



Grand River  
Conservation  
Authority



The Grand:  
A Canadian  
Heritage River

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### Cover photo

Geologist Alan Morgan  
and Karen Moyer of the  
City of Waterloo  
Environmental Services  
department show off an  
information display on  
Waterloo's West Side  
Trail. Photo by Mat  
McCarthy of The  
Record.



## Sign tells a tale of time

Trail marker explains 15,000 year history of Waterloo Moraine

By Bob Burt  
The Record

Geologist and a University of Waterloo professor, Alan Morgan has been talking about the significance of the Waterloo Moraine for years.

But people who are interested in the moraine no longer have to attend one of his lectures or

classes.

All they have to do now is take a walk along Waterloo's West Side Trail.

With Morgan's help, the City of Waterloo has installed "talking signs" along the trail that give people a glimpse at the story.

In a recorded message, Morgan talks about the moraine and explains how it supports forests on

the city's west side, supports underground water resources and now, supports an increasing number of subdivisions.

The first of the audio signs can be found at the beginning of the trail. The recorded message starts with the push of a button.

Morgan hopes to develop a 4.5-kilometre geological "time trail" on the city's west side, pointing out specific features and their place in geological history.

Imagine standing in Waterloo, near the Wilmot Township border.

Around you are rolling hills, lush forests and an area rich in bogs and wetlands.

Now shift your mind into reverse and go back, say to 14,000 or 15,000 years ago.

"You would have seen a huge ice sheet extending far to the east and the north," according to Morgan.

Where there are now rich forests and rolling hills, there was a tundra type vegetation then.

It would be a couple thousand years before a warming climate made it possible for the first spruce trees to grow in the area.

Go back another 5,000 years and the ice sheet would have extended as far south as Cincinnati, Ohio.

Come forward 8,000 years instead and it would have vanished, except for areas in the far north of Canada, where ice caps remain today.

There were still no shrubs or trees to speak of, but there were huge native elephants – woolly mammoths and their relatives, the mastodons.

These huge beasts, at least as large as the largest elephants found in Africa today, were tracked for food by Paleoindian hunting parties.

Their tusks alone would have been about four metres (14 feet) long.

Once the animals were butchered, the meat would be stored in the frigid waters of the many kettle lakes that formed as the Ice Age melted away.

Intestines were tied to the submerged animal parts and the gases bubbling to the surface indicated the location of the food supplies.

The Waterloo Moraine was formed as huge blocks of ice retreated across what is now Waterloo Region from Lake Huron in the west, Georgian Bay in the northeast, Lake Ontario in the east and Lake Erie in the southeast.

As the glaciers moved, they carried huge boulders, along with sand and gravel and debris.

As the ice disappeared, the Waterloo Moraine remained, a huge complex of glacial sediments that is more than 100 metres thick in places.

Meltwater streams cascading from the surface of the ice lobes carried enormous deposits of sand and gravel and blocks of bedrock.

Kettle holes are a common feature on the moraine.

In some areas, these tiny lakes were formed where huge blocks of ice carved out depressions in the ground that became filled with ice, and eventually just water that later drained away.

Hollows were slowly filled with material swept from the landscape and with plants.

Even today, you don't have to go far in Waterloo Region to find remnants of the kettle holes.

Geologists like Morgan study kettle deposits. By examining the range of plants and animal species, they can estimate the former temperatures for the region at a given time in history.

One such kettle hole is behind the Zehrs Market food store on Fischer-Hallman Road near Erb Street West in Waterloo.

In many areas, the kettle holes have been excavated and filled in. In some cases they have been built on.

Boggy or swampy, peat-filled bottoms make kettle depressions poor building sites.

Morgan says he can recall the problems that builders and homeowners experienced along Glasgow Street in

Kitchener many years ago when foundations shifted and some homes began to crumble.

Carved by ice and water so many years ago, the Waterloo Moraine is arguably Waterloo Region's most important natural resource.

