp and paper mills should close.
Market value of NS wood products reaches \$1.1 billion; NewPage production represents half of that.
Woodbridge report notes that 2009 softwood lumber production was 31% below the 2000 level. 4.1 cubic m. harvested; 75% consumed by pulp and paper mills.(Chronicle-Herald 27 04 2012) Report warns that to sustain the mills and the co-gen operations, more harvesting will have to be done on small private woodlots. However, fewer owners are participating: (a) because of low prices and (b) because fewer owners know how to manage their woodlands.

2010

NS total harvest had been falling since 2000; 350,000 tonnes imported this year.

NS Utility and Review Board (UARB) approves Nova Scotia Power (NSP)-NewPage plan to build 60-megawatt biomass cogeneration facility. Plant could serve 30,000 homes, provide 3% of N.S.' power needs. Environmentalists believe biomass requirements unsustainable. (On 10 08 2012 Chronicle-Herald reports the facility will require 650,000 tonnes of wood fibre annually, but in a public call for suppliers NSP estimates the facility will need 500,000 tonnes annually.(Chronicle-Herald 20 09 2012) DNR's claim that this will be derived from wood waste is contested by environmentalists. Wade Prest notes that because Stern will run only one paper machine, the former NewPage mill will produce less waste than in the past. He estimates that it will provide the co-gen facility with only 25% of its biomass needs.)

April 2010

Phase II Review Panel for Natural Resource Strategy reports to government. The report, entitled *A Natural Balance: Working Toward Nova Scotia's Natural Resource Strategy* (<http://0-nsleg-edeposit.gov.ns.ca.legcat.gov.ns.ca/deposit/b10609325.pdf>) argues that 'the status quo is not an option' (p.9) At same time, 'our small province exists within today's complex, highly integrated global market system that necessitates the use of natural resources to produce goods and needed jobs.' Current regulations and compliance are not enough to protect our resources. We must do more to sustain the environment and balance diverse and competing interests. Phase 2 Forestry Panel charged with preparing recommendations on forest policy could not agree. Bob Bancroft and Donna Crossland advocated ecologically sensitive forestry while Jon Porter took the industry view. Bancroft and Crossland recommended that whole-tree harvesting be stopped. Phase III is scheduled to be completed

by end of year – Environmental groups (ENGOS) believe the Forests Products Association of Nova Scotia (FPANS) is by-passing DNR Minister John MacDonell and lobbying Premier Dexter directly. Both sides intensify visits to MLAs, letter-writing and media appeals. The government approves NewPage-NSP co-gen facility. Rumours spread that forest management planning will lead to woodlot owners having to give up control of their stands.

- October 10 Ecology Action Centre, Federation of Nova Scotia Woodland Owners and Nova Scotia Woodlot Owners and Operators Association send a joint letter to Premier Dexter and Minister John MacDonell with recommendations for regulating clearcutting, reforming silviculture funding and promoting woodlot management plans.
- October 30 ENGOS rally outside Legislature - MacDonell promises ‘some policy direction’ in a week and full strategy by end of the year, but no statement within week.
- December 1 MacDonell announces a set of ‘strategic directions’ including reduction of clearcutting (by 50% over five years) and ban on whole-tree harvesting, but no specifics. Says DNR will consult with stakeholders on wording of regulations and that Department is in final stages of writing natural resources strategy. Off-the-record conversation with DNR insiders indicated that MacDonell believed that he had support from the Premier and cabinet. However, discussions with the policy board took longer than he had expected and the Premier’s Office had suggested replacing 50% goal with commitment to review clearcut proposals in light of scientific analysis of each site.
- January 2011 Premier Dexter moves John MacDonell out of DNR,; replacing him with Charlie Parker. Parker announces that the strategy document will not be released until ‘end of the year’. (It was released in August.) This suggests that MacDonell’s approach had to be watered down and delayed. The change is seen as a rebuke to MacDonell and a concession to FPANS.
- February 2011 NSWOOA writes Premier Dexter and DNR Minister Parker calling on them to release a clearcut definition and regulations and to implement a ban on whole-tree harvesting. .
- April 14 Another rally at Legislature by groups opposed to industrial forestry.
- May 10 Province allocates \$5m. to silviculture programs: (\$1m. to training and outreach; \$ 2.2 m. to Private Land Silviculture Program for professional and technical services for woodlot owners; \$1.8 m. for tree harvest tracking, monitoring and compliance. Press release notes that the timber on small private woodlots makes up two thirds of the Province’s wood supply and that there are 31,000 private woodlot owners in NS, but ‘the amount of timber they have supplied to industry since 1997 has declined significantly.’

