



# THE BLUE HERON

The Bras d'Or Stewardship Society

P.O. Box 158, Baddeck, Nova Scotia B0E 1B0

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NO. II

This issue of the Blue Heron is bit late due more to procrastination as one works to summon up the energy to put keyboard to paper. Often a muse is required to provide the impetus to encourage creativity. The fact that stalwart board member, Dr. James V. O'Brien, felt that he no longer was willing to devote the time and energy necessary to put the Society newsletter together has demanded some juggling! Jim has done a superior job of editing the Blue Heron over the last three years. His comments are always humorous and insightful. We owe Jim a fistful of gratitude for his enduring efforts as the Blue Heron editor (2012-2015). The society seems to be holding its own. There are always challenges to be met. The biggest of course is maintaining both focus and interest on behalf of the board. We are fortunate to be able to maintain an active board that are committed to attend Society board meetings. This year, however, we had three long term board members resign. Leah Noble, Mabel MacEachern and Jim Foulds all resigned their board positions. To compound

this depletion of the board ranks the recent death of Charlie Dennis removed a most significant board member who represented the First Nations. Charlie devoted his life to the betterment of the Bras d'Or and its watershed.

We want to thank them all for their commitment to the Society's ongoing success. Former society chair Pat Bates has contributed a fitting eulogy of Charlie Dennis printed in this newsletter. On the positive side, David Harris has replaced Jim Foulds on our board representing the Bras d'Or Lakes Biosphere Reserve.

Currently, much activity is going on that focuses on the Bras d'Or and its watershed. The 'News Items' highlight a number of events that focus on a variety of topics and issues that should be of interest to those who are concerned about maintaining the environmental integrity of the watershed. The issues are varied and complex.

Recent discussions at our board meetings have been ISSUE focused. Water quality, shoreline erosion, pollution and land development have been topics which the society has tackled over its 17 year life span.

Now, it was agreed that a major current issue facing the watershed is the excessive cutting of 'woody biomass' i.e. trees for the generation of electricity at Port Hawkesbury Paper. It is most apparent that the clear cutting of trees within the watershed will have long term environmental repercussions going forward. It has been brought to our attention that areas are being clear cut within the watershed which would leave a big scar on the landscape to say nothing about the efficacy of use of the forests for generating power.

A recent survey study entitled "Trees, Trash and Toxics" by Mary S. Booth

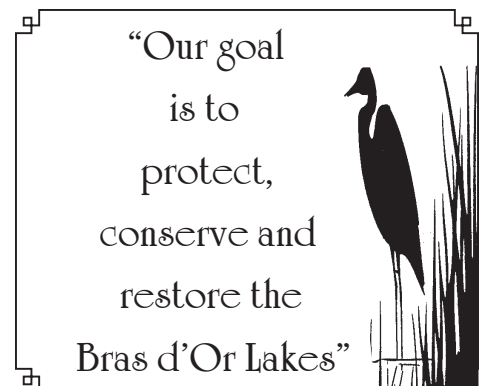
dated April, 2, 2014 of USA located power plants using woody biomass to generate electricity condemns this practise as being more polluting than creating electricity from coal fired power plants! Add to this that utilizing trees to generate electricity is highly inefficient reducing the value of the wood to the lowest common denominator. This does not bode well for creating sustainable forests. In as much as this issue of the Blue Heron has reprinted three telling articles that add fuel to the 'biomass' fire. The misuse of Nova Scotia forests to generate electricity is a contentious issue. Seldom do we hear the word tree used to describe the makeup of our mixed forests. The buzz word is woody biomass!

Henry W. Fuller

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**NOTICE**  
**THE SEMI-ANNUAL**  
**GENERAL MEETING OF**  
**THE SOCIETY**  
**WILL NOT BE HELD**  
**IN AUGUST DUE TO**  
**TIME CONSTRAINTS**



## NEWS ITEMS:

### Society AGM

The annual meeting of the Society was held on April 25, 2015 in Baddeck. Close to 25 individuals attended this event. A review of the society activities was given as well as a summary of the financial position of the Society as of December 31, 2014. Jessica Farrell made a good presentation about the development of the Trans Canada Trail; a portion of which will follow the shoreline of the Bras d'Or. Communities are being asked to provide input and support for specific locations that watercraft could utilize.

