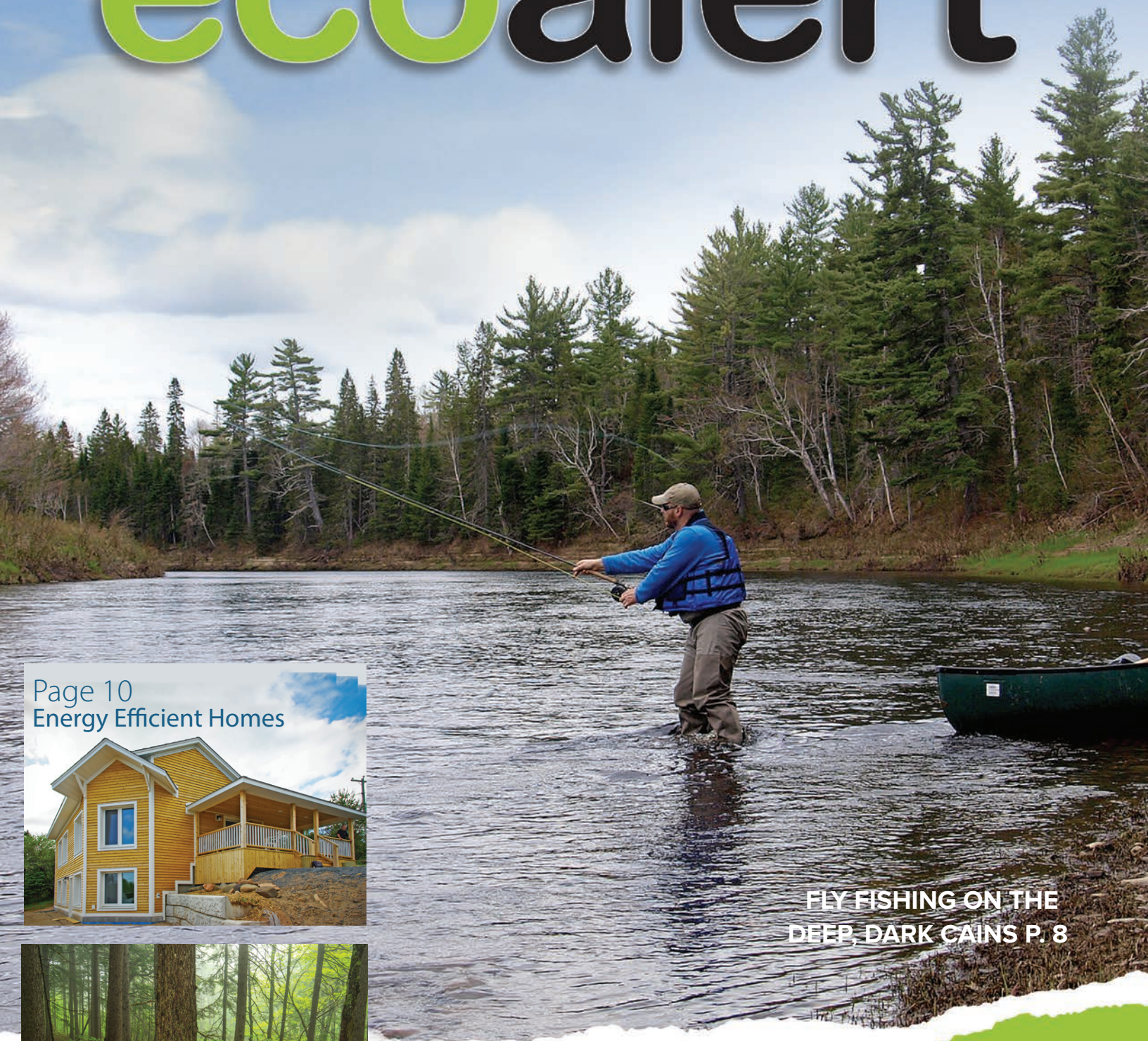


CONSERVATION COUNCIL OF NEW BRUNSWICK

Summer /Fall 2015

ecoalert



Page 10
Energy Efficient Homes



FLY FISHING ON THE
DEEP, DARK CAINS P. 8

Page 4
Auditor General's
forest report



CANADA		POSTES
POST		CANADA
Postage paid Publication Mail		Port payé Poste- publications
40050411		

You have the power to save

In New Brunswick we all need electricity. We use it to heat our homes, to heat our water when we shower, and to entertain our family. Now that's a lot of electricity. And that's why it's smart to get into electricity saving habits, or smart habits.

Why pay for
electricity
you don't need?

smart habits.ca



CONSERVATION COUNCIL
OF NEW BRUNSWICK

BOARD OF DIRECTORS

PRESIDENT

Liane Thibodeau

DIRECTORS

- John Bird
- Stephanie Coburn
- John Crompton
- Susan Eddy
- Kathie Goggin
- Hannah Grant
- Matthew Hayes
- Frank Johnston
- Scott Kidd
- David MacDonald
- Tyler McCready
- Rob Moir
- Andrew Secord
- Owen Taylor
- Paula Tippett
- Jessica Vihvelin

STAFF

EXECUTIVE DIRECTOR

Lois Corbett (on leave)

PROGRAM STAFF

- Matt Abbott, *Fundy Baykeeper*
- Michèle Caron, *Translator*
- Blair Cox, *Marketing*
- Olivia DeYoung, *Intern*
- Tracy Glynn, *Forest Conservation*
- Nadine Ives, *Learning Outside Coordinator*
- Jon MacNeill, *Communications*
- Karyn MacPherson, *Intern*
- Stephanie Merrill, *Freshwater Protection*
- Inka Milewski, *Science Advisor*
- Justine Spits, *Translator*
- Bernard Wierzchosl, *Summer student*

ADMINISTRATION

Stephanie Phillips



CONSERVATION COUNCIL
OF NEW BRUNSWICK

180 St. John Street
Fredericton New Brunswick
Canada E3B 4A9
www.conservationcouncil.ca
Tel: (506) 458-8747 Fax: (506) 458-1047
Email: info@conservationcouncil.ca

Follow us:



Renewables on the rise

It's nearly over. The pieces are falling into place, momentum has never been stronger, and a better world grows more possible and probable every day. The age of fossil fuels is being replaced.

