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

BETWEEN THE COVERS:
Kyoto Unplugged
Energy Action
Environmental Racism





BETWEEN THE ISSUES
VOL. 24 NO. 4

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Ecology Action Centre 2705 Fern Lane Halifax, Nova Scotia B3K 4L3

letterstothecentre

Dear EAC,

We can't attend your 35th soiree, seeing as how we're in Toronto, with mucho responsibilities here, but we did want to send our congratulations, felicitations, and best wishes to the organization, with the hope that someday, EAC won't be as urgently needed.

-Fred and Susan Holtz

Dear EAC,

I was fortunate to attend the EAC's 35th birthday party, where I had a wonderful time and enjoyed learning of the history of EAC over the last 35 years. Unfortunately, while reading about the numerous accomplishments, I was surprised to find my mouth filled with aquaculture salmon, and by association, the hypocrisy of that mouthful. This was particularly troubling for two reasons: 1) EAC had just launched what I thought was a successful sustainable seafood campaign which identified aquaculture salmon as a product to avoid; and 2) once I brought this hypocritical incident to the attention of party organizers, rather than immediately removing the aquaculture salmon from the event, excuses were made for its presence, and consequently people continued to gorge themselves on PCB laden unsustainable seafood. This is just not acceptable, and undermines EAC's well established credibility. Overall, I would like to congratulate the EAC for its accomplishments over the last 35 years – without EAC, many many environmental issues would not have been tackled in this province. You have a lot to be proud of – and it would be good to keep it that way.

-A concerned member.

EAC Response: Thank you for bringing this to our attention – it is indeed an important issue, as we strive to ensure that we are upholding our own principles. We work hard with our suppliers to ensure that the food served at our events does not compromise our public education and outreach. With seafood in particular, this continues to be a difficult battle, as there is a lack of education and understanding by suppliers and the seafood industry in general of the importance of this issue. On all occasions that we can think of, we have known the exact origins of our seafood. However, the lack of supply and marketing of sustainable seafood products tells us that there is much to be done on this issue. We will double check with our supplier for our 35th, just to ensure that it was not wild caught salmon or rainbow trout. Again, thank you for keeping us on our toes and in the future, we can guarantee that we will review menus beforehand.

-EAC's Marine Issues Committee

Dear Ecology Action Centre,

My name is Hanna Webber and I have just become aware of your existence. It was at the after panel at "An Inconvenient Truth" showing at our local Fundy Film society, where one of the members from your group was speaking on global warming. I cannot remember the name for the man that was speaking, but I thought he had interesting points and I agreed with most of what he said. I am 14 years old and for the first time in my life have been unwell and in and out of the IWK and our local valley regional hospital for the past year and a half. I realized that I have been living in a very selfish way; my life has aspects to it that I cannot control but I can control how I impact the earth. I've always been environmentally aware and have been a vegetarian for my whole life, but now that's not enough. I want to be involved in my future and the future of my children and the fate of my province. So I am contacting you to ask this question, what is the best and most effective way for me to get involved? Looking forward to hearing from you!

-Hanna Webber

Dear Hanna, while there are many, many specific actions you can take, the most important is ensuring that in your life, concern for the environment prefaces the many choices you will have ahead of you. It sounds like you are well on your way. Encourage those around you, your family and your friends to consider the environmental and health impacts of their choices – from food, to house repair, to transportation, to energy conservation, to health care and to general consumption practices. In many ways, thinking globally and acting locally, though it is now a cliché, has never been more important. Within this BTI, there are several ideas of easy actions to take that fundamentally change out we impact the environment. Next time you are in Halifax, do come and visit us. We would be glad to talk with you about specific projects in your area, and tell you about some of the ways we go about working for change.

-EAC Staff

editorial

'We need to reshape our human cultures to fit a finite planet rather than trying to reshape a finite Earth to accommodate our infinite wants' - Unknown

Extra Extra – Read All About It. EAC membership is at an all time recorded high of 1150 members. It was in 1985 that sights were first set on membership of 1000. We could not have asked for a better 35th birthday present than reaching, and surpassing that goal. Thank you to our members and supporters, your voice means our voice is getting stronger – and here's to 2000 members taking far, far less than 20 years!

With the media attention on the environment these days, we hardly need to publish *Between the Issues*. Pick up any newspaper for countless headlines on environmental issues. Even *Vanity Fair* had a "green" issue a while back. The environment is finally a key political issue, with the Canadian Green Party receiving record support in the recent bi-election in London, Ontario. And if imitation is the best form of flattery, the Green Party should be pleased given the victory of eco-friendly Stéphane Dion as Liberal leader. Could these political leanings be a foreshadowing for what is to come? Are we on the edge of the sequel to the Industrial Revolution – the Environmental Revolution?

Though revolutions are only characterized as such after they are over, maybe this one will be different. One might say that it is high time. Evidence of human impacts on the world can be measured in countless ways and face us on a daily basis. Mother Nature has her way of letting us know when we have reached her limit. Cumulative human impacts on the environment are coming back to haunt us, in the deadly form of environmentally linked diseases and an ever increasing number of environmental refugees. Environmental justice issues are getting closer and closer to home as our habits of over consumption affect people in communities where resources are extracted or where waste is disposed.

Too many people who have always done all the right things, lived healthy, active lives, eaten organic foods, and generally taken care of themselves, limiting exposure to known carcinogens are being diagnosed with cancer. The hunt for the cure has overshadowed the hunt for

the cause, and investigations into environmental causes of cancer are far behind pharmaceutical research into treatments, many of which have side effects almost worse than the cancer itself. It is as if cancer is the silent insurgent letting us know that our style of occupation of the planet is just not on.

In this issue of *BTI*, we focus on energy issues in the province, social justice and its links to sustainable development and as ever, ways to take action and stop our assault on the planet. The feature article reviews 35 years of energy action at the EAC – yes, we did battle nuclear power – and brings to light a quantitative look at the fuel used to keeps us warm, cooks our food



aaron harpell

and washes our clothes. Our efforts to shed light on the proposed LNG plant in Guysborough County is nicely contrasted with a review of the tar sands in Alberta. Why is it that our governments insist on the argument being jobs OR the environment when it would be so much more interesting to have jobs AND the environment? Employment, but at what price?

Most things in the world can be placed in the context of cause and effect. Action and reaction. But much of that is not immediately visible. When they put their garbage out on the curb, do the people of Cape Breton County think how the people of Lincolnville feel as their receive truckload after truckload of other people's trash? What if everything we disposed of, we had to do so in our own backyards? That didn't used to be much of a problem

– but with plastics, chemicals, electronics – certainly we wouldn't expect our children to play there or expect our ground water sources to remain uncontaminated.

How often, when you turn on a light, do you think of the miners in Columbia who mine the coal that is used in NSPI's coal fired generating plants? The out of sight out of mind resource use that we are all so accustomed to hits home more often than we think. The people of Boularderie Island have been fighting against a strip mine on their island – but despite their unanimous protests, somehow elected officials decide that the project should proceed.

In reacting, however – there is much that is positive. We are making headway, in this province, in protecting what is near and dear to us. Jen Scott's article celebrates the fact that EAC is the first organization in the province to be considered an Eligible Body under the Conservation Easement Act to protect working farmland. This ensures that farms will continue to be farms, and is the beginning of real food security. We also give a toast to the Nova Scotia Nature Trust which has protected dozens of private properties, ensuring that diversity and wilderness will be a part of Nova Scotia's future, in perpetuity.

Positive, solution based reactions are the beginning of taking responsibility - for our bodies and our planet. The Citizen Choice column contains New Years resolutions for the planet, so you don't have to think of ones yourselves. We can also help you keep them!

In Nova Scotia, the path of sustainable development is, to date the one less traveled.

When the majority of actions are based on what is good – good for human health and good for the planet, when this trumps what is good for the bank accounts of a few, the Environmental Revolution will have begun. The power of the consumer has never been greater. But, we have to use it. If we are to make the sustainable development path (emphasis on sustainable so that the phrase is not the oxymoron it frequently becomes) one that is well trod and ever widening, our choices in everything we do have to be guided by our desire to treat the planet well, so she may do the same to us.

