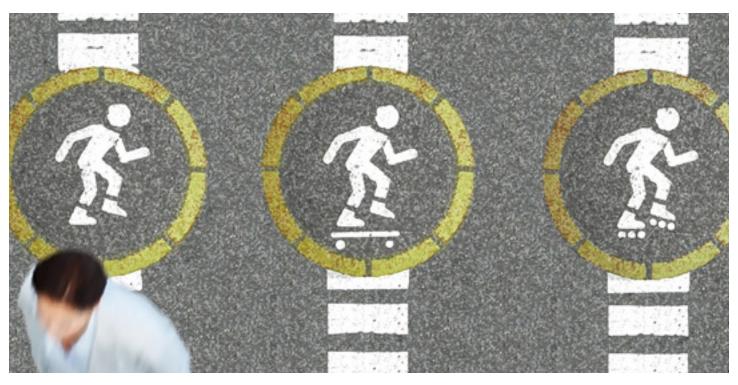


vol. 28:2 summer 2010

ISSUES

BETWEEN THE COVERS: Groundwater Issues Pushing Active Transportation



an ecology action centre publication

www.ecologyaction.ca

Features

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BETWEEN THE SSUCES

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Hot Off the Modem

letters to the centre

I think the EcoHead column attracting so much negative publicity was indeed an error of judgment. You risked a lot, and gained - what? So much is sexualized these days. Ecology doesn't need to be.

Humans are a huge part of the environment, yes - but whence this insistence that sexual practice must be such a huge part of being human? What is gained? Huge profits for the advertising and pornography industries for sure. What is lost? It is we who bear responsibility for the sexualization of friendship to the extent than two women or two men cannot enjoy lunch together without someone imagining a gay relationship; for the sexualization of childhood such that a fast food business believes it can sell ice cream by depicting a nine-year old girl craftily and seductively coming on to a nine-year old boy.

I believe the world can be made different, and I am a member of EAC because I think you believe that too. You don't bow down to the culture of consumption, entitlement and endless self-focus.

If none of this moves you, my husband's and son's comments on the article were "silly" and "dumb."

Sincerely, Debra Burleson

Congratulations to the Ecology Action Centre for addressing the topic of eco-friendly sex toys in their latest issue of Between the Issues. Sexual pleasure is part of a healthy lifestyle, and that definitely includes sex toys! Many people consider sex toys to be a playful addition to their sex lives and it's wonderful that the EAC is informing people how to incorporate green and non-toxic toys into their playtime. They should be commended for drawing attention to the health implications of BPA and phthalates in adult toys. Sure, children's toys are regulated, and you can get BPA-free water bottles everywhere now, but adult toys are not regulated in any way, even though they contain potentially toxic ingredients that come into intimate contact with the body. As a conscientious adult toy shop, we're pleased to say that we carry only phthalate-free adult toys, and we have a great selection of glass, metal and 100% silicone toys too!

Maggie Haywood Owner, Venus Envy

We welcome your reactions to any article you read in BTI, along with your questions, suggestions and comments. Address your messages to the Editor, betweentheissues@ecologyaction.ca; or send by mail to BTI Editor (see address on inside cover).

letter from the centre

It's a sobering time for the environment. It has been more than two months since a BP oil rig exploded in the Gulf of Mexico, causing 11 deaths and the largest oil spill in U.S. history. As we draft this letter, oil continues to gush from the deepwater well into the waters of the Gulf and northward along the American Gulf Coast. The cleanup costs will be massive, although there is a great deal that cannot be restored. For example, the North Atlantic Bluefin Tuna – beloved by sushi lovers everywhere and already in dire straits due to overfishing – spawns in the Gulf of Mexico around mid-April to mid-June each year. With the oil spilling into the waters where they hatch, this species (and many others) is in grave danger of extinction. And it is not only the Gulf's watery residents who are losing, but the people who live and make their livelihood along the Gulf Coast.

If there is any bright light to emerge from this tragedy, it is that it spurred the governments of Nova Scotia and Canada to extend the moratorium on oil and gas exploration and drilling on Georges Bank to December 31, 2015.

Tragedies like the BP oil spill bring home for us the fragility of our planet and the risks posed by our oil dependency, and underscore the need to revamp our relationship with our environment. The EAC is committed to protecting the Earth and working to preventing future environmental tragedies through

education, research and advocacy. Often, our views contrast with those of government, business and private citizens. While we don't court controversy for its own sake, we also recognize that conflict is inevitable – and welcome. The American statesman Benjamin Rush observed that "Controversy is only dreaded by the advocates of error." We believe that open and rigourous public debate is essential to making good policy and law, and we welcome input from supporters and critics alike.

Of course, sometimes we receive criticism from unlikely corners. In our last edition of Between the Issues, we published what was meant to be a light-hearted and humourous piece describing eco-friendly options for sex toys. We felt the piece - part of our regular 'Ask ecoHead' feature - was entertaining and educational, and wholly appropriate for a publication that tackles the full range of environmental issues (although we warned that the contents were more appropriate for mature audiences). While we were not entirely surprised that some readers took issue with the column (see the Letters to the Centre on the previous page), we were taken aback at the scale of the response - including front-page coverage in The Chronicle-Herald. If only more of our columns on environmental issues facing the province could generate that much debate! We do regret that the column caused offence - which was far from our intention - but we stand behind the piece and our decision to publish it. You can find the next edition of 'Ask ecoHead' – in which our intrepid advice columnist dishes advice for dogowners looking to cut down on their dogs' environmental impact - on page 22.

Other treats in this edition of *Between the Issues* include an exploration of groundwater issues in the province (page 10), a review of Nova Scotia's recent progress in protecting its wildlands (p. 9), an examination of the real carbon emissions associated with forest biomass (p. 12), and a look at the benefits of active transportation (p. 14). Our Energy Issues Committee team provides a glimpse into Nova Scotia's energy future (p. 18), and in time for the gardening season, we have a review of a local book on organic gardening (p. 17). For the gourmands out there, we've a sizzling summer recipe (p. 23) and a piece on the benefits of cooking with pressure cookers (p. 8).

We hope you enjoy this issue as you kick back and enjoy some of the short Nova Scotian summer, but whether you think we've done a good job or missed the mark, we love to hear from all of our readers – keep those letters coming.



actionisourmiddlename

a major success (Built Environment Committee) A very positive, and significant, step for health and environment in this province was made recently with the passing of Bill 61 - An Act to Prohibit the Sale and Use of Non-essential Pesticides. The only unfortunate exception is vegetable gardens, meaning consumers will still be able to access pesticides to put on their home gardens. However, Quebec has the same exception and has still managed to reduce cosmetic pesticide use by well over 90 percent. In response to disappointment in HRMbyDesign's failure to adequately address ecological issues, this spring we held a series of four conversations on issues influencing sustainability in the Halifax region. The conversations were well attended and will increase our capacity to contribute an ecological perspective to the discussion of HRM planning issues for the future. As one impressed attendee stated, "There was lots of good input, lots of good energy, and wonderful, dynamic, facilitation."

an especially sweet COMFIT

(Energy Issues Committee) The announcement of a Community Feed In Tariff (COM-FIT) in the Province's Renewable Electricity Plan is indicative of a successful campaign by novaSEA, an alliance formed in March to support community owned renewable electricity. The alliance (www.novasea.ca) will continue to be the voice for community power in the determination of the details of the COMFIT. In April, the EAC worked with the Nova Scotia Agricultural College and the Department of Energy to organize "Harvest the Wind," a one-day workshop in Truro on the basics of wind energy for Nova Scotia landowners. Over 100 people attended the workshop, with most looking for information on how to use a small wind turbine at their home or farm. Participants evaluated the workshop as a great success. Energy Coordinator Brennan Vogel represented EAC at the 2011 Demand Side Management (DSM) Plan hearing before the Utility and Review Board. The proposed \$40 million plan includes a variety of ambitious programs and initiatives to conserve energy. DSM is expected to save ratepayers an estimated 190 million dollars and contribute to reducing provincial greenhouse gases from electrical production.

hope for the future of our forests (Wilderness Issues Committee) We're pleased with the forestry recommendations in the just-released Natural Resources Policy Review report (www.gov.ns.ca/natr/). Regulating and reducing clear-cutting as well as promoting green jobs and value-added manufacturing are among the report's numerous progressive recommendations. While the issue of large-scale forest harvesting for electricity hasn't died yet, we're encouraged that the Department of Natural Resources has committed to a policy disallowing whole-tree harvesting. We look forward to sensible and progressive policy announcements by DNR later this summer.