You, like me, know that this isn't scary. It's exciting, inspiring and empowering stuff. It will mean more jobs for our young people, a more resilient, stable energy supply, and cleaner, healthier communities.

And we don't just get to watch it happen, we — and people like you — are making it happen.

Why am I so confident? The signs are all around us.

The energy game is changing. For more than a century, the development of energy has been in the hands of large corporations intent on maximizing their profits. Now these companies have to compete with the likes of the minds and the powerful technology that drove the iPhone's rise to market greatness — the old guard doesn't even stand a chance.

I'm talking, of course, about clean energy innovators — companies like Tesla, Solar City, Bullfrog Power and Fundy Solar in N.B. The renewable energy systems being developed in communities and countries across the world live in the fast-paced, highly-competitive, innovator-driven world of technology, not the sluggish, insulated and isolated world of the corporate marketplace.

In the technology world, creativity and competition serve to ensure that prices keep falling, quality continues rising, and rapid change is normal, constant, and embraced.

Remember that today renewables are almost cost competitive with fossil fuels, and in many cases already are. Within a couple of decades — maybe even less — oil, gas and coal simply won't be able to compete. Renewables and storage will just keep getting better and cheaper, meanwhile fossil fuels will

keep getting more and more difficult and expensive to develop and refine.

Look at what Tesla Motors is doing with their electric cars. Look at Tesla's Power Wall, which can store enough electricity to power the average American home for a month, available today for the reasonable sum of \$3,500. Look at Solar City's innovative business model of supplying solar panels to homes and businesses, and Bullfrog's creative method of letting homes and businesses switch to 100 per cent renewable energy. Look at how wind and solar capacity has doubled every two years over the past decade alone, while costs plummet in stride.

These trends are adding up at such a pace that it's entirely likely all new electricity generation will come from renewables well before 2050.

And what has been driving this shift? You have.

You've made this possible by wanting a safer, cleaner, healthier world for your families and friends. You've put wind in the sails of the energy sector's game-changing innovators by caring so deeply and by supporting groups like us who work on your behalf to bring about the world you want.

We will continue to push for strong, smart and safe energy policy here in New Brunswick and across Canada. And as world governments look to nail down meaningful climate action in Paris this December, it's only a matter of time before all fossil fuel bets are off.

The age of fossil fuels is being replaced with the age of renewables.



Liane Thibodeau is president of the board of directors of the Conservation Council of New Brunswick

For advertising inquiries, please contact:

MANAGING EDITOR

Jon MacNeill, jon.macneill@conservationcouncil.ca

GRAPHIC DESIGNER

Stacy Howroyd, design@makeanimprint.ca



Take the leap

Choose 100% green energy today

- Reduce your environmental impact
- Help build new green energy projects across Canada
- Create a cleaner, healthier world

Simple. Affordable. Pollution-free.

Bullfrogpower your home or business

Get up to \$50 toward your account with promo code ECOALERT



Osprey Adventures' 12-seater Voyageur Canoe

A Day on Beamer's Creek

Supporters from Hampton and surrounding communities enjoyed a paddle along the beautiful Beamer's Creek and slurped up mouth-watering locally-sourced fish chowder as part of our Earth Day celebration in late April.

The fundraiser at the Hampton River Centre was held to promote the importance of Earth Day and our partnership with Earth Day Canada to help Canadians lower their carbon footprint in their daily lives.

We were very lucky to have Rafe Hooper of Osprey Adventures join us for our day on the water. Hooper not only provided free canoes and kayaks to attendees, but also offered his expertise while guiding paddlers through Hampton's stunning marshes! Hooper spent years exploring the wonders of the Kennebecasis River system and turned his passion into a business helping others connect with the outdoors. Osprey Adventures rents a variety of watercraft and offers guided tours through the Hampton marshlands, where Hooper and other expert guides engage visitors with interesting stories about the area's history and fascinating details of the marshlands' rich ecosystem.



Exploring the beauty of Beamer's Creek in Hampton.

Hooper also took participants on a tour of Beamer's Creek in one of his amazing Voyageur Canoes, with capacity to seat up to 12 people! It was a fantastic day on the water exploring and learning about the area's wonderful flora and fauna.

The paddle wrapped up the way any good excursion on the water should — with a delicious fish chowder and soda bread! Chef Jakob Lutes prepared and served his signature chowder using local ingredients provided by Kredl's Market in Hampton. Lutes' restaurant, Port City Royal Restaurant in Saint John, specializes in authentic East Coast cuisine with a dedication to locally-grown vegetables and produce — the way it was done for decades around kitchen tables in this province! Fittingly, Dave Wolpin of Kredl's Market provided a presentation on the benefits of local food as everyone sat down to enjoy their fish chowder.

Participants left the river centre with their bellies full and their minds flooded with peaceful scenes from the day's paddle. The event would not have been possible without the help of Liane Thibodeau, Paula Tippett, Jessica Vihvelin, Stephanie Coburn, Matt Abbott, Catriona McLanaghan, the Hampton River Center, Dave Wolpin, Chef Jakob Lutes and Rafe Hooper.

