



The GRAND

GRAND RIVER
CONSERVATION
AUTHORITY
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River checkup

How healthy is the Grand River system?
Water quality testing provides some answers

By Janet Baine
GRCA Communications Specialist

On sunny summer days, people want Rebecca Mitchell's job. Sometimes she is up early to canoe the river at dawn, or stand in a secluded stream fighting the current as she looks for a water quality probe. She travels the watershed from top to bottom each month and is often mistaken for an avid angler.

Mitchell is the water quality technician for the Grand River Conservation Authority and spends most of her time in the Grand outdoors. She is like a nurse checking the health of a sprawling 300 km-long liquid patient — the Grand River and its 11,000 km network of tributary rivers, creeks and streams. Her findings are used to see how the waterways are standing up through the seasons, the storms and the increasing human population.

It takes her three days to visit 36 testing sites. Almost all of them are on bridges along the rivers. Mitchell and a co-worker stand above the gurgling river, dipping a bucket and filling small bottles with water samples as the birds sing nearby.

"If I had a penny for every time someone passing by asks me if I have caught a fish, I wouldn't need to work any more," Mitchell says.

Sampling is done monthly between April and November. Some of these sites are also tested during the winter, after a hole has been drilled through the ice.

Water samples have been taken from some locations since the 1960s. The long-term changes are most important for Mitchell's work — some areas have improved and some are worse. Mitchell is not there to issue any quick solutions. Her patient is too big and its challenges too complex. Instead, the information she gathers is shared with partners including the province and the municipalities.

Automatic monitoring stations

The information collected by Mitchell is added to other water quality data, such as that collected from the GRCA's eight real-time automated water quality monitoring stations.

These stations are located at strategic locations throughout the watershed. They test water every 15 minutes, 24 hours a day, seven days a week, all year long. If there's a sudden change in water conditions, the station sends an automatic alert to GRCA staff. Two are on the Speed River and the rest are on the Grand River between the Shand Dam and Brant Park. These stations collect data on temperature, pH, conductivity and dissolved oxygen (see info box for



Water quality technician Rebecca Mitchell checks the condition of Blair Creek in Kitchener.

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Along
the
Grand

2010 highlights

Lots of work was done in 2010 to protect and enhance the environment.

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The winners of the 2010 Watershed Awards inspired action to make the Grand River watershed a better place.

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Nature centre

The Grand River Conservaton Foundation is raising money for a new Guelph Lake Nature Centre.

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THE GRAND RIVER

A Canadian
Heritage River



The GRCA

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A Message FROM THE CHAIR

Spring is a new year for the Grand River watershed, with trees budding and birds building their nests.

The past year has seen the start of a new era at the GRCA. We have a new Chief Administrative Officer, Joe Farwell, and I am the new chair of the GRCA. The October municipal election brought a new board at the GRCA with over half of the members new to the organization. Some staff members have retired and others have moved to new positions.

Fortunately, our many newbies aren't really newbies at all. Joe Farwell has worked for the GRCA for over 20 years and was the assistant CAO before his appointment to his new post. He is president of the Canadian Dam Association, and a member of the Provincial Lakes and Rivers Improvement Act Advisory Panel and the Professional Engineers of Ontario.



Jane Mitchell
Chair

Many of the new board members are experienced municipal councillors and several have a long association with environmental issues or the GRCA. They are all very keen.

I was the first vice-chair of the GRCA for four years before assuming the chair and I am an experienced municipal politician with a deep concern for the environment. Our staff are hard working and most are long-time employees.

The GRCA also has two new vice-chairs.

The first vice-chair is Vic Pendergast who has a wealth of experience on the board including many years as second vice-chair. The new second vice-chair is Jan D'Ailly, new to the GRCA but experienced as a city councillor.

I encourage you to take your copy of The Grand outside and read it sitting under a tree to get the full flavour of the Grand River watershed.

I'm sure the projects undertaken by staff and the accomplishments of the Watershed Award winners will inspire your own environmental venture.

A Message FROM THE CAO

Welcome the spring edition of The Grand. Here at the Grand River Conservation Authority we have a vision of "a healthy and sustainable natural environment in the Grand River watershed". This vision is founded in history, and will direct us into the future.

Seventy-seven years ago a partnership of municipalities formed the Grand River Conservation Commission.

