

GRAND ACTIONS

THE GRAND STRATEGY NEWSLETTER

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Grand River
Conservation
Authority



The Grand:
A Canadian
Heritage River

INSIDE

Feature

Alien Invaders 1

Milestones

Watershed Wanders 3

Kanata 4

Foundations Help 4

Forest Plan 4

What's Happening?

Policies Protect Water 5

Nutrient Management 6

At Home with Homer 6

GRCA Changes 7

Now Available

Southern Grand Guide 7

Detweiler History 7

Look Who's Taking

Action

Heritage Foundation 7

Sea Cadets Care 8

Rockwood Trail 8

Sustainability Awards 9

Cool Trees at Burford 9

Detweiler House 9

Wilmot Oasis 10

Mattyasovsky 10

History Tours End 11

Brantford Celebrates 11

Optimist Trail Club 11

Did You Know? 12

Calendar 12

Cover photo

This serene floodplain photo by Don Thomas shows the confluence of the Speed and Grand Rivers at Cambridge.



ALIEN INVADERS ALONG THE GRAND

by Larry Lamb, University of Waterloo

A lot of money has been spent to acquire natural habitats, including many in the Grand River watershed. These areas perform vital ecological functions related to hydrology, erosion control, air purification, climate tempering, and are habitats for plants and animals. They are also valuable for passive recreational use including aesthetic appreciation. A key criterion for determining a high quality natural ecosystem is its degree of ecological integrity. Is it representative and intact as an ecosystem? The less disturbed a habitat is, the better it will serve as a benchmark or example of a component of our globally unique, bioregional identity.

Unfortunately, it is rare to find pristine habitats anywhere where long-term human occupation has occurred. Since day one of human visitation in the watershed, non-indigenous organisms were introduced. "Non-indigenous" implies that a species may be native, i.e. of a particular country but is not a natural component of a smaller politically-

defined unit or habitat of the nation. For example, Douglas Fir is a native Canadian tree but is not indigenous to Ontario or for that matter parts of B.C. where it would not occur naturally (without the intervention of humans). Over the past two to three centuries of Caucasian settlement, hundreds of alien animals and plants have been added to our ecosystems. "Alien" implies that a species is not a natural component of a particular nation, (i.e. Norway maple is from Norway and other European nations). Fortunately, most of the introduced alien species did not succeed or are relatively benign.

Why should we be worried about alien species? Alien species can be disease agents that kill or weaken native species, physically overwhelm desirable species, or simply occupy space that a native component could. A good number of alien plant species are not useful to our native animal populations, which can be adversely affected when familiar, useful native plants are displaced.

• See page 2

ALIEN INVADERS

from page one

Most of us are well aware of how alien fungi are killing our sweet chestnut, elms, butternut and flowering dogwood; how European starling, house finch and rock dove have disrupted native bird populations; how the zebra mussel has changed our Great Lakes and how purple loosestrife has disrupted our wetlands. Very few realize the extent and seriousness of the damage alien species have done to our natural habitats. Few are aware of the tremendous costs in dollars, time and energy needed to restore degraded habitats. There are literally hundreds of different alien species in the Grand River watershed, all of them damaging to some extent. On average, 50 to 80% of the vegetation seen from a car window, while passing through southern Ontario countryside or urban areas, is non-indigenous! It is safe to say that not even a square metre of any habitat type in the watershed is pristine. Even our earthworms are alien!

Although all habitats in the watershed have been severely impacted by competition from alien species, one in particular has been disrupted more so than others. This is our floodplain or riparian forest system. This habitat has always been prone to disturbances, naturally from ice scouring during floods, and unnaturally from early settlement needs at the water's edge, related to navigation, drinking water supply for humans and livestock, waste discharge, crop irrigation, fire-fighting, milling and recreation.

Many alien species originated from Europe or Asia where agriculture has been practised for millennia. These plants and animals adapted to the disturbances inherent in annual crop production, and thrive in disturbed areas. They evolved to mature quickly and set seed prolifically, or developed root systems that could survive the annual cycle of disturbances from ploughing, seeding and harvesting.



In this photo, an understory of buckthorn shrubs can be seen beneath the bare winter branches of the forest trees. This invasive shrub will choke out native vegetation.

Seed of many of these species is viable for decades.

Aside from disturbance, floodplains are also vulnerable to invasion by alien species due to their fertility from silt deposition during floods. The floods bring seed from plants upstream, often from undesirable, aggressive (weedy) material that has been dumped along the watercourse. Watercourses are also corridors for the efficient movement of animal life which is an important agent for dispersing plant material upstream and downstream. Because early settlement tended to occur along rivers there is a long history of agriculture and domestic gardening, resulting in a super diverse concentration of plant material that could escape downstream. Grain and other seed mills are notorious among botanists for the many alien species growing around them.

The practice of grazing livestock is particularly common in floodplain forests due to the convenient supply of drinking water and shade for the animals. The farm animals often graze indiscriminately, eating many native wildflowers. They also bring in seed on their bodies and in their faeces from fields, and from their forage,

which often contains alien species. These undesirable, introduced seeds can readily germinate in the hoof-trampled, disturbed, forest soils.

