

Caring for the Moraine

where you live



more than 10,000 years in the making

The Oak Ridges Moraine is a landform left by glaciers more than 10,000 years ago. Large aquifers within the rolling 160-kilometre sand and gravel formation supply 600 million litres of clean water to as many as 300,000 people in towns, villages and farms on or adjacent to the Moraine.



did you know?

The Oak Ridges Moraine is the headwaters to 65 rivers and streams.

*Experience the beauty
of the **Moraine.***

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cover photos: top left by Bud Newton, top middle by Jonathan VanBilsen, top right by Michelle Holmes, bottom left by Alison Clarke, bottom middle by Peter Pomkacz, bottom right by Bud Newton

Caring for the Moraine

The Caring for the Moraine program has brought together more than 30 conservation-minded organizations on the Oak Ridges Moraine to deliver environmental services to landowners through a 'one stop shop' approach. From 2005-2009 partners offered landowners technical advice and access to various resources including financial assistance to undertake projects on their properties that help protect and restore the Oak Ridges Moraine.

The program has unfortunately had to scale back due to a lack of funding from the Province to the Oak Ridges Moraine Foundation. In order to try to keep in touch with you - the landowner, who is so key in the protection of the Moraine - this Caring for the Moraine newsletter has been spearheaded. The Oak Ridges Moraine Foundation is also starting to work with the programs' partners to develop an interactive website for landowners which will be launched in late fall 2011. We will continue to try and seek financial resources to restore the Caring for the Moraine program back to its original glory but until then we hope that the development of these resources will assist you and keep you in touch with the Moraine community.

Many of the Caring for the Moraine partners continue to offer some services to landowners through other programs and initiatives. Please see page 15 for contact information.

Thank you to all of the Oak Ridges Moraine landowners that have helped to protect headwaters and our drinking water sources!

From 2005-2009, in collaboration with Moraine landowners and partner organizations, the Caring for the Moraine Program has:

- Mailed 11,114 landowner letters, resulting in 627 Moraine properties visited;
- 2,354 landowners participated in 65 workshops;
- Planted over 430,000 trees over an area of 289 hectares;
- Restored 310 hectares of prairie;
- Restored almost 17,890 metres of streams; and
- Created 22.15 hectares of wetland and enhanced an additional 2 hectares of wetland.



did you know?

The Oak Ridges Moraine crosses 32 municipalities and stretches 160km across southern Ontario from the Trent River to the Niagara Escarpment!



Headwaters Recovery Can't Wait!

The future of the Oak Ridges Moraine Foundation is in jeopardy - our ability to work with landowners and others depends on winning renewed investment from the Province of Ontario.

The Oak Ridges Moraine Foundation's mandate, based on the 2001 Oak Ridges Moraine Act and subsequent Conservation Plan, is to preserve, protect and restore the environmental integrity of the Oak Ridges Moraine. Today, more than ever, this mandate needs continued support and attention.

With the Provinces' initial investment of \$15 million, the Oak Ridges Moraine Foundation has efficiently granted \$14.1 million and leveraged an additional \$35.8 million resulting in \$50 million worth of essential headwaters recovery on the Oak Ridges Moraine. 177 projects were undertaken in partnership with various organizations and landowners delivering the following:

- 1,000 acres of conservation lands restored through stewardship projects such as tree planting, wetland creation, habitat management, prairie restoration and stream restoration;
- 5,582 acres of conservation lands protected through acquisition, donation and conservation easements;
- 75 km of new trail created resulting in the completion of a continuous east/west recreation trail known as the Oak Ridges Trail;
- The education of more than 7,500 school children about the importance of the Oak Ridges Moraine, particularly relating to drinking water; and
- Research that has resulted in knowledge gaps being filled on the Oak Ridges Moraine.

While much has been accomplished, much remains to be done. The Foundation and its Stakeholders prepared a ten year strategic review of progress and essential work needed through the Measuring Success on the Oak Ridges Moraine Project. We have a road map moving forward that highlights vulnerable aquifers to be protected and the forests, streams and grasslands where strategic restoration will produce the most effective results. The Oak Ridges Moraine Conservation Plan is slated for review in 2015 however, the Moraine's health is being threatened today and we feel that headwaters recovery cannot wait!

At the end of 2009 the Oak Ridges Moraine Foundation had to close its grant program due to insufficient funds. Since that time requests for a renewed

investment from the Province of Ontario have all but been ignored. Without continued support from the Province the Foundation will have to close its doors at the end of 2012 and end its mission for headwaters recovery on the Moraine.

The support of private landowners on the Moraine is key to the headwaters recovery mission. For the past eight years, we have been proud to work with Moraine landowners and more than seventy partners in delivering our shared mission to protect and restore headwaters on the Oak Ridges Moraine. But now, we need your important support to win renewed investment for the Foundation's work.

What can you do?

- > *Write or meet with you local member of provincial parliament and/or individuals registered to run for office in the 2011 provincial election. Let them know that your Ontario includes a healthy, vibrant and restored Oak Ridges Moraine and that landowners want to continue to play a key role in achieving this through programs like Caring for the Moraine.*
- > *Visit our website for more information on the Oak Ridges Moraine and up to date information on our headwaters recovery mission: www.ormf.com*
- > *Join our mailing list by completing and submitting the form on the back page of this newsletter. You also will be eligible for a draw for some great Oak Ridges Moraine produced products.*

photo by Eden Balaban

How are we doing, on the Oak Ridges Moraine?

The Oak Ridges Moraine Foundation commissioned, and is now proud to have published, the Measuring Success on the Oak Ridges Moraine reports. Two years in the making, the eight-volume study documents where we are with the Oak Ridges Moraine Conservation Plan—successes, shortcomings, what’s working, what isn’t—and provides the government and other stakeholders with recommended actions and the data needed to plot a course that ensures its successful implementation and realization.

