



Grand River
Conservation
Authority



The Grand:
A Canadian
Heritage River

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Cover photo:

Top: Student gardener Danielle Girard shows the garlic mustard that has invaded the gardens at the GRCA headquarters. Inset: During its first year, garlic mustard grows close to the ground with only a couple scalloped leaves. Photos by Janet Baine



Fighting garlic mustard and other invasive plants

By Janet Baine
GRCA Communications Specialist

I've been battling an invasive plant with delicate white flowers — garlic mustard — and sometimes it feels like I will never win.

I'm in good company.

In fact, garlic mustard has popped up in the gardens at the GRCA headquarters in Cambridge that showcase native plants. It is in the woods and close to Shade's Mills reservoir. The Internet site www.treescanada.ca says it is one of 15 invasive plants that are tree killers.

Originally from Europe, garlic mustard is now so well established in the Grand River watershed that it is one of the eight "invasive exotic species to watch" listed in the Watershed Forest Plan.

Invasive exotic plants threaten natural areas since they reproduce in ways that allow them to travel and replace native plants that are essential



to the local ecosystem. Researchers are now discovering they produce chemicals that are toxic to native plants.

I'm ashamed to admit that several years ago I dug the garlic mustard up from a natural area and planted it in my yard because I thought it was a wild flower. It grew in the wild, right? Now I know not to take plants from their natural surroundings and that many plants that grow in naturalized areas are not native plants.

Soon after I planted it, garlic mustard was springing up everywhere. It looks so different in its first year (a cluster of large round scalloped leaves that grow close to the ground) and in its second year (taller with small white flowers in late spring) that I thought this was two different



No one knows the impact of non-native invasive plants on the complex ecosystem.

plants.

Underground warfare

Research at the University of Guelph has found that garlic mustard is “waging underground chemical warfare” on native Canadian trees. This discovery was made by University of Guelph professor John Klironomos and scientists from the United States and Germany.

Klironomos noticed few tree seedlings in watershed forests where garlic mustard flourished. His research found the invasive targets and poisons the fungi in the soil that helps nourish many native trees, such as maple, ash and other hardwoods. Once garlic mustard has invaded an area and released this deadly chemical compound, even removing the weed doesn’t help much.

“The compound is still in the soil and it’s hard to plant any native plants in the area and have them establish properly,” Klironomos says.

According to the Ontario Ministry of Agriculture Food and Rural Affairs, garlic mustard seeds can remain viable in the soil for up to five years. Each plant will produce between 150 and 850 seeds, so it is no wonder I still have this problem five years after I first started pulling this invasive plant. Each time, there is a faint smell of garlic.

The Ontario Weed Gallery website describes garlic mustard as the “purple loosestrife” of woodlands and fencerows. “It competes with native wildflowers that also flower in the spring, like spring beauty, wild ginger,

bloodroot, Dutchman’s breeches, hepatica, toothworts, and trilliums, stealing light, moisture, nutrients, soil and space. Wildlife and insects that depend on these early native plants for food soon disappear,” according to the website.

Garlic mustard is only one of numerous non-native invasive plants that are causing havoc with local ecosystems.

Fighting buckthorn

Mary Cunningham, chair of the landscape committee of her condominium complex near the Grand River, says the group is not only battling garlic mustard, but also buckthorn, an invasive non-native shrub that grows so densely that it is replacing native trees.

Many people don’t understand how damaging it is and think only of the shade and greenery it provides — it is hard to believe that something green and shady can be invasive. They aren’t aware that it spreads quickly.

Maple and other native trees may germinate when they are surrounded by buckthorn, but they don’t get enough light to thrive. Over time, buckthorn alters the forest understory.

Birds eat the buckthorn berries and transport them long distances, so con-



Common buckthorn

trolling buckthorn requires a community effort.

Rob Messier, who works for Ducks Unlimited, notes that no one knows the long-term social and economic impact of non-native invasive species as they transform the landscape and ecosystems.

“It is not enough if one landowner eradicates it, but all their neighbours need to be vigilant as well, and often that doesn’t happen,” he says.

Education is the key

The City of Kitchener, recognizing that education is essential, started Kitchener’s Natural Areas Program (KNAP) to build relationships between people and natural areas.

