



G.L.A.H. News

Great Lakes Aquatic Habitat

GREAT LAKES: CONNECTING COMMUNITIES

SPRING 2007 VOLUME 15 ISSUE 1

**Stormwater
Focus Edition**

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CONSERVATION GROUPS FIGHT BACK IN COURT TO UPHOLD LAW TO STOP INVASIVE SPECIES



Oceangoing vessels, like the one above, must obtain a permit from the Michigan Department of Environmental Quality to discharge ballast water. Environmental groups have banded together to intervene in a lawsuit filed by oceangoing shipping interests to derail the law. Photo courtesy the United States Environmental Protection Agency Great Lakes National Program office.

DETROIT, Mich. (April 9, 2007) As shipping interests seek to strike down the region's first law to protect boaters, anglers, swimmers and families from invasive species, three prominent conservation organizations today announced they were joining the court battle to slam the door on invasive species entering the Great Lakes.

The Michigan United Conservation Clubs, National Wildlife Federation, and Alliance for the Great Lakes (formerly the Lake Michigan Federation) today filed to intervene in Detroit federal district court to defend a Michigan law intended to protect the Great Lakes from discharges of invasive species by oceangoing ships.

Interests for the oceangoing ships sued the Michigan Department of Environmental Quality and Michigan Attorney General on March 15, 2007 to derail the law. In 2005, the state of Michigan passed a law requiring

oceangoing vessels to obtain a permit to discharge ballast water.

"We're filing this motion to stand up for the millions of anglers, hunters, boaters, campers and families in Michigan and elsewhere who rely on the Great Lakes for their jobs, recreational opportunities, and quality of life," said Donna Stine, executive director of Michigan United Conservation Clubs. "The shipping industry's lawsuit is an attack on the right of Michigan's citizens to protect themselves from invasive species. That is unconscionable, and we won't stand for it."

The number one pathway for non-native aquatic species to enter the Great Lakes is through ballast discharge from ocean-going vessels originating in foreign ports. Since the opening of the St. Lawrence Seaway in 1959, one new aquatic non-native species has been

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Please Take Note!

We've Moved!

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DIRECTOR'S NOTES

EVERYDAY HEROES



JILL RYAN

Don Griffin and Roscoe Churchill are my heroes. They both extended themselves personally in order to better all of our lives.

They also exemplify GLAHNF's mission and the type of advocates that we strive to support all across the Great Lakes basin.

Why are Don and Roscoe and all of you reading this my heroes? Because you go out of your way to ensure the future of your community, our waters, our environmental resources and our children's futures. Because when the going gets tough you just keep going. Because when you are discouraged by circumstances you find a kind ear and some inspiration for your work and keep right on working. Because you are the voice for our local community resources, you are the democratic process!

I have had the pleasure over the past seven years to know many of you in some way and I am so much richer for that experience. We will miss Don and Roscoe, but we are also rich because of what they accomplished, and what all of you continue to accomplish each day.

Thank you for your efforts Don and Roscoe, you will truly be missed.

*The hero is one who kindles
a great light in the world,
who sets up blazing torches
in the dark streets of life
for men to see by.*

– Felix Adler

Jill M. Ryan



We Bid Farewell to Two Wonderful Advocates

A FOND GOODBYE TO DON GRIFFIN, FRIENDS OF THE RIVER CO-FOUNDER

Adapted from an article by Cristen Kis originally published in the Press & Guide Newspapers on December 3, 2006 in Dearborn, MI.

On November 23rd, 2006 the Great Lakes community unexpectedly bid farewell to lifelong education and environmental advocate, Don Griffin.

After serving in the U.S. Army in Germany in the Counter Intelligence Corps, Griffin began a career in education and taught at schools in Flint and at Lincoln Consolidated Schools. He received his teaching degree from Central Michigan University and a master's degree in child development from the University of Michigan. Griffin served as an elementary education consultant for Wayne County Regional Educational Service Agency for 33 years where one of his greatest accomplishments was expanding Head Start from a summer session to an all day program during the school year.

Griffin was also instrumental in founding the two Detroit area non-profits: Friends of the Rouge River in 1986 and Friends of Detroit River in 1992.

"Don was very committed to making a difference, particularly with the Detroit River and the Great Lakes in general," said David Howell, board chairman for the Friends of the Detroit River. "He was always thinking of ways to make things better."

Griffin even joined forces with U.S. Congressman John Dingell to protect the Detroit River's Humbug Marsh from development. He also went to battle over the potential reopening of a landfill not far from the river in Gibraltar.

Throughout his lifetime Griffin was presented with numerous awards – too many to count – but the two most recent awards were especially treasured by him. The 2005 Grassroots Citizen-Advocate Award from GLAHNF and the Petoskey



Jill Ryan, Executive Director, awards Don Griffin with the Grassroots Citizen Advocate Award in 2005.

Prize given in September, 2006. The latter, presented by the Michigan Environmental Council, recognizes citizen activists whose outstanding grassroots environmental leadership is marked by commitment, creativity and courage.

Griffin's love for the rivers and lakes extended to include other outdoor activities such as hunting and fishing. He adored his three children, Randall (Gianina), Donna and Laura (Randy), 10 grandchildren and four great grandchildren. He loved to invent games with them, his wife said. "If I had talked to everyone, I would have said he was a good grandfather. He was very special to me and I'll bet was very special to everyone in this room," said Alexander, Griffin's 8-year-old grandchild, to a roomful of family members after the funeral dinner.

Don Griffin's family, friends and colleagues will miss many things about him — including his closing line on the telephone. "Goodbye for now," he would always say.

