GRAND Actions

The Grand River watershed newsletter

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What's Inside:

Cover photo

Camping at Elora Gorge Conservation Area

Stay safe and enjoy the adventure at Grand River Parks

For more than one million visitors each year, a day or weekend full of adventure begins at Grand River Parks. From exploring the giant potholes, cliffs and caves at Rockwood to splashing the day away in the huge swimming pools at Brant and Byng Island, there is something for everyone at our 12 GRCA conservation areas.

It's important to remember that our conservation areas are natural places to play and explore, and safety should always be top of mind when venturing outside for a day of fun. We've compiled some tips and important information you should know before heading out.

Who to call in an emergency

If you find yourself in a serious emergency situation when you are in our conservation areas, call 911 for immediate assistance. First responders often use our conservation areas for training and are the best people to help you out in a crisis.

Stay safe in severe weather

Summer is full of hot sunny days in Ontario, but sometimes severe weather can show up without warning. Pay attention to weather alerts on local radio stations and social media and seek shelter in the event of a storm. In severe weather, it is safer to be inside your car or a building than in a tent or outside.

Get tick smart

Ticks are a common occurrence in Ontario and can usually be found in wooded areas or areas with long grass. They may carry bacteria that

If you're out in one of our parks and have a question or concern, please contact a staff member and they'll be happy to assist you.

Before you head out on your adventure, visit www.grandriver.ca/parks to discover everything you need to know to in order to have a safe, fun and exciting trip.

cause Lyme disease, a serious illness. There are many things you can do to minimize your risk of coming in contact with a tick including staying on marked trails, wearing long pants and tucking your pants into your socks, and using a repellant that contains DEET or Icaridin. Consult the local health unit or a medical professional for more information.

Wildlife worries

Our parks and natural areas provide habitat for many wild animals. Please understand that you are visiting their home when you come to a GRCA conservation area. If you have a concern about wildlife in our parks, or see an animal that seems sick or injured, please let park staff know or call the Ministry of Natural Resources and Forestry Information Centre Line at 1-800-667-1940.

West Nile Virus

Mosquitos thrive in warm, damp areas and can carry diseases like West Nile Virus. This illness primarily affects birds, but if a mosquito happens to feed on the blood of an infected bird, there is the potential for you to get the virus as well. Although most people do not get sick from an infected mosquito, mild or serious symptoms may develop. Help repel mosquitos by using a repellant approved by Health Canada. If you have concerns, contact your local health unit or medical professional to learn more.

Water Safety

Reservoirs and local waterways are a big part of nature in the Grand River watershed and many of our conservation areas have dams nearby. Whether you are fishing, boating, paddling, swimming or walking near water, ensure that you and your family members stay water smart and know the risks before you venture out near the water. Transport Canada has regulations for boating and human-powered watercraft like canoes, kayaks, paddleboards and paddle boats.

Samantha Lawson has been appointed the new Chief Administrative Officer of the Grand River Conservation Authority. Lawson has been serving as the GRCA's Manager of Property since 2012, and is experienced in the areas of urban planning, water quality, environmental impact assessments, wetlands and natural resource management.

Samantha Lawson named new CAO of the GRCA

Samantha Lawson has been appointed the new Chief Administrative Officer of the Grand River Conservation Authority. The announcement was made at the GRCA General Membership meeting on May 24, 2019 by GRCA Chair Helen Jowett.

Lawson joined the GRCA in 2005 as a Resource Planner. In 2008, she progressed to the role of Supervisor of Resource Planning, and has been serving as the GRCA's Manager of Property since 2012. A strong leader, Lawson is experienced and knowledgeable in the areas of urban planning, water quality, environmental impact assessments, wetlands and natural resource management. Her education includes an undergraduate degree in Environmental Studies from the University of Waterloo, a Master of Arts degree in Geography from the University of Guelph and a Master of Public Administration degree from Western University.