-Susanna Fuller, BTI Editor

actionisourmiddlename

EAC membership skyrockets (Membership) EAC's community outreach canvass began Sept 22nd and results have been overwhelming. Since our last canvass in 1997, EAC's exposure and reputation has amplified, contributing to the phenomenal response we've received. The challenges and successes EAC has faced, as well as event-based outreach has increased our media profile, to the point where we discovered that we are now a household name in many Nova Scotian communities. This year's program broke new ground in areas other than the peninsula, including Dartmouth and as far away as Antigonish. The canvass is wrapping up for the year, but it has been declared an unprecedented success as it has helped us surpass our 1000 member mark! Thank you to all those who have helped make the canvass happen- Canvass Coordinator, Cora Sproule, along with nine amazing staff including Dave Mealiea, Eleanor Grier, Elizabeth Stoker-Lavelle, Justin Renkema, Maggie Dort, Sebastien Labelle-Poisant, Stephanie Nicolson, Michael Kimber and Ebony Skalf. With such amazing results, we hope our community outreach will become an annual event.

consumers, be aware! (Wilderness Issues Committee) Now's the time for you to put your money where your mouth is and support the wise use of our Acadian Forest. Lumber, paper and firewood - certified by the internationally recognized Forest Stewardship Council (FSC) - are all locally available. Bro-moc Printers (located in Dartmouth) will print on FSC-certified paper. Wade Prest, WindhorseFarm and J.A.Turner&Sons offer locally-produced lumber (see advertisements in this and future BTI's). Finewood Flooring in Cape Breton carries several FSC certified types of wood for flooring and cabinetry. Firewood from environmentally responsible forestry practices, whereby the best quality trees are left standing, and the poor quality trees are removed, is available from a variety of sources (keep your eye on the EAC webpage for a list of suppliers). For those of you unwilling to share your homes with furry friends from the rodent family... FSC-certified wooden mousetraps are on sale at Canadian Tire. Just make sure you use organic peanut butter or cheese!



warming up your car is warming up the planet

(Transportation issues Committee) This summer EAC welcomed three new ambassadors to promote sustainable transportation in the HRM. Their main focus was raising public awareness around anti-idling, vehicle maintenance, active transportation, carpooling and the Steer Clean program. In their travels they visited various gas stations, transit terminals and other local businesses distributing information and talking to hundreds of people about sustainable and transportation. Although their positions were temporary, the projects they worked to promote are still active. Steer Clean: A vehicle retirement program which enables owners to recycle their pre-1995 cars in exchange for incentives, such as a bike or a healthy living package. For more information call 442-0202 www.steerclean.ca Why not share a ride to work? If you need help finding a carpool try www.carpool.ca, a free ride matching site. Did you know that idling for over 10 seconds uses more fuel than restarting your engine? The EAC now has anti-idling cards available to help spread this message and discourage idlers. Pick yours up today at the EAC or call 429-2202. For more idling facts see www.ecologyaction.ca/tic/idling.

green scene and heard There's been a surge of interest in green building of late, with no signs of it slowing down. Several green building events have gotten underway over the course of the last couple of months here at the EAC, and we're looking forward to becoming involved with more! Official tours of our green building started in October, and more than 150 people have had the chance to explore our green renovation and what they could do in their own homes. Tours will be continuing on this winter, so be sure to book yours today by calling 442-0999. On Nov. 29 the EAC hosted Halifax's very successful, first ever green home show, called the "Green Scene" event, co-ordinated by EAC member and interior designer Barbara Thomson. More than 200 people stopped by Studio 21 to see the 25 different 'green building' exhibitors, showcasing everything from green roofs to recycled glass tiles. Plans are already in the works for next year's event, so stay tuned for more! The first meeting of a proposed 'Green Building Sub-Committee' happened in early December, marking the start of a more permanent foray into green building for the Ecology Action Centre. Official meeting days are still being determined, but if you'd like to join us in planning for future EAC green building projects, you can contact our office at 429-2202 for more information on how to get involved.

on a roll to the E-Z E-Pass (Transportation Issues Committee) Thanks to the work of TRAX, an employer transit pass program called the E-PASS was launched at the NS Department of Energy on October 1st. The E-PASS aims to make transit an even more attractive choice for commuters by increasing convenience and decreasing cost. Employees participating in the E-PASS purchase a discounted annual pass; receive a permanent card as a transit pass and pay through their workplace. Currently employees pay using post-dated cheques, but the goal is to implement automatic payroll deduction. E-PASS programs across Canada have been successful in increasing transit ridership and subsequently decreasing greenhouse gas emissions. TRAX's goal is to roll-out the program to more workplaces in 2007. In addition, TRAX will be working to ensure that Premier MacDonald fulfills his campaign promise to create a provincial transit tax credit to match the federal tax credit now in place. The combination of tax credits and E-PASS creates a powerful incentive to leave the car at home and use transit. Please email the Premier (premier@gov.ns.ca) and Finance Minister (bakermg@gov.ns.ca) asking them to implement, as proposed, a tax credit for transit users of 15% on April 1, 2007.



events

getting into hot water

(Energy Issues Committee) The EIC is growing in membership and staff. Andrea Flowers has kick-started showings and discussions of Al Gore's film "An Inconvenient Truth" to communities and schools around the province. EAC was active in critiquing the federal government's so-called Clean Air Act as a member of Canada's Climate Action Network. Over 300 people have toured our Green Home, with display posters and an audio-tour coming soon, educating people on energy efficiency in renovations and in building operations. We are pleased to have hired Wayne Grozko for the Solar Gain project that will encourage small business owners to install solar hot water heaters. EIC Members participated in a protest against coal as a primary fuel for Nova Scotia Power, in partnership with the Trenton-Hillside Environmental Watch Association, the Atlantic Solidarity Network, and Citizens Against Strip Mining. NSPI subsequently announced their intention to install pollution controls measures on the Trenton plan. Working with the Affordable Energy Coalition, we authored a low-income energy efficiency briefing for Conserve Nova Scotia. The new conservation agency will distribute 4000 CFL lightbulbs to low-income families upon suggestions from the AEC. We are continuing to work towards energy efficiency and clean generation. Visit the energy website to view our recommendations for Conserve Nova Scotia, information on Efficiency: Nova Scotia's Forgotten Resource, and Standard Offer Contracts for renewable energy.

friends, romans ... (Food Action Committee) In October, FAC participated for a second time, in Terra Madre, Slow Food International's gathering of 5,000 food communities and 1,000 chefs in Turin, Italy. At the Salone del Gusto (Hall of Taste), hundreds of people (including farmers, chefs, bakers, and many many Italian food enthusiasts) got to taste Red Fife whole wheat bread. The importance of food for Italians is inexplicable. It is part of their essence, their entire evening, their culture. Farms and rural community viability are enhanced by creating markets for food from specific areas. Italy promotes parks and tourism based on food cultivation, artisanal processing, and taste. As we cannot all move to Italy, we will have to begin to recreate that culture here. On that note, FAC would also like to thank all the volunteers, entertainers, and farm vendors for participating in its third annual Harvest Festival!

Anniversary Canadian Government signing the Kyoto Protocol

Feb 16th

Celebrate to remind them!

Six Years in the Mud

Restoring Maritime Salt Marshes: Lessons Learned and Moving Forward.

Bedford Institute of Oceanography, Dartmouth February 1-2

For info contact Robyn Musselman at saltmarsh@ecologyaction.ca

Winter Evenings

Across Nova Scotia

Supper made from local products
Recipes available in EAC's Food Action Committee's

"Eating by the Seasons"

Call 429-2202 to obtain a copy

EAC is going province wide with public screenings of Al Gore's film "An Inconvenient Truth"

Discussion to follow

January 14, 6:30-8:30 PM
Saint Francis Xavier University,
Room TBA, Antigonish

January 15, 7:00-9:30 PM
Bethel Presbyterian Church,
Brookland Street, Sydney

January 16, 7:00-9:30 PM
Royal Bank Theatre,
Cape Breton University
1250 Grand Lake Rd, Sydney

Tentative:

January 17, 7:00-9:30 PM
L'Arche Cape Breton
3 L'Arche Lane, Whycocomagh
Call (902) 756-3162 to confirm location.

January 18, 7:00-9:00 PM
New Glasgow Public Library
182 Dalhousie Street, New Glasgow

January 23, 7:00-9:30 PM
McNally Theater Auditorium,
Saint Mary's University,
923 Robie Street, Halifax

More showings added weekly

See http://ecologyaction.ca/energy_issues/energy_issues.shtml for a complete listing of province-wide screenings. If you would like to help organize a public or school screening please contact Andrea Flowers, andrea@ecologyaction.ca.

parade of sustainable lights

For the first year ever, EAC staff and members, lead by the Transportation Issues Committee participated in HRM's annual Parade of Lights. No fossil fuels were used in our innovative float, with active transportation the mode of transport, including bicycles, skate boarders, rollerbladers and pedestrians. TIC Chair Scott MacPhee led the way riding a bicycle with a trailer and on the trailer was a cake decorated with LED lights to celebrate the EAC's 35th birthday. Many others were dressed with candle flame headdresses with a core group of pedestrians circled by a group of cyclists, including a double decker bike, a low rider and a parent and child bike. It was a wonderful start to the sustainable holiday season!

crawling out of the mud

(Coastal Issues Committee) Six years after the popular workshop, "Getting Dirty: the Why and How of Salt Marsh Restoration in the Bay of Fundy," community organizations, scientists, government and marsh lovers are invited to an even dirtier workshop entitled "Six Years in the Mud: Restoring Maritime Salt Marshes: Lessons Learned and Next Steps" to February 1-2, Bedford Institute of Oceanography in Halifax. For more information, contact Robin Musselman, Workshop Coordinator saltmarsh@ecologyaction.ca. In support of renewable energy, CIC just received funding from the Davis Foundation to host a series of community forums concerning potential tidal power development in the Minas Basin. To get involved, contact Jennifer Graham at coastal@ecologyaction.ca.

something fishy going on

(Marine Issues Committee) This fall, the bottom trawling issue – which EAC staff and volunteers have been working on for over a decade finally achieved the level of public attention it deserves. EAC is far from alone in its efforts to encourage sustainable fishing practices, as other conservation groups and countries from around the world fought to achieve a moratorium on high seas bottom trawling in unregulated areas. While we were saddened that the UN Sustainable Fisheries Resolution negotiations did not result in a strong statement towards supporting a moratorium, the fishing nations of the world, including Canada, are far from off the hook – or, more appropriately, out of the net. Our work will continue, and in the new year we are launching a Shifting Gears project in cooperating with the Living Oceans Society in BC and the Marine Conservation Biology Institute in Washington State. There is a direct role for all of you in this effort – by using the SeaChoice guide to sustainable seafood – www.seachoice.org. More and more consumers are asking "is this hook and line caught haddock" or "is this wild salmon?"

citizen's choice

New Year's Resolutions for a Better Planet

EAC staff and volunteers have a few resolutions so you don't have to struggle with making up your own! Start by saying "This year I will..." and pick a few from the list, and then chant "I AM making a difference, I am MAKING a difference, I am making a DIFFERENCE." Happy 2007.