Together, the reports measure “success” on the Moraine in three different but essential dimensions:

- Condition of the Moraine environment, from a watershed perspective and also in terms of plants, animals and ecology;
- Rate of progress on implementation of the Oak Ridges Moraine Conservation Plan at municipal and provincial levels and among area stakeholders; and
- Extent of the Oak Ridges Moraine Foundation’s achievements in its five core focus areas (land stewardship, land securement, education, research and trail improvement/development).

With a full review of the Conservation Plan due in just four years, this is the first time this type of data has been gathered and analyzed. On the environmental front, this means many of the results compiled for Measuring Success are original, baseline information. Without this information it would be impossible to measure the Plan’s effectiveness in protecting and enhancing the Moraine’s ecological and hydrological health through time.

Overall, the eight reports tell a story of a Moraine that is holding its own in terms of its environmental health, particularly with respect to its base of natural vegetation and cover. However, the reports do reveal some area of serious concern. Only one-third of all stream corridors on the Moraine meet the ecological target of 75% natural vegetation coverage, for example. Rare prairie grassland and savannah habitats, present in small quantities on the Moraine in areas like the Rice Lake Plains, are also under constant threat as is habitat for interior forest species and species-at-risk.

The Measuring Success reports conclude that there is a need for both regulatory and non-regulatory (activities like land stewardship, land securement, public education and research) approaches to continue in order to ensure the Oak Ridges Moraine is restored and protected for generations to come.

To review the Measuring Success reports in detail visit: www.ormf.com



did you know?

One of the Oak Ridges Moraine’s most important functions is as a water recharge and discharge area. It has been described as Southern Ontario’s rain barrel—permeable sands and gravels absorb and collect rain and snow melt, which then slowly filters into the deep aquifers below the ground. This groundwater is used for drinking water in residential wells across the Moraine. Some of this groundwater also makes its way into one of the 65 major rivers and streams on the Moraine and becomes a source of drinking water for millions of people in the Greater Toronto Area.



photo by Jonathan VanBilsen



Although the accomplishments made to date are something to be proud of, it must be stressed that the Oak Ridges Moraine Trail remains a work in progress and there are many opportunities to make the trail even better. Currently about half of the trail is located on municipal roads. Over time the Oak Ridges Trail Association will be working with private landowners, conservation authorities and municipalities to seek opportunities to move some of these trails into quieter, more scenic areas.

Take a Hike!

The Oak Ridges Trail Association and the Oak Ridges Moraine Foundation are pleased to announce that the Oak Ridges Moraine Trail is now fully connected! The trail now extends for over 273 km across the provincially significant Oak Ridges Moraine from Mono Mills in the west to the communities of Castleton and Warkworth in the east.

This trail joins together over 15 local communities, eight counties and regions and seven conservation authorities. It has been designed as a hiking trail that provides the opportunity to view and enjoy the natural and scenic wonders of one of the largest and most environmentally important landscapes in Ontario.

The Oak Ridges Trail Association is a non-profit organization with close to 700 volunteers that maintain the trail and organize weekly hikes. They have also produced an excellent trail guide with interesting natural history facts. To purchase a copy of for more information on the trail visit: www.oakridgestrail.org or call toll free 1-877-319-0285

Bring on the Wine



Fred and Sandy Archibald on the Front Porch of the winery store front.

Wineries are opening up across the Moraine as demand for locally created spirits heightens. Archibald Orchards and Estate Winery is located on the foothills of the Moraine. The land was purchased in the late 1960's for apple production however, in the last 20 years Archibald has perfected their wine making techniques and branched out to create their Estate Winery selection consisting of 18 different wines ranging from dry, table to dessert.

When asked why build your orchards and winery on the Oak Ridges Moraine, Fred Archibald replied, "The south westerly slope of the [Moraine] is ideal. It provides good air drainage, as well as good sun exposure. The sandy loam soil provides good soil drainage. All of these factors were taken into consideration when purchasing the land." Archibald Winery is now in its' 15th year with plans to

continue developing their list of wines available

Here are a few terrific Moraine Wineries to keep in mind when you are stocking up on your Ontario favourites.

- > [Willow Springs Winery](http://www.willowspringswinery.com)
www.willowspringswinery.com
(905) 642-9463
- > [Oak Heights Estate Winery](http://www.oakheights.ca)
www.oakheights.ca
1-866-625-6051
- > [Ocala Winery](http://www.ocalawinery.com)
www.ocalawinery.com
(905) 985-9924
- > [Archibald Estate Winery](http://www.archibaldswinery.com)
www.archibaldswinery.com
(905) 263-2396



The Ontario Road Ecology Group: Protecting Biodiversity from the Threats of Roads

Road Ecology is the study of the interaction of organisms and the environment as they relate to roads and transportation networks. The Ontario Road Ecology Group (OREG) is a not-for-profit organization championed by the Toronto Zoo that protects biodiversity from the threats of roads. OREG is an umbrella organization that facilitates working partnerships, guides policy, collects and exchanges data, raises awareness and promotes stewardship in relation to road ecology. By working with government and non-government agencies, OREG is improving the way wildlife/road interactions are managed in Ontario. The Group focuses research and mitigation efforts in southern Ontario which has the greatest biodiversity and the highest percentage of Species at Risk (SAR) in Canada as well as the greatest density of people and roads. Species persistence is threatened by roads due to habitat destruction, degradation and fragmentation as well as direct mortality through wildlife/vehicle collisions.

Research is a primary objective of the Group and includes 1) developing a GIS model that predicts and prioritizes hotspots (i.e. areas of concentrated wildlife/vehicle collisions); 2) coordinating

a full-scale Before-After-Control-Impact (BACI) study on provincial highways to research the question “Do ecopassages mitigate the population-level effect of roads?” that is to say, “Do ecopassages protect wildlife populations from road mortality in the long term and not just slow down the extirpation of a population?”; and 3) citizen-based wildlife/road interaction monitoring programs. For example, OREG initiated the Restoration, Roads & Wildlife study in Rouge Park, which has property that extends into the Oak Ridges Moraine. The purpose of the study is to better inform roadside habitat restoration practices to keep wildlife safe as they use the newly created resources within the landscape of this urban park.