Policy

Talk

CCNB is regularly invited to offer policy advice on issues that matter to you

- We gave input to the team at the Dept. of Agriculture developing a **Local Food and Beverages Strategy**
- We met with the Commission tasked with reviewing the moratorium on **hydraulic fracturing**

- We presented to the *Independent Panel* on our review of the **Sisson Mine project EIA**
- We continue to participate in the **Long Term Wetland Management Stakeholder** working group
- We applied to intervene in the *National Energy Board* review of TransCanada Corp.'s proposed **Energy East bitumen pipeline project**
- We met with Dept. of Fisheries and Oceans staff to comment on the **Aquaculture Activities Regulations**



Great minds think outside



Our community program *No Child Left Inside* has been given a new name and a brand new website, **learningoutside.ca**! Now called *Learning Outside*, the purpose of the program is to help children in New Brunswick re-connect with nature by developing creative ways to integrate outdoor education into all subjects of learning. Teachers and parents are encouraged to help this program along by developing outdoor classrooms and creating more natural spaces near school grounds. Lincoln Elementary Community School has been working

with CCNB to do just that! We helped to establish a nature trail and developed learning stations that include interpretative signage and signs to encourage observation and discussion. This year our Learning Outside project moves into schools to work with teachers on various activities and to provide materials and support to help make learning outside a mainstream initiative in New Brunswick schools. This summer the front yard of Conserver House was transformed (with help from the Fredericton Community Foundation) to a pollinator's paradise, creating a new learning tool for individuals to explore in downtown Fredericton.



You'd be smiling too if you won a freezer full of delicious, hearty local food! Meet Ann Beers of the Moncton area, the big winner of our first-ever **Local Food Spring Raffle!** Volunteers, board members and staff at CCNB sold tickets throughout May and June on a fabulous prize of a brand-new vertical freezer stocked full of locally-sourced meats, vegetables and other wholesome NB products. Sobeys sponsored our raffle and we purchased the local food from *Real Food Connections* in Fredericton. Keep an eye out for our next raffle — the next winner could be you!



Looking to **Buy Local** on the go? We're making an app for that! Stay tuned to our website and social media to find out when you can harness all the power of our awesome **Buy Local NB directory** on your mobile phone or tablet! Coming soon!

NB Power encourages local green energy

NB Power is encouraging the launch of locally-owned and small-scale green energy projects in communities across the province as the public utility works toward its goal of generating 40 per cent of in-province sales from renewable resources by 2020. The 2014 Integrated Resource Plan (IRP is the utility's long range planning document) has assumed the creation of community energy projects through co-operatives and with First Nations communities. Projects would include building and owning wind farms, solar panels, small hydro projects, and biomass and biogas facilities, with capacities of up to 75



megawatts. Although NB Power has assumed in the IRP that it would buy the energy from the groups through Power Purchase Agreements, the major obstacle with the current grid in New Brunswick is that it is designed to take power from a small number of large sites and send it in one direction. NB Power says it is working toward creating Smart Grid technology, which would make the grid more efficient and allow for the movement of power back and forth between small energy sources. The New Brunswick Department of Energy and Mines is currently reviewing this new Community Energy Program; guidelines about how the program should work are expected to be released in the fall. Renewable energy currently makes up 31 to 32 percent of in-province sales.

Help for homeowners!

There are many reasons to improve the energy efficiency of your home, including saving energy and reducing both greenhouse gases and air pollutants. Furthermore, NB Power offers incentive programs to help homeowners save money and realize the benefits of energy-saving upgrades.

The incentives for New Brunswick residents include the **Energy Smart Commercial Buildings Retrofit Program**, **Low Income Energy Savings Program**, and the **Home Insulation Energy Savings Program**. These initiatives are designed to provide advice on energy efficiency as well as financial assistance with the implementation of new energy efficient technologies and materials. Once households and businesses determine that they are eligible, they are able to apply for these financial incentives both online and by phone. The programs were previously offered under the government agency Efficiency NB but are now under the control of NB Power. Learn more about these programs at nbpower.com/en/smart-habits or by calling 1-800-663-6272.

The state of our forest

NB's Auditor General unearths outdated guidelines and practices, failings of accountability, and financial losses in management of New Brunswick's public forest

The province of New Brunswick hasn't made a profit from its public forest in the last five years and successive governments over the past decade have ignored directives to move toward a more conservation-minded approach to forest management.

Those were among the key findings of Auditor General Kim MacPherson's report on the province's silviculture program, which she presented to MLAs in the legislature on Tuesday, June 23.

The purpose of the audit — which looked at the Department of Natural Resources' finances between 2009 and 2014 — was to determine whether taxpayers were getting sufficient value from the management of our forest resource.

MacPherson's conclusion: we are not.

Her work showed the government has run a deficit in its management of public



Photo: Nick Hawkins

Red trillium, found in New Brunswick's Acadian forest.

forest for each of the five years covered in the audit. Over that time, the province invested more than \$122 million on forest management, running a total deficit of \$53.7 million, or an average loss of \$7-\$10-million/year.

“This essentially shows there is no direct financial benefit to the province's finances from year to year (from current forest management practices),” MacPherson told MLAs while presenting her figures.

In responding to this, department officials noted there are indirect benefits from the silviculture program, such as job creation, however MacPherson said they could not prove whether the number of jobs it creates is worth the average of \$29-million spent each year on the program.

Silviculture is the act of planting saplings, thinning the stand, and harvesting mature trees in order to sustain forests for future

timber and non-timber uses (the auditor general defined non-timber uses as wildlife habitat preservation, protecting waterways, and preserving a range of plant and animal life in the forest).

The two largest contributors to the annual forest deficit are the silviculture program and the licensing payments the provincial government gives to industry for doing the silviculture work in Crown forests.