- Make a point of not drinking out of disposable coffee cups or buying bottled water. If you have to throw it out when you are done, don't drink out of it!
- If your current mode of transportation to work is driving, as an experiment, walk, bicycle, carpool or take transit (try out the new MetroLink) to work once a week for the month of January.
- Gather 30 signatures on TRAX's petition requesting 10% of the provincial gas tax go towards transit and active transportation infrastructure. <http://ecologyaction.ca/trax/#Policy>
- Be organized and stylish! Keep your "to do" list in one of the Re-cover journals featured in the Art and Environment section.
- Eat as much local, in season organic food as you can (not at one sitting). Too many turnips and beets? You need a copy of the Food Action Committee's Eating by the Seasons, full of delicious, nutritious recipes, stories and hints – and all based on local, seasonal food.
- Use the Sustainable Seafood card to make better choices when purchasing seafood. Download the card at <http://www.seachoice.org/>
- If planning renovations, commit to making them as green as possible. For information and assistance in available choices, visit EAC's Fern Lane home.
- Resolve to appreciate beaches in all their seasonal glory by covering your ears and taking a winter beach walk.
- Get an energy audit. Go to www.clean.ns.ca or www.sustainablehousing.ca for more info. Then, challenge yourself to better your rating.
- Make the switch if you haven't already - change all the bulbs in your house to compact fluorescent light bulbs. While you are at it, install foam insulating pads underneath light switches and plug outlets.
- Reduce your waste, take cloth bags to

the grocery store, leave heavily packaged food on the store shelves. Start a "less is more" challenge with your family – and think about where that garbage goes when it leaves your sidewalk.

When grocery shopping, resolve to do a few or all of the following :

- Shop locally whenever possible. There are several options in Halifax, such as the Halifax Farmers' Market, Home Grown Organic Foods and Local Jo's Café which all carry local, no packaging foods.
- Attempt to plan meals that require lots of fresh vegetables and ingredients. It is a healthier alternative to frozen fast food.
- Don't leave home without your cloth bags, reused plastic bags, baskets or bicycle panniers to carry your food back home.
- When at the grocery store, stick to the outside isles. Often, the freshest foods (vegetables, fruit, and meat and dairy) are located on the perimeter of the isles. Over-packaged, processed and unhealthy foods are located on the inner isles.
- Consider locally produced non-organically certified produce before the mass-marketed organic produce, which sometimes travels thousands of kilometres to reach you.
- Play the PLU game. Check the PLU sticker on organic fruits and vegetables. Certified organic foods PLU begin with a 9. For example, 94312.t
- Avoid putting your fruits and vegetables into separate, thin plastic bags. You are going to take them home and wash them – and then, more than likely toss out those bags.
- Choose items with the least amount of packaging.
- Think twice about buying that plastic container of hummus, guacamole or chip dip. Spreads and dips are easy to make and use fresh ingredients that don't come in plastic containers. For example, hummus is chick peas, lemon juice, tahini, garlic and salt tossed in a blender. Start to finish is about ten minutes.
- If purchasing foods in plastic containers, turn them over and check the plastic code – try to buy containers that can be recycled in Nova Scotia which include the numbers 1 or 2.



**Interested in organizing
a public screening and
discussion of AIT in
Nova Scotia?**

If you're a teacher, gov. dept,
or community group, contact
andrea@ecologyaction.ca

Timeline: January-March 2006



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From Fern Lane to Farm Land: EAC Eligible to hold 'Working Land' Easements

By Jennifer Scott



The Food Action Committee

As a child, I grew up in a working class neighbourhood near bustling Eglinton Avenue, one of Toronto's main drags. I remember my elderly neighbour showing me a picture of her mother as an adolescent, leading the family milking cow down a country dirt road. The road was Eglinton Avenue, now a far cry from a country dirt road. And few cows have been near Eglinton in many many years. In fact, much of Canada's best farmland can be seen from the top of the CN Tower in downtown Toronto...well, it was first class farmland, until it got urbanized.

Even in Nova Scotia good farmland, close to markets, is a scarce resource. This farmland is worth protecting if we want to continue growing our own food, ensuring future food security and having access to locally produced food. In the current real estate market it is very tempting for farmers to sell pieces of their land to finance their farming operation, or help pay for their retirement. Good land always goes to the highest bidder, and it is difficult for new farmers to pay the 'per acre price' demanded by the real estate market. The question is: how do we save good farmland for farming?

Most people are familiar with conservation of 'wild land', particularly through the work of organizations such as the Nova Scotia Nature Trust and the Nature Conservancy of Canada. This is land protected, in perpetuity, from development, subdivision, or harvesting activities such as mining or forestry. It may be conserved by outright purchase or through Conservation Easement legislation, where a legal document is attached to the land deed, and is registered

with the province. It allows a designated 'eligible body' to ensure the owner adheres to the terms of the Conservation Easement. Easements are negotiated with landowners; their purpose is to put restrictions on the use of the land.

The EAC has recently been added to the Eligible Body list under the Conservation Easement Act. We can now celebrate the fact that EAC has a legal Conservation Easement agreement with two working farms in Hants County: Avonmouth Farm and Red Fox Co-op. EAC

has an interest in ensuring the farms are managed according to the terms of the agreements. To that end, a community-based monitoring system will be developed to ensure the terms of the Easements are upheld.

Our Conservation Easements are structured to protect farm and woodland from subdivision and development. The land must be managed in an ecological manner, no matter who owns it. In signing the Conservation Easement, the farmer gives up some of the 'real estate' value of the farmland, because it cannot be sold for non-farm purposes. This makes the land more affordable for future persons who want to purchase it for farming.

Farms all over the province need protection. The new Wal-Mart near Bridgewater was built on a mixed dairy farm. Near Windsor, farmland has been taken out of production to make way for Superstore, McDonald's, and Tim Hortons. In HRM, Spryfield used to be farmland. The Urban Farm Museum in Spryfield is an effort to save the last little bit of that farmland for food production. As farmers are forced to farm more marginal land, farther from the people who consume their products, production costs rise.

A special land conservation fund has been set up at EAC. Interest from the fund will be used for monitoring the land and to cover any legal fees that may arise. We hope to build up the fund in order to protect more working land.

This summer, as I led the milk cow out to her pasture at Red Fox Co-op, I whispered to her that the path we were taking would never ever end up in the middle of a city!

Jen Scott lives and works at Red Fox Co-op, and may be seen on a road near you, with a cow.



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beinggreen

Congratulations to the Nova Scotia Nature Trust in its 10th Anniversary



denise macdonald

The term “pristine places” is often used to describe much of Nova Scotia, though many could legitimately ask if we have many pristine places left. According to the World Wildlife Federation’s 2003 Nature Audit, we live in a province where a mere 10% of all land is untouched including publicly and privately owned land. Only 31% of Nova Scotia’s land is publicly owned. The provincial government has agreed to allocate 8.1% of crown land to be protected; the rest is open for development for such things as forestry, mining and transportation infrastructure.

While EAC has focused on protection of public lands, the Nova Scotia Nature Trust has been working tirelessly, for a decade, to preserve significant natural landscapes through acquisition and conservation easements. The Nature Trust is spearheading a private land conservation movement ensuring the protection of woodlands, beaches, islands and other unique Nova Scotia vistas. “With approximately 70% of NS land privately owned, nature conservation organizations that purchase and protect private land are essential in order to preserve native biodiversity. The Nature Trust plays a critically important role. We’re lucky to have them,” says Raymond Plourde of the EAC’s Wilderness Issues Committee.



denise macdonald

The Nature Trust has made leaps and bounds with over 1547 acres of acquired land and 1153 acres of conservation easements. Their recent successes include: the purchase of Shelter Cove, a picturesque coastal headland, and two properties as part of a longterm project on the St.

Mary’s River natural corridor. In addition, an acquisition of three sites in South Western Nova Scotia has been secured which are reportedly home to several endangered plants and reptiles. Executive Director Bonnie Sutherland is delighted with the success the Trust has seen, though she recognizes the challenges that lie ahead. “Local community is key. Our projects depend on volunteers and a strong network of people who take these properties on as their own,” she says.

In the future you can expect to see the Nature Trust continue their good work conserving exceptional Nova Scotian places and reinvigorating their coastal campaign. “With over 95% of coastal land in Nova Scotia privately owned, our coastlines are severely threatened by development”, says Bonnie. With the coast being one of our greatest assets, here’s to hoping NSNT continues to see success for years to come.

Thousands Hoof it for Walk to School Week



Janice Silver

Students, staff and special guests on their Walk to Breakfast, led by a "Walking School Bus" on October 4.

International Walk to School Week held this year from October 2 to 6 was a success with a record number of 141 schools across the province participating, including over 27,000 students. They joined students in over 2,000 schools across Canada along with thousands of schools in 38 countries world-wide.

This year the theme was Walk to Breakfast to help launch the provincial Breakfast Program. The theme was well-received by many schools that organized healthy breakfasts for students after their walk. The event held at Chebucto Heights Elementary in Halifax was featured on CTV's Breakfast Television on October 5. The Minister of Education and other special guests made an appearance.

