



GRAND RIVER
CONSERVATION
AUTHORITY
2004 Spring Report

Distribution 200,000 copies

Lessons learned

The damage done by major floods 50 and 30 years ago led to the development of the flood protection and warning systems that guards watershed residents today

By David Schultz
GRCA Communications Co-ordinator
Cambridge

After a long cold winter, March 5 was the kind of day a lot of people were waiting for -- a little wet in the morning, then clear and warm through the afternoon.

But as the temperature rose that day, so did the activity level of the flood operations staff of the GRCA. They, too, welcomed the break from winter but they also knew that

the consequences of the rain and rapid snowmelt could be serious.

The Grand River watershed is prone to flooding and a high proportion of watershed residents live in cities and towns hugging the riverbanks and spreading out through the floodplain. Every spring brings with it the possibility of a major emergency.

As the snow melted, GRCA staff knew what they had to do. They had been through the drill many times before.

The GRCA treats flood response as a year-round responsibility and is constantly updating and testing its flood response system, said Joe Farwell, flood co-ordinator

"Good execution comes out of good planning," he explained.

As the rivers rose on March 5, engineers and hydrologists kept a close eye on information from 36 river gauges. They ran computer simulations to produce forecasts on flows and peak times. Maps were examined to see where flooding might affect homes and businesses.

Based on the calculations, instructions were issued to operators at the GRCA's major dams -- Shand, Conestogo and Guelph -- to adjust the gates to dampen the flows.



Much of downtown Cambridge(Galt) was under water during the May 1974 flood.

Out in the field, GRCA staff did a river watch. They drove the twists and turns of the roads along the Grand and its tributaries looking for ice jams, checking the gauge stations and keeping an eye out for problems.

The information was relayed to police and municipal officials through an emergency fan-out system using police communication systems as the backbone. Advisories were posted on the GRCA web site and relayed to the public through media releases.

The most severe impact was along the

Nith River, which does not have a reservoir to moderate flows. In New Hamburg and Ayr water backed up into basements, forced some road closings and shut down some businesses. (Afterward, GRCA and Wilmot Township staff examined what additional steps could be taken to reduce future flooding problems in New Hamburg.)

However, across most of the rest of the watershed, the high water passed by almost



A truck makes its way through a flooded street in New Hamburg in March 2004.



Plaques on the Cambridge dike serve as reminders of past floods and possible future ones.

Along
the
Grand

Big anniversary



Robert F. Kennedy Jr. is joining the celebrations of the tenth anniversary of the Grand River's designation as a Canadian Heritage River.

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Strategic thinking



The GRCA's strategic plan guides its activities as it develops programs to protect our water supply, encourage biodiversity and provide outdoor recreation.

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Award winners



Many groups and individuals take on projects to improve the Grand watershed. Their efforts are recognized each year with Watershed Awards

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THE GRAND RIVER
- A Canadian
Heritage River

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Riverprize 2000
For excellence in river management

A Message FROM THE CHAIRMAN AND THE CAO



As you read through this edition of The Grand, you'll quickly see that 2004 is an important year in the life of the Grand River Conservation Authority.

It was 50 years ago this summer that the Elora Gorge Conservation Area opened to the public. This was the first conservation area in the Grand watershed and the Elora Gorge park continues to be one of the most popular in the GRCA's network of 12 active conservation areas. The celebrations for the park's anniversary include a pair of concerts in the park.

This is also the tenth anniversary of the designation of the Grand River as a Canadian Heritage River, an event to be marked with a series of events in the Guelph area, including the Fourth Canadian River Heritage Conference from June 6-9

Two other anniversaries are worth noting, though certainly not celebrating. It was 50 years ago that Hurricane Hazel left a path of destruction across Ontario. And it was 30 years ago that the heavy rains of May 1974 resulted in serious flooding in communities along the river. These two events were critical moments in the life of the watershed and the GRCA.

As different as these various anniversaries may be, there is a common thread linking them together.

The GRCA, like all conservation authorities in Ontario, is charged with managing the natural resources of its watershed – the water, forests, wetlands, fish and wildlife.

It's impossible to manage one without also managing the others; in a phrase, everything is linked to everything else.

The Elora Gorge Conservation Area is just a small part of the land-holdings of the GRCA, which amount to more than 20,000 hectares. That's thousands of hectares of wetlands, ponds, riverbanks, forests and fields, which have to be protected if we are to have clean water and fewer floods.

