



Grand River
Conservation
Authority



The Grand:
A Canadian
Heritage River

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Cover photo

Jessica Sweeny is already an experienced tree planter. Her dad Andrew Sweeny grew up in a house right beside where the forest will soon grow and they helped plant Kiera's Forest in 2001. Photo by Janet Baine



Growing more than trees

By Janet Baine
GRCA Communications Specialist

In a plowed field tumbling with trees, shovels and people, Andrew Sweeny and his two teenagers pass the mulch and shovel among themselves without a word — clearly they are experienced tree planters.

The family was among 600 people who offered their labour on Earth Day to create the Guelph Rotary Forest. This was the beginning of a 13-year project to turn 40 hectares of fields into forest by planting 5,000 trees each year.

“This was a big and successful event, and it will build as word spreads and more people understand its importance,” said Dan Schneider, senior resource interpreter at the Guelph Lake Nature Centre.

No one knows better than Schneider how these projects grow not only trees, but especially community commitment.

The genesis of this forest goes back to the loss of Schneider's nine-year-old daughter who died in a car accident in 2000. His co-worker, Greg Meredith, got the ball rolling on Kiera's Forest, a small but challenging project. The community gathered in 2001 to plant a three-hectare forest to remember the girl. Andrew Sweeny and his much younger kids helped plant that forest.

As the trees have taken root, so has the idea of growing a forest. Three years ago, one of Schneider's environmental classes from Our Lady of Lourdes High School proposed a wildlife corridor to GRCA CAO Paul Emerson and then to the GRCA board.

“It is such a convincing presentation, how can I refuse?” Emerson told the kids. Sweeny's eldest daughter, Kimberly, was among the students who presented the idea. This was one of two forest plots that were added to Kiera's Forest, which is now five hectares.

The Rotary Club of Guelph has taken on a



Community tree planting projects are very popular because people understand that trees improve the health of the environment.

huge 13-year, 40-hectare commitment on land next to Kiera's Forest. The Guelph Rotary Forest is exactly the kind of project the GRCA wants to encourage.

"We're actively building our capacity in this area. We know the community wants to give back to the environment in this way and we want to engage them," says Martin Neumann, supervisor of terrestrial resources. "We plant forests this way because, when you have an engaged community, you have more people put-

ting value on natural areas. They know what goes into creating them."

GRCA staff members from several departments focus on tree planting during the short window from late April to May 14 when trees need to be in the ground. Companies and community groups planted 16,500 trees across the watershed this spring with help from the GRCA.

The heyday of tree planting was the 1980s, when private landowners used to plant a million trees a year through the

Upswing in GRCA planting

2006: planted **83,300** trees, sold an additional 101,800

2007: planted **76,400** trees, sold an additional 68,800

2008: planted **173,900** trees, sold an additional 43,000

GRCA. More recently the GRCA plants only about 100,000 trees a year, but that number is climbing dramatically.

This year a committee organized and co-ordinated Earth Day events to reforest and beautify Brantford. Apotex Pharmachem added a tree nursery to their property a few years ago and many volunteers and other businesses planted 2,000 trees.

This was the 10th year for Sunoco Earth Day in Waterloo and it took place at Laurel Creek Conservation Area for the first time.

Most of the GRCA's spring tree planting takes place on private land through programs including the Rural Water Quality Program, Trees Ontario and Greencover Canada. Randy Machan, forestry manager for the GRCA, says the reason for the upswing in tree planting is more government funding.