The event highlighted the connection between healthy eating and physical activity. It also raised awareness about health, air pollution, climate change and traffic safety in our communities.

Walk to School Week is a springboard for involving schools with walking and wheeling throughout the year. If students can hoof it to school for one day or week, then perhaps they can do it all year round. Many schools with bussed students also participated, emphasizing the physical activity component of the event by walking at school.

Walk to School Week is an initiative of Active & Safe Routes to School, which encourages students to walk and wheel to school. It's coordinated by Ecology Action Centre in partnership with the Nova Scotia Department of Health Promotion and Protection as part of the Active Kids Healthy Kids initiative.

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Clean Air Act Abandons International Environmental Commitment

Companies like NSPI Require Immediate Rules to Reduce Carbon Pollution

By *Brendan Haley*

In Nova Scotia, we are seeing the consequence of the Harper Conservatives' plan to abandon our international commitments to reduce carbon pollution under the Kyoto Protocol. Nova Scotia Power Inc. (NSPI), the worst polluter in the province, and the fifth worst carbon polluter in the country, is not planning any meaningful action to reduce carbon pollution for decades to come.

Nova Scotia Power was recently ordered by its regulator to conduct an Integrated Resource Plan: a full-spectrum look at the entire electricity system for the next 25 years. This analysis will guide investment decisions and will consequently directly influence NSPI's future pollution levels.

NSPI is now making investment decisions with no concern for global warming; these decisions will affect Nova Scotians for decades. They are not taking into account the international scientific consensus that industrialized nations must reduce carbon pollution by 50% from 1990 levels by 2030 to avert a catastrophic climate crisis.

NSPI assumes that Canada will do nothing, or that Canada will join George Bush's Asia-Pacific Partnership, which could see pollution continuing to increase under the guise of "intensity targets". An intensity target considers emissions per unit of economic activity. Intensity targets are a euphemism for business as usual; while each unit of production may become more efficient, there is no cap put on the total level of pollution output.

NSPI is acting as if it is entitled to plan for high pollution levels; pollution levels that will lead to catastrophic implications for the global environment. This is because the Conservative's Clean Air Act sends a strong signal that it is "business as usual". In addition, the government has made statements on the international stage that Canada will abandon our promise to the world to reduce carbon pollution under the Kyoto Protocol.

Such statements are alarming because Canada has a reputation as a nation that works towards international consensus and upholds international obligations. In the past, Canada played a key role in creating an international agreement on mandatory reductions of ozone-depleting substances under the Montreal Protocol. Our nation showed leadership and helped avert a global environmental calamity.

Canada is one of the 162 nations that signed the Kyoto Protocol, which means we are legally bound to reduce the carbon pollution responsible for global warming, either by domestic reductions or by international carbon trading mechanisms. But the Harper government has asserted that Canada will not respect Kyoto. Canada is the only signatory country considering withdrawing from our international commitments. This leaves us standing alongside George Bush, who refused to sign the treaty.

The Conservative's so-called "Clean Air Act" will not benefit the environment because it will not require the oil, gas and coal industries to immediately reduce pollution. Canada does not need to spend years putting together new legislation or undertaking more long consultations like those that have already occurred. The federal government has all the powers it needs under the Canadian Environmental Protection Act to reduce both air and carbon pollution. Further delays will allow companies like NSPI to con-

tinue making long-term investment decisions without regard for the global environment. This will make the required transition away from fossil fuel more difficult for everyone.

NSPI will likely complain that they can not reduce carbon pollution and insist that electricity rates will skyrocket. This chorus was heard before when regulations were created to combat ozone layer depletion and sulphur dioxide emissions. In reality, the track record shows that consistent, market-based regulations tend to make economies more competitive and efficient by reducing waste and inducing innovation.

Actually, reducing carbon pollution emissions in Nova Scotia can boost energy efficiency and support emerging wind, solar and tidal power industries. Sustainable energy can help rural landowners make money by selling clean energy, can create jobs through retrofitting, manufacturing, installations, and maintenance, and could make Atlantic Canada's universities hubs for sustainable energies research and development.

Shareholders in corporations like NSPI may resist new technologies because they have made investments in dinosaur power plants. But the shareholders of one company are not strong enough reason to hold back Nova Scotia's development opportunities. Just as the oil, gas, and coal lobby is no reason to break Canada's promise to the world that is Kyoto. Canadians expect, and deserve, respect for the international commitment we have made.

Brendan Haley is the Energy Coordinator for the Ecology Action Centre.

You can send your comments by e-mail to pm@pm.gc.ca or write or fax the Prime Minister's office at:

Office of the Prime Minister
80 Wellington Street
Ottawa
K1A 0A2
Fax: 613-941-6900

You can send your comments by e-mail to Ambrose.R@parl.gc.ca or write or fax the Environment Minister's office at:

AMBROSE, Rona
Parliamentary Address
House of Commons
Ottawa, Ontario
K1A 0A6
Fax: (613) 996-0785

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Solar Homes Dot the Nova Scotia Landscape

By Andy O'Brien

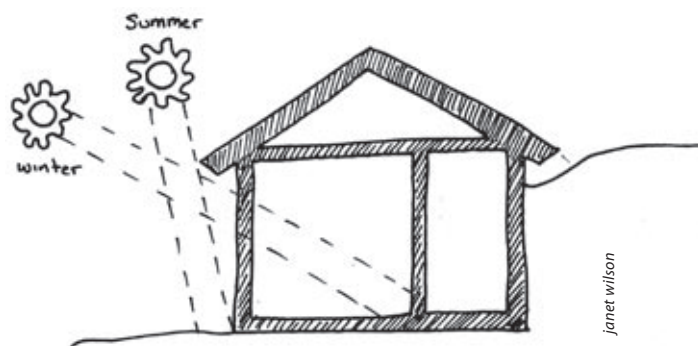


The Solar Homes Inventory Project set sail to spread renewable energy education throughout the province this spring. SHIP's first port of call was the Solar Homes Spotting Contest. Our solar home tour highlighted a home using both passive and active solar technologies and a unique windmill powered boat that could sail directly into the wind. We received entries from all over Atlantic Canada. A reception for the winners to be drawn from our contest entries will be held at The Wooden Monkey in December.

Our efforts yielded media attention from The CBC, Global, ATV, The Daily News, The Chronicle Herald, The Coast, Much Music, as well as many other local outlets throughout the province. We also promoted our project at the Evolve festival's awareness village, the EAC's street party, the Brewery Farmer's market, and the Green Energy conference, in addition to other networking events.

Through contact with such a large number of homeowners employing renewable technologies and contractors engaged in renewable energies, we have found that our project has increased the number of homes in our database by 400%. We have still only scratched the surface of the number of Nova Scotian homes utilizing renewable technologies. Kudos to all those Nova Scotians added to our site and to those we'll add in the future! All of the homes we're adding to our database will stand as a beacon; shining a renewable light to other Atlantic Canadians seeking a softer energy path.

Andy O'Brien is EAC's Solar Coordinator and current Chair of Solar Nova Scotia.



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The Ghost of Christmas Past, Present and Future: A Look at Energy Use in Nova Scotia Since 1971

By Rae Brown and Aaron Smith with help from Gerry Ternan and Brendan Haley

The timing couldn't have been better. In May, 1971, a handful of students came together in a course offered by Dalhousie called Ecology and Action. Inspired and motivated, they received a government grant to open a small scale recycling program in Halifax. In less than a year, their depot was recycling a ton of paper each week. Recycling was just the beginning of environmental issues tackled by EAC, and energy soon became a hot topic for the Centre. When the Arab members of OPEC decided, on October 17th, 1973, to withhold their oil from certain nations, the price of oil quadrupled. This crisis motivated many reactions. The movie industry created the *Texas Chainsaw Massacre*,¹ the Japanese brought the compact car to market, and action became the middle name of Halifax's favourite activist organization.

The OPEC oil crisis coincided with a growing demand for electricity. In 1950, hydro-electric power and local coal satisfied about 70% of Nova Scotia's energy needs. During the 60s, Arabian oil was found to be cheap and available in abundance and several oil-fired power plants were constructed. After 1973, NS and P.E.I. had the most expensive energy in Canada.² By 1978, over 70% of electricity generated in Nova Scotia depended on oil (5.25 billion kilowatt hours that year).