Outreach and education are necessary components of any conservation effort. Public understanding and support are crucial to effectively change the way roads are managed in Ontario. To raise awareness, OREG has a permanent road ecology display in the Conservation Connection Centre at the Toronto Zoo, participates in public stewardship events, provides lectures to conservation students and encourages the public to contribute to province-

wide conservation efforts by reporting wildlife/road interactions to the Wildlife Sightings Database accessible at www.wildlifeonroads.org. This site has already resulted in OREG working with government to implement mitigation measures in locations where multiple wildlife road mortalities have been observed.

OREG is protecting Ontario’s rich biodiversity by ensuring that wildlife movements are considered at the road planning stage and recommending how to retro-fit existing roads with mitigation strategies. To learn more about road ecology and the Ontario Road Ecology Group, please visit www.torontozoo.com/conservation/RoadEcologyGroup.asp? and download your copy of ‘A Guide to Road Ecology in Ontario’. For more information on OREG, contact Mandy Karch at mkarch@torontozoo.ca or 416-393-6365 .

(top left) Exclusion fencing and an ecopassage along a provincial highway. © Mandy Karch

(top right) Example of a wildlife crossing sign. © Mandy Karch

(bottom) Live on road female painted turtle, *Chrysemys picta*. © Mandy Karch



did you know?

In all, scientists have recorded nearly 500 at-risk plant and animal species on the Moraine—a level of biodiversity that makes it one of the Province’s most important repositories of natural diversity



CSSP summer staff Tamara Tucker and Michael Coke-Davis work on a bank stabilization project along a cold water stream

Caring for the Moraine Partner Profile:



Community Stream Stewardship Program

Many of our local waterways have their headwaters, or starting point, on the Oak Ridges Moraine. Streams and rivers are unique because of the tight connections which link the small headwater wetlands to the trickling stream, to the roaring river, to the large lake systems. Everything, good and bad, which occurs upstream in a waterway eventually flows downstream. This is why the stewardship of our waterways by local landowners, volunteers, and community groups is so important.

The Community Stream Steward Program (CSSP), hosted by the Ontario Federation of Anglers and Hunters, works with landowners and volunteers to create a network of Stream Stewards across Ontario. These Stream Stewards participate in the enhancement of their local waterways through simple activities, like stream walks.

A stream walk is your chance to observe and note features of the stream which indicate healthy aquatic systems or any potential problem sites. A stream walk can provide a great starting point for stewardship and provides a basis for additional stream monitoring and enhancement projects, so be sure to take good notes! For additional information and resources, visit the CSSP website www.ofah.org/streamsteward or call (705) 748-6324 x253.



This section of Cold Creek, in Northumberland County, has good riparian vegetation and cold, clear water. Great fish habitat!

THE MORaine IN YOUR COMMUNITY

Thanks to the Oak Ridges Moraine Foundation my stream bank is now stabilized. The plantings will also be a beneficial addition to the local aquatic environment of the Cavan Creek. Without assistance from the Foundation it is doubtful this project could have taken place.

- Paul Anderson,
Cavan Creek Landowner

photos courtesy of the Community Stream Stewardship Program

Monitoring the Moraine

Monitoring the Moraine (MTM) is a collaboration between EcoSpark (formerly Citizens' Environment Watch) and Save the Oak Ridges Moraine (STORM) Coalition. The goal of the program is to build a movement of engaged and informed communities to protect the Oak Ridges Moraine. Since 2005, MTM has worked with over 2,650 people providing them with resources and meaningful ways to engage in the protection of the Moraine. The Oak Ridges Moraine Foundation has been a key funder of the MTM program.

On the Ground.

MTM helps volunteers to better understand the Moraine, why it is important to protect, and how it is being protected. Information, tools and support to monitor the Moraine at a local level are available. MTM's Citizens' Guide to the Oak Ridges Moraine is a starting point for people who want to learn more about the ORM. It covers the basic ins and outs of the Moraine including the geology, land, water, people and policy. MTM's Moraine Watch: Beginner's Guide provide an easy way for volunteers to become the 'eyes and ears of the Moraine by tracking activities like dumping, new developments, and tree cutting on the Moraine. Our Action Guide to Monitoring on the Moraine, helps group get organized to start their own monitoring programs on the Moraine.

Across the Moraine.

MTM works with colleges and universities, conservation authorities, governments, and other environmental organizations to generate and distribute information about the Moraine at the regional and landscape level.



Monitoring for Change.

MTM tracks changes on the Ontario Oak Ridges Moraine at different levels to determine what's working, what needs improvement, and how we can take an active part in protecting the Moraine for present and future generations. Check your Watershed Days provide volunteers with an opportunity to collect data that monitors the health of streams on the Moraine. Through Moraine Watch, volunteers monitor land use and policy on the Oak Ridges Moraine. MTM also 'monitors for change' through a series of status reports that look at the challenges and successes of implementing the Oak Ridges Moraine Conservation Plan.

In November 2010, MTM launched the Moraine for 2015 campaign. The campaign will bring together citizens, groups and communities to pledge their commitment to the Moraine. As the review of the Oak Ridges Moraine Conservation Plan in 2015 draws nearer, there will be opportunities to be actively engaged in defending the ORM through the Moraine for 2015 campaign. You can join MTM in the first phase of the Moraine for 2015 campaign by taking the online pledge and sharing this important cause with your friends and family! Complete the pledge online at www.moraine2015.ca or contact: info@ecospark.ca or 647-258-3280



THE MORaine IN YOUR COMMUNITY

The Oak Ridges Moraine Foundation developed a curriculum linked outreach education program that was delivered to more than 5,700 school children teaching them about the importance of water and wildlife protection on the Moraine. The program has been passed on to the Conservation Authorities across the Moraine and may be available in your area. If you are an educator that would like more information, please contact: support@ormf.com or 905-833-5733