The idea is to engage people in envi-



Mary Cunningham and Allison McElhone stand by an old maple tree after removing one of the many buckthorn trees that grow underneath. The buckthorn may be preventing the maple forest from regenerating, because buckthorn grows so thickly that native seedlings don’t get enough light to grow.

ronmental stewardship, educate them about natural areas and create opportunities to experience nature in the city. The website, www.kitchener.ca/KNAP includes fact sheets on invasive plants, native wildflowers and research about Norway maple, planted by many municipalities and now also known to be an invasive plant that is reproducing more quickly than native trees.

While researching this article, I've discovered other greenery in my yard is invasive, including dame's rocket (a plant with purple flowers that I thought was a native wildflower), English ivy and periwinkle. Maybe these combined with the garlic mustard are the reason that native plants such as blood root, may apple, trilliums and Jack-in-the pulpit either don't flower or soon disappear after I plant them.

There is no question that it is very labour intensive to dig out invasive plants and they tenaciously keep reappearing. It may feel like a battle that can't be won, but eventually they do stop growing back.

"One of the best ways to control further spread of invasive plants is to minimize disturbance of natural areas, because they thrive in disturbed areas," says GRCA ecologist Tony Zammit.

As far as home gardens go, there are a plethora of native wildflowers, shrubs and trees that are attractive alternatives to invasive plants, he says.

Eight species to watch from the Watershed Forest Plan:

Garlic mustard, buckthorn, Norway maple tree, dog strangling vine (recently found in our watershed), oriental bittersweet, black alder, white mulberry and Japanese knotweed.

Other invasive plants of concern to the GRCA: Common reed, periwinkle, dame's rocket, English ivy, Tartarian honeysuckle, gout weed, Scot's pine, burning bush (also called winged euonymus) and reed sweetgrass or meadow-grass.



Common reed is an invasive non-native tall grass often referred to by its Latin name, *phragmites*. It stands out beside roads and near wetlands because it is very tall and the dried reed from last year still stands. It tolerates road salt and may be spreading into areas when native species cannot survive. The photo above shows that it is just starting to invade this ditch along Blair Road in Cambridge, but it is very thick in other parts of the watershed.



Dame's rocket has purple and white flowers in June. It is a highly invasive non-native plant that grows a metre tall.



Gout weed is a non-native invasive plant that can spread into naturalized areas from gardens. It needs to be dug out by the roots.



Laurel Creek Nature Centre got a new green roof thanks to a successful \$250,000 campaign by the Grand River Conservation Foundation. In addition to students who helped to celebrate were foundation directors Ian Murdoch, Alan Dale and Kerry Long (behind), as well as Michael Klopchic and Michael Phippen of the BMO Financial Group.



The Hisson family of Glen Allan, Peel Township, outside their home in this photo taken around 1920. Today there is nothing left of Queen's Bush, once the third biggest black settlement in Canada West. It will be commemorated by a plaque that will be unveiled Aug. 2.

Photo courtesy of the Wellington County Museum and Archives

Remembering Queen's Bush settlement: third largest black settlement in 1830s

A plaque to remember the early black settlement of Queen's Bush will be unveiled in Glen Allan Park on the bank of the Conestogo River Saturday, Aug. 2, one day after Aug. 1, traditionally celebrated as Emancipation Day.

A stream of African-American refugees arrived in the Queen's Bush settlement beginning in 1829, a decade before Peel and Wellesley Townships opened up for settlement. The Queen's Bush was a unique settlement because the area was isolated and well away from other communities.

At first Canadian residents welcomed the fugitives, but during the 1830s they became ambivalent. Most Canadians vehemently opposed slavery and welcomed the labour of the new arrivals, but they were wary of a potential massive black migration.

Anti-slavery activists organized self-contained communities for the new arrivals. The settlement lasted for 30 years and was once the third largest black settlement in Canada West. By 1840 it had reached 20 by 13 kilometres.



WHAT'S HAPPENING?

Two years later the Queen's Bush residents began petitioning for land grants, citing poverty and inability to pay. But the surveys to open up the area ignored the black homesteads.

After years of struggle, the black settlers still only managed a subsistence living and couldn't afford the down payments to gain legal possession of the land. By the 1860s most of the blacks in Peel Township worked as farm labourers, domestic help or in one of the small businesses set up by white settlers.