Protecting the people and property of the watershed against flooding has necessitated the building of a number of reservoirs across the watershed. These reservoirs also play a critical role in maintaining water qual-

ity, because they provide the water needed to keep the Grand, Speed and Conestogo rivers flowing even during the driest summers. Without the reservoirs, these rivers would be reduced to a sliver of what we see today.

The presence of these reservoirs has also allowed new recreational opportunities to develop. Cool water from Belwood Lake and Conestogo Lake provide a habitat for brown trout, a fish favored by many anglers. But the fish won't survive unless the water is clean enough.

So there it is: recreation depends on water quality which depends on water supply....and on it goes. Everything is linked to everything else.

That's why it is particularly significant that we are celebrating the tenth anniversary of the Grand's designation as a heritage river because of its recreational and heritage characteristics. This involved much more than just issuing a proclamation and posting a plaque or two.

As a result of the designation, the GRCA and its many partners throughout the watershed – municipalities, universities, community groups, citizens and others – worked together to develop a series of watershed management plans. These established goals for enhancing the fishery, protecting the forests, developing new recreational opportunities, preserving our rich cultural heritage.

The designation encouraged the people of the watershed to take another look at the river, to dream of what it could become.

In simple terms, these plans became our road map to a better future for the Grand River watershed and all of the living creatures that depend on it.

We hope that as the year goes on that you will join us in marking these important events of our past and considering the impact that they have had on the watershed and its residents.

And, most of all, we hope that you will join us in celebrating the bright future that lies ahead of us.



Peter Krause
Peter Krause
Chairman



Paul Emerson
Paul Emerson
Chief Administrative Officer

Conservation group has a new look

The GRCA is one of 36 conservation authorities working together under their umbrella group, Conservation Ontario.

Conservation Ontario co-ordinates joint projects among authorities and represents them in discussions with the province and other organizations.

It has adopted a new logo and tagline – *Natural Champions* – as a statement of continued commitment to excellence in watershed management



The municipality where you live appoints a representative to the Grand River Conservation Authority (GRCA) board to oversee the budget and activities of the Conservation Authority. These appointed members, who have often been elected in your municipality, speak on your behalf at the GRCA.

REGIONAL MUNICIPALITY OF WATERLOO
(including Cities of Cambridge, Kitchener, Waterloo, and Townships of North Dumfries, Wellesley, Wilmot and Woolwich)
Jane Brewer, Jean Haalboom, Ross Kelterborn, Peter Krause (GRCA chair), Joe Martens, Claudette Millar, Jane Mitchell, Ralph Shantz, Bill Strauss, Lynne Woolstencroft

HALDIMAND AND NORFOLK COUNTIES
Craig Ashbaugh, Lorne Boyko

WHO SPEAKS FOR YOU?

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COUNTY OF OXFORD
(including Townships of Blandford-Blenheim, East Zorra-Tavistock, Norwich)
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Archie MacRobbie

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Brain Coleman, Gord Moore

The Grand: a Heritage River with a bright future

When the Grand became a Heritage River in 1994, watershed residents were inspired to take action to protect and improve it

The Grand River is one of the most historic rivers in Canada and that legacy is being marked this year with celebrations surrounding the Tenth Anniversary of the Grand's status as a Canadian Heritage River.

The Grand was designated a Heritage River in 1994 because of its special blend of natural characteristics, historic structures, human history and recreational opportunities.

The Grand and its tributaries – Conestogo, Speed, Eramosa and Nith – pass through rich farmland, past thriving cities and burgeoning towns before reaching Lake Erie.

In the last century, it has become one of the richest and fastest growing regions of the country.

Many of the monuments of industry that were built in the early days – dams, flour mills, textile factories – still remain along the river's edge, providing a direct link between today's world and the one of yesterday.

There have been great changes in the watershed's landscape over the past 200 years. In the 19th century, most of the forests were chopped down and many of the wetlands drained or filled. This had a serious impact on the quality and quantity of the water in the rivers.

But over the past 60 years much has been done to restore the Grand River watershed with the result being an improvement in water quality, water supply and recreational opportunities up and down the rivers. The Grand River watershed has recaptured its reputation as a great place to live and visit.

The designation of the Grand as a Heritage River in 1994 has motivated the people of the watershed to preserve its important natural and historic characteristics and to work to improve the river even further.

For example:

Many watershed landmarks have been preserved, cleaned up or restored, including the Caledonia Mill, the Welland Canal Lock 27 at Port Maitland, the West Montrose covered bridge, the Guelph boat house, and the former Riverside Silk Mills in Cambridge which will become the new home of the University of Waterloo school of architecture.