MacPherson further concluded that sustainable forestry practices have consistently taken a backseat to the will of private industry in New Brunswick, stating firmly that “there is an apparent bias to support industry and economic development for both the Crown and private silviculture programs.”

She said 80 per cent of all wood cut from public forests over the past two decades has been harvested by clear cut. Meanwhile, she found selective cuts have declined from 20 per cent to roughly 10 per cent in recent years.

MacPherson’s review of department documents also showed that numerous reports and recommendations for government to reduce the amount of clearcutting allowed in public forest have been ignored by ministers and government officials for a decade. She also noted that DNR accepts selective harvesting as the best management practice.

In her report, the auditor general recommended DNR drop the amount of clearcuts in Crown forest. She noted selective and partial harvesting also serve to protect waterways and wildlife habitat and preserve a healthy range of plant and animal life in the woods.

She also recommended the department make changes to its forest management standards if warranted by new scientific knowledge or analysis of past and current approaches.

To correct the annual deficit, MacPherson recommended the department use an economic payback model to ensure it’s getting a positive return when spending taxpayer dollars on silviculture.

The Conservation Council believes phasing out herbicides and replacing them with thinning crews of men and women working in the woods would create significantly more jobs than current taxpayer-funded spray programs.

The Conservation Council believes phasing out herbicides and replacing them with thinning crews of men and women working in the woods would create significantly more jobs than current taxpayer-funded spray programs.



A clearcut in central New Brunswick.

In New Brunswick, roughly 13,000 hectares per-year of Crown forest are sprayed with herbicides in order to kill hardwoods and other plants that compete with seedlings. At a cost of roughly \$1,000 per hectare, herbicide spraying contributes to the annual forest deficit and prevents natural forests from regenerating.

Quebec phased out herbicides in public forests in 2001 and replaced them with thinning crews. Nova Scotia is currently looking at a new management standard that would not allow the use of herbicides.

In the past, the Conservation Council has called on the provincial government to replace the outdated

Crown Lands and Forest Act with legislation that protects water and wildlife and creates a wider range of forest-based jobs.

With the government currently reviewing the forest management plan established by the previous government in 2014, the extensive and detailed findings of the auditor general’s forestry report can serve as a guide for creating a stronger, healthier public forest that meets the needs of all New Brunswickers.

—Jon MacNeill

Just The Facts

The following are highlights pulled from Volume II of the 2015 Auditor General Report

- During our audit period of 2009 to 2014, the Department fell short in fulfilling some of its related management and oversight responsibilities. This includes not updating the forest management plans and agreements; failing to enforce compliance with treatment standards and not completing licensee performance evaluations, in addition to not keeping the public informed on the state of the Province’s forests and the impact of the Department’s silviculture activities. (Chapter 3, pg. 115)
- There was a shortage of current summarized forestry data at the provincial level with which decision makers could evaluate alternatives and make informed decisions. (Chapter 3, pg. 116)
- We found silviculture processes and decisions were driven by an apparent Department objective to support industry and economic development. (Chapter 3, pg. 117)
- We found the main standards document, the Forest Management Manual for New Brunswick Crown Land, to be an interim, out of date document. (Chapter 3, pg. 116)
- A survey undertaken in 2007 found “94% of NB residents visit forests during the year” and “over 95% of respondents participate in forest-related activities.” Clearly New Brunswick residents utilize and value forests of the Province. The survey found “environmental aspects remain the two most important values.” The two environmental aspects were: protection of water, air, and soils, and valuing forest as habitat for animal and plant life. Economic wealth and jobs ranked third. (Chapter 3, pg. 112)

Photo: Jon MacNeill



Tree plantation in New Brunswick.



Photo: Stacy Howroyd

Help our lakes stay healthy

When you hear about “blue green algae blooms” you may conjure up images of Lake Winnipeg, which in 2013 won the dubious distinction of the *World’s Most Threatened Lake*. So full of blue green algae, you can see the blooms from space. Yikes.

We’ve got a bit of our own blue green algal bloom problem in NB - not as big and widespread as Lake Winnipeg mind you, but this summer the little cells are pausing New Brunswickers from taking a dip in some of our most widely used recreational lakes in the province.

Just this week Washademoak Lake was added to the growing list of lakes with a bit of a fever. Before that it was Grand Lake and Harvey Lake. A few others have been on the algae watch list for a few years now including Lake Utopia, Chamcook Lake, Lac Baker and Lac Unique.

What is Blue Green Algae? Well, not an algae at all.

Blue green algae is actually a photosynthetic cyanobacteria. It is naturally occurring in waters and has been around for millions of years - one of the oldest forms of life. When the conditions are right, its individual microscopic cells collectively form a colourful blue-y, green-ish, brownesque “bloom”. The bacteria blooms often form in water that is shallow, slow moving



Photo: Stacy Howroyd

and warm – lakes in the summertime often are ripe with these conditions. Some experts also say that climate change (warming waters, heavier rainfalls) has also contributed to the bacteria’s growth.

While naturally occurring, a bloom can also be triggered by pollution into a water body, mostly phosphorus – a nutrient that is very common in our lives. Some of the common sources of phosphorus to our waters include:

- **Septic systems:** septic systems that store and treat sewage and household wastewater on individual rural and shoreline properties can leach phosphorus and other contaminants into nearby water bodies when not properly installed, maintained or monitored. Soaps and detergents down the drain are often a large source of phosphorus from households.
- **Runoff:** rain and snowmelt can carry a combination of phosphorus and other contaminants directly into our waterways and also our storm sewers systems. The phosphorus in runoff can come from lawn and garden fertilizers, agricultural lands, pet waste, and decomposing organic forest and yard waste.
- **Atmospheric deposition:** phosphorus can also make its way into water bodies from the air by wind, rain and snowfall from such activities as exposed landfill and compost heaps, coal combustion, and dust from quarries, agricultural fields and unpaved roads.
- **Internal loading:** when the soil and sediments are stirred up during dredging activities (the process of clearing or deepening navigational routes) or natural processes that cause the lake waters to mix from changes in temperatures or high winds, phosphorus can make its way back into the water column.