Prior to all the cultural disturbances, our floodplain forests were enchanting communities. The main tree species throughout the Grand River watershed were White, Peach-leaved, and Black Willows, Bur Oak, Black, Silver and Sugar Maples, White Red and Rock Elms, Basswood, Bitternut Hickory, Red and White Ashes, Hawthorns and White Cedar.

In the southern reaches of the watershed, within the Carolinian zone, special species were also dominant, such as Black Walnut, Cottonwood, and Sycamore. Characteristic floodplain shrubs included raspberries, running strawberry bush, currants, and the southern watershed specialties, Bladdernut and Burning Bush.

The herbaceous or ground layer was the richest in diversity and the most vulnerable to disruption and displacement by alien species. Many of the characteristic herbaceous species of the surrounding upland forest are also common on the floodplain. There are,

however, a dozen or so species more-or-less restricted to floodplains. These Grand River floodplain indicator species include White Trout-lily, Twinleaf, Harbinger of Spring, Green Dragon, Golden Alexanders, Lizard's Tail, False Mermaid, Wild Garlic, Gromwell, Nodding Trillium, Marbleseed, and Great Angelica.

All of the floodplain herbs listed above are at risk in one jurisdiction or another throughout the watershed, and most are either rare or threatened in Ontario and Canada. The main reasons for their imperiled status are: livestock grazing, logging, reservoir construction and, most importantly, competition from aggressive alien plants. Today, except for rare examples, the floodplain forests are missing trees such as the Elms, especially, Rock Elm, which seems to be the most susceptible to Dutch elm disease, and Sycamore, which is severely disfigured by anthracnose.

Very few of our native floodplain species can compete with the alien plants that now predominate. Among the most serious alien tree and shrub competitions are Norway Maple, Crack Willow, Buckthorns, European Barberry, Tartarian Honeysuckle, Bittersweet Nightshade and Dog-strangling vine. Most damage to our floodplain flora has been in the herbaceous layer by species such as Bedstraw, Burdocks, Periwinkle, Garlic Mustard, Yellow Rocket, Gill-over the ground, Moneywort, Goutweed, Watercress, and a particularly vexatious showy mustard, Dames Rocket, the popularly misnamed "wild phlox", which carpets too much of our floodplains in white, pink and mauve in June.

In spite of this daunting picture, we can all help to stem the tide of alien species invasion in the Grand River watershed. We can remove and safely dispose of any of the previously mentioned, undesirable species from our properties and, with permission, from wild areas. With hard work, sore

fingers and backs, progress is being made against some of the invaders at some sites. Workshops are being held by the Nature Conservancy to root out invaders like buckthorn and Garlic Mustard. Community groups are pitching in with trowels and shovels to restore local wild areas to their natural beauty and integrity.

If we live close to a floodplain, or other sensitive area, we can avoid planting invasive ground-covers such as goutweed or periwinkle, and use native species for our landscaping where possible. We can educate ourselves from a variety of publications available through agencies like the Nature Conservancy of Canada, the Federation of Ontario Naturalists, the Region of Waterloo, and the GRCA.

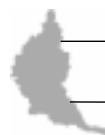
Our yard trash should be completely composted to kill alien seeds and not tossed over the fence into a natural area or on a stream bank. We can avoid using seed mixes that contain invasive alien plant seed, and educate local nurseries about alien plants including the undesirable ingredients in some seed mixes. We can inform our friends and neighbours of the severity of this issue and lobby for



The nodding flowers and spotted leaves of the native White Trout-lily are a welcome spring sight in our watershed.

effective weed control legislation. We may not win all the battle but together we can preserve some of our natural heritage for the future.

Larry Lamb is the Manager of the Environmental Studies Ecology Laboratory at the University of Waterloo and an Adjunct Lecturer. He is well-known as a vocal and passionate advocate for native plants.



MILESTONES

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

Watershed Wanders

One of the keystones of *The Grand Strategy* is education and raising awareness of the heritage and natural resources of the Grand River watershed. A new grade four education kit will ensure that youngsters growing up in this watershed will have a sense of place and belonging, and an understanding of the Grand as a Canadian Heritage River.

Watershed Wanders was created by Frank Glew, a retired environmental educator, and is available to school boards from Dunnville to Dundalk. This teacher-friendly resource kit was designed to foster a deep respect and reverence for the life and habitat of the Grand River. It was developed from the grade four expectations of the Ontario Curriculum in the integrated areas of Science, Social Studies, Language, Mathematics and Visual Arts. The kit includes a 50-page curriculum guide, lesson hand-outs, watershed jigsaw puzzles, maps, field guides, and other resource materials.

• See page 4

WATERSHED WANDERS

from page three

Frank Glew worked as a volunteer on this project for three years (*see Grand Actions, November 1999*). The kit was created with the assistance of the GRCA and The Grand River Foundation. Teachers' workshops and reviews by consultants, students and teachers were part of the development. Ten local chapters of the Canada Trust Friends of the Environment Foundation funded the project. Eleven Boards of Education will use the kit, with one kit given to every watershed school with a grade four class.

Kanata Village

Kanata, a new heritage feature in Brantford, will promote the heritage and culture of native people and their importance to the history and development of the Grand River watershed.