Last fall was also the first time the GRCA planted trees in the fall and trees will again be planted this fall. This is due to demand, and also because of weather changes — the window for spring tree planting was smaller because

GRCA spring 2008 tree planting events

- ◆ Sunoco Earth Day, Laurel Creek Conservation Area, 1,000 trees
- ◆ Toyota Earth Day, Laurel Creek CA, 350 trees
- ◆ Tree Coalition (ACIC/Apotex and other businesses), Sinclair Boulevard, Brantford, 2,000 trees and shrubs
- ◆ Quarry Integrated Communications, Laurel Creek CA, 135 trees
- ◆ Guelph Lake Rowing Club, Guelph Lake CA, 500 trees and shrubs
- ◆ Rotary Forest, Earth Day, Guelph Lake 1,800 trees
- ◆ Rotary Forest, nature centre classes, 4,200 trees
- ◆ Trees for Guelph, within the city, high school classes, 4,100 trees
- ◆ Guelph-Eramosa Tree Planting Group, 160 trees
- ◆ Conestoga Rovers and the 10,000 Trees Project, Laurel Creek CA, 100 saplings
- ◆ Sifton Homes employees, Guelph Lake, Laurel Creek and Brant conservation areas, 255 trees
- ◆ Millbank 160th anniversary, GRCA-owned parkette in Millbank, 160 trees
- ◆ Union Gas Employees and 10,000 Trees, Laurel Creek 150 trees
- ◆ Hillside Festival, Guelph Lake CA, 1,580 trees



Felix Palmer-Stinhouse, 9, of the Second Guelph Cubs fills up on mulch.

of the late winter and early arrival of warm, dry weather.

Neumann says that a new trailer to bring trees, shovels, buckets and all the necessary equipment to community planting events has been donated to the GRCA by TD Friends of the Environment Foundation. This will help accommodate community planting events in the future.

Countless school groups, private individuals, community groups and municipalities are also planting trees without GRCA involvement. All of this helps increase forest cover, which currently stands at about 19 per cent across the watershed and needs to increase to 30 per cent to sustain a healthy watershed.



DID YOU KNOW?

Most trees are planted on private land

- ◆ Landowners in the watershed with more than one hectare (2.5 acres) of land exclusive of buildings are eligible to participate in the GRCA tree planting program.
- ◆ Landowners ordering a minimum of 500 seedlings or 30 saplings/potted trees may opt to have the GRCA plant the trees. The deadline for this service is Dec. 1.
- ◆ A minimum purchase of 200 seedlings or 20 saplings is required when landowners are doing their own planting. The species list is posted on the GRCA website in early November and orders must be placed by March 1 each year. A \$50 deposit is required when placing an order and payment in full is required by April 1st.
- ◆ A tree sale takes place at the GRCA each May. This is a great place to get native species at a reasonable price.

New green development policy

By Janet Baine
GRCA Communications specialist

The GRCA board has approved an innovative policy to permit only sustainable development on surplus land with development potential that the GRCA sells.

The new land sale policy ensures that the GRCA's vision of "a healthy and sustainable natural environment" will be part of the new owner's vision for the property as well.

"We want to sell surplus land and insist on exemplary development on that land," explains Tom Smith, the outgoing manager of property for the GRCA and the man who developed this innovative policy. "I've had calls from people in other communities who are very interested in learning more about how this is going to work so they can adapt it to their area. The GRCA is definitely leading by example."

The GRCA owns over 19,000 hectares of land. Some small parcels don't have an environmental, educational or recreational purpose. This land may have been cut off from other natural areas due to recent development or roads, or the prospect of restoration has diminished due to some other reason. When this happens, the GRCA puts the land on the market to sell.

"Some people believe that the GRCA shouldn't sell land, but it is really important for us to be strategic about our landholdings," says Mike Bradley, recently appointed to manage property and oversee this policy. "It doesn't make sense for us to hold onto land that does not suit our needs, just like it doesn't make sense to keep a bike in your garage that your children have outgrown."

Money from sale of surplus land helps the GRCA buy environmentally sensitive land. Examples of this are the projects at Luther Marsh and Dunnville Marsh.

WHAT'S HAPPENING?

Conditions will be placed on the sale of surplus land and only appropriate development will be considered early in the planning process. The standards will



Michael Bradley

be somewhat similar to those suggested by the United States Green Building Council's draft document, LEED for Neighbourhood Development rating system. LEED stands for Leadership Energy and

Environmental Design and it is becoming an internationally recognized standard.