Why is an algal bloom concerning?

An algal bloom tends to mean that the healthy balance of water quality parameters are a bit out of whack. As a bloom dies and decomposes, it eats up a lot of oxygen which is a critical component of a healthy water body. Low levels of oxygen can be especially harmful to fish which need cool oxygenated waters to thrive.

While we don't want to scare anyone, certain strains of cyanobacteria (blue green algae) can contain toxins which are poisonous. The toxins are usually released when the cells of the bacteria break open or die, which can be caused by cooler weather, rainfall and windy conditions. The New Brunswick Department of Health has issued public health advisories (http://www2.gnb.ca/content/gnb/en/departments/ocmoh/health_advisories.html) for the seven lakes in NB currently experiencing blooms and indicates that contact with skin may cause irritation and result in hives, rashes, or skin blisters and if inhaled by way of recreational activities such as water skiing, boating, watering lawns, etc. could cause illness in people and animals.



Photo: Stacy Howroyd

What we can do

It's August, the height of our summer, and the last thing we all want is to stay away from the water! While the seven lakes currently experiencing algal blooms will continue to be monitored, there are a few things we can do at home or at the cottage to reduce the amount of nutrients getting into our waters and prevent blooms from happening in the future:

- What you put down the drain can end up in our waters. **Switch to phosphorus-free cleaning products like dishwasher detergents.**
- What you put on your lawn or garden can end up in our waters. **Avoid over using fertilizers** and only apply when necessary and try **non-toxic** alternatives when possible.



WHAT'S GOING ON?

A number of lake groups and associations have been working for a few years now trying to understand the condition of their lakes. They've been collecting regular water samples and making observations about oxygen and temperature levels, and send their samples to the Department of Environment for analysis.

But now groups are concerned they aren't getting the analyses back from the department, and they say the delay is hampering their ability to make predictions based on the data — such as being able to predict the onset of an algal bloom.

This all rings very familiar. Remember the **Water Classification Program**?

In the early 2000s, the Department of Environment started to help increase the capacity and monitoring programs of a number of river and watershed groups in the province. Groups spent years collecting data that was supposed to be used by the department to classify the water quality of rivers across the province. After collecting and submitting data for a few years, though, the groups realized the department had not been enforcing the Water Classification Program put in place to help protect rivers from water pollution.

This August marked the one-year anniversary of the provincial ombudsman's public report on the department's management of the provincial Water Classification Program. In his report, ombudsman Charles Murray noted the department's mishandling of the file — effectively letting it go into limbo for a decade — drove a wedge between watershed groups and the department.

The same thing could happen as lake groups wait on the department for data on the health of their waters.

As with our many rivers, New Brunswickers have a deep connection to these bodies of water and there are a lot of people working to keep them healthy. The Department of Environment has an important role to play in this — groups need them to wade in with us.

- Make sure your septic system is **checked and cleaned** every five years or so.
- **Leave your shoreline natural** and if necessary restore the shoreline with fast growing vegetation to prevent erosion and help absorb nutrients before they enter the water. Wetland areas are especially important in filtering out nutrients like phosphorus

and other contaminants.

For more information on public health implications of a blue green algal bloom visit the Department of Health : <http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/water/BlueGreenAlgaeQA.pdf>

– By Stephanie Merrill

When you venture out on one of New Brunswick's beautiful rivers, expect to catch a lot more than the mighty Atlantic salmon

Hooked by a River

By Jon MacNeill

The deep, dark waters of the Cains River, central New Brunswick.

My first ever salmon fishing trip came with a warning: "You know, we probably won't catch anything today," says Howie Gould, my guide, while loading fly rods and tackle into his canoe. "It's early, we might get a trout, and there's a chance we might hook a black salmon. But even still, it's just the experience — getting out to these places, seeing this stuff — that really takes a big hold."

How right he was. Five hours casting flies over the Cains River in central New Brunswick and I was making plans to get back on the water as soon as possible. As Howie figured, I hadn't caught anything. Managed to torment a few trout, but just couldn't land one. And yet, stepping out of the canoe near Howie's camp outside Blackville, I knew I had started something.

More than chasing the feeling of landing that big fish, though, more than the thrill of the fight, it was the calm of the wild that was calling me back to the river. It was wide open spaces. Smooth running water. The sound of wind whooshing through the trees instead of traffic whizzing by windows. It was



the babble of water parted by canoe and paddle. Shorebirds skirting over the surface. The call of geese echoing down the bend.

The fishing grows on you. The appreciation of the river and all the life it supports is near instant and everlasting.

That's certainly how it was for Howie, too. The 41-year-old purchaser from Saint John grew up hunting in the woods with his father and grandfather, but he is the family's self-described "first-generation salmon guy."

His first exposure to salmon fishing was in 2005, and from that point on, he's spent the majority of weekends in the spring, summer and fall scheming ways to get on the mighty Miramichi and its tributaries. His father fell in love with the activity during that same first trip, setting the pair off on an eight-year quest to find a plot of land along the water. In the spring of 2013, they built a pine cabin along the main Southwest Miramichi as home base for their excursions.

"Really, I'm just a weekend warrior at it," Howie says. "I love it passionately, it's all-consuming, but I'm definitely making up for lost time."