"The population of the Grand River watershed continues to grow, putting stress on our water and natural resources," says Lawson. "I am very much looking forward to working with our staff and our board of directors, as we continue to foster strong relationships and collaborate with our local communities in building a healthy watershed that is resilient to climate change."

Lawson will begin in her new role on July 15, 2019. She succeeds Joe Farwell, who has been CAO of the GRCA since November 2010. At the General Membership meeting on March 22, 2019, Farwell advised the board of his intention to retire. A hiring committee was struck at that time, and was led by GRCA Chair Helen Jowett.

The responsibilities of the CAO are outlined in the GRCA's by-law and include, but are not limited to, the development of a strategic plan for approval by the General Membership and the management of the operations of the Authority.

Record high Great Lakes levels

Scott Robertson, GRCA Senior Water Resources Engineer

The Great Lakes drainage basin covers an area of approximately 244,000 km^2, with the freshwater volume stored within the lakes typically quoted as representing about 18 per cent of the world supply and 84 per cent of North America's supply. As of June 2019, these may be underestimates as the lakes are already chock full and still receiving above-average inflows due to the long, wet spring. The seasonally high levels currently being experienced are expected to continue through the summer, at least.

Water levels in the Great Lakes are affected by many natural factors, the primary ones being precipitation, evaporation, runoff, groundwater, ice, aquatic growth, meteorological disturbances and tides. A measure of human control exists throughout the Great Lakes system through various locks, canals, and dams, with operational considerations involving aspects such as control of flooding, marine transportation and hydroelectric power generation.

To some extent, lake levels are somewhat predictable and fluctuate on a range of time scales, from multi-year and seasonal at a lake-wide scale, down to hours, minutes, and even seconds at a local scale. A summary of current basin-wide conditions includes:

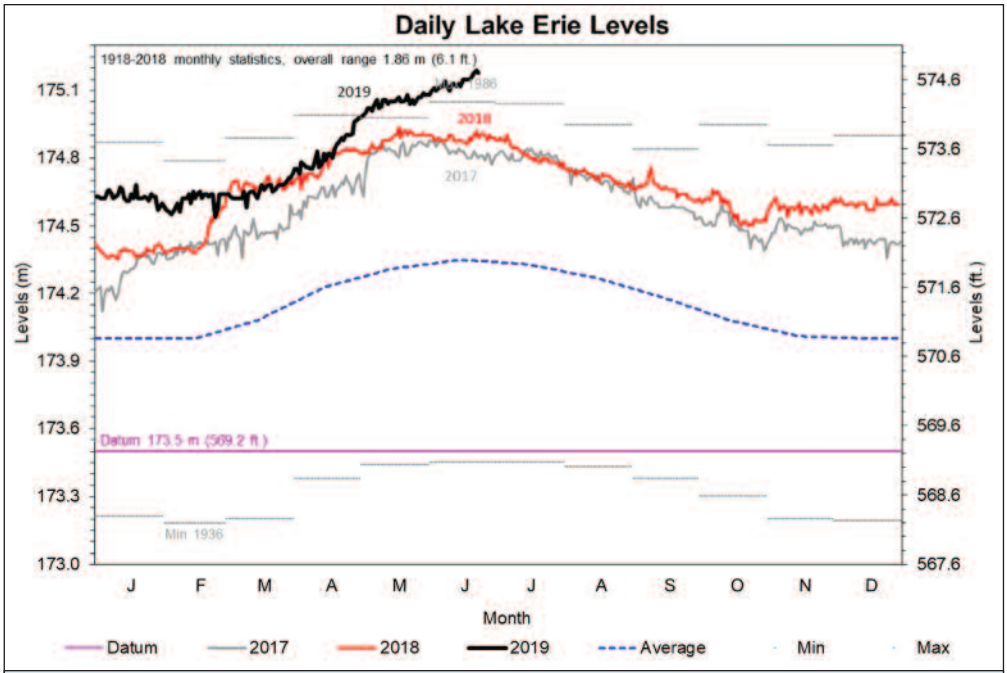
• Lake Superior exceeded its seasonal record levels for May and is expected to remain above seasonal record levels through September.