The GRCA is setting conditions through "expressions of interest" and "requests for proposals" that allow the



Sunoco Earth Day in Waterloo offered numerous activities for families, including bird box building.

land to be purchased only by organizations willing and able to design and build to environmental standards. For example, a purchaser will be required to design buildings that use less water and energy and meet other environmental criteria.

“We’re very excited about this idea and we’re looking forward to working with a partner on a first project,” Bradley says.

When the report, “Disposition Guidelines — Establishing Standards for Sustainable Development” came to the general membership, GRCA board member and Guelph city councillor Vicki Beard spoke in favour of it.

“It gives all municipalities an example of what they can do with the land that they have,” she says. She noted that the City of Guelph sometimes sells surplus land and she’d like to ensure this land is also used in an environmentally sustainable way.

The report is posted in the “Meetings” section of the GRCA website at www.grcadriverv.ca for the month of February.

Water savings from rainwater and grey water

By Janet Baine
Communications Specialist

New opportunities to conserve water in homes and buildings was the topic of the City of Guelph’s first annual water conservation breakfast.

Since 2006 the Ontario Building Code has allowed rainwater and grey water to be used to flush toilets. Now there are several examples of rainwater harvesting in Guelph, including one at the hotel where the event took place, which uses rainwater to flush the toilets. Rainwater harvesting is an extension of the idea of collecting water in rain barrels to water plants. It consists of collecting rainwater from the eavestrough,



A tank for grey water tucked beside Geoff Jones’ furnace is the only evidence that his toilets are flushed with this innovative new technology. He estimates it will save 50,000 to 70,000 litres of water annually for his family of five.

filtering out debris and storing the water in a tank. The water is then pumped into the house to flush the toilets as needed. Rainwater harvesting is one of the features of the first LEED-certified platinum home in Canada, constructed by the Reid’s Heritage Group.

This home’s system was developed by University of Guelph engineering professor Khosrow Farahbakhsh and some researchers. It goes beyond what is normally permitted in Ontario, since this rainwater, collected in a backyard cistern, can be used for laundry, showers and the irrigation system. This is one of numerous conservation measures in this demonstration house that is open to the public in south Guelph.

Engineering student Chantelle Leidl described two other buildings that harvest rainwater — one is the University of Guelph Campus Co-op’s lodging house where a dozen students live. The rainwater is collected in four 1,500 litre plastic tanks in the basement and is used to flush toilets. The third test site is a house in Guelph which has been retrofitted using a 1,200 litre water tank beside the house. Only items easily available from local hardware stores were used for this project.

Grey water recycling

Geoff Jones of EcoShift lives in Cambridge and his home has been retrofitted with a grey water recycling system. As with rainwater harvesting, this technology has only been allowed by the building code in Ontario since 2006. Grey water includes water from baths, showers, laundry and the bathroom sink. Kitchen water can’t be reused in a grey water system and shower water is most commonly used.

Grey water goes into a tank in his basement where it is filtered and then reused to flush toilets. The average family of five can save \$200 a year on water costs by using this system, Jones said. To retrofit a home would cost about \$3,600, but each home is unique and the costs would be different.

Jones said that in the future a building could have both rainwater harvesting and grey water recycling, since the two are compatible. Rainwater may eventually be used for showers, baths, laundry and dishes, while the grey water could be used for toilets.

Dual Flush

Bill Gauley of Veritec Consulting described his research into efficient toilets. Dual flush toilets or High

Efficiency Toilets (HETs) should be the first step in water conservation, since they instantly reduce water consumption by 20 per cent without any change in habits required of people, he said. He recommends toilets that have been approved by WaterWise. (The March-April issue of Grand Actions had a story on this technology.)

Local plumbing professionals, home builders, building inspectors, community stakeholders and water conservation professionals participated in the Guelph workshop to learn about these ideas.

In 2007 the City of Guelph set a goal to use less water and energy per capita than other communities, and it has undertaken many water conservation measures. This summer it is partnering with the Guelph International Resource Centre to offer eight workshops on reducing outdoor water use. City staff will also visit 500 homes to make recommendations on xeriscaping, which is landscaping that doesn't require supplemental watering.