In 10 years, Howie has developed a resident expertise about the salmon and its impressive life cycle. It's a common occurrence among those who get into the sport, and often goes hand in hand with a desire to protect the rivers and habitat the fish need to thrive.

"They're a very incredible, powerful fish," he says. "You'll hook one on one side of the river, and five seconds later it'll be on the

Continued on page 9..



Photo: Jon MacNeill

Avid fly fisherman Howie Gould tries to hook a mighty Atlantic salmon on the Cains River in New Brunswick.

other side of the river jumping in the air — it's just amazing, the power. Their latin name is 'Salar,' which is 'the leaper.'"

"And the more you get into it, then you realize what these fish go through to be here. They run to the ocean, beyond Newfoundland, and, you know, a trout doesn't have to do that, a striped bass doesn't have to do that. It's an amazing journey they make and we're privileged to be able to be out here doing this."

As we paddle down the Cains, a dry woolly fly trolling from the back of our canoe, Howie shares what he hopes can be done to improve the salmon population. Like most avid salmon fishers, Howie knows the prized fish is in trouble. Last year, returns on the Nashwaak River were the lowest since record-keeping began in the 70s. The low returns are reflected in the Department of Fisheries and Oceans' strictly catch-and-release policy for salmon fishing on New Brunswick waters this season.

With one eye always scoping out a good spot to toss a line or pick fiddleheads, Howie talks about the work being done by groups within the New Brunswick Salmon Council (which he serves on the board) to prevent erosion, restore habitat, tag and track young salmon and work on breeding programs at rivers and waterways across the province.

He says he's optimistic the provincial government will move to enforce its Water Classification Program, something that could be a powerful tool for monitoring and ensuring the quality of waters traversed by salmon, but which has been in bureaucratic limbo for more than a decade.

He's also leery of TransCanada's proposed Energy East bitumen pipeline, which is slated to intersect provincial waterways more than 280 times. Howie is worried about the impact the pipeline's construction and a potential spill would have on the salmon population and

river habitat, especially where it will cross components of the world-famous Miramichi watershed several times, including the dark, deep waters of the Cains.

For Howie, one of the best things people or governments could do for salmon numbers is actually pretty simple: just get more bodies on the water, casting lines. That's the strategy behind the successful and well-funded salmon fishing scene in the U.S., he says: encourage people to get into the activity, they'll fall in love, and they'll spend money to protect their sport and, in turn, the natural habitat of the fish they chase.

"When they closed the St. John River and all the tributaries to salmon angling, that was the worst thing they could have ever done. You take people away from the sport and they lose interest in it, they stop joining river groups, they stop fundraising," Howie says.

"People are really hoping this isn't a collapse, but the numbers from 2014 really look like it," he adds. "This year could prove it all wrong, though, so we'll see. But even after the last salmon is gone — if it comes to that — we should still be out here chasing its ghost. That's the way I really feel about it. We should not be off the water — you've got to keep going for it, you've got to keep pushing, you've got to keep fighting."

Making our way through the slow-moving Cains, watching the water disappear around bends, fills me with a sense of freedom and wide open possibility that I hadn't felt in years — if ever, in my adult life. I see a slide beavers and muskrat formed by slipping down the riverbank into the water. Howie spots a massive pine towering above the bank.

"Isn't that awesome?" he says. "I think it would take probably three of us, maybe even four of us joining hands to get around it. Just awesome."

We come upon a little brook streaming into the Cains and Howie steers us ashore to try our luck. Stepping out of the canoe, I take a few moments to admire a gleaming white piece of driftwood stripped smooth and clean by a beaver.

"This looks like a good spot — anywhere fast water meets slow, that's where you want to be," Howie advises.

He gives me a quick tutorial and then I try a few casts.

Standing in the water, there is something inherently therapeutic about watching the line stretch out over your shoulder, roll across the river, kiss its surface, and hearing the satisfying whizz of the line whirring through the air as you pull it back. And then out again. And then back.

Howie must sense what I'm feeling.

"It's one of those things — if you have a bad day at work, you come out to the river and cast for a bit, you can almost feel the blood pressure dropping and all the stupid things that really don't matter, just melt away," he says.

"It has changed who I am, without question. I was always into hunting and fishing, but I think getting into salmon fishing, and the love of the river, it just puts you in touch with the planet and the environment. Not to sound corny, but it truly does.

"If more people got into it, and got into the rivers — even just paddling down one — it would make a really big difference, because when you see what we have here, when you experience what we have here, you fall in love and you want to protect it."



CCNB's Jon MacNeill casting fly for the first time.



After three years of living in the nearly 2,000-square-foot home, the Nauglers' average heating costs have worked out to roughly \$10/month, year-round.



Quality, Comfort and Warm Mugs: Life in a Passive Home

What's it like to live in a super energy efficient house? Sheer comfort.

Consider the example of Win and Janice Naugler's certified Passive Solar Home on the edge of Fredericton. One afternoon this past March, as thermometers plunged toward near-record lows for the month, a guest entered the Naugler's cozy abode to find the living room windows wide open.

"We haven't had any heat on in March, even with all those cold days and during the storms, there was no heat on in this house," Janice Naugler says proudly.

"There's been enough sun, so we just pull the heat in and keep it in. And days like today, where it could almost be a little too warm," she adds, starting to laugh, "we have to have the windows open."

The Nauglers have found themselves chuckling with satisfaction quite a bit since building their two-storey Passive Solar Home – but certainly no more than when they go to pay a power bill.

After three years of living in the nearly 2,000-square-foot home, the Nauglers' average heating costs have worked out to roughly \$10/month, year-round.

That's because their entire home is one big solar envelope built using the most energy efficient standard in the world.

The passive house standard, developed in Germany, is an 11-pronged building code that produces homes which are comfortable, healthier, and much less expensive to operate than traditional code-built homes.