• The Lake Huron-Michigan system, which effectively "shares" a water level, remains just below seasonal record levels, but is forecast to approach such highs throughout the summer months.

• In May, Lake Erie levels surpassed both seasonal and historically-recorded levels, previously set in the mid-1980s and late 1990s. Levels have remained well above both seasonal and historically-recorded highs through June and are forecast to persist before starting to decline somewhat in July.

• On the heels of record-breaking flood levels in 2017, Lake Ontario exceeded even those heights in early June.

• More information about the Great Lakes, characteristics and conditions is available on the Fisheries and Oceans Canada website at https://waterlevels.gc.ca/.



This chart shows Lake Erie water levels from 2017 to 2019, as well as monthly record lows and record highs.

Lake Erie Conditions

So, what does all this mean for Lake Erie and the Grand River shoreline communities of Dunnville and Port Maitland? High levels create conditions ripe for flooding and erosion, potentially altering the shoreline, damaging property or municipal infrastructure, and even potentially injury or loss of life.

While the record-high day-to-day levels are already causing minor nuisance flooding in very low-lying areas, the more significant concern on Lake Erie relates to wind-driven storm surge weather events. Of all the Great Lakes, the shallow character of Erie leaves it particularly susceptible to such conditions. Winds of sufficient speed and duration are able to "push" water from the west end of the lake to the east end, temporarily raising levels at Dunnville and Port Maitland by up to two metres for hours at a time, before relenting and allowing the water to slosh back to the west end of the lake as in a bathtub. On top of these storm surges, isolated waves of up to another two metres could also occur, with increased likelihood during such wind events.

The lowest level of flooding starts to occur at Port Maitland at a lake elevation of approximately 175.5 m, with the highest instantaneous level ever recorded at 176.62 m (December 2, 1985). As of June 24, 2019, the stable lake level is 175.18 m, meaning that it would only require a relatively small storm surge wind event to initiate low-level flooding along some coastal areas. Even a moderately-sized event could result in near record flooding.

On the plus side, the types of weather events that create such storm surges occur primarily

in the fall and winter seasons and, with typical seasonal drawdowns forecast over the summer months, day-to-day levels will be naturally lowered somewhat and surge potential will be reduced. On the other hand, the high levels in the Great Lakes system draining into Lake Erie almost inevitably means that levels will remain unseasonably high throughout this crucial period, resulting in a higher potential for lakeshore flooding and erosion along the Lake Erie shoreline. In fact, a Lake Erie Conditions Statement – High Lake Level Outlook has been in place since October 2018, and is expected to remain in place for the coming months.

Much will also depend on how wet or dry the next few months are in the upper Great Lakes basin. Many in the watershed are no doubt longing for the arrival of typical summer conditions. Here's one more reason to hope these conditions get here and stick around for a while!

The GRCA is a partnership of watershed municipalities and provides an avenue to work together, supporting collaboration to enhance the water and other natural resources of the Grand River watershed.

Collaborating on the Grand River Watershed Water Management Plan

Sandra Cooke, GRCA Senior Water Quality Supervisor

Water is a shared resource and therefore, collaboration is essential to carefully manage it.

Water in the Grand River watershed is valued. It is valued for supplying drinking water to our communities, providing habitat for fish and wildlife and helping our communities grow and thrive.

The GRCA's vision is a healthy watershed where we can live, work, play and prosper in balance with the natural environment. The GRCA is a partnership of watershed municipalities and provides an avenue to work together, supporting collaboration to enhance the water and other natural resources of the watershed to help achieve this vision.