And they've said goodbye – for now – with a celebration of his full, passionate and devoted life. Exactly as he would have wanted it.



GENTLE WARRIOR

By Nick Vander Puy

Roscoe Churchill wasn't a United States military combat veteran, but he served as a general in the late 20th century Manufacturers Resource War against the Earth. Churchill fought on the side of responsible government, clean water, fertile soil, untainted fish, wild rice, and big trees. The anti-mining activist died this month at the age of 90.



Roscoe & Evelyn

Roscoe was a true son of Wisconsin. For the past 30 years Roscoe united conservationists, Native American tribes, sport fishing groups, some trade unionists and students into a community (one might even describe it as a tribe) resisting a mining district in northern Wisconsin. Hundreds of these folks showed up in Ladysmith to say goodbye to Roscoe and re-affirm their connection and a memorial service we called a "Fond Farewell."

Sandy Lyon, a community organizer who also happens to be my wife, often jokes, "Roscoe and Evelyn Churchill ruined my ordinary life." Sandy, Evelyn and Roscoe, sitting around the Churchill's farm kitchen in the mid-'90s, came up with a challenge for the multi-national mining companies: "Show us a successfully reclaimed metallic sulphide mine that hasn't polluted the water." The mining companies never could, and in 1998 the Wisconsin Legislature and Governor Tommy Thompson enacted the Churchill Mining Moratorium bill. Because of the bill, which would not have passed without the fierce and sustained activism of a broad and diverse coalition consisting of thousands of people who care about the earth, Wisconsin remains the one of least attractive political climate for mining in North America.

Artist Judy Gosz brought cedar from the Stockbridge Munsee reservation and dozens and dozens of pies to Roscoe's farewell. Roscoe loved stopping for pie. Our daughters Annie and Sage passed small cedar branches to everyone in the circle. Judy's husband-folksinger Skip

Jones opened the gathering with a song by Kate Wolf called "Gentle Warrior." Roscoe was known widely as the kind and gentlemanly warrior from rural Wisconsin.

We were transformed once again by the ceremony into one heart and mind, remembering the lyrics from Kate Wolf's song Gentle Warrior:

*Brother Warrior
there are none of us
who walk this path alone.*

*We are crying for a vision
That all living things
can share
And those who care
Are with us everywhere.*

The heartbeat of the movement, the drum from Mole Lake, sat in the middle with tribal judge Fred Ackley and the other Anishinaabe singers. Songs on this drum, during the mining moratorium rallies, called in an eagle over the state capital building. Eagle flight over the capital had not been seen in modern times.

February 27, 2007

Nick Vander Puy is lead producer for the Superior Broadcast Network in northern Wisconsin.

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Lake Superior Basin Update



ACID MINING IN THE UPPER PENINSULA UPDATE: MDEQ REVERSES DECISION!

By Carol Martin, Lake Superior Conservancy and Watershed Council



The Department of Environmental Quality announced on March 1, 2007 that it has withdrawn its proposed decision to approve a permit for the Kennecott Eagle Minerals Company to conduct mining operations at the proposed Eagle Project Mine. The decision was made after discovering that two reports on the structural integrity of the mine were not

properly made part of the public record or given a comprehensive technical review.

DEQ Director, Stephen Chester, has ordered a third-party independent investigation of the DEQ's handling of the mining permit. The review was conducted by an independent team headed by Dr. Donald L. Inman, president of EcoLogic, Ltd. The full report is available on the website, www.michigan.gov/deq/, direct link is under Issue Watch, Kennecott Eagle. The investigation concluded that there was no intent to withhold information, however the report contains eight recommendations to improve the process. The DEQ intends to have an independent expert analyze all available geotechnical engineering data and information prior to making a decision concerning when the resumption of processing of the Eagle Project Mine application will take place.

Although this decision provides some breathing space, the battle is not over yet. Sulfide mining in Michigan and the Lake Superior Basin is a huge threat to the ecological health of the entire Lake Superior Watershed.

Scientists from United States Geological Survey (USGS) have been taking a close look at the whole region they call the Mid-continent rift system. They have found significant sulfide deposits containing varying amounts of nickel (Ni), copper (Cu), platinum-group metals (PGM's), and cobalt (Co).

The Mid-continent rift system encompasses most of the northwestern portion of Lake Superior with favorable targets for mining identified on the Yellow Dog Plains and Echo Lake in Michigan and the Mellen Complex in Wisconsin. It also includes known sulfide-bearing areas in the Duluth Complex in Minnesota. In addition, the USGS website identifies portions of the Mid-continent rift southwest of the Lake Superior region as possible areas that may also contain undiscovered sulfide deposits.

The major impacts of sulfide mining is the waste of the process used to extract the metals, commonly referred to as acid mine drainage, AMD. AMD is metal-rich water formed from chemical reaction between water and rocks containing pyrite, a sulfur bearing mineral. Metal-rich drainage can also occur in mineralized areas that have not been mined.



Yellow Dog River just above the ore deposit



Sulfides decrease water's pH, making it more acidic, and kill many aquatic organisms such as mosses and algae that form the base of the lake's food web. This acid water can also be toxic to aquatic animals directly. As anyone who has fed a gold fish too much food will notice, solid waste decomposition can also raise the acid levels in water similar to what the addition of sulfites would do. High acidity in an aquarium can be seen to cause fish to shed the mucosal protective layer on their fins so they look ragged, become lethargic and have difficulty swimming. If left untreated, such poor water quality will result in the fish bleeding internally and dying in a short time. AMD can also contaminate drinking water. I know of no sulfide mining operation has not caused contamination or required expensive clean ups.