The trick is that everything in the Nauglers' house is super-insulated: thick, full walls instead of thin hollow ones; a nine-inch buffer between the ground and the cement slab of the foundation; special windows and doors that are heavy but seal and lock with ease and feature glass designed to let more heat waves in and fewer out. In summary: lots of finely-tuned details.



The home, which sits on a prime south-facing slope, is framed by untreated local cedar siding and features shingles made from recycled tires and plastic from a company in Minto.

All of this combines to make the home — built by Southern Exposure Construction, a company launched by their son, Tim Naugler — one of the most airtight and energy-efficient units in Canada, achieving a 95 per cent greater energy efficiency rating than basic building code standards and 65 per cent better than R2000.

"It's about getting ourselves thinking about

the big picture," Win says. "So often when we talk about energy efficiency, we focus on things like LED lightbulbs - which are great, but which consume such a small part of a home's energy.

"What we really need to be doing if we want to conserve the resources of our province is focus on air tightness and heat efficiency. That's tackling the big picture."

The Nauglers have held several open houses - welcoming some 500 people through their doors - and operate a blog to encourage others to look into the benefits of energy efficiency and the passive home model.

Win says one of the best parts of living in a home like theirs is the pleasant surprises you encounter along the way.

Like, for example, the small joy of reaching into the cupboard on a cold winter day and pulling out a mug that's warm to touch thanks to the extra insulation in the exterior walls.

Or the wonder of watching a group of deer less than 100 feet from their home, completely undisturbed by, and, in fact, completely unaware of the bustling family gathering just inside, where kids ran amok, music blared, and someone stroked a guitar while sitting in the windowsill that overlooks the backyard.

"It's even quieter than we thought it was going to be," Win says. "You can be inside and clap your hands and the deer don't know. They don't hear anything. It's really amazing."

Continued on page 11...

Continued from page 10...

“And another thing that has pleasantly surprised us — we knew that air tightness meant no drafts, but we didn’t realize the comfort, the full extent of the comfort that having no drafts achieves,” Win adds. “You can go over and sit next to a window and settle on a window ledge, no drafts. I was in a new home over Christmas, a brand new home, and I was sitting near a big window and I could feel the draft coming in and I thought, ‘Yeah, we live in a passive house.’ And I totally appreciated it.”

As for a common criticism the couple encounters: *‘if your home is too airtight, won’t you get mold?’* Janice says it’s just the opposite. A ventilation and air exchange system keeps the air cycling constantly, meanwhile the superior sealing around doors and windows doesn’t allow for moisture or condensation to build up and turn into mold.

And don’t worry about things getting too cozy in the summer, either. During summer months, the higher angle of the sun, in addition to exterior window shading, prevents the inside from getting too hot.

The Nauglers’ was the first home their son, Tim, built following the passive house standard. He’s since built another in the Hanwell area, which was completed in 2014, and this summer is working on his third project, a new home near Penniac.

“It’s more than just the energy efficiency target, to me,” says Tim. “It’s about the bigger things, building a better home that’s going to last longer, be healthier to live in, and provide more comfort.”

And it’s proven to be 100 per cent cost effective. In both houses Tim has completed, and in the computer modelling he’s performed for seven others, the energy savings homeowners experience each month is greater than the additional mortgage cost of adding the energy efficiency features.

As far as Win and Janice are concerned, there isn’t even a payback period. You start reaping the benefits the second you move into the home.

“This house costs less to live in — the first month, and every month after — than a regular code built house. In a code built home, you might have a smaller mortgage, but you’ve got to pay for your heat. For us, our energy savings on a monthly basis pay for the extra mortgage cost, and we actually have about \$25 a month left over. So then, it’s \$25 a month cheaper to live in this house than it is to live in a code built house.

“This home does it all. The passive house standard is the full meal deal.”

For more information visit:

www.nauglerhouse.com

—Jon MacNeill



Solar cells over the second hole

Young family finds dream home in green home

Brittany Smearer’s six-year-old doesn’t have any trouble pointing out where he lives to new friends in the neighbourhood. It’s the one with all the new shiny things on the roof.

“My son is very proud that his house is the one with all the solar panels on it,” Brittany Smearer says. “We talk about it a lot and he’s pretty amazed and thinks it’s pretty cool that we get our power from the sun.”

The Smeasers live in a comfortable bungalow along Squire Green Drive in Bathurst. If you’ve played a round at the local golf course in the last few years, you may have spotted their solar panels gleaming at you from just beyond the second hole.

To their knowledge, the Smeasers’ is the only home in the area outfitted with solar panels and a geothermal system. When the young family of four decided it was time to build their first home in 2011, Brittany and her husband, Rodney, opted to take advantage of the renewable energy resources available to them.

“Originally, we had designed a whole different house plan. We were going to do the whole traditional, two-storey dreamhome thing — you know?” Brittany recalls. “But when we heard about what Efficiency NB was doing, it piqued our interest to try to live green and environmentally responsible. So it became more about leading by example, to get the word out and show that these things are happening, that they are important, and why they are important.

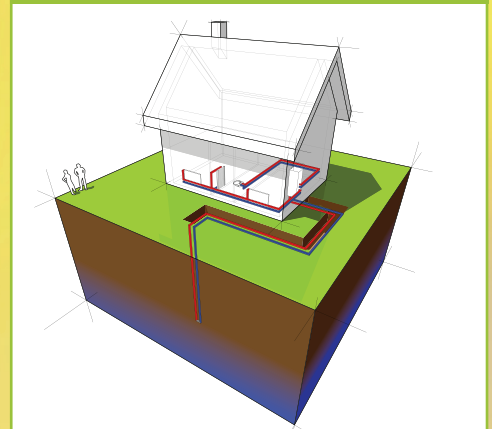
“Not to mention, it’s much cheaper to run your home when you’re using the sun, the ground — things that are free.”