### World Ocean Day

On June 7, 2015 World Ocean Day was celebrated in Iona. A large crowd attended this event on a sunny day. There were displays focused on the Bras D'Or Lake as well as on the fishery, search and rescue, NAFO and other organizations. Society long term board member, Tim Lambert, was the keynote speaker. He provided a general overview of the Bras D'Or Lake to include its geomorphology and evolution, oceanographic history and a review of the fish population and marine organisms that are represented within the watershed. Tim spent much time doing research on the Bras d'Or aboard the research vessel M/V Navicula.

### Bras d'Or Watch

On Saturday, July 18, 2015 six sites have been designated as monitoring stations to determine what is occurring along the shoreline. This programs is

sponsored by the Bras d'Or Lakes Biosphere Reserve Association. At each site will be a scientist to help supervise the day's activities. This event is intended to foster greater awareness about the dynamics of the watershed on many fronts. Information is available at [www.bibra.ca](http://www.bibra.ca). (See article by Annamarie Hatcher)

### Hume's River Hiking Trail:

Local Victoria Councilor Athol Grant has been working hard to establish a committee to pursue the creation of a 15 kilometer walking trail that will allow access to the Humes River watershed that feeds into the Bras d'Or Lake near Bucklaw. Victoria County has pledged an initial \$10,000.00 to support this project as it seeks funding to make this trail a reality. A recent meeting in Baddeck highlighted the area with maps and photographs. This project seems to be a doable one with the right support. [www.biospherenortheasttrails.com](http://www.biospherenortheasttrails.com)

### Race For The Cape:

This summer the third consecutive "Race For The Cape" sailing event will take place from July 13-18, 2015. This event is a promotional event to encourage sailing, racing, and good time social events. Information on the details of this popular sailing week is available @ [www.cruisecapebreton.com](http://www.cruisecapebreton.com)

### Sailing Cape Breton Island:

A new recreational boat charter enterprise will be launched on the Bras d'Or this summer. This will be celebrated by the arrival of a 42' catamaran that will be available for charter with the Bras d'Or Lakes.

The vessel can accommodate six guests with various options available. Information detail is accessible at. This is a substantial investment that should help draw interested individuals to take advantage of this charter service. [www.sailingcabi.com](http://www.sailingcabi.com)

### Bras d'Or Lake Diorama:

The display unit that used to be houses in the Old Library in Baddeck is now located in the Alexander Bell Museum in Baddeck. The intent is to provide an overview of the Bras d'Or Lake and its watershed that will acquaint the viewer with a better visual profile of the geographical configuration of the this creation of Mother Nature building better public awareness of what is a prime Cape Breton attraction.

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*The Bras d'Or Stewardship Society is interested in contributions from our members. If you have something to contribute to the Newsletter or would like to work with the society's board, please let us know. The society is an all volunteer organization that welcomes input from individuals interested in promoting the conservation, protection and restoration of the Bras d'Or Lakes and its watershed.*

## REMEMBERING CHARLIE: A TRIBUTE

The joy and sense of personal achievement we experience as we live our lives is nearly always a function of relationships with each other as human beings. As we grow and age, we develop our notion of values and aspirations and seek to locate others who either share our view of the world or who complement us by the virtues, talents and strengths we frequently lack. We meet these special people when we least expect it. Such was the case for me when becoming acquainted with Charlie Joe Dennis.

It would be easy to simply provide a long list of qualities Charlie possessed, but that would only tell part of the story. There was always an enriching context to Charlie's observations. Always a teacher, Charlie was not unlike a person driving a car with eyes constantly fixed on the road ahead while, at the same time, attentive to the rear view mirror. Charlie's advice on any future course of action was always steeped in experiences from time past. His judgment, always sound and shared with those who sought it, flowed from wisdom not gained in high-level academic institutions, but from his endowment at time of birth.

Charlie Joe was respected as a conscientious administrator as Chief of Eskasoni—he exemplified empathy and concern for his community and the welfare of his people. Not all people can respect the laws and ethics of governance in community or in chairing committees, and, at the same time, exhibit effective leadership. Charlie possessed those skills and more.

In recent years, Charlie suffered serious and taxing health issues. From time to time, I would visit him during his periods of dialysis

treatment and he would enlighten me about his deep spirituality. He held a deep respect for the protection of Nature in all her forms, and was acutely aware of the significance of the changing of the seasons. A profoundly spiritual man with a special loyalty to Sainte-Anne-de-Beaupré, Charlie was also a fine humanist. We are the poorer without him but the richer for having known him.

Rest in peace, Charlie, our true friend and mentor.