Kennecott Minerals, based out of Salt Lake City, Utah, now owns 462,000 acres of mineral rights in Marquette and Baraga Counties. It calls this its Eagle Project and its drill rigs dot the Yellow Dog Plains, some coming unnervingly close to the Salmon-Trout River that flows into Lake Superior. Kennecott Minerals says it's looking for nickel, copper, gold, zinc and other base minerals, some of which are found in an ore called Yellow Dog Peridotite. Another valuable mineral found in Yellow Dog Peridotite is copper sulfide.

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To keep posted on this issue and get involved, please visit the Save the Wild U.P. website, <http://www.savethewildup.org/>. For more information on the Yellow Dog Plains, visit <http://www.yellowdogwatershed.org/html/mining.html>

Thanks to Michelle Halley, National Wildlife Federation for details on the recent events.

Lake Michigan Basin Update



LOCAL MICHIGAN GROUPS TAKE ACTION TO REDUCE PHOSPHORUS IN LAKE MICHIGAN

By Jamie Cross, Alliance for the Great Lakes



The dangerous and unsightly algae blooms that pronounced Lake Erie "dead" in the 1970's are returning to the region. Shoreline areas in northern Michigan, Wisconsin and along Lake Erie are knee deep in the green stuff during summer months. Algae is not only unsightly but can harbor dangerous bacteria and toxins that can impair water quality and pose a risk to public health.

During the 1970's phosphorus was identified as the key contributor to algae growth in the Lakes, and as a result its use was banned in laundry detergents. The results were almost an overnight success, as the Lakes bounced back while the algae disappeared. According to Michigan Environmental Council's report *Something's Amuck*, released in June of 2006, "one pound of phosphorus can stimulate the growth of as much as 500 pounds of algae." What is the cause of the recent algae blooms? The resurgence of algae is likely due to phosphorus inputs and the invasive mussel species. The feeding habits of the invasive mussels have increased the clarity of water which increases the amount of sunlight that fosters algae growth.

In an effort to combat the problem groups are initiating local controls to reduce phosphates.

West Michigan puts the stopper on phosphates in lawn fertilizer Muskegon County: In June 2006, the Muskegon County Commission passed a county-wide ordinance to ban the sale of phosphates in lawn fertilizers. The ordinance was stimulated by an educational campaign spearheaded by the Mona Lake Watershed Council on the concerns of algae growth in Mona Lake.

Ottawa County: In December 2006, Ottawa County followed Muskegon County's lead and passed an ordinance that restricts the use of phosphates in lawn fertilizers. Clean-up Our River Environment, a newly formed group in West Michigan, was helped along by the support of the Lake Macatawa Shoreline Association in getting the local ordinance introduced and passed.

In addition to the ordinances in West Michigan, the Huron River Watershed Council was successful in getting a similar ordinance passed in the City of Ann Arbor. These efforts have helped to broaden the support for statewide phosphate reduction legislation.

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For more information on reducing phosphates in your community, contact Jamie Cross, Manager of Outreach Programs, Alliance for the Great Lakes at 616-850-0745 ext. 12 or jcross@greatlakes.org.

REDUCE PHOSPHATES

DOOR COUNTY, WISCONSIN GROUPS WORK TO REDUCE PHOSPHATES IN SURFACE WATERS

By Jerry Viste, Executive Director, Door County Environmental Council

After a long campaign by local organizations and agencies in support of the need to control the amount of nutrient discharge into our surface waters, the Door County Board of Supervisors approved a phosphorus control resolution. This newly enacted resolution requires that all lawn owners be restricted to using phosphorus fertilizer only when the need is determined by an actual soil test. Local fertilizer suppliers and lawn maintenance firms will be cooperating in this effort.

This initiative was stimulated by the Door County Environmental Council and the Door Property Owners organization along with the Door County Soil and Water Conservation Their efforts led to a draft

resolution submitted to and approved by the County Board in November. Since that time the draft has been used as a model for a similar resolution that was introduced at the state convention of Soil and Water Conservation Districts. That group passed the resolution and now support is being solicited in the state legislature for passage.

In addition to the resolution, a cooperative message paper enumerating the danger of dishwasher detergent containing phosphorus and urging use of non-phosphorus detergent was created. The paper was furnished to all towns for inclusion with the tax parcel billings so individual homeowners could benefit from the

information and make the choice to request non-phosphorus dishwasher detergent, the amount of phosphates in dishwashing detergent varies from brand to brand.

Through the slow processes of public education we can achieve the goal of phosphorus free detergent and sustainable stewardship of lawn and municipal grassy areas eventually halting the discharge of the excess nutrient into our surface waters.

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For more information contact: Jerry Viste, Executive Director, Door County Environmental Council at 920-743-6003 or jerryvmv@itol.com.

Lake Huron Basin Update - U.S. Side



GRAYLING STORMWATER PROJECT LEADS THE WAY FOR SMALL COMMUNITIES

By Chris Grubb, National Wildlife Federation



Steve Southard considers the Au Sable River in Michigan's northern Lower Peninsula one of the finest rivers east of the Mississippi. He's not alone. It was along the banks of this gem near Grayling, Michigan that one of the United States' most respected conservation organizations, Trout Unlimited, was formed. In addition to

providing world class trout fishing, the Au Sable River is home to an annual canoe race, as well as scenery and wildlife that define Michigan's "Up North."

