



GRAND Actions

The Grand River watershed newsletter



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Cover photo

A GRCA staff member takes down an ash tree at Puslinch Tract last July. This was the first place where the emerald ash borer was found in the Grand River watershed.

Photo by Kevin Tupman



Do ash trees have a future in the Grand?

By Janet Baine

GRCA Communications Specialist

When it comes to the future of ash trees in the Grand River watershed, the news is grim.

There are only two options for ash trees and the GRCA is doing both of these — arranging to take infested ash trees down before they become a hazard to people and property and treating a few healthy ash trees with a bioinsecticide to keep them alive. Both options are costly.

“Unless we see a significant surprise on the part of nature, virtually all untreated ash trees over a couple of centimetres in diameter will be gone in 10 to 15 years. In some locations, such as at the head office in Cambridge, it will be even sooner — seven to 10 years,” says Ron Wu-Winter, the GRCA forester.

The ash are being attacked by the emerald ash borer (EAB) beetle, which has been dubbed a

beautiful killer. The EAB was first found in Ontario in 2002 and was first noticed in the Grand River watershed at Puslinch Tract, just east of Cambridge in 2010. These were the first ash trees that fell victim to the Eurasian insect. Other ash trees within the watershed were so weakened last winter that they came down during the ice storm and wind storms.



Cousin of the lilac and olive tree, the majestic ash trees were a popular replacement for the elm trees that had been devastated by Dutch elm disease, beginning in the 1960s.

The attack on the local ash trees is already well underway in many locations within the Grand River watershed — an area the size of Prince Edward Island. The GRCA owns a lot of land and as a result has lots of ash trees to contend with.



Forests with more than 30 percent ash face a serious threat to their overall structure and function once the ash are infested. Fortunately, there are not many of these kinds of forests within the Grand River, and they are not large. Most forests will survive the loss of these trees.

The magic of neem

Another bit of good news is that healthy ash trees that are examined by a forester and found to be free of EAB can be treated with an bioinsecticide. The neem tree from India (the name is derived from the Sanskrit “Nimba” meaning “bestower of good health”) has turned out to be a crucial weapon in Canada’s battle against the ash borer.

In India, neem is regarded as a miracle plant. Everything from toothbrushes to painkillers is made from parts of this tree. The neem tree’s seeds are the source of azadirachtin, a natural insecticide, which is used in TreeAzin – the product developed in Canada to combat EAB.

“TreeAzin kills EAB larvae and also reduces EAB fertility and egg viability when EAB females feed on the tree’s foliage,

providing up to two years of protection. TreeAzin is effective at protecting trees without causing damage to passing wildlife or pets, nearby plants or gardens, pollinators including bees, or people. It is one of the few tools we have to protect healthy ash trees from EAB where they are injected – one by one,” according to Trees Canada.

TreeAzin is a systemic insecticide that can be injected directly into the base of the ash tree at several locations. Ash trees need to be treated with injections every two years for at least eight to 10 years in order to keep them alive.

Treatment is only suitable for the trees that are still healthy, are structurally sound and showing little to no signs of decline due to the insect.

200 lucky ash trees

Among his many other responsibility, Wu-Winter is searching out 200 healthy ash trees at locations across the watershed to inject

them with TreeAzin. In the ash tree lottery, these are the winners.

The GRCA’s goal for this program is to save the unique genetic material in local trees. Another goal is to keep ash trees for their aesthetic value and the unique services that they provide, such as providing shade on a beach. Keeping these trees alive will allow future generations to see what an ash tree looks like.

The trees that are being selected by Wu-Winter are usually within parks or near recreational areas. Not all 200 trees have been selected yet, but the plan is to have them all selected and injected this

summer.

In addition, cottagers at Belwood and Conestogo lakes can have the ash trees on their property assessed. If they are found to be healthy, the cottager can cover the cost of the TreeAzin product, while the GRCA will cover the cost of the equipment and labour related to the injections.

“There is a feeling of urgency to doing this, because we need to start injecting these

“There is a feeling of urgency to doing this, because we need to start injecting these trees before they start to decline.”

-Ron Wu-Winter



Photos by Kevin Tupman



A tree can be injected with a bioinsecticide around its trunk every two years. Ron Wu-Winter is selecting 200 ash trees on GRCA land to treat in this way.





trees before they start to decline. If we do it too late, then the success rate won't be as high," Wu-Winter says.

Any trees that are not injected will need to be taken down. While the GRCA staff have been bogged down by tree removal in the wake of the ice storm last December, they are just at the beginning phase of removing infested ash trees. The removal program will accelerate, taking more time and resources in coming years.