Pat Bates, June 1, 2015

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## Bras d'Or Watch Field Day: July 18, 2015

By Annamarie Hatcher

Have you ever gone to a beach on the Bras d'Or Lakes and noticed that your beach chair can stay dry, anchored in the same spot all day? If you were located on Dominion Beach or Point Michaud you would likely have to shift position up the beach as the tide moved water closer. Well, the Bras d'Or Lakes are connected to the ocean and the salty water does come and go. However, this is more as a function of barometric pressure changes than the usual daily gravitational pull of the moon. The Bras d'Or Lakes are an area of limited tidal movement. Both tidal currents and tide height tend to be very small in all but a few locations on the Lakes. The narrow and shallow sections of the Great and Little Bras d'Or Channels that connect the Lakes to the open ocean limit the volume of tidal exchange that can occur on each cycle, like a bottleneck. Within 2 km of Sydney Bight along the Great Bras d'Or Channel, the tidal range is already reduced by almost 50%. Further into the Lakes the tidal range is smaller, at 15 cm near Baddeck and almost imperceptible in other areas. Barometric tidal ranges are

about 10 times larger than those associated with the lunar tides. Barometric changes occur over days to weeks while lunar tides are occurring over approximately twelve hours. Because this barometric influence is related to weather fluctuations, water levels within the Lakes are unpredictable. You can test this by comparing tidal state on the Atlantic or Northumberland coast with that in the Bras d'Or Lakes during your Sunday drive. You might have noticed that the waters of the Bras d'Or Lake are not quite as salty as the waters on the oceanic coast. So, what controls the salinity of the Bras d'Or waters? There is a net outward flow of fresh surface waters and a net inward flow of the bottom marine layer to the Bras d'Or Lakes. This type of water circulation is typical of most estuaries. You may have noticed blurriness as you look towards the bottom when you are swimming in the Bras d'Or. The light bends a bit when it hits the boundary between the surface fresh layer and the bottom salty layer, causing that blurriness. Salinity in the Bras d'Or varies with the amount of freshwater flow due to the influence of changing barometric pressure on rainfall and on the inflow of salty water from the ocean. You can imagine how a good summer rainstorm could exert a large influence on salinity in the Bras d'Or Lakes! The separation of outward surface freshwater flows and inward salty sub-surface flows is mixed up in some areas of the Lakes. Tidal jets at Barra Strait may be of crucial importance to the ecology of the Lakes since the associated turbulence seems to be responsible for a very large proportion of the mixing of surface and deeper waters. This draws deeper, salty water up into the surface, and that salt maintains the salinity of the surface layer. It may be that the flow through this Strait will prove to be the primary engine driving the Bras d'Or ecosystem!

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During Bras d'Or Watch Field Day on July 18 we will be measuring salinity. How do you think that salinity will differ among our six sites? How do you think that salinity might change with changing climate? For more information about Bras d'Or Watch, contact: [watch@blbra.ca](mailto:watch@blbra.ca).

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## The Plight of Nova Scotia's Hardwood Forests

By Minga O'Brien: Biologist, Forest Technician and recent instructor at the Nova Scotia Community College in Port Hawkesbury

*(Previously printed in the  
Chronicle Herald Feb. 28, 2015)*

It has been a little over a year since the Ivany Commission published their One Nova Scotia report setting out 19 goals for Nova Scotia. Among them were 4,200 new business start-ups annually, increasing exports, and more full-time, year-round jobs.

Since last February, however, two hardwood flooring mills have gone out of business, putting 28 skilled, full-time employees out of work. Finewood Flooring in Victoria County was in operation for 33 years, Rivers Bend Wood Products in Antigonish County for 20 years, and both were heralded as model value-added wood products operations. At their peak, their combined workforce was 36 full-time employees.

With the closures of these two hardwood flooring mills, there are now 2 fewer businesses in Nova Scotia, \$2 million less in exports from the province, and 28 fewer full-time jobs in rural Nova Scotia.

Their closures were not due to a lack of demand for their products. Both Rivers Bend and Finewood Flooring had over \$2 million in annual sales. Today's markets are the best they've

been in 6 years.

The truth is their closures were 100% preventable, though their undoing has been in progress for decades.