The tremendous natural resources found in northern Michigan, like the Au Sable, are often compared to the goose that laid the golden egg. A spokesperson for the Grayling Chamber of Commerce attributes at least 60 percent, and possibly up to 80 or 90 percent, of the city's economic activity to tourism. Much of that tourism is driven by the Au Sable. So it's no surprise that Steve, local conservation groups, city leaders, and others saw fit to deal with an issue that could damage the Au Sable: stormwater pollution.

A Big Goal

After an initial study on the impacts of stormwater from the city of Grayling on the Au Sable River, the Grayling Stormwater Project was born. Local partners set an impressive goal. They aimed to retrofit the city's stormwater system using low impact development techniques to reduce the amount of stormwater reaching drains by 80 percent. Of the remaining stormwater that did reach the drains, they intended to use best management practices like oil/grit separators to treat the stormwater before it reached the river.

Anyone who has embarked on a fundraising campaign knows it's critical to have an arm twister on board. Steve Southard, the proprietor of a local fly fishing shop in Grayling (the Fly Factory), was in a fortuitous position to rally conservation groups in the area and around the state behind the effort. About half a dozen chapters of Trout Unlimited, along with groups like the "Trout Bum Bar-B-Q" and the Michigan Fly Fishing Club, answered the call raising \$120,000. With a team that now included financial and in-kind contributions from the City, the local Chamber of Commerce, the non-profit Huron Pines, and others, the group was able to secure funding from the state's Clean Michigan Initiative. Even the Michigan Department of Transportation has gotten in the act, contributing \$90,000 to mitigate for runoff from a nearby highway.

Construction for the project began in September 2005. Taking a page from communities in the western United States, the project leaders targeted right-of-ways along residential city streets as ideal spots for rain gardens. In Phase I of the project, 86 rain gardens were installed and have been planted with shrubs and perennial flowers. In addition to the rain gardens, the project leaders have purchased and installed seven Vortechnic oil/grit separators to treat the remaining stormwater that does reach the pipes before it enters the Au Sable.

The Snowball Effect

The final phases of the project will be completed this year. But before the project is even finished, Brad Jenson, Executive Director of Huron Pines in Grayling, is thrilled with the feedback he's getting from other communities in northern Michigan. Brad has been approached by local government officials and residents in a number of other communities in the area about initiating similar projects. The part that Brad particularly loves is that none of these communities in northeast Michigan are large enough to qualify as "Phase II" communities - those that have to meet stormwater standards established by the U.S. EPA. That means the communities can see the benefits of finding innovative ways to deal with stormwater that will protect the area's famed waterways and strengthen local economies, all without being told to do it!



The 86 rain gardens installed on Grayling streets help to reduce stormwater pollution to the Au Sable River. The rain gardens are also attractive landscaping.

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To learn more and watch a video about the Grayling Stormwater Project, visit www.huronpines.org.

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Lake Huron Basin Update - Ontario Side



LAKE HURON – ONTARIO SIDE BLOWIN’ IN THE WIND: CAN ALTERNATIVE ENERGY SOURCES PROTECT OUR WATERS?

Contributed by Ziggy Kleinau



Ziggy Kleinau with his newest grandchild – working for a brighter future.

The coast of southeastern Lake Huron has been an attractive wind energy market in recent years. Mostly in stages of planning, a number of wind farms are finding the winds off Lake Huron an attractive place to be.

EPCOR, a large energy company from Alberta, began the development of Kingsbridge I Wind Power Project, a 40 MW wind-farm, situated near the shoreline community of Goderich, ON. It began construction of the project in early 2005. The 22 turbines can reportedly produce enough power for about 12,000 homes annually. The Kingsbridge I project was to be immediately followed by Kingsbridge II, which would have added another 69 turbines. That project is now on hold. In addition, another energy company, Enbridge, had plans to install 110 turbines just north of the lakeshore town of Kincardine. Local opposition began raising concerns about setbacks, public health and environmental impacts on birds.

About 20 kilometres to the north of Kincardine is the Bruce Nuclear Power Development (BNPD), the largest civilian nuclear power facility in North America. A small organization of vocal wind farm opponents emerged from the Kincardine area to challenge these wind energy developments.

While this observer prefers smaller, distributed wind power development over 50, 60, or more unit wind farms on a limited parcel, one has to consider the ultimate benefit from this type of energy generation. No fuel required, no air or water pollution, no waste to be kept safe for thousands of years at huge cost.

And they don’t need water for cooling like nuclear reactors who actually contribute to climate change pouring millions of liters of cooling water a minute up to 10 degrees warmer back into the lakes, increasing the rate of evaporation.



Wind turbines such as these at the Lafarge Plant can produce pollution free energy for an average 550 homes per year. Local opposition has stalled a wind energy project in Goderich.

With all the talk of possible terrorist attacks, wind farms would not be attractive targets as they don’t release deadly radiation. All these points have to be taken into consideration. Wind energy projects are funded with private capital, not taxpayers’ funds, thereby not saddling our children and grandchildren with billions of debt on top of what is already there from existing nuclear plants. What we need is to take a good look at where we can eliminate unnecessary power use, cut down on our electricity bills and give wind and solar generators a fair chance to show that they can fill the void from phased-out polluting and inefficient power generation!

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Contributing author, Ziggy Kleinau, is coordinator of Citizens for Renewable Energy, a non-profit organization incorporated in 1996. He also served for 7 years as Regional Director for Lake Huron on the Board of Great Lakes United.

For more information, please contact: cfre@web.ca.

Lake Erie Basin Update - Ontario Side



COLD WATER SULPHUR SPRING FOUND IN BUCKHORN CREEK

By Cherish Elwell, Niagara Restoration Council

In 2001, the Niagara Restoration Council (NRC) identified a cold water sulphur spring that drains into Buckhorn Creek as a potential barrier to fish migration.