Kanata is the Mohawk word for "village", and within the palisaded walls of the recreated 17th century Iroquoian village, visitors can see the long house, fire pits, and tools and products of the agricultural and hunting society. The village has already won an award for the best new Tourism Attraction in Ontario and was runner-up for the Best New Attraction in Canada. Kanata will bring economic benefits of increased tourism to the Six Nations, and to Brantford and Brant County. Speeches, native dances and other festivities marked its May 13th ceremonial opening.

The dream of a native centre was brought to fruition over the past four years by the Pine Tree Native Centre in Brantford, under the guidance of Skip Pennell, and with money and support from many community organizations (*see Grand Actions, May 1997*). The site, on Mohawk Street, Brantford, provides a family-oriented experience, where visitors can take part in games, activities and crafts while learning about native history. The Eagle's Gift



Frank Glew (background) watches as grade four teachers try a puzzle at a workshop to review the Watershed Wanders education kit.

Shop at the Interpretive Centre showcases native arts and crafts. For more information phone (519) 752-1229, or visit the website www.kanatavillage.com

Foundations Help Forests

Development of a community-based Watershed Forest Plan is a Grand Strategy priority. In late May, The Grand River Foundation announced that it had secured funding from three Foundations to support this initiative and move forward in developing the Plan.

Canada Trust is a major sponsor and on May 28th, Dr. Joseph MacInnis, Chair of the Friends of the Environment Foundation, formally presented a cheque for \$30,000 to The Grand River Foundation. Two other Foundations contributing generously are the McLean Foundation of Toronto and the Shell Environmental Fund.

The Forest Plan will identify areas of the watershed where tree planting will be most beneficial and develop strategies to assist private landowners in identifying and removing barriers to private land

reforestation and introduce more native tree species into the reforestation mix. The GRCA, private landowners, forestry and agriculture groups, naturalists, and private industry and wood product suppliers will work together to develop the Plan.

Forest Plan Moves Ahead

Participants at the second meeting of the Watershed Forest Plan for the Grand River, were audibly reminded of one aspect of forest management. A chainsaw was heard as a badly diseased tree outside the auditorium window was removed. However, the sound of falling timber did not dampen their enthusiasm or their desire to make more progress towards completing the plan.

Discussion focused on the content of the plan, as it would apply to the sub-committees formed to create each section. Various groups will deal with topics related to Forest Health, Forest Management, Economics, Species At Risk, Land Use, Forest Recreation, Education and Communication, Research and Tree Planting.

Participants were also introduced to the new Watershed Forest Plan web site. The site offers resource links to forest-related, on-line articles and information; downloadable and printable maps pertaining to the forests of the watershed; media releases; meeting agendas, minutes and summaries; draft components of the plan and a brief introduction. The site will be continually updated with media releases, maps and information, and some new sections are planned for the near future. The web site can be accessed from the GRCA homepage at www.grandriver.on.ca by clicking on the Watershed Forest Plan link. For more information contact Jason Culp, Watershed Forest Specialist, at (519) 621-2761, ext. 259, or email: jculp@grandriver.on.ca

WHAT'S HAPPENING?

New Policies Protect Drinking Water

by Eric Hodgins, Manager,
Water Resources Protection,
Region of Waterloo

Water quality is important to both businesses and residents in Waterloo Region, and we're taking measures to ensure our water supply remains safe and clean for future generations. Since 1994, the Region has been implementing a Water Resources Protection Strategy to reduce the impact of various land uses on municipal water supplies, now and in the future. A safe and secure water supply is critical to a high quality of life for current and future residents. It is also important for attracting new business investment to the area.

As part of the Strategy, the Region has proposed new land-use policies to ensure that future business development in the Region will not threaten our water supply. These Non-Residential Development Policies will prohibit and/or place some restrictions on land uses and building structures in areas around municipal water supply wells. The goal of these policies is to reduce the likelihood of contaminants reaching the groundwater in areas near the wells.

Using state-of-the-art groundwater analysis, Region staff identified Well Head Protection Areas (WHPA) around each municipal well. These areas represent the land area which contributes water to the supply well. Up to three WHPAs were mapped for each well, based on the time it takes water within the aquifer (geologic unit supplying water) to reach the well. The sensitivity of these areas to potential contamination was ranked, along with the threat to the groundwater posed by various business-

related land uses. Both land use and WHPA sensitivity ranking will guide future land-use planning decisions as discussed below.

The Non-Residential Development Policies will be used differently depending on the type of proposed development. As part of the normal planning process, each municipality designates new areas in their Official Plan to meet forecasted needs for non-residential development. These policies propose that designation of these areas not occur within the most sensitive WHPAs. The policies also propose that where existing non-residential development areas occur within WHPAs, Official Plans and Zoning by-laws would be amended to remove uses that pose an unacceptable risk. While some business uses pose an unacceptable level of risk, the potential risks associated with others can be decreased to an acceptable level through the use of environmental management systems (EMSs) and best management practices (BMPs).

