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B E T W E E N T H E
i s s u e s

BETWEEN THE COVERS:

The Wind Debate

Forest Biomass



 an ecology action centre publication

www.ecologyaction.ca

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Features

The Wind Debate

/ 10



Forest Biomass

/ 16



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B E T W E E N T H E i s s u e s

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VOL. 27 NO. 2

table of contents

4	Action is Our Middle Name <i>compiled by EAC Staff</i>
6	Ecobriefs <i>by June Hall</i>
9	Why Do You Care <i>by Mark Butler</i>
10	The Wind Debate:
	Ecology Action Position Statement on Wind Energy
11	What's Really Stopping Renewable Energy Development in Nova Scotia <i>by Jamie Thomson</i>
12	Missing the Green Boat in Nova Scotia <i>by Peggy Cameron</i>
14	Wind Power: A Community Perspective <i>by Alice Power and Richard Gray</i>
15	Envisioning a Renewable Future <i>by Cheryl Ratchford</i>
16	Forest Biomass for Energy: How Green is it? <i>by Jamie Simpson</i>
18	Protecting Our Oceans, Ensuring Our Future <i>by Shannon Arnold and Sadie Beaton</i>
20	La Vie en Verte
22	Ask Ecohead
23	Being Green: Sharing Soil - The Lorax Woods <i>by Catherine Joudrey</i>
25	Three Cheers for Volunteers <i>by Chris Benjamin</i>
27	EcoFun Page

letter to the centre

Hi Jen,

In a recent BTI article, you say that we as consumers have NO influence when it comes to having out-of-province food products in our markets. We DO INDEED have an influence - we have a choice with our dollars.

Our basketry group recently joined forces with the local strawberry producers, the Women's Institutes of Nova Scotia and The King's County Register (August 9, 2007) in protesting Loblaws and Sobeys trying to pressure local growers to market their berries in imported plastic containers instead of the made-in-Nova Scotia wooden berry boxes. We did so for a host of reasons—they are better for our variety of strawberries, and for our environment, and to keep jobs in Nova Scotia, among others. The wooden berry box has become a symbol of buying local. To date, the big stores have backed off.

Never underestimate the power of the people. Buy local and only local - like our parents and grandparents. Keep jobs in Nova Scotia. Keep our environment plastic free.

-Joleen Gordon, President, Nova Scotia Basketry Guild

Jen Scott responds:

Oh dear, I see how I could be mis-interpreted. The point I was trying to make was that, while we as NS consumers can't influence how the NZ lamb is raised or how the Washington apples are grown, we can influence local farmers and their practices. We have an opportunity to support the rebuilding of local food systems. I agree that we have influence and I advocate that people go to their retailers and ask for local food (and baskets). It is fantastic what the Basketry Guild and producers have done.

letter from the centre



Wind Energy: Propelled forward or blown off course?

Climate change is disrupting and threatening natural ecosystems and human communities around the world. For this reason, weaning ourselves off coal, and getting energy efficiency and renewables in place are key environmental goals for EAC.

At the same time, some individuals and communities are raising concerns about the impacts of wind and other renewables. As a grassroots organization, often allied with these communities on other issues, we felt compelled to examine these points in an open dialogue.

So, why the concern? We believe that, in part, this is the consequence of the policy and regulatory framework in which wind power is developed. In this unique issue of BTI, as part of engaging citizens in this complex, yet necessary, conversation, we've devoted a large section to wind power and invited a range of essays on the topic. We hope to expose BTI readers to some of the nuances of the debate around wind power, and we look forward to your responses. The writers differ in their opinions, yet illustrate that Nova Scotia

- is lacking support for municipalities and community groups to become involved in wind power development;
- does not have effective or timely mechanisms for community engagement; and
- lacks a plan for province-wide development, siting regulations, direct community financial control and economic benefit.

These missing pieces are hampering the successful development of a distributed renewable energy grid in the province. Given the importance placed on royalties from off-shore oil and gas extraction to provincial coffers, this lack of public gain from renewable energy needs to be addressed to help propel Nova Scotia into a future it deserves. These articles give a voice to these community concerns and highlight the policies required to move us forward.

This is not a point-for-point debate, but rather, each article examines a different facet of the issue. Read over our position statement and then plunge in...we've invited a local community perspective, a more technical article about the transmission grid, and a long-time wind energy advocate's position, plus our Energy Coordinator has contributed her vision.

Lest you think wind power is the whole story, we also have a feature on biomass energy, plus a handful of other articles for you to chew on. Respond to anything you read in BTI by emailing us at: betweentheissues@ecologyaction.ca.

-The Editors

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gearing up and setting the pace

(Transportation Issues Committee) The Pace Car program is in the process of welcoming four new Pace Car communities: Berwick, Mahone Bay, Lunenburg and Whycocomagh. Thanks to a partnership with Pro Bono Law Students Canada, ASRTS is developing a report on best or promising practices from the U.S. in the area of school siting policy, which affects the ability of students to walk or wheel to school. And Bike Week was a huge success thanks to all the volunteers and organizations!

growing progress

(Wilderness Issues Committee) Over 100 students and members of the public participated in our Forest Discovery Hikes this past spring. Participants toured Acadian Forest woodlots and nearby clearcuts to experience the contrast. Two new Wilderness Areas have finally been declared in Nova Scotia after years of intense campaigning by the Public Lands Coalition. Blue Mountain Birch Cove Lakes Wilderness Area on the outskirts of Halifax was given legal protection on April 21st; the Shelburne River Wilderness Area in northern Queens County was similarly designated in May. These areas became officially off-limits to development, forestry, mining and off-highway vehicle use and are now protected under "forever wild" legislation. EAC has joined the Buy Back Nova Scotia coalition, which is working to save the 214,000 acres being sold by J.D. Irving Ltd. in southwestern Nova Scotia. Please visit www.buybacknovascotia.ca for more information.

community centres, debates and demand side management

(Energy Issues Committee) We completed extensive Energy Use Analyses of 11 community-owned and operated buildings in rural Nova Scotia. Working with Nova Scotia Community College students, we are producing energy use reports and analyses for these organizations. The reports suggest many of these buildings can save up to half of their energy consumption and help build a culture of energy awareness. Down with greenhouse gases, up with cleaner communities! During the recent provincial election we organized a debate titled "Provincial Candidates Debate: Climate Change and Our Energy Choices". A full house heard party representatives describe their vision for revitalizing Nova Scotia's energy policy. Our voice continues to be heard at Nova Scotia Power's Demand Side Management hearings, on energy efficiency and the snail's pace of progress towards a new independent, ratepayer-funded provincial agency.

sushi, clams and a sunken barge

(Marine Issues Committee) On April Fool's Day, MIC staged a public mockery of Environment Canada's weak exposition of its decision to let J.D. Irving Ltd. leave the sunken Shovel Master barge on the ocean floor off Southwest Nova Scotia. While we want the 70,000 litres of diesel to be removed from the sea floor, we are also participating in the No Rigs 3 Coalition to ensure that all oil and gas beneath the seafloor on Georges Bank be left in its rightful place. Our proposal for reform of the pelagic longline fishery for swordfish and tuna led to a commitment by Fisheries and Oceans Canada (DFO) to reconvene a by-catch working group. DFO are now developing a work plan for that group. SeaChoice has released Canada's first sustainable sushi card. The card is a consumer guide to help inform choices that protect threatened marine species while responsibly satisfying sushi cravings. In partnership with WWF and CPAWS, we celebrated Oceans Day in June with a screening of the End of the Line (a must-see for seafood lovers).

kicking up a splash

(Coastal Issues Committee) Water Coordinator Jocelyne Rankin rolled up her pant legs and organized "Wading In: Watershed Management in Nova Scotia" in collaboration with the Clean Annapolis River Project. During this two-day workshop, participants from three levels of government, First Nations, hydroelectric generation, forestry, agriculture, NGOs and other stakeholders attended presentations on water issues as seen by each sector. Coastal Coordinator Jen Graham donned glass slippers and flamboyant hats to promote Coastal Nova: Where Nova Scotia Meets the Sea. This series of public lectures and workshops brings people together to talk about Nova Scotia's coastal future.

working together, growing together

(Food Action Committee) We held our biggest Musicians for Farmers event to date in February, with over 250 people enjoying an evening of local food and music. Local organic farmer Norbert Kungl spoke about the deplorable state of industrial agriculture and our power to create alternatives. The proceeds from these events were designated for a special project. After consulting with some farmers, we decided to use the money to subsidize the purchase of fruit and nut trees. As one farmer stated, "There's no greater investment than a tree."

lawns and a shiny new project

(Built Environment Committee) Our Healthy Lawns team worked with Pesticide Free Nova Scotia this past provincial election to get voters talking to political candidates about cosmetic (lawn) pesticides. Thanks to the Resource Recovery Fund Board, we are launching a Construction and Demolition Outreach Project to help divert construction materials from landfills. Demolishing a 2,000 sq. ft. house sends 60 tons of material to the landfill, 85 percent of which could have been reused! For the next 10 months our two-person team will focus on creating an educational Tool Kit to assist building professionals and home owners evaluate options related to deconstruction, demolition, reuse or moving of buildings.