"The settlement deserves to be better known and officially recognized in order that we can gain a richer and more accurate picture of the founding of old Ontario's social dynamic in the 19th century," historian Steve Thorning writes.

Representatives of the federal, provincial, county and township governments will bring greetings at the unveil-

ing. A brief historical address will be delivered by Karolyn Smardz Frost, author of the Governor General's Award-winning book *I've Got a Home in Glory*



Karolyn Smardz Frost

Land: A Lost Tale of the Underground Railroad (2007).

The Honourable Lincoln Alexander, chair of the Ontario Heritage Trust, is also planning on attending this event. The Ontario Heritage Trust, in conjunction

with the Wellington County Historical Society and the Township of Mapleton Historical Society organized the event.

Directions to the unveiling

Glen Allan is southwest of Drayton and northwest of Elmira, on Wellington County Road 45, two km west of County Road 12.

From Elmira, take Highway 86 west towards Listowel, turn right at the first sideroad west of Macton, to Glen Allan - about three km. That sideroad is paved and will take you to Glen Allen Park on the right, before a left turn into the village.

This story is written with files from Ian K. Easterbrook and Stephen Thorning.

Rotary Forest planned at Snyder Flats

A new Rotary Forest is planned for Snyder Flats in Waterloo thanks to the Kitchener-Conestoga Rotary Club's 2008 Dream Home Lottery.

Snyder Flats is on the east side of the Grand River in Waterloo, near Bloomington. More than 56,000 native trees and shrubs will be planted on the property, which is owned by the Grand River Conservation Authority and surrounded on three sides by the Grand River.

"It will be a special natural place for our kids and grand kids to learn about nature together," said Dream Home

Chair Mike Klein of the Kitchener-Conestoga Rotary Club. “The trees will clean our air, provide habitat for wildlife and give people a place to enjoy the outdoors. Together, we are creating a legacy for a better future.”

Community groups will be invited to help plant the trees. Restored grasslands are also part of the project that will see construction of a 2.5 km Rotary Walk with benches and kiosks.

“It’s really amazing for us to be a recipient of a gift of this magnitude,” said Kerry Long, president of the Grand River Conservation Foundation, which has spearheaded this project.

This forest continues the Rotary’s tradition of service to others and it is a special commitment to future generations. The foundation is committed to improving quality of life by enriching the natural values of the Grand River watershed and encouraging people to enjoy and learn from the outdoors.

The Dream Home Lottery has raised \$5.5 million for community groups over the past 22 years and it raised over \$500,000 last year. The home is under construction is south Kitchener and tickets go on sale in September.

Women’s Crisis Services of Waterloo Region will share the lottery proceeds and use the funds to help build a new shelter.

The Rotary Club of Guelph is undertaking a similar project near Guelph Lake. The Guelph Rotary Forest is expected to be a 13 year project that will turn 40 hectares of fields into forest by planting 5,000 trees each year.

GRCA nets award for web-GIS maps

The Grand River Conservation Authority received a 2008 Gold Award for putting powerful mapmaking tools and a wealth of data in the hands of website visitors.

The Best Web-GIS Gold Award was given to the GRCA by the Ontario



Zoë Green and Graham Smith accepted the Best Web-GIS gold award on behalf of the GRCA recently for their work that allows website visitors to make an array of watershed maps for free.

Chapter of the Urban and Regional Information System Association (URISA). Geomatics Co-ordinator Graham Smith is pleased that the web-GIS system — which stands for Geographical Information System — has been recognized by peers from the 500-member organization, most of whom work for municipalities.

The tools can be found on the GRCA home page under Online Services/GRIN, which stands for Grand River Information Network.

“Many municipalities are members of URISA and it is a real honour for us, as a conservation authority, to be recognized in this way by municipalities,” Smith says. “They love our system. They get the most current information, even if it has been updated that day, so the data is always current.”

While web-GIS applications have become common, what sets the GRCA’s approach apart is that anyone can access the information and download it at home at no charge. Website visitors can view and create custom maps showing a wide variety of natural and man-made features in watershed. For example, someone planning to redevelop a property can download a map showing the natural features and regulated areas on the prop-



erty. More than 90 layers of information are available, including aerial photos taken in 2006. The system uses data from a variety of sources. These are acknowledged

through a citation link that is on each printed map.