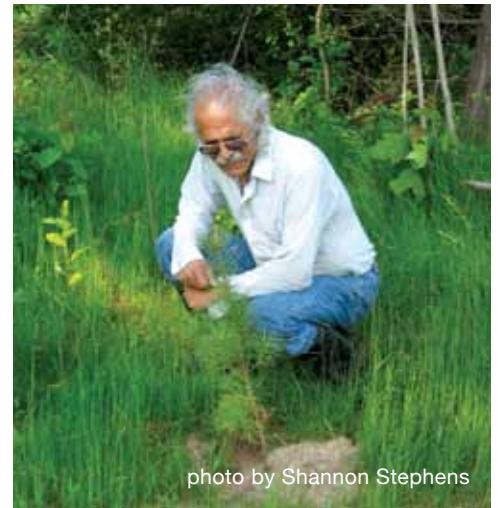
Oak Ridges Moraine Information Centre at the Ganaraska Forest Centre

The 11,000 acre Ganaraska Forest is located to the east of Highway 115, half way between Bowmanville and Peterborough. People travel from far and wide to explore the extensive trail systems which support hiking, horseback riding, motorized vehicle use, cross-country skiing, and snowmobiling.

In September 2009, the new Ganaraska Forest Centre opened its doors. The building supports an outdoor education program for all grades from elementary to high school. Groups can stay in the newly constructed innovative Centre for a two or three day residential program, or can visit for a single day full, of programming. The curriculum covers Geology, Ecology, Orienteering, and much more. The Centre's staff are extremely knowledgeable and are ready, willing and able to modify or create specific programming for your group or organization.

Located in the largest forested area on the Oak Ridges Moraine, the Ganaraska Forest Centre is a great host for the Eastern Oak Ridges Moraine Information Centre. Here you'll find: interactive displays about the geology of the Moraine; educational videos from Conservation Ontario and more; interpretive panels with quick facts; free take-away materials including brochures for funding and technical assistance programs; and a library of Oak Ridges Moraine reference materials! The Oak Ridges Moraine Foundation was a key funder of the center and contributed various resources to the information center.

The Centre is open Monday through Friday from 8:30am to 4:30pm, and for special events after hours and on weekends. An Oak Ridges Moraine specialist may be available to speak with you in person. For more information call 905-797-2721 or email info@grca.on.ca



Caring for the Moraine Landowner

Partner Profile: Casian D'Souza

Over the past four years Casian D'Souza has been undertaking environmental projects on his property in the western end of the Moraine in partnership with the Nottawasaga Valley Conservation Authority. He has fenced his livestock from the stream and protected over 20 acres for natural habitat. Mr. D'Souza has also planted over 1,000 trees on his property. He's concentrating on the richer valley soils first and slowly working his way up eroded hilltops. He is undertaking the control and elimination of the invasive Scots Pine which is prolific on his property. The efforts Mr. D'Souza and other landowners that have participated in the Caring for the Moraine program are making a difference on the landscape and helping restore and protect the Moraine for generations to come.



(left) photo by unknown – in photo, Sasha Lambrinos (facing camera)
 (right) postcard produced by Ganaraska Region Conservation Authority

Help Protect the Land You Love!

Whether it's creating a butterfly garden in your yard, planting trees in the community, or going for a hike, stewardship is about being a good neighbour with nature! With the Oak Ridges Corridor Nature Reserve (ORCNR) nearby, Richmond Hill residents have a beautiful piece of nature right on their doorstep.

The ORVNR is a 1,057 acre (428 hectares) piece of the Oak Ridges Moraine, located between Bathurst Street and Bayview Avenue, in the community of Oak Ridges. A walk along the park's main trail offers views of its colourful meadows, peaceful forests, and clear kettle lakes. Home to more than 70 species of wildlife, the park serves as a bridge connecting natural areas to the east and west of Richmond Hill, allowing wildlife to travel safely through the area.

The ORCNR is enhanced by 482 acres (195 ha) of land owned by Toronto and Region Conservation (TRCA) and located east of Bayview Avenue. The lands, locally referred to as Jefferson's Forest, are much loved by neighbours who hike, bike and snowshoe. Jefferson's Forest is home to many important and sensitive habitats, such as kettle wetlands, as well as a host of wildlife species including birds, frogs and salamanders.

In 2008, TRCA initiated a management plan for the Jefferson's Forest lands within the ORCNR. Nearing completion, the plan includes detailed restoration plans, a trail plan, and comprehensive management recommendations. If you are a regular visitor to the property, you may have noticed extensive rehabilitation and restoration work that has already been undertaken, including the closing of informal trails that are located in sensitive ecological areas. Building on this work, future years will see the development of formal trails, including the extension of the main ORCNR spine trail under Bayview Avenue and extending east and north to Bethesda Sideroad.

There are many opportunities to get involved in the stewardship of the ORCNR. Together with our community partners, TRCA regularly hosts hikes, planting and clean-up events, and public information sessions. For more information on these events, visit our website at www.trca.on.ca or contact Steve Joudrey at sjoudrey@trca.on.ca or at 416-661-6600 x5573.



Both photos are aerial views of the Oak Ridges Moraine Corridor Park. Photographed for TRCA by Lou Wise.



Look Before You Leave!

An invasive species is a plant or animal that has been introduced outside of its natural range, and which threatens the environment, the economy, or human health. The number of invasive species and potential pathways for their spread is not well appreciated by the average person.

The Ontario Invasive Plant Council created a "Look Before You Leave!" poster to raise awareness about how easily and unwittingly we can transport exotic species when we travel. For more information and to view the poster visit: www.ontarioinvasiveplants.ca.

(above photo) Garlic mustard has tiny seeds that stick to boots, wet clothes and fur. Photo by Ken Towle



Showdown on the Moraine

The Oak Ridges Moraine was featured on the cover of the Summer 2011 edition of ON Nature, Ontario Nature's award winning magazine. Inside Peter Gorrie writes about the issues that still jeopardize the health of the Moraine. Ten years ago Ontario Nature was one of the groups that led the charge to have the Moraine protected and today they, along with many other environmentalists, concede that the fight is not over yet.