The existence of sulphur springs in the Niagara region was not a new discovery; but the potential for these springs to act as barriers to fish migration was a cause for concern. In fact, several cold water sulphur springs have been identified in the Niagara peninsula. These springs are all quite similar – temperatures range between 9 and 10 °C year round, they smell of sulphur, and are blue-grey in color.



*Buckhorn Creek sulphur spring in June 2006.
Courtesy of Niagara Restoration Council.*

In 2006, with financial assistance from the Great Lakes Sustainability Fund, and in partnership with the Niagara Peninsula Conservation Authority, the City of Hamilton, the Glanbrook Landfill Coordinating Committee and Niagara College, the Niagara Restoration Council employed Biotactic Fish and Wildlife Research to determine if the Buckhorn creek sulphur spring was a natural environmental feature and if it was a chemical barrier to fish movement.

A series of experiments was conducted, the first, showed that the cold water spring at Buckhorn Creek produces a chemical barrier that extends about 500 meters downstream during low flow periods.

Electrofishing surveys revealed fish were present both upstream and downstream from the spring, suggesting that fish passage is possible. It was determined that these springs are of natural origin and that the Buckhorn Creek sulphur spring contributes to biodiversity with regionally (and perhaps globally) unique purple sulphur bacteria, primitive cyanobacteria and other species worthy of conservation.

It was determined that the Buckhorn spring is not a complete barrier to fish movement during high flow events like the spring freshet which stimulates many fish species to migrate upstream. Approximately 500 meters of habitat downstream from the spring is unsuitable for fish during low flow conditions. The spring contributes to base-flow in the creek, especially during summer, and upstream and downstream from the “reaction zone”, a multitude of fish, insect, amphibian and reptile species were observed. It is therefore concluded that the

Spring does not produce a complete barrier to fish movement throughout the year, and does not require remediation.

The Niagara Restoration Council is interested in locating previously unrecorded cold water sulphur springs. If you are aware of the location of a potential cold water sulphur spring please contact us via niagararestoration@becon.org, or phone at (905) 788-0248. This study was presented at the Great Lakes Sustainability Fund conference in December 2006 and the American Fisheries Society Ontario Chapter Annual General Meeting in March 2007. Copies of the final report will be available via our website at www.niagararestoration.org.

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*For more information on this study please contact
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at www.biotactic.com.*

Lake Erie Basin Update - U.S. Side



DITCHES: THE CHEAP AND DIRTY WAY TO SOLVE STORMWATER MANAGEMENT WOES

By Trent A. Dougherty, Ohio Environmental Council



For well over a century, landowners have used Ohio's Ditch Laws and channelizing of streams as the most economical way to rid their land of excess water. Thus, ditches have been the major conveyance of stormwater for much of Ohio's rural areas, and especially for the former Black Swamp region of Northwest Ohio. With the

traditional method of drainage also comes a cost to the water and resource quality of the watershed. Yet, the regulatory mechanisms provided by the Clean Water Act to protect watercourses from the ill-effects of stormwater have not traditionally been applied to ditches.

While the drainage ditch laws have traditionally been applied in rural areas to aid in agricultural production, ditching of streams is no longer confined to the farms fields. As sprawl brings more people and more businesses into once smaller and remote villages and municipalities, has it also brought the need for stormwater drainage improvement? Some municipalities are developing at such a rate that they are out-growing the current infrastructure. To make up for poor stormwater management some municipalities are turning to ditches.

Perhaps this is because traditionally ditching projects have not needed permits; and the ditch laws allow the costs of these projects to be spread to "benefiting" landowners. Also, the Ohio EPA has traditionally not bothered itself with the water quality impacts of ditching, as it has with other stormwater improvement projects.

However, the culture may be changing. The water quality impacts from hydromodification of streams (or the physical alteration of a stream such as deepening, straightening, ditching, filling or otherwise) for stormwater are evident and are being documented by researchers and governmental agencies. Even the Ohio EPA has recognized hydromodification as a major water quality problem. The agency has cited that such modification is "the origin of the habitat degradation, pollutant, nutrient, siltation and sedimentation problems in smaller streams and a leading source of impairment to the water quality of larger streams into which they flow."

A recent complaint filed with the Ohio EPA, alleged that a ditch project on Marion County's Bee Run required a Clean Water Act storm water permit because construction of the project would disturb over an acre of land. Routinely, individual ditching projects are performed on relatively short segments of a water course, but ditch construction activities rival the impacts of



Both the stormwater and the cost usually flow downstream to make up for stormwater management. The City of Lima, OH petitioned Allen County to ditch Pike Run (a tributary to the Ottawa River, and eventually flowing into Lake Erie) to alleviate supposed stormwater flooding. This \$1 million project will not only impact Pike Run within the city limits, but individual landowners downstream (above) will foot a decent portion of the bill.

construction that are traditionally regulated. Upon investigation by Ohio EPA officials, it was concluded that the construction of the ditch created such a large footprint that a permit was necessary. To quote the Ohio EPA's investigatory report: "Stormwater discharges from this activity will carry fill material, dredged material and suspended solids into Bee Run, which are waters of the state." An investigation of this degree, a conclusion that among other permits needed, that a stormwater permit was necessary for a drainage ditch project, and the conclusion that a "ditch" is a water of the state, is unprecedented.