Recreational opportunities have been enhanced, with the development of dozens of kilometres of new trails, construction of new river access points and portages and the opening of the Elora Gorge to tubing.

Fishing and hunting opportunities have been expanded. Brown trout are stocked in the Grand River near Fergus and the Conestogo River. A management plan has been developed for the Dunnville Marsh.

New and expanded festivals promote the river system and its heritage, including Cayuga Fest, the Cobblestone Festival in Paris, the Waterloo-Wellington Children's Groundwater Festival and the Grand Opportunities Fly-fishing Forum at Belwood Lake Conservation Area.

The designation also set in motion a watershed planning process that is still at work today. Extensive public involvement resulted in a management plan called The Grand Strategy for Managing the Grand River as a Canadian Heritage River.

Under the umbrella of The Grand Strategy, representatives from across the watershed have gathered together in a number of working groups to research and propose solutions to watershed issues. For example, the Water Managers Working Group brings together municipal water supply systems and



A plaque in three languages – English, French and Mohawk – was unveiled in Cambridge in 1994 to mark the designation of the Grand and its tributaries as Canadian Heritage Rivers.

others to discuss water quality issues. Similarly, groups from across the watershed who are involved in heritage issues meet through the Heritage Working Group.

The management plan also led to the development of major reviews of Grand River watershed resources. The Grand River Fisheries Management Plan, developed in the mid-1990s, set a vision – and identified concrete projects – to rebuild and restore the Grand River system as a thriving sport fishery.

The recently released Grand River Forest Plan has the same purpose for the improvement of land-based resources throughout the watershed.

Thus, the designation of the Grand as a Heritage River involved much more than just unveiling a plaque. It set in motion plans and projects that will pay benefits for generations.

The tenth anniversary of the designation is an occasion to celebrate those successes and to remind people of the important role the river continues to play in the health and economic wellbeing of the communities of the watershed.

To mark the anniversary, the GRCA has prepared a report for the Canadian Heritage Rivers board to document the work done during the past decade and to chronicle the continuing efforts to protect the river and its heritage features. You can learn more about this at the GRCA's website at www.grandriver.ca.



Dozens of kilometres of new trails have been developed throughout the watershed in the last decade.

Canadian
Heritage
Rivers
System



Le Réseau
des rivières
du patrimoine
canadien

Join the celebration

Here are some events scheduled to celebrate the 10th anniversary of the designation of the Grand River as a Canadian Heritage River:

May 29: Heritage River Cleanup – Watershed municipalities and groups throughout the watershed are encouraged to plan community river, trail and road clean-ups, offering residents an opportunity to actively participate in a collective project which will visibly improve the river and its banks, increase public awareness. For more information check the GRCA website at www.grandriver.ca.

June 6-9: Canadian Heritage River Conference – The past and future of Canadian rivers will be the focus of discussion at the 4th Canadian River Heritage Conference in Guelph from June 6-9. Keynote speaker at the conference opening will be Robert F. Kennedy Jr., who has a long and distinguished record as an environmentalist with a special interest in protecting the Hudson River in New York State. Kennedy will speak at the opening gala at the River Run Centre in Guelph on June 6. For details about the conference, visit its website at www.riverconference2004.ca



Kennedy

June 7: A Grand Experience – A showcase of watershed talent presented on the new stage at Guelph Lake Conservation Area, including performances by Garnett Rogers, Nonie Crete, Tamarack, Ian Bell, Elizabeth Hill and James Gordon. The concert will be free to everyone to enjoy and celebrate the Grand's incredible heritage. Start time 6:30 p.m. For more information see the GRCA's website at www.grandriver.ca

Flood control is a year-round job

Continued from Page 1

unnoticed. While some people were drawn to the river to watch it surge downstream, few of the 875,000 residents of the watershed were affected by it.

One big reason was the presence of the reservoir network. Without it, peak flows in the Grand and Speed rivers would have been double – 1,000 cubic metres per second (cm/s) at Cambridge versus the actual 500 cm/s. (That compares to a normal summer flow of about 15 cm/s.)

Along those two rivers, the reservoirs kept the cities dry and the people safe. All in all, things proceeded largely according to the plan.

The plan, in this case, is actually a complex collection of parts -- dam operation procedures, computer simulations, weather forecasts, a flood-warning system, the river watch, the gauge network - all pulled together with one simple goal in mind: to reduce damages and prevent loss of life.

Though the people of the Grand River watershed have lived with floods for centuries, the creation of the plan was driven by two key events, both of which happen to have anniversaries this year.