To read the article in full visit: <http://onnaturemagazine.com/showdown-on-the-oak-ridges-moraine.html>

Caring Neighbours

The Oak Ridges Moraine Land Trust (ORMLT) continues to support the Caring for the Moraine program by promoting the work and services of the programs' partners' to landowners that are exploring options for long term protection of their land.

In recent activity, the ORMLT has been encouraging landowners who have committed to conservation easements to host a social gathering to talk about land protection. The initial event was held at the Hon. Hal Jackman's farm and drew a number of landowners from the immediate area. Two of the ORMLT's landowners provided brief but heart-felt addresses to the 50 or so guests about why they have entered into

conservation easements and sparked some wonderful supportive responses and great conversations. It wasn't all about protection, but also landowner experiences with various organizations and stewardship activity. There were plenty of "I didn't know that!" comments throughout the evening. In addition, the first event resulted in another easement holder volunteering to host a second event, scheduled for Uxbridge on September 15, 2011.

Beyond the gratification of protecting such an important area, landowners may be eligible to receive other benefits when entering into a conservation easement. The registered owner may realize reduced property or income taxes

either immediately or at some point in the future. Conservation easements can also protect the current owner's stewardship investment and can avoid future family disputes over the uses and disposition of the property.

The ORMLT looks forward to continuing contact with landowners about options for them to engage in stewardship and protection activities. Who we are as organizations or individuals doesn't matter. Caring for the Moraine does.

For more information on the work of the ORMLT please contact Susan Walmer, Executive Director at: susan.walmer@bellnet.ca or 905-833-3171.



did you know?

By an overwhelming margin, Canadians consider fresh water to be the most important natural resource to Canada's future. - Nik Nanos, Nanos Research



Well Aware on the Oak Ridges Moraine

In the aftermath of the Walkerton tragedy and numerous boil water advisories, private well owners have become more aware of the connection between groundwater contamination and human health. However, most well owners may not yet understand their responsibility to maintain their well, nor are they equipped to take necessary action for groundwater protection.

Since the program's inception in 2002, Green Communities Canada (GCC), through local members has expanded Well Aware delivery from four to 12 communities across the province. Each member is an independently incorporated, local, non-profit environmental organization. Each develops its own working relationship with its respective municipalities, health units, stewardship councils, conservation authorities and community groups.

In partnership and with financial support from the Oak Ridges Moraine Foundation, Well Aware was adapted to address the unique geological features of the Moraine. Well Aware encourages well owners to begin by looking closely at their own wells and their own activities that may influence well water quality. Water protection in its fullest sense requires a greater public understanding of the water cycle, groundwater flow, pathways of contamination, and issues such as

climate change, loss of groundwater recharge function, and groundwater depletion. Well Aware works to strengthen and broaden the foundation for science-based stewardship of Ontario's groundwater resources.

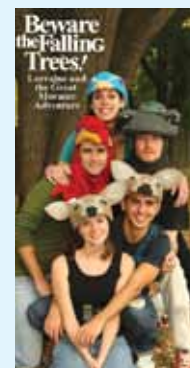
The Guided Self-Assessment is the most effective component of the program. It is a two hour site visit with the well owner and is voluntary, confidential, and non-regulatory. The water guides, trained as ideal well owners, use a risk-management approach to focus on best management practices that support Ontario's Wells Regulation in a positive and supportive manner.

Well Aware has been a great success on the Moraine. 1,500 booklets have been circulated, 213 Guided Self-Assessments completed and the local communities have organized 26 Well Aware events. One of the critical findings of the Well Aware program is that 88% of wells visited don't comply with the Wells Regulation. There is still much work to be done.

For more information about the Well Aware program, please click on www.greencommunitiescanada.org or www.wellaware.ca. You can contact Heather Kirby, program manager, at 705-745-7479x114 or hkirby@greencommunitiescanada.org.

(top) Observing the joints and water level in a dug well during a guided self-assessment. Photo courtesy of Green Communities Canada

THE MORaine IN YOUR COMMUNITY



With the support of the Oak Ridges Moraine Foundation, the Resurgence Theatre Company was able to create an innovative theater production that

educated young people about environmental stewardship. *Beware the Falling Trees! Lorraine and the Great Moraine Adventure* is a story about a deer named Lorraine who tries to stop her friends from cutting all of the trees down to build a disco in Purple Woods. After the initial trees are cut, the animals realize that the blowing sands are clogging all the streams and making it difficult to get clean water and food. Thankfully Lorraine is able to convince her friends to stop the cutting and plant trees to protect the land and water.

"I found the Well Aware guided self-assessment to be a great educational experience. I learned how to properly maintain my well and septic and identify areas that threaten the quality of my drinking water. The information and resources are very informative and provide solutions to help maintain a properly functioning well."

- MPP Rick Johnston,
Haliburton-Kawartha Lakes-Brock.



photo by Peter Burtch

Healthy Lands & Healthy Horses for a Healthy Moraine

Between 2001 and 2006, there was a 16.7% increase in the number of horses in Ontario. In 2007, there were approximately 3,272 equestrian farms in the Greater Toronto Area (Durham, Peel and York), representing 42,241 horses.* Equestrian operations however, are small compared to other livestock farms. Most average 5 horses per farm. For these smaller operations, access to technical assistance to implement Beneficial Management Practices (BMP), primarily nutrient or manure management, is a challenge.

Research conducted by Toronto and Region Conservation (TRCA) found there is a knowledge gap on how horse owners can manage the nutrients that their horses produce. They also found that equine owners faced many barriers to adopting other BMP's on their lands including a fear of the regulatory role of Conservation Authorities offering stewardship programs. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) identified nutrient management, improper pasturing and horse density per acre as the top environmental challenges of Ontario's equine industry. These are further exacerbated by the fact that many horse owners lack the technical knowledge, or do not have access to the financial resources and/or grant programs to help them address those challenges.