As mentioned, the culture of destroying streams as the means of providing stormwater drainage is changing. The change is neither monumental nor swift. Nevertheless, the need for change to provide for water quality protection is real, and there are opportunities to marry concerns of water quality and water quantity. Landowners and cities want the stormwater off their land; enviros want the water clean; yet it is up to both to come together to find the solution.

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Lake Ontario Basin Update



LAKE ONTARIO BEACH POSTINGS CONTINUED IN 2006

By Kaija Siirala and Krystyn Tully



Krystyn Tully

Beach Postings

Beaches continue to be an area of concern in many communities along Lake Ontario - among citizens, environmental groups and politicians alike. For many of the lake's urban residents, beaches are our gateway to nature ... the closest thing to wilderness we experience in our everyday lives.

For the past three years, Lake Ontario Waterkeeper has kept a daily record of which beaches have been posted as safe or unsafe for swimming. We began our monitoring program in the Toronto area and we expand the list of monitored beaches each year. Nearly every beach in Ontario is impacted by sewage or stormwater pollution.

In Ontario, municipalities sample for E-coli and "post a beach closed" when E. coli levels exceed 100 counts. In 2006, municipalities showed few signs of improvement. Nearly every beach on the lake was posted at some point during the summer. Not one city had its beaches open 95% of the summer, the provincial standard for a clean beach.

The top five most frequently posted beaches were spread out over the lake: Jones Beach, in St. Catharines; Bayfront Park, in Hamilton; Rotary Park, in Durham; Lakeview Beach West, in Durham; and Wicklow Beach in Northumberland.

The good news is that there are also beaches safe for swimming in most areas. Eight beaches remained open for swimming for the entire season: In Toronto, Hanlan's Point; In Durham Region, Frenchman's Bay West and Whitby Beach; In Prince Edward County, Centennial Park -Northport and Zwick's Island; and in Northumberland, Port Hope East and Victoria.

Causes and solutions

There is no single cause of beach postings. E. coli can come from old sewage systems that dump untreated sewage into the lake. It can come from stormwater that carries contaminated water from our neighbourhoods to our beaches, or from wetlands that are designed to treat stormwater but are not working properly. Some experts point to birds, though Waterkeeper has not yet found a correlation between the number of birds at a beach and levels of E. coli.

In Ontario, we have a number of provincial policies that are designed to identify contaminated beaches, locate the source of the contamination, and improve water quality so it is safe for human and aquatic life. The Ministry of the Environment's "Procedure F55" says beaches in cities with combined sewer systems – where sewage is discharged untreated when there is a lot of rain or snow – must be open at least 95% of the summer.

The Ministry of Health's "Beach Management Protocol" says municipalities must identify every possible source of E. coli (pipes, wetlands, septic tanks etc.) and locate the actual source by process of elimination in order to solve the problem. Unfortunately, no municipality on the lake is using these tools to meet these provincial goals.

Since no municipality has met Ontario's standards for a clean beach in the three years the monitoring program has been in place, the battle to reclaim Lake Ontario's beaches is far from over.

Beach postings on Lake Ontario			
Ontario region	Number of times beaches posted		
	2006	2005	2004
Durham Region	38	34	28
Hamilton	38	37	43
Northumberland County	19	28	N/A
Mississauga	14	12	0
Prince Edward County	12	10	N/A
St. Catharines	73	64	85
Toronto	28	42	44

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If you want more information, please visit our website: www.waterkeeper.ca/beaches. If you have information you would like to contribute to our program, please contact us at news@waterkeeper.ca

Grassroots Profile



THIS EASTERN ONTARIO RIVER HAS FRIENDS: CONNECTING A COMMUNITY TO ITS WATERSHED WITHOUT A CRISIS

By Gray Merriam, Susan Moore, and Steve Pitt

The Friends of the Salmon River (FSR) is a volunteer group formed in 2004 to care for the Salmon watershed by gathering, producing, and dispensing knowledge in educational projects for users of the watershed. There was no major crisis. We hoped that by informing users, their attachment to the land would be strengthened, their stewardship would be more effective, and crises would be avoided. A major project was the publication of a book, *The Salmon River Watershed: Jewel of Eastern Ontario*.

This book combines existing information with new knowledge from a basic assessment of the watershed accomplished by the local Stewardship Councils with support from FSR. The work was funded from the Canada-Ontario Agreement that supported cleanup of the Bay of Quinte Area of Concern.

There are Salmon Rivers in several U.S. states and at least three Canadian provinces. This particular Salmon River flows south for about 150 kilometers off the Precambrian (Canadian) Shield, down across the Ordovician limestone plain, and into Lake Ontario at the Bay of Quinte.

The Salmon River assessment produced a report, *The Salmon River Habitat Strategy*, in 2005. The 18-month project followed guidelines published by Environment Canada (*How Much Habitat is Enough*, 2004). Comprehensive measurements included: quantity and quality of several types of habitats, and natural vegetation, these variables were compared to values recommended by Environment Canada for the entire watershed and separately for the northern portion on the Canadian Shield and the southern portion on the limestone plain. In addition, with help from the Ontario Ministry of Natural Resources, fish were inventoried along the river and in some of the 53 named lakes in the watershed. Water chemistry was analyzed along the river by the Ontario Ministry of the Environment (MOE) and in the lakes by FSR by way of the Lake Partners Program of MOE.



Salmon River

Three public meetings were hosted by FSR and the local Stewardship Councils to report results to the residents and the users of the watershed. There was still no crisis to announce; instead our challenge was getting everyone fired up to look after a watershed that was basically healthy.