To prevent development of incompatible businesses within WHPAs and secure BMP/EMS implementation and compliance, Region staff are working

with the Ministry of Municipal Affairs and Housing to create a Development Permit System (DPS) for use in the WHPAs. A DPS combines zoning and site-plan approval processes into one and would reduce approvals needed to develop in WHPAs. They would maintain the legal status of the existing business, and allow it to continue to operate and expand. Should the use of a DPS not be approved by the Province, amendments to existing zoning by-laws would result in some incompatible uses becoming legal non-conforming. While these businesses can still continue to operate and expand (expansions are subject to permission from a Committee of Adjustment process), legal non-conforming status has a negative perception in the business community. It is for this reason that Region staff are working with the province to enable the use of a DPS in WHPAs.

The next step to implementing these policies will be a second formal public meeting of the Planning and Culture Committee of the Region of Waterloo in September 2000. This meeting will provide an opportunity for businesses

• See page 6



Dr. Joseph MacInnis and Moragh Hayes (centre), of Canada Trust Friends of the Environment Foundation, present a cheque for \$30,000 to Marilyn Murray, President of The Grand River Foundation, in support of the Watershed Forest Plan.

DRINKING WATER

from page five

and residents to present their opinions on the policies. Region staff will also be inviting affected businesses to an information meeting in early September, prior to the public meeting, to explain the proposed policies and how their implementation would affect the businesses in the future. Region staff anticipate making a recommendation on these policies to Regional Council, followed by Regional Council adoption, in early October 2000.

Nutrient Management Plans

By Anne Loeffler, GRCA

A nutrient management plan matches the nutrients available in manure and commercial fertilizer to nutrients required by the crop. Nutrient management plans can help farmers achieve better crop yields, manage input costs, and protect soil and water resources. After all, farm nutrients can become a societal concern when they are improperly stored, handled or applied. The Ontario Farm Environmental Coalition has suggested that all farmers complete nutrient management plans, regardless of the size of the farming operation.

The following information is condensed from Ontario Ministry of Agriculture and Food and Rural Affairs (OMAFRA) factsheet Agdex 743/530, written by Don Hilborn and Christine Brown.

The following ten steps should be followed when completing a nutrient management plan:

1. Have your manure analyzed. The results will give an indication of the amount of nutrients present in the animal manure.
2. Take soil samples to obtain the nutrient requirements of your fields. Samples should be sent to a lab accredited by OMAFRA.
3. Consider residual nitrogen from

previous legume crops and manure applications. Legumes and manure from previous years are sources of residual nitrogen. Various OMAFRA publications provide more detailed information.

4. Select how and when to apply manure, and how many days until incorporation. Selection of the manure application systems depends on the type of manure, the amount handled, compaction tolerance of the soil, distance to the fields, and whether custom application services are available.
5. Select fields and determine manure application rates. Field selection should be based on crop nutrient needs. Manure application rates will depend on the soil absorption capacity, and the crop's nitrogen, phosphorus and potash needs.
6. Choose your supplemental fertilizers. OMAFRA publications and the NMAN computer program can assist in comparing nutrients required by the crop to the nutrients provided by the manure, starter fertilizer and plowdown crops.
7. Calibrate your manure spreader. This is an essential step to ensure that the crops will get the recom-



The Honourable Helen Johns enjoys taking part in a Celebrity Paint-off at Homer Watson House and Gallery.

mended levels of nutrients.

8. Consider erosion, surface runoff, and tile drainage contamination control measures. Liquid manure should not be spread within 9 metres (30 feet) of a watercourse, or solid manure within 4.5 metres (15 feet). Flow in tile drains can also become contaminated if manure enters a catchbasin or travels through soil cracks to the tile drain.
9. Handle all the manure produced on the farm. If you have an inadequate land base to handle all of your manure, consider working with neighbouring farmers who could use your excess manure. Other options include composting to reduce the volume, or separating solids from liquid manure and using the solids on other farms.
10. Conduct a yearly review of your plan. Soil tests, manure analyses, crops, application methods, livestock numbers, and feeding programs change over time. These factors will influence the rate, timing and methods of manure application.

OMAFRA has developed computer software (NMAN 2000) to complete all of the above steps. To obtain this software, call the Woodstock OMAFRA office at 1-800-265-7896. The program is also available in booklet form. Factsheets and Best Management Practices manuals also provide information on nutrient management planning. Contact the Agricultural Information Contact Centre at 1-877-424-1300, or the GRCA at (519) 621-2763 or check the website www.gov.on.ca/OMAFRA

At Home with Homer

Homer Watson was one of Canada's first internationally known and recognized landscape artists. No matter where he travelled, he returned to his beloved Doon to paint the

countryside of the Grand River. A millennium celebration exhibit, *The Landscapes of Homer Watson: A Particular Time and Place*, was opened by the Honourable Helen Johns, Minister of Citizenship, Culture and Recreation, on Sunday, June 11, at Homer Watson House and Gallery in Doon, Kitchener.