At that time, flooding and water quality problems led local leaders to action. Three founding principles of the commission were that:

- Rivers are natural entities that don't follow political boundaries.
- An issue arising in one area will affect all communities downstream.
- Communities acting individually can't solve watershed-wide issues.

The founders understood that the health and vitality of the



Joe Farwell
Chief Administrative Officer

communities in the watershed were linked to the health of the Grand. Today, these principles still apply and guide us in the management of the GRCA.

In coming years, population growth and climate change will continue to stress the Grand River and its natural environment.

The GRCA is responding with an update to the water management plan. This work will consider the impacts of growth and climate change on the watershed, and how these factors will affect flooding, water quality, and the quantity of water in the rivers and streams. You can find much more information about this important project on the GRCA website.

I hope you take a few moments to read through The Grand. But more importantly, I hope you find some time to visit our conservation areas, join us at a tree-planting day, to follow the river flows on our website or just spent some free time wandering on one of our watershed trails.

The Grand River is a special place. I hope we can all work together to keep it that way. Wishing you a safe and enjoyable summer.

WHO SPEAKS FOR YOU?

The municipality where you live appoints one or more representatives to the GRCA board to oversee the budget and activities of the conservation authority.

Townships of Amaranth, East Garafraxa, East Luther Grand Valley, Melancthon, Southgate: Tom Nevills

Townships of Mapleton and Wellington North: Pat Salter

Township of Centre Wellington: Joanne Ross-Zuj

Town of Erin, Townships of Guelph/Eramosa and Puslinch: John Brennan
City of Guelph: Bob Bell, Maggie Laidlaw

Regional Municipality of Waterloo:
(Cambridge, Kitchener, North Dumfries, Waterloo, Wellesley, Wilmot and Woolwich)
– Les Armstrong, Todd Cowan, Jan d'Ailly (GRCA 2nd vice-chair), Rob Deutschmann, Jean Haalboom, Ross Kelterborn, Geoff Lorentz, Claudette Millar, Jane Mitchell (GRCA chair), Warren Stauch

Town of North Perth, Township of Perth East: George Wicke

Regional Municipality of Halton: (Halton Hills and Milton): Barry Lee

City of Hamilton: Jeanette Jamieson

County of Oxford: (Blandford-Blenheim, East Zorra-Tavistock, Norwich): Bruce Banbury

City of Brantford: Robert Hillier, Vic Prendergast (GRCA 1st vice-chair)

County of Brant: Brian Coleman, Steve Schmitt

Haldimand and Norfolk counties: Lorne Boyko, Fred Morison



River checkup

Continued from Page 1 details). The information is available on the GRCA's website in the River Data section for anyone to see at any time.

During the summer, a student works with Mitchell and they sample the beaches at conservation areas for E. coli. When levels are high, the health unit posts a notice advising visitors that they swim at their own risk. This is a joint pro-

gram between the GRCA and local health units.

Logging data

Sometimes the GRCA and its partners take part in special projects that require learning more about water quality at a specific location. Mitchell also sets different types of small devices that log water quality statistics at those locations for a week or two.

These loggers are about 18-inch-long probes that are secured to the bottom of the river. They are placed inside a piece of PVC pipe, so anyone finding one should put it back and let it carry on collecting the important information.

This water quality data is fed into a computer model of the watershed, which generates reports that predict what would happen if there are changes in conditions that might affect water quality. For example, the model can show the result of an improvement to a municipal wastewater treatment plant. This information helps municipalities and the province make decisions about infrastructure investments worth hundreds of millions of dollars.

Intensive monitoring is done in streams when development is expected in coming years. These are called sub-watershed studies and are done co-operatively with municipalities and consultants to collect a baseline of water quality information.

Another way to measure water quality is by counting the number and types of creatures living in the river.

In the fall, Mitchell helps GRCA monitoring coordinator Lori Richardson with benthic macroinvertebrate monitoring — they walk



Rebecca Mitchell and monitoring coordinator Lori Richardson bottle a water sample.

across a stream bed, kick up muck from the bottom and collect the invertebrates or bugs living there. The number and species of bugs tells a lot about the health of the waterway. Many sow bugs, for example, indicate poor water quality while a stonefly larva is a sign of good water quality.

Counting fish

Mitchell and Richardson also do electrofishing — they put a current through the water to stun the fish. They then scoop up the fish, count them and check the size and health before releasing them back into the stream.