"Both options are expensive. We are treating 200 trees, so the bulk of the work is going to be hazard tree removal. The quantity of trees being treated is a token compared to the overall number of ash trees, but it is important for genetic preservation, and keeping the heritage of the ash tree."

The cost of treatment to the GRCA is \$15,000 each year just for the TreeAzin. This is a significant cost to keeping ash within the watershed, but the cost of removal can be high for large trees.

In some cases, especially in urban areas, it makes economic sense to treat a tree because the cost of removing a large tree close to a building is expensive. It can actually be cheaper to treat a tree for 10 years than to remove it.

If you have ash trees you want to protect or think your trees might already be infested with emerald ash borer, contact an arborist who has been certified by the International Society of Arboriculture to have them

treated with this extract.

Buy local, burn local

EAB is the most recent in a series of species-specific attacks on trees that has resulted from invasive bugs inadvertently arriving in North America from afar.

Local trees have little or no resistance to these foreign invaders and the results can be devastating. This has been the case with Dutch elm disease, beech bark disease and pine shoot beetle. All of these diseases were brought into North America from other parts of the world and then spread as wood moved from place to place.

Now some American states have laws that prevent people from moving firewood more than 50 or 100 miles.

When you buy wood for camping, please get firewood locally — and burn it onsite. A campfire helps make trips to the great outdoors memorable, but firewood can also destroy the natural treasures that make camping and other outdoor activities enjoyable.

In fact, firewood infested with an insect or disease that is moved to a further location creates a "hot spot" — much like in a forest fire. Once started, it spreads the pest and its damage to the environment much farther.

While EAB is established in many parts of the Grand River watershed, signs of it haven't been found at other locations, so take care and buy and burn wood locally.

HERITAGE RIVER

20 years of recreation

By Janet Baine

GRCA Communications Specialist

There has been a stellar increase in visitors to the river's edge over the 20 years since the Grand River system became recognized as a Canadian Heritage River.

Without a doubt, the increase in visitors was already well underway in 1994. The tide had already shifted from the 1950s, when parents warned their children not to go near the local waterways because water carried disease and people tended to dump their garbage near the water.

The designation of the Grand River and its tributaries was based on the excellence of river-based recreational opportunities provided by the river systems. Those opportunities are being recognized and tapped into even more today than they were in 1994. Increased recreational use of the river is a visible reminder of its recreational value in communities up and down the watershed.

National recognition helped bring



Out for a hike at Apps' Mill Nature Centre.

attention, funding and volunteers to improve the recreational features of the local waterways, but it has also brought a few new challenges.

Companies, like fishing and canoeing outfitters, have sprouted up throughout the watershed. In promoting their own businesses, they have also been promoting the Grand River locally, nationally and internationally. Many have been donating funds and staff time for river projects. Municipalities and tourism organizations have been promoting recreational activities in the Grand.

Nature close to home

Nature close to home is part of the localization movement. Just as people want to eat local food, there is a noticeable increase in “staycations” and mini-holidays close to home. Rather than sitting on Highway 400 to head north for a weekend getaway, people realize they can also have an outdoor experience on the water or trails close to home. For those who are less experienced with outdoor recreation or families with young children, it is good to be closer to home.

An increasing awareness of the health benefits of getting outside regularly for both mind and body is another reason why river recreation has increased over the past 20



The beach at Shades' Mills Park is a great place to enjoy a summer day. If you would like to know about beaches that are open, check the Newsroom on www.grandriver.ca.

years. As the world gets busier and more connected, people need to go to a riverside trail or look out onto a reservoir to come back to the moment and find themselves again.

Fishing, canoeing, hiking, cycling and camping have long been favourite outdoor activities and all of these seems to be on the increase. Active transportation groups are engaging people while outdoor businesses and clubs are thriving. Kayaking is more popular and stand-up paddling (SUP) is a new and growing pursuit. Local river trips and hiking has eventually led many local resident to develop the skills and stamina for extended wilderness or hiking trips in Canada's north and abroad.

Volunteer groups like Friends of the Grand River have done an incredible amount of work to bring about these changes by improving river access points. Hiking organizations and municipalities ensure there are hundreds of kilometres of trails within the Grand River — so many, in fact, that there is no comprehensive hiking trail map for the watershed, although there are a few trail books.