With a significant number of equine operations located in headwater areas

of the Oak Ridges Moraine, the potential for that industry to contribute a source of pollution to local surface and groundwater resources is significant. In 2008,

a grassroots equestrian stewardship program was developed called "Healthy Lands for Healthy Horses" (HLHH). The program was administered by the Healthy Lands for Healthy Horses Steering Committee of which partners included: TRCA, Credit Valley, Lake Simcoe, Kawartha Lakes, Ganaraska, Grand River and Central Lake Ontario Conservation Authorities, Equine Guelph, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the University of Guelph, the Ontario Trail Riding Association and the Uxbridge Horseman's Association. Funding for the work associated with the program was generously provided by the Ontario Soil and Crop Improvement Association, OMAFRA and the Province of Ontario.

Through a series of one and two day workshops, written articles in equine publications and attendance at a variety of community events, the steering committee successfully promoted and delivered the Healthy Lands for Healthy Horses program over a 3 year time frame. The purpose of the program was to increase the knowledge base and technical capacity of equine owners and assist them with the implementation of BMP practices on their properties by linking them to a variety of organizations and granting programs. More than 200

people participated in the workshops and the committee wrote and published 15 articles on equine stewardship to reach the target audience. The committee also assisted six equine operators with the voluntary development and implementation of Environmental Farm Plans, site plans and projects like livestock restriction fencing, buffer strip planting, clean water diversion and manure storage on their lands.

Three workshops were hosted in Oak Ridges Moraine communities located in the Regions of Durham, Peel and York respectively. These interactive workshops were free to participants and provided insight into the benefits of BMP's from an economic, social and environmental perspective showing participants the benefits for the horse, the horse owner and the surrounding Oak Ridges Moraine communities. A participant information binder was provided to each of the participants and the committee developed an Equine Stewardship Workshop Facilitator Tool Kit to provide interested organizations with the guidelines and content for delivering similar workshops across the province. For access to resources and more information about the program, please contact your local Conservation Authority or visit: www.equineguelph.ca/healthylands.php.

* Wright, Dr. Robert. (2007). *Economic Impact of the Horse Industry. Ontario: OMAFRA*



photo by Alison Clarke

Rice Lake Plains Joint Initiative:

A Landscape Conservation Approach

The dry rolling hills of the Rice Lake Plains, at the eastern end of the Oak Ridges Moraine in Central Ontario, were historically a 17,000 ha – 30,000 ha (42,500 acres -74,000 acres) tallgrass prairie landscape. Fire suppression, conifer plantations and, increasingly, invasive species, have changed and degraded the now globally rare black oak savanna and other significant tallgrass habitats of this region.

Inspired by the active tallgrass prairie management of the Alderville First Nation Black Oak Savanna and the Red Cloud Cemetery Prairie, The Nature

Conservancy of Canada (NCC) forged the multi-partner Rice Lake Plains Joint Initiative (RLPJI) in 2002 to raise awareness and to collaboratively work on a landscape-scale to restore tallgrass habitats. To date the partnership has grown to nine groups and momentum continues to build to help revitalize this globally rare ecosystem.

Through this partnership, private landowners are learning about the ecological communities on their land and what they can do to protect and maintain tallgrass prairie communities. With funding support from the Trillium Foundation of Ontario, free workshops, tours, and presentations are available to help educate the residents of the Rice Lake Plains on current prairie and savanna ecology and restoration techniques. Educational materials, specifically linked to the grade 4-6 science and technology curriculum, are available to local teachers. Field trips and classroom presentations can be arranged at many of our beautiful and diverse properties. The Oak Ridges Moraine Foundation provided key start up funding to the RLPJI and the initiative has worked closely with all Caring for the Moraine partners.

The RLPJI's most extensive annual event is the Prairie Day Eco Festival, being held this year on Saturday September

10, 2011 at the Alderville Black Oak Savanna. With financial support from Celebrate Ontario, a sector of the Ontario Ministry of Tourism and Culture a larger and more diverse crowd than ever before will be attracted to enjoy the bountiful late summer beauty of Northumberland County. The Northumberland Hills Studio Tour is occurring simultaneously and will include a stop at the Alderville Black Oak Savanna to showcase the works of local artist and biologist, Rick Beaver. Prairie Day will also be offering a free bus tour to The Nature Conservancy's Barr property and the studio of another local artist, Barry King, at Gallery by the Grove.

Other happenings at Prairie Day 2011 include a sunrise ceremony, Yoga on the Plains, wild edible and medicinal plants workshop, nature photography workshop, restoration information session, traditional teachings, food, and more. The very exciting music line-up includes Juno award-winning Aboriginal band, Digging Roots and Alderville's very own Barnburners! The young ones can expect to be entertained by the Paddling Puppeteers, crafts, hula hooping, face-painting, and games.

If you would like to learn more about the RLPJI and support our work, please visit www.ricelakeplains.ca or contact Brooke Stevens at outreach@ricelakeplains.ca— 905.352.1184. See you on the plains!

THE MORAINES IN YOUR COMMUNITY

The Oak Ridges Moraine is of upmost importance to us as apple growers in York Region. Our business supplies our community with quality apples and in turn provides employment for youth. Without a good clean water source, this would be impossible.

- Pam Rolph-Romeril,
Pine Farms Orchard,
King City



Newberry Park—

A WETLAND OASIS in Richmond Hill

To most people wetlands are places where you find cattails, water and a whole lot of mosquitoes but what most people don't realize is that they are one of the most interesting and biologically diverse ecosystems on the planet. Wetlands are vital to our environment because they act as filters for our water, provide a sanctuary for wildlife, help to prevent flooding after heavy rainfalls and help to regulate our climate.

Newberry Park in the Town of Richmond Hill is home to a recently restored wetland that boasts all of these biological benefits and has a viewing deck to see the wonders from. Interpretive signs and a trail that runs through it provides visitors with the opportunity to witness some of the wetland wonders typically found in this type of environment. When visiting the park it is common to see migrating waterfowl along the water's edge, turtles basking on floating logs and interesting insects floating along the water. You can even hear frogs chatting with each other between the wetland ponds.