EVENTS

TD Canada Trust Atlantic Jazzfest

July 12-18

EAC are partners in greening.

Look for EAC booth at main tent on Spring Garden.

More information www.jazzeast.com

Evolve Music and Awareness Festival

July 17-19

Heatherton, NS.

EAC are awareness partners.

Festival info: www.evolvefestival.com

Making Tracks Summer Institute for teachers

August 17-20

<https://eapps.ednet.ns.ca/summersession/CourseOutlines.aspx>

August 17-18 - Making Tracks Cycling course

August 19 - Making Tracks Walking course

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September 2009

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Watch www.ecologyaction.ca

—more information will be posted as it comes available.

International Walk to School Month:

October annually

International Walk to School Week:

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(Register now!) More info:

<http://saferoutesns.ca/index.php/event/october-is-international-walk-to-school-month/>

EAC Staff & Volunteer retreat

October 18

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By June Hall

Yucca Mountain

It's a puzzler, that's for sure. Six decades and more later, we still haven't figured out what to do with nuclear waste, especially the really dangerous, high-level stuff. For now, it's accumulating in "cooling ponds and dry-cask storage containers" at nuclear power plants and other facilities, patiently waiting. Add in plans for a whole new wave of power plants (including in Canada)...

Reprocessing is iffy, since the results can be used in nuclear weapons. Instead, deep geologic repositories are apparently the way to go. In Canada, the search is on. South of the border, the U.S. decided in 1987 to concentrate on Yucca Mountain, Nevada, and since then have spent some ten billion dollars studying its suitability. Fierce opposition from Nevadans, from states through which the material would have to travel and at the national level has dogged the project from the start. Recently, President Barack Obama delivered the coup de grace: the only funds for the site in his 2009 budget are a token US\$40 million to allow the Nuclear Regulatory Commission to continue its evaluation. In the word of Energy Secretary Steven Chu, "the Yucca Mountain site no longer [is] viewed as an option for storing reactor waste."

Meanwhile, President Obama has lifted spirits by declaring his commitment to a nuclear-weapons-free world. A difficult undertaking, for sure, but agreement between the U.S. and Russia later this year on a new Strategic Arms Reduction Treaty would be a valuable first step.

Nature online, 2, 8, 29 Apr. '09

Time bomb

No doubt about it: there have been dramatic changes in the Arctic Ocean in recent years. By 2030, according to some experts, summer ice will be a thing of the past. What we're hearing less about, however, is what's happening on shore and the consequences for the planet of rapid Arctic warming.

Numbers are hard to come by, but Katya Walter, a researcher at the University of Alaska in Fairbanks, is witnessing changes in both Siberia and Alaska. Permafrost is melting all over the Arctic, she says, and lakes in Siberia are forming and growing

everywhere. Worse, as permafrost melts, it releases methane, a far more potent greenhouse gas than carbon dioxide. Indeed, the Arctic contains massive stores of both CO₂ and methane, locked into frozen soils hundreds of metres deep and in "icy structures beneath the ocean bed." All bets are off if the planet as a whole warms by 3°C this century, as increasingly seems likely. The gases released could conceivably fuel runaway warming and change global wind patterns and ocean currents: "a kind of slow-moving time bomb."

New Scientist, 28 Mar. '09

Wheat in trouble

It's a story as old as agriculture itself: the battle to keep our crops free of insect pests and disease. An old foe has resurfaced to remind us, if we need reminding, of the fragility of the world's food supply.

Stem rust, a fungal disease of wheat supposedly defeated 50 years ago, reappeared in 1999 in Kenya and has since jumped the Red Sea to Yemen and now Iran. Scientists, whose strenuous efforts to produce resistant plants have so far been frustrated, say they are powerless to stop the spread of this virulent pathogen, which kills by destroying the plant's stem, toppling whole fields in the process. At risk, according to recently deceased Nobel laureate Norman Borlaug, the world's leading expert on the disease, is "a good share of the world's area sown to wheat... It has immense destructive potential." Most vulnerable are the hundreds of millions of small-scale farmers in the developing world who depend on wheat for their livelihood.



Borlaug — the father of the Green Revolution, and credited with developing the original rust-resistant wheat — was just one of many scientists recruited to the task of defeating this new enemy. Also needed are helpful weather conditions: the rate of spread depends heavily on wind speed and humidity.

Guardian Weekly, 6 Mar. '09

Birds... again!

More bad news about the status of U.S. birds, "bellwethers of the... integrity of the environments that provide us with clean air and water, fertile soils, abundant wildlife" and more, from a major new report, State of the Birds, amassed by the U.S. Fish and Wildlife Service, the U.S. Geological Survey and thousands of civilians.



Janet Wilson

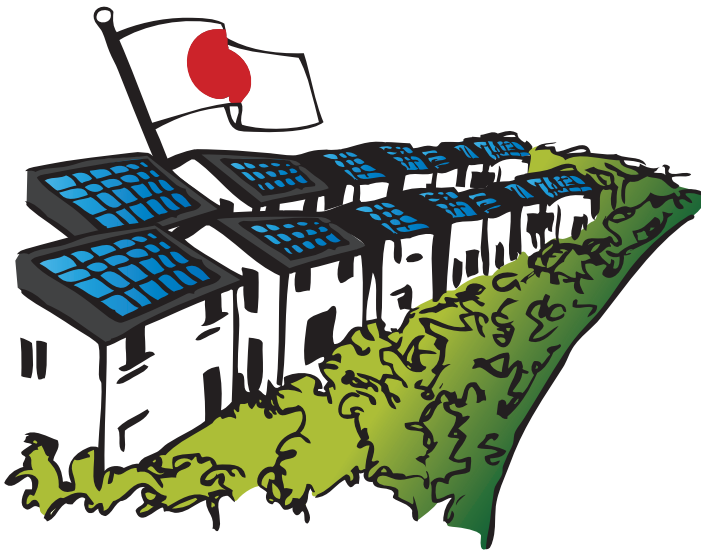
Over the past 40 years, says the report, there have been "disturbing downward trends" in the numbers of birds recorded in almost all environments: grasslands (down 40 percent), ocean-dependent birds (39 percent), arid areas of the west (30 percent), and especially in Hawaii, where 31 species of native birds face extinction (and 71 have already met that fate).

The threats faced by birds are familiar: habitat loss, pesticides, predation by cats, collisions with buildings and so on. Global warming is also having an effect, as revealed in a recent (February) study by the Audubon Society, again based on data collected over 40 years. A large proportion of bird species that overwinter in the 48 states — a hodgepodge including chickadees, owls, robins and gulls — now do so, on average, 55 km further north. The purple finch is the champion; the northern border of its range in January has shifted by a whopping 640 km.

Janet Wilson

But there is good news, too. Conservation is really paying off for wetlands. Since the late 1960s, populations of pelicans, herons, ospreys, egrets and ducks have increased dramatically, thanks to organisations such as Ducks Unlimited.

www.stateofthebirds.org; www.audubon.org/globalwarming/



Janet Wilson

Going solar

Enough already with the doom and gloom!