One example of this collaboration is the Grand River Water Management Plan, which is a framework that identifies and aligns actions to improve water management based on a collaboration among municipalities, provincial and federal governments, and Six Nations of the Grand River. The goals of the Water Management Plan are to:

- ensure water supplies;
- improve water quality to improve river health and reduce the river's impact on Lake Erie;
- reduce flood damage potential; and
- build resilience to deal with climate change.

These goals support communities, economies and ecosystems.

Collaboration is sustained through the Water Managers Working Group. This working group has water, wastewater and stormwater managers from municipalities across the watershed, as well as government and First Nations, who come together and meet four times a year. They discuss water management issues and develop best-value solutions at a local, municipal, watershed and provincial scale. By aligning actions across the various jurisdictions criss-crossing the watershed, benefits can be realized at the watershed scale. The GRCA has coordinated and supported this working group since the mid-1970s, facilitating many co-benefits across municipal boundaries.

The Water Managers Working Group are now reporting on the status of their actions identified in the Plan. Much work has been done by all partners including:

- upgrades to wastewater treatment plants;
- long-term water supply plans are underway or have been updated;
- numerous dam and dike safety studies have been completed; and
- almost 6,000 projects have been implemented with the farming community.

We are now starting to see the benefits to the river system. A full State of the Water Resources report will be completed by the fall of 2019.

It is through the process of collaborating across boundaries, where co-benefits – benefits both locally and for the watershed – will be realized. The GRCA plays a unique and important role with watershed-wide view, helping to align efforts among the many agencies working to best manage our water resources. The health of the Grand River system depends on it.

A grand dam safety program

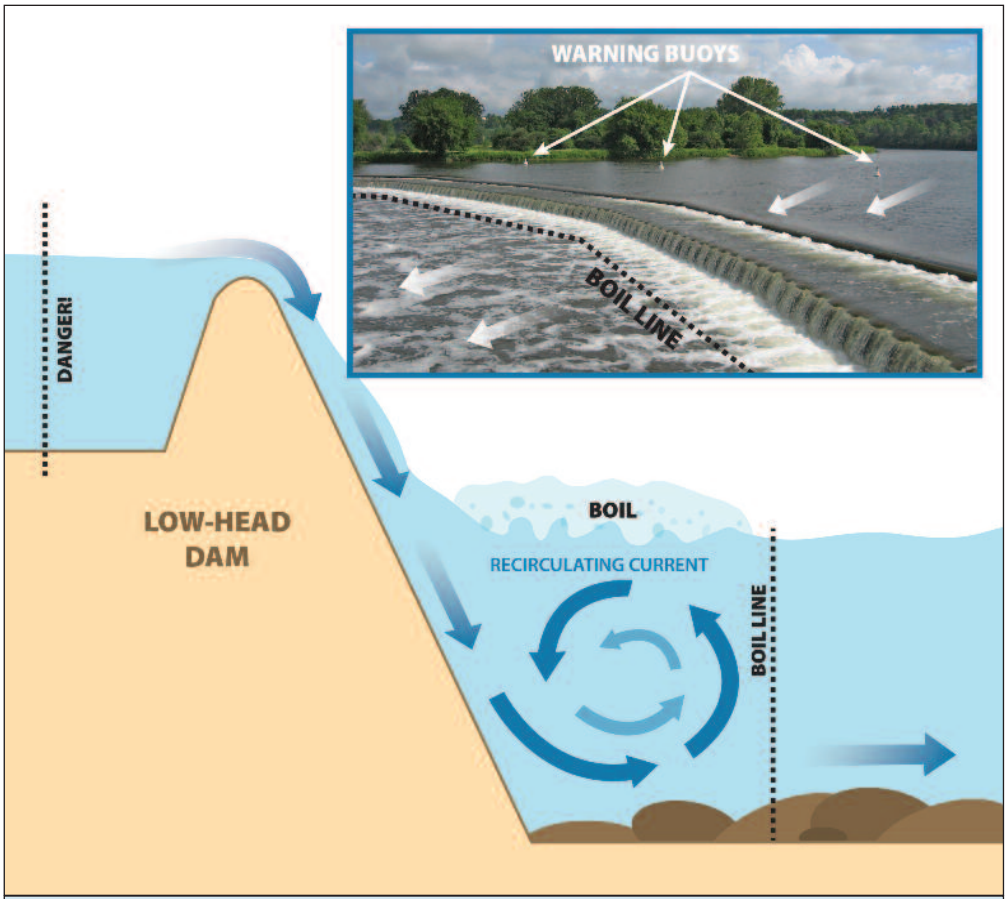
Naomi Moore, GRCA Water Resources Project Coordinator