The fundamental problem for both businesses was the lack of a guaranteed, year-round, long-term supply of good quality hardwood logs. Over the years, the proprietors of Finewood Flooring, along with Rivers Bend, B A Fraser Lumber, Groupe Savoie and others, have attempted to negotiate with the Department of Natural Resources and the owners of the pulp and paper mill in Port Hawkesbury for dedicated areas of Crown land where they could manage for good quality hardwoods by selection harvesting. Without the benefit of having an area of hardwood forest set aside for selection harvesting, there is little hope for a truly renewable and valuable resource. Despite years of meetings, talks and negotiations, this has never happened.

Since the early 1960s, all provincial Crown land in the seven eastern counties of Nova Scotia has been leased to the pulp and paper mill in Point Tupper. The mill takes softwoods. Historically, they haven't been interested in hardwoods. Their harvesting and silviculture practices - subsidised and promoted by the Department of Natural Resources - have converted hardwood and mixed wood forests to softwoods. Herbicide spraying and manual weeding have been employed to remove hardwoods competing with balsam fir and spruce.

From the perspective of generating wealth and employment in a depressed part of the province, how could this make sense? Consider the numbers: Finewood Flooring added 10 times more value per unit of wood harvested than the pulp mill in Port Hawkesbury. In addition, for every 1,000 cubic metres of wood processed, Finewood Flooring directly employed approximately 10 people full-time, compared to 1.4 jobs in the pulp and paper industry.

The nail in the coffin for hardwood businesses has been the biomass plant in Point Tupper. Under the guise of renewable energy, the provincial government encouraged Nova Scotia Power Inc. to build a 60 megawatt cogeneration biomass plant in Point Tupper. This would achieve several goals: create a market for low-grade hardwoods, and a source of power and steam for Port Hawkesbury Paper. The new Nova Scotia Power Inc. boiler can burn 670,000 tonnes of woody biomass per year. That's 50-60 truckloads carrying 1,780 tonnes of green biomass per day.... a lot of wood. A lot of clear cutting! Estimates range from 2,800 - 6,250 ha per year (6,900 - 14,450 acres).

A load of biomass delivered to the NSPI boiler currently fetches \$35 a tonne. The trucking costs alone are \$12 - \$13 a tonne. So the most a logging contractor can make from biomass is \$22 - \$23 a tonne. This has to cover harvesting, stumpage and road-building costs. A load of saw logs destined for the Groupe Savoie hardwood sawmill in Westville, Pictou County, fetches anywhere from \$32 a tonne for pallet-grade wood to more than \$160 a tonne for veneer, with Groupe Savoie picking up the bill for trucking.

The biomass plant is supposed to use poor quality wood only, as well as other milling wastes. It is not supposed to accept better quality logs that can be sent to a hardwood sawmill. What's happening, though, is that separating the higher value logs from the poorer quality wood adds to the cost of production for logging contractors. Saw logs are being chipped along with other hardwoods. As well, promising young hardwood stands are being clear cut and chipped before being given time to become higher value logs.

Danny George, an experienced hardwood logger, described it like this: "we're taking \$100 bills and turning them into \$10 bills and calling that management".

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## Originally Published in the Chronicle Herald, February 4<sup>th</sup>, 2015

In a Jan. 9 story about damage to our forests as a result of the need to feed the giant new Nova Scotia Power biomass generator in Port Hawkesbury (“Biomass project raising green concerns”), Associate Deputy Minister of Natural Resources Allan Eddy suggested that these negative impacts were simply unintended consequences that “couldn’t have been predicted before the plant opened.”

This is simply wrong.

There were plenty of warnings that the proposed biomass project was too big to be sustainable and it strains the limits of credibility to suggest that the department responsible for managing our forests was unaware of the potential negative impacts.

Numerous stakeholders, individuals and experts predicted this outcome and laid out clear steps to try to mitigate the ecological damage that the advent of this huge new consumptive pressure would bring. In 2009, Michelle Adams and David Wheeler (yes, the same David Wheeler who led the recent fracking review) steered the stakeholder consultation process for a Renewable Energy Strategy for Nova Scotia to provide options to help meet the province’s renewable energy targets.

Wheeler and Adams ultimately gave a highly conditional green light to forest biomass use, but noted that “more discussion regarding forestry management standards and the assurance of ecological integrity of Nova Scotia’s forests is clearly required.”

They were presented with a slew of evidence pointing to failures in the regulatory regimen and potential negative impacts from biomass harvesting.

They were clear that the case for

forest biomass for energy production was “contingent on the ability of stakeholders to come together in a consensual way to identify and define sustainable harvesting practices” and called on DNR to convene such a conversation before moving ahead with any biomass projects.