Its national pride at stake, Japan is trying to regain its status as lead nation in solar energy, a position it held until 2005, when Germany surpassed it, as did Spain in 2008. With a brand-new subsidy to help foot the bill, “tens of thousands of... homes and businesses are preparing to put solar panels on their roofs.” Unusual in its emphasis on individual buildings (versus installations by power companies), Japan is also supporting research into large-scale technology, and much, much more. In all, the country is funding solar —through both subsidies and R&D — to the tune of about US\$300 million a year, just part of its low-carbon policy.

On a smaller scale, Arizona State University, an obvious candidate for solar, has ambitious plans. Situated in Tempe, part of the Phoenix conurbation and home to more students than any other U.S. campus, ASU has long been interested in solar: for the past 15 years it has housed “the only photovoltaic testing laboratory” in the country. Now the school is putting what it learned into practice, installing rooftop solar modules. The first part of the project, launched in late 2008, delivers 2 megawatts of electricity, making it the largest rooftop power plant in the U.S. Combined with an aggressive program of energy conservation, the university ultimately hopes to cover more than 20 percent of its (by then lower) needs through solar.

Nature online, 29 Apr. '09; ASUNews, 17 June '08



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Why Do You care?

By Mark Butler



During their orientation, new employees of the EAC are subjected to a quiz. Mixed in with questions about the EAC's past exploits is the following question: Why do you care?

Many employees recollect that their environmental awareness arose from early contact with nature. They talk about a cottage or family camping trips.

Birds are what hooked me. I would sneak off into the woods with my binoculars. While other kids were learning how to catch a fly ball, I was searching the treetops for warblers and other colourful spring migrants. And I was rewarded. I have vivid memories of days where the woods were trembling with birds and colour: scarlet tanagers, black and white warblers, Baltimore orioles, black throated blue warblers, rose breasted grosbeaks, blackburnian warblers, indigo buntings and many, many more. Tick, tick I went with my list.

Little did I know that the birds flitting through the treetops were already in trouble. What I experienced as a child – the profusion of birds – I will likely not experience again in my lifetime, nor will our

children. Many of our birds, particularly the migrants, are in steep decline.

Bridget Stutchbury, author of *Silence of the Songbirds* and professor at York University writes, “by some estimates, we already may have lost almost half the songbirds that filled the skies only 40 years ago.”

That's shocking. Since I began birding as a boy, 50 percent of our songbirds have disappeared. Reasons for these declines include loss and deterioration of habitat on breeding grounds in the North and on wintering grounds in the South, pesticides, window strikes, and cats.

Verifying the numbers is difficult and not all species have suffered the same declines. Migratory birds are most at risk, and it appears in particular, aerial foragers (birds that catch their food on the wing), such as swallows and flycatchers. According to Bird Studies Canada, chimney swifts are declining at a rate of eight percent per year, eastern wood-pewee and common nighthawks at a rate of four percent per year, and so on. Imagine if your investments (or your wage) had been declining at that rate over the last 40 years.

Confronted with these numbers, inspired by childhood experiences, and aided by circumstances, EAC got into birds. In November of last year, we helped organize the conference “For Our Birds 2008: Sharing Science, Conservation and Education”. In the spring of 2009, we launched the Birds are Back Celebrity Challenge and began surveying downtown office buildings for bird strikes.

Windows, be it the picture window at the cottage or the reflective glass of an office tower, kill a lot of birds. Estimates range from 100 to 900 million birds a year in North America. We are currently trying to determine how many migrants are killed by flying into downtown office buildings during spring and fall migration.

Overall, habitat loss is the biggest cause of declines. Consequently, it makes a lot of sense for EAC's bird work to support already existing efforts by EAC and other groups to protect habitat in Nova Scotia.

We are in the early stages of our bird work and we welcome your support and ideas. I also encourage you to sneak off into the woods with a pair of binoculars. Birding remains an incredible and formative experience.

Mark Butler is the Policy Director and the Bird Conservation Coordinator at EAC. His son recently said he'd like to grow up to be a bird... but may not have considered all the consequences.

Take Action

- **Bring your energy and ideas about birds to the next meeting of the Coastal Issues Committee, the last Thursday of the month at 5:30pm**
- **Buy shade grown coffee because it offers much more habitat for birds.**
- **Keep your cat indoors.**



Ecology Action Centre Position Statement on Wind Energy

Take Action

To meet the wind energy vision stated above, the EAC encourages citizens to request their provincial government:

- Provide support for municipalities in developing by-laws based on the document, Model Wind Turbine Bylaws and Best Practices for NS Municipalities.
- Develop standards around early community engagement; and province wide regulations for wind developments and siting.
- Adopt feed laws that set a fair price for renewable electricity sold to the grid, thus encouraging citizen participation in electricity generation based on the Green Energy Act in Ontario.

Climate change is the most pressing issue of our time. With global pressure to reduce fossil fuel use, energy security is of growing concern to Nova Scotians. The Ecology Action Centre believes the development of renewable energy and energy efficiency measures are essential to a sustainable energy future.

We believe that communities have the right to determine their economic future and benefit from renewable energy projects. Accelerating the wind power industry in a way that is respectful to communities is a first step towards addressing climate change and energy security. Some of the avenues we are investigating for greater community involvement and benefit include:

- Policy changes such as improvements to the request for proposal process and the net metering program and the introduction of a feed in tariff;
- Support for municipalities and community groups in terms of overcoming knowledge barriers, financing and legal issues; and
- Early community engagement; and province wide regulations for wind developments and siting.

We are encouraging the Government of Nova Scotia to address these important issues. Recognizing the need for adequate changes, the Ecology Action Centre envisions a future dynamic shift where communities will invite wind energy as a positive project opportunity.

For more detailed information on EAC's position regarding wind and other renewables, visit www.ecologyaction.ca/content/energy or email energy@ecologyaction.ca.

What's Really Stopping Renewable Energy Development in Nova Scotia?

By *Jamie Thomson*



Just because someone says it, doesn't mean it's true. Take the frequent claim that our electrical grid needs upgrading to work with wind energy. Public officials say it. Our power company says it. Experts say it. Is the grid an obstacle to kicking the carbon habit? If it is, what can we do? If it isn't, what's really stopping renewable energy from flowing to our power meters?

The grid is actually a backbone of high voltage lines that connect fossil fuel power stations in Cape Breton, Trenton and Dartmouth with electrical loads connected to our local power distribution lines. During periods of peak consumption, or demand, around 2,300 megawatts (MW) of power flows through the backbone to homes, businesses and industries across the province. A small transmission line connects us to New Brunswick, allowing up to 300 MW of power to be shunted between the two provinces as needed. Between daily and seasonal variations, our electrical demand will peak on a cold winter's evening just after supper time.

The average consumer doesn't pay for peak demand (yet), but rather pays for energy used over each billing period (think miles traveled, not horsepower). And we pay 11.8 cents for each kilowatt per hour (kWhr) that passes through our meters, 13 billion kWhrs each year. Large consumers pay less, especially if they agree to shut down when Nova Scotia Power asks them to. Large users, however, have to pay for their peak demand. This encourages large customers to maintain predictable power

consumption – you don't want the biggest guy in the canoe jumping up and down.

So can this system bring us wind energy? According to the Nova Scotia Department of Energy's Wind Integration Study, the answer is yes. Today, 60 MW of wind energy is connected and operating. The report finds that wind capacity can rise to 780 MW as is, provided we spread the wind facilities around the province. The report further finds that with modest upgrades, totaling \$260 million and including a new transmission line from the Canso area to Halifax, the system can support 980 MW of wind capacity. That sounds like a lot of money, but bear in mind Nova Scotia Power spends almost twice that each year on foreign sourced fossil fuel and that the total value of the power system is \$2.4 billion.

If the grid is not in fact an obstacle, then we should be able to get started. Nova Scotia Power has signed contracts for another 240 MW of wind energy, leaving 480 to 680 MW to go before we hit the limits identified by the Wind Integration Study. Without question, grid upgrades need to be planned to move beyond these levels and they need to start early as the planning times are long. Nevertheless, there remains room for more wind energy on our power system. Upgrading the grid is not required to continue to add wind energy today.

