



NEWS

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Great Lakes Legacy Act implementation underway

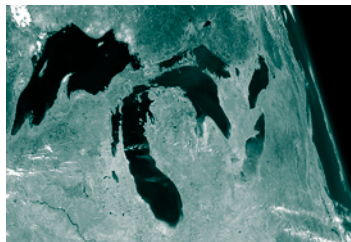
The first request for projects (RFP) under the [Great Lakes Legacy Act](#) resulted in an overwhelming request for funds – exceeding available funds eight times over – to address contaminated sediments in Great Lakes Areas of Concern (AOC). The [U.S. Environmental Protection Agency, Great Lakes National Program Office \(GLNPO\)](#) released the RFP in January with proposals due in March.

While the fiscal year 2004 appropriation for the Legacy Act was \$10 million, 14 projects totaling \$80 million were ultimately submitted to GLNPO. The 14 proposed projects came from 12 AOCs, with two

projects submitted for both the Detroit River and St. Louis River AOCs (see the table on page 5 for a complete list of proposed projects). If funded, these projects would remediate an estimated two million cubic yards of toxic sediments and leverage more than \$60 million in nonfederal funds.

In Michigan, five cleanup projects were submitted for four AOCs (Detroit River, Muskegon Lake, River Raisin and the St. Marys River) for a total cost of \$22.5 million, including a request for \$14.5 million in funding under the Legacy Act. These five projects would remediate between

see Legacy Act, page 5...



An Action Agenda for Restoring Michigan's Great Lakes Toxic Hot Spots

A special insert following page 8.

SPAC Report

The Statewide Public Advisory Council (SPAC) continues to work on many fronts to advance cleanup efforts in Michigan's 14 Great Lakes Areas of Concern. Below are highlights of the Council's recent activities.

New MDEQ funding for the SPAC

The [Michigan Department of Environmental Quality \(MDEQ\)](#) has provided two years of funding support for the SPAC. Through a grant to the Great Lakes Commission, which provides administrative and technical support to the Council, MDEQ is supporting the SPAC's work during fiscal years 2004 *see SPAC, page 8...*

The road to delisting: three case studies

Black River Area of Concern reaches two milestones

Identified as one of Lake Erie's most contaminated tributaries, the Black River is now recovering thanks to combined federal, state and local efforts. In April, Ohio Governor Bob Taft announced two milestones in the river's journey toward full cleanup.

First, a 21-year-old contact advisory on the lower five miles of the river has been lifted by the Ohio Department of Health. The advisory was issued in 1983 because bottom-feeding fish caught there had excessive numbers of liver and lip cancers. The tumors were linked to toxic industrial wastes in river bottom sediments. In 1990, 50,000 cubic yards of contaminated

sediment were removed from the river bottom. Over time, water quality and the fish community have gradually improved, leading the state to lift the contact advisory.

see Delisting, page 3...



credit: Monroe County Convention and Tourism Bureau

Agency News

News from U.S. EPA

Challenging times for Great Lakes region

By Judy Beck, Lake Michigan Team Manager
U.S. Environmental Protection Agency - GLNPO



These are exciting times for those of us working on the Great Lakes. Restoring and protecting the lakes has emerged as a regional priority, with the Great Lakes governors and many other stakeholders actively engaged in developing a comprehensive, regional restoration program. Congress is considering several bills to fund such a program.

In the most significant recent development, President Bush issued an executive order in May creating a Great Lakes Interagency Task Force. With leadership from U.S. EPA, the Task Force brings together ten federal agencies and cabinet officers to provide strategic direction on federal Great Lakes policies, priorities and programs. The Task Force is charged with developing measurable, outcome-based goals and will report back to the President by May 31, 2005.

The Task Force will be supported by a Great Lakes Regional Working Group, chaired by the Great Lakes National Program Office (GLNPO) and composed of directors from key federal agencies, that will coordinate and make recommendations on how to implement the Task Force's priorities. The President's Executive Order also calls for collaboration among regional, state, local, tribal and other interests to develop an overall strategy for protecting the Great Lakes.

While the challenge facing the Task Force is daunting, we already have many programmatic "tools" in place to guide its work. Since the initial publication of the Lakewide Management Plans on Earth Day in 2000, several important new federal laws and programs have been initiated to address specific Great Lakes problems. Among the most significant are

- The Beaches Environmental Assessment and Coastal Health Act, requiring adoption of consistent bacterial standards, research on new pathogen indicators, and improved techniques for rapidly detecting elevated bacteria levels, with a \$10 million grant program for state and local implementation.
- The Small Business Liability Relief and Brownfields Revitalization Act, providing an \$11 million grant and loan program, liability relief and resources for state response programs.
- The Public Health Security and Bioterrorism Preparedness and Response Act, requiring community systems serving greater than 3,300 people to conduct vulnerability assessments and report to U.S. EPA.
- The Great Lakes Legacy Act, authorizing \$270 million to clean up contaminated sediments in Areas of Concern.

In addition to these programs, GLNPO has supported partnerships among federal, state, tribal and local agencies to tackle other Great Lakes priorities, including the [Great Lakes Coastal Wetlands Consortium](#), [Great Lakes Islands Initiative](#), and sturgeon restoration projects.

As GLNPO embarks on this new phase in Great Lakes management, we have much to learn from, and build on, in the Lakewide Management Plans (LaMPs). With release of the 2004 LaMP updates this spring, we are reminded of the hard work that so many partners have invested in these comprehensive documents. Indeed, the LaMPs should be "required reading" for the members of the new Great Lakes Task Force. For us at GLNPO, and no doubt for our many partners, it is clearly an exciting time to be working on the Great Lakes. ♦

News from the IJC

A call for renewal

By Gail Krantzberg
Director, Great Lakes Regional Office
International Joint Commission



Maybe it is because summer is here. There is a definite sweet anticipation around the notion of ripeness and the concept of renewal. The anticipation brings promise of revitalization. My eyes wander from the monarchs on my *Echinacea* in my garden to article X (4) of the Great Lakes Water Quality Agreement (GLWQA). (I am a bit compulsive about my garden and my lakes). The promise is made by Canada and the United States to conduct a comprehensive review of the Agreement following every third biennial report of the International Joint Commission (IJC). A review of the Agreement is to follow the release of the IJC's Twelfth Biennial Report in September 2004.