Every year, thousands of people visit the Grand River and its tributaries to explore all that the watershed has to offer. Paddling, fishing and tubing are just a few of the activities to enjoy on a warm summer day, yet many visitors are not aware that danger may lurk nearby.

Historical dams dot our landscape; a legacy of a once booming industrial revolution. Larger, more modern dams, such as Shand Dam at Belwood Lake, can also be seen on local waterways. The GRCA owns 28 dams in the Grand River watershed, and there are over 100 more owned by others. The GRCA owns two classes of dams: multi-purpose dams and small dams. Seven large multi-purpose dams and reservoirs were built between 1942 and 1976 to mitigate flood risk and augment river flows. The smaller dams were built for transportation, water power and water supply. Today they have primarily recreational, aesthetic or historical value.

While some of the GRCA's dams have an important job to do, it is equally important to understand the risks they pose. Sometimes referred to as "drowning machines", dams are not meant to be used for recreation.

While all GRCA dams on navigable waterways are marked with booms and buoys between May and October, some that are privately owned are not marked and may not be easy to see. Educating people on the hazards near dams and what to look for when approaching a dam is fundamental to protecting lives.



Like larger dams, low-head dams can create an underwater recirculating current that is nearly impossible to escape. This current, know as a "boil", can be so strong that it may pull you under water, even while wearing a lifejacket. Never swim, walk on, fish, or boat near these dams. Inset photo: Showing the boil at Wilkes Dam, Brantford.

To help accomplish this, the GRCA has created a learning program for children that includes a working model of a low-head dam, which helps them recognize the dangers of these structures.

GRCA environmental education specialist, Alex Paroski is well versed in the dangers around dams. He travels the watershed with the display to promote safety around dams. Community events such as: children's water festivals, emergency preparedness open houses, safe communities and farm and rural safety days are attended by thousands of watershed students and families every year.

Alex uses the dam model to teach people about the importance of dams in our watershed and the dangers that surround them. The dam model provides a visual effect that often gets countless gasps from children and adults, alike.

Once people witness the true power of water, Alex then asks the question "what can we do to make sure people stay out of these danger zones"? They are eager to provide solutions and Alex has the tools to show them. Danger signs, fences and booms are all placed around the structure to keep people out.

These are standard safety measures that can be found at all GRCA dams. Due to high flows and debris, some dams will have buoys placed upstream instead of booms. GRCA staff work with Transport Canada (under the Navigable Waters Act) to ensure that placement of safety measures around dams will clearly indicate hazards associated with the dam and reduce the risk of the public entering unsafe areas.

Along with the dam safety display, the GRCA also distributes river and dam safety brochures to schools throughout the watershed, which highlight activities to avoid on rivers and waterways near dams. Our goal is to ensure that everyone has an enjoyable experience on our local waterways throughout the watershed. The best way we can do that is to provide effective education tools and easily recognizable safety features at our dams.

Download our kid's River Safety brochure and get more information on the GRCA's public safety around dams program on the GRCA website at www.grandriver.ca.

Be aware of giant hogweed

While giant hogweed is not a new plant species in the Grand River watershed, it has become a big topic of conversation over the past few years. Each summer, this invasive species rises high above many other plants along riverbanks and in natural areas. Taking a commanding presence of up to five metres in height, giant hogweed is not a plant to tangle with.