Mayor Karen Farbridge asked the group if there is enough capacity within the construction and building sector in Guelph for a "green building cluster" that would focus on water and energy conservation.

This was one of three meetings about water conservation held by different organizations in Guelph within a week.

About 60 people attended a day-long workshop organized by Guelph Environmental Leadership (GEL). It was about water and energy conservation measures that could be undertaken in the city using social marketing techniques. The Ontario Public Interest Research Group (OPIRG) Guelph held a panel and community discussion on water efficiency that attracted about 80 people and focused on ways Guelph can balance growth with water and wastewater capacity.

A winning combination for outdoor education

By Dan Schneider
Senior Resource Interpreter

The Watershed Interpreters Network (WIN) was started by GRCA staff to improve conservation authority outdoor education across the province and it has really taken off.

Outdoor educators from all 32 conservation authorities in the province that offer this service are part of the organization.

Like many other conservation authorities, the GRCA has a team of educators who improve watershed health by making residents more aware of the importance of our natural resources.

Throughout the year students, families and community groups, such as Guides and Scouts visit GRCA nature centres or take part in events such as groundwater festivals. Hands-on experiences connect students in a tangible way to the fragile natural environment.

But we're not the only agencies doing

this. What makes the conservation authorities' outdoor education programs unique is that we work within watersheds. These are natural areas, cutting across artificial political boundaries like county lines. Students who visit our nature centres understand that what happens upstream affects those who live downstream.

Conservation authority education is also backed up by cutting edge resource management. GRCA staff is constantly gaining environmental information and passing it on to watershed residents. Our educators are called resource interpreters because they take this complicated knowledge and "interpret" it, making it understandable and enjoyable to learn, even for young residents. For example, a Grade 5 class may go into the river to catch and identify the species that live there, exactly the same as GRCA resource management staff do.

WIN formed 18 months ago to recog-



Schools and community groups are regular visitors to the GRCA's nature centres, which also offer environmental day camps throughout the summer. Check the "Education" section of www.grandriver.ca for a full schedule and brochure.

nize the value and uniqueness of conservation authority watershed education, and to make it even better. Through WIN's workshops and communications, conservation authority interpreters share their expertise with one another. A workshop featuring drinking water source protection was held at Luther Marsh last fall and it was attended by interpreters from many conservation authorities. WIN started at the GRCA, but it has spread quickly across the province.

WIN is still gaining momentum, and that is a good thing. After all, when it comes to protecting our natural resources, we all have to "win."

Vehicle pass price goes down

This year it's easier — and cheaper — to enjoy all 12 of the GRCA parks.

With more than 2,500 campsites at eight conservation areas, the GRCA is the second largest operator of campgrounds in the province — second only to Ontario Parks.

While some fees are rising this year in order to maintain and improve the quality of the parks, frequent visitors can take advantage of a drop in the price of a season pass and get more for less. Price changes will also benefit visitors to the pools at Brant and Byng Island conservation areas.

- ♦ The price of a season vehicle pass has been cut to \$95, a saving of \$15 from last year. The pass allows unlimited access for all passengers to all 12 GRCA parks, throughout the season. For a family of four, the season pass will pay for itself in just seven visits. The season pass also includes one free night of camping (Sunday through Thursday).

- ♦ At Byng Island (Dunnville) and Brant (Brantford) conservation areas, the adult admission fee rises to \$5 but also includes free admission to the park pool. The child rate remains unchanged and also includes free entry to the pool.

- ♦ The price for an adult daily

admission at other parks rises to \$4.25, an increase of 25 cents. The price of a child's admission (six to 14) remains the same as last year at \$2.50.



Children five and under are free.

- ♦ Campers can take advantage of the GRCA's new weekly camping fee, covering a five-night visit (Sunday to Thursday) at a reduction of 10 per cent from the regular overnight camping fee.

- ♦ The charge for a serviced campsite rises by \$2 to \$34, while the price of an unserviced site remains \$27.