“Geospatial data in Canada is traditionally regarded as too valuable to give away, but the GRCA sees it as too valuable to keep to ourselves,” Smith says. The GRCA believes the information was acquired at public expense so everyone should be able to use it.

It took years to organize the information but in the long run, it saves time for GRCA staff members because they don’t have to handle as many individual requests for data and maps. That frees them up to focus on enhancing the system. Smith could not have foreseen some uses for the data when the system was being developed. For example, the owner of a company that sprays areas damaged by gypsy moths uses the aerial photos to target damaged areas, eliminating unnecessary spraying.

"This gives all staff and anyone outside the GRCA access to a wealth of information about the Grand River watershed, promoting better decision-making and a healthier watershed," Smith says.

The GIS team is now working to overlay rain gauge information and weather radar on maps.

How to use the Web-GIS

GRIN is a one-stop site for data, maps, and other information resources related to the Grand River watershed. The site allows researchers, engineers, students and other users to download GIS data from the GRCA's data warehouse. No fees are charged for the use of these tools.

The easy-to-use map-making tool, called the Grand River Watershed Viewer, contains information on soil types, land cover, bedrock types, groundwater, wetlands, forests, rivers, streams, contour lines and many other natural features. Information layers for municipal streets, rail lines, power corridors and other infrastructure are also available.

More detailed views of the information layers become visible as the user zooms in and pans around to see different areas of the watershed. Drawing and labeling tools allow each map to be further customized.

GRCA regulated areas

About 31 per cent of the land within the Grand River watershed is regulated by the GRCA because it includes floodplains and other environmentally sensitive areas. By going to a new link at www.grandriver.ca/propertymaps, area residents can find out quickly and easily if a their property is within a regulated area. If they are considering any work or construction within the regulated areas, they will know when they need to consult GRCA planning staff for precise information or advice. They can also easily provide provide a map of their property to GRCA staff.



Blue heron bites off more than it can swallow in Kolb Park, Kitchener

"I love to walk in Kolb Park and it was a real thrill to get this shot. It wasn't until I started to focus my camera that I saw the fish and I was worried that I wouldn't be able to hold the camera still but this is the first shot. The heron then dropped the fish and it splashed a bit before it swam off."

Photo by Penny Kibble

Eighth Water Forum Sept. 19

The Grand River Watershed Water Forum is a premiere gathering of experts on key water issues, growth trends, emerging technologies and innovative solutions and it attracts participants from across the province.

"This year we have more keynote speakers than usual who bring incredible expertise on a wide array of topics," says forum chair Ralph Beaumont.

The theme, Reflecting Change ~ Mirrored in the Water, focuses on the management of the Grand River basin to ensure a healthy and resilient watershed for future generations.

A series of morning keynote speakers will challenge people to focus on the changes needed to preserve and conserve water while also accommodating a growing population. The speakers are: Isobel Heathcote, environmental science and engineering professor, University of Guelph; James P. Bruce, Soil and Water Conservation Society; Rob de Loë, Canada Research Chair in Water

Management and Paul Emerson, CAO of the Grand River Conservation Authority.

The afternoon panel and speakers will inspire "thinking beyond the status quo" by bringing the latest research and science into practical solutions. The speakers are Mark Servos, Scientific Director, Canadian Water Network and Eva G. Abal, Scientific Coordinator, South East Queensland Healthy Waterways Partnerships, Brisbane, Australia.

A panel discussion in the afternoon is about assimilative capacity, water demands, water use and infrastructure needs. Of course, Water Forum would not be complete without a wrap-up synopsis by Gord Miller, Environmental Commissioner of Ontario.

"The eighth annual forum promises to be another exceptional event," Beaumont says. "It is held under a tent and people really appreciate the outdoor venue."

For more information, see the attached flyer or visit the water forum section of www.grandriver.ca.



Gil Henderson (centre), a member of the Grand River Conservation Foundation, receives an award from DUC president C. Neil Downey and Minister of Natural Resources Donna Cansfield.