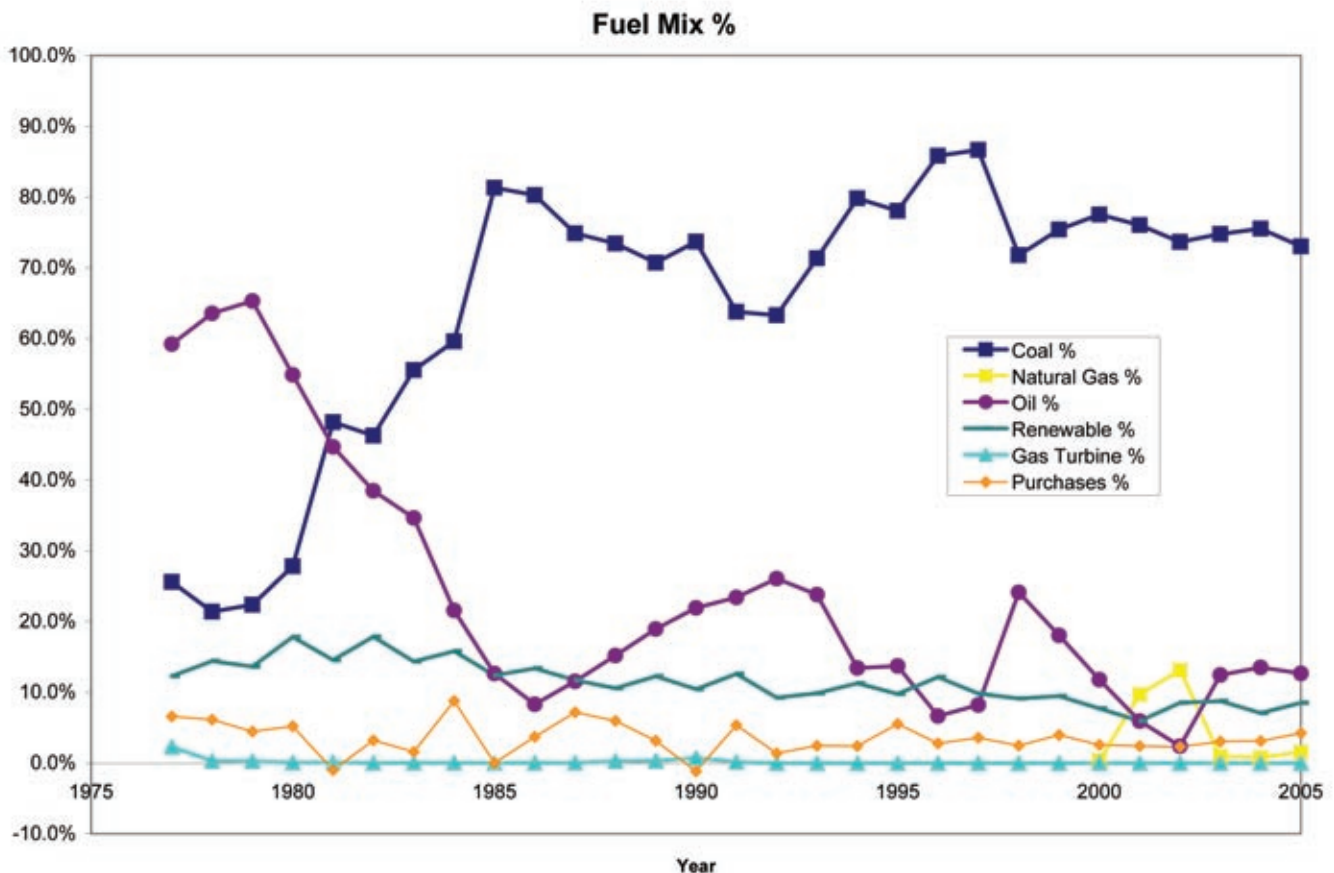
The winds of change were symbolized best when Hurricane Blanche blew down miles of power lines in July, 1975. The 70s began with the installation of more oil-fired power plants but ended with the construction of the first two units of province's largest

coal-fired power plant at Lingan, outside Sydney. Nova Scotia Power Corporation (NSPC) began to source local coal from Cape Breton. Increasing oil prices led to the development of several new coal fired plants, an in depth study of tidal power in the Bay of Fundy, and serious consideration of nuclear power.

In 1973, the EAC banded with like-minded groups to successfully oppose the construction of a 12 000 Mw nuclear power plant on Stoddard Island. Coincidentally, squelching the nuclear dream was followed by an abrupt end to the EAC's core funding. This heralded over 2 decades of financial instability to the newly registered charitable society. The EAC dug in, and in 1980 a moratorium was placed on uranium exploration and mining in the province after the EAC submitted a brief to the McCleave Uranium Inquiry.

In 1976-77, the EAC was a legal intervenor in Public Utility Board hearings, regarding a rate increase proposed by NSPC. Outraged customers responded with an unprecedented number of calls and letters. NSPC then created a new division called "Customer Services," which started the "Wise and Effective Use of Electricity" series, demonstrating the how-to and why of using energy efficiently. This campaign existed until the early 90s. Perhaps reluctantly, NSPC took a conservation stance and by 1978 had pulled the plug on the Electric Living Centre, the Land of Fantasy Christmas presentation, and its parade floats.

Sadly, "off-oil" did not turn NSPC on to wind or solar powered



Nova Scotia Power Incorporated fuel mix in used to produce electricity in Nova Scotia: 1975 to the present.

options. Although the 200 Mw Wreck Cove hydro project in '78, the 280 Kw wind-powered pump storage unit installed in '80-81, and the first tidal plant in North America (built in the Annapolis Valley) in '84, demonstrated an interest in alternatives, the overarching philosophy remained unchanged. L.F. Kirkpatrick, then chairman and president of NSPC, said, "... I do not feel that Nova Scotia's energy problem will be solved by windmills, solar power, wood or waste materials, at least not in this century. They will play a role, but only a small one."³

The 1980's saw coal become the primary source of generation in NS, supplying 64% of electrical energy. The last two units at Lingan were built, the Point Tupper plant was converted from burning oil to burning coal, and an oil plant was shut down in Halifax. Like a bad joke, oil prices plummeted in the mid-80s. Reduced demand and over-production led to a glut on the world market. By 1991, a barrel of oil cost only \$12.

Mulroney's decade in power, 1984-1993, can be remembered for the 1991 Acid Rain Accord, signed with US President George Bush Sr. The causes of acid rain are similar to the factors which exacerbate climate change. "Scientists discovered, and have confirmed, that sulfur dioxide (SO₂) and nitrogen oxides (NO_x) are the primary causes of acid rain. In the US, About 2/3 of all SO₂ and 1/4 of all NO_x comes from electric power generation that relies on burning fossil fuels like coal."⁴ Fifteen years later, acid rain has been reduced by over 40 per cent.⁶ Subsequently, it has been recognized by scientists and politicians in Canada that further reductions are necessary to protect sensitive ecosystems.

The EAC, aligned with other conservation groups, took the federal government to court in December, 1990. The case against the proposed coal-fired Point Aconi Power Plant was lost. In 1996, the Sierra Club chastised Premier John Buchanan for exempting the Point Aconi plant from either environmental assessment or review by the Public Utilities Board. Although it burns fuel in a fluidized bed combustion and emits low amounts of SO₂, the province was given an F for pollution on the 1996 provincial report card. (And an "I told you so" from the EAC.)

After NSPC reported major losses in the late 80's, the public utility was privatized in 1992, becoming Nova Scotia Power Incorporated (NSPI). This same year, the company introduced PowerSmart, a new energy efficiency program. Targets of reducing demand by 175 Mw, and consumption by 700 GW-h, were set for 2001. PowerSmart encouraged consumers to switch to higher efficiency motors, light bulbs and Christmas lights. Oddly, PowerSmart rebates were deferred for 3 years, due to the Demand Side Management (DSM) hearings of 1993. By 2001, consumption had actually risen over 2000 GW-h!

In 1995, two years after taking office, Chretien's Liberals declared that CO₂ levels should be lowered to pre-1990 levels, by the 21st century. When Chretien signed the Kyoto Protocol in 1997, it gave the illusion he was about to take action on climate change. Action Plan 2000 and then The Green Plan came about, but GHG emissions continued to rise.

NSPI budgeted \$30 M for a 4-year Integrated Resource Plan (IRP) in 1994, to evaluate the future sources of fuel. Again NSPI supported the use of fossil fuels, "Solar power is not a commercial reality in Nova Scotia. Tidal, wind-powered and gas turbine use will all remain marginal." Perhaps a self fulfilling prophecy, as exploration for fossil fuels continued feverishly. Mobil Oil and Shell Canada shared their discoveries in the Sable Offshore Energy

Project in 1994-95. As an official intervenor in this project's hearings, the EAC criticized it on both environmental and economic grounds. The EAC's Energy Issues Committee was officially resurrected in 2001 – with staff and committee membership quadrupling this year.

Public concerns surrounding rate hikes, climate change, and instability of the global oil market are at an all time high. People are more educated on energy issues, particularly the host of environmental and health risks associated with coal, such as particulate matter released into our air and lungs, and high GHG emissions. Ever increasing imports of coal from developing nations have brought awareness of the conditions in which the coal NSPI burns. As of 2006, NSPI imports about 40% of its coal from Colombia. Nova Scotians have protested human rights violations of Colombian miners through the displacement of communities, health difficulties and other abuses. Local impacts of continued coal fired generating plants have been protested by residents of Trenton in Pictou County, and Lingan.

In 2005, NSPI proposed to spend only \$5 million on energy efficiency, when others are spending at least six times that amount. Nova Scotia Power's latest plan is an improvement, but still falls short of necessary targets. In the near future, the EAC will continue to work for improved energy efficiency through participation in another Integrated Resource Plan. Over the next 35 years, scientists predict that we must reduce today's levels of carbon pollution by over 70% to stop catastrophic climate change.⁶

Will the province and NSPI truly embrace the need for meaningful energy conservation? Will the brief blip of energy conservation and attention to renewables experienced during the 1970's return to stay? The EAC and the Energy Issues Committee will continue to work towards reductions in energy use and an increase in renewable generation.

The Texas Chainsaw Massacre may be back in cinemas, increasing numbers of Smart Cars may be on the streets, and more and more light fixtures are sporting compact fluorescents and even a few LED's. But it is our imperative that the next 35 years lead to more action on sustainable energy than has been seen in the last 35.