Originally found in west central Asia, giant hogweed arrived in North America more than a century ago as a garden ornamental. Now found in many Canadian provinces, the imposing plant can be seen along waterways and in natural areas throughout the Grand River watershed. It has been found on several GRCA properties near Belwood Lake, St. Jacobs, Kitchener, Guelph and Cambridge. The GRCA has a program to eliminate giant hogweed from its property, but it is a persistent species that is difficult to permanently remove.

This invasive plant can suffocate local vegetation and cause a number of serious health issues for people who come into contact with it. The sap will make a person's skin extremely sensitive to sunlight causing burns and blisters. The sensitivity can last for years.

By late summer, giant hogweed plants can stand up to four metres tall. It is a member of the carrot or parsley family and its stem has purple blotches and is intensely hairy. The leaves are very large and jagged. It is easily confused with cow parsnip, angelica and water hemlock.

Giant hogweed (left) is often confused with Angelica (right). The flowers of the Angelica plant are rounded, while those of giant hogweed are flat. The stem of the Angelica plant is smooth and dark purple, while the stem of the giant hogweed has course hairs and blistery purple spots.

Giant hogweed identification

The best way to prevent a reaction to Giant Hogweed is to be able to identify the plant and avoid contact. Do not cultivate, plant, purchase or transplant this species as it is very difficult to control and may result in your skin coming into contact with the sap.

Height
10-15 ft

Flower
White, flat, very large, up to 2 ft in diameter

Leaf
Lobed, broad, up to 5 ft across

Stem
Thick with coarse hairs, blistery purple spots

Flowering season
June - July

Giant hogweed is a perennial weed, meaning the same plant will grow for more than two years. New plants are established only from seed. Giant hogweed is unique because it will only flower and produce seed once in its lifetime. Once it has produced seed, the plant dies. Each plant can produce up to 120,000 seeds, which can travel up to 10 m in the wind and float for up to three days.

It is important to note that the GRCA does not own or manage all river and stream banks. Most of these areas are privately owned; therefore, it is the responsibility of the landowner and the municipality to manage giant hogweed on private land. If you spot giant hogweed on private land or in an unmarked area, contact the municipality.

Learn more about giant hogweed through the Ontario Invasive Species Program: www.invadingspecies.com/giant-hogweed/.

Pollinator habitat in Cambridge: a ten-year journey

Jim Dyer, Vice President, Ancient Mariners Canoe Club

On the west bank of the Grand River in downtown Cambridge, a special site has been set aside for native bees and other wild insect pollinators. The site allows the flowering plants that feed pollinators to grow and spread. It required converting a decommissioned off-leash dog run that bordered the Blair walking trail to a natural refuge for these critically important insects. Because work started on this permanent pollinator habitat in 2009, this ten-year achievement was celebrated on June 26.

The Cambridge Pollinator Preserve (CPP) was created by the Ancient Mariners Canoe Club (AMCC) with help from the City of Cambridge, as well as the Grand River Conservation Authority and the Grand River Conservation Foundation through a Community Conservation Grant in 2010.

Because different bees appear over the summer, plants were selected to maintain a continuous floral display from spring until fall. Flowering trees and shrubs provide nectar and pollen for the spring bees, while late summer pollinators rely on Goldenrod, a native that grows naturally on this site.

Every plant selected for the Preserve is native to the region. To avoid competition from non-native plants in their first year, wildflowers are planted through mulch-covered cardboard.

This site is a restored natural habitat, not a garden, and will never have the manicured orderly look of ornamental flowers. It receives no chemical additives or post-planting weed control.

This site will allow pollinators and other beneficial insects to build up viable populations that can spread to surrounding landscapes and pollinate a wide range of wild and garden plants. The CPP is also an important model to other pollinator habitat projects in the region, particularly its message of low inputs and minimal maintenance that results in a truly sustainable pollinator habitat.