Blue Heron award for Gil Henderson

Gil Henderson, a long-time Grand River Conservation Foundation board member, Grand Champion and supporter, was presented with the National Great Blue Heron Award from the North American Waterfowl Management Plan (NAWMP) at a ceremony in May.

This prestigious award recognizes people and groups whose activities at the national, regional or local level result in substantial benefits to waterfowl and other wetland-associated migratory bird populations of North America over a long period of time.

"This shows how one guy in Glen Morris has had a far reaching impact continent-wide," says Rob Messier of Ducks Unlimited Canada.

The Ontario Eastern Habitat Joint Venture (OEHJV) submitted this nomination. Five Canadians and two Americans received the award this year. Gil, his late wife Molly, Ducks Unlimited and the GRCA have worked together for many years on restoration and creation of habitat for trumpeter swans and other wildlife at his property, 1,000 acres of rolling hills and wetlands



LOOK WHO'S TAKING ACTION

at Onondaga Farms in St. George

In 2002, Gil and Molly sold the farm to the Tim Hortons Children's Foundation. The property now includes an eco-centre that is host to environmental programs originally initiated on the farm by preserving natural areas, encouraging the re-introduction of trumpeter swans and installing hundreds of nesting boxes for bluebirds and wood ducks.

In 2004, the GRCA recognized Henderson's many contributions by presenting Onondaga Farms with a prestigious Watershed Award.

Gil has also played a leading role in tree planting in the Brantford and South Dumfries areas and has been a longtime supporter of the GRCA's Burford Tree Nursery and its American Chestnut Recovery Program. Gil has served on the Boards of Ducks Unlimited Canada and Bird Studies Canada and remains very involved with them, in addition to his involvement with GRCA.



NOW AVAILABLE

Four new buffer fact sheets

Four new fact sheets outline the many benefits of creating buffers between farmland and watercourses have been created by the Rural Water Quality Program thanks to funding from Greencover Canada.

Trees, vegetation and fencing along streams creates a buffer between the watercourse and agricultural land which really helps improve water quality. The vegetation helps filter any runoff before it gets into the stream and fencing keeps domestic animals out of the watercourse.

The fact sheets outline this important way that local farmers and landowners in the Grand River watershed are helping to protect our water supply.

Each fact sheet highlights a buffer in a different part of the Grand River watershed: Boomer Creek, Steckly Drain, River's Edge Farm Project and Farley Creek.

They can be viewed in the Newsroom section of www.grandriver.ca.

North Wellington birding map

A new North Wellington Birding Trail map called Bobolinks to Snipes is now available and has been distributed across the province.

An easy to download version can be found on the Internet in the birding section of www.grandriver.ca or on www.wellington-north.com.

The brochure itself is a beautiful representation of the birds that inhabit the fields, forests, and watersheds of Wellington North in the Grand River watershed.

The trail includes directions to 13 locations on a map identified also by GPS coordinates. Species of birds that may be viewed are noted for each spot, along with helpful hints for better view-



ing. Locations that are included are the Luther Marsh Wildlife Management Area at the headwaters of the Grand River. Luther Marsh has long been identified as a rugged but relatively unknown birding jewel.

Lionel Gould, an award winning birding columnist,

scouted out the locations last fall. He provided the copy and most of the photos for the trail brochure, including the stunning cover photo of an Indigo Bunting.

"With the obvious advantages that Wellington North has for birders, I felt that this was a great opportunity," says Linda Reader, economic development officer. The title, *Bobolinks to Snipes*

indicates the range of habitats and birds found here, from grasslands to wetlands.

Birding is one of the fastest growing outdoor recreational activities in North America and will continue to grow as tourists, identified by the Ontario Ministry of Tourism in 2007 as "upscale adventurers," look for more quality natural experiences.

About Grand Actions

This newsletter is produced bi-monthly by the Grand River Conservation Authority on behalf of the partners in *The Grand Strategy*. Current and back issues are available online at: www.grandriver.ca.

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Deadlines for submissions are the 15th of February, April, June, August, October and December. Submissions may be edited for length or style.

Tax deductible donations and sponsorships toward the cost of producing this newsletter are always welcome.

Publications Mail

Agreement #144871

This publication is printed on Rolland Enviro100, an FSC certified, environmentally-friendly paper. The paper is manufactured using 100% post-consumer fibre and is processed chlorine-free using biogas energy.