While Mitchell is the GRCA's only water quality technician she usually works closely with other GRCA technicians who monitor water quantity, groundwater and aquatic species.

During the winter, Mitchell is only outside about 30 per cent of the time, compared to 80 per cent during the summer. Winter is also the time for organizing and cleaning equipment, and figuring out

the intricacies of the summer schedule when there always appears to be more work to do than time and staff available.

Sandra Cooke, the supervisor of water quality, oversees a water quality monitoring and assessment program for the entire watershed. However, she pays special atten-

tion to three black dots on a water quality map that incorporates data collected through all the GRCA monitoring programs. The black dots show "poor water quality" on stretches of the central Grand River. Waterloo Region is set to spend \$230 million on upgrades to wastewater treatment plants over the next few years to improve water quality in the Grand River. The 10-year forecast for all of their proposed upgrades is \$720 million.

The water quality monitoring information fed into the computer model helped to select what improvements need to be made. After the upgrades are complete, water quality monitoring done by the GRCA and the Region of Waterloo will help to show how the river has improved.

Cooke hopes with work and time, there won't be any more black dots on the water quality map.

In the meantime, the GRCA will continue monitoring water quality, which is a core responsibility of the organization.

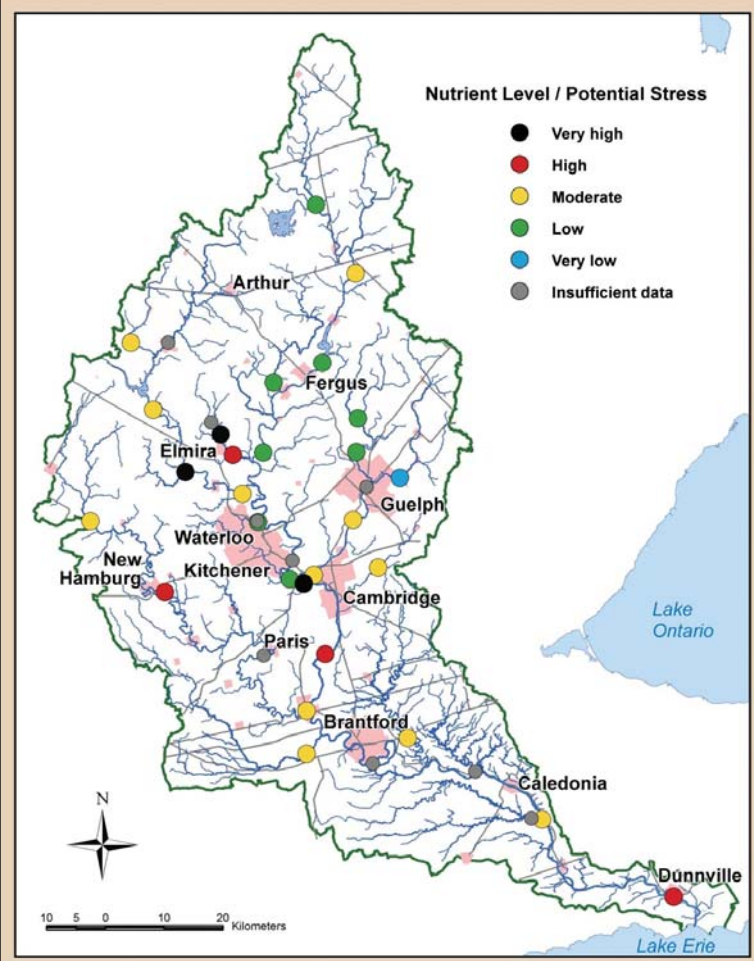
What we're looking for

- **Water temperature:** varies with the seasons, the vegetation nearby and even throughout the day.
- **pH:** measures how acidic or basic the water is. Fluctuations show changes in plant processes and reflect the geology.
- **Conductivity:** measures the water's ability to conduct an electric current and is directly related to the total dissolved salts (ions) in the water. Lots of road salt carried into the water, for example, will increase the conductivity.
- **Dissolved oxygen:** Aquatic animals need dissolved oxygen to live. Aquatic plants produce dissolved oxygen during the day and consume it overnight, so the amount in the river will vary during the day. If oxygen levels drop too low — perhaps because of excessive plant growth — fish will move to another part of the river or even die.
- **Nutrients (phosphorus and nitrogen):** are food for algae and plants, but when there are too many, these nutrients create an imbalance in the ecosystem.
- **Invertebrates:** organisms that live in the riverbed such as crayfish, damselfly larvae and worms make up the benthic community. By learning which ones live in the river and how many, scientists learn a lot about the health of the river.
- **Chloride:** is a component in salt. The application of road salt for winter accident prevention is a significant source of chloride to the environment.