commuting a little "greener" (Transportation Issues Committee) Innovative new active and public trans-

portation projects across the province will be funded by Green Mobility Capital Grants. A few of this year's initiatives include: bike racks and trail connections in Annapolis Royal; bike parking at key employment locations in Bridgetown; cycling infrastructure in Guysborough; and a contribution to purchasing a new accessible van for Le Transport de Clare. We look forward to seeing these projects and more in action by March 1, 2011. Active & Safe Routes to School is gearing up for Walk to School Month in October (register at www.saferoutesns.ca). A successful workshop for stakeholders called Changing Gears focused on increasing youth cycling in Halifax in late March. Making Tracks safety skills training continues to grow and three more Pace Car communities launched in May. Twelve more schools will create school travel plans this year to increase walking and

wheeling, including HRM, South Shore and Cape Breton schools.

coastal relationship on the rocks (Coastal Issues

Committee) Jen Graham has been travelling around the province talking persuasively to municipal planning advisory committees about climate change, coastal planning and adaptation. Soon we will be going even further afield with our two-year groundwater research project which will focus on community-based groundwater monitoring in pilot communities around the province. The study has already begun to identify locations in Nova Scotia that are currently experiencing groundwater shortages and where groundwater is at risk. Back in the office, we've been spreading the word on how our government can do a better job on coastal issues (and how you can encourage them to commit to better management). Jocelyne Rankin has released Towards a Blueprint for Sustainable Water Resources Management in Nova Scotia, which charts a course for better water governance in Nova Scotia. Meanwhile, Jen Graham delivers couples counseling for the coast in On the Rocks: Healing Nova Scotia's troubled relationship with the coast. Despite its lighthearted tone, this document contains serious recommendations for how our coasts should be managed. Submit the questionnaire at http://gov. ns.ca/coast to help shape a provincial sustainable coastal development strategy to be delivered by December 2010.



For more information, visit www.ecologyaction.ca

Atlantic Jazz Festival

July 9-17 http://atlanticjazzfestival.ca Watch for the EAC booth!

Neighbourhood Earth

July & Aug
EAC's summer youth environmental education workshops
in the North End
Stay tuned for details

Closing date for public comments on the Renewable Electricity Regulations:

July 23

Nova Scotia Utilities and Review Board Hearing

starting July 26

NSPI and NewPage's forest biomass energy project will be debated. Open to the public.

NS Biking for Breakfast Challenge

August 28

http://www.ns.bikingforbreakfast.com

EAC Annual Membership Canvass

September and October Stay tuned for details

Otesha Fall Tour - Fredericton to Halifax

September 7 to November 2 http://www.otesha.ca

International Car Free Day

September 22

International Walk to School Month

October http://www.saferoutesns.ca

NS Trails Conference

October 1 to 3 http://www.novascotiatrails.com

Recreation Nova Scotia Conference

November 17 to 20 http://www.recreationns.ns.ca

local food and your kitchen (Food Action

Committee) The Food Action Committee has a new project bubbling on the burners, the Food Connections project, which will focus on cooking and preserving skills. For some time we've been hearing that people are excited about local foods but don't necessarily have the skills to make use of the wonderful foods we grow and produce in Nova Scotia. Watch the EAC website for details of upcoming workshops. Meanwhile the Urban Garden Project is sprouting some new initiatives of its own. We have launched our School Garden Matchmaker Program, connecting schools and community volunteers to run workshops and tend the growing number of schoolyard gardens. We are also continuing to run the Growing Our Gardens program, offering gardening workshops and support to community groups looking to grow their own food. We received a generous donation of hundreds of seed packets from Atlantic Gardens, which we distributed to school and community gardens throughout HRM.

help hector the blue shark (Marine Issues

Committee) Spring has sprung, even in the ocean! This means that the Marine Issues Committee has been busy nurturing exciting new projects for the coming summer and fall. For one thing, we've made a new friend in Hector the Blue Shark. Hector is concerned about the possible eco-labeling of the local surface longline fishery for swordfish, because this unsustainable fishing practice results in too much bycatch of vulnerable species like baby tunas, sea turtles, and sharks. He's looking for friends to help him "stop the stamp" and has already appeared downtown at World Ocean Day celebrations. Stay tuned for a website that will help you show your solidarity with Hector! We've also been working with a small group of fishermen along the Bay of Fundy, and have recently received funding to help them develop a co-operative and pilot a Community Supported Fishery project called Off the Hook! This exciting chance to connect Haligonians with fresh, sustainable seafood and the fisherman who caught it, will launch this summer in Halifax.

neighbourhood earth (Diversity Committee)

This new project aims to fortify the EAC's role as a friendly neighbour in Halifax's North End. The North End Community Environmental Art Project will engage local artists, recreation centres and youth in a summer program that raises awareness of the connections between the inner city and the natural environment. Look out for our workshops and events - enjoy local food, learn more about our land and get your hands dirty in urban gardening and ecology-themed art projects that will celebrate our valuable public spaces. To become involved in showing our passion for a healthy, happy and creative North End, contact Community Environmental Educator Rae Finley at community@ecologyaction.ca

ecobriefs

By June Hall

Sand mining

Smuggling, pirates, and corruption: not terms normally applied to sand. But sand is a major constituent of concrete and is used in all sorts of other industries, so it's no surprise that demand is high, especially in go-ahead places such as Singapore and Dubai. Add in limited accessible reserves, endemic corruption and countries with remote beaches and inadequate surveillance and you've a recipe for a highly profitable criminal activity.



Illegal sand mining is a problem all over the world. It's especially rampant in Indonesia, with its thousands of islands and proximity to Singapore, and — at the other end of the spectrum — has even been documented in Europe, where truckloads were stolen over Christmas from Scotland's Inner Hebrides. In Cambodia, according to the NGO Global Witness, "pumps mounted on barges can fill a 15,000-tonne vessel in 72 hours, sucking up sand from an estuary or the shore of an island."

Sand provides a bulwark against storms. Strip it away, and you'll be rewarded with depleted beaches, eroded shorelines, damaged fisheries and more. Whole islands can even disappear under the onslaught, if they're small enough. And don't talk about water quality...

Guardian Weekly, 9 Apr. '10

Hubris...or exciting future?

Talking pumps, the Egyptian government has been operating the largest pumping station in the world since 2005. It diverts 10 percent of its annual allotment of water from the Nile (actually from Lake Nasser) via an enormous canal, visible on satellite photos, to an uninhabited area of the western desert in the deep south of the country. The aim is to create a new "delta": an area in which agriculture and industry will thrive and which a few million people could call home. Remoteness and summer temperatures of 50°C are apparently not a deterrent.

Egypt is desperately short of land. 50 million people already inhabit the Nile Delta, which is rapidly eroding, a victim of many factors: natural subsidence, rising sea levels, and far too many wells and irrigation canals. To make things worse, the Aswan High Dam, which was built in the 1960s, stopped the regular deposits of silt that for millennia had maintained farmland both along the banks of the river and in the delta itself. No wonder, then, that the Nile's waters no longer reach the coast. Indeed, barnacles now grow many kilometres upriver; it makes little sense to remove even more water.

Only time will tell whether this grandiose project will succeed, but critics are scathing. We await developments.

Science, 19 Mar. '10

It's a gas!

A case of every little bit counts.

As you lapse into unconsciousness on the operating table, spare a thought for the atmosphere, for more than 95 percent of the anesthetic gases used during your operation will end up being vented to the outside. The chief danger of this is that "volatile halogenated ethers," the anesthetic agents used today, are aggressive greenhouse gases with a global warming potential up to 2,000 times greater than carbon dioxide. In addition, nitrous oxide, with a warming potential 296 times that of CO2, is employed as a carrier gas.



To gain a measure of the seriousness of this situation, one study estimates that total emissions per year via this route from 1,100 hospitals across Canada are equivalent to over 1.1 million tonnes of CO2. But a made-in-Canada solution is also at hand. Blue-Zone Technologies markets a canister system packed with a patented absorbent that scavenges the gases from the air and saves them for eventual reuse. With the system installed in its 21 operating theatres, Toronto's Sunnybrook Hospital calculates it has prevented 634 tonnes of CO2 equivalent, about the same as is coughed up by 205 fuel-efficient cars over a oneyear period. The hospital is also doing its bit by installing a photovoltaic solar power system.

Globe & Mail, 22 Apr. '10

Snakes on the loose

No one knows for sure how they arrived there, but thousands of Burmese pythons are on the loose in south Florida. Weighing up to 90 kg when full-grown, these animals are capable of overpowering almost anything that moves in the Everglades, including raccoons, blue herons and even small alligators. One of the six largest snakes in the world, this invader is threatening to become the dominant predator in an already stressed ecosystem. Add in their elusive ways and the fact that a mature female will lay up to 100 eggs a year and the problem becomes clear.