The majority of the report's recommendations focus on operational changes at Nova Scotia Power – power generation planning will have to become more so-

phisticated. Nova Scotia Power will have to predict the output of individual wind facilities over periods of several days down to 30- or 10-minute intervals. These calculations will identify when existing fossil fuel generators need to be ramped up and down to fill in as total wind production rises and falls across the province. These conclusions are echoed by the North American Electricity Reliability Corporation, the institution charged with maintaining reliability of the bulk electricity system in North America. Both acknowledge that technical concerns need to be addressed including the stability of the system. But solutions to these problems remain a matter of technical diligence, not invention.

What can we do? Add widely distributed wind capacity up to the identified limits. Include small and community scale wind. Generation close to local demand will reduce strain on our high voltage transmission lines and smooth the variation in wind output. Adopt modern power planning methods. These changes won't happen all at once, so we will learn what works best as we go. Beyond the 980 MW level, several courses of action will be required. Switching from coal to natural gas or fuel oil at generation stations will provide more nimble facilities better able to respond to wind production variation. This has already been accomplished at Tufts Cove in Dartmouth. Combined cycle gas turbines make sense. Although these facilities burn more expensive natural gas, they are significantly more efficient and emit far fewer greenhouse gases per kWhr. This too is underway at Tufts Cove.

What's stopping us? In Nova Scotia, it turns out, change is illegal. At present, Nova Scotia Power, with review provided by the Utility Review Board, is bound by provincial law to provide electricity at the lowest cost each year. Until new laws mandate reduced emissions and provide simple rules for the connection of renewable energy, change is shackled to the purchase price of coal.

Jamie Thomson is a mechanical engineer and renewable energy geek. He is a volunteer with the EAC's Energy Issues Committee.

Missing the Green Boat in Nova Scotia

By Peggy Cameron



Ontario's 2009 Green Energy and Green Economy Act will make it a champion of the green-collar economy with one of the most comprehensive renewable energy policies in the world. Key strategies include spending \$390 million on transmission and distribution of renewable energy, \$50 million on R&D relating to grid improvements, \$5 million on green job skills strategy and, most significantly, the introduction of feed-in tariffs.

Introduced in Germany in 1991 for wind energy and in 2000 for solar energy, feed-in tariffs require utilities to pay a government-mandated rate for any renewable energy for a guaranteed period of time, usually 15-20 years. Having a guaranteed contract means financing for projects can be obtained and, in fact, many German banks specialize in renewable energy loans.

And it is law that the utilities have to buy the clean electricity. If the grid is "broken" the utility has to fix it, no ifs, ands or buts. The result is everyone from a homeowner to a church, a farmer to a community, a small business to a big business can install solar panels, erect wind turbines, develop geothermal or biomass or biogas projects and produce clean energy. The best part is getting paid a fair rate and making a fair profit with everyone having the potential to participate and the potential to be an elec-

tricity producer. A roof filled with photovoltaic (PV) panels becomes both collateral and the source of an income.

When people receive a direct financial benefit it is much easier to accept a properly sited wind farm in the community or a bank of solar panels on your neighbour's roof. And when there is a steady demand for panels, turbines and other renewables, the result is green collar jobs in manufacturing, installation, research and development.

Germany now has about 250,000 people employed in the renewable energy sector. Ontario hopes feed-in tariffs will support the creation of 90,000 jobs, 50,000 jobs in the next three years in the solar industry alone. So where is Nova Scotia's Department of Energy on feed-in tariffs?

Despite recommendations for feed-in tariffs to the Department of Energy by its own consultant, and despite the success of feed-in tariffs in over 50 countries throughout the world, the Nova Scotia Department of Energy definitively rejects the adoption of feed-in tariffs for the province.

"Typically the electric utility will throw out every scare tactic in the books about feed-in tariffs," says Paul Gipe, an international renewable energy expert who lectures frequently in Nova Scotia. "Electricity will be too expensive, the grid can't

accept it, there'll be rolling brownouts, and the world, as we know it, will come to an end."

Those are the arguments against renewables and feed-in-tariffs made April 7, 2009, by Allison Scott, Nova Scotia's Deputy Minister of Energy at the province's Economic Development Legislative Committee.

But these concerns don't play out in the real world. Sir Nicholas Stern's 2006 Report on Climate Change refuted the scaremongering about premium prices for renewable energy, concluding that feed-in tariffs produced larger deployments of renewable energy at lower costs than other policies. That's partly because while renewable energy may be more expensive, the cost stays the same for 15-20 years, and partly because when technologies become mass-produced, their costs go down.

Meanwhile, Nova Scotians' cost of electricity has increased over 30 percent in the past several years just for burning dirty coal. And despite feed-in tariffs, German residents pay less per month for electricity than people in Ontario, partially because of better conservation and efficiency.

Unlike jurisdictions with feed-in tariffs where anyone can be a renewable energy producer and seller, in Nova Scotia no one can sell electricity to NSPI unless they have an Independent Power

Producer's (IPP) contract. And by sticking to the Request for Proposals policy or a competitive bidding process, which worldwide has about a 50 percent failure rate, the provincial Department of Energy maintains the major roadblock preventing Nova Scotians from making the transition to green energy, green jobs or a green economy.

As a result, despite all the talk about how much wind energy there'll be, of all the IPPs who've won NSPI contracts, only about half have built their projects. And local people are less certain there are benefits to the big wind developments they're seeing as, after a short-term construction period, the profits leave the province, few jobs are created and they don't have a stake.

The provincial government takes no oversight of IPP contracts, with NSPI determining the rates and conditions for "successful" bidders. One outcome is that

in 2004, NSPI paid itself 12 cents/kw for its wind electricity, while it pays IPPs as little as 6.5 cents/kw for long-term contracts and keeps the green credits. This low pricing for contractors makes it especially difficult for small community projects and hasn't helped the larger projects either. Recently NSPI "snapped up" a bankrupt \$90 million 45MW project proposed for the Pugwash area as part of positioning to become the predominant wind power producer in the province. Yet financing difficulties for small or big players and giving up to the monopoly wouldn't be in the cards if Nova Scotia had feed-in tariffs.

Getting off fossil fuels in Nova Scotia is critical to reducing greenhouse gas emissions and having energy affordability and energy security. Most Nova Scotians aren't aware NSPI is one of Canada's top ten emitters of greenhouse gases, or that because Canada has no national energy strategy policy, all of

Nova Scotia's oil is imported (\$3.5 billion in 2008) as is most of its coal.

But for Paul Gipe, that's what is exciting about Ontario's feed-in tariff policy. "It's hard to get it right," Gipe says, "but feed-in-tariffs will secure the price and source of energy, reduce emissions, create jobs and keep money in the local economy."

Getting it right in Nova Scotia would include the new government adopting feed-in tariffs for all renewable energy produced, ensuring proper oversight on rates and conditions for Independent Power Producer contracts and creating good strategic policy to ensure proper setbacks and other criteria are in place.

Peggy Cameron, M.E.S., is Vice-President of Black River Wind Ltd. and Nova Scotia Environmental Network's 2009 Eco-Hero Environmentalist of the Year.



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Wind Power: A Community Perspective

By Alice Power and Richard Gray

What's not to like about "clean and green," particularly when applied to one of modern society's most basic needs? Most people were ready to embrace a technology that promised to lower greenhouse gas emissions, help diminish our dependence on fossil fuels and bring economic benefits to rural communities.

As experience is gained, the wholesale promotion of wind power begins to sound more like "greenwashing". The common issues of concern to community groups everywhere are human health, noise levels, community economics, property values, wildlife habitat, lack of decommissioning commitment and the value of the wind energy itself.

Incredibly, the Canadian Wind Energy Association maintains that there is no evidence that wind turbines make people sick, although there are numerous reports of health problems for people living in the shadow of turbines from around the world, including here in Nova Scotia. Problems reported include depression, chronic stress, migraines, nausea, dizziness, memory loss, cognitive difficulties, cardiac arrhythmias, increased heart rate and high blood pressure. Doctor Robert McMurtry, former Dean of Medicine at the University of Western Ontario, gives credence to these claims when he suggests that it is highly probable that the pulsations from turbines trigger numerous health effects.