The Grand Strategy Calendar

Historical plaque unveiling, bank of the Conestogo River, Glen Allan, Saturday, Aug. 2, 11 a.m. The plaque will recognize the early black settlement in the Queen's Bush. Governor General award-winning author Karolyn Smardz Frost will outline the history and visiting guests will include Lincoln Alexander, the Chairman of the Ontario Heritage Trust. Glen Allen is south of the Conestogo dam. For details and directions see story page 4.

At Husking Time Women's Conference, Chiefswood National Historic Site, Ohsweken, Saturday Sept. 13, 8 a.m. to 4 p.m. This event is held annually at the historic home of E. Pauline Johnson and offers a series of concurrent workshops which aim to teach an Indigenous perspective to healing and wellness. Keynote speakers, entertainment, and local cuisine are also part of this award winning event. Pre-registration required. For more information visit www.chiefswood.com or call 519-752-5005.

Youth Outdoors Day, Luther Marsh Wildlife Management Area, Saturday, Sept. 13, 8 a.m. to 5 p.m. This annual event is designed to introduce kids ages 10 - 17 to the Great Outdoors with fun activities and interactive learning stations. Activities include falconry demonstrations, archery, bird box building, wetland discovery, target shooting, camping, bird banding fly fishing and much more. Register online at www.youthoutdoorsday.com, or e-mail registration@youthoutdoorsday.com, or call Linda at 519- 826-4922.

Reflecting Change ~ Mirrored in the Water, the 8th Annual Grand River Watershed Water Forum, GRCA, 400 Clyde Rd., Cambridge, Friday, Sept. 19, 8 a.m. to 3:30 p.m. The focus of the forum is to explore innovative ways to address changes that impact water quality and watershed health in the Grand River watershed. To learn more and to register, please check the conferences section of the website at www.grandriver.ca or call Sonia Morgan at 519-621-2763, ext. 2309.

The Grand River Biothon, Rockwood Conservation Area, Sept. 21 & 22. Over 24 hours, volunteer teams search to discover and record as many different living things as possible to raise money to support environmental education at the nature centres. A free family event on Sunday 2 p.m. to 4 p.m. features many activities, including Mother Nature Bingo, wildlife demonstrations, cave explorations, guided nature walks and bug catching. For more information call 519-836-7860, or Sara Wilbur, Grand River Conservation Foundation 519-621-2761 ext. 2272. The biothon raises funds for outdoor education and donations will be gratefully accepted.

REGISTRATION

To register, please fill out the registration form and mail to:

Grand River Conservation Authority, c/o Sonia Morgan
400 Clyde Road, Box 729
Cambridge, ON N1R 5W6
Phone: 519-621-2763 ext. 2309, Fax: 519-621-4844 or
E-mail: waterforum@grandriver.ca

You can also register on-line at
www.grandriver.ca/waterforum

Please register by September 12, 2008.

Registration fee:
\$90

Student/Senior:
\$55

NAME

JOB TITLE

AFFILIATION

ADDRESS

CITY

POSTAL CODE

TELEPHONE

FAX

E-MAIL ADDRESS

CREDIT CARD: ☐ VISA ☐ MASTERCARD

CREDIT CARD NUMBER

EXPIRY DATE

NAME ON CARD (if different from above)

Please make cheques payable to the Grand River Conservation Authority and complete a separate registration form for each person attending.

The Water Forum will be held outdoors under a "grand" marquee on the grounds of the GRCA Administration Centre. **Please dress accordingly.** Lunch is included in the registration and will accommodate vegetarian diets.