That never happened.

Wheeler and Adams also directed DNR “to develop regulations outlining the highest possible standards expected for sustainable forestry practices as it applies to biomass harvesting for the purpose of energy generation — as quickly as possible” in order to “provide guarantees on ecological integrity.”

No such standards were ever created.

The report similarly noted “proponents of forest biomass-based electricity generation will need to implement procurement policies that adhere to the highest possible certification standards (e.g. FSC or a commensurate system), subjecting the actors in their supply chain to appropriate auditing and assurance systems in order to ensure the proponents’ compliance.” They further recommended “a premium of around five per cent of the payments identified for enhanced forest stewardship to meet relevant standards and audit systems.”

To this day, no such system is in place.

DNR and NSP’s guarantees on ecological integrity go no further than the current, ineffective regulatory framework that’s been in place for all forest harvesting since 2002.

Can DNR justify these minimal standards as a “guarantee of ecological integrity,” as Wheeler and Adams insisted? Not a chance. The conditions for additional stakeholder consultations and guarantees of ecological integrity were also ignored.

Similarly, the steering panel for the Natural Resources Strategy, consisting of retired chief justice Constance Glube, Joe Marshall,

executive director of the Union of Nova Scotia Indians and Allan Shaw, chairman of The Shaw Group, warned in 2010 that “there is ample evidence that our forests are already under considerable stress” and that “Nova Scotia does not have the wood capacity for biomass use to make much of a difference.”

The panel strongly urged the government to “exercise great caution in the use of biomass for power generation.”

The Ecology Action Centre opposed the Port Hawkesbury biomass project both at the Utility and Review Board hearings and in various public forums. Although we acknowledged there could be some use of residual forest biomass, we advocated for many small-scale combined heat and power projects at the community level, rather than one or two huge electricity generators.

We predicted at the time that it would result in a significant increase in the amount of clear cutting and whole-tree harvesting, that valuable hardwood logs would be redirected from value-added sawmills to the biomass chipper pile, that young stands of trees would be cut before their time, that there would be firewood shortages for people who heated their homes with wood, and of course, that there would be further loss of habitat for forest dwelling species.

Less than two years in, all these predictions are coming true. And the worst part is that it’s not doing a thing to help Nova Scotia reduce greenhouse-gas emissions. And to add insult to injury it is also the most expensive form of electricity on our power bills.

Who wins? Nova Scotia Power. Who loses? You, me and all the critters that used to live in the woods. As the Natural Resources Strategy steering panel bluntly put it: “Unless there is change, Nova Scotia’s natural resources will continue to be destroyed.”

The fact that it’s now happening

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Originally Published in the Chronicle Herald,  
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should come as a surprise to no one. So what now? Although no one wants to come right out and say it, the truth is the Port Hawkesbury biomass plant is simply too big and too destructive to be allowed to continue. It needs to be shut down as soon as possible or at the very least significantly scaled back in size.

In 2017, renewable electricity from the Muskrat Falls hydroelectric project is scheduled to come on stream. Nova Scotia needs to begin planning for the phasing out of large-scale forest biomass burning for electricity as this new, greener source becomes available.

In the meantime DNR needs to bring in much more stringent and effective regulations and provide support and incentives to improve harvesting practices now, before things get even worse. And the Department of Energy needs to insist — through legislation if necessary — that Nova Scotia Power bring its harvest procurement system up to “FSC or higher standards,” as directed by the Adams-Wheeler report.

Matt Miller is forestry program co-ordinator and Raymond Plourde is wilderness co-ordinator at the Ecology Action Centre.

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## **Energy: Can we Reduce our Carbon Emissions by Burning our Forests?**

By Jamie Simpson

“Burn a tree, grow a tree. It’s simple, Jamie!”

So said an exasperated Natural Resources minister to me once. On one level, his argument sounded sensible. The carbon released into the atmosphere by burning one tree should be offset by carbon taken up when a new tree grows and takes its place — or so it might seem. Based on this premise, governments around the world — including Nova

Scotia — have introduced policies to encourage biomass energy, buoyed by the hope of reducing carbon emissions.

It’s important to note that nowhere in the world is forest biomass electricity development driven by the energy market; the feasibility of these projects so far depends on support from government policy. When representatives for Nova Scotia Power Inc. (NSPI) were asked whether the company would pursue the Point Tupper biomass project if not for the province’s renewable energy requirements, the answer was a definite “no.” Why not? Cost and risk, of course. The government’s regulated targets for increased renewables provided an opportunity for NSPI to shift that extra cost and risk to Nova Scotian rate-payers.