Water quality engineer Mark Anderson checks a data logger.

Status of Water Quality in the Grand River Watershed Indicator: Nutrient Levels (2003 - 2007)



This map shows nutrient levels at various locations throughout the watershed. High nutrient levels can result in lower water quality.



Highlights from 2010

Each year the GRCA is involved in a long list of projects to protect and enhance the environment in the Grand River watershed. Many of these efforts involve partners, ranging from all

levels of government to landowners, community groups and local organizations.

These articles highlight some of the significant events that took place in 2010.



Find us on...

The GRCA stepped into social media in 2010.

We are on Facebook, YouTube, Flickr and Twitter.

The GRCA also published an updated book, *Fishing Ontario's Grand River Country. Trails Take Flight*, a brochure and website created through Grand River Country about birding locations and species received a national and a provincial award.

The GRCA also initiated a News Feature Service which provides news media with feature stories about the work being done by the GRCA and its partners.



Historic Rockwood Mill restored

The Harris Woolen Mill at Rockwood Conservation Area is back in action after a \$855,000 facelift in 2010.

In fact, wedding bookings are

solid through this summer and film scouts are back checking it out as a location for films and movies.

The scenic limestone mill ruin was closed in 2009 due to safety concerns. But after a restoration project those problems have been fixed and improvements made including installation of lights, benches and a decorative iron bridge to replace a cedar bridge.

The mill dates back to 1884, when it replaced an earlier mill that burnt down. In its heyday it employed 80 people, but ceased operation in 1925. It burned in 1967 leaving a stone shell.

This restoration project received \$755,000 from the Federal Economic Development Agency under the Community Adjustment Fund. The GRCA and the Grand River Foundation supplied the remaining \$100,000 for this project.



The new gatehouse at Brant Conservation Area.

New facilities built at parks

The GRCA took advantage of federal-provincial infrastructure programs to improve facilities at three conservation areas. The senior levels of government contributed to the cost of the three projects, with the GRCA covering the balance.

Normally this type of work is paid for through park user fees.

These projects were:

■ A new gatehouse complex at Brant Park, that includes

washrooms

■ A washroom and shower complex at Elora Gorge and a new force main sewer line that takes wastewater to Elora's treatment facility

■ A washroom and shower facility at Guelph Lake Conservation Area

Finishing touches such as landscaping are being added this year.

Improving sewage plant operations

The GRCA worked with watershed municipalities during 2010 to help them improve the way they operate their sewage treatment plants. The project had several goals, including a reduction in the number of spills and bypasses at the plants, and an improvement in the quality of effluent produced on a daily basis. For the municipalities, the program offered the possibility of savings on operating and capital costs.

The project was cited as an example by Ontario Chief Drinking Water Inspector John

Stager in his 2010 annual report.

Stager noted that the innovative partnership was financed by the Ontario Drinking Water Stewardship Program.

"Our pilot is to engage, educate and create awareness among the wastewater," says Sandra Cooke, Senior Water Quality Supervisor with the GRCA. "The target we're all going towards is high quality effluent coming out of the plants, not to just achieve compliance — it's not good enough anymore to just meet compliance."

Busy year for planning department

The planning department is increasingly active and a total of 659 planning permits were processed in 2010.

This continues an upward trend that began in 2006 when the GRCA's new Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation came into

effect. This regulation more than doubled the land that is regulated by the GRCA, which is now about one-third of the land in the watershed. There was a corresponding increase in permit applications, which until 2006 had been under 250 permits per year.

As the number of permit applications have increased, so have the

compliance issues related to permits. In 2010, GRCA staff conducted 267 field inspections, compared to 32 in 2009. In 2010, nine compliance investigations were initiated, three of which are ongoing. Three proceeded to charges and the remaining three investigations were resolved through the use of civil agreements or judicial orders.

Updating the water management plan

Building on a long history of partnerships, the GRCA is working with municipalities, the federal and provincial governments, First Nations and others to update the Grand River Water Management Plan.