Hurricane Hazel hits

The first was Hurricane Hazel, which ripped through Ontario in October 1954, causing more than \$20 million in damage and killing 81 people.

Though most of the damage was in the Toronto region, Hazel was felt in the Grand River watershed, too.

The Galt Reporter described the events of Oct. 16 this way: "Four feet of dark racing water rushed down (Water Street), cutting off homes on the east bank for nearly a half mile."

The Grand peaked about six meters above normal in what the newspaper called "the worst fall floods on record. Until 4 p.m. Saturday, firemen and citizens battled surging, swirling water to evacuate families where homes were cut off."

Damage was heavy throughout the watershed. More than 60 homes were inundated, and 200 people evacuated in Bridgeport (now part of Kitchener.) Fifty homes were isolated in New Hamburg.

Things could have been a lot worse. At that time, the GRCA operated just one dam, Shand Dam, near Fergus. A 1955 study estimated that Shand reduced the flows at Cambridge by about 25 per cent, with the water cresting one metre lower than without the dam.

The study also estimated that if Hazel had been centered over the Grand, instead of Toronto, floodwaters would have been twice as high.

After the event, the residents of Toronto asked why there had been no warnings. The answer was a simple one: there was no provincial flood warning system.

The disaster "highlighted how poorly prepared the province was to cope with major flood events," wrote Bruce Mitchell and Dan Shrubsole in a study of Ontario conservation authorities.

The province authorized the conservation authorities to buy flood-prone land and to initiate policies to control devel-

opment in the floodplain, using boundaries based on a Hazel-sized storm. The province hired a hydrometeorologist to develop a flood prediction system.

The Grand River Conservation Commission (a predecessor of today's GRCA) pressed ahead with the construction of the Conestogo Dam to provide more flood protection capacity. A fledgling flood warning system was put into place.

System tested in May 1974

It was another 20 years, though, before the system was put to the test. And when it was, there were problems.

"Friday, May 17 was a sunny day in Cambridge-Galt," Judge W.W. Leach was to write in his report on the May 1974 flood. "It was deceiving. The citizens did not realize the approaching catastrophe. They did not visualize the flood that was descending upon them from the north."

The early part of May 1974 was unusually wet. Then the skies unloaded about 50 mm of rain on the watershed during the night of May 16-17.

The GRCA's reservoirs were full with the water from the earlier rains and the spring runoff. There was little that could be done to reduce the amount of water barreling down the river.

Warnings were issued, but didn't get through to everyone affected, a failing that would be addressed by Judge Leach in his inquiry.

By 7 p.m. on May 17 the Grand was rushing through the downtown at a rate of 1,490 cm/s, a record flow.

Bridgeport (Kitchener) and Brantford were hit hard, too. Dikes gave way in both communities and for a time, the Brantford water treatment plant was knocked out of commission, creating a state of emergency for the community. Floodwaters also affected Paris, Caledonia, Cayuga and Dunnville.

All told, damages amounted to more than \$6 million, exclusive of cleanup costs.

There was, fortunately, no loss of life. But there were many questions asked about what had happened.

The province appointed Judge Leach to hold an inquiry into the events surrounding the flood. After months of hearings, Judge Leach found that "in 1974 there was apathy throughout the

watershed, not only among the endangered, but in municipal governments and, to some extent, in the GRCA."

Judge Leach issued an exhaustive set of 21 recommendations. He called for a better flood warning system to be tested annually. He proposed improvements in the reservoir network. He urged the development of a computer simulation model for the river. And he called on governments to purchase additional properties and further control development in the flood plain to reduce future damages.

Even with all of that in place, Judge Leach pointed out that the threat of flooding would never disappear.

"The potential exists for very serious flooding in the watershed in the future, with real danger of loss of life and extensive property damage."

That's a reminder that GRCA staff live with constantly, said Farwell.

"It's critical that we remember that it could happen again,"



'It's critical that we remember that it could happen again.'

Joe Farwell
GRCA flood co-ordinator

he said.

And, he points out, there is a real possibility that future floods will be far more serious than those of 1954 and 1974.

As severe as they were, the water only was less than half the height it would be if a Hazel-sized storm scored a direct hit on the Grand River watershed.

The GRCA, the province and the watershed municipalities started to work on Judge Leach's recommendations immediately.

The flood warning system was implemented in 1976 and is tested and improved annually.

"The testing helps keep our staff and the municipal flood co-ordinators aware of their responsibilities," said Farwell. On top of that, four senior GRCA engineers meet weekly to review watershed conditions and adjust reservoir operations.