In Pugwash, opposition to a proposed 17-turbine complex is based on economic concerns. One of the critical economic drivers for the area is "destination tourism" or the "cottage industry". Thousands of cottagers and retirees have been attracted to the area by warm water beaches, a championship golf course and beautiful surroundings. This has produced enhanced economic activity and made Pugwash an economically-sustainable rural community. Wind energy proponents refuse to accept that those seeking beauty and serenity would be dissuaded from investing in an area dominated by a large, noisy and intrusive turbine complex. Indeed, some proponents have gone so far as to propose that turbines are themselves a tourist attraction, suggesting that those wishing to invest in a recreation/retirement property, or even a two-week vacation, would seek

out a wind turbine complex to maximize their enjoyment. Pugwash can have a wind turbine complex promising two jobs, or the cottage industry providing 200 jobs, but not both.

This scenario could be repeated for many small rural communities, especially coastal communities, around Nova Scotia.

Environmental issues continue to be worrisome, beginning with the review process itself. All Nova Scotian wind energy projects to date have received environmental approval, albeit with conditions in some cases. The wind project developer contracts for, pays for and submits the environmental assessment. The assessment process calls for community consultations but doesn't say that that the prevailing public view is to be heeded. The proponent in Pugwash assured people on several occasions that if the community didn't want the project, the proponent would walk away. The vast majority of locals attending the consultation, including all major representative organizations (Village Commission, Chamber of Commerce, etc.), as well as those unable to attend who signed a petition spearheaded by the Gulf Shore Preservation Association, made it very clear the development was not wanted. To date, the company has not given up on the project.

There are other potential long term environmental and economic concerns. No one yet knows the effect these large developments will have on wildlife habitat and populations. They cut a huge swath in the countryside. Each turbine requires more than an acre of cleared land at site plus an access road. This leads not only to great destruction but fragmentation of habitat. Communities are worried about who will bear the cost of decommissioning wind turbines at the end of their life spans. So far, despite urging from those concerned, there is no regulatory requirement for developers to secure the certainty of decommissioning costs with any kind of financial instrument. In some jurisdictions, abandoned towers have been left to rust where they stand. In Europe, where some turbines are already obsolete, it has come to light that turbine blades use a non-recyclable composite that contains toxins. Landfills are currently the recipients of these gifts.

Wind energy proponents argue that massive wind turbine projects are necessary for the immediate reduction of greenhouse gases. Critics point out that neither Denmark, boasting more than 6,000 turbines, nor Germany, with 20,000, have been able to shut down any of their fossil fuel plants. Wind is unreliable, unpredictable and erratic. It must be sufficiently backed up by conventional generating plants to provide power on a rapid response basis or risk re-occurring blackouts. Gwynne Dyer, in his book "Climate Wars" states that wind cannot replace coal and gas generators for that very reason. Since most conventional plants burn fossil fuels, their emissions must be attributed to the wind turbines they support. Additional reconciliation must include the cost in greenhouse gas emissions in prospecting, mining and smelting ore for the metal to build turbines, turbine production, turbine transportation and the decimation of carbon dioxide-gobbling trees to make room for the structures. The savings in CO² emissions from wind turbines would seem to be vanishingly small.

Many jurisdictions are joining the ranks of the opposition to wind power if the recent spate of articles in national and international newspapers and other publications is any indication. Academics, economists and columnists express wonder and exasperation with the opportunistic politics that divert precious time, effort, and money to the pursuit of wind energy at the peril of ignoring much more effective solutions to the immediate and pressing climate change crisis.

Meanwhile, wind turbine developments are springing up all over the province, the country and the world. They are making people sick, causing some communities to lose their financial base, destroying wildlife habitat and having little effect on green house gases. Oh, yes, and costing taxpayers billions of dollars in subsidies. Why wouldn't they be welcome in our communities?

Richard is a retired army officer and resident of the Gulf Shore. Alice is a retired teacher/principal. She is chair of Friends of the Pugwash Estuary, vice-chair of the Southern Gulf of St. Lawrence Coalition on Sustainability, and a member of the Watershed Caucus of the Nova Scotia Environmental Network.

Envisioning a Renewable Future

By Cheryl Ratchford

How old will you be in 2050? How about your children or your grandchildren? You, as a reader of this publication, likely know that climate change projections do not paint a rosy picture for our planet in 2050. You also know that climate change requires a global response. If we do our part today, what might Nova Scotia's energy mix look like in 2050? Allow me to imagine an answer to this question.

First, let's all relax. I'm not envisioning moving your family to a faraway planet or post-apocalyptic privations. Instead I'm picturing lifestyles that are based on generating our own energy. Driving through rural Cape Breton, your car is silent and you hear the birds as you drive. You glimpse wind turbines in the farm fields in Bras d'Or. You are surprised by the number of farms along the drive and the gardens that surround the residential areas. You come across a solar power plant glistening in the sun's rays in Port Hawkesbury. Driving along the coast you see offshore wind turbines rolling in the distance and smaller micro-turbines dotting the cliffs close to homes and businesses.

When you reach Halifax, you first notice that communities are more compact. Buildings are smaller and windows are predominantly on the south side. Then you notice solar panels and gardens on the roofs. Upon closer inspection, you notice that all the buildings are labelled with an energy efficiency rating that you don't quite recognize.

How did this happen? Individual communities across the province came together years ago to decide which locations in NS were the most suitable for renewable energy. Policies and best practices were adopted from leading jurisdictions. Local ownership and the opportunity to profit from energy conservation and renewable energy was made possible through the creation of feed-in-laws, which made profit margins predictable. Based on this, individuals and groups came together to plan how they would generate renewable energy in their communities. Some Nova Scotians even used solar and wind installations on their properties as type of retirement package!

In their own way government, business, communities and individuals each invested in sustainable solutions like district heating, biogas, tidal, solar, wind, combined heat and power and smart grids. And over the years the whole province benefited economically from lower energy costs and a growing number of green-collar jobs and businesses. These initiatives were fuelled (sustainably, of course) by many factors: fossil fuel price spikes, noticeable impacts of climate change, growing public concern and good government policy. The initiatives paved the way for more sustainable community projects demanded by Nova Scotians.

Important changes occurred in terms of industrial development. Nova Scotians understood that industrial scale renewable energy development was part of the movement and they insisted that early, meaningful community consultation and engagement was a requirement. Communities had the power to both influence and halt projects where justified. Industrial-scale developers had very specific by-laws, codes of conducts and processes to which they adhered.

Cheryl Ratchford is the Energy Coordinator for the EAC. She's not generally given to daydreams, except about coffee or ice cream, but she's definitely visionary.



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And what do you think about the **wind debate**? email betweentheissues@ecologyaction.ca with your perspective.

Forest Biomass for Energy: How Green is it?

By Jamie Simpson



The rush to replace fossil fuels with ‘greener’ energy sources could be devastating for Nova Scotia’s forests, especially those owned by private woodlot owners. The threat comes from mounting pressure to utilize wood from the forest to produce energy. While producing energy from wood is not inherently detrimental, the combination of current lax government regulations and low prices for biomass leads inevitably to ecologically destructive practices.

“A major concern of whole-tree harvesting is the greater acidification of soils compared to stem-only harvesting. Field experiments in Sweden have shown that slash harvesting reduces soil pH, base saturation and base cation pools [nutrients] in the soils.”

- Bengt Olsson, Swedish University of Agricultural Sciences

Forest biomass is basically anything that burns, including tree tops, tree branches, shrubs, and dead trees, as well as trees that are too small or too deformed to qualify for other products. In some cases, stumps and roots of trees are also removed, although this is not done in Nova Scotia at present. Removing tops and branches of trees, along with the stem of the tree, is known as whole-tree harvesting. Whole-

tree harvesting combined with removal of undersized, low quality and dead trees can be called a biomass harvest, as it removes almost all of the above-ground woody material from the site.