The most recent Water Management Plan was published in 1982. It included 22 recommendations on three important issues: flooding, water supply and water quality. Almost all of those recommendations were implemented by the GRCA, municipalities and the province.

The revised plan will look at these same issues in the light of new challenges such as population



growth and climate change.

Meetings with the partners to develop the Plan started in 2010. The goal is to complete a draft plan by early 2013. It will put forward a set of effective, reasonable and practical recommendations that are supported by all the partners.

Recommendations will focus on:

■ Securing future water supplies

■ Reducing flood damage potential

■ Improving water quality to maintain river health, while accommodating population growth and sustainable agricultural

■ Taking action in our watershed to improve Lake Erie

■ Making our watershed more resilient so it can cope better with a changing climate

More information on the Water Management Plan and process can be found at www.grandriver.ca/wmp



Best year ever for Rural Water Quality Program

The Rural Water Quality Program had its biggest year yet and undertook more projects with a higher dollar value than in any year since it began in 1998.

Watershed landowners undertook nearly 500 projects in 2010, resulting in \$3.5 million in improvements. About \$1.5 million was covered through a variety of grant programs.

Most of the increase is a result of the Drinking Water Stewardship Fund.

Projects were implemented by 112 in areas near municipal water sources. Projects included septic system upgrades and decommissioning of unused wells.

They properly decommissioned unused wells and upgraded farm wells.

The GRCA helps landowners find financial assistance from a variety of sources to help improve watershed health. For more information email ruralwater@grandriver.ca or contact Anne Loeffler at 519-621-2763 ext 2242.

Highlights from 2010

- 82 well abandonment and 54 well upgrade projects
- 5.6 km of stream fenced to keep 1,150 head of livestock out
- total 155 hectares of trees planted



Farmers learned about the benefits of windbreaks at a workshop sponsored by Trees for Mapleton.

- ed (over 275,000 trees) on private land
- 8.9 km of stream buffer planted

- 37 km field windbreaks
- 1.5 km farmstead shelterbelts
- 2 km living snow fence



GRCA and local officials gather for the celebration of the 50th anniversary of Byng Island Conservation Area in Dunnville.

Good year for the parks

Warm sunny weather in 2010 brought more visitors to GRCA conservation areas and resulted in \$450,000 more than the \$6 million revenue that had been budgeted for the year.

The temperature was more than 25 degrees on 65 days in June, July and August. This compares to only 38 days with this type of weather in 2009, when revenue was less than expected.



Alien invader

On June 30 2010, emerald ash borer was confirmed in the Grand River watershed for the first time.

The metallic green insect is highly destructive and attacks and kills all species of ash trees, including Mountain Ash which is not a true ash tree. Native to eastern Asia, the ash borer was first discovered in Canada in Windsor Ontario in 2002 and has since killed 20 million trees in North America.

It was first detected in the Grand River watershed in Brantford, Cambridge, Kitchener and Oxford County close to Highway 401.

The insect has been found on GRCA property, and a plan is in place to deal with it.



A tree seeding machine is used on a GRCA property near Pinehurst Conservation Area.

Dramatic rise in tree planting in 2010

Tree planting made a huge comeback in 2010 with 451,000 trees going in the ground, nearly six times more than were planted in 2007.

Interest in tree planting is increasing and there is more financial help available.

This includes trees planted on GRCA land, sometimes as part of a public event. GRCA Conservation Services also helped landowners plant 275,000 trees on private land.

One project on GRCA land involved the planting of 15,000 trees on land near Pioneer Tower in Kitchener.

In the mid 1980s, the GRCA planted a million trees a year. However, planting dropped off

in the 1990s due to a cut in provincial funding

A wide range of native tree species are planted to increase biodiversity. Bigger trees are being planted, not just small seedlings.

The GRCA has also adopted the practice of direct seeding in some projects, especially for oaks, hickories and walnuts.

Native herbaceous seed mixes are being sown as a companion planting for young tree seedlings, and more emphasis is being placed on restoring wetlands, prairies and savannas.

For more information on tree planting for this fall or spring 2012 call 519-621-2763 ext. 2250.