Computer models updated

The computer models are working and are regularly updated to reflect changing conditions. Floodplain development rules are enforced by the GRCA and municipalities.

About \$43 million was spent on new dikes and flood protection work in Brantford and Cambridge. Millions more have been invested in other communities, as well as in the GRCA's dike and dam systems.

The two floods - October 1954 and May 1974 - taught the people of the watershed some hard and expensive lessons. The threat of flooding will never disappear, but by learning from these experiences, their communities have been made safer.



Part of the flood protection works in Cambridge, showing a water level gauge station and plaques marking the height of previous floods.

Strategic plan guides GRCA in developing projects to improve the watershed

The GRCA has a strategic plan which sets out its goals in the many areas where it has responsibilities, such as water quality, flood protection, outdoor recreation and nature education. It then develops projects and operates programs to work toward those goals. Here's a rundown of the work that was done in 2003 in some of those critical areas.

Improve water quality

During 2003 a major review of river water quality was completed which showed that water quality has improved dramatically in the past few decades, but there are still issues to be resolved, particularly downstream of urban areas and major farming districts.

A step toward understanding the impact of pesticides on water quality was taken when the GRCA and the Ontario Ministry of the Environment collected water samples and analyzed them for pesticides.

To learn more about groundwater quality, the GRCA initiated a groundwater quality monitoring system using 16 wells, including six new ones.

The Rural Water Quality Program supported 447 projects worth a total of \$4 million to build manure storage tanks, install fences along watercourses and other activities. Of the total, landowners contributed about \$2.5 million and the program provided grants worth \$1.5 million. Financial support for the program came from Waterloo Region, Guelph, Wellington County, Brant County, Brantford, the provincial government, federal government and other sources.



About \$1.4 million was invested in dams and dikes.

Reduce flood damages

About \$1.4 million was spent on upgrades, maintenance and safety studies of dams and dikes. Projects included raising the core of the Conestogo Dam, painting the superstructure

of the Shand Dam, completion of the Cambridge (Galt) dike and the removal of trees from the Brantford dikes. The cost was shared by watershed municipalities and the Ontario Ministry of Natural Resources.

The GRCA operated its reservoir network to reduce peak flows during spring runoff and periods of heavy rainfall.

During the spring melt, the GRCA arranged to have an icebreaker clear the mouth of the Grand at Port Maitland to reduce the possibility of flooding from the river's mouth upstream to Dunnville.

Ensure secure water supply

The GRCA operated its network of seven reservoirs to ensure minimum flows in the Grand River system during the dry summer months. At times, up to 85% of the water in the Grand at Kitchener and 50% at Brantford came from the reservoir network.

In order to understand water use, the GRCA began two studies. The first concentrates on water use by municipalities, industry, agriculture and other users. The second focuses on the water needs of the natural environment.

The GRCA co-ordinated water conservation efforts throughout the watershed in order to cope with a continuing drought affecting the region.

Facilitate watershed planning

In order to better protect wetlands throughout the watershed, the GRCA approved a new Wetlands Policy.

A Watershed Forest Plan was developed during 2003 to guide efforts to protect and expand woodlands throughout the watershed.

A heritage bridge inventory was undertaken to learn more about the architecturally and historically significant bridges of the watershed.

The GRCA led or participated in groundwater studies in Guelph-Puslinch, Brant, Hamilton, Wellington, Waterloo Region and Perth.

The GRCA was a partner in subwatershed studies of the Alder Creek and Upper Strasburg Creek areas.

Protect natural areas & biodiversity

Terrestrial resources

A project financed by Ontario Power Generation will result in the planting of 62,000 trees over three years at the Luther Marsh Wildlife Management Area in the headwaters region of the Grand River. The goal is to expand the size of existing forests, and establish new links between them.

Throughout the watershed, about 100,000 trees were planted on GRCA property and private lands. The Burford Tree Nursery, operated by the GRCA, produces about 200,000 trees a year, most of them species that are native to the watershed.

Water resources

Hundreds of adult brown trout were released in the Conestogo River as part of a five-year program to stock the river and create a sport fishery. The river will be stocked with adult and young trout each year by the

Ontario Ministry of Natural Resources

Steps were taken to improve access to the Grand between Paris and Brantford. The work is being done under the Exceptional Waters program, which also involves scientific studies of this part of the river.

A plan to revitalize the Taquanyah Nature Centre property will involve replacing a reservoir with a network of ponds, wetlands and other habitats to encourage ecological diversity.