At the same time, interest in “citizen science” activities, such as bird, butterfly and turtle monitoring, native plant cultivation and weather watching are also on the rise. For example, teams of volunteers watch the bald eagle nests in communities along the Grand River, because these majestic birds are back and raising their young by the river. Certainly these activities are really helpful to scientists and river managers to help determine the ecological health and improvements that can be made to the natural heritage system.

Municipalities such as the City of Guelph

and Brantford have Parks and Recreation master plans that incorporate river recreation in their communities, but there is no overall river recreation master plan for the watershed.

Conflicts can arise. Last July, the County of Brant sought a solution to increasing visitors to a park in Paris due to outfitters who brought buses with paddlers to paddle the Grand. The municipality implemented permit fees for outfitters to launch boats from county-owned river access points. Signs are now posted at river access points to say that any commercial use of the site requires a permit. This was a way to alleviate complaints from nearby residents.

In the late '90s, recreation groups applied for a grant to create a recreation master plan for the Grand River watershed but that bid was unsuccessful.

“There has been no one to take the lead on it, so there are still the same issues now as in 1994, except the recreational areas near the river are busier now,” explains Barbara Veale, who led the Heritage River designation.

“There are more trails and access points, so the issues around use of the river are still there, but I think that each recreational provider or municipality is dealing with it independently, rather than through a recreation master plan.”

River recreation surveys

DSS Management Consultants Inc., on behalf of Environment Canada, is carrying out surveys to learn more about recreational activities along the Grand River. Recreational river users can participate in these surveys on boating, fishing and swimming at www.grandriver.ca.newsroom.news.cfm.



Photo by Virginia MacDonald

Kayaking on the Grand River in Brant County.

LOOK WHO'S TAKING ACTION

Craig Campbell an eco-hero

A member of the Kitchener-Waterloo Field Naturalists was among the recipients of the conservation awards given out by Ontario Nature last month.

Craig Campbell, a member of the Kitchener-Waterloo Field Naturalists, received the W.W.H. Gunn Conservation Award for demonstrating outstanding personal service and a strong commitment to conservation.

Campbell has devoted his working life to the study of Ontario's natural heritage, and has played a major role in documenting the occurrence of many endangered species. Most notably, he was instrumental in the Regional Municipality of Waterloo's adoption of environmental planning and the identification of Environmentally Sensitive Areas. In addition, Craig has contributed to countless citizen science initiatives including censuses, surveys and atlases.



Photo by Brett Woodman

Craig Campbell



Photo by Kevin Tupman

Tires frozen in place last fall at Shade's Mills reservoir are not yet removed because of the wet spring kept water levels high. However, all tires will soon be removed.

A tiresome sight at reservoirs

It is a puzzling sight for a summertime paddler or shore explorer to spot a few dozen tires just below the surface of the water in a GRCA reservoir.

During the 1980s, tires were placed in the large reservoirs as fish habitat. In fact, tires were put in large bodies of water around the globe to create an artificial reef that could become home to aquatic life. GRCA ecologist Robert Messier said the tires in the reservoirs worked — he helped put them in place and later went snorkeling, where he saw the fish using them. They transformed the featureless bottom of the reservoirs by creating crevices and places for fish to live and breed.

But times have changed and the tires are now being removed.

"In the 1980s there was no tire recycling industry, so we had to repurpose, to find an alternative use for old tires. This was one of them. Now, the tire recycling industry is strong, there are so many products that can come out of used tires," Messier explained. The tires were placed in Belwood Lake, Conestogo Lake at Shade's Mills and a small area of Guelph Lake.

"We learned that tires are not suited for reservoirs, where water levels change and the

tires are exposed to more severe climactic conditions. The hardware to hold them down deteriorated and they have started spreading out to become less and less effective," he said. Volunteers such as the Kitchener Bass Masters have been a huge help by removing the tires when conditions allow. This is done during the fall when water levels are low, but the tires have not yet frozen in place. Soon they will all be gone.

"We're looking for another natural solution to create habitat that would be compatible with overall use of the reservoirs, so recreational users don't have any problems with them and the material doesn't come loose and clog up the dam," Messier said.



Tires as seen from the water last summer.



Photo by Kevin Tupman



Photo by Kellie Superina

Oven birds (left) and scarlet tanagers (right) are two species of birds that could be more frequent visitors to the area around Conestogo Lake thanks to tree planting on former farmland next to the park. About 70,000 trees will be planted over the next two years to increase habitat for many birds, plants and animals.

New forests will grow on former farm fields

By **Dave Schultz**

GRCA Communications Manager

New forests are rising on old farm fields in Mapleton Township in an effort to improve water quality in streams feeding Conestogo Lake reservoir.