1. Set in Austin, TX in 1974, Leatherface uses a gas-station as a trap to lure (and kill) motorists.
2. <http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1SEC868914>
3. 1978-79 NSPC Annual Report
4. http://www.policyalmanac.org/environment/archive/acid_rain.shtml
5. http://archives.cbc.ca/IDC-1-75-584-13384/science_technology/acid_rain/
6. http://www.sierraclub.ca/national/rio/1996/rio_ns.html

Electricity Terminology

Fluidized Bed Combustion (FBC): a coal fired power plant technology that can allow reductions in sulfur dioxide (SO₂) by 90% and Nitrous Oxides (NO_x) by 65-75% but also increase the production of Carbon Dioxide (CO₂).

Watt [W]: A measure of power. Represents the potential for producing energy.

Watt-hour [W-h]: A measure of energy. One thousand watts used for one hour is equal to 1 kilowatt-hour [KW-h].

Scars from a Silent Battle

By Chantal Gagnon

Working on the Environmental Impact Assessment (EIA) review of the Keltic Petrochemicals Inc. Liquefied Natural Gas (LNG) and Petrochemical plant proposed for Goldboro, Guysborough County is like being stuck between a rock and a hard place. On one side, is one of Nova Scotia's most beautiful and wild areas that holds the promise of plenty for those who can envision a more social and sustainable way of life than the current capitalistic one. On the other side, there are warm, friendly jovial people who, through circumstances partially within their control and partially within that of our governments, are in an economically precarious situation, and desperately want to see material prosperity come to their homes.

At first glance, this doesn't seem like a difficult scenario. Sustainable economic development, social justice and increased living standards are tied to environmental sustainability. Globally, international development efforts in the last two decades have focussed on sustainable development through ecosystem maintenance or rebuilding, community empowerment and social justice programs. Despite this, such development continues to be a hard sell in Canada's natural resource based economy that has benefited financially with the expansion of the global commodities market.

If approved by the provincial Minister of the Environment and Labour, the Federal Minister of the Environment, Federal Ministers of Fisheries and Transport Canada, the Keltic Petrochemicals project, will alter, and in many cases destroy, over 600 hectares of land. This includes infilling wetlands, damming a lake and river, blocking 45% of Isaac's Harbour's entrance, increasing green house gas emissions, and increasing our dependence on a foreign source of non-renewable energy. All this in the name of economic growth and job creation, with the majority of the products from the LNG and petrochemical plant heading south of the border, to fuel US markets.

Trying to maintain healthy ecosystems and at the same time consider the employment crisis for the citizens of Guysborough County has proven to be an emotional and mental challenge. I understand the appeal of employment at any cost when you cannot feed your family properly, cannot afford to heat your house, and have suffered the loss of self confidence and self worth that comes with long periods of unemployment. However, when I moved into the environmental field my purpose was simple; serve life - all life. In reviewing the proposed Keltic Petrochemicals project, I could not limit my sight to those few people who would benefit for a few years, and maybe some a few decades. I had to assess the full cost of this project - to natural life processes and human life processes in Guysborough County and around the world for many generations.

Thus my question became "Is this project really going to bring prosperity to those most in need in Guysborough County, now and in the future?" When reviewing the EIA commissioned by the proponent I included estimated jobs created, overall economic arguments, and environmental and human health impacts. Though not surprised by what I found, I was surprised by my anger resulting from what was revealed in the EIA. The project proposes to create long term environmental damage, pollute air and water, and contribute to an unsafe and unjust society - while providing very little in the way of sustainable prosperity for citizens of Guysborough County. The stated economic benefits for citizens of Guysborough, for Nova Scotia and for Canada are short-term and for a very limited number of people, most of whom do not live in Guysborough County. The profits are for the company, and the collateral damage is the environment, community health and social consequences - which all have long term time lines.

The proposed project by Keltic Petrochemicals ensures that we will continue the past habit of dealing with economic hardship through a cycle of industrialisation that, in the end, creates more needs than it satisfies. An old vision disguised in new technology and a new image of an old resource. The proposed LNG and petrochemical plant is not visionary or forward thinking. Positive impacts do not outweigh the negative, if one is looking through a lens of environmental and community health. The proposal will not address the needs of Guysborough citizens in solving their economic and social disparities,

especially in the long term.

After the public hearings held the week of November 20th to 25th, the environmental assessment board has until December 20th to submit their recommendations to the Minister of Environment and Labour. The Minister's final decision should be in early January 2007. Until then Nova Scotians can write or call the Minister and their MLAs to voice their concerns regarding the Keltic Project. More information can be found on our website at <http://ecologyaction.ca/lng>.

As for me, my emotional and mental scars resulting from this silent battle will remain as long as the beauty of Guysborough County, its warm friendly people, and the injustices that have befallen them continue; until the old way of addressing our social and economic needs changes for a way of life that all generations of Canadians have an equal right to.

Chantal Gagnon has lead the critique of the LNG Environmental Assessment. For detailed information, see www.ecologyaction.ca/lng. To get involved visit our website, or contact Chantal Gagnon @ 442-5051, lng@ecologyaction.ca.



A Fire in the Forest: The Downside of Biomass Burning

By Joanne Cook

Biomass is one of the hot buzzwords in green energy circles these days - it's the term for fuel sources that come from plants, fish, animals - any sort of organic materials. The push to find energy sources that don't depend on coal, oil and gas has led to proposals to burn hemp, corn, farm wastes - and more wood.

Last year, EAC's Standing Tall campaign was alerted to at least five new proposals to the Department of Energy to develop biomass capacity based on wood. In cooperation with the Energy Committee, we've been working on the issue ever since. Staff prepared a technical research report into the potential impacts (which will soon be available through the Standing Tall website), and have had discussions with Department of Natural Resources (DNR) Ministers and staff on the issue. DNR has struck a working group to develop biomass guidelines, with an EAC representative.

So why are we concerned? Don't we already burn wood, and isn't a renewable energy source like wood better than using more coal? In 2003, less than 1% of Nova Scotia's energy capacity came from using biomass - mostly through industrial recycling of wood wastes. In addition, many Nova Scotians rely on wood in whole or in part for home heat.

Growing interest in our forests to produce biofuels for industrial-scale energy projects is troubling for many reasons. For one thing, most Nova Scotians are already worried about our forestry practices. The forest industry clearcuts over 200 football fields a day, 500 square kilometers a year. Recent polls commissioned by the Nova Forest Alliance show an overwhelming majority of respondents in central Colchester and Cumberland thought clearcutting should be banned or strictly controlled. World Wildlife Fund scientists have categorized our native Acadian Forest as endangered. We have no annual cap on how much wood can be cut. And in July, our Auditor General found that industry had somehow doubled its total harvest in half the time DNR's projections had allowed.

Using forest biomass for energy could mean harvesting even more wood. Much of our forest land is already degraded, wildlife habitat gone (with two-thirds of the Liscomb Game Sanctuary clearcut, where are the tall hardwoods and large cavity trees for owl and hawk nests, bears and wood ducks?). Biodiversity has been lost, and forest ecosystems have disappeared, to be replaced by spruce and fir monocultures. Increasing the pressure to cut more wood, to use as an energy source, is not a good idea.

One of the few good things you can say about forestry practices in this province is that the slash is left on the ground. Those heaps of branches, twigs, and leaves that make clearcuts look so messy and wasteful? They are essential for long-term soil fertility and biodiversity. That's why they're left there. But attention is focusing on burning that slash, or 'underutilized' hardwood forests, and

using 'whole tree harvesting' that removes leaves, twigs, branches and even roots.

Ample scientific evidence exists to show that harvesting even more biomass from sites will cripple site productivity, including Nova Scotia-specific work carried out by Dalhousie biologist Bill Freedman. His research found that whole tree harvesting removed 99% of nitrogen, 93% of phosphorus, and well over half of the reserves of other nutrients held in the tree. Stored nitrogen in the soil dropped by over a third after a whole tree harvest in Maine.

Many people think that burning forest wood is carbon neutral - trees absorb carbon dioxide as they grow, and it's given off when they're burned, so it must be balanced, right? Not exactly. The organic matter in soil holds two-thirds of land-based stores of carbon. When forests are clearcut, and forest soil exposed to wind, rain, and the heat of the sun, soil carbon begins to off-gas - sometimes at startling rates.

A study in Maine found that soil carbon in a whole tree clearcut was one third lower than at a comparable unharvested site - after 17 years of regrowth! Research in British Columbia showed that a three year-old Douglas fir stand growing on a clearcut was the source of the largest land-based ecosystem carbon loss ever recorded.

It takes decades for soil organic matter to recover after a clearcut, possibly even 80 years in Acadian Forest conditions. As well, trucking wood to energy facilities uses fossil fuels - and those greenhouse gas emissions must be factored into estimates for carbon neutrality.

Deliberately cutting wood for energy may have merit, but only in the context of (1) a provincially enforced annual allowable cut, (2) much-improved logging practices that match the natural ecosystem patterns of the Acadian Forest, and (3) an open and truly competitive forestry sector that allocates forest biomass to the highest and best use, whether it be sawlogs, pulpwood, residential firewood, or bioenergy plants.