Guest curator Darlene Kerr worked with the late Dr. Gerald Noonan for over a year to search out the best of Watson's paintings. Dr. Noonan, Professor Emeritus, Wilfrid Laurier University, authored Watson's biography *Refining the Real Canada: Homer Watson's Spiritual Landscape*. For more details, phone 1-519-748-4377, or see www.homerwatson.on.ca

Changes at GRCA

June 6th was a happy day for Allan Holmes, popular CAO of the GRCA, as he greeted over 300 friends and family attending his retirement reception at the GRCA administration centre in Cambridge.

As a tribute to Allan and his 30-plus years of public service, well-wishers were asked to contribute to a special fund to be established in Allan's name by The Grand River Foundation. It is a mark of the high esteem of Allan's career that the fund totals more than \$24,000 and is designated by Allan for water education and research projects in the Grand River watershed.

Replacing Allan Holmes is Paul Emerson, who became the new CAO effective June 1st. Paul has 22 years experience with the Conservation Authority, most recently as Manager of Planning and Resources Coordination. He looks forward to working with GRCA staff and partner governments in support of *The Grand Strategy* and, through this process, addressing many growth-related challenges now facing our watershed.



Left to right: Mac Coutts, former GRCA General Manager; Paul Emerson, new CAO, and Allan Holmes, retiring CAO, represent many years of service to conservation.



NOW AVAILABLE

Southern Grand River Country Guide

A second-edition guide to the southern Grand River watershed has just been published by Grand Erie Country. The book features maps; heritage river information; parks and recreation opportunities; scenic car, canoe, cycling and walking tours; and shopping, dining and accommodation information.

The guide can be obtained for \$3 from local tourist retail outlets. For more information call (905) 765-5005, or visit the website www.granderiecountry.com

Detweiler Meeting House History

A new history, *The Detweiler Meeting House: a History of the Mennonites of Roseville*, is now available. The publication, by Reg Good, describes the history and restoration of the Roseville church.

The book chronicles the history of the early Mennonite congregation, from original log school and meeting house in 1830 to the replaced structure in 1855. It provides a list of headstones and details

of the adjacent cemetery, and describes the restoration work completed to date.

Published by St. Jacobs Printery, the book is available for \$20 from Detweiler Meeting House Inc., c/o Gerald Musselman, 156 Salisbury Ave. Cambridge, N1S 1K1. Phone: 1-877-6662.



LOOK WHO'S TAKING ACTION

Waterloo Region Heritage Foundation

The Waterloo Regional Heritage Foundation is a non-profit funding agency wholly supported by the Region of Waterloo. It was established in 1973 to "preserve and to assist in the preservation of the heritage, culture, tradition, landmarks, historic buildings and objects of historical significance" in Waterloo Region. The Foundation was the first heritage organization set up and funded by a regional government, and also set a precedent in Canada as the first heritage organization allocated a substantial amount of

• See page 8

HERITAGE FOUNDATION

from page seven

money by any level of government.

Since 1973, over \$650,000 has been disbursed to worthy heritage projects within the Region. The key areas addressed by the Foundation are grant applications, communications, awards of excellence in heritage preservation, conservation, promotion, and development.

Each year the Heritage Foundation of Waterloo Region offers awards to full-time graduate students undertaking research in some aspect of the Region's heritage. Heather Fraser and Sharalyn Krahn each received a \$2,500 Research Award at the Foundation's meeting in September. Heather Fraser, a Faculty of Environmental Studies student, is working on the impact of land use planning on the Old Order Mennonite communities in Waterloo Region. Sharalyn Krahn, an Arts student, is researching the history and development of the orphanage in the community of St. Agatha.

Awards of Excellence acknowledge outstanding contributions by individuals, institutions and organizations to heritage preservation in Waterloo Region. This year the following three nominees were recognized at the Annual General Meeting on June 13, 2000, at the Detweiler Meeting House, Roseville:

- The late F. W. R. Dickson for his contribution to our heritage understanding in many ways. His many achievements included founding the Kitchener-Waterloo Field Naturalists; serving on the Waterloo Historical Society's publication committee for 30 years; planning the Doon Pioneer Village in the 1950's, and founding the Waterloo Hall of Fame. Mr. Dickson died in 1984.
- The late Gerald Noonan for his contribution to the community as a history buff, author and strong supporter of the Homer Watson

House in Doon. Professor Noonan died this year. He will also be missed as a regular contributor of ideas, humour and information to Grand Actions newsletter.

- Mr. Willie Kellner for his work as a testament to the fine crafts tradition of Berlin, Ontario. Mr. Kellner is an expert restorer of wood artefacts. In 1960, he rescued and restored a wooden staircase scheduled for demolition with the 1895 Krug Mansion, Kitchener. The staircase has been reinstalled in a private home in St. Clements.

No names were put forward for the Sally Thorsen Award of Excellence. This award is named for Sally Thorsen, former Commissioner of Planning and Culture for the Region of Waterloo, and presented to one person per year in recognition of an outstanding level of commitment to heritage concerns in the course of their professional life.

For information about the Waterloo Regional Heritage Foundation, contact Debbie Shantz at (519) 575-4785.



Sea cadets take a well-earned break while installing benches at Dickson Wilderness Area.

Sea Cadets Care

Thirty-five Sea Cadets from Kitchener, spent a hot and humid June 10th, replacing six benches along the nature trails at the Dickson Wilderness Area, as part of the national "Cadets Caring for Canada" program.