The prefabricated home was designed from the outset to incorporate renewable energy. It’s fixed with 22 rooftop solar panels for electricity and hot water, and a geothermal system for heating and cooling both levels of the 3,000-square-foot home.

The cost was incorporated into their mortgage and the couple anticipates a payback period of 10 years.

Having gone through the new homes program at Efficiency NB (the former government agency which is now under

How does a Geothermal System work?



Liquid runs through pipes sunk into the earth and draws warmth from the constant temperature there. The heat is piped into an indoor unit and circulates throughout the house. During warmer months, the same system helps to cool the house.

the umbrella of NB Power), the home was designed for superior energy efficiency, using top quality construction materials and methods. It achieved a rating of 93 out of 100 from EnerGuide Canada, compared to the national average of 66.

“We’re very proud of our home and what it can do,” Brittany says, adding students and instructors from the community college in Bathurst have toured the home to examine its renewable features.

For anyone thinking about building a new home, Brittany says it only makes sense to harness the benefits of energy efficiency and renewable power.

“It was a bit of an investment up front, but we felt like the investment would be an asset in the future,” the 28-year-old says.

“And when you’re looking at a 10-year payback, I think that’s pretty great. So I’m hoping that more couples, especially young families, when they build a house, that they’ll really consider this avenue. Because in 20 or 30 years when you want to sell that house, nobody is going to want to buy it without this stuff. I think everybody is going to be building houses this way soon enough.”

—Jon MacNeill



Spring Peeper Photo: Nick Hawkins

Help make a difference.

I want to become a member and supporter:

- \$15 Low income, senior, student
- \$30 Individual
- \$40 Family
- \$55 Association

Are you a new member? Y N

I would like automatic membership renewal Y N

I want to make a single gift of:

- \$30
- \$50
- \$100
- \$120
- Other _____

Mailing address:

Name _____

Address _____

Tel. _____

Email _____

Donation method:

- VISA
- MasterCard

Name _____

Card # _____

Exp. _____

Signature _____

Cheque (payable to Conservation Council of NB)
 The Conservation Council of New Brunswick is a registered charity which carries on education and awareness projects to solve environmental problems. Donors to the work of the Conservation Council will be provided with a charitable tax receipt. Please send your donation to: 180 Saint John St., Fredericton, New Brunswick E3B 4A9 Thank you!

- As a member, you'll receive:
- A subscription to *ecoalert* magazine
 - *EcoNews*, our electronic newsletter
 - Great member-only discounts



Follow us:

In conversation with Donald Arseneault

Q. What is your favourite outdoor destination in New Brunswick?

Growing up, I used to love going to the Moncton area. As I grew up, especially getting into politics, for me, Fredericton is a tremendous place. I see it as very clean, very open to the outdoors with the parks and green spaces, and the trail along the river is beautiful. I also have family in the Acadian Peninsula so it's a great place to go and visit as well.

Q. Why do you think New Brunswickers have such a strong connection to nature and the environment?

Well, it's all around us. The trees, the rivers. I live in the Restigouche side so there is no doubt the Bay de Chaleur, when you look at the beauty of the Bay de Chaleur, and you see the Gaspé coast, you just love it. The Restigouche River is world renown for salmon fishing, the mighty Miramichi River, great salmon fishing there and in Nepisiguit as well. So, I think we're attached to it because it's all around us and you can go anywhere around the province and there is that component of nature all around us.

Q. We hear a lot about energy efficiency these days – do you want to be known as the minister who got behind energy efficiency and helped reduce peoples' energy bills?

If we can put forward some programs and incentives to try to find ways to reduce the consumption we use, that can go a long ways. Over the years, government has been trying to educate people that there are ways to reduce your power bill, and it's about making sure you make the proper investments in your home that can reduce that consumption, and I'm very proud of the incentive program we brought back, in terms of the home renovation. These are the things that really are going to make a difference in people's power bill, and at the same time, the less we use energy, then we can reduce these gas emissions type of plants, and prevent building a new plant, which will go a long way to fight climate change.

Q. You mention climate change – are you worried about climate change? Are energy ministers talking about it?

We all have to (be worried about it). We have to be conscious of the bigger picture, that's what cabinet and government is all about. No doubt, Minister Kenny has to lead that charge and keep educating the



cabinet ministers and the caucus and the public in general, but I think we all have to be conscious of that and we all have a role to play. Just in the last couple of months I brought forward the small-scale renewable project legislation to permit NB Power to enter in these smaller-scale projects and long-term PPAs to allow more wind power and biogas community-owned projects, and there's a component for First Nations as well. So we're going to see some pretty neat, innovative and creative projects all with renewable energy. That's part of my role as Minister of Energy and Mines in this whole climate change fight in New Brunswick.

Q. Who do you most admire?

I love politics so there is no doubt political figures are important to me. I read a lot of biographies and I like American politics as much as Canadian politics, and I'm a huge fan of Barack Obama. For me, he's an individual whose come from a long way in terms of his upbringing, to become the first black American president. I was on a cruise one time back in 2008 when he was first going through the primaries and my wife at the time wanted to do all these activities on the cruiseship, I was in front of the TV watching his Iowa speech. Just everything he's done, I think he's remarkable. And I look at Premier Gallant, not just because he's my boss, but because a lot of people don't take time to really appreciate everything he puts in, and his upbringing as well. He didn't look at all the challenges in front of him, he looked at the opportunity that could come out of it, and I admire somebody like that.

Interviewed by Jon MacNeill, contact Jon at jon.macneill@conservationcouncil.ca