*Bob Burt is the environment reporter for The Record, the daily newspaper of Kitchener, Waterloo and Cambridge.*



## WHAT'S HAPPENING?

### Wellington County's Green Legacy

By Mark Van Patter  
Senior Planner, Wellington County

The 150th anniversary of the founding of Wellington County will be marked with a special project that promises to pay benefits for generations into the future.

The county will purchase 150,000 tree seedlings and distribute them for planting in late April and early May of 2004 as part of the Green Legacy program.

The seedlings will be available to environmental groups, service clubs, schools, municipalities and private landowners to be planted during Arbour Week and Earth Week. The project is being overseen by a committee consisting of Puslinch Township Mayor Brad Whitcombe, county staff and representatives of the Grand River Conservation Authority, the Ministry of Natural Resources and the Wellington County Stewardship Council.

The focus will be on getting trees to local environmental groups and service clubs working with school classes throughout the county.

Organizations and schools within the City of Guelph are also eligible to participate as long as the trees are being planted outside of the city or on school sites within the city. Local municipali-



*Wellington Warden David Adsett plants a tree at the Wellington County Museum and Archives to launch the county's Green Legacy program. Joining him were Andrea Ravensdale (left), project communications officer; Martin Neumann, GRCA; Terry Schwan, Ministry of Natural Resources; Mark Van Patter, Wellington planning department; Puslinch Mayor Brad Whitcombe; and Stephen May, Wellington County Stewardship Council.*

ties, as well as conservation authorities, will also be able to participate. Trees will be provided free to these groups. Provided there are sufficient supplies, private individuals will also be eligible to receive trees to plant on their properties.

However, unless private individuals are working with a group or a school class, they will be asked to pay 25 per cent of the cost of the trees.

Preference will be given to organizations and to those working with school classes.

The county will order about 70 per cent conifers and 30 per cent hardwoods. This split is an attempt to balance costs as well as encouraging plantings with conifers acting as a nurse crop for hardwoods. It is anticipated these species will be available: white pine, white spruce, white cedar, tamarack, European

larch, Norway spruce, silver maple, white ash, red oak, bur oak, black walnut and poplar. Black cherry, basswood and other native species may also be available for proposals warranting it. While the county will try to balance the various species requests, it will be limited by the overall conifer-hardwood mix.

The type of planting situations can be varied and will reflect each group's own interest. Plantings can be for strategic environmental purposes such as along streamsides, linking woodlots, as windbreaks or erosion control, reforesting marginal agricultural lands and other similar situations.

Trees may also be planted along trails or roadsides, in parks, on school properties or public properties and on private land. Those who don't have a site may be able to get one from the county.

It is our hope that the Green Legacy will go beyond just planting trees. The county would like to see partnerships formed between landowners, organizations and schools. We are particularly interested in getting students involved, to help develop an appreciation of the natural world by making a tangible contribution. If you can't find a partner, let us know and we will try to help.

The County and its partners, the Ministry of Natural Resources, Conservation Authorities and the Wellington County Stewardship Council will be organizing a series of workshops during the late winter of 2004. The workshops will provide technical training on seedling care, site preparation and tree planting itself. While not all partners will require training, some organizations and schools may.

In order to participate in the Green Legacy, interested groups, schools and individuals need to fill out a brief application form indicating: who they are, contact information, a description of the tree-planting project, number of trees needed and preferred species type, location and size of planting site (if available), and the name of the planting partner or whether they would like to have a

class assigned to them.

Application forms are available from Andrea Ravensdale at the county office, 74 Woolwich St., Guelph N1H 3T9. She can be reached at (519) 837, Ext. 232 or by e-mail at andrear@county.wellington.on.ca. Applications are also available from local municipal offices and through local newspapers. They can also be found on the county website at www.county.wellington.on.ca and submitted by e-mail.

While there is some flexibility in ordering dates, applications should be submitted to the county by Sept. 1, 2003 if possible. This will allow tree orders to be placed with nurseries. Trees will be allocated on a first-come, first-served basis.

There is potential for the Green Legacy to evolve into an annual program. Think of a good project, find a partner and get your tree orders in soon!