So hold on. Given that Nova Scotians are picking up the tab, and given that forest biomass electricity hinges on government support, what do Nova Scotians get in return for these costs and risks? And what are we trading for the negative impacts to our forest resource and wildlife habitat, and sacrifice of our higher-value hardwood industries? What about the migrating songbirds, retuning to Nova Scotia in the spring, only to find biomass clear cuts where they once nested and raised their young? If the government’s intention is to reduce our carbon emissions, then Nova Scotians have a right to know whether Point Tupper actually delivers carbon reductions, given the damaging side-effects of burning our forests for electricity.

As it turns out, the assumption that forest biomass electricity reduces carbon emissions is rather brittle. The way forests grow and store carbon, and the way that energy is generated from burning trees, is not as simple as the “burn a tree, grow a tree” argument. Burning trees to make electricity can put more carbon into the atmosphere than burning coal, at least for the next few decades. Burning trees to

heat buildings, however, may reduce carbon emissions.

### A Critical Climate Accounting Error

So what’s going on here? There are three key issues at play. The first thing to consider is the time it takes a forest to soak up carbon from the atmosphere after biomass is harvested and burned, and whether the forest is even able to soak up an equivalent amount of carbon. The lag time between biomass burning and carbon take-up is important, because we need carbon reduction now, not decades down the road. Scientists tell us that if we can’t get a handle on carbon emissions in the near term, future reductions may not provide much benefit.

A Princeton University scientist named Timothy Searchinger, along with 12 of his colleagues, wrote about this way back in 2009, in an article in the journal *Science*, titled “Fixing a Critical Climate Accounting Error.” They made the point that land used for biomass fuels may, over the long term, store less carbon per hectare than it did before biomass harvesting. The upshot is that burning forest biomass results in immediate carbon emissions which may or may not be taken up by the forest decades in the future.

### Burning trees for Electricity is Inefficient

Burning wood to heat buildings can be 80 percent efficient or even a bit higher. Burning wood to generate electricity, on the other hand, is far less efficient, in the neighborhood of 21.5 percent.

Some biomass electricity facilities can put waste heat to use, thereby increasing their efficiency. By supplying some thermal energy to Hawkesbury Paper, its pulp mill neighbor, Point Tupper, when operating under its best case scenario, can achieve 36 percent efficiency. In other words, of the 50 truckloads of wood delivered to that plant daily, 32 to 39 truckloads

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are wasted, quite literally, up the smokestack. (Of course, the carbon from all 50 truckloads goes into the atmosphere, regardless of how much energy is produced.)

Furthermore, the carbon footprints of fuels are not equal. For example, electricity from natural gas is far cleaner than coal, and coal is cleaner than wood, on the basis of carbon released at time of burning per unit of energy produced.

A team of forest biomass energy researchers in Massachusetts found that under a best-case scenario (low-impact forest harvesting; use of biomass for heating rather than electricity; and replacing the dirtiest of the fossil fuels), forest biomass can become carbon neutral in as little as 10 to 20 years. However, under a worst-case scenario (clear cutting; burning wood for electricity; and replacing the least dirty of fossil fuels), the researchers found that forest biomass would not become carbon neutral within a century.

To put these results in perspective, the researchers offered a snapshot of estimated carbon emission levels in 2050 (assuming that the forest actually does eventually sequester all of the carbon released). Replacing electricity from coal with electricity from biomass would result in a three percent net increase in emissions by 2050, and replacing a natural gas power plant with biomass would result in a 110 percent net increase in emissions. Replacing an oil-fired heating system with a biomass heating system, on the other hand, could result in a 25 percent net reduction in emissions by 2050.

Researchers in Ontario ended up with similar results. Jon McKechnie and his fellow researchers found that replacing coal-fired electricity with forest biomass electricity would increase carbon emissions for some 16 to 35 years. These researchers

also investigated converting trees to ethanol to be used as a substitute for gasoline, and they found that this would increase carbon emissions for more than a century.

#### Repeat Cutting

A researcher in Norway, Bjart Holtmark, noted that previous studies had failed to account for the impact of repeated biomass harvests. He found that when multiple biomass harvests on the same piece of land are factored in (based on the forest reaching economic maturity), net carbon emissions from forest biomass electricity remain higher than coal-fired electricity for some 250 years.