For visitors, the highlight of the CPP is the Education Centre. Although this Centre was part of the initial vision ten years ago, it was not available to the public until 2012.

Whereas the work to create the actual habitat could be done by AMCC volunteers, the Education Centre required professional fabrication and installation, and for this, the AMCC required a three-year fund raising effort.

The CPP was also fortunate in being granted permission to use the electronic files from the Cambridge Butterfly Conservatory's retired pollinator display for the Education Centre panels. The result is a free-standing, five-panel display that was officially dedicated on September 13, 2012 in a formal ceremony with the Cambridge City Mayor and many others in attendance.

The aim of the Education Centre is to raise public awareness about the importance of insect pollinators to the local ecosystems and food chain. It explains the pollination process and its threats.

After reading the information panels, the walkways allow visitors to watch pollinators at work. Observing the bees and other floral foragers provides a naturalist experience equal to bird watching, although the Preserve also attracts song birds and other wildlife.

As we celebrate the tenth year of the CPP, we invite visitors to read the panels, walk the paths, or just take a seat on one of the Preserve's stone benches and enjoy the afternoon sunshine.

The Cambridge Pollinator Preserve (CPP) Education Centre waiting for its official opening ceremony in 2012. The CPP was created by the Ancient Mariners Canoe Club with help from the City of Cambridge, as well as the Grand River Conservation Authority and the Grand River Conservation Foundation.

THE GRAND CALENDAR

Yoga at Shade's Mills

June through September

Yoga classes will be held near the Trail Shelter at Shade's Mills Conservation Area every Wednesday evening from 7:00 p.m. until 8:00 p.m., until September 4. Suitable for beginners (ages 10+) and those with more experience. Participants 18 and under require a legal guardian present to sign the waiver form. For more information and for cancellations due to poor weather, please contact park staff at 519-621-3697. Don't forget to bring a yoga matt, water and insect repellant.

Nature Adventure Day Camps

July, August

For children ages 6 and up, GRCA Nature Centre summer day camps focus on environmental discovery to connect campers with the outdoors in a fun and educational way. Camps at our nature centres are all about being outdoors, discovering nature, making new friends and creating memories that will last a lifetime. Camps are offered at several locations, and programming may vary by location. For more details please visit www.grandriver.ca/daycamps. To register, visit www.grandriver.eventbrite.ca.

Friday night Movies Under the Stars at Shade's Mills

June through August

Come watch a movie under the stars every Friday until August 23, in the outdoor Toyota Amphitheatre at Shade's Mills Conservation Area. Come early to enjoy a campfire and the first 20 children will receive a FREE hotdog from Swiss Chalet/Harvey's (101 Dundas St. Cambridge).

Movies start shortly before sunset - the times vary between 8:45 p.m. and 9 p.m. Please note that movies are sometimes cancelled due to inclement weather. Cancellations or schedule changes are posted at www.grandriver/events or you may also call the park at 519-621-3697. More information about the movies is also available at www.grandriver/events.
at one of our Grand River Parks. Please check out our event calendar at www.grandriver/events where you can search for all upcoming events. You can also subscribe to receive GRCA events by email at www.grandriver.ca/subscribe.

Guided nature events at Grand River Parks

The GRCA offers a wide range of quality programs suitable for people of all ages throughout the year. They have an environmental, outdoor focus and are led by GRCA nature guides. Some programs are free, and some are offered at a fee. There's bound to be something for your family to do at one of our Grand River Parks. Please check out our event calendar at www.grandriver/events where you can search for all upcoming events. You can also subscribe to receive GRCA events by email at www.grandriver.ca/subscribe.

About Grand Actions:

This newsletter is produced several times a year by the Grand River Conservation Authority.

Submissions:

Submissions may be edited. We do our best to publish items; however, we are not able to guarantee publication.

More information:

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

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