The County of Wellington will also be setting up a registry for anyone who plants trees in the County in the year 2004. This includes both those who receive trees from the county and those who purchase their own trees. Prizes and special recognition will be part of the registry program.

For further information contact Mark Van Patter, Planning Department, County of Wellington, 74 Woolwich St., Guelph N1H 3T9. Phone: 837-2600, Ext. 208 or by e-mail at markv@county.wellington.on.ca

## Foundation gives and receives

A campaign to support outdoor education in the Grand River watershed has passed the halfway mark and has started to deliver money to area school boards.

*The Living Classroom-Campaign for Outdoor Education* has raised cash and pledges of more than \$1.2 million, putting it well on the way to its \$2.2 million goal.

The campaign is a project of the



Lloyd Gower of *The Living Classroom* campaign receives a donation of \$36,000 from watershed chapters of the TD Friends of the Environment Foundation. With him are Heidi Pioveson (left), Jennifer Orsan and Moragh Lippert of Friends of the Environment, which gets its money from TD Bank Financial Group and TD Canada Trust customers.

## THE *Living Classroom* CAMPAIGN FOR OUTDOOR EDUCATION

Grand River Conservation Foundation a 38-year old foundation with a long record of supporting outdoor education programs. The foundation's goal is to raise enough money to support outdoor education programs each year for 30,000 elementary school children over a period of five years. In addition, some of the money raised will be used for capital improvements to GRCA nature centres and the purchase of new equipment.

The foundation has agreed to pay public, Catholic and independent schools \$6 for each elementary school child taking part in an outdoor education program. The curriculum-based programs take place at nature centres operated by the GRCA and the Waterloo Region District School Board.

Five of the six watershed school boards have already received cheques from the foundation totaling \$158,000, representing nature centre visits by more than 26,000 students during the last

school year.

Cheques were presented to:

- Waterloo public, \$75,000 for 12,500 students
- Waterloo Catholic, \$33,000 for 5,500 students
- Wellington Catholic, \$10,500 for 1,700 students
- Grand Erie public, \$25,000 for 4,200 students



Arlene Everets (left), chair of the Grand Erie District Public School Board receives a cheque for \$25,000 from Marilyn Murray, chair of the *Living Classroom* campaign.

– Haldimand-Norfolk Brant Catholic,  
\$14,500 for 2,400 students

(A presentation will be made later to  
the Upper Grand public board.)

The fund-raising effort was launched  
on April 8 and has attracted donations  
from hundreds of corporations, founda-  
tions, service clubs and individuals.

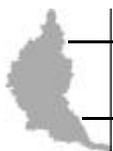
The campaign is chaired by Marilyn  
Murray of Puslinch who has long been  
active in the foundation, as well as many  
community and charitable organizations,  
particularly in the Guelph area.

Honorary chairman is John Pollock,  
chairman and president of Electrohome  
Ltd. of Kitchener. He too has been  
involved in a number of charitable and  
community groups.

Three regional committees have also  
been set up to lead the fund-raising  
efforts in Waterloo Region, the Guelph  
area and the Brantford area.

Chairs of the Waterloo committee are  
Thomas Pick and Lloyd Gower. Chair of  
the Guelph committee is Allan Holmes.  
Leading the Brantford committee is Vyrt  
Sisson.

For more information on outdoor  
education and the campaign visit the  
GRCA web site at [www.grandriver.ca](http://www.grandriver.ca) or  
contact the foundation at (519) 621-  
2763, Ext. 271, toll free 1-866-29-  
GRAND or by e-mail at  
[foundation@grandriver.ca](mailto:foundation@grandriver.ca).



## MILESTONES

Milestones are progress or products  
of *The Grand Strategy* Joint Work Plan.

### Linking communities by linking trails

By John Dadds

Participants in the trails workshop  
held May 23 at the Grand River  
Conservation Authority (GRCA) head-  
quarters in Cambridge took on the chal-  
lenge of thinking outside the box.