Using all this information, sites that could be effectively targeted for restoration projects were selected. These were mainly riparian vegetation restorations in the southern limestone area of the watershed. On-the-ground, follow-up projects included no-obligation, no-cost land stewardship plans for private landowners, discounted supplies of seedling trees and shrubs, how-to workshops, and help in planting. Over 20 owners have received professional stewardship plans for parcels ranging up to a few hundred hectares (x2.5 for acres). Many thousands of trees and wildlife shrubs have been distributed.

Other spin-offs have included: information signs for lake users; cooperative projects with volunteer lake associations to improve fish habitat and provide habitat to compensate for construction losses; and a pilot project to improve cooperative lake stewardship by volunteer associations and the watershed Conservation Authority.

A station for benthic faunal survey of unimpacted headwaters has been established to provide baseline data into the future, and a network of precipitation gauges with online data input has been developed.

FSR has mounted several watershed education projects including classroom visits by trained educators to two grade levels in all elementary schools in the watershed, a Public Lecture Series, an annual public bus tour of the watershed, and articles in several print media. We have provided information sessions to all conservation agencies working in the watershed. Currently, we are giving information presentations to seven Municipal Councils in the watershed and to service clubs in towns outside the watershed that are sources of visitors.

The best news is that the Salmon River watershed still provides favourable habitat for otter, mink, and pileated woodpeckers over most of its length; for moose and black bear in many places; for a full diversity of amphibians; for human users, too. The Salmon River watershed will continue to make healthy contributions to the Bay of Quinte and Lake Ontario.

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*For more information, please contact
The Friends of the Salmon River
at merriam@xplornet.com.*



In the Media

GREAT LAKES CONNECTIONS AIRED THIS SPRING

Wisconsin residents were asked to make the “Great Lakes Connection” this April as a part of a special partnership between Great Lakes Forever and Wisconsin Public Television. The partnership produced a special series of broadcasts about Wisconsin's connection to the Great Lakes this year on Wisconsin Public Television's award-winning, weekly news magazine program *In Wisconsin* with Patty Loew.

The April *In Wisconsin* programs featured the following Great Lakes topics: Lighthouse Rehab; Safe Catch; Grandma Gen; Quagga Mussels; and Biofouling. You too can make make the “Great Lakes Connection” and watch these broadcasts online at www.greatlakesforever.org/html/wpt/index.htm. The website is a gateway to watching all the Wisconsin Public Television stories with special outtakes, producer's diaries, a talk back diary and more.

Great Lakes Forever is a public education initiative designed to raise awareness of the value and vulnerability of the Great Lakes. The program, initially launched in 2004 by the Wisconsin-based Biodiversity Project is being expanded to Chicago in 2005 with the support of the John G. Shedd Aquarium and other Chicago and regional partners. This coalition shares a common desire to create a broader, more engaged constituency that sees reasons to get involved in protecting the Great Lakes. Long-term, the campaign also seeks to foster an institutional commitment and a sustainable capacity to build that more engaged Great Lakes constituency.

Great Lakes Forever frames discussion of the Lakes around four key issues: water quality, water quantity, habitat protection and invasive species control. This coalition of partners and regional advisors is working to raise the profile of important, but poorly understood Great Lakes issues, such as: polluted run-off, groundwater depletion and habitat loss. The program combines several communications components in an effort to reach the public on these issues: media outreach (press kits,) educational advertising (print and radio,) point-of-experience signs (at lakefront areas,) and Web-based outreach.



Great Lakes Connection program aired early this spring. Broadcasts are available online at www.greatlakesforever.org

More than 20 U.S. and Canadian advisors are involved in the Great Lakes Forever campaign including the Great Lakes Aquatic Habitat and Network Fund.

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For more information contact Jeffrey Potter at 608-250-9876 or info@greatlakesforever.org.

SAVE A TREE



SUBSCRIPTION INFORMATION:

Please e-mail Sandy at sand@glhabitat.org if you have any changes to your contact information. If you wish to receive GLAHNF correspondence electronically, please include your email address and be sure to note “electronic subscription” in the subject of your e-mail.

Continued Stories



CONSERVATION GROUPS FIGHT BACK IN COURT TO UPHOLD LAW TO STOP INVASIVE SPECIES

discovered in the Great Lakes every 28 weeks from all pathways. Since 1970, 77 percent of the invasions (36 of 47) are attributable to transoceanic shipping activities.

“What’s wrong with this picture?” asked Andy Buchsbaum, center director of the National Wildlife Federation’s Great Lakes office. “The shipping industry brings zebra mussels and dozens of other harmful organisms into the Great Lakes and spreads a deadly fish virus through the lakes. Now it’s suing us - Michigan citizens - to stop us from defending our rivers and lakes and the Great Lakes themselves. Well, we’re fighting back, and that’s why we’ve gone to court.”

Invasive species such as the zebra mussel, discharged into the Great Lakes via oceangoing vessels, have caused enormous ecological and economic damage. Invasive species out-compete native species such as lake perch, whitefish, and others for food and habitat and can also impact people in their daily lives. Recent federal research suspects a connection between zebra mussels and algae, which can have toxic effects on human health.

Invasive species also cost the Great Lakes region \$5 billion annually in damage and control costs, according to the Great Lakes Regional Collaboration Strategy released in December 2005.

“Citizens from around the region are paying billions of dollars annually,” said Cameron Davis, president of the Alliance for the Great Lakes, which is being represented by Christopher Tracy of the law firm Howard & Howard in Kalamazoo, in the litigation. “It’s time for oceangoing ships to start paying for their own damage to the region. The average person shouldn’t pay for the shippers’ failure to innovate to fix this problem that they’ve known about for decades.