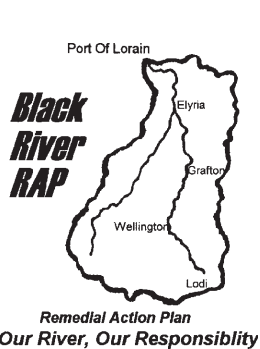
Just as the cardinals in my garden are exploding with song, the voice of numerous groups in the Great Lakes region seem to be beckoning for this review.

The GLWQA is essentially a pollution control and elimination tool, because chemical impacts on the lakes were the issues best understood when it was formed. The approach is roughly akin to enhancing and maintaining great gardens by making sure the balance between nitrogen, phosphorus, potassium and microelements is correct. The needs for a great garden are much more complex than that (and include stress due to groundhogs, rabbits and earwigs). And the expanded list of threats to the health of the Great Lakes Basin ecosystem requires far more than top dressing. Such threats include loss of species and spaces, climate change, invasive species, emerging chemicals and pathogens, aging infrastructure, unmanaged growth, and the list goes on. These threats not only constitute ecological challenges but also a challenge for governance. Much as it is relatively easy to go light on the fertilizer, it is a great deal more difficult to restore the natural integrity of the system with simplistic solutions.

So let's return to the promise – and the opportunity for renewal. Consider that we are at the point of revamping our landscape. What are the principles and criteria we will use to select or change our landscape components? Who should we consult? Maybe you have your views and ideas on the promise for our Lakes. How should this requisite review of the Agreement be done to maximize the chance for a wondrous future landscape? The Commission confirms its view that the review is a serious and important task and is facilitating public and stakeholder input to the review process. The Commission has taken a leadership role by encouraging a comprehensive review of the Agreement, and wants to connect organizations, and inspire a positive new approach to enhancing and protecting our Great Lakes. Let your voice be heard, and hear what others are saying. Join our new discussion rooms online at www.ijc.org or send us an email or letter. The lakes are yours to make great. Plan on it. ♦

Delisting ... continued from page 1.

In addition, U.S. EPA has declared the Black River to be “in recovery” for fish tumors and deformities – one of several reasons the river was designated as an Area of Concern. The Ohio Environmental Protection Agency and the Black River Remedial Action Plan Coordinating Committee documented the improved health of the fish community in a February 2004 application to U.S. EPA. The upgraded status recognizes that no additional actions are necessary to further reduce fish tumors and that natural



processes should complete the recovery process. Monitoring will continue.

Located in north-central Ohio, the Black River is the only water system in Ohio where the entire watershed is designated as an Area of Concern. This means impairments to beneficial uses such as fish and wildlife consumption, public swimming beaches and habitat have been found throughout the watershed.

For more information on the Black River RAP, contact Ted Conlin, Ohio EPA, 330-963-1131, ted.conlin@epa.state.oh.us.

Presque Isle Bay Area of Concern: first in nation to reach ‘recovery’ stage

The story of Presque Isle Bay is unique among the Areas of Concern (AOC), an expression of the power and commitment of a community to protect a treasured piece of the Great Lakes. The bay is a beautiful place, located in Erie, Pennsylvania adjacent to the state’s most visited state park, Presque Isle. Local citizens saw the AOC program as an opportunity to bring attention to the bay’s environmental problems and in 1988 petitioned federal and state agencies to designate it as an AOC. It is the only AOC listed as a result of citizens’ requests.

In December 2002, the bay became the first AOC to achieve the recovery designation, again at the request of local citizens acting through the AOC’s [Public Advisory Committee \(PAC\)](#). Now,

members of the PAC are taking a lead role again, this time to develop a process to set delisting targets that other AOC groups will be able to tailor to their specific needs.

A 1991 study and the 1993 Remedial Action Plan identified two beneficial use impairments: Restrictions on Dredging and Fish Tumors or Other Deformities. Over the following decade Pennsylvania’s Department of Environmental Protection (PADEP) partnered with the Erie County Department of Health, Pennsylvania Sea Grant, academic experts, the Department of Agriculture, and the Maryland Department of Natural Resources to study sediment and brown bullhead catfish from the bay.

The good news is that tumor rates and contaminant concentrations have been steadily declining. In the early 1990s tumor rates were as high as 86 percent for grossly observed external lesions, declining to 19 percent in 1999. A steady reduction for liver tumors was observed as well, falling from 22 percent in 1992 to zero in 1999. Additionally, the brown bullhead population was found to be stable and reproducing. While the bay’s sediment was found to contain widespread, low levels of heavy metals like lead, cadmium, and nickel, and Polycyclic Aromatic Hydrocarbons, no specific hotspots have been found. Without specific hot spots to dredge, PADEP and the bay’s PAC decided that the best way to improve sediment quality was to focus on the sediment entering the bay.

Based upon these facts, PADEP and the bay’s PAC concluded in April 2002 that the overall health of the brown bullhead population had improved and that the best method for remediating the bay’s sediment was to allow natural processes to improve sediment quality. U.S. EPA concurred with this recommendation and Presque Isle Bay was redesignated as the first Area of Concern in the Recovery Stage. This new designation means that all active remediation to address the sources of environmental degradation is complete. In the case of Presque Isle Bay, the landscape surrounding the AOC has changed dramatically and bayfront sources responsible for the historical sediment contamination no longer exist.