- May 2011 Woodbridge Associates submit their report on the impact of a significant reduction of clearcutting. (Economic Impact Analysis of Timber Management and Supply Changes on Nova Scotia's Forest Industry) Main point: Small woodlot owners must contribute more to province's timber harvest. Pulp and paper producers depend on chips from sawmills; sawmills depend on small, private woodlots, but these woodlots have been contributing less than in the past to the annual harvest. Province's decision to reduce clearcutting will impose costs on pulp and paper firms and on sawmills that they will not be able to sustain. Report urges strengthening trade associations, providing incentives for private woodlot participation and re-structuring that sector. (Report appears to exaggerate decline in deliveries from woodlots in order to claim greater mitigation compensation from Province following introduction of clearcutting bans.)
- June 2011 Liberals (Leo Glavine) criticize government for delays in clarifying clearcutting issue. FPANS replies that process has taken time which has been 'well invested' - perhaps a sign that FPANS has had a lot to do with the delay.
- August 2011 Government releases *The Path We Share*, its response to Natural Resources Strategy Review Report, Emphasizes need for increased production from private woodlots. Backtracks on commitment to ban whole tree harvesting; now promises to 'establish rules' on whole-tree harvesting. Indicates a shift toward community forests.
- NewPage mill closes; 600 employees let go. Government subsidizes continued harvesting.
- Resolute Forest Products ready to close Bowater mill if it cannot get reductions in electricity costs (to slightly more than \$6/kw hr.); labour costs from \$97 to \$80/tonne and manufacturing costs from \$537/tonne to \$480/tonne. Unions agree to shed 100 jobs; Queen's County freezes property taxes.
- Expert estimates that for each of the next five years N. American pulp and paper industry will shed one or two mills the size of Bowater-Mersey. Government has still failed to either ban or establish rules for whole-tree harvesting and is rumoured to be considering a very weak definition of clearcutting. Matt Miller of EAC notes that 'since the release of the Strategy, the government's response to the many challenges facing the forests and current forest industry has been to leverage massive amounts of public funding to maintain a profitable paper sector for the next few years and to provide outreach funding geared towards convincing woodlot owners to harvest more wood - combined with backtracking on previous environmental commitments.' (EAC Forestry Campaign Update, 05 03

2012)

Pulp and paper mills estimated to have received 3.9million cu. of wood in 2011 (C-H 15 08 2012) DNR estimated allowable cut at 7.3 m. cu. This estimate challenged by environmentalists and woodland operators. To achieve this AAC all the province's woodlands would have to be available to the industry, 'but half the province's woodland is owned by small owners who have showed decreasing interest in allowing their lots to be cut in recent decades.' (Ibid.)

DNR allocates \$3.2m. into new programs aimed at educating woodlot owners and to subsidize silviculture work. (Chronicle-Herald, 27 04 2012)