There is also research pointing to reduced productivity in certain soils following some types of harvesting. Once the productive capacity of soil is compromised, the forest loses some of its capacity to sequester carbon. This appears to be the case in Nova Scotia, according to research commissioned by the provincial Department of Natural Resources. Unfortunately, DNR has yet to release the results of this study.

#### Signs of Change

So far, most governments have clung to their policies that make biomass electricity projects economically viable. Under Nova Scotia's Renewable Energy Standard, biomass electricity still qualifies as renewable, regardless of its actual impact on carbon emissions and our forests. But there are signs of a shift. The European Union has recommended that existing biomass energy facilities should emit 35 percent less greenhouse gases than the fossil fuels they replace, and that new facilities release 60 percent less by 2018.

Massachusetts has gone further by actually changing its energy policy based on our new understanding of carbon accounting in relation to biomass. The state introduced a minimum efficiency requirement of 50 percent for biomass energy

projects, a minimum of 60 percent efficiency for projects to receive full renewable energy subsidies, and the further requirement that a proposed biomass facility will reduce carbon emissions by 50 percent over its first 20 years of operation relative to a new natural gas facility. If such requirements were in place in Nova Scotia, the Point Tupper plant would not qualify for the special treatment which enabled NSPI to build it and have electricity customers pick up the tab.

#### Listen to the Science

What should we do? Nova Scotia's Department of Energy needs to take a hard look at the science of forest biomass energy and carbon emissions, and adjust its Renewable Energy Standard accordingly. If Point Tupper cannot meet a 60 percent minimum efficiency requirement, perhaps it should no longer qualify as a source of renewable energy. Small-scale biomass heating projects, on the other hand, should be further explored for their potential to reduce carbon emissions while reducing our reliance on fuel oil and electric heat.

Furthermore, Nova Scotia's Department of Natural Resources should introduce forest harvesting regulations to ensure that carbon storage in Nova Scotia's forests is increasing over time, rather than decreasing. This would also help avoid the detrimental effects on biodiversity which result from clear cutting for biomass fuel.

Given the negative impacts of forest biomass electricity, it's time for Nova Scotia to reassess the costs and benefits. Let's look at the scientific evidence and start making the difficult but necessary decisions. Surely our forests and the wildlife they support are worth it.

*Jamie Simpson is a professional forester and a recent graduate of the Dalhousie Law School*

# **The Bras d'Or Stewardship Society**

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**Bras d'Or Watch**  
to report any observed acts, incidents and violations  
that threaten the integrity of Bras d'Or Lakes please call  
any of the directors listed above.

Our Email: [www.brasdorstewardshipsociety.org](http://www.brasdorstewardshipsociety.org)

**2015**

## **BRAS D'OR STEWARDSHIP SOCIETY**

MEMBER  \$15.00  
 FAMILY  \$25.00  
 CONTRIBUTOR  \$50.00  
 SUPPORTER  \$100.00  
 LIFETIME MEMBER  \$500.00

Yes, I am in favour of conserving and restoring the  
 Bras d'Or Lake and watershed through  
 responsible stewardship.

*Mail check or money order along with your name  
 and address to:*

**Bras d'Or Stewardship Society**  
**P.O. Box 158**  
**Baddeck, Nova Scotia, B0E 1B0**

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# Bras d'Or Lake Initiative: An Opportunity

By: Vince MacLean, May 27, 2015

A gap in the otherwise insightful Ivany Commission's Report was the dearth of immediate, hands-on, visible and measureable opportunities, for a government to quickly propel forward. The following is a suggested opportunity.

Nova Scotia has been marketed as Canada's Ocean Playground. Within this coastal playground is Cape Breton Island marketed as Nova Scotia's Masterpiece.

An apt designation with its display of world-class attractions spotted among a cadre of superlative golf courses. These outstanding enticements distributed amidst communities boasting descendants of Mi'kmaq people and European pioneers, each, with their histories, animated cultures, vivacious festivals, heritages and celebrated lifestyles.

Nonetheless, as a long-time resident, privileged to live within the Bras d'Or Lake watershed, I like many others, feel that this exceptional resource is one whose unique marine attributes and economic potential have never been really appreciated, fully understood, or adequately advanced, by provincial governments.

The Bras d'Or Lake -- a brackish estuary, within a captivating island, surrounded by the western North Atlantic -- is utterly worthy of global attention and local respect. With as

many enticing components to it as tentacles on an octopus, Canada's only inland sea should be better developed and marketed to its inherent and offered potential.