For Presque Isle Bay, the Recovery Stage designation is considered a major first step toward eventual delisting. The PADEP and the Presque Isle Bay PAC are committed to monitoring to ensure progress continues toward meeting delisting targets and are working on detailed monitoring plans for sediment, fish and the watershed. They are also engaging experts on fish pathology, sampling, and sediment contamination to assist with the development of delisting targets. The processes being created to determine when restoration of the impairments is complete will help other AOCs in developing their own delisting targets.

For more information on Presque Isle Bay’s Area of Recovery process, contact Lori Boughton at 814-332-6816, lboughton@state.pa.us.

Severn Sound: formally removed from Areas of Concern list

Severn Sound, the focal point of one of Ontario’s most active recreational areas, was formally delisted as an Area of Concern (AOC) in January 2003. It is only the second of 17 Canadian “hot spots” to achieve delisting, the first being Collingwood Harbour in 1994.

Located in the southeast corner of Georgian Bay, Severn Sound is home to small communities and several large marinas and hundreds of cottages. The area is an extremely popular tourist destination. The 1,100 square-kilometer watershed is where the geography of rural, agricultural southern Ontario collides with the rock and pine of the Canadian Shield.

Severn Sound was initially listed as an AOC because of degradation in water quality caused by nutrient loading. Several of the sound’s beneficial use impairments were linked to excessive algal growth. Algae blooms reduced the oxygen content of the water, almost eradicating the local walleye population

see Delisting, page 10...

Guest Feature

This space is reserved for guest features from elected officials, agency representatives, citizens and others with a special interest in the AOC Program or the environment of the Great Lakes. The opinions expressed are those of the authors and do not necessarily reflect the views of the SPAC, the Michigan Department of Environmental Quality, the U.S. Environmental Protection Agency or the Great Lakes Commission.

No greatness without great governance, great public

By Dave Dempsey
Policy Advisor, Michigan Environmental Council

We lob the word “great” back and forth almost casually these days, like a tennis ball. In routine conversation, a good meal is a great meal, and a good day is a great day. In Great Lakes policy circles, we do the same. In the last few years we’ve heard of government initiatives like “Great Waters” and new plans to “Restore the Greatness.”

So why aren’t the Great Lakes getting greater?

Maybe it’s because we don’t understand the meaning of “great.” In the Merriam-Webster Dictionary, it has multiple definitions, but the ones I favor include “remarkable in effectiveness,” “full of emotion,” and “eminent, distinguished.”

If we apply these definitions not just to the programs designed to restore the health of the Lakes, but also to the government systems that are supposed to protect them, we have a daunting measuring stick. Regrettably, the governments fall well short of meeting that dimension.

The executive order on Great Lakes protection signed by President Bush May 18 is encouraging, but at best a half-step. It puts U.S. EPA in charge of coordinating a task force regarding the scores of Great Lakes programs in the federal government and rightfully acknowledges the national significance of the Great Lakes. But it doesn’t invite the public into the process of beefing up federal Great Lakes policies – the critical element lacking in the last decade.

In *On the Brink: The Great Lakes in the 21st Century*, I have tried to sketch not only what is wrong with the health of the Great Lakes ecosystem, but also what is needed to assure their future greatness. And I have tried to illustrate the huge gap that exists between the public appreciation of the lakes and the government policies that are chipping away at their greatness.

The fact is that overwhelming majorities of the people who live around the lakes revere them. A poll commissioned by the Madison, Wisconsin-based Biodiversity Project in 2002 found that 64 percent of the more than 1,500 adults surveyed rated as “extremely important” our personal responsibility to leave the Great Lakes in good shape for future generations. But they don’t believe the Lakes are as great as they should be. Only 4 percent believed the Great Lakes are in excellent condition, and 44 percent regarded them as “OK,” “poor” or “very poor.”

They’re not alone in thinking we face serious ecosystem problems despite 30 years of sustained recovery. A majority of the environmental indicators assembled for the State of the Lakes Environment Conference (SOLEC) 2002 were mixed or deteriorating. Why? There are many reasons, but one that escapes attention all too often is the failure of our region’s governmental institutions to reflect the public will for healthier and more majestic Great Lakes.

If our institutions did reflect that will, we wouldn’t suffer the introduction of another invasive aquatic species to the Great Lakes every seven months on average or wait to act until other nations far from the Great Lakes ban many brominated fire retardants for poisoning the ecosystem and our bodies.



The most alarming implication of the failure of governments to act in a protective way toward the Great Lakes lies not in our present, but in our future. If our governmental institutions are unable to cope with readily identifiable threats to the ecosystem like exotic species for fear of offending special interests today, how can we expect them to cope with the threats of climate change, water expropriation, and runaway habitat loss tomorrow?

The short answer is that we can’t – not until we develop a system of governance as great as these spectacular lakes themselves. That means reviving the robust public participation that helped drive such landmark initiatives as the Great Lakes Water Quality Agreement and the innovative, community-based remedial action planning process for Great Lakes Areas of Concern. Citizens led the first recovery of the Great Lakes, and they’ll need to lead the second.

A report released by the Michigan Environmental Council in April offers specific suggestions on how to help citizens lead the second recovery. It calls for reform in institutions like the International Joint Commission and built-in public participation mechanisms in any Great Lakes restoration legislation to assure billions of U.S. dollars are properly spent.

Most importantly, it calls for bringing government to people, not the other way around. Through the creative use of the Internet, training of citizen ecosystem leaders of the future, and a periodic Great Lakes summit pulling together all of the region’s key institutions to respond to citizen concerns, the report envisions true greatness – an eminent and distinguished system governance system worthy of the lakes.