About 70,000 trees are being planted this year and next on two parcels of land totalling 40 hectares (100 acres) on the north side of the reservoir.

The GRCA is planting a variety of species that are native to the area, including spruce, tamarack, white pine, bur oak, silver maple and cottonwood.

In addition to the new forests, the GRCA will also do some reshaping of the landscape to create some seasonal wetlands that will also help improve water quality and provide additional habitat.

As the trees grow in coming years, the areas will quickly become home to a variety of animals, such as deer and wild turkeys. Later, as the forests mature, it's expected that several bird species including scarlet tanagers, ovenbirds and great horned owls will take up residence.

A 12-hectare parcel near Wellington Road 10 and Concession Road Five has been planted this year. The second parcel of 28 hectares is near Concession Road 5 and Sideroad 15. About 18 hectares has been

planted this year and the rest will be planted in 2015. The land was acquired by the GRCA when it built the reservoir in the 1950s. It has been leased to farmers since then.

These two parcels of land were prone to erosion which sent a lot of sediment down the streams into the reservoir, explained Ron Wu-Winter, watershed forester with the GRCA. In addition, the sediment also carried nutrients – phosphorous and nitrates – which are found in manure and commercial fertilizers. The nutrients would spur algae and plant growth in the reservoir, resulting in lower water quality.

The northwestern part of the Grand River watershed contains some of the best farmland in Ontario. As a result, the forest cover is some of the lowest in the watershed. Forest cover is estimated at 15 per cent or less. A healthy watershed should have forest cover of about 30 per cent.

Trees help raise water quality in several ways. They soak up nutrients in the soil, so reduce the volume that runs off the surface into a watercourse. Trees along a stream shade it, keeping it cooler in summer which is good for some coldwater fish species.

The total cost of the project is about \$150,000. About \$50,000 was contributed by the Grand River Conservation Foundation. It is also supported by the Trees Ontario

Foundation which is contributing \$65,000.

Tree Facts

- Across the entire watershed, the GRCA is planting about 400,000 trees this year, including 95,000 on its own land and 300,000 in partnership with private land owners.
- The GRCA operates a nursery near Burford, in Brant County, where it grows more than 150,000 trees a year from 60 different species.
- Since it was created in 1934, the GRCA has planted more than 27 million trees on both private land and its own land.
- The Grand River watershed was 85 per cent forest 200 years ago. However, tree cover dropped to just five per cent by 1900 as land was cleared for farming and urban areas. Today, the tree cover has rebounded to about 19 per cent. Environment Canada suggests a healthy watershed needs a tree cover of about 30 per cent.
- To learn more about the GRCA's tree planting program, go to the Tree Planting section of the GRCA website at www.grandriver.ca. The GRCA helps private landowners develop planting plans, plant the trees and find grants to offset costs.



Photo by Karen Idzik

The Belwood Lake Cottage Association, an organization representing around 300 cottage owners on Belwood Lake, donated two benches. The donation was made through the Grand River Conservation Foundation. From left are Craig Bolton, GRCA superintendent of property, Sam Lawson, GRCA manager of property, Jane Mitchell, chair of the GRCA, cottage association president Keith McKee and vice-president John Hamilton.

Many updates in 2015 at Apps' Mill Nature Centre

Apps' Mill Nature Centre in Brant County will get a major upgrade next year thanks to donations made through the Grand River Conservation Foundation.

SC Johnson, a long-term partner of the GRCF and strong supporter of GRCA outdoor education programs, has taken a leadership role on the renovations with a \$100,000 donation. This will support upgrades to classroom and outdoor learning spaces as well as improved accessibility to the centre. SC Johnson is a Brantford company and a former recipient of an Honour Roll Award from the GRCA.

"Since 1917, SC Johnson has been a proud corporate citizen of Brantford and has remained committed to helping make life better for the environment, families and children" said Ana Dominguez, vice president and general manager, SC Johnson Canada. "We believe that by making this donation to the Grand River Conservation Foundation we will continue our long-standing support of environmental education

FOUNDATION

for the children in our community."

The nature centre was constructed in 1980 thanks to a major donation from SC Johnson. The official opening was October, 1981.

About 5,000 students visit Apps' Mill each year from both public and separate schools. They attend many curriculum-based programs to learn about nature during the school year and camp programs take place when school is not in session.