- September Hodgson's Chipping Ltd. closes. Closure attributed to (1) too much regulation, (2) NewPage bankruptcy, (3) high fuel and labour costs, (4) Northern Pulp 'squeeze on rates' and (5) depletion of NS forests. (*Atlantic Forestry Review* September 2013, p. 7)
- November 2011 Stern Bros. of B.C. interested in buying NewPage mill. Would keep supercalendar paper machine but close down newsprint machine.
- December 2011 Province pays \$24 million to Resolute, buying 10,000 ha. of timber land; gives company \$25 million forgivable loan and \$1.5 million for worker training. Resolute president says the money might keep the mill open for five years.
- January 2012 Viridis Energy Inc. of Vancouver has purchased former Enigma Canada pellet mill at Upper Musquodobot.Expects to export approx. 110,000 tonnes annually to Europe.
- DNR head of Forests, Parks and Wildlife says forest mapping system shows most of harvest is of 40-80 yr. age classes.
- Forest Stewardship International introduces new Principles and Criteria for its system of standards and is developing new international 'generic indicators' which would be applied globally. These changes will require FSC Canada to develop a national standard which will replace the four regional forest management standards, including the Maritime standard which had been adopted in 2008. The purpose of the changes is to ensure consistency across international systems. (Nicole Klenk, 'FSC shifts gears' *Atlantic Forestry Review* January 2014, pp. 56-7)
- Stern Partners Ltd. of Vancouver offer to buy NewPage mill, for \$33 m., is tentatively accepted, subject to Province, NSP, wood suppliers, plant workers meeting tough conditions. (Province had already sunk \$124.5 m. in mill to ensure continued wood supply and machinery on stand-by at 'hot

idle' Chronicle-Herald 06 11 2012) Sterns indicate they will abandon the ecologically-based harvesting practices pursued by previous owners. (In fact, Stern did maintain FSC commitments.) New company, Port Hawkesbury Paper (PHP), will employ 180-250, less than half previous work force.

Province buys 10,117 ha. of land from Resolute for \$23.7 m. (about \$2,350/ha.) Most will be protected; 400 ha. to go to Mik' maq.

Contractor Hodgson's Chipping Ltd, Truro, closes. David Lindsey of *Atlantic Forestry Review* reported, in September 2013, that 'when I interviewed Vaughn Hodgson... he expressed dissatisfaction with increasing regulation of harvest practices, but that was hadly his only grievance. He said even before the company had been stiffed as a result of the NewPage bankruptcy, it had struggled for years due to high fuel and labor costs, compounded by Northern Pulpa's constant squeeze on rates. He was disenchanted with the whole industry, which he characterized as unsustainable, given the depeleted state of the province's forests.'

'The last couple of years, when you've seen what we were trying to harvest and chip, it's 30-year-old wood.... When you're running around chipping 30-year-old wood, something's wrong. It's too much demand for what's out there.'" (*Atlantic Forestry Review*, September 2013, pp. 6-7)

Twenty-five harvesters and 30 transport trucks were sold at auction May 1, 2012. Other contractors were reported to be closing or leaving. Letters to Chronicle Herald also spoke of low prices paid for wood (\$32-\$37 per tonne - lower than 10 years earlier) and higher operating costs. Province was thought to be about to slash stumpage fees by 1/3 in order to assist mills; but this would also force down prices paid to woodlot owners and contractors.

May

NS Woodlot Owners and Operators Association announces that it is applying for funding to hire a manager and a forester to upgrade its services to members. NS Federation of Woodland Owners offers incentives for owners interested in woodland certification. For 25% of cost of developing a management plan plus \$150/yr. owners can obtain plan and ongoing training and support for certification applications. (Certification involves ongoing costs for audits. Owners say certification brings no market benefits and costs are too high, given current market prices.) These initiatives by owner groups reflect DNR's program of increased support for owner education and silviculture. (See entry for August, 2011.)

June 2012

Resolute Forest Products permanently closes the Bowater-Mersey mill. Politicians estimate that 2,000 people out of work as a result. (Conrad. NS Leg. Debates. 07 11 2012) Queen's Lunenburg Transition Advisory Team

appointed to identify alternative economic opportunities following the closure. Premier hopeful that ‘we can find ways to cut costs... and ensure this mill is viable and sustainable well into the future.’ Public uneasy about size of bailouts.

August

Minister Parker releases update on resources strategy: clearcut definition; \$7m. to woodlot silviculture and certification; \$1m. for woodlot roads; \$700k. for mineral exploration. Clearcut defined as ‘a forest harvest where less than 60% of the area is sufficiently occupied with trees taller than 1.3metres. (Measurement: if, on sample points evenly distributed throughout the harvest area, a tree exceeding 1.3m. in height is found within 1.36 m. of the plot centre, or 10m²/ha of basal area, or more, is measured with a 2-factor metric prism from the same point, then the point is minimally stocked, though it may be considered to be partially stocked and stocking represented as a percentage of the 10m²/ha.) There is strong criticism of the definition from woodlot owner and environmental groups. They doubt that shade tolerant hardwoods will regenerate adequately in these ‘minimally stocked’ environments. Definition puts in doubt the government’s commitment to maintaining/restoring Acadian forest. Tolerance of a minimally stocked forest also fails to take into account the habitat needs of many wildlife species. Clear standards are essential for non-clearcut areas; they should include adequate provision for canopy.