To read MEC’s report on Great Lakes governance, go to: <http://www.mecprotects.org>. To get more information on Dave’s book, *On the Brink*, go to: www.davedempsey.org. ♦

Dave Dempsey is Policy Advisor for the Michigan Environmental Council (MEC), a coalition of over 65 environmental organizations in Michigan. Dempsey helps coordinate MEC’s work on Great Lakes protection, children’s health protection, and other issues. Dempsey is the author of Ruin and Recovery: Michigan’s Rise as a Conservation Leader, (University of Michigan Press), and On the Brink: The Great Lakes in the 21st Century, (Michigan State University Press).

Legacy Act ... continued from page 1.

350,000 and 400,000 cubic yards of contaminated sediments.

All projects submitted thus far are U.S. EPA's first priority for existing Legacy Act funding, and may be considered for any fiscal year 2005 (FY05) appropriation. Projects must be "technically sound" with the required 35 percent nonfederal match available to receive consideration. Work will begin as soon as project agreements are signed; as of press time there was no specific date set for completing these agreements and commencing the projects. Additional project ideas may be considered as time and resources allow. Congress is currently considering President Bush's request for \$45 million for the Legacy Act in FY '05.

Early this year the Statewide Public Advisory Council sent a letter to the Great Lakes Congressional delegation urging support for the President's FY '05 budget request for the Legacy Act. The letter highlighted the unmet need for large-scale federal funds for cleaning up contaminated sediments in the Great Lakes and stressed that without these funds, many important cleanup projects would remain unfunded. The Council also noted that demand under the Legacy Act also reflects years of research and planning devoted to restoring the AOCs.

The Legacy Act, passed by Congress and signed into law by President Bush in 2002, authorizes \$270 million in funding over five years to remediate contaminated sediment in the AOCs. In its FY '04 RFP under the Legacy

Act, GLNPO's highest priority was for projects geared toward on-the-ground remediation of contaminated sediments in an AOC. Remediation projects can include, but are not limited to, remedial options such as dredging, capping, monitored natural recovery, treatment technologies, or a combination of remedial alternatives. The next priority was for projects that move a contaminated sediment site toward remediation, including site characterizations, site assessments, source identification/ source control, monitoring, remedial alternatives evaluations and short-term/ long-term effects analyses.

More information on the Great Lakes Legacy Act is available at www.epa.gov/glnpo/sediment/legacy/index.html, or by contacting Marc Tuchman or Scott Cieniawski at GLNPO at 312-353-2117. ♦

Great Lake Legacy Act Project Listing

| Project Title | Applicant | Area of Concern |
|---|---|---------------------|
| St. Louis River/Interlake/Duluth Tar Site Remediation | GKN North America Services, Inc. | St. Louis River, MN |
| Remediation of the Black Lagoon, Trenton Channel, Trenton, Michigan* | Michigan Department of Environmental Quality | Detroit River |
| Remediation of Ruddiman Creek, Muskegon, Michigan | Michigan Department of Environmental Quality | Muskegon Lake |
| Upper Sheboygan River Environmental Dredging** | Pollution Risk Services | Sheboygan River |
| Former Manufactured Gas Plant Site, Marinette, Wisconsin | Wisconsin Public Service Corporation | Menominee River |
| Ashtabula River Cleanup | Ashtabula City Port Authority | Ashtabula River |
| Remediation of the Raisin River, Monroe Harbor, Monroe, Michigan** | Michigan Department of Environmental Quality | River Raisin |
| Ottawa River LaGrange Reach PCB Sediment Remediation** | City of Toledo | Maumee River |
| Development of Delisting Criteria and Associated Sediment Quality Monitoring Program for the Presque Isle Bay Area of Concern | Pennsylvania Sea Grant, Penn State Erie & Penn State University | Presque Isle Bay |
| Waukegan Harbor Former Slip No. 3 Sediment Remediation Project | City of Waukegan | Waukegan Harbor |
| Restoration of the Kinnickinnic River, Milwaukee, Wisconsin** | Wisconsin Department of Natural Resources | Milwaukee Estuary |
| Hog Island Inlet - Newton Creek, Segment L Contaminated Sediment Remediation | Wisconsin Department of Natural Resources | St. Louis River, WI |
| Remediation of Contaminated Sediment in the Detroit River, Conner Creek Area - Detroit, Michigan** | Cable Arm, Inc. | Detroit River |
| Remediation of Tannery Bay/Wetland Sediments, St. Marys River, Sault Ste. Marie, Michigan | Phelps Dodge Corporation | St. Marys River |

*Project has progressed through the technical evaluation phase and is currently in the project negotiation phase.

**Projects with potential FY2005 start dates.

Regional News

Public involvement: key to successful contaminated sediment cleanups

By Tanya Cabala
Michigan Director
Lake Michigan Federation

For the last several years the Lake Michigan Federation has been working to improve public involvement in decisions related to contaminated sediments. We do this because it is most often citizens who stimulate cleanups and then ensure they are done satisfactorily. Expanding citizen involvement and making it more effective will go a long way toward getting contaminated sediments cleaned up in Great Lakes Areas of Concern.

It is often concerned citizens that get and keep the attention of agency officials and politicians about the need for restoration. Political will helps lay the groundwork for studies to identify pollution problems that can provide the necessary scientific and legal rationale for cleanup. Without persistent and informed “pushing” by local residents, polluted areas may lie unnoticed by environmental agencies for decades or longer. Local residents may also have important information for agencies and scientists about past pollution practices. This can help to direct studies and ensure that all pollution is identified and addressed.

After studies are done, it is often the continuous and well-informed work of local citizens that leads to the political and financial support to get cleanups underway. Without citizen involvement, a lake or river may not get a cleanup or, if it gets one, it may not be acceptable to community members. Why is this? It’s the old “squeaky wheel gets the grease” principle. State and federal environmental agencies have a limited number of staff and scarce dollars to spend on an ever-increasing number of sites that need cleanup. There is no substitute for active, informed and effective restoration and protection efforts at the community level. The attention and dollars a community gets is directly related to the amount of interest and activity by people who care. Every step along the way toward restoration is affected by the amount of citizen involvement.