Mark Your Calendar



Indiana Rivers Rally, Purdue University campus and nearby rivers, Thursday, June 7, 2007 - Saturday, June 9, 2007
<http://www.indianariversrally.org/>

Great Lakes United AGM 2007: Celebrating 25 Years of Great Lakes Protection, Ryerson University, Toronto, ONT, June 15-17, 2007
<http://www.glu.org/english/agm2007/index.htm>.

Third Annual Great Lakes Restoration Conference: Palmer House Hilton, Chicago, Ill., September 6-8
Sponsored by the Healing Our Waters Great Lakes Coalition. Enjoy an evening at the Shedd Aquarium, a beautiful sunset cruise, dynamic speakers, field trips and much more!
Contact: Martha Borie Wood, 312-939-0838 ext. 227, or mboriewood@greatlakes.org

Save the Date

4th Annual Grassroots Symposium

October 19-20, 2007

Lake Michigan Basin

Site Location: To be announced

Reserve the date in your calendar. We hope you'll plan to join us for a weekend of networking, training opportunities, and tons of practical information and tools on how to make our organizations more effective.

The Grassroots Symposium is also lots of fun!

More details on the event will be available soon.

Visit our interactive Great Lakes Calendar at www.glhabitat.org



Meet the Staff

GREAT LAKES AQUATIC HABITAT NETWORK AND FUND MEET THE STAFF:

When the Great Lakes Aquatic Habitat Network and Fund became an independent organization this past January not much changed. Our mission is the same. Our work is pretty much the same – providing financial assistance, communications and networking assistance to citizens and grassroots activists in the Great Lakes basin. However, the people behind the scenes has not changed so much as GROWN. We would like you to get to know the people and faces behind GLAHNF. We love our work. Please don't hesitate to contact any of us for assistance or more information.



Cheryl Mendoza, Regional Policy and Network Advisor, will begin work for GLAHNF in mid-May. Cheryl will be working on the many policy issues facing the Great Lakes, such as diversions, bulk water sales and impacts from sand dune mining and development. She will be working closely with our 1800 network

members to build connections and provide assistance to the citizens and communities that make up GLAHNF.



Jill Ryan, Executive Director, has coordinated the Great Lakes Aquatic Habitat Network and Fund for the past seven years. In her new position as the Executive Director, Jill is working with the Board of Directors to build a solid organizational foundation for GLAHNF. Jill works out of the Petoskey office.

Ann Baughman, Outreach Specialist, began work for GLAHNF in the fall of 2006. Ann is working on diversifying funding sources, program development and events. Ann works out of the Petoskey office.



Sandra Wilmore, Grant Program and Publications Manager started in this position in February. However, Sandra is not new to GLAHNF. She was on the first Advisory Panel when GLAHNF was established and knows the organization extremely well. Sandra is the "go to" person for grants. She works with our grantees on contracts and reporting, as well as with our grant readers for selecting projects to fund. Sandra will also be managing future publications including the GLAHNews. Sandra works out of the Indiana office.



Fond Farewell

This spring we are saying goodbye to Emily Hartz, Program Associate. Emily Hartz joined the Great Lakes Aquatic Habitat Network and Fund team as Program Associate in 2004. Emily will be enrolling in Antioch University for graduate studies this fall and is pursuing a masters degree in science education.

We appreciate the excellent work Emily accomplished while a part of GLAHNF (specifically—her efforts on the Runoff to Renewal publications) and wish her well in her next adventure.

For more information on individual staff members, go to our website, www.glahabitat.org.

Thank You



Thank you to the following 2006 - 2007 donors whose help ensures that we may continue to support local advocates working to protect the Great Lakes:

James & Marie Austin	Donald Geiger	Bob & Ginny Lind	Richard Shoquist
Kendra Axness	Wally Gemignani	Justine Magsig	Marilynn Smith
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Tony & Victoria Fleming	Sydney Lea	Aaron Rosinski	Defense Council
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Action Alert

GREAT LAKES HABITAT INITIATIVE PROJECT DATABASE!

Add your project to the Great Lakes Habitat Initiative project database!

The Great Lakes Habitat Initiative is identifying site-specific, high-value habitat restoration and conservation projects among the Great Lakes states that are ready for near-term implementation. This project will bridge the gap between the regional needs identified in the Strategy of the Great Lakes Regional Collaboration and the programs that provide funding for “on-the-ground” actions.

Because this list of projects could be used by funding agencies as a way to determine where to direct resources, organizations are strongly encouraged to enter their top 5-10 projects into the GLHI onlinedatabase: <http://gis.glin.net/dropbox/login.php>. Project information must be entered by June 15, 2007 to be considered. First time users will need to register. See <http://glhi.org/> for more information.



Hot off the Press!

GLAHNF stormwater materials are now available – just in time for spring rains. Stormwater is the theme for GLAHN's 2006/2007 Success Stories and fact sheets. Though the challenges addressed vary: a dying lake, stream bank erosion, big box developments, and heavily paved cities polluting local water bodies, stormwater is a connecting thread across each of these stories. So too are the advocates. Using ingenuity, creativity and open-minds, local advocates successfully turn stormwater runoff into a source for renewal in their communities. The fact sheets provide a summary of management techniques that municipalities can use to reduce the impacts of stormwater on our lakes, rivers, wetlands, and Great Lakes. They also provide tips on how to make stormwater into a resource and how to use stormwater as a tool to boost aquatic habitat protection in your community. For electronic copies of the publication go to www.glahabitat.org. If you would like paper copies please contact us at info@glahabitat.org.



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