Dickson Wilderness Area is located just off the former Hwy 24A on the Waterloo-Brant Road, midway between Cambridge and Paris.

Purchase of the bench materials was made possible through an anonymous donation to The Grand River Foundation.

Hiking is now much more enjoyable at the Dickson Wilderness Area thanks to the efforts of Commander Matt Clark, the Sea Cadets of Kitchener, and the Foundation's generous donor.

Rockwood Memorial Trail

An exciting first step was taken toward rejuvenation of the trail network within the Rockwood Conservation Area, located just east of Guelph. On Sunday, June 4th, over 300 people attended the first annual Memorial Service, held by the Gilbert MacIntyre and Son Funeral Homes in Guelph and Rockwood.

In an agreement with The Grand River Foundation, the Gilbert MacIntyre and Son Funeral Home will donate \$50 for every funeral held as a "Memorial Footstep" along the path to creation of the Rockwood Memorial Trail. Over the span of the 20-year agreement, up to \$300,000 could be donated for trail improvements.

A permanent record of these donations, and the people they commemorate, is inscribed on a new kiosk erected at the Family Memorial Area established at Rockwood.

Reinstatement of the formal trail network will help preserve the scenic forests at Rockwood Conservation Area for future generations.

Waterloo Region Environmental Sustainability Awards

Waterloo Region's 2nd Annual Environmental Sustainability Awards ceremony was held June 8, 2000, at Kitchener City Hall.

Four award categories consist of agriculture, business, community/voluntary and education. A fifth category recognizes those who contribute to the theory or practice of sustainability and demonstrate a lifetime commitment and achievement in environment sustainability.

- Dr. Jean Steckle received the agricultural award. For twenty years, she has used her Steckle Heritage Homestead to provide children's camps highlighting early methods of land conservation.
- Cambridge Memorial Hospital received the Business Award for the implementation of a business plan reducing thousands of tons of hospital waste and applying environment friendly management methods.
- APT-E (Assuring the Preservation of Tomorrow's Environment) received the Community/Volunteer award. For years, this Elmira volunteer group has worked consistently to improve, ensure and protect ground water quality as industry develops in the town.
- Dr. Frank Glew was given the Educational Award. For 35 years as an educator, he sought opportunities to teach students about nature in live settings such as Kitchener's Huron Natural Area. His most recent contribution is the production of Watershed Wanders, a Grade 4 teaching kit.
- Bill Wilson, recipient of the Natural Heritage Award, has spent over 25 years observing and recording 208 species of birds in the area along the Speed and Grand



Casper Kaastra (left) and Don Smith of Cargill AgHorizons were on hand to present their donations to The Grand River Foundation at the Burford Nursery on May 26th. Behind them is the newly installed tree cooler.

Rivers. Due to his efforts, the boundaries of Environmentally Sensitive Protected Area # 36 were extended to increase opportunities for feeding, preening, and resting by waterfowl (see *Grand Actions May 2000*).

- The late Richard Lichty, recipient in the Special Open Category, encouraged farmers to adopt environmentally sound farming practices.

The event was organized by the K-W Chamber of Commerce, regional municipalities, community groups and the GRCA, and sponsored by Canada Trust - Friends of the Environment

All nominees received a Carolinian sapling provided by the GRCA. Jim Alexander, of CKCO-TV, was the MC for the evening.

Cool Trees at Burford

Trees will get a better start in life at the GRCA's Burford Tree Nursery, thanks to the generosity of Brantford Chapter of Canada Trust Friends of the Environment Foundation, and Cargill AgHorizons of Princeton. A new tree cooler, donated through The Grand River

Foundation, will prevent "pulled" trees from starting to grow before they are transplanted each spring. The cooler will also be used year-round to store native seed stock at appropriate temperatures.

Detweiler Meeting House

The Detweiler Meeting House is the only stone-built Mennonite Meeting House left in Ontario. It suffered many years of neglect until Cambridge architect, Gerry Musselman saved it from the wrecking ball and obtained the necessary approvals to proceed with its restoration. The Waterloo Regional Heritage Foundation is a proud financial supporter of the restoration.

The original log Detweiler Meeting House was destroyed by fire in the 1850s and rebuilt in 1855. The main room is one of the largest freestanding open spaces in the region for buildings of that vintage. The flooring dates back to 1865. Very little remains of its original furniture and contents although one end of a pew support was

- See page 10

MEETING HOUSE

from page nine

discovered in the attic. This allowed a local carpenter, of Mennonite heritage, to build new pine pews and recreate the area to look as it might have done originally. Attention to detail is most evident in the painstaking restoration, preservation and enhancement of the Meeting House while also making it available for present-day public meetings.

Wilmot Oasis in the Centre

Celebrating the Past ... Looking to the Future is the theme for the 150th Anniversary celebration of the founding of Wilmot Township. This year, Wilmot residents are celebrating the achievements of their forefathers at a time when the future of the present Wilmot Township is uncertain. The Oasis in the Centre is a small park that will be a unique, permanent monument to Wilmot's cultural and natural heritage. The park is located on the site of the first Wilmot Township Hall, at Wilmot Centre on the southeast corner of Bleams Road and Wilmot Centre Road.