Dam removal benefits creek



An aerial photo of the former reservoir on Marden Creek north of Guelph taken shortly after the dam was removed last year by volunteers. The small coldwater stream is now meandering through the area and the change improves aquatic habitat and water quality. It is one of the recommendations in the Grand River Fisheries Management Plan. Photo by Hugh Smith



GRCA budget shows modest increase for 2011

The board of the Grand River Conservation Authority has approved a 2011 budget which calls for a modest increase in spending over last year.

The budget calls for expenditures of \$33.6 million (compared to \$33.4 million in 2010) to pay the cost of programs that protect water quality, reduce flood damages, preserve and improve natural areas, support responsible development and provide outdoor recreation and environmental education.

The budget was approved by the GRCA board at its annual meeting on Feb. 25. The board is made up of 26 members appointed by municipalities throughout the Grand River watershed.

Jane Mitchell, chair of the board, said it was a “hard budget year” for the GRCA. Municipalities had to pick up more of the cost of operations because some provincial grants have been frozen for years, she pointed out.

“Members worked hard this year to lower the percentage increase” of the municipal share of the budget, she said.

“With a provincial election

looming, we must make our elected provincial representatives understand the importance of water quality and quantity and flood control. It must not take a serious incident to make them pay attention.”

About \$9.47 million, or 28 per cent of the cost of operating the GRCA in 2011, will come from residents of the watershed who pay either through their local property taxes or their municipal water bills. That works out to about \$9.90 per person. Overall, the amount charged to municipalities will rise three per cent compared to 2010.

The GRCA will bring in revenues of about \$13.3 million (40 per cent) from fees charged for services ranging from camping to planning. The GRCA also raises revenue from land rentals, hydro-electricity generation and payments by school boards for outdoor education programs.

Government grants, mostly from the provincial government, will amount to \$8.3 million this year (25 per cent of the budget). The bulk of that money, about \$4.6 million, is being spent on develop-

ment of source water protection plans under the Clean Water Act. The plans are scheduled to be completed in 2012. Other government grants cover part of the cost of core programs such as flood warning and dam maintenance.

The remainder of the budget, about \$2.5 million (seven per cent), comes from GRCA reserve funds which consist of money set aside in earlier years.

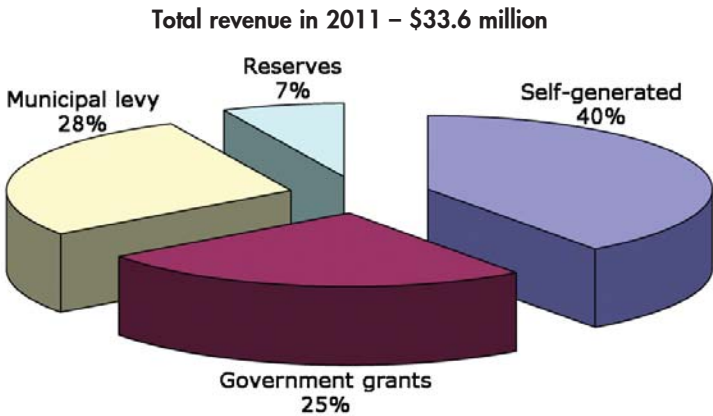
Projects for 2011

- Planning the reconstruction of the Drimmie Dam in downtown Elora. The dam is a scenic highlight of the historic community and also supplies water to a privately-owned hydro plant. If approved, the project would cost \$1.2 million with the GRCA paying one-third of the cost. The Township of Centre Wellington and the provincial government may also contribute to the project.
- Continue a three-year project to develop a watershed-wide Water Management Plan that looks at flooding, water quality and water supply issues. Cost this year is estimated at \$320,000.
- Complete a major upgrade to Conestogo Dam near Drayton to improve its capacity to safely handle high flows.
- Complete three infrastructure projects under the federal-provincial stimulus program: new washrooms at Elora Gorge and Guelph Lake conservation areas and a new gatehouse at Brant Conservation Area.
- Construct a new workshop at the Conestogo Lake Conservation Area
- Complete a project to restore the Harris Mill ruins in Rockwood Conservation Area. This project was paid largely by a federal government grant.
- Watershed studies of the Upper Blair Creek area in Kitchener and the Hopewell-Chilligo subwatershed near Kitchener and Cambridge.
- Invest \$745,000 in projects to protect water on the farm through the Rural Water Quality Program.
- Purchase environmentally significant lands worth \$300,000.