Although some refer to unused wood as ‘waste’, it is anything but from a forest health point of view. Tree tops, branches, and dead trees play critical roles in the forest:

(1) Woody ‘waste’ material shelters and protects the soil, provides nutrients for

new growth and builds soil structure. Compared to conventional clearcutting, removing tops and branches doubles the nutrient loss from the forest because most of a tree’s nutrients are stored in the bark and foliage. Studies in Europe show an 8-12 percent drop in forest growth after just one biomass harvest. It’s like growing a garden: you can’t continually take without giving back.

(2) Whole-tree harvesting reduces the carbon stored in the forest, compared to a regular clearcut. By increasing soil temperatures, biomass removal causes forest soil to release roughly a third of its stored carbon (which is significant because soil stores some two thirds of all the carbon in the forest). As well, harvesting and transporting biomass incurs a carbon cost through heavy use of fossil fuels. Given these factors, biomass energy cannot be considered carbon neutral.

(3) Dead and dying trees are critically important for forest biodiversity: some 25 percent of all wildlife in our forests depend on standing and fallen deadwood for shelter or food. Removing this material further reduces and fragments the land available for many species of wildlife, such as owls, woodpeckers and salamanders.

Given these costs to forest health and carbon storage, what do landowners stand to gain by selling forest biomass for energy? Not a heck of a lot. Biomass for energy is the lowest grade of forest products, lower even than pulpwood or firewood. The cost of harvesting and transporting it pretty much equals the price paid for it. A landowner might receive a dollar or so per ton of material removed. In Ontario, biomass material removed from public forestlands generates no revenue: it’s given away for free.

As a woodlot owner, I would never allow a whole-tree biomass harvest on my woodlot, and as a forester, I would never recommend it for someone else’s wood-



“...full tree harvest methods have been flagged as problematic on many site types because of the significant removals of calcium, nitrogen and potassium...”

- Taumey Mahendrapa and Peter Salonijs, Canadian Forest Service, Atlantic Region

lot. By my estimation, it's clearly not worth it.

The key players in Nova Scotia developing forest biomass energy are Nova Scotia Power Inc. (NSPI), several forestry companies, and the Department of Natural Resources (DNR). NSPI is calling for project proposals for a limited (25 MW) development of biomass energy. Both NSPI and the province of Nova Scotia want to use biomass energy to reduce greenhouse gas emissions. Meanwhile, NewPage Corporation (formally Stora-Enso), is seeking funding to produce 60 MW of biomass energy.

For its part, DNR is both promoting biomass energy and planning to regulate it. It convened a Biomass Working Group several years ago to develop Harvesting Guidelines. Interestingly, DNR has refused to spend a few thousand dollars to fund a review of the relevant science around biomass harvesting. The scientist and the woodlot owner representative sitting on the government's working group eventually resigned, citing their frustration with DNR's refusal to fund a review of relevant science. Thankfully, St. Francis

Xavier University stepped in to fund the science review, which will be completed by late winter. The Ecology Action Centre continues to hold a seat on this Working Group and is now the only voice for conservation at the table.

When released this spring, the Biomass Harvesting Guidelines will provide limited restraint to biomass removal, but only on Crown lands, roughly 30 percent of Nova Scotia's forest area. Private land, owned by woodlots owners (50 percent of the province) and by forestry industries (the other 20 percent), will not be affected by the guidelines. In all likelihood, we will see an increasing number of private lands hit hard by biomass harvesting contractors, scraping whatever fibre can be had from the land, with little regard to forest health.

Ironically, a section of Nova Scotia's Wildlife and Watercourse Protection Regulation would be sufficient to stop intensive harvesting of biomass on both Crown and private land, if only it were enforceable. It states that:

A forestry operator shall ensure levels of snags and coarse woody debris on all

harvested sites are similar to natural patterns to the fullest extent possible.

Unfortunately, the lack of specifics in this regulation renders it unmeasurable, and as such unenforceable, even though the spirit of the regulation is clear: 'waste' wood plays a valuable role in the forest.

Jamie Simpson coordinates the EAC's Standing Tall Campaign. He occasionally cuts down trees, but hugs them first.

Take Action

- Alert friends and family with woodlots about the forest health implications of biomass harvesting.
- Talk to your MLA about the need to safeguard forests from the dangers of biomass harvesting.
- Check out the EAC's report on biomass harvesting at www.novascotiaforests.ca.

Protecting our Oceans, Ensuring our Future

By Shannon Arnold and Sadie Beaton



Sea mouse. Dumbo octopus. Bubble-gum coral. Horse mussels. They may sound like storybook characters, but these creatures are just a few of the vast array of astonishing and vital species that make their home beneath the ocean's surface off Nova Scotia's coast. Mysterious and beautiful, our unique marine ecosystems are also critical to the well-being of our coastal communities, providing food, income, traditional medicine, flood control, waste cycling and recreation opportunities. Despite our reliance on the marine environment, the very things we expect from the ocean are increasingly degraded by human activities.

Take Action

- Do you live in a coastal community? Are you interested in marine conservation? Make sure you take part in the upcoming consultations on Marine Protected Areas to be held throughout Nova Scotia in the coming months.
- Let those in Ottawa know that marine protection is important. The Federal Minister of Fisheries and Oceans, the Honorable Gail Shea needs to know that the public care. She can be contacted at Shea.G@parl.gc.ca.

Coastal development destroys critical habitat and adds to contamination of runoff from upstream. Declines in fish populations, shellfish and non-commercial species are well documented. Here on the East Coast, we are still suffering the effects of the collapse of the northern Atlantic cod population, one of the largest fishery collapses in history. According to the Food and Agriculture Organization's State of the World's Fisheries report from 2006 (2008 statistics are not yet available) fully 29 percent of currently fished species are considered collapsed and despite an increase in fishing effort, our global catches of fish are declining. Yields across all species have dropped by 13 percent from their peak in 1994. Marine pollution from drill rigs and ships also causes damage, not to mention our everyday garbage that ends up in the ocean. Witness the new '21st century continent', a floating gyre of plastic twice the size of Texas that has accumulated in the middle of the North Pacific – a monument to our throw-away lifestyle (watch our website for updates on a research trip to the gyre this summer).

For landlubbers like us, it can be difficult to fathom that we live on a largely marine planet. Oceans cover over 70 percent of the Earth's surface, and make up an incredible 95 percent of the biosphere. Human well-being is inextricably linked to that of the sea (see Box 1), but too often what is out of sight is also out of mind.

It is not too late for us to take action that allows our ocean ecosystems to rebound. Marine Protected Areas (MPAs) have been shown in some areas to be a valuable tool in restoring biodiversity and

Bigger fish, More fish – One Benefit of MPAs

Just like on land, where hunting is only permitted in certain areas, effective, mixed-use marine protection can have a marine reserve at its core, where no extractive activity is permitted, surrounded by an MPA where low-impact fishing is allowed.

The results:

- Fishes, invertebrates, and seaweeds have grown, on average, 28% bigger and are 166% more abundant inside marine reserves
- Bigger fish and invertebrates produce more babies than their smaller counterparts outside the marine reserve
- Spillover of adults and juveniles to waters around the core reserve increase abundance of commercial fish in the surrounding waters.
- Fish harvesters around marine reserves experience a higher catch rate per unit of effort because of this 'spillover' effect. Fishing communities are recognizing the benefits and taking the initiative to create protected areas.

rebuilding fishing livelihoods. Back on land, Nova Scotians have responded to the loss of wilderness and terrestrial biodiversity by demanding parks, reserves and protected areas where destructive human activities are restricted. The provincial government has made the commitment to set aside 12 percent of Nova Scotia's terrestrial lands for protection, by 2015, and has made exciting gains, currently sitting at just over 8 percent. Meanwhile, only parts of seven of our 29 marine habitats and a mere 0.56 percent of Nova Scotia's waters are protected. We are far from Canada's internationally committed goal of protecting 10 percent and creating a network of MPAs by 2012.