Free day in the parks June 8

The Royal Bank of Canada is sponsoring a free day in all of Ontario's conservation areas, including those operated by the GRCA. Information on this event Sunday June 8 will be on our website, in all RBC branches and on posters in the community.



LOOK WHO'S TAKING ACTION

Fishermills project underway

An innovative plan to revitalize the natural habitat at Fishermills Pond will be completed by this time next year thanks to the support of nearby residents and several partners.

The fish don't know it, but Chilligo Creek will be a much better home for them as a result of this project.

The historic mill pond was drained soon after the dam failed in 2000, leaving a small stream flowing through an area that was once covered with water. This was a dramatic change to the landscape and local residents had many concerns to work through. The GRCA worked extensively with the City of Cambridge and residents to come up with an environmentally sensitive restoration plan.



Sara Wilbur (left) of the Grand River Conservation Foundation; Warren Yerex GRCA aquatic resources supervisor; Catherine Collins of the Ontario Trillium Foundation; Fishermills resident Brian Hiff; and Steve Witteveen of the Rotary Club of Cambridge North with the map of the innovative new plan that will see the creation of three ponds beside a stream.



The new view of Fishermills Pond.

“Since the very beginning we’ve had three things we’ve wanted to maintain — our environment, our community and our history. All these things have been kept in mind through this whole exercise,” said Fishermills resident Brian Hiff. “There’s a lot of new energy in our group and it is thanks to the Grand River Conservation Foundation. They have been the catalyst, the ones leading us through to this point.”

The revitalization plan will see three ponds excavated into the landscape. These off-line ponds will be disconnected from the stream and they will provide wildlife habitat and give the community a place to enjoy the outdoors. Because the stream won’t be connected to the ponds, the stream water will be cooler and faster which means more fish of different species will be able to live in it.

Excavation is expected to take place this fall and planting will be next spring.

The foundation is supporting the community in taking on the project, which has a \$435,000 price tag. Catharine Collins, a representative of the Ontario Trillium Foundation, said her group is proud to be part of the project and has provided \$75,000. The Cambridge North Rotary Club helped secure this donation.

About half of the funds have been raised so far, and Shell Environmental Fund and Stantec Consulting are also contributing.

For more information or to make a contribution, contact Sara Wilbur, executive director of the Grand River Conservation Foundation, 519-621-2763, ext. 2272.

Why use rain barrels ?

By Bill Barrett,
Sustainability Officer for Planet Bean

The story of the settlement of the Grand River watershed is the story of the gradual conversion of porous earth to hard impenetrable surfaces.

The view from above reveals asphalt roads, concrete parking lots and thousands of roofs, from the small to the gigantic. Two hundred years ago the area would have been a dense forest growing around many streams and rivers.

The buildings and roads have covered over areas that would have absorbed rainfall and allowed it to seep down into the groundwater or slowly move through the soil to streams and rivers. The hard surfaces force the water to find new places to go. To control this wandering water, we have created eavestroughs and street gutters that guide it away from homes, down into the storm sewer system then finally into the river. While this system is good at dealing with the problem of our impenetrable urban areas, it causes a problem for the river that evolved with the old slow forest system. The river can't always handle the fast, sudden supply of water. To fix this problem we have created concrete walls and channels to re-engineer the river so it can handle the new volume of water. This speeding up of the water can also cause floods, so then we build dams. It's a bit of a muddle.

Rain barrels are a small way of getting back to the old way that rainfall cycled. By putting a rain barrel or two under a downspout, water is captured and contained for use when things start to get dry. Watering from your rain barrel not only gives plants a drink, but it also allows the water to slowly trickle down through the earth where it meets the groundwater — our drinking water supply.

Using water collected from the sky also saves money since the water used



LOOK WHO'S TAKING ACTION

on the garden is not coming from the tap. Tap water is pumped from deep wells and travels a far distance before it is treated and pumped into houses. That takes energy and money. Besides, rainwater is not chlorinated like drinking water, so it is healthier for the garden.