Silviculture: DNR reports that 50% of silviculture funding is being directed towards uneven-aged management. A dedicated fund has been set up for certified woodlots. Province working towards integration of Forest Ecosystem Classification and Pre-Treatment Assessments into silviculture funding. Integration will affect ‘the way we do forestry’.

November

Stern Partners (as Port Hawkesbury Paper Corp) takes over Port H. mill. Province to provide \$124.5 m. in forgivable loans and has already invested \$36.8 m. supporting continued harvesting and maintenance of the mill. Company is also receiving a discounted power rate. Agreement requires company to buy at least 200,000 tonnes of pulpwood a year, plus 200,000 tonnes of biomass fuel ‘in the form of recently cut trees’. (C-H 05 12 2012) Company is offering \$43/tonne for pulpwood and \$52/tonne for softwood sawlogs. NewPage was paying \$48-\$50/tonne for pulpwood. Contractors estimate that it costs them \$48.50/tonne to produce pulpwood. In interview Ron Stern says that ‘there is room to be profitable for at least the next ten years’, giving skeptics evidence that the life of the mill may be no more than that. (See Chronicle-Herald letter, 13 12 2012)

December, 2012

Queen’s Lunenburg Transition Advisory Team releases its report on the post-Bowater future. Recommends research and development of new value-added forest products such as biofuels and advanced wood products.

December 10, 2012 Province buys Bowater lands (555,000 A. approx. 220,000 ha.) from Resolute Forest Products. Independent assessment puts value of lands at \$117.7 m. Total value: \$150.4 m. Interest on debt to be paid from stumpage, estimated to be \$4m./yr. Liabilities are about \$118m. with pension liabilities accounting for \$100 m. Largest holdings (89,200 ha.) in Annapolis County and Queen's (63,100 ha.). Up to 30,000 A. will be protected for biodiversity, recreation, other purposes. A portion will be managed by Mi'kmaq and local communities. Province has invited proposals for community forests and is discussing a Mi'kmaq forestry initiative with Assembly of Mi'kmaq Chiefs. Site of the Bowater mill will be used as a centre for innovation in energy, bionergy and forestry innovation. Deal also includes Brooklyn Power which will be sold on to NSP for \$25m. Deal does not include Oakhill Saw Mill as Softwood Lumber Agreement prohibits government support to lumber industry. Reaction said to be mainly positive. Environmentalists like decision to keep area out of hands of foreign buyers, innovation in engineered wood and shift to community forestry. Industry likes innovation centre, particularly interest in biofuels. One company (CelluFuel) hopes to produce 20m. l. of bio-diesel/yr. by harvesting 75,000 green metric tonnes of wood/yr., creating 35 jobs. Although CelluFuel speaks of GMTs, others cautioned that biofuels should be derived from residual wood. Matt Miller of EAC expressed concern that demand for biomass would continue the cycle of highgrading that has devastated NS forests in recent decades. (Chronicle-Herald 11 12 2012)

Province announces Community Forest initiative. Calls for expressions of interest in proposed pilot projects.

2013

January Province issues amendments to Renewable Energy Regulations which set a cap for primary biomass harvesting for electrical energy generation at 350,000 dry tonnes and allows NSP to use up to 150,000 dry tonnes of non-primary biomass in co-firing coal burning power plants. (Non-primary is assumed to mean wood waste; primary refers to wood harvested specifically as bio-mass.) Environmentalists point out that 'cap' is 'only for biomass energy that can be used toward the renewable energy target. There is actually no limit on how much biomass can be harvested for energy.' Also note that non-primary sources are limited and appear to be fully utilized at the moment.