Getting a cleanup underway is not the only goal of local citizens. There are many diverse interest groups in each community and each may have differing opinions on the best cleanup alternative, including how to do the cleanup, how much is to be done, where to do it, and where any disposal will take place. By becoming informed on cleanup options and getting involved in the decisions, citizens can ensure the final decision reflects differing viewpoints and, ultimately, is the best alternative for their community.

Finally, citizens learn important lessons about their local environment by participating in efforts to study, understand, and clean up pollution. In

particular, local citizens involved in cleanup efforts often work to prevent future pollution and become active and permanent community environmental stewards.

U.S. EPA is supporting the Lake Michigan Federation in its efforts to work with Great Lakes communities to transfer effective approaches and techniques for involving citizens in contaminated sediment cleanups. With new cleanup projects beginning under the Great Lakes Legacy Act, we are anxious to share our “lessons learned” and look forward to meeting with our friends and colleagues across the Great Lakes. For more information, contact Tanya Cabala at 616-850-0745, tcabala@lakemichigan.org. ♦

The American lotus: Michigan’s new symbol of water quality

The American lotus blossom (*Nelumbo lutea*) was designated as Michigan’s official state symbol for clean water through passage of Public Act 78 (Enrolled House Bill No. 106) on April 21, 2004. The bill was introduced by Senators Hammerstrom, Johnson, Goschka and Brater. The idea for this designation was spearheaded and advocated for by the Lotus Garden Club, based in Monroe, a member of the Federated Garden Clubs of Michigan. Jeanne and Dick Micka, active participants in the club, as well as with the River Raisin Public Advisory Council, played a major role in getting this legislation passed.

At one point the American lotus was endangered in the State of Michigan. The plant has made spectacular recovery, yet remains a protected species. Since Lake Erie is the catch basin for the Great Lakes, its quality of water reflects the water quality across the entire Great Lakes system, and the lotus is the bellwether.

For further information on the American lotus blossom, contact Jeanne or Dick Micka at 734-241-4302, RGM@core.com. ♦



credit: Monroe County Convention and Tourism Bureau

American lotus beds are now thriving in the River Raisin thanks to the efforts of the Lotus Garden Club. The flower is now Michigan’s official symbol for water quality.

More options for managing log jams in the Rouge River

By Bill Craig, Rouge River AOC

It's interesting to read the 1988 Rouge River RAP recommendations for addressing log jam problems. They state that log jams restrict recreation, are unsightly, cause erosion and worsen flooding. In order to restore the river, log jams needed to be removed, and the RAP provided detailed suggestions on how that could be done, by who and how much it would cost.

Out of those suggestions, the [Friends of the Rouge](#) made log jam removal the cornerstone of their annual river cleanup event, Rouge Rescue. More volunteer groups formed to remove log jams in streams; local governments cleared out their "drains" – ditches and former creeks; and road maintenance crews eliminated log jams when they formed at bridges. Throughout this process habitat restoration was rarely considered.

In 1995 the question was asked, "Why are you removing this log jam?" This led to discussion, arguments, and improved education and awareness that changed thoughts about log jams being "all bad" to a better appreciation for what they really are: in-stream woody debris which actually makes important contributions to channel function and habitat for fish, aquatic insects, and wildlife. As a result,



credit: Friends of the Rouge

Members of the Rouge RAP and Friends of the Rouge strategically place woody debris in the Rouge River.

Friends of the Rouge stopped removing log jams and, in 2002, formally announced that they would promote woody debris management as part of their education and outreach efforts.

Also in 2002, the newly formed Woody Debris Management Technical Advisory Committee (WDMTAC) drafted the *Woody Debris Management 101 - Clean and Open Method*. This document establishes when work requires a permit and addresses the needs of landowners and river volunteer groups when they want to work on log jams in the river.

The Rouge River has many stretches without any woody debris or even leaf

debris. Those sections of sand bottom and bare steep banks have very little river life. The lack of woody debris led the WDMTAC to draft a second document, *Woody Debris Management 201 - Habitat Method*, which outlines a procedure for "recruiting" large woody debris to add habitat structure. This requires a permit, since a "structure" is "affixed" to the river bed or its bank.

This document guided a habitat restoration project completed last November on the lower Rouge River, in the City of Wayne. Two 35-foot tree trunks were deposited in the river and secured to the riverbank. MDEQ is monitoring erosion and macroinvertebrate populations at the site to assess the project's effects. This project required a \$50 permit and was accomplished by six volunteers.

Woody debris management in the Rouge River is in its infancy. Past practices and bureaucratic barriers are still strong. We are now making progress to overcome resistance to this new, environmentally-sensitive approach. With logic, reason and cost effectiveness, we hope to make log jam management part of our overall river restoration program.

Additional information is available from Friends of the Rouge at 313-792-9900, www.therouge.org. ♦

Humbug Marsh to become part of Detroit River International Wildlife Refuge

In a recent development, Governor Jennifer Granholm agreed to the federal government's purchase of the Humbug Marsh in Trenton and Gibraltar as part of the [Detroit River International Wildlife Refuge](#). The purchase of the marsh, which includes some of the most ecologically significant wetlands in the Detroit River/western Lake Erie basin, was considered by the federal [Migratory Bird Conservation Commission](#) (MBCC) at its meeting in June.

The Detroit River International Wildlife Refuge was created by Congress in 2001 via legislation sponsored by Congressman John Dingell (D-Dearborn), who serves on the MBCC and has played a critical role in efforts to preserve Humbug Marsh. Federal legislation creating the Detroit River refuge authorizes the MBCC to purchase coastal and upland habitats along the

American side of the Detroit River and Lake Erie from River Rouge into northern Ohio. In May 2003 President Bush signed legislation authorizing the expansion of the Detroit River refuge and the Ottawa National Wildlife Refuge along the Lake Erie shoreline.