The theme was the interconnected-  
ness of trails in the Waterloo-



*The new kiosk at Orton on the Elora-Cataract Trailway was unveiled at a ceremony June 10. The event marked the re-opening of a 14 km section of trail which was improved and resurfaced last fall, to complete the 47km trail. The cost of the project was shared by the Grand River Conservation Foundation and the Ontario Trillium Foundation, an agency of the Ontario Ministry of Culture. Taking part in the ceremony were Peter Krause, Chairman of the Grand River Conservation Authority; Tom Skimson, President, Elora Cataract Trailway Association; and Jim Gibbons, local committee member for the Trillium Foundation.*

Wellington-Dufferin area and it implied  
the need to tear down some of the walls  
that often seem to appear around trails in  
our area.

Beyond the boundaries of these imag-  
inary boxes lies some Never Never  
Land, as if trails were like running  
tracks intended to keep hikers or bikers  
following tight little circles solely to  
consume calories and quicken the pulse.

The first speaker, Vicki Barron, exec-  
utive director of the Waterfront  
Regeneration Trust (WRT), told how  
that group approached the challenge of  
interconnectedness. The challenge was  
getting a trail linked up through 35  
municipalities and eight conservation  
authorities from Niagara-On-The-Lake  
to Brockville. She spoke of developing  
and then caring for that network. And all  
without owning a single metre of trail.

Barron said that “physical fitness was  
the most important attraction” to people  
who used the waterfront trail, which  
underlies the wisdom of having health-  
care agencies involved in promoting trail  
use in our area. Barron said that the sec-  
ond most important reason for using the  
waterfront trail was “access to nature.”  
And again, that statement points to the  
importance of having natural resource  
agencies and volunteers involved in  
bringing nature to the community's  
doorstep.

Usually, when we think of Sudbury,  
we think of those images years ago of  
astronauts using the Sudbury area to  
simulate a moonscape. Driving through  
Sudbury now, we see a sea of green  
rather than a moonscape, and Sudbury  
Deputy Mayor David Courtemanche  
showed how that community developed

trails using principles of “divergent thinking and convergent linking.”

An integrated approach pointing to social, environmental and economic benefits formed the backbone of Sudbury's strategy, and it is paying off as more and more people use the local trails developed by the municipality and volunteers.

Closer to home, long-time trail advocate Bob McMullen explained how he had dealt with the City of Cambridge. He pointed out the importance of having a trails committee – a group with one agenda: trails. “Cheerleading, again and again,” is the key, he said.

McMullen also suggested “trails contribute capital to our social bank.” He envisions trails as part of an overall sustainable transportation strategy for linking communities and neighbourhoods.

Afternoon breakout groups sat with maps to record where trails exist and answer some questions such as: What are the next steps to create a more integrated system of trails? What else is needed to improve the system? And how to get more people aware of trails and enjoying them?

The workshop's steering committee included the Cambridge Trails Club, City of Guelph, Community Heart Health Network, GRCA, Guelph Hiking Trails Club, Region of Waterloo Public Health, Wellington County Stewardship Council and the Wellington-Dufferin-Guelph Health Unit.

These groups and agencies will be analyzing data obtained in the breakout sessions and trying to capitalize on the next steps suggested by the participants.

Development of the Canadian railway system was instrumental in uniting the country in the 1800s. Linking our loops and linear trails may be less grandiose, but it will have an important role in promoting personal and community health at the physical and spiritual levels.

*John Dadds, of Kitchener, is a freelance writer specializing in environmental issues.*



*Susan Atkinson, president of the Guelph Hiking Trail Club and Larry Porter representing the Lions Club of Guelph at the Kissing Bridge Trailway.*



## LOOK WHO'S TAKING ACTION

### **Kissing Bridge Trail donors thanked**

On June 14 about 30 people gathered close to the intersection of Wellington County Roads 30 and 39 to honour donors who had helped to create the Guelph section of the Kissing Bridge Trailway (KBT), part of the Trans Canada Trail. The KBT follows an abandoned CPR line from Guelph to Millbank which is just west of the Regional Municipality of Waterloo/Perth County boundary, passing through Ariss, Elmira, Wallenstein, and Linwood on the way. The rail line actually proceeds all the way to Goderich on Lake Huron, but is presently only being used at its westerly (Goderich to Auburn Rail Trail, 13km) and easterly (Kissing Bridge Trailway, 45 km) extremes as a multi-use trail.