Brown trout in the Conestogo River

Provide Environmental Education



Outdoor education programs for 40,000 pupils

More than 40,000 students took part in outdoor education programs at the GRCA's five nature centres in Cayuga, Brantford, Cambridge, Guelph and Waterloo. The program was also expanded to the Luther, Belwood and Rockwood Conservation Areas for students in those areas. The Grand River Conservation Foundation helped to pay part of the cost of outdoor education programs by conducting *The Living Classroom - Campaign for outdoor education*, which took in about \$1.6 million

Provide outdoor recreation

The GRCA's active Conservation Areas attracted close to 1.1 million visitors.

After the finishing touches were put on a 14 kilometre section of the Elora-Catawact Trailway, it was officially reopened for hikers, bikers and others.

The trail goes from Elora to the Forks of the Credit Provincial Park.

A wheelchair-accessible fishing platform was constructed at the Caledonia Dam



New fishing platform in Caledonia

Cost of GRCA programs is \$6.87 a person

The General Membership of the GRCA has approved a 2004 budget with expenditures of \$20,768,391 to prevent flooding, improve water quality, protect water supplies, provide environmental education, operate conservation areas and trails, and manage other sensitive environmental lands.

The bulk of the GRCA's revenue comes from three sources: municipal levies, provincial grants and self-generated funds.

The municipal levy totals \$6 million and represents about 30 per cent of the total budget. That amounts to about \$6.87 for each resident of the watershed. The per capita amount is down from 2003, when it was \$7.10, because of an increase in population in the watershed. It is also less than it was 13 years ago, in 1991, when the per capita cost was \$7.19.

Some municipalities also contribute additional amounts for specific programs such as the Rural Water Quality Program. Contributions to that program come from the Region of Waterloo, Wellington County, Brant County, Guelph and Brantford and total \$754,000.

The provincial government will contribute \$2.4 million to the GRCA budget, or about 12 per cent of the total budget. That includes general operating grants plus special grants for research, groundwater studies and capital investment in dams and dikes.

About 54 per cent of the budget, or \$10.8 million, comes from self-generated funds. That includes park user fees, which are expected to reach \$5.1 million this year. It also includes income from rental properties, sales of hydroelectricity generated at three dams, gravel sales and donations.

The residents of the watershed are represented on the General Membership board by 26 people appointed by the municipalities of the watershed.

Where your money goes...

If you live in the Grand River watershed, a small portion of your municipal taxes goes toward a levy for the GRCA.

This covers about half of the cost of the "core" activities of the GRCA: flood protection, reducing pollution, protecting natural areas and others. The cost, per person, is about \$6.87 a year.

Here's how the levy will be spent in 2004:

<u>\$6.87 used for</u>	<u>Your cost in 2004</u>
Flood control dams and erosion control	\$1.24
Flood forecasting and warning system	.38
Flood plain regulations	.36
Environmental monitoring, planning and restoring natural areas	\$1.14
Watershed studies	.09
Conservation lands property taxes	.17
Administration and head office facilities	\$1.63
Resource management support costs	.35
Conservation information	.55
Reviewing and commenting on municipal plans	.28
Rural Water Quality Program and stream restoration	.41
Forestry and tree planting	.27

The per person levy was calculated by dividing the portion of the GRCA's total general municipal levy of \$6,010,000 by the estimated number of residents (875,000) in the Grand River watershed. The \$6.87 was then applied to the net cost of the various GRCA program areas that are partially funded by the levy.



Each watershed residents contributes \$6.87 toward the cost of GRCA programs.

GRCA 2004 budget

Revenues		
Municipal levies (\$6.87 per watershed resident)	\$6,889,000	34%
Provincial grants	\$2,344,248	12%
Federal grants	\$54,000	- %
Self-generated revenues (park fees, property rentals, etc)	\$10,792,150	54%
Total Revenue	\$20,079,398	100%
Expenditures		
Watershed management	\$4,648,925	22%
Environmental advisory services	\$656,800	3%
Watershed stewardship	\$2,378,600	12%
Conservation land management	\$2,744,660	13%
Recreation & education	\$4,321,450	21%
Corporate services	\$2,191,577	11%
Capital investment and equipment	\$3,544,379	17%
Miscellaneous expense	\$282,000	1%
Total Expenditures	\$20,768,391	100%

