WATERSTRIDER

Green gardening – *Au naturel*

As the gardening season will soon be upon us, here is some food for thought on ecologically responsible gardening.

Nova Scotia belongs to the Acadian Forest Region (AFR). This is primarily a temperate zone forest in which natural succession favours development of late-successional species associations.

Indicative species are: red spruce *(Picea rubens)*, Eastern hemlock *(tsuga canadensis)*, yellow birch *(betula alleghaniensis)*, balsam fir *(abies balsamea)* and sugar maple *(acer saccharum)*.

The AFR encompasses New Brunswick, Nova Scotia, PEI and parts of Quebec, New York, New Hampshire, Vermont and Maine. The range of red spruce demarcates the extent of the AFR. The AFR is an endangered forest region in North America due to over 400 years of change and introduction of non-native species.

Sheep laurel (*kalmia angustifolia*) is a common species found in the AFR. It prefers to moist coniferous woods with poor, sandy to rocky soil, acidic barrens.

The AFR can be protected by choosing to garden with native species. This not only pertains to the plants of the forest region but also the animals, birds, fish and insects. It ensures the protection of Canadian biodiversity and strengthens ecosystems against invasion by non-native plants

As well, native gardening is relatively low maintenance as these species have adapted to Nova Scotia's climate, soils, seasonal rhythms and biota. Although native species are part of the natural landscape and may seem commonplace, there are several truly spectacular species that can enhance any garden. Examples include: marsh marigold (*caltha palustris*), blue flag (*iris versicolor*) and sheep laurel (*kalmia angustifolia*).

As these native species do not require fertilizers and pesticides, a native garden can very easily be organic as well. Organic gardening is a holistic approach to gardening. Rather than working to make a single species or a selection of species succeed, organic gardening seeks to work with naturally existing partnerships and conditions to create a thriving habitat of flora and fauna.

Nature has given us all the tools we need to have successful gardens. It is all a matter of knowing how to use the tools appropriately. By knowing the characteristics of the site you want to garden on you will be able to select the best plants suited for that habitat.

Organic and native gardening is the environmentally responsible thing to do. By not using chemical pesticides or fertilizers, establishing native habitats and preventing the spread of invasive species, Canadian biodiversity can be protected.

The Clean Annapolis River Project is a community-owned corporation dedicated to fostering the conservation, restoration and sustainable use of the freshwater and marine ecosystems of south-western Nova Scotia's Annapolis River and its watershed.

The garden suggests that there might be a place that we can meet nature halfway

Michael Pollan

Environmental responsibility at home

Levi Cliche

The Environmental Home Assessment Program (EHAP) is a Nova Scotia Department of Environment Program that arms homeowners who have well and septic systems with the tools that they need to protect their home and their local environment.

What is the Environmental Home Assessment Program?

EHAP is a confidential service to Nova Scotians that deals with private water supplies and septic systems. It is a NS Environment program that is being delivered by non-profit community groups across the province.

The goal of the program is to provide homeowners with the resources and information they need to protect their health and that of their families, neighbours and the environment.

Who qualifies to participate?

Homeowners in Nova Scotia that have both a private water supply and on site sewage disposal (septic) system.

How much does it cost?

The program is free.

Why should people participate?

It's an opportunity for a one on one discussion with an assessor to learn about home septic systems, water supplies and oil tanks. Proper maintenance saves money in the long run.

What are the benefits of participating?

Each homeowner receives an information package, a water saving kit, a sample of an environmentally and septic system friendly cleaning product, up to a $100 rebate on a septic tank pump-out, and the potential to apply for a $3,000 septic system repair/replacement grant.

What takes place during the visit?

A basic inspection of the well, septic system, and plumbing fixtures as well as a discussion on the septic system, well and well water testing and oil tank maintenance. Current practices related to each component are reviewed, and suggestions are made for improved maintenance of each.

How long does it take?

A home assessment typically takes an hour to an hour and a half.

What are common problems or issues you commonly address on your visits?

Increasing people's awareness of how to properly maintain a septic system. Almost every participant has learned something, even if they were very knowledgeable about their system to begin with.

Many people are concerned about their drinking water, and find the resources provided through the program valuable.

Approximately half of the assessments conducted are the result of someone calling in with septic problems wanting to access the repair/replacement grant. The financial help has done much to improve the living conditions for many people, as well as to protect their health and the environment.

Are participants with septic system malfunctions reported to NS Environment?

Absolutely not. The program is completely confidential, and the home assessor does not have any regulatory role whatsoever.

Learn about your water supply and septic system, and how to maintain them. Do not subscribe to the "what you don't know can't hurt you" theory.

How do I sign up?

Call Clean Annapolis River Project at 1-888-547-4344.

Levi Cliche is the Environmental Home Assessor for Clean Annapolis River Project. He has been involved with CARP since 1998, and has delivered a variety of contracts related to habitat, energy conservation, and pollution

Protecting your septic system

- Have your septic tank inspected two years after installation to determine pumping intervals. Record maintenance and pump outs.
- Spread automatic washer use over the week rather than washing many loads on one day.
- Use an automatic washer with a lint trap you can clean by hand.
- Install an effluent filter to protect your system.
- Use water saving devices such as low-flush toilets, toilet dams, and low-flow showerheads.
- Record the location of the septic tank and disposal field for future reference.
- Check any pumps, siphons, other moving parts plus the interceptor drain regularly.
- Remove trees with large roots or keep them from growing near the disposal field.
- Keep a healthy grass cover over the disposal field to stop erosion.
- Keep surface water from uphill or roof drains away from the disposal field.