The County of Wellington and the

Regional Municipality of Waterloo leased the 45 km KBT from the Province of Ontario in 1997, then signed agreements with five community groups – one being the Guelph Hiking Trail Club (GHTC) – who have volunteered to steward sections of the line. The Guelph section runs from the city to the Grand River, crossing Hopewell and Cox Creeks en route.

At the dedication, GHTC President Susan Atkinson welcomed all present and thanked the donors – two anonymous benefactors, Leslie Degan representing the TD Friends of the Environment, and Larry Porter representing the Lions Club of Guelph. Michael Curtis, coordinator of the Guelph section of the KBT, asked Larry to officially open one of the standard barrier gates that are located at all road-trailway intersections. Those assembled then proceeded to Hopewell Creek where a ribbon was cut by the anonymous donors, Leslie and Susan, officially opening a fine new metal bridge.

Other members of the KBT Advisory Board attending were Hugh Handy (con-

sulting planner, representing the County of Wellington), Chris Gosslin ( planner from the Regional Municipality of Waterloo) and Don Cameron (local landowner).

The bridge over Cox Creek should be installed in the near future thanks to the same donors that made the crossing of Hopewell Creek possible. Future discussions are to be held concerning the crossing of the Grand River. At present the trailway, which is very well signed, is not suitable for bikers because of the loose nature of the railbed. Crushed limestone will be applied in the future.

## Clubs donate boat for fish research

Three conservation clubs in the Dunnville-Fort Erie area have purchased a boat to be used for fisheries research work on the lower Grand River between Caledonia and Port Maitland. A brief ceremony to officially donate this boat to the Ministry of Natural Resources was held in Dunnville.

The boat was put to work earlier this year to assist in the tracking of 29 walleye as they migrated up the Grand River from Lake Erie. The fish had radio transmitters attached to them.

This Partners in Conservation research boat will be used by the ministry and dedicated, qualified volunteers to track walleye upstream to Caledonia and downstream to Port Maitland during annual migration cycles to learn where these fish travel and how they interact with the prevailing conditions that they encounter.

The Partners in Conservation are: Ontario Federation of Anglers and Hunters, Dunnville District Hunters and Anglers Conservation Club, Port Colborne Conservation Club, Fort Erie Conservation Club, Dofasco Fishing Club, Grand River Conservation Foundation and the Ministry of Natural Resources, Lake Erie Management Unit and Niagara Area Office.

The 17-foot Lowe with a 50hp outboard motor and trailer was equipped and outfitted by Riverside Marina and the ministry.



## Cleanup day wins award

An annual cleanup day along the Grand and Nith rivers in Paris has won the praise of one of the country's largest retailers.

Canadian Tire has presented one of its National Environmental Awards to the people behind the annual Grand River Cleanup. The fifth annual cleanup day took place on June 21.

Grand Experiences, a Paris-based canoe outfitter, has been organizing the cleanups with various organizations including schools, scouts, cadets and businesses. This year's cleanup involved students from the Community Environmental Leadership Program at Paris District High School as well as employees from Canadian Tire, Cafe Aroma and individual volunteers.

The program was one of 10 national winners of the Canadian Tire award. The award included a \$1,000 prize which was turned over to the Grand River Conservation Foundation.

Co-organizer Jamie Kent of Grand Experiences says "it is a great experience working with local and out-of-town people, helping to sustain the river's natural beauty for everyone to enjoy."

His company makes a year-round effort to keep the Grand clean. Grand Experiences provides garbage bags to canoe and kayak customers to bring back garbage found along the river, offering discounts for people who do.