But Florida is fighting back. A 2008 law requires all python owners (yes, people have them as pets) to implant their snakes with a computerized chip and for a limited time this year, the state has called in the hunters. Meanwhile, the Obama administration has proposed a ban on the importation and interstate commerce of nine species of large constrictors, including the Burmese python. Over the last 30 years, a million or so such snakes have been imported into the U.S., and there's a large domestic breeding industry.

Guardian Weekly, 9 Apr. '10

Nuclear waste

It's back to the drawing board for the U.S. now that plans for a national nuclear-waste repository deep inside Yucca Mountain, Nevada, have been formally scrapped. Although scientists remain convinced that deep-geologic storage is the safest way to dispose of the material,

an acceptable site has yet to appear. To complicate matters, canisters buried in similar facilities in Sweden and Finland are already experiencing corrosion.

Time for a rethink, perhaps? A proposal put forward at a "brainstorming meeting" in Washington, D.C., on March 15 of this year may be just what's needed. Drawing on technology developed in recent years in the oil and gas industry, the idea is to bore holes about half a metre in diameter and 5 km deep, drop canisters of spent fuel into the bottom 2 km, and then apply a cap of clay, asphalt and concrete. Provided the basement rock is hard and crystalline, as it is over most of the U.S., there's almost no risk that leakage will ever pose a problem. ("Deep" in the case of Yucca Mountain was only 300 metres or so.) And depending obviously on cost, it may even be possible to dispose of most nuclear waste locally, eliminating the need for risky transportation to remote sites.

New Scientist, 3 Apr. '10

Spreading north

And finally, a quick update on an Ecobrief that appeared in the last issue of BTI. White-nose syndrome, a disease that has devastated bat colonies across nine U.S. states (and counting) in recent years, was identified this March in areas of eastern Ontario not far from the U.S. border.

Although none of the bat species likely to contract the disease in Canada are considered at risk of extinction, there could well be negative impacts on agriculture and forestry; bats consume large numbers of insects, including pest species. We must also assume that there will be effects on cave ecosystems as a whole. Scientists are still scrambling to document the rapid spread. As yet, solutions are thin on the ground.

Toronto Star, 21 Mar. '10





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Taste Under Pressure

By Hudson Shotwell



Our friend Tommy Roussel from Soho Kitchen always asked if we had any new pressure cooker cookbooks whenever he scanned the cooking section in our bookstore. He was a gourmet chef who pressure cooked at home and he told us about modern cookers; all stainless, no little jiggly thing, four fool-proof safety features, easy to use. Tommy did away with our received North American image of pressure cookers as dangerous. "You need recipes though; once the cooker gets going, meals happen fast." We were soon to find out why the rest of the world loves pressure cookers so much.

We didn't buy one right away, but the bean that broke the camel's back was hearing about the estrogen-emulator, Bisphenol A (BPA), a resin ingredient in the plastic liner-coatings of at least half of all canned food. BPA leeches into food best when it contacts something hot. We like beans, tomato sauce and chickpeas, but they're canned with BPA. Great. Suddenly we came down with a bad case of industrial packaging mistrust. We went out and bought a modern pressure cooker.

Many North Americans have an intrinsic fear of pressure cookers, based on variations of the same common story: "My mother had one explode and it sprayed beans all over the ceiling." It's not possible for the cooker to have exploded, but if your mother were to have opened the lid before the pressure came down, it is possible that the lid might have come off. Messy, yes, but not nearly so dramatic.

If you really wanted to, you could open a modern pressure cooker and spray stuff around your kitchen, but new-generation cookers have added safety mechanisms that make that hard to do. They use a spring-operated pressure control valve and have a safety lock on the handle to prevent accidental opening under pressure. There are two other independent over-pressure release mechanisms as part of the cooker lid. New pressure cookers, made of stainless steel, not aluminum, have more pressure safety features than your hot water tank. The mechanism that hisses slightly, telling you you're cooking at pressure, is incorporated into the lid itself, so there's nothing loose that jiggles around for you to misplace. You do have to be willing to understand how pressure cookers work, however, and you do need to be there while they're cooking. But the learning curve's not steep and the benefits are many.

Once you start cooking with a pressure cooker you'll find that: 1) you're using 70 percent less energy; and 2) your food cooks fast! No more waiting two hours for chickpeas to cook. Soak the garbanzos overnight, cook for 18 minutes while you have your morning coffee, then set the pot aside to release pressure naturally. Five minutes later you'll taste the creamiest chickpeas you've ever had.

In addition to no BPA in your diet, using less energy means less cooking time, so pressure cooking gives you more space for other things. Want dahl? No soaking, five minutes, quick release. You have dahl! Black-eyed peas? No soaking, twelve minutes, quick release. You have Southern peas! Turtle beans? Soak, cook fourteen minutes. Make the chili later! Live alone? You cook enough in one pot to eat lentil soup for two days. Tuscan white beans with garlic, sage, marjoram and kale? Pasta e fagioli, presto! You can also use your pressure cooker to steam vegetables, you just need a steaming basket.

New generation pressure cookers made by Fagor, Magefesa and Kuhn-Rikon cost between \$125 and \$235. They're worth it for all the above reasons. Although not always the best preparation method, there might also be nutritional benefits to pressure cooking. For example: steaming or boiling vegetables causes a 22 to 34 percent loss of vitamin C, whereas pressure-cooked vegetables retain 90 percent of their vitamin C content. No pressure, but maybe it's time you twigged to the magic pot.

Hudson Shotwell enjoys cooking, gardening, biking, roasting coffee and the Ecology Action Centre, among other things.

Take Action

Want to learn more about how you can prepare healthy and delicious foods that come from local farms?

Check out the Food Action
Committee's Food Connections
Project. This project was created
with the goal of reducing
greenhouse gas emissions coming
from food transportation by
promoting local foods and
building skills to increase the
consumption of local food.

The Food Connections project aims:

- To increase food preparation and preservation skills through a series of capacity building workshops;
- To connect food educators with farmers and local food markets:
 - To support emerging and alternative local food distribution systems; and
- To evaluate the impact of this project on the purchasing behaviour and eating habits of participants in the project.

To learn more about upcoming workshops, check out http://www.ecologyaction.ca/content/food or contact Marla at foodaction@ecologyaction.ca.

Wild! Wilderness Gains

By Raymond Plourde



Paddling through lands the Province recently acquired from JD Irving just north of the former Nova Nada monastery in Digby County

The new NDP government has hit some early home runs in the important area of protecting our dwindling natural heritage. First, they finished the job begun by the previous Conservative government of protecting the Ship Harbour Long Lake area. Then they announced their intention to designate two new large Crown land wilderness areas. The first is the Five Bridge Lakes area located in the heart of the Chebucto peninsula near Halifax. The second is Crown lands in and around the Chignecto Game Sanctuary in Cumberland County where little more than one percent of the land is protected. Both areas are currently "candidate" wilderness area and are open to public comment (see www. gov.ns.ca/nse/protectedareas).

The government has recently completed a historic and very successful Large Land Purchase Program which acquired high-conservation value lands from large forestry companies, with the intention of protecting the majority of them from development and industrial use.

The Ecology Action Centre was highly supportive of the program and commends the government for quickly following through on recommendations made by the Colin Stewart Forest Forum, a collaborative planning process for protected areas that EAC initiated with other conservation groups, forestry companies and the provincial government. The Forum, among other things, identified key areas on private industrial lands that were high priorities for conservation. Without prompt action, many of these parcels would have been snatched up by developers or subjected to aggressive forestry practices. Through this program the Province has safeguarded countless irreplaceable elements of Nova Scotia's natural heritage.

The purchases total over 56,000 hectares (140,000 acres) and include long stretches of undeveloped oceanfront, old growth conifer and hardwood forests, wild river corridors, large representative wildlands, important habitat for the reclusive mainland moose, critical inholdings in existing Wilderness Areas and hotspots for species-at-risk such as pine marten, Blanding's turtle, eastern ribbon snake, eastern white cedar and several endangered coastal plain plants. Several properties boast important backcountry canoeing and hiking destinations as well. They include areas owned by JD Irving Limited in Southwest Nova Scotia which were the focus of last year's Buy Back Nova Scotia campaign

and a 22km stretch of continuous coastline on the Bay of Fundy at Apple Head in Cumberland County, which was the largest piece of privately owned ocean frontage in Nova Scotia.

Opportunities like this are rare in Nova Scotia where Crown land accounts for less than 30 percent of the province. The EAC applauds the government's solid commitment to the 12 percent protection goal and urges continued strategic investments in nature conservation as we move towards the 2015 target. The Centre is also encouraging the province to build on the success of the Large Land Purchase Program by creating a dedicated revenue stream for ongoing major land purchases.