Joanne Cook is Coordinator of EAC's Standing Tall Campaign. EAC will have a technical report on biomass as an renewable energy available for download in the New Year. Questions or comments? Call us at 902.429.1335, or email forests@ecologyaction.ca



The Crude Facts: Full Cost Accounting of the Alberta Tar Sands

By Dave Lovekin

The majority of what we in the Atlantic provinces hear about the tar sands (that is, tar sands – not oil sands, as they have been renamed to make them sound more palatable. This has also happened with the change of terminology from global warming to climate change) is from friends, relatives and the media about the thousands of Atlantic Canadians who have gone west to seek their fortunes. And now, the Nova Scotian jobless rate has hit a new low – not necessarily because we have more jobs, but we have less people seeking jobs. We hear about the cost of a cup of Tim Hortons in Fort McMurray, the numbers of people without adequate living space, and the longing for the smell of the ocean. But, there is much much more that we need to know about these tar sands, that is affecting more than our social environment and employment rates.

The northern Alberta tar sands cover approximately 150,000 km². Tar sands differ from crude oil extraction in that it is not really oil, but low-grade bitumen extracted from the earth, and then “upgraded” to create “synthetic” crude oil. Over the past 15 years, due to soaring oil prices, technological advances, massive government subsidies, royalties and tax breaks, this once marginal resource has become economically lucrative. The tar sands have gained worldwide recognition and multinational oil corporations have invested billions of dollars into their development, seeing Canada as a safe alternative to investment in other more conflicted areas of the world.

Alberta’s tar sands are the second largest reserve in the world, next to Saudi Arabia. With the direction of the global oil market, the uncertainty of global oil procurement, and our ever increasing need for energy, there is little doubt that the oil sands will be exploited for all they have to offer. In Canada, this resource extraction has created extraordinary wealth, and has proven to be economic boon for Western Canada. The once ambitious target of producing one million barrels a day, by 2020 has been achieved with a new goal of 5 million barrels a day by 2030. To date, a small fraction of the 315 billion barrels of recoverable tar sands have been developed, with an ultimate potential estimated to be as big as 1.7 trillion barrels of crude bitumen.

Typical of such resource extraction, economic benefits are extreme environmental and social expense, and felt in Alberta, At-

lantic Canada and around the world. A large quantity of energy and water are required to extract and produce one barrel of synthetic crude oil from the tar sands. It is difficult to understand the financial value of the oil sands when the hidden costs of environmental and social damages have not been considered.

Northern Alberta’s boreal forests are being decimated at an alarming rate with very attention to restoration and reforestation policies or programs. Fresh water fish habitat is being destroyed, and enforcement of the federal Fisheries Act habitat protection provisions is clearly not a top priority with staff cuts and increased streamlining of the environmental assessment processes. Surfaced-mined tar sands are dug out from 100 metre deep strip mines. Less than 25% of this land is reclaimed by industries, with the result of a scarred, obliterated landscape with no evidence of the former boreal forests. Large volumes of water are required

for mining and extraction of bitumen. Two to five barrels of fresh water is required to produce one barrel of crude oil. 349 million cubic meters of water per year is permitted to be drawn from the Athabasca River, of which only 10% is ever returned to the river. The remaining water ends up in collection ponds, which pose great environmental risks to the surrounding areas. The tar sands industry diverts enough water from the Athabasca River yearly to supply a city of 2 million.

To produce 1 barrel of crude oil, requires 250 cubic feet of natural gas. A further 500 cubic feet is needed to upgrade the oil so it can be sent to refineries. The tar sands industry currently uses 600 million cubic feet of natural gas daily, enough to heat 3.2 million Canadian homes per day.

The tar sands industry has been under increasing pressure from the environmental sector to use other forms of energy in the production process. Current considerations to replace natural gas include nuclear energy and/or coal gasification. Extraction of oil from the tar sands is the single largest contributor to growth in greenhouse gas emissions in Canada. In 2000, 23.3 mega-tonnes of GHG’s were emitted into the air. In 2015, even best case scenarios put GHG emissions at 57 mega-tonnes.

The tar sands are publicly owned by Albertans, and as a result of oil production, the province has no debt and is running a considerable surplus which is being reinvested into infrastructure and





education. However, the impacts of tar sands development affects all Canadians. As the economic vitality of the tar sands industry increases, Atlantic Canada's ability to retain and attract a talented workforce decreases. Atlantic Canada is losing valuable income tax revenue as workers go west. Government assistance programs are affected as some workers return to the east to collect unemployment insurance, and be close to home.

As long as the tar sands remain economically advantageous, the pressure is off the Canadian government to seriously consider alternative approaches to energy generation. The influence of the tar sands industry on government policy is clear, given that the Clean Air Act, as originally tabled, predicts decreases only in 2050 – the year when it is predicted that tar sands production will have declined. In Nova Scotia, we have an abundance of feasible renewable energy alternatives, including wind, tidal and solar. Yet, we continue to rely on coal and oil for our electricity needs. Rather than keeping our workforce at home, employing them in renewable energy industries, we celebrate the incomes of those who return for holidays, rarely commenting on the irony of this economic boom on the long term environmental and social health of our communities.

Dave Lovekin is a recent recruit to the BTI Committee and we are lucky to have him. . For further information on the tar sands, see "Oil Sands Fever – The Environmental Implications of Canada's Oil Sands Rush" published by the Pembina Institute, Nov 2005.

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Lincolnville's Fight Against Environmental Racism

By Lyndon Hibbert, Wendy Campbell and James Desmond

Lincolnville is a black community located in Guysborough County along Route 16. The community has a history, like other black communities in Nova Scotia, of being victimized by racist practices by local governments. These practices formed the community, settled in 1784, by driving the people from their promised land, a 3000 acre "Thomas Brownspriggs" land grant promised to them by Queen Victoria, onto a barren land away from the white communities.

As in other black Nova Scotian communities, the children of Lincolnville were segregated into black only schools and it wasn't until 1983 that the elementary age children of Lincolnville were permitted to attend school with whites childrens. Lincolnville was the last segregated school in Canada – in 1983. When opportunity for integration presented itself in 1965, the municipalities of Guysborough and Antigonish moved their county boundaries to ensure that white children would not attend. Though schools today are integrated, the legacy of segregation continues to affect residents to this day.

Since 1974, Lincolnville has been fighting against a 1st generation landfill located next to their community. The fight has arisen many times over the last three decades, and subsided following pressure and false promises by the municipality of Guysborough, lack of financial support and legal council.

Environmental racism is defined as the intentional siting of hazardous waste sites, landfills, incinerators, and polluting industries in and around communities inhabited mainly by people of black descent and First Nation people, as well as the working poor. Environmental racism is used as a political tool, to displace a group of people for elite economic gains. Minorities are particularly vulnerable because they are perceived as weak and passive citizens who will not fight against the poisoning of their neighborhoods.

Race is the most significant variable associated with the location of hazardous waste sites. A Dalhousie study conducted in 1996 found that over 30% of Black Nova Scotians live within a 5km radius to a waste dump. Provincially, environmental racism is a standardized process that has become systematically reinforced throughout the history of Nova Scotia including: Africville (1960's), Lincolnville landfill (1974), East Lake Landfill (1992), Halifax wastewater treatment plant (2002), and Guysborough Waste Management Facility (2006). Within the municipality of Guysborough

there is a long history of placing dumps in the backyards of black communities, including Sunnyville, Lincolnville, and Mulgrave.

The 1st generation landfill, just a kilometre away from the community of Lincolnville, was virtually unsupervised and until 2002, standard environmental testing was not done. The Concerned Citizens of Lincolnville have reported that a number of fires have broken out over the years, one of which lasted for two days. A high level of diseases such as tumors, cancers, intestinal disorders etc. have been associated with the community of Lincolnville. The municipality denies that there is any correlation between the landfill and the health of Lincolnville residents.

At the end of the 1st generation landfill life span, the municipality of Guysborough began working on plans to build a 2nd generation landfill right beside the 1st, which would handle waste from 17 different municipalities. The reason why they performed required testing in 2002 was to begin closing the 1st generation landfill and start building the 2nd generation one. The site director said, "It's expensive to site a landfill and using the old site would eliminate the expense". This meant that even though a 1st generation landfill site could only be used for approximately 25 years, they were now going to extend the use of the land for waste management purposes for at least another 20 years. Municipal revenue was put ahead of community health and quality of life of Lincolnville residents in the decision for the location of the 2nd generation landfill.

The municipality of Guysborough says that they consulted with the community before they went ahead with the landfill. Their "consultation" included one meeting with five members of the community. Several question pertaining to the operation and environmental impact of the landfill remain unanswered by the municipality. They claim that the community was adequately notified of the consultation meeting and that any opposing residents should have attended. According to residents of Lincolnville, the government did not announce the meeting over the radio, despite the known fact that most residents get their information from local radio.

Opposition to the landfill and later protests against it took place up to its opening day on January 3, 2006. In its first month of opening, 55,780 tones of solid waste were received at the 2nd generation landfill.



In March, 2006, the organization Bound To Be Free, whose vision is to eliminate institutionalized poverty among black Nova Scotians and the oppressed through re-education and wealth creation, visited the community of Lincolnvillle. Upon hearing about the history and the landfill, Bound To Be Free pledged financial and human resources to assist the residents of Lincolnvillle.

In July, a meeting was held to bring together groups, organizations and individuals that were supportive of the Concerned Citizens of Lincolnvillle's cause, including : Bound To Be Free, African Nova Scotian Brotherhood, Nova Scotia Public Interest Research Group, Ecology Action Center, Halifax Coalition Against Poverty, Sierra Club, Rev. Mutale of the African United Baptist Association (AUBA) and other concerned individuals.