The MBCC uses funds raised through sales of federal duck stamps to place ecologically sensitive lands into permanent conservation as part of the National Wildlife Refuge System managed by the U.S. Fish and Wildlife Service (USFWS). The federal Migratory Bird Conservation Act requires that purchases be approved by the Governor.

In other recent news, the USFWS named 51 year-old Trenton, Mich. native John Hartig as the first full-time manager of the Refuge. Hartig replaces Doug Brewer who was on temporary assignment from Ottawa National Wildlife Refuge in Ohio.

see *Humbug*, page 9...



credit: Regina H. Boone, Detroit Free Press

Humbug Marsh, at risk to commercial development in the recent past, will now be preserved in perpetuity as part of the Detroit River International Wildlife Refuge.

SPAC ... continued from page 1.

and 2005, including its business meetings, newsletter, web site, training workshops, legislative briefings, communications, and general coordination activities. The funding also supports grants for high priority Remedial Action Plan (RAP) projects in Michigan's Areas of Concern (AOCs).



Rick Hobrila, chief of MDEQ's Inland Lakes and Remedial Action Unit, presented SPAC Chair Kathy Evans with a symbolic check at the Council's December 2003 meeting. "We appreciate the department's support and hope the Council provides a useful forum for sharing information and coordinating with MDEQ staff," Evans said. With severe fiscal constraints facing his department, Hobrila noted that the SPAC provides an important mechanism for exchanging information among Michigan's RAP groups, advising MDEQ on local needs, and communicating with elected officials and securing their support for the AOC program.

Grants support RAP projects

A major portion of the new MDEQ funding is being allocated for grants to local public advisory councils (PACs) for important RAP projects. In March the [Great Lakes Commission](#) put out a request for proposals (RFP) for projects aimed at advancing efforts to delist Michigan's AOCs. The RFP specifically called for projects designed to restore and delist beneficial use impairments; monitor environmental conditions; establish measurable restoration targets; produce documentation or secure technical support for delisting

activities; or build public support and consensus on restoration goals.

Proposals were submitted by ten of Michigan's AOCs and, to date, six have been funded.

SPAC advocacy targets state and federal legislators

The SPAC has continued aggressive advocacy efforts directed to Michigan's federal and state legislators. The Council's message is simple and clear: progress is being made in cleaning up the AOCs and it is more important than ever to maintain support for the program.

In March the Council wrote to Michigan's Congressional delegation urging support for key federal funding priorities for the AOC program:

- \$45 million for the Great Lakes Legacy Act, as requested by President Bush;
- \$5.7 million for state and local support for AOC cleanup efforts;
- \$4 million for the Army Corps of Engineers Great Lakes RAP program; and
- \$25 million for U.S. EPA's Great Lakes National Program office.

The Council emphasized that the funding is vital to maintaining the federal government's commitment, codified under the U.S.-Canada Great Lakes Water Quality Agreement, to restore the most degraded areas in the Great Lakes.

The Council followed up with Congress in April highlighting the overwhelming response to the first request for projects under the Great Lakes Legacy Act (see article on page one). With \$80 million in federal

funds requested and only \$10 million available for the current year, the SPAC emphasized the critical, unmet need to fund the Act at the level requested by President Bush for fiscal year 2005.

At the state level, the Council wrote to the Michigan legislature in February urging swift passage of a package of fees for the state's National Pollutant Discharge Elimination System (NPDES). The fees, under negotiation between the governor and the legislature for nearly a year, are a vital funding source for MDEQ's Water Division. Continued delays in approving the fees were seriously disrupting MDEQ's operations, including staffing for the AOC program. The fee package was approved in March and has enabled the department to allocate the staff for its Water Division. However, inadequate staffing levels for the AOC program remain a significant, unresolved problem.

In March the SPAC released its second *Action Agenda for Restoring Michigan's Great Lakes Toxic Hot Spots*, a comprehensive series of strategic priorities for cleaning up Michigan's AOCs. (The *Action Agenda* is included as a special insert following this page.) Directed primarily to state legislators, the *Action Agenda* highlights a series of critical actions the state must take to maximize resources directed toward Great Lake restoration efforts in Michigan.

A key goal is to ensure Michigan gets its fair share of funding under the Great Lakes Legacy Act. "With more than half of the U.S. AOCs, Michigan should always be 'first in line' for federal funds," said Kathy Evans, the Council chair.

The *Action Agenda* was the focal point for legislative office visits conducted by Council members in late March. SPAC members met with more than 50 legislators and staff, reviewing progress being made in their AOCs and urging support for an aggressive state effort to secure federal resources for AOC cleanup work. The key message during these meetings was the opportunity to leverage millions of dollars in federal funding for cleaning up Michigan's "toxic hot spots."

Legislators were unanimous in their support for optimizing federal resources for Michigan's AOC program. At the urging of key legislators, the SPAC

see *SPAC*, page 11...



Humbug ... continued from page 7.

Hartig brings more than 25 years of experience in environmental science and natural resource management to his new position. For the past five years, he has served as River Navigator for the Greater Detroit American Heritage River Initiative. Prior to that, he spent 14 years with the International Joint Commission working primarily on the Canada-U.S. Great Lakes Water Quality Agreement.



The Detroit River International Wildlife Refuge is the first international refuge in North America. It includes a 48-mile stretch of former industrial land that extends into Canadian waters south to the Ohio border that includes islands, coastal wetlands, marshes, shoals and riverfront lands.