Rain barrels might seem like a drop in the bucket in terms of dealing with big water problems, but since 1999 the folks at the Guelph International Resource Centre (GIRC) have made it their mission to bring rain barrels to many backyards in the City. Nearly 3,000 have been sold by the non-profit organization. Each barrel holds 220 litres, so if every one of those barrels is collecting water when it rains it adds up to 660,000 litres per storm! A single square metre of surface area can collect 700 litres of rainwater in an average year



Holes are drilled into the top of a rain barrel so it can be sold by Guelph International Resource Centre. This is one way the organization raises funds.

of rainfall in Guelph.

Over the years GIRC staff has met some very dedicated rain barrel champions in Guelph. Some people have elevated their rain barrels so they can get enough pressure to operate a sprinkler, others have connected barrels together into double and triple units. One house has six rain barrels providing enough water for elaborate gardens in both front and back yards. Some buildings in Guelph are collecting rain water from their roofs and using it to flush toilets. Once you get bitten by the barrel bug its hard to stop.

All signs are pointing to the fact that

we should be paying a great deal of attention to the way we use our water and we should do everything we can to save every drop. Rain barrels are one way. Information on how to purchase a rain barrel from GIRC can be found at www.girc.org or by calling 519-822-3110.

Some municipalities within the Grand

River watershed have rain barrel distribution programs. The Region of Waterloo has distributed 31,000 rain barrels over the last seven years in a program to assist residents who want to save water and be more environmentally conscious. The City of Brantford has had a rain barrel distribution program since 2004.

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.

For information on

***The Grand Strategy* contact:**

Barbara Veale, GRCA
400 Clyde Road, Box 729,
Cambridge, ON, N1R 5W6
Phone: 519-621-2763 Ext. 2274
Fax: 519-621-4844
E-mail: bveale@grandriver.ca

For newsletter submissions, contact:

Janet Baine, GRCA
Phone: 519-621-2763, Ext. 2302
Fax: 519-621-4844
E-mail: jbaine@grandriver.ca

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

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Publications Mail

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The Grand Strategy Calendar

Family Water Festival, Doon Heritage Crossroads, Kitchener, Saturday May 31, 10 a.m. - 4 p.m. Spend the day at this free family water festival with over 20 hands-on activity centres, door prizes, a bicycle raffle and gift bags for the first 100 families. For more information, visit www.wwcgf.com.

Canadian Cancer Society's Relay for Life, June 6-7, Guelph Lake Conservation Area. The relay for life is a 12-hour non-competitive relay in support of the Canadian Cancer Society. Teams of 10 people walk to raise money to help fund research and eradicate cancer. There is also an emotional luminary ceremony to honour loved ones lost to cancer and to celebrate cancer survivors. There is a \$10 registration fee. Go to www.cancer.ca to register online or call Jacqueline at 519-824-4261.

OPIRG's Annual Speed River Clean Up, Saturday June 7, 9 a.m. to 1 p.m. Royal City Park, off Gordon St in Guelph at the gazebo. Everyone is welcome to this family friendly clean up of the river as well as other activities. A BBQ and entertainment with local bands will follow. Please bring boots, gloves and sun gear.

Grand Opportunities 2008, Canada's Premier Hands-on Fly Fishing Forum, Saturday, June 7, 10 a.m. to 4 p.m., Belwood Lake Conservation Area, Fergus. This event helps casual fly anglers better enjoy the sport through education and provides a place for veteran anglers to gather and share stories, skills and experience. Proceeds from the event are used for habitat and access improvement projects on the Grand River. The event is sponsored by Friends of the Grand River. For a complete schedule, to register used equipment to sell and to register for the women's course, visit www.friendsofthegranderiver.com.

Celebrate the Tart Taste Fest, Saturday June 28 until Tuesday July 1, North Wellington. All stops on the award winning Butter Tart Trail do something special on Saturday. On July 1 there will be a competition for the best butter tarts. For more information, visit www.wellington-north.com.

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.