Key programs for 2004

Upgrades to water monitoring equipment . . .	\$185,000
Operation of flood forecasting & warning system	\$660,500
Groundwater study for Guelph and Puslinch.	\$330,000
Continue groundwater modelling project . . .	\$116,000
Development of a water budget, including analysis of climate change	\$124,400
Rural Water Quality Program grants	\$700,000
Tree planting and nursery operations	\$716,300
Fisheries management plan, stream maintenance and restoration. . . .	\$325,700
Maintenance of rail-trail and passive conservation areas	\$384,600
Forest and woodlot management	\$76,400
Maintenance of rental properties, including taxes and insurance.	\$1.2 million
Upgrades of drinking water services at conservation areas	\$235,000
Operation of outdoor education programs . .	\$573,000
Operation of community programs, camps. . .	\$81,000
Flood control structure operation, upgrades and maintenance	\$1,900,000
Purchase of source area lands	\$400,000

A milestone year for GRCA parks

The GRCA's park system reaches an important milestone this year with the celebration of the 50th anniversary of the opening of the first park, the Elora Gorge Conservation Area.

The park is one of 12 in the GRCA system. The parks are open until mid-October, except for Elora Quarry, which closes in September.

GRCA properties showcase all the best that the Grand River watershed has to offer, from the quiet seclusion of Luther Marsh to the crashing waters of the Elora Gorge. GRCA parks are great places to camp, hike, fish, swim, picnic, canoe, hike and bike.

Eight of the parks provide camping: Brant, Byng Island, Conestogo Lake, Elora Gorge, Guelph Lake, Laurel Creek, Pinehurst Lake and Rockwood.

Four others are day-use parks: Belwood Lake, Elora Quarry, Luther Marsh, and Shade's Mills.

Elora anniversary concerts

The Gorge park opened on July 24, 1954 as a day-use park. The anniversary will be marked with a series of concerts produced by the Elora Festival.

□ **Wednesday, July 21** Randy Bachman, a founding member of the Guess Who and Bachman-Turner Overdrive, will play in the park on the evening of Wednesday, July 21.

□ **Thursday, July 22** will feature a concert in the park by Celtic folk-pop band Spirit of the West.

□ **Friday, July 22**, the percussion ensemble Nexus will play in the Gambrel Barn in a concert sponsored by the Elora Gorge Conservation Area.

Concert tickets can be purchased through the Elora Festival. For more information visit the festival web site at www.elorafestival.com.

New brochure highlights outdoor activities

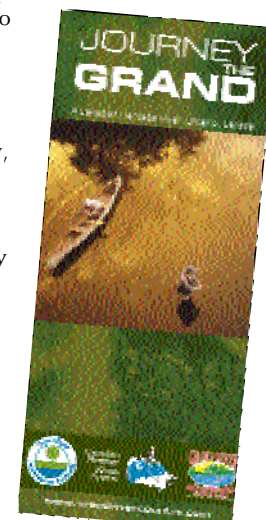
A new brochure, developed by the GRCA in partnership with tourism agencies from throughout the watershed, provides residents and visitors to the area with a wealth of information.

There are sections on each of the GRCA's Conservation Areas, as well as guides to hiking, canoeing and fishing. The communities of the watershed are highlighted, as well as their cultural and heritage facilities. The book includes detailed maps showing river access points, trails, heritage sites and the Grand River Scenic Parkway.

It's available at all GRCA parks as well as tourism offices throughout the watershed.

At the parks, day-use admission fees are unchanged from last year: \$3.75 for adults and \$2 for children. Vehicle season passes, which allow unlimited entry to all 12 parks, are available at park gate houses for \$100 for the first vehicle and \$60 for the second. Walk-in passes are \$40 for adults and \$15 for children.

For more information, or to reserve a campsite visit www.grandriver.ca or call 1-866-ONT-CAMP.



The new Grand River Country brochure is available at GRCA parks and watershed tourism offices.



The GRAND RIVER CONSERVATION FOUNDATION

A big boost for outdoor education

The Grand is in our backyard. Protecting and sustaining this treasure is the responsibility of everyone who lives on or near it.

What better way to encourage this sense of responsibility than to begin with our children.

The Living Classroom-Campaign for Outdoor Education provides an opportunity to foster a new generation of environmentally aware citizens.

The Grand River Conservation Foundation launched the campaign in 2003 to raise \$2.2 million to support outdoor education for a five-year period. The money is being used to ensure that every child continues to have the opportunity to participate in outdoor education programs a minimum of three times during their elementary school career.

By April 30 of this year, the campaign was well on the way to success, having raised more than \$1.6 million.