The refuge is administered for the conservation, management and restoration of fish, wildlife and plant resources by the USFWS. The agency also manages the refuge lands for public recreation, wildlife observation, hunting and fishing. The Ottawa refuge, created in 1961, extends west to Maumee Bay State Park and south to State Rt. 2.

The National Wildlife Refuge System includes more than 540 refuges spanning 95 million acres throughout all 50 states, representing the largest federally-protected system of public lands and waters in the world. For more information, contact John Hartig, Refuge Manager, at 313-717-7483, john_hartig@fws.gov. ♦

New technology for E. Coli tests to safeguard drinking water

Wayne State University (WSU) researchers are within a year of testing a rapid-fire monitoring system that will give instant readings of E. coli bacteria contamination in lakes and rivers and immediately detect deadly chemicals in drinking water.

In addition to readily determining whether waterways are safe for swimming, the real-time system will also protect drinking water systems from terrorist attacks, according to Dr. Carl Freeman, a WSU professor working with a consortium of professors devising the new system. Test results for E. coli now take 24 hours to obtain.

According to lead project scientist Dr. Greg Auner, the team received funding for the project in November 2003. They will be developing a multi-bacterial detection system during the next two years. Actual lake testing of the E. Coli sensing system will begin in about a year. Auner stated this is a very difficult research and development project, as no real-time monitoring systems of this type have been previously developed.

Working under a four-year, \$2.8 million grant from the National Institute of Health, the WSU scientists have also made advancements in developing an airborne monitoring system using an air and water pathogen bio-sensor. A prototype is scheduled for testing in about 18 months.

The WSU work dovetails with research being conducted under a \$3.5 million grant awarded in 2002 to the U.S. Army Tank-Automotive and Armaments Command (TACOM) in Warren, Michigan. TACOM is developing water monitoring methods for detecting chemical and biological warfare agents, with a primary focus on protecting drinking water for American troops. The same technology could be used to protect drinking water at municipal water intakes.

For more information on these WSU research projects, contact Dr. Greg Auner at 313-577-304, gauner@ece.eng.wayne.edu. ♦

First Detroit Riverkeeper making strides

The Detroit River's new "Riverkeeper" has been on the job for over a year now, improving habitat, restoring wetlands and coordinating other activities to make the Detroit River a better place. In April 2003, the [Friends of the Detroit River](#) appointed Bob Burns, of Grosse Ile, as the first [Detroit Riverkeeper](#).

The Riverkeeper program is part of Robert Kennedy Jr.'s Waterkeeper's Alliance. Riverkeepers are citizen advocates for healthy aquatic ecosystems. They monitor water quality,

investigate problems, educate river user groups, and rally public support for responsible water quality management policies.

Burns has lived his entire life on the Detroit River, spending his childhood years fishing, hunting and exploring the islands, marshes, and man-made reefs in the lower Detroit River. Later he learned marine engineering from the bottom up as he directed engineering projects, even living for a time on Stony Island.

Still living on the Detroit River, Bob keeps a boat ready for rapid response to any marine crisis. His work includes investigating point-source discharges along the river, directing river cleanups, and developing public awareness programs for river users.

The Friends of the Detroit River are very proud of their partnership with Bob and their new affiliation with the Riverkeeper program. Bob can be reached at 734-676-4626, suburns@islandconnection.net. ♦



Volunteers placed mallard duck nest platforms at Lake Erie Metro Park as part of a Detroit River habitat restoration project. Riverkeeper Bob Burns is standing third from left.

Regional News

New Great Lakes Center established at Western Michigan University

Tracking the movement of contaminants through Great Lakes watersheds is the focus of the new [Great Lakes Center for Environmental and Molecular Sciences](#) (GLEAMS), established in 2002 as a collaborative venture between Western Michigan University's (WMU) Environmental Institute and the Ann Arbor-based Altarum Institute. U.S. EPA funding is supporting the new center.



The Center addresses the effects of urban, industrial, agriculture and other nonpoint pollution on the Great Lakes through investigations conducted on multiple spatial and temporal scales. A primary goal of the Center is to develop watershed-scale methods to assess and protect human and ecological health by restoring and maintaining stable, diverse and self-sustaining populations of fish and wildlife. The Center uses advanced analytical and environmental chemistry

coupled with dynamic geographic information systems (GIS) mapping to describe spatial patterns of contaminants in Great Lakes watersheds.

Example of work being conducted using current funds include:

- modeling the movement and bioavailability of contaminants in the Kalamazoo River watershed;
- Genomics-based ecotoxicology studies to define neurological, endocrine, and other physiological health effects on frogs at the molecular level;
- Genomics-based mammalian health studies to define contaminant-induced changes in behavior, brain and liver function, and neuroimmune system activation;
- Construction of a GIS-based decision support system for use in environmental management;
- Providing shared ownership of the Center's web portal with watershed councils, agencies, and other environmental stakeholder groups; and
- Partnering with U.S. EPA Region 5 in educating stakeholders on how to utilize information technology tools to improve watershed management efforts.

For more information, visit www.greatlakesdecisionsupport.org. ♦

Delisting ... continued from page 3.

– a species critical to the sport fishery – and compromised swimming and other recreational activities. Fish and wildlife consumption was restricted and aquatic habitat, the bottom-dwelling community and plankton populations were all degraded.

Addressing these concerns required a coordinated effort from a variety of stakeholders. Severn Sound is considered a model among AOCs due to the extraordinary support from local municipalities and the public galvanized through the [Severn Sound Environmental Association](#) (SSEA). The SSEA was first established in 1997 to facilitate the transition from the RAP program to a locally-sustained environmental office, complete restoration projects and conduct monitoring to support long-term environmental management.