For more information and to view maps and photos of the new land acquisitions visit www.gov.ns.ca/natr/land/new-purchases.asp

Raymond Plourde is EAC's Wilderness Coordinator and resident nature nut. When he's not working furiously to save Nova Scotia's remaining wild spaces Ray can usually be found waist-deep in one of Nova Scotia's salmon rivers casting bits of fur and feathers to indifferent fish.

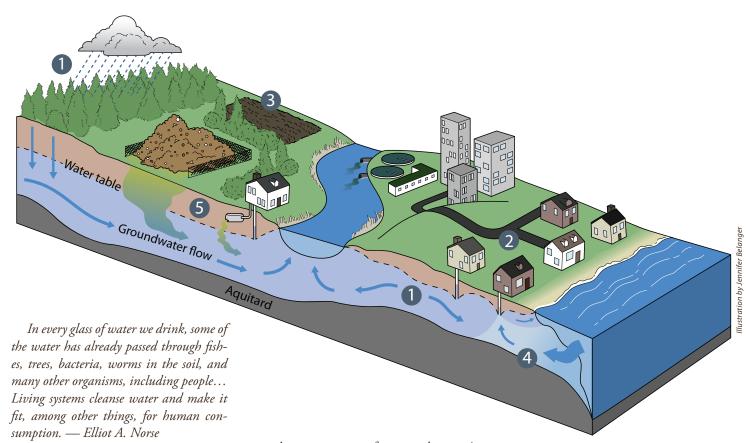


Apple Head, Cumberland County – part of a 22 km long coastal stretch along the Bay of Fundy

Raymond Plour

Digging Deeper into our Groundwater Issues

By Jocelyne Rankin and Sadie Beaton



Start digging a hole in Nova Scotia and most times you'll find a puddle, right? You've just found groundwater.

More than 90 percent of all available fresh water in the world is groundwater. And even though over half of Nova Scotians depend on it for their drinking water and sanitation, along with farming, aquaculture, mining and manufacturing, we know relatively little about it.

So, using the above illustration, let's dig a little deeper and get to know a little more about our groundwater.

- The invisibility of groundwater makes it easy to imagine that there is an unlimited supply but this is a mirage. As we pump groundwater up to our taps for drinking, washing dishes or watering our crops, underground stores (often called aquifers) experience drawdown, or lowering of the water table. These aquifers need to be "recharged" by water from the surface soaking its way back down.
- 2 As cities and suburbs grow, absorbent green spaces which serve as natural

recharge areas are often paved over. As a result, less water actually replenishes aquifers. Land use decisions such as residential developments must take groundwater into consideration. For example, just outside of Halifax, the community of Beaver Bank has been allowed to grow and develop subdivisions without assessing the ability of the local aquifers to support the increasing demand. As groundwater supplies deplete, residents have no other choice but to pay significantly to access the municipal water system.

- 3 Along with groundwater quality, quantity is also a key concern, especially in agricultural watersheds. The Gaspereau Watershed in the Annapolis Valley is currently experiencing the highest groundwater use as a percentage of availability. A number of factors could be at play here, from recent summer droughts, to crop conversions from grain to vegetables, which required more groundwater for irrigation, to a growing recreational tourism sector (e.g. golf courses).
- Climate change is set to make these problems worse. Atlantic Canada is expected to experience increasing drought, rising sea levels, coastal erosion, storm surges and flooding. A 2008 federal climate change forecast projects that water resources will come under further pressure as conditions shift and needs change. The combination of rising sea levels and high groundwater usage in coastal areas increases the risk of saltwater intrusion into aquifers. Saltwater intrusion causes freshwater to become salty and undrinkable. For example, three wells in the Prospect area have shown a ten-fold increase in chloride levels in groundwater from 1973 to 2003. Besides the obvious need to drastically reduce greenhouse gas emissions, we are also going to need to adapt to coming changes to protect our precious groundwater resources.
- Groundwater is often considered safer for drinking and sanitation than surface water because of the relative ability

of soil and bedrock to filter organic matter and dissolved sediments. Soil particles can't filter all contaminants however. Groundwater can still be polluted from point sources such as landfills, leaking septic tanks and gasoline or oil spills and non-point sources like road salt, agricultural chemicals, acidic precipitation and mineral leaching. Once contamination happens, groundwater's slow pace and relative isolation mean that the contaminants can go undetected and persist for long periods of time.

Many watersheds are already feeling the squeeze. The Ecology Action Centre has hired a Groundwater Researcher to

Take Action

Well Maintenance:

Ensure unused wells are properly plugged and sealed. An unused well that hasn't been properly plugged and sealed is a direct conduit for contaminants to reach the aquifer and poses health risks, especially for children.

Protect Land, Protect Water:
Water tells the story of how we treat our land. Protecting the land surrounding your well is often the most cost-effective way to keep contaminants out of drinking water. Maintaining forested landscapes and vegetative cover helps protect water quality.

Get Involved:

Help protect sources of drinking water in your community. Contact your municipality and ask to become involved in a source water protection committee. examine watersheds in Nova Scotia that are experiencing groundwater stress and to select pilot communities for further analysis. From here, the Centre hopes to develop a community-based groundwater monitoring program to help inform and empower municipalities and homeowners to look after their precious groundwater supplies.

Jocelyne Rankin is a keen hydrophile and the Water Coordinator at the Ecology Action Centre. Sadie Beaton works on sustainable fisheries issues and although she is more into salt water, she will do almost anything to have her name appear in BTI.









Forest Biomass and the Carbon Question

By Jamie Simpson



Bowater Mersey whole-tree harvesting operation, Nova Scotia, March 2010

Nova Scotia's Renewable Energy Standard, under the Electricity Act, lists biomass as a carbon-neutral fuel source. As such, electricity from forest biomass qualifies as 'renewable', and Nova Scotia Power is pursuing biomass electricity projects, notably the NewPage 60-megawatt project in Port Hawkesbury, and co-firing with wood in coal power stations.

At first blush, the carbon-neutral (or carbon-lean, as some call it) argument makes sense. Cut a tree, grow a tree: what could be simpler? Indeed, the Kyoto Protocol allows discounting of carbon emitted when burning biomass. The carbon, the argument goes, will be recaptured in new growth at the source of the biomass fuel. The forestry industry supports this view: Steve Talbot of the NS Forest Products Association stated: "No matter where it comes from, forest biomass is a green, renewable source of energy."

This simple model, however, does not stand the test of reality. In a landmark article published last October in the journal Science, T.D. Searchinger and fellow researchers articulate the flawed reasoning behind the carbon-neutral assumption. Their critique points out that

cutting natural forest for energy counts as a 100 percent reduction in carbon emissions, despite the obvious large release of carbon into the atmosphere:

The accounting now used ... in the Kyoto Protocol ... does not count CO2 emitted from tailpipes and smokestacks when bioenergy is being used, but it also does not count changes in emissions from land use when biomass for energy is harvested or grown.

This accounting erroneously treats all bioenergy as carbon neutral regardless of the source of the biomass, which may cause large differences in net emissions... Harvesting existing forests for electricity adds net carbon to the air.

The authors conclude that "the straightforward solution is to [count] emissions from tailpipes and smoke-stacks whether from fossil energy or bioenergy." Interestingly, the Intergovernmental Panel on Climate Change has long recognized that net emissions from land-use changes must be counted when measuring carbon.

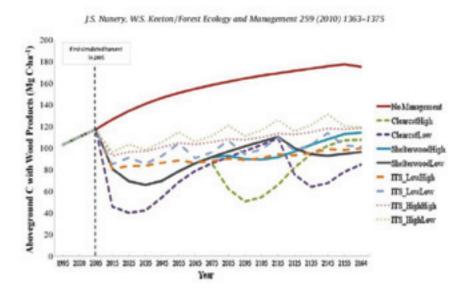
The impact of forest harvesting on above-ground carbon stores was investigated by Dr. William S. Keeton, a

forest ecologist with the University of Vermont. For the forest types he studied (mature shade-tolerant hardwood and mixed-wood forests), Keeton predicts that leaving the forest alone will result in 118 percent more carbon stored over the long-term (160 years) than clear-cutting. Selection harvesting that incorporates wildlife habitat goals, he found, would store 57 percent more carbon than would clear-cutting the studied sites. The notion that converting mature forests to young forest is beneficial from a carbon storage perspective is unfounded according to Keeton, among other researchers.

Dr. Keeton's results were conservative given that he: (1) did not consider the effect of clear-cutting on below-ground carbon (some two-thirds of forest carbon is below ground); and (2) assumed that wood removed during harvesting would continue to store carbon over time (as products). If harvested wood was instead burned for energy, the net increase of carbon emissions would be more dramatic.