HOSTED BY: Municipal Water Managers Working Group
ORGANIZING PARTNERS: Grand River Conservation Authority, Grand River Conservation Foundation, Regional Municipality of Waterloo, Ontario Centres of Excellence - Earth & Environment Technologies, Ontario Ministry of Agriculture, Food & Rural Affairs, Ontario Ministry of Natural Resources, City of Guelph, City of Cambridge, MTE Consultants Inc., Six Nations EcoCentre, Environment Canada, Trout Unlimited Canada

Morning Program - Facing Change

- 8:00 - 8:30 a.m. *Registration & Coffee*
Moderator Mike Hancock, City of Brantford
- 8:30 - 8:40 a.m. **Welcome and Greetings**
- 8:40 - 9:10 a.m. **Ontario Minister of the Environment & Minister of Natural Resources** (invited)
- 9:10 - 9:40 a.m. **Connecting the Dots - Population Growth, Land Use Change & Watershed Management** – Isobel Heathcote, Professor of Environmental Science & Environmental Engineering, University of Guelph
- 9:40 - 10:10 a.m. **Climate Change and Water** – James P. Bruce, Canadian Policy Representative, Soil and Water Conservation Society
- 10:10 - 10:40 a.m. **Refreshment Break**
- 10:40 - 11:10 a.m. **Water Policy and Governance – Getting it Right** – Rob de Loë, Canada Research Chair in Water Management, University of Guelph & Chair, North American Water Panel, RBC Blue Water Project
- 11:10 - 11:30 a.m. **6th Annual Watershed Report** – Paul Emerson, CAO, Grand River Conservation Authority
- 11:30 - 11:45 a.m. **Questions & Answers**
- 11:45 - 11:50 a.m. **Lake Erie Source Water Protection Region** – Craig Ashbaugh, Chair
- 11:50 - 1:10 p.m. **Barbecue Lunch ~ Networking ~ Interactive Exhibits**

Afternoon Program - Responding to Change

- Moderator* Mayor Bill Strauss, Woolwich Township
- 1:10 - 2:15 p.m. **Panel Discussion: Thinking Beyond the Status Quo**
- Assimilative Capacity Issues – Gerry Wheeler, City of Guelph
 - Thinking Beyond Pumps and Pipes – Oliver M. Brandes, POLIS Project on Ecological Governance, University of Victoria
 - Water Use Issues – Brick Brewery
 - Infrastructure Issues – Don Lewis, Ontario Centres of Excellence – Earth & Environmental Technologies
- 2:15 - 2:30 p.m. **Questions & Answers**
- 2:30 - 2:40 p.m. **Linking Research to Practical Solutions – The Grand River Science Dialogue** – Mark Servos, Canada Research Chair in Water Quality Protection, University of Waterloo & Scientific Director, Canadian Water Network
- 2:40 - 3:05 p.m. **Translating Science into Knowledge** - Eva G. Abal, Scientific Coordinator, South East Queensland Healthy Waterways Partnership, Brisbane, Australia
- 3:05 - 3:30 p.m. **Wrap Up** – Gord Miller, Environmental Commissioner of Ontario



8th ANNUAL

GRAND RIVER WATERSHED WATER FORUM

REFLECTING CHANGE ~

*Mirrored
in the Water*

Friday, September 19, 2008

8:30 a.m. - 3:30 p.m.

Grand River Conservation Authority
400 Clyde Road, Cambridge, Ontario



8th ANNUAL

GRAND RIVER WATERSHED WATER FORUM

The Grand River Watershed Water Forum has grown to become a premiere gathering of experts on key water issues, growth trends, emerging technologies and innovative solutions.

This year's forum, which is entitled **Reflecting Change ~ Mirrored in the Water**, will focus on management of the Grand River basin to ensure a healthy and resilient watershed for years to come. The morning speakers will centre on **Facing Change** and in the afternoon session will address **Responding to Change**.

Keynote Speakers

Rob de Loë ,

Canada Research Chair in Water Management, University of Guelph & Chair, North American Water Panel, RBC Blue Water Project

Earlier this year Rob de Loë was chosen to chair the North American Water Panel, which is aimed at finding global solutions for freshwater preservation, conservation and access in Canada and around the world. De Loë holds the Canada Research Chair in Water Management, and his work over the past 20 years has focused on water governance and management. His research program currently focuses on source water protection, water allocation and drought contingency planning, adaptation to climate change in the water sector, and water use and conservation in urban and agricultural settings. Rob is an active member of Canada's water management community and has also been a consultant to government and non-government organizations seeking advice on a range of water-related topics.



Isobel Heathcote,

Professor of Environmental Science and Environmental Engineering, University of Guelph

Dr. Heathcote's research centers on environmental management policy, integrated water management and watershed restoration. She has served on many advisory committees, including advice to six Ontario Ministers of the Environment on developing water management policy.