To help increase the opportunities the centre is able to provide to visitors, the Walton Group of Companies has also made a contribution that will create an outdoor classroom as well as provide a new all-terrain wheelchair that will make the entire property accessible to those with limited mobility. Joel Doherty, senior planning and development manager believes that these new features will allow visitors the chance to

develop an even greater appreciation for the outdoor space around Apps' Mill. "There are so many incredible places to explore on this property, we wanted to be sure that as many visitors as possible have the chance to experience them," said Doherty.

Improvements that are being undertaken include an elevator, exterior landscaping such as the outdoor classroom, ramps, better storage, fully accessible washrooms and classroom upgrades.

"Over the years our donors have helped the GRCA to do a lot of smaller projects, such as trail work, constructing a bridge and restoring Rest Acres Creek," said Sara Wilbur, executive director of the GRCF. "But it is time for a big facelift for the nature centre due to wear and tear with all the visitors it receives. Thanks to the generosity of many donors, we are expecting the work to be carried out next year."

So far about \$250,000 has been raised of the \$300,000 that is needed.

If you would like to contribute to this or any other project supported by the GRCF, please contact Sara Wilbur at 519-621-2763, ext. 2272.

New appointments to Foundation board

Two new directors were appointed to the Grand River Conservation Foundation in June — Wayne Fyffe of Paris and James den Ouden of Kitchener.



den Ouden



Fyffe

At the same annual general meeting, Brantford resident Joy O'Donnell was elected as chair while Doug Brock from Waterloo became the past chair.

The Foundation's 2013 Annual Report was approved and tells the stories of individuals and organizations that support the Foundation. It is posted on www.grcf.ca and printed copies are also available.

Founded in 1965, the GRCF channels donations from individuals, foundations, groups and businesses to Grand River Conservation Authority projects. More than \$10 million has been raised so far.



THE GRAND CALENDAR

Movies under the stars at Shade's Mills Park, Cambridge every Friday Night

Every Friday at nightfall (weather permitting) there is a family movie at Shades Mills Park and these continue until Sept. 5. Check the Newsroom on the GRCA website to find out which movies are playing and the start times.

Trees and Trout Workshop, Cambridge, Aug. 13

Paddock Farms, 4232 Wellington Road 35, Cambridge

This workshop will help property owners from across the watershed learn what they can do on their land to help improve fish habitat in nearby waterways by planting trees, shrubs and native plants. It takes place at 7 p.m. and is free. RSVP: before Aug. 11 to at the GRCA 1-866-900-4722 ext. 2262 or mhenderson@grandriver.ca.

Youth Outdoors Day, Luther Marsh Wildlife Management Area, Sept. 13.

A fun-filled day of outdoor activities that is free to all youth ages 9 to 16 and is limited to the first 200 who register in advance. They may have the opportunity to build bird houses, band birds, try a bow and arrow or fly fishing, use a dip net or learn about camping. Registration is free and can be done online at www.youthoutdoorsday.com.

Grand River Spey Clave, Brant Park, Saturday, Oct. 4 & 5

The Spey Clave website has details,

including biographies of the instructors for this annual event that teaches techniques for spey fishing. Around 250 participants are expected at this event, which started in 2007 and was moved to Brant Park in 2013. If the river conditions are safe, there will be lots of opportunities for on-stream testing of spey equipment. Top instructors from around the world have attended and shown their skills in Traditional, Skagit and Scandinavian Spey techniques on the banks of the Grand River.

www.grandriverspey.ca

Run for the Toad, Pinehurst Lake Park, Saturday Oct. 4

Runners and walkers representing many provinces and states participate in this event, which is Canada's biggest trail event. The 25 and 50 km trail races sell out before the event starts. Refer to the website www.runforthetoad.com for more information.

Bats are Fun, Shade's Mills Park, Aug. 16

Let's debunk the myths and mysteries surrounding bats, starting at 7:30 p.m.

During this program, kids and parents will play bat and moth (a sensory skill game), build a bat kite and, as darkness descends, embark upon a bat detection hike. Children under 16 must be accompanied by an adult. Meet at the boat launch parking lot.

Note: GRCA events are listed in the calendar section at www.grandriver.ca.

Summer is a great time to get a close look at some of the creatures that live in the watershed, such as Ontario's only insect-eating snake, the grass snake or they blanding's turtle with its yellow underside. Please look out for baby snappers at the end of the summer.

About Grand Actions:

This newsletter is produced bi-monthly by the Grand River Conservation Authority.

More information:

Current and back issues as well as complete subscription information is available online at www.grandriver.ca/GrandActions.

Submission deadlines:

The 15th of February, April, June, August, October and December. Submissions may be edited for length or style. Photos and event information is also welcome. We do our best to publish items, but we are not able to guarantee publication.

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