We must act now on ocean protection! Protecting ocean wilderness—where we can still find it—and restoring areas that will ensure productive fisheries in the years to come, is an essential part of a larger management structure that integrates across all human impacts on marine ecosystems. In the fisheries sector, for example, MPAs must be combined with cost-effective instruments to limit catch, fishing effort and the use of non-selective fishing gears. Marine management has a large toolbox of measures, regulations and planning. The challenge is learning to use the tools effectively.

While Canada's Oceans Act provides for legislated MPAs, coastal communities can also put together conservation oriented protection plans that can often be created much more quickly than MPAs, and ensure that communities play a resource stewardship role. Marine, coastal and terrestrial management must be linked to ensure sustainable use outside protected areas and to maintain their ability to provide the restorative services for which they were designed.

Shannon Arnold is the Marine Conservation Coordinator at the EAC while Sadie Beaton oversees Communications for the Marine office.



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Turner Talks:

Almost 400 people attended our third annual lecture on March 31st. Speaker Chris Turner's talk – titled *The Geography of Hope* – inspired the audience and galvanized some great discussions.

“Chris made a persuasive case for what can be accomplished, and his real examples can certainly inspire us all to action.”

-Attendee Nancy Vanstone,
Deputy Minister, NS Department of Environment
Photo: Jen Organ



Nationally recognized:

EAC was honoured to receive the national Arthur Kroeger Award for Public Affairs in the category of Citizenship and Community. Volunteer Hudson Shotwell joined Policy Director Mark Butler in Ottawa on May 7th to accept the award celebrating exemplary commitment to the public good. Past and present winners of this prestigious award include Louise Arbour, Stephen Lewis, Rick Mercer and Romeo Dallaire.

Photo: Arthur Kroeger College – M. Pinder



Much Ado About Nothing:

Our 11th annual Garden Party fundraiser successfully raised over \$15,000. This year we pushed the envelope by making sure most of our auction items fit in an envelope! Most of the items auctioned were services or certificates in keeping with the “Buy Local or Buy Nothing” theme created by our brilliant organizing committee.

Photo: Chris Hung

BEEP in Deep Brook

“I want to tell you how very pleased I was with the crew that was here.... Thank you so very much for your time and ... for selecting our building. The money that we will save will help more people in our community.”

—Happy 'Building Energy Efficiency Project' client Gerri Oickle of Deep Brook, NS after the Deep Brook Lions Club building was inspected by our crew of Building Energy Efficiency Trainees from the NS Community College.

Scoop up a Classic!

Remember the beautiful wooden Chestnut canoe featured in this space last issue? It's now seaworthy, painted a beautiful gleaming red, and could be yours for a mere \$20! Only 400 lottery tickets will be sold – these go on sale in July so call us at 429-2202 to get your name on the list. Included in the prize are beautiful hand-carved Passamaquoddy style paddles! Visit our website for more info on the canoe and the lottery.

Staff Snippets

EAC is ready for a bustling summer of action! We are excited to welcome Eliana Clay who will be here for four months as our Diversity Outreach Coordinator. Her work will help us raise our awareness of environmental issues facing diverse communities and attract new volunteers from a range of backgrounds. With her help, our outreach team will be found at whole host of not-to-be-missed events such as the Atlantic Jazz Festival, Evolve Music & Awareness Festival, the NS Multicultural Festival, Halifax Pride, and MEC Paddle Fest! ~ The Urban Garden Project will be nurtured this year by Carey Jernigan. ~ TRAX is wheeling in a summer student as well! We're excited to welcome Teresa Thomas. ~ EAC green renovation guru Kim Thompson will be joined by Maureen Strickland to launch our new Construction and Demolition Waste Reduction project. ~ Our wonderfully warm and welcoming Office Coordinator, Jocelyn Knoester, will be going on leave to get hitched and get her Masters in Library Science. During her year-long absence we will have the pleasure of working with the delightful Amy Hawke.

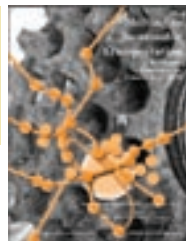
what's new

Shiny new publications, hot off the modem

The following reports can be downloaded from our website:



- 1 Built Environment Committee
Nova Scotia Green Roof Manual
June 2009



- 2 Transportation Issues Committee
*Shifting to Sustainable Transportation:
A Sustainable Transportation Framework
for HRM*
June 2009



- 3 Marine Issues Committee
SeaChoice Sustainable Sushi Guide:
A wallet-sized guide designed to help you choose sustainable options at your local sushi house.
May, 2009 available at www.seachoice.org



- 4 Marine Issues Committee
*Gap Analysis Study: Are we on track?
Taking stock of ocean conservation
in the Scotian Shelf and Bay of Fundy Region*
May 2009

askecohead



Dear EcoHead

Recently, a friend of my human companion told me that my very existence is bad for the environment! I was very upset. I try to be a responsible cat: I stay indoors most of the time, and when I do go outside, it is on a leash or screened-in porch. I drink tap water, not bottled. What more can I do?

-Greening my Whiskers

Dear Greening,

It sounds like you are a smart kitty, making some good choices already. Besides prolonging your life expectancy, staying indoors keeps you from letting your instincts get the better of you and killing threatened or endangered birds.

But there is always more you can do. So, after pointing out to your human's friend that anything we have done pales in comparison to the blight that they have left on the earth, consider some of the following:

1) You are a carnivore, you gotta eat meat. But if it is local and/or organic and/or comes from free-range animals, it is oodles better for the environment (and probably your health). Some really well-trained humans will make special organic food for their cats so they know exactly where all the ingredients come from, but there are also many varieties of organic food available on the market. Check in pet supply stores or health food stores.

2) What goes in, must eventually come out. Where you poop, and upon what you poop, has more impact on the environment than many of us realize!

The clay-based litter you find in many a cat box is strip mined. Some reports say it kicks up unhealthy, carcinogenic particles, too! So it is best avoided all around.

One great alternative is litter made from recycled newsprint. It's renewable – and your human can make it for you at home, which makes it very local! (My human found a recipe for it on the Internet.) But it needs to be cleaned regularly, as it can get stinky. I would recommend adding some baking soda to absorb the odor, too. There are also products on the market made from renewable plants like corn or wheat, but I would suggest choosing these with caution. If not organically grown, while better than traditional clay, these materials might not be all that sustainable.

It can be difficult to adjust to a new litter, so should you decide to switch, ask a two-legged friend to mix a couple of scoops in with your old litter at first, gradually increasing the proportion of new to old. And don't let your human get frustrated if you don't adapt quickly! They often forget that their exceedingly inferior sense of smell makes them much less choosy than we are about our bathroom habits.

Pardon me for getting a bit personal, but...are you...intact? If so, you might want to consider a trip to the vet to get your private bits "fixed" (I promise it doesn't hurt a bit!). Kitty overpopulation, like human overpopulation, is no good for the environment.

Now, this is a lot for a kitty to think about. So take it a bit at a time, with a nap or two in between to absorb the information. If you like these suggestions, then leave this article in a prominent place where your opposable-thumbed pal is likely to see it.

Eco-Meow is a guest columnist. He lives with regular columnist Eco-Head, who will be back next issue. Eco-Meow maintains an active blog and enjoys sunbathing, yoga, and sampling fine cheeses.



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Sharing Soil: The Lorax Woodlands

By Catherine Joudrey

Wouldn't it be nice to choose your neighbours? Alan Warner is making this idea into a reality with the Lorax Woodlands, located about ten minutes from Wolfville.

With 200 acres of Annapolis Valley soil, the co-housing initiative has 150 acres of commonly owned land.

Inspired by the notion of having an informal community of common values, Warner, a professor at Acadia University, says the Lorax was a collaborative eight year endeavour.



Photo courtesy of Alan Warner

"People want to live in rural areas, but one of the challenges of rural areas is having a closer community with shared values. [The] concept of co-housing started in Denmark, but it spread all over the world," Warner said. "[This is] how it works. A person owns their own individual lot and they get shares in the joint lands. Households can come and go, but you still have a shared common thing with shares and a legal framework."