A load of cement is lowered into place during a \$2.7 million upgrade to the Conestogo Dam stilling basin that will allow it to safely handle higher flows.

GRCA revenue sources



Where your money goes

The municipalities of the Grand River watershed contribute about 28 per cent of GRCA revenues. The average cost per person for all watershed residents is about \$9.90 a year.

Here's how it will be spent in 2011:

\$9.90 used for:	Your cost in 2011:
✓ Watershed studies	\$0.04
✓ Resource inventory, environmental monitoring	\$1.60
✓ Flood forecasting & warning	\$0.63
✓ Flood & erosion control structures	\$1.93
✓ Floodplain regulation	\$0.61
✓ Resource management support cost	\$0.38
✓ Municipal plan input & review	\$0.35
✓ Private land tree planting, forestry	\$0.35
✓ Soil & water conservation, stream restoration	\$0.51
✓ Conservation information (Nature Centres & communications)	\$0.79
✓ Conservation land property taxes	\$0.16
✓ Administration/head office facilities	\$2.55

The per person cost was calculated by dividing the portion of the GRCA's total general municipal levy of \$9.47 million by the estimated number of residents (956,000) in the Grand River watershed. The \$9.90 was then applied to the net cost of the various GRCA program areas that are partially funded by municipalities.



Controlled burns, such as this one at Snyder's Flats in Woolwich Township help to restore prairie landscapes.



Award winners inspired action along the Grand

Each year the Grand River Conservation Authority honours individuals, groups and businesses have undertaken projects to enhance the natural environment in the Grand River watershed.

In 2010, one Honour Roll award and five Watershed Awards were given out. More information, including video tributes, can be found on the GRCA website.

Honour Roll

Allan Holmes

The 2010 Honour Roll Watershed Award went to Allan Holmes, who was the Chief Administrative Officer of the GRCA from 1991 to 2000.

He led the organization with passion, commitment and integrity through a difficult time of change and severe funding cutbacks. In spite these challenges, it was a time of many major successes: 75 kilometres of rail-trails were developed; in 1994, the Grand River was designated a Canadian Heritage River; in 2000,



Holmes

the prestigious International Thies Riverprize was awarded to the GRCA and its partners for excellence in river management.

A few months after receiving the award, Holmes passed away on Jan. 20 after a courageous battle with cancer.

Watershed Awards

Clare Rennie

The quiet leader behind the Guelph Rotary Forest, Clare Rennie took on the challenge of increasing local forest cover and inspiring many others to do the same. He spearheaded a project to plant 60,000 trees near the Guelph Lake Nature Centre by the Guelph Rotary Club's 100th anniversary in 2020.

Planting started in 2007 and a quarter of the trees are now growing in the 40-hectare forest. More than a thousand people help at an annual tree-planting event. The Guelph Rotary Club is also committed to bringing the urban tree canopy of Guelph up to 40 per cent from the current 27.5 per cent by 2020.

Paul and Steve Cressman

Paul and Steve Cressman have planted more than 7,000 trees on their two farms near New Hamburg. They have planted the



Watershed Award winners at the award presentation ceremony held in September: Chuck Beach (left), Steve and Paul Cressman, Clare Rennie, Allan Holmes, Brad Whitcombe (on behalf of Wellington Green Legacy), Lynette Mader (on behalf of Ducks Unlimited Canada) and Alan Dale (chair of the GRCA).

trees in rows, creating 4.5 km of windbreaks to separate their fields of corn, wheat and soybeans. They also planted trees along Wilmot Creek which runs through their property, inspiring neighbours to do the same. The Cressmans believe trees are integral to good farm management and offer many environmental benefits that extend far beyond the farm itself.

Ducks Unlimited Canada

Ducks Unlimited Canada has been working for more than three decades to return lost wetland habitat to the Grand River watershed.

The organization has invested \$1.6 million in 80 wetland projects totalling 1,900 square hectares. DUC works as a partner with the GRCA and many landowners to educate and install wetlands on private and public land. It has contributed funds and staff time to acquire land for wetlands and provides expertise in constructing wetlands. DUC has worked on wetland projects in Brant, Wellington, Waterloo, Oxford and Haldimand.

Chuck Beach

Chuck Beach is rallying people and organizations to ensure the environment is a top concern for everyone in Brantford. Since retiring in 2004 from S. C. Johnson where he implemented many environmental programs, Beach has volunteered on several committees

related to environmental initiatives, notably the Earth Day events committee he chairs. It promotes Earth Day events including tree planting, school yard greening, public education and city clean ups.