Spring Clifton Sangster (Manager, North Inverness Forest Management Ltd.), Kari Easthouse (Program Forester, Landowners and Forest Fibre Producers Association (NSLFFPA)) and Mike Gillis (Baddeck Valley Wood

Producers) initiate proposal to establish for a consolidated service provider for Cape Breton through a partnership between their organizations. An advisory committee drawn from contractors and landowners was set up and prepared a formal proposal for the Cape Breton Private Land Partnership (CBPP).

- June 7 NSWOOA holds workshop and demonstration on tonewood for musical instruments. Red spruce preferred. (See *Atlantic Forestry Review*, September, 2013, p. 53.)
- July 18 Government announces ban on whole tree harvesting. Supply models have been developed for the 60 MW burner at Port Hawkesbury Paper and the 3.1 MW burner at Hefler Forest Products in Lower Sackville. Models are said to assume the PHP burner will rely on 'low grade stem wood' (Technically 'whole tree harvesting' is defined as the entire tree, including the stump. 'Full tree harvesting' refers to harvesting the stem, limbs and tops, but not the stump.) FPANS says the ban will cost 120 jobs worth \$6 million. (*Atlantic Forestry Review* September 2013, p. 6)
- Summer DNR consults silviculture contractors concerning changes to silviculture programs. Contractors' top priorities are (1) upward adjustment of PCT rates [based on a study by FPIInnovations] and (2) a commitment by DNR to a broad review of the silviculture program. (See *Atlantic Forestry Review* September 2013, p. 11)
- Association for Sustainable Forestry announces that DNR has committed \$2.2 million for the silviculture programs accessed by non-industrial, large private and certified woodlot owners. Half of the money will go to commercial thinning and Category 7 treatments, including selection management, crop tree releases and crop tree pruning. (*Atlantic Forestry Review* September 2013, p. 57)
- July 18 Ban on while-tree harvesting announced. Recommended in the Phase II report (*A Natural Balance*) of the NRS consultation exercise in April 2010.
- New regulations on forest bio-energy are proposed. Public comment invited to August 20, with implementation scheduled for January 1, 2014. Organizations burning wood or woodproducts generating more than 250 KW of heat or electricity must register under the buyers program and biomass users consuming more 5,000 cubic metres of biomass must submit annual wood purchase plans and must contribute to silviculture programs. Those consuming less than 1,000 cubic metres face less stringent rules and residential users are exempt.(See <http://0-nsleg-edeposit.gov.ns.ca.legcat.gov.ns.ca/deposit/b10663575.pdf>)
- August Viridis Energy re-names former Enigma mill at Upper Musquodabit as

Nova Scotia Atlantic Biomass. Target production will be 5,000 tons/mo. Increasing to 8,000 to 10,000 tons. First exports are scheduled for November 2013. (*Atlantic Forestry Review* September 2013, p. 13.)

September

Jeffrey Benjamin, Associate Professor of Forest Operations, School of Forest Resources, University of Maine, Orono, publishes results of study showing that costs of producing electricity from biomass are higher than biomass proponents have claimed. In fact, electricity is 'very expensive to produce' from biomass. (See 'No free lunch in the woods: An economic reality check for proponents of biomass harvesting', *Atlantic Forestry Review* September 2013, pp. 20-21)

October 18

DNR gives tentative approval to a pilot community forest project headed by the Medway Community Forest Co-operative. An interim board was charged with establishing the co-op., registering the concern, negotiating an agreement with DNR and ensuring community involvement. The board was given three years to prove the viability of the project. Drawing on community forest experience in British Columbia, the co-op had originally proposed managing 60,000 ha. of former Bowater lands, but settled for 15,000 ha. This would necessitate finding adding alternative sources of revenue to those generated by timber management. It was expected that these would include timber sorting and managing private lands, but also a community-based biomass facility and eco-tourism. The project was expected to create 48 jobs.

A second community forest proposal - the St. Margarets Bay Community Forest Co-op. - was not approved. That co-op would have managed a large part of the former Bowater lands in the Head of St. Margaret's area. (See Jack Scrine, 'N.S. community forest gets green light' *Atlantic Forestry Review* January 2014, pp. 24-26.)