While using some amount of wood as a direct heat source to displace heat-

Forest carbon storage in the northeastern United States: Net effects of harvesting frequency, post-harvest retention, and wood products



ing oil makes sense, it is clear that pursuing large-scale forest biomass electricity does nothing to reduce carbon emissions in the short-term. Indeed, in the 2010 Nova Scotia Department of Natural Resources report, A Natural Balance: Working Toward Nova Scotia's Natural Resources Strategy (available online), the Forest Panel of Expertise recommends limiting biomass harvesting for electricity to "small amounts that have already been committed for the current facilities."

Nonetheless, the Nova Scotian government proposes increasing forest harvest by 1,000,000 tonnes per year (15-20 percent harvest increase) to generate 5.4 percent of forecasted electricity demand (600-700 GWh/yr). If clearcut, 1,000,000 tonnes of wood requires some 110 square kilometres per year.

Are we foolish enough to promote large-scale forest biomass electricity projects under the faulty assumption that forest biomass is a carbon-neutral fuel? If we were to act responsibly on the information provided by forest researchers, we would remove forest biomass from the list of renewable energy sources under Nova Scotia's Renewable Energy Standard.

Jamie coordinates the EAC's forestry program. He's a professional forester, author of Restoring the Acadian Forest: A Guide to Forest Stewardship for Woodlot Owners in the Maritimes, and recipient of the 2010 Langille Honour in the Woods award.

Take Action

Ask Premier Dexter and the Minister of Energy, Bill Estabrooks, to remove forest biomass from the list of renewable fuel sources under the Renewable Energy Standard of the Electricity Act.

Let Premier Dexter and the Minister of Natural Resources, John MacDonell, know that you support the recommendations of Forest Panel of Expertise members Ms. Crossland and Mr. Bancroft regarding forest biomass.

Let Nova Scotia Power know that forest biomass is not appropriate for large-scale energy projects.



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Pushing Active Transportation Beyond Town Limits

By Tim Roberts



Cyclist Jacques Cote shares the road in CBRM

"It's ridiculous if you don't have a bike in Malmö," Jennifer Watts noted before clicking to the next picture in her slide show. Each of the cyclists in attendance could recall feeling the opposite; trying to be a regular cyclist in Halifax Regional Municipality can feel like a ridiculous goal.

The Swedish city of Malmö and HRM have relatively similar populations and are similarly hemmed in by bodies of water in multiple directions. Comparisons end there. Malmö's cityissued bicycles, bike-specific traffic signals and striking bike parking facilities underline how active transportation (AT) is ingrained in the mainstream Swedish mindset. It remains a minority attitude here in Nova Scotia. Hopefully for not much longer.

HRM municipal councillor Watts visited Malmö with a handful of other HRM representatives last year as part of an exchange in which Swedish officials shared ideas about sustainability. Upon their return, Watts and the others relayed their findings to council and other interested groups, including the EAC's Transportation Issues Committee.

It is unfair to compare the all-too-visible bike infrastructure of the two cities without noting the less visible distinctions. Swedish municipalities receive 30 percent of the country's collected income tax, a luxury Canadian municipalities do without. HRM also covers more than twice the area of Malmö's entire province, Scania. It also bears noting that Malmö is largely flat, while HRM's hills render cycling more challenging.

Halifax faces unique AT issues as Watts and other councillors try to reconfigure the city's transportation outlook. But as is often the case, Nova Scotia's smaller communities face even greater challenges.

"Some of the AT issues arising in Nova Scotia reflect the difficulty of taking a typically urban concept and trying to fit

it into a rural context," says Stephanie Johnstone-Laurette, the EAC's Active & Safe Routes to School Travel Plan Facilitator in Cape Breton.

Johnstone-Laurette points out that Cape Breton has one of Canada's highest obesity rates. The island is largely rural. As with other rural areas of Nova Scotia, increased distance between homes and villages results in increased reliance on motor vehicles. Inhabitants of rural areas also frequently earn income from resource-based industries such as fishing and farming the types of jobs with heavy tasks often demanding motorized tools of the trade.

Nova Scotia's smaller communities also face more specific AT obstacles.

"In Chester, there's only about one kilometre of 'town road'," explains Gord Tate, the Active Living / Transportation Coordinator for the Municipality of the District of Chester. "The rest are provincial roads, meaning the province has to be in the conversation. It's why I call the provincial Department of Transportation 'the nexus of it all'," he continues. "We're totally beholden to what the Department will allow."

The Union of Nova Scotia Municipalities (UNSM) surveyed municipalities prior to its "Active Transportation On the Move" conference last November and found that only nine of 34 responding municipalities reported having an AT plan (though others have plans including AT elements while some are committed to developing such plans in the future).

So while Nova Scotia's municipalities each face AT issues, it's vital to recall the basic tenets behind AT before attempting to overcome each individual obstacle.

"Active Transportation" refers to any and all forms of human-powered transportation, such as walking, using a wheel-chair or snowshoeing. These types of activities are often tied to recreation, but AT advocates want to expand such activities to take in how we get to and from work, school, social visits, chores and even how we go on vacation.

The Public Health Agency of Canada identifies a number of benefits arising from AT, such as increased health and social interactions, reduced road congestion and greenhouse gas emissions and economic benefits for AT participants as they save money on gas, parking and other motor vehicle-related expenses.

UNSM stressed AT's health benefits at its conference, pointing to its promises from Resolution 20A, passed in September 2008. The resolution vowed that the UNSM would make AT a priority via promotion of strategies among members and other government agencies, advocacy for improved roads and infrastructure and encouragement of AT opportunities for Nova Scotians.

This accords with the widely accepted principles regarding AT promotion as coming down to the "three E's", each

of which have been implemented across Nova Scotia:

Engineering, or the infrastructure necessary to facilitate AT. For example, there are the community projects made possible by the Green Mobility Capital Grants, which the EAC developed and administers. There's also the intent of the Route Enhancement Committee of the Aspotogan Peninsula to promote wider paved shoulders, dedicated to active transport, on the Aspotogan Loop, as well as

Aspotogan Loop, as well as The Member improved shoulder maintenance.

Education, which refers to both changing attitudes about reliance on cars as well as safety education about the various modes of AT. In terms of attitude change, Johnstone-Laurette points to the Glace Bay Youth Action Committee, a group of students who studied AT possibilities in other cities and came home to promote AT through youth-friendly presentations at schools across Cape Breton. And the EAC itself promotes AT safety education through programs such as Making Tracks, which makes sure kids not only know the rules of the road but possess the awareness and skills to share the roads safely.

Enforcement refers to the laws and policies our various levels of government adopt to promote AT and their respective willingness to enforce these very rules. Does your town have a law whereby sidewalks aren't required beside municipal roads? If so, the UNSM refers to it as an "antiquated" law worth changing. Similarly, municipal by-laws outlawing skateboarding as opposed to promoting it are ripe for turnabout too.

Some AT advocates also stress the importance of a couple more E's:

Encouragement, whereby AT is promoted with special events and celebrations. Presentations on policy are necessary cogs in AT development, but it's key to herald the fun factor of AT as well. HRM's annual Bike Week, for example, mixes fun, thematic rides with repair clinics and social events into a week-long celebration of everything that's bike-tastic. CBRM follows suit with "open street" events whereby streets normally inhabited by cars become the non-motorized public's to enjoy.

Evaluation of expectations vs. results once initial AT steps have been put in place. This is a premature step for many municipalities which have yet to incorporate AT plans. Luckily, UNSM's survey of the AT scene on a town-by-town basis gives a progress report of sorts.



The Membertou Elementary School's Walking School Bus

The survey emphasizes the huge role the province can (and will) play in the future growth and acceptance of AT across the province. UNSM identified both lack of funding and the lack of co-operation between government departments as some of the province's most imposing AT barriers.

While each municipality's AT plan will be based on different needs, different resources and different time lines, each commu-

nity would be aided by legislated provincial goals matching (or exceeding) those of the towns within. Whether under the wing of one of the Departments of Health, Environment, Transportation, Infrastructure or a joint venture between them all, the benefit to Nova Scotians of an AT boost is, by now, obvious.

Take, for example, the vision statement of the January 2009 Nova Scotia Bikeways report, prepared by Eastwind Cycle for Bicycle Nova Scotia with support from Nova Scotia Health Promotion and Protection:

"All municipalities in Nova Scotia are accessible by safe bikeways, and bicycle infrastructure planning becomes integrated into transportation planning at the municipal and federal level. Nova Scotia develops a culture of cycling that involves Nova Scotian residents and visitors."

The province funded a report which, in turn, demands provincial support - such a vision is outside the hands of municipalities alone.

Tate, ever aware of the province's importance in Chester's AT development, is encouraged by recent conversations he's held with provincial government representatives. He recounts a recent meeting in Chester about school travel planning where local politicians were engaged about AT.