Since 2001, Isobel has been the Canadian Co-Chair of the Canada-United States International Joint Commission's Science Advisory Board. She is the author of *Environmental Problem Solving: A Case Study Approach* and *Integrated Watershed Management: Principles and Practice*.

James P. Bruce,

Canadian Policy Representative, Soil and Water Conservation Society

Jim Bruce held various positions within Environment Canada, including Director, Canada Centre for Inland Waters and Assistant Deputy Minister for Environmental Management and Atmospheric Environment. He also served with the World Meteorological Organization, Geneva, as well as chairing the UN's Scientific and Technical Committee for the International Decade for Natural Disaster Reduction.



Currently Jim is Canadian Policy Representative, Soil and Water Conservation Society, chair of the Expert Panel on Groundwater for the Council of Canadian

Academies and a member of the International Upper Great Lakes Study Board. He is an Officer of the Order of Canada, a Fellow of the Royal Society of Canada, and has been awarded honorary Doctorates from Waterloo and McMaster Universities.

Eva Abal,

Scientific Coordinator, South East Queensland Healthy Waterways Partnership, Brisbane, Australia

The South East Queensland Healthy Waterways Partnership is a collaboration between government, industry, researchers and the community. These partners work together to improve the management and health of the rivers of South East Queensland.



Dr. Abel oversees the scientific activities of the SEQ Healthy Waterways Partnership including quality assurance and information, research plan/design development, and dissemination of information. She also coordinates the organization's Scientific Expert Panel, which oversees strategic research. Her passion in the synthesis and communication of information makes the science relevant and useful to stakeholders and managers.

Gord Miller,

Environmental Commissioner of Ontario

The Water Forum would not be complete with Gord Miller adding his own unique observations in summarizing the day's discussions. Gord has served as the Environmental Commissioner of Ontario since 2000 and oversees the implementation of the Environmental Bill of Rights. He has extensive experience with environmental issues including drinking water, municipal sewage, solid waste management, hazardous waste, noise, air pollution and land use planning.



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Creating Healthy Communities: From Design to Practice

Thursday, October 9th, 2008

8:45 a.m. - 3:15 p.m.

Centre Wellington Sportsplex, 550 Belsyde Avenue, Fergus

- **Does where you live affect your health?**
- **How can the future growth of our communities be planned to promote good health?**
- **What can we learn from other communities and each other?**

We all value the health and well-being of our communities but it's not always clear how to make it happen. If you are curious to learn more, share ideas and explore new opportunities for making this happen, please join planners and decision-makers from Waterloo-Wellington-Dufferin- Guelph area along with guests:

- **Karen Farbridge:** -- Mayor of Guelph and professor at the University of Guelph who has taught courses on cities, democracy and environmental policy for the Department of Political Science.
- **Ontario Professional Planners Institute** – who will share highlights from their recent position paper *Healthy Communities Sustainable Communities: The 21st Century Challenge*
- **Marni Ratzel and Tracy Winfree** – Bicycle and pedestrian transportation planners for the **City of Boulder Colorado** who work with community members and project managers to determine the feasibility of infrastructure projects that support biking and walking options

Registration Fee: \$20 (includes lunch)

To Register:

Please complete this form and send with payment to Wellington-Dufferin-Guelph Public Health, c/o Johanna Monckton, 600 Southgate Drive, Guelph, ON N1G 4P6 Phone: 519-846-2715 or 1-800-265-7293 ext. 2256 Fax: 519-836-7215 Email: Johanna.monckton@wdghu.org

Cheque payable to: Wellington-Dufferin-Guelph Public Health

Name: _____

Title: _____

Organization: _____

Address: _____

Phone: _____ Fax: _____ E-mail: _____

Can we include your contact information on our list of participants for the registration package? ☐ Yes ☐ No

Dietary Requirements _____

ORGANIZED BY: Wellington-Dufferin-Guelph Public Health, Region of Waterloo Public Health, Trails Link Working Group for Waterloo-Wellington-Dufferin-Guelph, Headwaters Communities in Action, Ontario Professional Planners Institute

SPONSORED BY: Community Heart Health Network of Wellington-Dufferin-Guelph

Registrations will be accepted until October 1, 2008