This information was taken from the Nova Scotia Department of Environment publication: Taking care of your home sewage disposal system, which can be found online at:
http://www.gov.ns.ca/nse/water/docs/OnSiteSewageMaintenance.pdf

To calculate your water use, visit this link:
http://www.on.ec.gc.ca/reseau/waterCalculator/login_e.html

Up and coming

Watershed Planning Workshop: March 26th -27th

Glossy buckthorn removal: CARP is looking for volunteers to remove this invasive plant from the Annapolis Royal marsh.

Environment Week 2009: May 31st - June 6th

CARP Annual General Meeting: June 2009

Contact CARP for more information

The path to prosperity is green

As the price of gas and oil becomes increasingly variable and the global economic recession looms overhead, many businesses are looking for ways to save money.

Although they are not always the first choice in reducing costs, environmentally conscious practices may be the very thing to allow businesses to weather the economic storm.

On January 23rd, as part of the Green Heart of the Valley project, over twenty participants attended the Middleton Energy Conservation Seminar.

This event was held to help small and medium sized businesses find energy saving solutions. Businesses ranged from beauty salons to fishing gear supply stores to art galleries.

The presenters included Gerry MacDonnell and Emily Richardson from the Eco-Efficiency Centre. Who made the business case for choosing to become more energy efficient and presented several opportunities for businesses to save money through environmentally conscious practices.

Frederick Drebot from Conserve Nova Scotia shared information about funding opportunities for homeowners and business owners to cover the costs of retrofitting, as well as dispelling myths about high efficiency bulbs like T-12s, T-8s and super T-8s.

Will Marshall from NSCC's Energy Solutions Engineering Technology (ESET) Program presented renewable energy options for businesses. He also explained the ESET program and the services students could offer to businesses.

As a follow-up to this seminar Gerry MacDonnell will be performing private energy reviews for interested businesses. These reviews are free, confidential and provide businesses with the tools they need to make informed decisions about how they use energy.

After undergoing a review, Finewood Flooring & Lumber Limited was presented with a report full of energy and waste solutions that could potentially save them $20,800/year.

C-Vision Limited, an electronics manufacturing and design services company was presented with a potential savings of $65,600 annually.

These reviews are really just thinking creatively about how to do more with less. This not only makes a great deal of economic sense but it makes a great deal of environmental sense as well.

If you are in the Middleton area and are interested in receiving an energy review for your business, please contact CARP.

CARP also offers home energy audits as part of the EnerGuide for Homes program. Please contact the office if you are interested in receiving a home audit.

To calculate your home energy use, visit this link: http://www.nspower.ca/energy_efficiency/energy_calculator/

Show me the money!

These tips will show you how to save a bundle of dough at home!

1. Install a programmable thermostat and turn it down at night and when you are not home. Depending on the model you get, the thermostat can pay for itself in one year.
2. Take advantage of the sun. Open your blinds and curtains. This light and heat is free!
3. Install a low flow showerhead. You can save $50/year (if you are taking a 5 minute shower).
4. A faucet, constantly dripping warm water can cost you up to $100/year.
5. Use a clothesline to dry your laundry.
6. Clogged dryer lint filters are not only a fire hazard but can increase energy use by 30%.
7. Drive your vehicle to warm it up! Many fuel-injected vehicles need only seconds of warm-up time even on cold winter days.
8. Carpool. By driving with one other person, you are reducing your fuel consumption by one half.

These tips were collected from the Conserve Nova Scotia website: http://www.conservens.ca/energysavingstips/quicktips

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Annapolis River: taken from Middleton's Riverside Park, fall 2008.

Spring is on the way!

River Guardians 2008

The 2008 season marks the 17th year of continuous monitoring of the Annapolis River by the Annapolis River Guardians. The River Guardians collect samples from eight locations along the river every two weeks during the summer months.

Some of the parameters that are monitored include *E. Coli* bacteria, dissolved oxygen, air and water temperature, weather, pH, turbidity, and nitrogen and phosphorus concentrations. These results are entered into a database that contains water quality information collected since 1992.

This year, CARP used the Water Quality Index (WQI) in the River Guardians reporting. This index is a summarize a large volume of water quality information.

For the calculation of CARP's WQI, *E. Coli*, dissolved oxygen, water temperature, pH and turbidity data from 2008 were used. The WQI ranges from 0 to 100 with 100 representing excellent water quality and 1 representing poor water quality. The calculation is still being developed; as more data are gathered, parameters for this calculation may be added or revised.

The WQI scores for 2008 are shown in the table below for each of our monitored locations. For more information on the River Guardians program, please visit our website.

Site	Water Quality Index for 2008	Water Quality Index Score (Poor Water Quality ... Excellent Water Quality)
Aylesford Rd.	64	
Aylesford	46	
Kingston	50	
Wilmot	51	
Middleton	52	
Lawrencetown	51	
Paradise	52	
Bridgetown	51	

Direction of River flow

See www.annapolisriver.ca/projects_guardians.php for methodology.

Striding Forth in an Uncertain World

As the new year opens, attention is directed toward securing the resources for the upcoming field season. It is always challenging to match the work that needs to be done with available resources; economic and political uncertainties have introduced additional variables.

Ongoing programs include work related to environmental monitoring, riparian zone restoration, invasive plants, energy conservation, climate change and the management of on-site water and wastewater systems. Development of models for integrated watershed management remains a priority.

New initiatives will focus on developing tertiary treatment of municipal wastewater, rehabilitation of the soft-shell clam industry in the Annapolis Basin, water gardens to manage storm run-off and bike sharing and bike paths. As the success of these programs depends on engaged citizens, public awareness is integral into all activities.

At an organizational level, those associated with CARP are completing a strategic planning review that will chart our course for the next few years. The exciting innovations coming from this process will be featured in future Waterstriders.

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Contribution deadlines:
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Summer: 1 June
Autumn: 1 September
Winter: 1 December

Membership:
Adult $7 Family $10
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