"We invited Elizabeth Pugh to the committee meeting, she spoke and there were some good conversations," he says; Pugh is the Special Projects Engineer, Highway Planning and Design, with the provincial Transportation and Infrastructure Renewal departments.

"But as a result of the meeting, she called me back after talking to a bridge engineer who wanted to know on which side of the bridge the sidewalk should be placed. It's a small thing, but that the question originated from the engineering side shows they're thinking about it."

Tate won't be alone in advocating increased provincial participation in AT. UNSM's November 2009 conference identified the province as the source of AT's greatest future opportunities and not simply a source of barriers. Of the specific opportunities identified as involving the province, UNSM cited both progressive provincial AT policies and a provincial network with all levels of government working together.

AT improvements are regularly being made across the province at the municipal level and they warrant recognition and celebration. Wholesale provincial involvement as identified above won't happen overnight, but Tate believes ongoing advocacy efforts will lead to it eventually, so long as "doing nothing" isn't an option for the province to fall back on.

"If [the province] can start having water cooler conversations about it, then they won't be waiting for policy, they'll take the initiative themselves," he says. "People in my position are trying to ease them into such a future conversation and I can already sense they're preparing for it."

And once such conversations are held, it might become ridiculous to not ride your bike in Nova Scotia, too.

EAC volunteer Tim Roberts used to bus to work in an industrial park that lacked sidewalks. These days, you can catch him whistling while he walks to and from his current job in downtown Halifax.

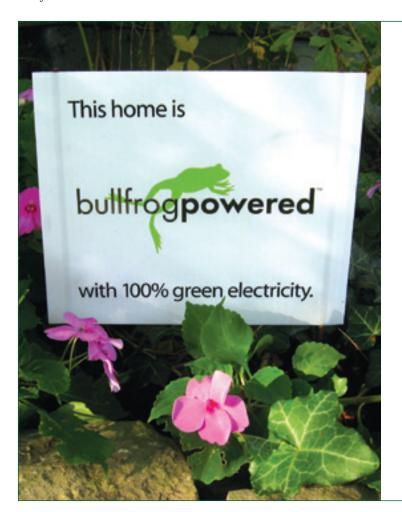
Take Action

Make inquiries about your municipality's active transportation plan to your local council.

Educate yourself and your family about the benefits of active transportation and how to be safely active.

Become the active transportation advocate in your town, class or workplace! See the Public Health Agency of Canada's website (http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/at-ta-eng. php) on how your town, school or office can facilitate active transportation.

Support the Nova Scotia Bikeways Coalition (http://www.nsbikeways.ca/)



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Gardening in Nova Scotia: Plant the Revolution

By Jonathan Rotsztain

We're all looking for uncomplicated ways to improve ourselves. The simplest changes start at home with the most basic and common aspects of our lives. Gardening is an easy and fun way to reduce your ecological footprint, engage in an active lifestyle and produce your own healthy food.

Grow Organic: A Simple Guide to Nova Scotia Gardening is a useful guide to starting your own rewarding garden in Nova Scotia. Drawing from provincial history and charming family photos and anecdotes including simple, delicious and wholesome family recipes, gardener Elizabeth Peirce clearly presents her guide to growing food across the various land-scapes and conditions of our province.

The book introduces the reader to the richness of gardening culture. Peirce cites self-sufficiency, developing knowledge and skills and an active concern for the environment as reasons for taking up gardening.

Peirce has been gardening since childhood and sees her latest book – her fourth – as an autobiography of her thirty-five years of cultivation. "I love reading gardening books, but I was discouraged by encyclopedic manuals," Peirce reflects on the space her own gardening volume fills. "Unfortunately we can't grow peanuts, okra or large melons as our American counterparts can, and I was dissatisfied that there wasn't a resource that considered our north Atlantic geography."

Grow Organic succeeds in crafting a child-friendly local knowledge resource for beginners. The book takes readers through the entire gardening process whether in urban or rural Nova Scotia. Peirce's method starts with considering your space, the time you have available, where and what to plant, and buying and saving seed.

She takes readers through the process of garden maintenance, bringing in the harvest, preserving it and preparing for next season. Along the way Peirce demystifies costs and terminology. Grow Organic includes tips such as how to conduct soil testing and avoid harmful chemical pesticides, how to attract beneficial insects and how to deal with pests, including cats. She also includes helpful gardening resources in Nova Scotia, across Canada and online, such as suppliers, farmers, gardeners and grassroots initiatives.

The author sees her work in the context of the revival of gardening. "I'm seeing a lot of interest where there wasn't before," Peirce reflects, "Issues of food security - Nova Scotia was once 85 percent self-sufficient, but that number has fallen to something like 5 percent. The melamine scare in China and a consideration of organic, non-intensive agricultural practices have brought gardening to the fore." Peirce notes that a perfect storm of industrial food scares and a tough economy in the past couple of years have pushed seed sales way up. "It doesn't get much more local than your own backyard," Peirce wryly declaims. "Anything to take the pressure off the food trucks coming up from California."

Peirce is encouraged by the pace of change. "People think Halifax is a bad place to garden, but that's simply not the case," she says. "Gardeners have to be optimists." And Peirce is helping to develop gardening culture in Nova Scotia. She worked with MP Megan Leslie on a summer garden fair at Halifax's Bloomfield Centre on June 20th and will be presenting preserving workshops in the fall. She has also brought her knowledge to the classroom, making presentations to Citadel High's Family Studies program. She has also begun a small-scale urban garden box program. "The community supported subscription allows me to cover up-front costs for the season while giving my clients fresh veggies and preserves all season long," says Peirce. "I'm trying to live my dream of being a farmer while living in the city."

Peirce is encouraged by the developing garden revolution. "I look at what's going on and hope people will realize how important and satisfying gardening is," Peirce offers, "It's good exercise, working with your hands and such a great way for community members of all ages and backgrounds to come together in the great classroom of life." The author additionally reminds us that when our hard work has grown into a bounty of vegetables the generosity of sharing is its own reward. "There's nothing like picking a nice sun ripened tomato and making a sandwich for lunch with a friend." Amen and happy planting.

Jonathan Rotsztain is a freelance writer and graphic designer in North End, Halifax. Grow Organic: A Simple Guide to Nova Scotia Gardening is published by Nimbus Publishing.

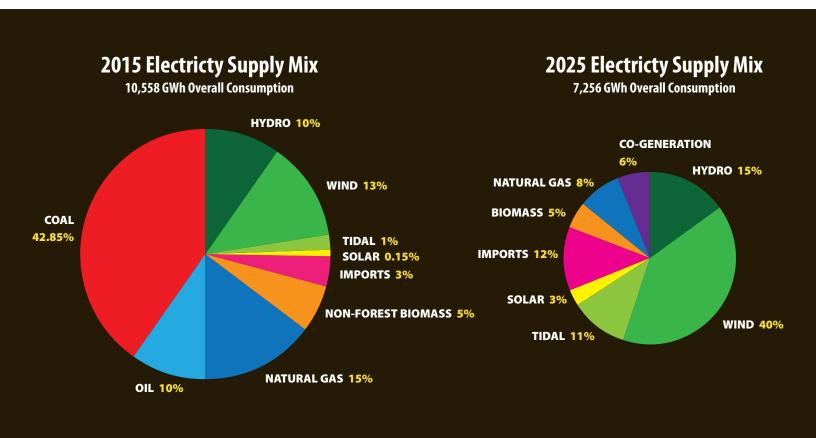
What to do in the Garden in July (other than weeding)

By Elizabeth Peirce

While many plants should be started in the late spring, summer and even early fall is the time for succession planting. Salad greens like lettuce, spinach, arugula and kale, as well as radishes, bush beans and even broccoli can be planted every six weeks from April-November. Fast growing, these plants do well in the cool weather and will grow into the fall. There's no need to eat old, molted lettuce when you can enjoy several crops of fresh greens from the garden all season long!

Envisioning Nova Scotia's Energy Futures

Text by Brennan Vogel and Nick McLean Research by Nick McLean, Fraser Thompson, Jamie Thomson, Brennan Vogel, and the Energy Issues Committee Team



Leading the Charge

Change is coming to Nova Scotia's electricity sector. The provincial government has pledged to achieve a 15 percent renewable electricity target by 2015 and aspires to a 40 percent renewable electricity target by 2020.

The Ecology Action Centre 'Energy Futures' project of the – Energy Issues Committee argues that Nova Scotia can achieve and surpass these renewable electricity targets. The 'Energy Futures' project outlines progressive, aggressive but realistic renewable targets for Nova Scotia's electricity sector, with the ultimate goal of achieving 'fossil-fuel free' electricity for Nova Scotia by 2025.