The focal point will be a low sitting wall representing the foundation of the original 1850 Township Hall, built of stones contributed by Wilmot families. A concrete map of the Township's early settlement will be set in the ground inside the walls. A backdrop of native trees, shrubs and flowers will help create the perfect setting for future generations to learn about the past and appreciate the beauty of the productive farmland surrounding the site. Completing the scene will be a bronze statue by renowned sculptor, Ruth Abernethy, a Wilmot resident and member of the Oasis Committee.

Stephen and Lisa Yantzi and their family generously donated a half-acre of land. A committee of volunteers



Mallard Pond at Luther Marsh was built in 1985 by Ducks Unlimited to provide a sheltered marsh for waterfowl. Other wildlife habitat projects are now underway.

planned the park and are overseeing the construction. Wilmot trades people are building the foundation and Wilmot Township staff are contributing their time. A millennium grant has been received from the federal government and many Wilmot residents and businesses are contributing money to help build the Oasis. Fund-raising activities will continue all year.

The Official opening of the Oasis in the Centre is scheduled for Sunday, October 1st, 2000 at 2 p.m. For further information, contact Marilyn Sararus, Chair of the Oasis Committee, at 519-696-3061.

Eugene and Clara Mattyasovsky

Eugene and Clara Mattyasovsky were husband and wife doctors living in Toronto. The couple frequently visited Luther Marsh and both had a deep love for the upper Grand River watershed. After their deaths, in 1985, they bequeathed their condominium in Toronto and a cottage lot near Peterborough to The Grand River Foundation, with the instruction that these assets be sold and the money placed in a special fund to support wildlife habitat improvement and preservation in the upper Grand

watershed.

From 1986 through 1992, part of the funds was used to purchase over 400 acres of property near the Keldon Source Area. This included provincially significant wetlands and meadow nesting habitat for the endangered Henslow's Sparrow.

In late 1999 and 2000, an additional \$30,000 of the fund was allocated for wildlife habitat improvement projects at Luther Marsh, based on recommendations of the Luther Marsh Management Committee. Through their unique bequest, Eugene and Clara Mattyasovsky left a tangible legacy that will benefit conservation work in perpetuity.

To find out more about The Grand River Foundation and its Planned Giving program, contact the Foundation at 621-2761 in Cambridge, or toll free at 1-877-29-GRAND, and ask for the Foundation's Bequests and Planned Giving brochure.

History Tours End

For eleven years, three retired teachers from Waterloo have given many hours of pleasure and educated a lot of people about the special places in the Grand River watershed. Eleven years

ago, Mary Johnston and Margaret Dickson teamed up to share their enthusiasm for local history and began leading tours of Waterloo Region and nearby counties for Waterloo Historical Society members and their friends. Helen Knepe became one of the partners as the tours became steadily more popular. They started with one busload in 1989, and this year took six busses and stopped adding to the waiting list because of lack of space.

The tours enabled many people to enjoy the beauty of the watershed and visit historic sites such as Ruthven, and land given to the United Empire Loyalists. However, research and organizational time took its toll on the lives of the three women. In their 60s, they began to feel the pressure of spending at least 30 days each per year visiting archives and collecting information about the tour areas, and decided to call it a day. Although the last tour has now been taken, the participants will long remember their outings. Many people have developed a greater appreciation for the natural and historic beauty of the Grand River watershed because of the efforts of these three energetic ladies.

Brantford Celebrates Relay 2000

The Trans Canada Trail Ocean Water Relay 2000 will get a special welcome as it passes through Brantford on Saturday, August 19th, 2000. Runners carrying water from the Arctic and Pacific Oceans will meet in Brantford that day, and the city is prepared to celebrate in a big way with a series of special events at four different venues along the trail corridor. What started out a year ago as a dream now has become the celebration of the century.

Brantford has been given a "signature" event status from the national coordinators of this program, Participaction and the Trans Canada Trail Foundation, with major media

coverage including television throughout the day. The only other cities in Ontario given this kind of coverage will be Windsor, Toronto, and Ottawa/Hull.

The activities of Relay Day 2000 are free to the public through the corporate support of many local businesses; the co-operation of many departments of the municipality; the financial contributions of the public sector; and the leadership of the media in promoting this program throughout the community.

The ocean water relay comes into Brantford at Glenhyrst Art Gallery of Brant, Lower Gardens area at around 9:30 a.m. Here, the theme is "Celebrate the Arts" with arts and crafts displays, music, sculpture unveiling, and a pancake breakfast. Activities at Glenhyrst are scheduled to run from 8:30 a.m. to 4:00 p.m.

The next venue is Waterworks Park between 10:30 a.m. and 11:00 a.m. Here, from 9:30 to 3:30 p.m., the theme is "Outdoor Recreation & Education along the Trail Corridor", highlighted by a Tim Horton's Bike and Canoe Challenge, expos of outdoor outfitters, raft rides, flycasting demonstrations, Field Naturalist tours, and pork-on-a-bun.