It's hard to believe only a few years ago the healthy ecosystem now present at Newberry Park was a wet and soggy

soccer pitch and baseball diamond that hadn't been used for years. Endless problems associated with seeping groundwater made the playing fields impossible to use. In 2008 with the help of a number of organizations and funding partners including the Oak Ridges Moraine Foundation, Ontario Streams, the Ontario Ministry of Natural Resources, a plan was hatched and expertly implemented converting Newberry Park to a wetland complex. Over a few months the fields were dug up to create a series of ponds and channels to collect the seeping groundwater. More than 1,100 trees and shrubs, as well as countless water loving plants, were transplanted by many volunteers making this wetland not just a Town project but also a space that the community has become familiar with and connected to.

When we look back at the natural history of this park, it is no surprise to find that before the houses and streets were built in the 1980's the entire area was a headwaters wetland swamp. This type of wetland environment is commonly found along the base of the ORM. Newberry Park is especially unique because the northern half of the park is on the

moraine, and the southern half is off it. The elevation line that is regularly used to define the southern limit of the moraine is marked with posts so that visitors can get a visual idea of where it is. The water that flows out of the wetland at Newberry Park, just as it had prior to the playfields being built, feeds into the Rouge River and flows all the way down to Lake Ontario.

This small wetland oasis in Richmond Hill not only provides many environmental benefits to the community but it also has become a space that provides tremendous recreation and learning opportunities for people of all ages. In a society where the loss of wetland communities has become a common occurrence because of development pressures over the last few decades, this park demonstrates how with enough will and the help of many partners and dedicated volunteers, important ecosystems such as wetlands can be put back into our landscapes.

For more information visit: www.richmondhill.ca



Newberry Park Soccer Fields during the summer of 2005



Former Newberry Soccer Fields in 2009.

photos courtesy of Town of Richmond Hill

Funding and Resources Available to Private Landowners

Did you know that many of the organizations that partner with the Caring for the Moraine program offer private landowners just like you financial assistance as well as access to professional and technical advice on stewardship projects. If you have a stewardship project in mind for your property, we think you should give one of our local partners a call. They can help you understand the environmental concerns in your neighbourhood and connect you with financial resources.

To find out more about what services our partners offer, visit www.caringforthemoraine.ca

Credit Valley Conservation

- Tree Planting Programs and MFTIP Planning Services
- Zoltan Kovacs, Forester
905-702-5201
 - Brian Boyd, Planting Project Coordinator
905-702-8041
 - Dave Wiley, Forestry Foreman
905-702-8849
forestry@creditvalleyca.ca

Toronto and Region Conservation Authority

- 1) Managed Forest Tax Incentive Planning Services
 - Tom Hildebrand
416-661-6600 x.5379
thildebrand@trca.on.ca
- 2) Planting Services, Private Land, Tree and Shrub Program
 - Mary Jane Moroz
416-661-6600 x.5649
trees@trca.on.ca
- 3) Healthy Yards
 - Cynthia Brown
416-661-6600 x.5786
cbrown@trca.on.ca
- 4) Rural Clean Water Program
 - Nadine Abrams
(416) 661-6600 x.5349
nabrams@trca.on.ca

Central Lake Ontario Conservation Authority

- 1) Clean Water Stewardship Program
 - Patricia Lowe
905 579 0411 x.126
plowe@cloca.com
- 2) Private Land Tree and Shrub Program
 - Kathy Lutrell
905-579-0411 x.124

Kawartha Conservation

- 1) Shoreline Naturalization Program
705.328.2271
- 2) Scugog WATER fund
 - Shalin Abbott
(705) 328.2271 x.221
sabbott@kawarthaconservation.com
- 3) Tree Seedling Program
(705) 328.2271

Otonabee Region Conservation Authority

- The Trees Project
- John Williams
(705) 745-5791 x. 216

Ganaraska Region Conservation Authority

- Clean Water Healthy Land Stewardship Program
- Stewardship Technician
905-885-8173

Lower Trent Conservation Authority

- 1) Tree Seedling Stock Program
 - Dave Impey
613-392-5073
- 2) Rice Lake Plains Stewardship Program
613-394-4829

Lake Simcoe Region Conservation Authority

- Landowner Environmental Assistance Program (LEAP)
- 905-895-1281 x.272
l.mclean@lsrca.on.ca

Ducks Unlimited

- Wetland Program: (705) 721-4444

Ontario Federation of Anglers and Hunters

- Community Stream Steward Program
705.748.6324

Nottawasaga Valley Conservation Authority

- 1) Healthy Waters Program
 - Shannon Stephens:
705-424-1479 x.239
sstephens@nvca.on.ca
- 2) Tree Planting Program
 - Rick Grillmayer
705-424-1479 x.230
rgrillmayer@nvca.on.ca

Halton Peel Woodlands and Wildlife Stewardship

- 1) Caledon Tree Seedling Partnership Program
- 2) Butternut Recovery Program
 - Greg Bales
905-713-7410
greg.bales@ontario.ca

York Region

- 1) Adopt A Stream Crossing
1-877-464-9675, Voice Mailbox: 9815
forestry@york.ca
- 2) The York Natural Planting Partnership for Private Property
 - Pam Fulford: 1-877-464-9675 x.5241
forestry@york.ca
- 3) Plant a Tree with LEAF
416 413-9244

Region of Peel

- Private Well Abandonment Program
905-791-7800 x.4052

Peterborough County Stewardship Council

- 1) Tree and Shrub Seedling Program
- 2) Agricultural Projects
 - Peter Mabee: (705) 755-1951
peter.mabee@mnr.gov.on.ca

Northumberland Stewardship Council

- 1) Tree and Shrub Seedling Program
- 2) Rental of Mechanical Tree Planter
 - Derrick Luetchford: (705)755-3298
derrick.luetchford@ontario.ca

Ontario Soil and Crop Improvement Association

- Environmental Farm Plan
1-800-265-9751
www.ontariosoilcrop.org

Ontario Ministry of Natural Resources

- 1) Species at Risk Stewardship Fund
ontario.ca/speciesatrisk
705-755-1208
- 2) Conservation Land Tax Incentive Program
ctip-info.mnr@ontario.ca
1-800-268-8959
- 3) Managed Forest Tax Incentive Program
 - Ontario Woodlot Association
1-888-791-1103
info@ont-woodlot-assoc.org
 - Ontario Forestry Association
1-800-387-0790
mftip@oforest.on.ca
- 4) Community Fish and Wildlife Improvement Program
Contact local MNR District Office

PLANTS & ANIMALS of the Moraine

Colouring Contest



Species of the Oak Ridges Moraine—

ENTER OUR COLOURING CONTEST!