Wellington Green Legacy

Wellington Green Legacy started in 2004 with the simple idea that it would plant 150,000 trees in Wellington County that year to help celebrate the county's 150th anniversary.

The anniversary is long gone, but Green Legacy has continued to grow and plant trees to become what may be the largest municipal tree planting program in North America. In 2010 it celebrated the planting of its one millionth tree. Almost more important than getting trees in the ground is getting thousands of volunteers and school children to participate, creating a connection with nature and thousands of stewards of the land in Wellington County.



A wetland improvement project of Ducks Unlimited Canada.



Planting trees at the Guelph Rotary Forest.





The GRAND RIVER CONSERVATION FOUNDATION

New Guelph Lake centre will bring nature to life

Foundation leading fund-raising effort for new facility

By Janet Baine
GRCA Communications Specialist

The Guelph Lake Nature Centre has welcomed nearly 400,000 visitors since it opened more than 30 years ago.

It is the busiest of the GRCA's nature centres with 20,000 visitors each year. It is in a converted house and portable classroom on the shore of Guelph Lake reservoir.

But now the house is showing its age and needs to be replaced with a bigger, more durable purpose-built facility.

Last year the Grand River

Conservation Foundation provided the money to hire the Ventin Group architectural firm to develop preliminary designs for a new centre. The project is expected to cost \$3 million. This year the Grand River Conservation Foundation decided to take this on as a fundraising project.

"The nature centre is going to become a very valuable part of the nature centre program and also valuable for the Guelph community. We are very excited about this project," said Crawford Reid, chair of the foundation.

The GRCF has always been a big supporter of outdoor education. It supported the construction of the Apps' Mill Nature Centre in Brantford 30 years ago thanks to a donation from S. C. Johnson and



An artist's rendering of the planned new Guelph Lake Nature Centre.

Son Ltd. More recently, it raised funds for the Toyota Living Roof on Laurel Creek Nature Centre in Waterloo. It also spearheaded the Living Classroom Campaign for Outdoor Education to keep students visiting the nature centres after the province cut back support.

If fundraising for Guelph Lake Nature Centre goes well, the GRCA hopes to have the new building completed by 2012 or 2013.

The new building will feature a range of teaching spaces, including a large multi-purpose room that can be used as an auditorium for larger events. It will also have many passive environmental features. These require less maintenance and are more energy-efficient than the existing facility.

Inspiring youth to enjoy nature

"At camp I enjoyed being away from the busy life in the city and I liked the slower pace of being in nature," says Garrison McCleary, who got hooked on nature at Guelph Lake at the tender age of seven. "In the nature centre programs, it's easier for kids to be comfortable and connect with nature, then to share their experiences with other kids and learn from the leaders."

At Guelph Lake Nature Centre, students of all ages experience a range of hands-on nature programs that help shape values that last a

lifetime. McCleary is now a teenager who worked at the Guelph Lake Nature Centre last summer.

"Without a strong connection with nature, we can't move forward as a conservation-minded people. Now I'm teaching children at Guelph Lake. I love that I have inspired and motivated children who, in 15 to 20 years, will be running the world and making it a better place," he said.

The nature centre is busy on school days, and also a hub of learning on weekends and during the summer.

"I went to a bunch of different

camps but this was my favourite and this is the one I stayed with every summer," says Lynsey Endicott, now a third year university student and outdoor lover who plans a career working with children.

A multi-year partnership with the Rotary Club of Guelph is providing additional learning opportunities for visiting students. By the year 2020, a 100-acre Rotary Forest will be nearby. Students and community members are helping to plant trees and create specialized outdoor learning areas.

Fundraising for the new nature centre is part of a larger conservation foundation campaign to raise \$12 million. This campaign will fund several environmental and land restoration project. It will also help maintain trails and nature areas, and refurbish four of the outdoor education centres.



Crawford Reid



Garrison McCleary: 'Without a strong connection with nature, we can't move forward as a conservation-minded people.'

You can help, too!

For more than 40 years, the Grand River Conservation Foundation has improved our quality of life by enriching the natural values of the Grand River watershed and encouraging people to enjoy, and to learn from, the great outdoors.

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