For foreign customers unable to use a coupon, Grand Experiences donates \$1 to the Grand River Conservation Authority for each bag of garbage returned. Over the past five years they



Tourism Minister and Erie-Lincoln MPP Tim Hudak (standing, left) tries on headphones used by fish detecting equipment aboard a new boat used for fish research in the Dunnville-Lake Erie area.

have removed thousands of bags of garbage from the Grand. "It's rewarding when someone returns with an empty bag because the river was already clean," said Kent.

## Guelph Waterworks wins award

The Guelph Waterworks Division has been acclaimed for the effectiveness of the City of Guelph's Outside Water Use Program.

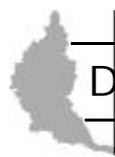
The waterworks won the 2003 Award of Excellence in Water Efficiency at the annual conference of the Ontario Water Works Association held in Hamilton in May.

The award is presented annually to the municipality that delivers the best specialized water saving program for residences and businesses.

Guelph instituted its outside water use program in 2002 to maintain sustainable levels of consumption during drought-like conditions when water

demand is at its peak. It features three levels that affect outside water use and a fourth level that affects commercial use. Program levels change as the city's water supply is diminished. This year, the Region of Waterloo and the City of Brantford are developing outside use programs based on Guelph's model.

James Etienne, Guelph's Director of Environmental Services, said "the citizens of Guelph worked hard last summer to help this city manage our water resources. This award validates those efforts and speaks to our community's level of environmental awareness."



### DID YOU KNOW?

- The first definite record of flooding in Upper Canada yet found was in April 1680. La Salle and his companions recorded that they "succumbed to the toil of walking continually in water, the

constant rain and great thaw having flooded all the woods."

- In 1852, the speckled trout in the Speed River varied in size from four ounces to a pound and a half according to author Samuel Strickland.

- Early settlers in the new town of Guelph were often accommodated in the Canada Company "Khan," a barn-like structure that housed eighteen to twenty families. All household tasks like cooking and laundry were performed outdoors rain or shine, over open fires.

- Fisher Mills (Cambridge) was founded by a mill owner named Fisher who left for the California goldfields in 1849 and was never heard of again.

## About this newsletter

This newsletter is produced as a communications tool by the Grand River Conservation Authority on behalf of the partners in The Grand Strategy. This newsletter can be seen on the Internet at [www.grandriver.ca](http://www.grandriver.ca)

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Newsletter submissions must be made by the 15th of the month prior to publication and may be subject to editing for length or style. Tax deductible donations and sponsorships toward the cost of producing this newsletter are always welcome.

**Publications Mail**  
Agreement #144871

## The Grand Strategy Calendar

**The Water Project – Until August 10.** A collection of art works with the central theme of water. Works by Homer Watson, Bill Downey, Simon Taylor, Don Routly and Marg Mallory-Smyth. The Homer Watson House and Gallery, 1754 Old Mill Road, Kitchener. (519) 748-4377. [www.homerwatson.on.ca](http://www.homerwatson.on.ca)  
Hours: Tuesday through Sunday, noon to 4:30 p.m.

**Third Annual Grand River Watershed Water Forum – Sept. 12** In its first two years, the Grand River Watershed Water Forum has become an important gathering of experts on water issues, trends and initiatives. The event will be held on the grounds of the GRCA at 400 Clyde Road, Cambridge from 8 a.m. to 4 p.m. The program will provide government leaders, businesses, farmers and others with the information they need to protect and improve our vital water resources. For more information about registration, exhibiting and sponsorship visit the GRCA web site at [www.grandriver.ca](http://www.grandriver.ca) or call Barbara Veale at the GRCA at (519) 621-2763, Ext. 274.

**Wildlife Ponds Workshop and Tour – Sept. 13** Residents of the Upper Grand interested in learning more about constructing, maintaining and enhancing ponds that are attractive to wildlife are invited to attend the workshop at the Grand Valley District Community Centre in Grand Valley. This free workshop is of interest to landowners, contractors, consultants, landscapers and many others. Pre-register before Aug. 31. Contact Mike Williams at (519) 928-2362