The Caring for the Moraine program invites all of the young budding artists out there to colour the reverse sheet and submit it to us to be eligible for a great nature viewing prize pack that includes kid-friendly field guides and binoculars! Be sure to fill out the below contact information when submitting. If you would like to have your artwork sent back to you we would be happy to do so if you include a stamped, self-addressed envelope with your submission. This contest is open to artists 10 years old and younger.

All of the beautiful creatures featured in the colouring sheet call the Oak Ridges Moraine their home. Below are some tips on how you can identify a few of these species when you are exploring the Moraine. The descriptions may also help young artists to colour the creatures just like you would find them in the wild.

Adult **jefferson salamanders** have a grey or brown-coloured back, with lighter under parts. Blue spots can be seen on the sides and limbs. Jefferson salamanders are an endangered species that is very sensitive to any disruption of their habitat.

Blanding's turtles have a yellow throat and jaw and a shell that is shaped like a helmet.

Brook trout are a prized catch and have a white leading edge on lower fins, set off by a black line and often worm shaped spots on their backs. They are known to live in the extremely cold waters coming from the Oak Ridges Moraine ground water.

Whip-poor-wills get their name from their distinctive call which sounds just like their name. Finding these birds can be difficult because they blend into their environment. Their colouring is soft brown with shades of grey, black and white.

Red-shouldered hawks are sometimes called a red-bellied hawk because of their red belly. The wings look like a black and white checker board. The red-shouldered hawk is a sensitive forest species because it nests in large tracts of mature forest but abandon the nest if the forest is disturbed.

Monarch butterflies are easily identified by their orange wings with black veins and are often seen perched on a milkweed which is the preferred food source of the larvae.

The **eastern bluebird** is a summer resident of Southern Canada. The males and females differ in appearance slightly, but both have blue to blue-grey wings and a brown or red-brown throat and chest.

Red oak trees are the majestic giants of the Oak Ridges Moraine. These trees can grow to be 30 meters tall and 90 centimetres in diameter and can live up to 500 years.

White water lilies are found in quite ponds and slow moving rivers. They can be identified by the round shaped lily pad or when flowering by their white lilies which float on the water surface.

Almost all **eastern cottontail rabbits** have a fluffy white underside which resembles a cotton ball. The cottontail is often seen on the move and from behind all that you will see is a fluffy white tail hopping away.

NAME: _____

ADDRESS: _____

PHONE: _____

AGE: _____

Submit to: Oak Ridges Moraine Foundation
The Gate House
13990 Dufferin Street North
King City, Ontario L7B 1B3

Contest closes October 31, 2011



photo by Peter Pomykacz

Keep in Touch with the Moraine

Would you like to receive future issues of the Caring for the Moraine newsletter? Moving forward we hope to issue the newsletter electronically to save paper. We will do our best to ensure that anything we send you will be compatible for landowners on a dial up connection and would also be happy to send a hardcopy to those without internet access.

Individuals that register prior to October 31, 2010 will be entered into a draw for some great 'made-on the Moraine' products from Archibald Orchards, an Oak Ridges Moraine Trail Guide and a copy of the Oak Ridges Moraine coffee table book that features some beautiful imagery and insight into the history of the movement that enabled the Moraine's protection.

Please go to www.caringforthemoraine.ca to provide your information to our mailing list or fill out the below and mail it to us.

detach lower portion, apply stamp and mail

Yes! I would like to join the Caring for the Moraine mailing list and be eligible for a draw for some great Moraine prizes.

Name: _____

Mailing Address: _____

E-mail Address: _____

- (check if applicable):
- I prefer to receive electronic correspondence only
 - I have dial up internet services
 - I prefer to receive mail correspondence only
 - I agree to have my contact information shared with other Oak Ridges Moraine based groups



Experience the beauty of the Moraine.



This newsletter has been prepared by the Oak Ridges Moraine Foundation with the support of all of our Caring for the Moraine partners listed below. Financial support was also provided by TD Friends of the Environment Foundation.

Oak Ridges Moraine Foundation
The Gate House
13990 Dufferin Street North
King City, Ontario L7B 1B3

905-833-5733
support@ormf.com



TD Friends of the Environment Foundation

- Alderville First Nation • Central Lake Ontario Conservation Authority • Community Stream Steward Program • Credit Valley Conservation Authority
- Ducks Unlimited Canada • Durham Land Stewardship Council • Eco Spark • Ganaraska Region Conservation Authority
- Halton Peel Woodlands and Wildlife Stewardship • Kawartha Heritage Conservancy • Kawartha Region Conservation Authority
- Lake Simcoe Region Conservation Authority • Lower Trent Conservation Authority • Ministry of Natural Resources • Nature Conservancy of Canada
- Northumberland County • Northumberland Land Trust • Northumberland Stewardship Council • Nottawasaga Valley Conservation Authority
- Oak Ridges Moraine Land Trust • Oak Ridges Trail Association • Otonabee Region Conservation Authority • Peterborough County Stewardship Council
- Region of Durham • Region of Peel • Region of York • Seneca College • Toronto and Region Conservation Authority • Town of Caledon
- Township of Uxbridge • University of Toronto: Koffler Reserve • Victoria Land and Water Stewardship • York Environmental Stewardship

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