2014

January

Cape Breton Private Land Partnership (CBPP) business plan has been reviewed and approved by DNR. Organization will begin functioning in 2014. Will have elected board of directors. Membership in CBPP will be voluntary and will bring with it management planning services ranging from basic delineation of stand and age composition to Forest Stewardship Council (FSC) standard; independent auditing of contractor performance; facilitation of contracts between landowners and contractors; additional silviculture funding and an enhanced road-building and maintenance budget. In an article describing the CBPP, Clifton Sangster argues that the partnership would be able to 'serve the needs of private woodlot owners much better than the current system. During the last 15 years of the Registered Buyers silviculture program, the needs of industry were served

first, despite the extremely high percentage of tax dollars that maintained the program. The CBPP will continue to work within the parameters of that program, but the objectives and needs of private woodlot owners will come first, and the CBPP will provide independent professional advice.’ (‘An idea whose time has come’, *Atlantic Forestry Review* January 2014, pp. 6-7)

In a letter to *Atlantic Forestry Review* Ed Bailey, former Director of Silviculture at DNR defends even-age management and in doing so sheds light on DNR assumptions regarding allowable cut and yield per acre. He advocates pre-commercial thinning (PCT) of young stands that are regenerated from clearcuts when they are ‘roughly 10 feet high. This treatment creates windfirm stands, greatly increases the proportion of desirable species and stems, and shortens the rotation by 20 years, contributing to the allowable cut effect (ACE). It also reduces losses to windthrow by allowing harvesting at a younger age and lower height. For example, at age 45 (i.e. 30 years after spacing), average PCT stands will have reached peak mean annual increment (maximum volume production), average eight inches in diameter and 40 cords per acre, with almost trees harvestable as studwood and sawlogs.’ In an editorial note David Lindsey questions Bailey’s focus on yields as opposed to outcomes that protect biodiversity, wildlife habitat, soils and water resources. (*AFR* January 2014, pp. 9-11)]

2015

2016

September 29

DNR’s code of forest practices calls for harvests and biomass removals to remain below rates that would impact long-term productivity. However, a new study finds that soil data used to estimate forest sustainability is no longer accurate. Researchers from DNR and UNB used a nutrient budget model to gauge the nutrient sustainability of 25 plantations across Nova Scotia. The research evaluated samples for soil quality and nutrients, such as calcium and nitrogen, with a view to estimating the sites’ capacity to sustain projected harvest levels. Between 25 and 50% of the desired harvest yields were not sustainable. Soils in southwest NS were found to be especially poor. According to David Patriquin, retired professor of biology at Dalhousie, the area is ‘exceptionally stressed.’ These are ‘inherently poor soils. These are granites and slates and so they essentially have nothing in them...they will not support very intensives forestry over many cycles.’ The poverty of these soils has been compounded by acid rain The research found ‘the level and base saturation of positively charged ions called cations’, which help to neutralize acid, is ‘much lower’ in sample areas than had previously been reported. Large swathes of southwestern NS had been scheduled for harvesting, with clearcutting being the preferred harvest

method. Patriquin commented that only selection cutting would allow forests to remain healthy. Responding to publication of the paper, Bruce Nunn, speaking for DNR said that the nutrient budget model used in the paper would be 'integrated into Crown land management.' Eight sites scheduled for harvesting in the St. Margaret's Bay area had been subjected to the test and found to be sustainable. However, while the budget would be recommended in the forest code of practice, it would not be required for use on private land. (See Michael Gorman, CBC 8 November 2016 <http://www.cbc.ca/news/canada/nova-scotia/natural-resources-clear-cut-forestry-nutrients-acid-rain-1.3841695> . The research paper [Keys, Kevin (DNR); Joshua D. Noseworthy (UNB), Jae Ogilvie (UNB), David L. Burton (AC), & Paul A. Arp (DUAC) 2016 "A Simple Geospatial Nutrient Budget Model for Assessing Forest Harvest Sustainability across Nova Scotia, Canada."] can be accessed at *Open Journal of Forestry* 29 September 2016. 6,420-444 http://file.scirp.org/pdf/OJF_2016092914590401.pdf . See also <http://nsforestnotes.ca/current-issues/calcium-depletion> .