The Ocean Waters Relay then proceeds to Brant's Crossing near the Lorne Bridge and is scheduled to arrive between 12:30 and 1:00 p.m. The theme at Brant's Crossing is "Our Heritage and the Grand River". Events at this location, from 11:30 a.m. to 3:00 p.m., include the official opening of the Trail Builders Pavilion, musical performances, Pauline Johnson readings, and dance performances. The Brant County Leisure Fair 2000 will be hosted at the Civic Centre including special displays and demonstrations of leisure providers in our community.

The final venue for the day is hosted at Kanata and the Woodland Cultural Centre within easy walking distance of the Mohawk Chapel and the theme is a "Six Nations Showcase". The activities at this venue will continue from 1:00 p.m.

until 7:00 p.m. The Relay is scheduled to arrive at between 3:30 p.m. and 4:00 p.m. Special features will include the official opening of the Reg Henry Memorial Trail between the Woodland Cultural Centre and Kanata, a fashion show, Kanata Dancers, arts and crafts show, historical reenactment and much more.

Brantford is gearing up for the big day and invites you to join them as they "Celebrate the nation – celebrate the people – and celebrate the spirit".

The Optimist Trail Club

The Optimist Trail Club started in 1992, as part of the Conestogo-Winterburne Optimist Club. Members have since created and maintained a recreational trail system that links communities in Woolwich Township. With financial assistance from federal summer career placement programs, they have provided summer employment for youths with trail construction and maintenance.

Hiking and cycling trails benefiting from their work in 1998 included the Grand Valley Trail from Breslau to West Montrose, the Health Valley Trail from Conestogo to St. Jacobs, the Avon Trail and a rail-trail from West Montrose to Elmira. Gravel, trail signs and woodchips were donated by the Township of Woolwich. The group also provided construction labour and, naturalization plantings on a natural park on the east bank of the Grand River, north of the Regional Road 17 bridge. Future plans include the development of educational material for the interpretive trail at the park.

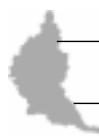
Let's Hear From You

Do you know of someone who is doing something special to protect or improve the environment or heritage of the Grand River watershed? If so, please tell us about it in an email, or call us at the address on page 12.



DID YOU KNOW?

- Trees absorb carbon dioxide from the atmosphere and convert it into energy for their survival. The amount of carbon dioxide a tree may remove to gain 1 kg is 1.5 kg.
- Water vapour given off by trees is an important part of earth's water cycle. A single tree can extract about 50 000 litres (11,000 gallons) from the ground in a single growing season.
- The following facts were found on the Tree Canada Foundation website at www.treecanda.ca
- One large tree can lift up to 454 litres (100 gallons) of water out of the ground and discharge it into the air in one day.
- One large tree can provide a day's oxygen for up to four people.
- Studies show that hospital patients with window view of trees recovered significantly faster and with fewer complications than comparable patients without access to such views.
- Windbreak of trees have been found to reduce residential heating costs 10-15%.
- Each healthy tree can reduce air borne dust particles by as much as 7,000 particles per litre of air, thus a healthy tree is a free standing air conditioner and purifier.
- You need about 500 full-sized trees to absorb the carbon dioxide produced by a typical car driven 20,000 km/year.
- Averaging it out, each Canadian goes through one 30 metre tall tree apiece each year for lumber, plywood, particle board, hardboard and paper products.



THE GRAND STRATEGY CALENDAR

Ontario Parks Association Conference 2000, July 18 to 21, 2000, at the Four Points Sheraton, Kitchener. The theme is *People and Parks on Line*. Hosted by the Cities of Cambridge, Kitchener and Waterloo. For information contact John Hannah, City of Cambridge, (519) 740-4681, ext. 4214.

Mill-Race Festival, August 4, evening only, and August 5, noon to midnight, in downtown Cambridge. Six outdoor stages, folk music, dancing and more. For information call 653-1424, or 1-800-749-7560.

55th Annual Fergus Scottish Festival and Highland Games, August 11 to 13, 2000, at the Fergus Community Centre. Call (519) 787-0099 for more information.

Cambridge Trails Guided Hikes, Sunset Stroll, Saturday, August 12, 7:30 p.m., (3-5 km). Meet in the parking lot of Preston Memorial Auditorium, Bishop and Hamilton Streets. No charge. For more information phone (519) 740-4681, ext. 4229.

Cambridge Trails Guided Hikes, Grand Trunk Trail Sunday, October 15, 2000, (5 or 7 km). Meet at Mill Race Park (Water Street N at Parkhill Road, Galt) at 12.30 p.m., for the first bus. Bus shuttle leave every half hour until 2 p.m. Enjoy panoramic views, learn about the Grand Trunk Railway and walk over the 45 foot Devil's Creek Waterfall. For more information phone (519) 740-4681, ext. 4229.

7th Annual Latornell Symposium, October 22-25 at the Nottawasaga Inn, Alliston. Topic: *Growth and Conservation: Chaos or Compatibility*. For information, contact Conservation Ontario at (905) 895-0716. Email: conserve@idirect.ca or call the Centre for Land and Water Stewardship, University of Guelph at (519) 824-4120, ext. 8329.

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 (without photographs) on the Internet at www.grandriver.on.ca/gractndx.html

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