Boasting an assortment of distinctive habitats from marshy flats to shallow bays to deep basins, harbouring a variety of rare marine organisms, the Bras d'Or Lake is a microcosm of the world's oceans. There are system characteristics and exceptional biodiversity found within its parameters that are not replicated elsewhere in the world.

In 1876, the highly regarded Canadian geological surveyor and mapper Hugh Fletcher wrote admiringly about the Bras d'Or Lake and its watershed in his annual report to the Geological Survey of Canada:

"It is not the height and grandeur of the hills nor the wide expanse of water, that gives to these lakes and their surroundings their peculiar charm, but the countless combinations of land and water, which afford new scenes of beauty at every turn..."

A precious commodity, with its

waters slapping the shorelines of 4 counties, 5 Mi'kmaq communities, 5 provincial constituencies, 2 federal ridings, 2 school board systems, 15 provincial/federal government departments together with another 10 associations providing vigilance, the Bras d'Or Lake impacts all Nova Scotians, to a far greater extent than we immediately appreciate.

Now is the opportunity for the government to champion a Bras d'Or Lake Initiative that would include collaboration in commitment to: added egress to the waters of the lake from public shorelines; enhanced access from the lake into one-time but now obstructed inlets; a commitment to gain control of Cape Breton Island's rail-bed right-of-way; safeguarding with heightened protection this unsullied watercourse from any rail-disaster; and up-grades to the local roads, bridges, and view planes of the Bras d'Or Lakes Scenic Drive.

A collaborative initiative would include bolstered interaction with the agendas of the Mi'kmaq, federal government, and the Biosphere Association, that currently provide

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sentinel duties tending the health of the Lake.

A collaborative marketing effort by the Nova Scotia Departments of Natural Resources and Fisheries in concert with the Nova Scotia Tourism Agency, the Canadian Tourist Commission, Destination Cape Breton, Mi'kmaq, and the Canadian Biosphere Reserves Association, is overdue -one that would trumpet and export the Lake's national and international status.

An indigenous resource with so many characterizing tentacles deserves to be more formally utilized. Nova Scotia is overcome with ten superior institutions of higher learning, many of them exhibiting marine science programs, a Community College system without peer with multiple campuses—two of them on Cape Breton Island.

There exists a glaring opportunity for government to provide direction in partnership with these institutions, and other entities mentioned, to demonstrate to relevant corporations the attributes of the Lake, with the realization that the resource awaits a worthy developer's vision and ingenuity, for it to be more effectively engaged and distinguished for the indigenous marine laboratory that it is.

The concept of a Marine Science

and Energy Research Centre, Àros na Mara (House of the Sea) located on the Barra Strait is not new. The Barra Strait represents a distinctive site for a supplementing facility, augmenting the natural laboratory that is the Lake.

Propelling a solid concept; the ultimate laboratory; a global designation; a compliant community; a model location; available infrastructure with potential collaborative partners; a superior prospectus(Àros na Mara), while dealing with international/local thrusts for development of renewable marine energy; environmental concerns with their riveting impacts; this cluster, grope toward a perfect storm of conditions for government to display the Àros na Mara prospectus to the corporate world for their awareness, vision, ingenuity, partnership, and strategic investment.

The Bras d'Or Lake Initiative is an opportunity for rural development for the expansion of a compelling indigenous resource, flaunting renewable energy evaluations along side scientific marine research, education, and tourism.

The McNeil government can create the circumstances and relevant conditions for economic success,

including sustainable growth that will open-up opportunities for responsible investment by corporate entity(s) that just might be very interested in bestowing a financial endowment empowering economic diversity in a rural region while bequeathing a legacy for an idyllic natural resource whilst buffing its own image.

This Bras d' Or Lake Initiative is about linkages and connectivity, the social interaction among the Lake, its watershed, and its people. The initiative should be part of any government economic action plan. Come on government show Nova Scotians some of that decisive leadership.

In keeping with the spirit and support of the Lake's innate potential; why not plan to attend `Aros na Mara Day in Iona on June 6/ 7<sup>th</sup> celebrating World Oceans Day, where science, education and tourism will assemble with the marine underworld at the Island's Centre?

(Vince MacLean is a retired teacher, and a member of Central Cape Breton Community Ventures Inc. (CCBCVI). A long-time advocate of the Bras d' Or Lake, he is truly passionate about its relevant potential to the economic vitality of the province.)