The Foundation took on the challenge because some school boards faced reducing or eliminating their long-standing outdoor education programs.

The campaign has already allowed for continuation and, in some cases, expansion of outdoor education in the Grand River watershed.

With the money raised to date, the Foundation supported outdoor education programs for 30,000 children last year at schools from six school boards within the Grand River watershed. The money has also supported visits by independent school students.

Most of the outdoor education programs



Students show their discoveries while on a visit to the Taquanyah Nature Centre near Cayuga. The Living Classroom campaign helped finance the reopening of the centre.

take place at five outdoor education centres operated by the GRCA - Laurel Creek in Waterloo, Guelph Lake in Guelph, Shade's Mills in Cambridge, App's Mill in Brantford and Taquanyah near Cayuga.

One of the first benefits of the fundraising effort was that it allowed for the re-opening of Taquanyah, which was closed in the

1990s.

The success of the campaign has also allowed the GRCA to provide outdoor education to students at the Luther Marsh, Belwood Lake and Rockwood conservation areas. This provides students an opportunity to study nature closer to their schools in the Upper Grand District.

Some students also attend three nature centres operated by the Waterloo Region District School Board, which is also benefiting from the money raised in the campaign.

Some of the campaign proceeds will also be used for capital upgrades at the GRCA centres, improved equipment and to offset future increases in enrollment and program costs.

To learn more

For more information on The Living Classroom-Campaign for Outdoor Education:

☐ visit the GRCA's website at www.grandriver.ca

☐ contact the Grand River Conservation Foundation at (519) 621-2763, Ext. 271 or 1-877-29-Grand.

☐ e-mail foundation@grandriver.ca

Six groups share Community Conservation Grants

Six groups in the Grand River watershed are sharing grants worth a total of \$10,000 given out under the new Community Conservation Grant program of the Grand River Conservation Foundation.

The foundation is a charitable organization that supports projects of the Grand River Conservation Authority.

The grants will be used for a variety of

conservation projects such as tree planting, trail improvement, schoolyard naturalization, wetland restoration and river access improvement.

The money comes from the foundation's Grand Champions Endowment Fund and the GRCA's Thiess Riverprize Endowment Fund. The grants were awarded at the GRCA's annual meeting on Thursday, Feb. 26.

Ducks Unlimited Canada – \$2,000 to support the Healthy Wetlands for the Upper Grand project in Dufferin County. The project promotes wetland preservation by setting up a series of demonstration sites that illustrate the methods and benefits of wetland preservation.

Friends of the Grand River – \$1,000 to support this group's stream enhancement work in the Fergus-Elora area. They will be planting trees along Swan Creek, an impor-

tant coldwater tributary of the Grand.

Ancient Mariners Canoe Club – \$1,800 to help this Cambridge-based club improve canoe access points in Ayr, Cambridge, Kitchener and Glen Morris.

Upper Grand Trailway Association – \$2,000 to plant trees and shrubs along a rail-trail in the Grand Valley area.

Ryerson Public School, Cambridge – \$2,000 to help parents, staff and students with a schoolyard naturalization project that includes planting trees.

Brantford Community Foundation, partnered with the Brant Waterways Foundation and Trout Unlimited Canada – \$1,200 for the Exceptional Waters program, which aims to develop improved river access and promote awareness of the stretch of the Grand River between Paris and Brantford.

Grant information

Does your group have a project that should be considered for a Community Conservation Grant?

Information on grant applications will be available later this year. Watch the GRCA web site for more information: www.grandriver.ca.



Yes,
I would like
to become a **Grand
Champion**

Name: _____

Address: _____

Postal Code: _____ Phone: _____

E-Mail: _____

☐ The Living Classroom - Campaign for Outdoor Education

☐ Burford Tree Nursery & Tree Reintroduction

☐ Grand Champions Endowment Fund

☐ Trails and Conservation Areas

☐ Fisheries and Stream Rehabilitation

Donation

Please accept my tax deductible donation of \$ _____

Payment Method

Please make cheques payable to the Grand River Conservation Foundation. You can use your credit card to make a contribution.

MasterCard ☐ Visa ☐

Card #: _____

Expiry Date: _____

Signature: _____

Planned Giving

☐ Yes, I am interested in receiving information on planned giving opportunities, such as wills, bequests and life insurance.

Please mail the completed form with your contribution to:

Grand Champions
c/o the Grand River
Conservation Foundation
400 Clyde Road, Box 729
Cambridge, Ontario N1R 5W6

Registered Charity Number: 11894 6045 RR0001