Save Lincolnvillle seeks:

- An injunction to stop the operation of the landfill until an inquiry on the flawed consultation that the municipality held in the community of Lincolnvillle and an investigation into the impact of the 1st generation landfill on the citizens of Lincolnvillle health.
- The removal of the 2nd generation landfill to a location that does not have a direct impact on a community and the recovery and redevelopment of land with direction from the residents of Lincolnvillle.
- Full reparation and compensation be given for the depreciation of land, devaluation of the community, health issues and quality of life.
- All municipal resource management programs and planned waste management infrastructure in Nova Scotia be preceded by an inclusive transparent consultative process with all sectors of the community and pass a public referendum before site situating or the tendering process begins.
- The campaign demands that consultations for municipal resource management programs and planned waste management infrastructure involves having persons from the Black and Native communities sit on the permit granting committee of the Nova Scotia Department of Environment and Labour.

You can join the fight and get information about the Bound To Be Free: Save Lincolnvillle Campaign at:
<http://savelincolnvillle.nspirg.org>

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Uncovering Re-cover Journals

By Catherine Joudrey

What has a hard cover, pages, and many faces? You guessed it, a book! Books come in many shapes and sizes; this is one of the reasons why Maggy Burns' company, Re-cover Journals, is unique. She rescues hard cover books and record albums from their untimely landfill fate and transforms them into lovely journals, notebooks, and photo albums. Each one has a different cover and a distinct history.

Her entrepreneurial venture began 5 years ago with a binding machine, a love of paper, and a keen imagination. The first new product was developed using old record albums. Since many record owners have nowhere to play these musical treasures, it became "obvious" to Burns that these records were destined for a new life as photo albums. Since the jacket and record itself remains part of the photo album, the integrity of the product remains. Journals and notebooks are also part of the product line; rescued covers were rebound with several sheets of recycled paper. Burns reflects, "(there is a) hip, modern, kind of ironic sensibility that goes into making (Re-cover products)".

Turning a discarded item into a new product is exciting. As someone with a day job at the EAC, Burns says she is "super interested in the environmental side (of the business)". Every product made by Re-cover journals uses 100% post consumer paper. In 2005, the Nova Scotia Resource Recovery Fund Board recognized Re-cover Journals for its 'Innovation in Waste Management'. The business successfully diverts 2000 lb of old books and 300 lbs of LPs from entering landfills each year.

Running a business is not all about phone calls and paperwork. In fact, Burns' favourite part of business is going on a "treasure hunt" to find used books and albums. The Re-cover team visits numerous locations to purchase books including, library book sales, flea markets, and the Salvation Army. Most books have been well loved; they often have battered pages, library tape marks, dog bites, and special messages on the inside covers. Due to their unique history and different titles, Burns looks for "aesthetically pleasing" books to



transform into Re-cover products.

One of the most rewarding aspects of the entire process for Burns' is when customers find the album, journal, or notebook that suits their personality. While customer's shop, Burns enjoys hearing people say how a particular book title or cover art is "perfect for (a certain relative, friend, etc)". Many journal owners tell her that they use their books for writing, sketching, and photography. She enjoys that "(each) book originally meant something else (and it is being) re-interpreted". Currently, she is using a journal titled "Here Abide Monsters". This journal is where she records all the "monstrous things" she needs to accomplish. As a wedding present, Burns gave a journal titled "Some Honeymoon". During a week long Kejimikujik adventure, the journal had a mishap with a mud puddle, but it continues to house many memories.

Re-cover Journals is continually strategizing to create new products. Recently, the business began producing day timers as a custom order. If this product is successful, these day timers might be in stores in the near future. Burns smiles as she thinks about coming up with a name for the day timers.

Currently, Burns uses the basement of her house for the production process. The items are sold to over 60 retail outlets across Canada. In Nova Scotia, Re-cover Journals can be found in speciality shops in Halifax, St. Margaret's Bay, Antigonish, and Cheticamp. These stores include a variety of independent bookstores, gift stores, gallery shops, and environmental shops. Re-cover products have also been marketed in the United States.

The Re-cover Journal team continues to have fun creating dynamic, environmentally friendly products from items considered waste. For more information on this company, please visit www.recoverjournals.ca.

Catherine Joudrey is studying media arts, and continues to be a faithful and greatly appreciated BTI volunteer!

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Flashback Photos

EAC's 35th Anniversary celebration boasted characters from EAC's past, including some of these fine folks seen below. Thanks to our beautifully clad guests and generous sponsors for an evening of fine music, dancing and a roaring good time. Clockwise from the top left: Jim and Anne; Jennifer, Monique & Inso; Karen & Fred; Ashley & Joanne; Christy & Jenn; Cora; Ted.



Photo's by the talented Katie Mahon

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Green Roofs: Facts, Fantasies and the Future

By L. Jack Yurko with Tricia Barry and Rima Thomeh

As cities continue to grow, green spaces and areas for people to stop and enjoy life are often traded in for increased density. Buildings take the place of natural areas, replacing plants, insects and birds more often than not, with concrete. Some of this can be regained through the installation of a green roof, where the loss of a natural area, or even vacant lot can be accommodated, and include a number of improvements to the built environment.

A green roof is an extension of a traditional roof that involves high quality waterproofing and root repellent layers, a drainage system, filter cloth, a lightweight growing medium, and plants. There are two types of green roofs, intensive and extensive. Extensive roofs have a thinner layer of growing medium, use low maintenance plants such as grasses, sedums, and succulents, and need little maintenance after installation. Intensive roofs use deeper growing mediums, have a wider range of plant types including larger species such as trees, require regular upkeep, and are generally accessible to people.



The benefits of green roofs are numerous and if implemented on a wide scale, could go a long way to helping cities become healthier places to live. For example, a 2.5 inch deep extensive roof can retain 40% of a 2 inch rain shower. Those numbers increase depending on the type of vegetation planted; a 4 inch grass cover and mix of herbaceous vegetation retains 71% of water. Not only is stormwater runoff reduced, but so are pollutants as the foliage, roots, bacteria and fungi in the growing medium all play a part in mediating chemical components of rainfall. Given that HRM's storm water drains directly into the harbor, green roofs can help decrease storm run off, which is bound to affect sewage treatment – once we get it!

Urban infrastructure includes copious amounts of pavement, concrete, asphalt, and steel all of which absorb heat absorption and raise the temperature of a city, more so than the surrounding countryside. This is known as the Urban Heat Island Effect. Living in Canada, this may sound good especially in the winter, but those higher temperatures lead to increased

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production of smog, which aggravates respiratory issues. We know all too well of the increasing number of smog days in the Greater Toronto Area. Vegetation transpires water from its leaves using heat energy from the atmosphere, in the process lowering the temperature. One square meter of uncut grass can remove half a liter of water from the air on a hot day, and will remove 200g of particulate matter from the air on a daily basis. If enough green roofs were built, the Urban Heat Island Effect would be reduced.

Green roofs also extend the roof life. Research conducted in Germany has found green roofs to last twice as long as regular roofs, up to 40 years in some instances. They can provide garden space for food production, if intensive green roof technology is used. Green roofs add insulation, decreasing cooling needs in the summer and to a lesser extent heating needs in winter. Psychological and physical health is also enhanced for people who are able to enjoy the view from an office window or the use of a green roof from their building or home.

Professor Jeremy Lundholm of Saint Mary's University Department of Biology and Environmental Studies Program, is in the process of building a green roof test facility at the SMU campus. His research is to investigate the viability and specific benefits of green roofs in HRM. He is also hoping to find which plants native to the area will grow best on roofs, with results planned for 2008.

Despite the benefits, there are substantial barriers to green roofs in Canada, with the largest barrier being lack of knowledge about green roofs and their installation. Green roofs are not an element of mainstream contracting or home design. There are few companies in Canada that supply green roofs exist, and there has been little leadership in government R&D or marketing to create incentives to build green roofs. Toronto is a notable exception, having adopted a program to increase the amount of green roofs in the city.

The increase in cost of installation relative to many traditional roofs, requires that some incentives be used to at least start the trend. Architect Kendal Taylor

who worked on building the green roof on the Bedford Institute of Oceanography plans for green roofs are often abandoned when final costs are calculated. In Canada, you can get a simple green roof installed for \$7-\$12 a square foot. As they become more complex prices go up with intensive roofs being the most costly to install and maintain. As green roofs can perform many of the services that will lead to increased sustainability in our cities, municipalities could adopt tax policies designed to encourage green roof installation. Under the LEED™ system, a building can earn one credit for having a green roof. It can also contribute to earning credits under other categories because of its effects reducing the Urban Heat Island Effect, reducing storm runoff, and reduced site disturbance, not to mention potential for food production and native plant propagation.

Before home owners accept green roof as real possibilities, several myths need to be dispelled. One commonly held belief is that the roof will suffer water damage. Green roofs are designed to hold water up to a certain capacity, after which point the excess water drains off (sort of like your lawn, with landscaping cloth underneath). Another is that roots will penetrate the membrane and cause damage to the roofing system. Plant roots are kept separate from the membrane with a drainage layer and if necessary a root barrier. Barriers made of PVC, TPO, and EPDM, are good enough by themselves to hold off root intrusion. Are you building or renovating a home or building? If so what is stopping you from installing a green roof?

The authors are all members of EAC's Urban Issues Committee and are looking forward to seeing view planes dotted with green roofs. Please send feedback on the implications you see of building green roofs in Nova Scotia, and let us know if you have experience with Green Roofs that you would like to share. For more information, contact us at urban@ecologyaction.ca.

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