The cheapest kilowatt hour is the one that doesn't need to be produced. The foundation to achieving ambitious renewable electricity targets is improv-

ing energy efficiency and conservation through 'demand-side management' incentives, initiatives and programs for all manner of ratepayers and energy consumers. Consequently, as consumer demand for electricity is reduced while renewable electricity comes online, renewable and low-carbon energy sources can and will form a larger proportion of the electricity supply.

The objective of the Energy Futures project is to provide a specific framework for renewable electrical production mix in Nova Scotia with the ultimate goal of no coal or oil used for electrical production by 2025.

Our Energy Futures

Wind power will provide 13 percent of the electricity mix by 2015. This means about 209 new 1.8 MW turbines.

In 2025, this will rise to 40 percent of the electricity mix. This means 500 1.8 MW turbines.

Tidal power will generate 1.5 percent of NS electricity in 2015. This should be possible if 1/8 of the Minas Passage Tidal Generation Project is complete. By 2025 the Minas Passage Project should be complete and could generate over 10 percent of Nova Scotia's electricity.

Solar power will provide less than half a percent of the province's electricity in 2015. Even this small percentage will require solar arrays on about 4,300 homes or a medium-sized project like Ontario's Sarnia Solar Project. By 2025, solar power will provide about three percent of NS electricity. We will need solar arrays on 50,000 homes plus about 30 MW from industry.

The EAC is opposed to the immediate use of forest biomass for electricity

but we believe that non-forest, sustainable biomass can supply about 5 percent of the NS electricity mix in 2015. By 2025, about 10 percent of electricity will come from biomass including sustainable and sensible harvesting of forest biomass and agricultural biomass.

Successful demand side management measures will allow us to reduce our use of hydro power. Because we are using less electricity, hydro power will make up a growing percentage of our electricity mix. We estimate 10 percent of overall electricity will come from hydro in 2015 and 15 percent in 2025.

We believe that natural gas will be needed in the future to wean the province off coal and oil. About 15 percent of our mix will come from natural gas in 2015. We think we can reduce the use of natural gas to about 8 percent of the mix in 2025.

We believe Nova Scotia will need to import energy from neighbouring jurisdictions if we are to reduce our reliance on fossil fuels. We will need to import about 3 percent of our electricity mix by 2015 and about 10 percent by 2025. Remember that demand side management measures will allow the percentage to grow without growth in consumption. Without imports, we cannot make NS free from coal and oil by 2025.

Wind energy works best with a robust regional transmission grid. Improving our connections with New Brunswick and potentially Newfoundland and New England will improve our ability to effectively use renewable energy. A regional grid would be able to

explore implementing measures to reflect the real cost of providing electricity on demand and open the door for electricity storage and smart grid technologies.

We applaud the government's effort to reduce the use of coal in electricity production. Under our projections, coal could provide just under half of our electricity mix in 2015. We believe our electricity can be coal and oil free by 2025.

What Do You Think?

We believe that aggressive investment in renewable energy and a strong commitment to efficiency and conservation can dramatically improve Nova Scotia's environmental record. The government is heading down the right path, but as this vision shows, we need to go further.

What do you think? Are these targets realistic and achievable? Share your feedback with the Energy Issues Committee by emailing energy@ecologyaction.ca or by attending an EIC meeting on the third Tuesday of each month.

Brennan Vogel is pleased to join the EAC as the new Energy & Climate Change Coordinator at the EAC. His name, spelled with two n's, is inspiration for him to work with extra e'nn'ergy in these challenging, but exciting times. Nick McLean is an energetic and much valued volunteer on the Energy Issues Committee.



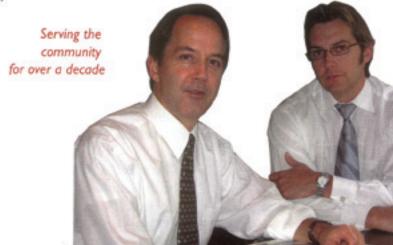
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La Vie en Vert

Welcome to our "green society page" where we provide you with an inspiring (and pleasantly green-tinged) view of recent happenings in the EAC community.

Garden Party, Glorious Garden Party!

Perfect Garden Party weather is cloudy enough to keep people out of their gardens, but nice enough that they get to enjoy the deck at the St. Mary's Boat Club. Just as these happy attendees are doing!



This year the plant table at the Garden Party was outstanding! Here volunteer Katrina Ross charms a potential customer.



Board Member Iaian Archibald did a great job again this year as one of the "showmen" for the items in the live auction! In this picture he's showing off a beautiful painting by Jeremy Vaughan. Who needs Vanna White?





Here Tim Roberts - outstanding in both his roles as live auction "showman" and Board Co-Chair – joins Ruth and Herb Gamberg to admire the items up for bidding.

Staff Snippets

The ebb and flow of wonderful and talented staff at EAC continues. We are energized by the presence of our new Energy Coordinator, Brennan Vogel. And we can't say enough good things about Kelly Yeats our new Communications Coordinator. We are also so grateful that Jean Snow has taken time away from her work as an urban farmer to help grow our membership. Always one to make good use of his time, Waste? Not! researcher Thom Ooman has returned to his farm in Cape Breton. We are so sorry to see Kermit deGooyer, Wilderness Coordinator and stalwart of almost a decade at EAC, ride into the sunset. The Active and Safe Routes to School team has seen the departure of both Cheyenne Dickinson and Maryanne Nduati. We wish both of these amazing and talented folks very happy trails! Happily for us, the team now includes Jen McGowan and Margot Metcalfe in the Halifax office, as well as Stephanie Johnstone-Laurette in our Cape Breton "branch office". We are lucky to have such a great group taking us to new places! We are also welcoming three super summer students. Sonia Grant is blossoming in the role of Urban Garden Summer Programmer. Bryan Fung is absorbing the challenge of Groundwater Researcher. And Rae Finley is getting out and about as our Community Environmental Educator. Last, but not least, a big thank you to Aileen Nasager and Peter Lewis whose Nova Scotia Community College internships have allowed us to benefit from their impressive expertise in the green building field.

Gratefully Remembered

Lately, EAC has been honoured to be named as a charity of choice for donations in memory of a number of supporters who have passed on. A very special thank you to the family and friends of: Jeremy Frith, Jali Jacqueline Giroux, Richard Hinners, Ken Mann, Kate Reynolds, Elizabeth Walker and Heather White. We are proud to continue fighting for the legacy of a more beautiful Nova Scotia in your names.

Remember the EAC in your will.



To discuss your legacy gift to the EAC, please call us at (902) 429-5287 or email centre@ecologyaction.ca



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YOUR SUPPORT MAKES OUR WORK POSSIBLE.



Dear ecoHead:

How can we dogs cut down our environmental impact? I was recently adopted from a shelter into a very ecologically conscious family, and I want to fit in.

- Growler

Dear Growler,

Kudos to your human family for adopting from a shelter! Instead of bringing more dogs into an over-populated world, they chose to adopt a wonderful dog who already needed a home. As a shelter dog, you are also likely "fixed", ensuring that you won't accidentally bring more unwanted puppies into the world.

I am sure your family will help you live a sustainable lifestyle, especially as you are so eager, but here are a few tips you can impress them with:

It's a lot of fun to visit beaches with your family, but please wear a leash when visiting coastal areas! Yes, I know it is tempting to run free, with the ocean breeze ruffling your fur... but will you be able to control your instinct to chase shorebirds, sniff at their nests and run through the dune grass? You can have just as much fun at the beach sticking to the wet sand near the water's edge that is less sensitive to running paws ... and staying off the sensitive dune grass that is so important to the coastal ecosystem. It is also important to avoid areas marked with signs or symbolic fencing that indicate that shorebirds are nesting or foraging there. Finally, if you encounter a pretty group of shorebirds while you're on the beach, please only admire them from far away. Chasing them so they fly off

may seem like a harmless way to get a free show, but they are there to feed and put on weight so they'll be strong for migration. Imagine having to use that energy instead for taking off and landing several times a day and you'll realize what a serious impact this can have on their survival.

When you dine, you can eat local and organic, just like your humans! Many pet stores and health food stores sell organic dog food. Katie's Farm is a lovely local "Organic Dog Bakery" and their products are available all over the province. Or, if you have a willing human companion, ask him or her to get a recipe for homemade dog food from your vet. Then you can buy local, organic ingredients to go into it.

Of course, what goes in must go out. And your human must be trained to pick it up. But he or she doesn't have to buy new plastic bags to do so! I like to collect bags from products that almost always come in bags – bread, newspapers – and use those for poop collection.

Now, since your carnivore poop is special, and contains certain pathogens and other yucky stuff, it can be a challenge to compost. However, some people manage to transform dog waste into useable compost by adding such things as sawdust and or special enzymes, then heating the whole steamy mixture up high enough to kill the baddies. Sounds promising, but if you're interested in doing something like this, I'd advise contacting a compost expert first.