The Lorax began with two families, but now comprises four houses that all use passive solar, one house being entirely solar-heated. One of the community residents is doing organic farming with a horse and is harvesting a woodlot sustainably.

Fresh air, woodlands and a natural pond greet you on this property. Two streams which flow year-round wind through and merge in the Lorax and flow into Lumsden Lake. Hikers and skiers enjoy the eight km of diverse woodland trails throughout the year.

Residents of the Lorax have the opportunity to attend monthly meetings to share ideas and make decisions about the property. "One of our decisions was to join the Nagaya Forestry Association in order to produce Forest Stewardship Council wood projects," Warner says. "The goal is to protect the Acadian forest. Future plans include an alternative energy project using windmills."

The unique name of the co-housing was an easy choice.

"The Lorax was inspired by story written by Dr. Seuss," Warner explained. "It is a great story and it sends a message that we need to change the way we live."

Dr. Seuss' book is about a community where massive tree loss is fuelled by needless consumption. Eventually, with all the trees gone, all but one of the community members is forced to move. The last person in the community realizes the water, air, and earth must be protected in order for his family and friends to return. He starts by planting the last tree seeds.

Along with participation in the Lorax community, Warner is highly engaged in numerous environmental activities. The long-term member of the Ecology Action Centre balances his class schedule at Acadia University and numerous other environmental activities such as HRM Adventure Earth, Mysterious Encounters Earth, Fair Trade education and a partnership with Guyana that promotes environmental education.

His partner, Ginny Point, is equally engaged in the environmental community (and was heavily involved in the Ecology Action Centre many years ago). She co-founded the organization currently known as ACORN, the Atlantic Canadian Organic Regional Network. Her place of business received a Mobius Environmental Award in 2003. Residents and staff reduce waste and recycle items to ensure nothing goes to waste.

The couple regularly share meals with the



Photo courtesy of Alan Warner

others in the Lorax community, but do not hold a mutual economy, religion, belief or social agenda. The Lorax Woodland remains active in the neighbourhood and holds events like the New Farmers Gathering, that are open to anyone.

Ideally the Lorax Woodland would like to share their beautiful property with seven or eight homes. Those interested in learning more about the Lorax initiative or its co-housing model, can contact Alan Warner at: alan.warner@acadiau.ca.

Hurrah for fresh air, sunshine, friendly neighbours and the Lorax!

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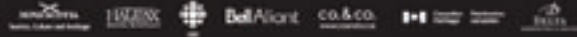
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Three Cheers for Volunteers

By Chris Benjamin



Photo Courtesy of Sara Jellicoe

Energy committee. Clockwise from bottom left: Janice Ashworth, Sara Jellicoe, Hudson Shotwell, Winnie Kwak, Jamie Thomson and Babak Farsi; part of the Energy Issues sub-committee that hosted the Power Politics event.

Without volunteers the global economy would lose about \$400 billion. Most nonprofits would be out of business.

As EAC Internal Director Maggy Burns puts it, “Volunteers amplify our work.” Lose our volunteers, and EAC loses touch with Nova Scotia’s communities and becomes...dull. Conventional.

So, grab yourself a glass of something bubbly and raise it to our volunteers. I can’t name them all, but I’ll name a few:

Danielle Horn is one of those blessed students who works for free, or for course credit anyway. She worked with our Forestry Program this winter. “She did a great job organizing our Forest Discovery Hikes,” says Jamie Simpson, EAC’s Forestry Program Coordinator.

Responsible woodlot owners took school groups outdoors to hike and learn about good forestry practices. The students also visited clearcuts. The stark difference is a heartbreaker, but necessary for understanding the impact different forestry practices have.

“Danielle made possible that critical experience for young people, so they could learn viable alternatives to clearcutting,” Simpson says. Her leadership will inspire a more far-sighted generation.

When asked to name volunteers, EAC Food Miles Coordinator Marla MacLeod shakes her head. “I work with so many amazing volunteers!” she says. She can’t choose just one. She names several, but Jeff Torbert is the first to come to mind.

“He’s a musician who is very supportive of organic farming,” she says, “but since he lives in the city he organizes Musicians for Farmers, a concert and banquet series.”

If rock-and-roll ended the cold war, surely Halifamous pop-stars can help save our farms. The concerts (five so far), which have each drawn 100-300 people, have raised over \$2,000 for HelioTrust’s work to “explore, develop, conserve and share ecological farming systems.” Each event brings together like-minded farmer-lovers to celebrate tasty, sustainable food with vibrant, soulful music. The kids go home knowing local farmers are cool.

In our struggle to sustainify (please use that word often) the world, creating a new cool is as important as re-populating intellectual terrain. Supervolunteer Ruth Gam-

cons,” says Cheryl Ratchford, EAC’s Energy Coordinator. “This group has been inspiring. The work of volunteers proves that with the right idea, organization and leadership, a group of people with a little time and big ideas makes a difference.”

Big ideas can move mountains or build bridges, but at EAC we prefer to use them more wisely. Still, when you want to make a point, an old-fashioned tower makes a great symbol. Especially when the tower is built from discarded plastic water bottles. Their source? Municipal building trash bins.

“On World Water Day, a group of six volunteers who had collected plastic bottles from municipal buildings for two weeks built a giant water bottle tower,” explains EAC Water Coordinator Jocelyne Rankin. “We held a press conference and the tower was the perfect symbol of why municipalities should stop using plastic water bottles.” Volunteers know the power of symbolism, and with stunts like that maybe Nova Scotian municipalities will go back to the tap.

Not all voluntary acts are photogenic. When asked about her experience with volunteers, EAC Office Coordinator Jocelyn Knoester knows it’s love, but it’s too intangible to describe. “Kara Baxter comes to mind,” she says. “What a superstar!” Baxter is the EAC’s Wednesday afternoon front desk volunteer. “Admin volunteers don’t get much glory, but Kara, for example, is always willing to help out, is super detail-oriented, and presents a great face for the organization.”

Knoester’s volunteers are jacks- and jills-of-all-trades, managing daily data-streams and helping with bookkeeping, atop the usual craziness of greeting and directing the public. Like I said, without volunteers most nonprofits would be out of business.

Chris Benjamin is the EAC Healthy Lawns Coordinator. In his spare time, he enjoys writing, rapping, and break dancing for his son Dylan.

Take Action

Are you interested in volunteering with the EAC or other NGOs in your area? Visit these websites for volunteering opportunities:

www.ecologyaction.ca

<http://relocatecanada.com/halifax/vol.html>

http://www.canadian-universities.net/Volunteer/Nova_Scotia-Halifax.html

berg, a retired teacher and now of Energy Issues Committee fame, aims to do so with her series of energy discussion panels.

Gamberg, along with a subcommittee she formed, has organized three events, each attended by more than 90 people, to bring sanity to the membrane: Carbon Jargon and Power Politics were panel discussions featuring experts hollering, politely, various perspectives at each other on complex policy issues like cap & trade and carbon tax. The third event was a full-house debate on energy and climate change during the recent provincial election.

“Now that these issues are gaining traction with politicians, the public is hungry for a better understanding of the pros and

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Fill in the blanks with the code to find a secret message!

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seahorses are neat!

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EAC Index:

- Amount of EAC core budget that comes from membership (08-09): 17%. Amount that comes from fundraising: 12%. Amount of core budget that goes to pay for fundraising / membership / general outreach activities: 4%. Amount donated to EAC via CanadaHelps.org in first four months of 2009: \$2930. Number of EAC members as of April 30, 2009 : 1037. Average amount paid by an EAC member for a yearly membership, based on stats since November, 2008: \$94.57. Number of attendees at Chris Turner lecture: about 385. Money raised at Chris Turner lecture: \$4800. Number of new members we'd like to welcome each month: at least 20. Invite your friends!

The Ecology Action Centre Needs Your Help. Recent EAC Successes: 10 energy audits completed in community buildings in 9 rural Nova Scotian Communities. Please fill out this membership form and return to the EAC. CONTACT INFO: Name, Phone, Address, Email. TYPE OF MEMBERSHIP: Monthly Contribution, Annual Contribution. PAYMENT METHOD: Cash, Cheque, VISA, Mastercard.