With some effort, care and common sense, you should be well on the road to a sustainable doggie lifestyle.

- ecoHead



halcraft ad

seasonalgourmet

By Diana Chard

Succulent Summer

What are you having for supper? What to make for supper can be one of the most difficult decisions of the day. An easy and healthy way to plan your meals is according to the seasons. You can also save time and support local farmers by buying a share in community shared agriculture (CSA).

Fruit is a great source of vitamin C and fibre as well as being low in fat and tasty! For a simple, delicious, and nutritious dessert try barbequed fruit kebabs.

BBQ Fruit Kebabs (serves 4-6)

- 4 plums pitted and sliced into quarters
- 4 peaches pitted and sliced into quarters
- 1 quart whole strawberries, stemmed
- 1 T of honey
- 2 T of amaretto (optional)
- 1 tsp of cinnamon

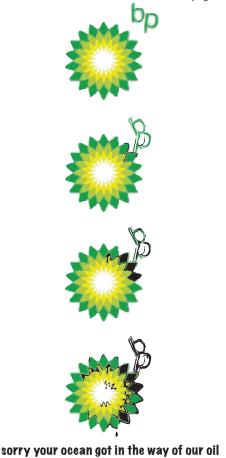


Combine fruit and toss with a splash of amaretto, honey, and sprinkle with cinnamon. Marinate for an hour or more while soaking skewers in water. Arrange fruit in desired order on skewers and grill over medium heat for 5-7 minutes, brushing with excess marinade. Enjoy kebabs on their own or with ice cream or yogurt.

What's in Season?

Summer vegetables include beets, broccoli, corn, cucumber, herbs, peas, tomatoes, and zucchini. This is the best season for many fruits like melons, cherries, plums, peaches, raspberries, and strawberries. For summer seafood try herring, mackerel, local harpooned swordfish, hook-and-line haddock and rock crab.

Diana Chard is a fourth-year dietetic student at MSVU. She is passionate about growing, cooking, and eating food.



action in verse

By Don McKay

To Sing and Feed

among the spruce: Bach would put this evening on the cello

and chew it.

You would feel the long strokes

bite and sweep, everything

curve away, arching back

against the bow.

You would know the end before the end

would understand the Red-winged blackbirds calling

konkeree konkeree the sexual

buzz the silver

falling whistle hanging from the top spines of the spruce

like tinsel.

You would dwell in imminence.

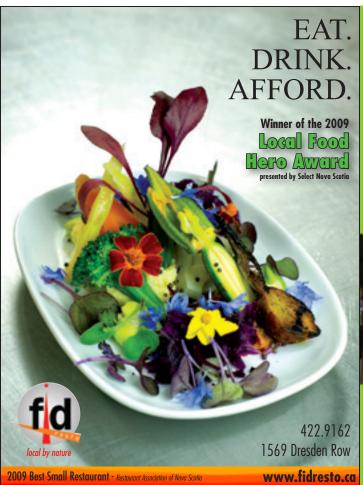
You would arrive home empty

covered with burrs

ready

From Camber: Selected Poems.

Published by McClelland & Stewart, 2004.





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beinggreen

Off the Grid: Shawn and Andrea Redmond

By Sally Ross



Shawn and Andrea with their 8 solar panels and their wind turbine.

Shawn and Andrea Redmond sold the first house they built in Glen Margaret in order to finance their second, which they built on higher ground about 1.5 km further back in the woods. They have been living off grid since they moved four years ago. The large front windows of their 1,700 square-foot house face southwest and look out onto a vast expanse of evergreens with St. Margaret's Bay sparkling in the distance.

Obviously there are many shades of green. A young couple in the city might ride bicycles and buy local at the Halifax Farmers' Market. For Shawn and Andrea, being green means selling their own logs in exchange for lumber, heating with hardwood from their own wood lot, raising a few chickens and goats and growing vegetables in a small greenhouse. But above all, their greenness comes from a keen awareness of the energy consumption of every appliance and every piece of equipment they own. In many ways, they are pioneers on their land, but not pioneers living in primitive conditions. They use electricity for lights, power tools, a well pump, a refrigerator, a washing machine, a radio, two small television sets and a computer.

Even though they were consuming a meagre 3 kWh a day in their old house, their first winter living off grid was "very stressful." They moved into their new house in November 2006. Despite countless hours researching wind turbines, the next six months were a steep learning curve. Shawn and Andrea were sure they would be able to rely on their Whisper 200 - a one kilowatt turbine designed to operate at peak performance in a 24 mile per hour steady wind. The turbine charges a bank of 12 batteries. They soon discovered that wind speeds are rarely steady. Because of the wind fluctuations, the batteries weren't being charged properly and as a result, the amount of electricity was unpredictable. Shawn and Andrea adapted their consumption of electricity accordingly but still found the unreliability of their system frustrating. Andrea had to think twice before using the vacuum cleaner even for a few minutes. She boards dogs in the house, so a vacuum cleaner is a necessary appliance, even on concrete floors. The biggest energy-consumer was their normal-sized refrigerator.

After trying to work around the inconsistent wind, Shawn decided to invest in two solar panels. Unlike the thick solar panels used for heating water, these are made of a photovoltaic material that converts solar radiation into direct current electricity. At the moment, eight PV solar panels are supplementing the windmill to keep the system of 12 batteries properly charged. Even on a cloudy day with little wind, the batteries now provide a reliable source of power. The solar panels have enabled Shawn and Andrea to live without constantly fretting about electricity or the lack of it. However, in comparison to most people, they still think a lot about power and take pride in reducing their consumption. Choosing green power, as opposed to Nova Scotia Power, was not only cheaper, but it strengthened their commitment to an energy conscious lifestyle.

Andrea is an artist. Shawn contracts out his services as a carpenter and painter. Life off the grid became an attainable goal thanks to his practical skills, his physical energy, and a more-thansupportive partner. Not everyone is in a position to install their own windmill and solar panels, but everyone is able to consider reducing their consumption of electricity. Discussions about renewable energy resources, such as wind and biomass, frequently marginalize the potential of energy conservation. Shawn and Andrea have shown that using less electricity is an achievable way of being green. For information on their installations, write to reddythree@aol.com.

Sally Ross is a translator, historian, and a passionate planter of trees who admires people who work hard to conserve energy.

hot off the modem

Shiny new EAC publications

The following publications are all available online at www.ecologyaction.ca/content/publications-resources

We also have paper copies of some of these reports. If you're interested, please contact us at 429-2202 or drop by our office.

Forest Harvesting Study

(Wilderness)

Forest Herbicides as a Vegetation Management Tool (Wilderness)

Headwaters to Coasts -Getting to Watershed Management in Nova Scotia (Coastal)



Local Seafood Direct Marketing: Emerging Trends for Small-scale Fishers in Nova Scotia(Marine)

On the Rocks -

healing our dysfunctional relationship with the coast (Coastal)

Seniors on Board -

Helping Older Adults become Familiar with Public Transit and Community Based Transportation Systems (Transportation)

Waste? NOT! Toolkit

(Built Environment)





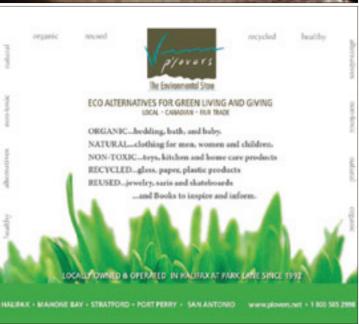


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EAC Index: 70 - approximate # of cyclists in the 2010 World Naked Bike Ride in Halifax

30 – approximate # of those people who qualified as naked 10 – anniversary that EAC's Bike Again project celebrated during Bike Week 2010
39 – percent of EAC staff that bike to work 6-8 - percent of building materials delivered to residential construction sites that typically ends up as waste
(by weight) 175,000-200,000 – # of tonnes of solid waste that comes from building materials like shingles, wood, metal, drywall, plastics, aggregates
300 – # of kg of waste the province has targeted to be disposed of per person per year by 2015

24 - # of pages in our beautiful new Waste? Not! Toolkit for Construction & Demolition

Recent EAC Successes:

- In April Nova Scotia banned the sale and use of non-essential pesticides. The bill puts Nova Scotia among Canada's leaders in protecting people and the environment against pesticides.
- The announcement of a Community Feed In Tariff in the Province's Renewable Electricity Plan provided a big boost for community owned renewable electricity.
- In April over 100 people attended the EAC's Harvest the Wind workshop in Truro to learn about the basics of wind energy for NS landowners.
- In May the Province announced an extension of the moratorium on oil and gas exploration on Georges Bank until the end of 2015.

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