Remedial solutions included reducing nutrient loadings from both point sources – such as outfalls from sewage treatment plants – and nonpoint sources, such as urban stormwater and rural runoff. Overall, the sound has seen marked improvements in water clarity and a significant decrease in suspended algae. The RAP team and SSEA staff have implemented hundreds of restoration projects in the sound, including a tributary rehabilitation program that helped landowners restrict livestock access, stabilize stream banks and plant native trees and shrubs. The SSEA was chosen as a recipient of a 2004 National Recreational Fisheries Award for this successful program.

More than twelve years of successful partnerships between the public, municipalities and governments to implement the Severn Sound Remedial Action Plan has resulted in the restoration of beneficial uses and the delisting of Severn Sound as an Area of Concern. This legacy has left both a momentum for cooperation amongst the partners in the area and an excellent base on which to move forward on the new focus of sustainability. For more information, contact Keith Sherman, Severn Sound Environmental Association Coordinator, 705-526-7809, ssrap@csolve.net. ♦

National Environmental Methods Index provides tools for water quality analyses

In late 2002, U.S. EPA and the U.S. Geological Survey released the National Environmental Methods Index (NEMI), a free, web-based online clearinghouse of environmental monitoring methods. The NEMI database contains method summaries of laboratory and field protocols for regulatory and non-regulatory water quality analyses. NEMI users can compare methods and share monitoring data among different agencies, using different methods at different times.

NEMI is a project of the Methods and Data Comparability Board, a partnership of water quality experts from federal and state agencies, tribes, municipalities, industry and private organizations working to develop water quality approaches that

facilitate collaboration and comparability among all data gathering organizations. The Methods Board and its parent organization, the National Water Quality Monitoring Council, are charged with developing a voluntary, integrated nationwide water quality monitoring strategy.

Future plans call for NEMI to be expanded to better meet the needs of the monitoring community. More field analytical methods and biological methods will be added and methods for media other than water will be included (i.e., air, soils and sediments, and wastes). NEMI can be accessed at www.nemi.gov. ♦



SPAC ... continued from page 8.

drafted legislative language elevating the priority of the AOC program and directing MDEQ to develop a long-term strategy to restore and delist the state's 14 AOCs. (See the box below for the complete language.) Working with its legislative allies, the Council was successful in adding the language to the MDEQ appropriations bill passed by the House of Representatives and all signs point to its acceptance by the Senate.

Delisting targets under development

With large-scale cleanups being implemented under the Clean Michigan Initiative and the Great Lakes Legacy Act, RAP participants are beginning to consider how AOCs will be "delisted," or formally removed from the list of Great Lakes AOCs. A vital component of this process is the continued development of delisting targets that provide a credible, science-based mechanism for measuring progress in restoring beneficial uses in the AOCs. Simply put, delisting targets will illustrate "where we are going and how we will know when we get there" on the path to restoring the AOCs.

Recognizing the technical complexity of this process and the need to conform with state and federal environmental standards, the SPAC urged MDEQ to provide local PACs with guidance in developing delisting targets.

MDEQ has placed high priority on the preparation of state guidance that reviews relevant standards for each impairment, applicable monitoring programs, and potential minimum restoration targets based on current DEQ standards. Ultimately, this will produce a generic suite of delisting targets that PACs can customize to reflect local conditions and community values. Wherever possible, MDEQ's guidance will identify the minimum restoration levels that must be achieved. The proposed format for organizing information for each impairment includes

1. relevant standards and criteria
2. indicators of environmental improvements
3. monitoring programs
4. potential minimum restoration target
5. rationale
6. references

The State of Ohio is developing similar, statewide guidance for its four AOCs. MDEQ plans to develop Michigan's delisting guidance over the coming year in collaboration with the SPAC and other stakeholders.

To support this process and similar efforts in other states the Great Lakes Commission is compiling a database of existing delisting targets in all U.S. and Canadian AOCs. This will illustrate the range of targets in place and the varying approaches different AOCs have taken in addressing their beneficial use impairments. A preliminary analysis shows that nearly all of Michigan's AOCs have established restoration targets, with most having a mix of both qualitative and quantitative targets in place.

New "FAQ" answers questions on Michigan's RAPs

Recognizing the complexity of the AOC program, including both technical issues and the many entities

involved, the SPAC has developed a *Frequently Asked Questions* document on Michigan's Areas of Concern program. The "FAQ" document addresses 18 common questions about Michigan's AOCs, such as how the AOC program came about, how the AOCs were designated, how the program is funded and administered, how AOCs will be delisted, etc. Additional information provided includes

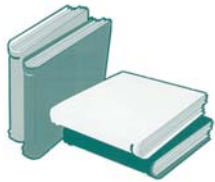
- an organizational chart illustrating the roles and responsibilities of various agencies involved in the AOC program;
- Clean Michigan Initiative projects underway in the AOCs;
- Cleanup projects proposed by MDEQ for funding under the Great Lakes Legacy Act;
- Federal, state and local contacts for each of Michigan's 14 AOCs; and
- Online information sources on the AOCs.

The FAQ document is available from the SPAC's website at <http://www.glc.org/spac/> and hard copies are available from Matt Doss at the Great Lakes Commission, mdoss@glc.org, 734-971-9135. ♦

Language Included in the House-Passed MDEQ Fiscal Year 2005 Appropriations Bill (SB-1066)

Section 224: The department shall collaborate with the Statewide Public Advisory Council, local advisory councils, the U.S. Environmental Protection Agency and other appropriate federal agencies, the Michigan Department of Natural Resources and other appropriate parties to develop a long-term strategy to restore and formally remove Michigan's Great Lakes Areas of Concern from the federal listing. Among other information, the strategy should include a list of cleanup, source control, monitoring and assessment activities eligible for funding under the federal Great Lakes Legacy Act, their estimated cost; options for meeting any non-federal funding match requirements for these activities, including recommendations for changes to existing appropriations and program expenditures to qualify as matching funds for federal grant programs; a description of the optimum staffing level for the Areas of Concern program and available funding options; and a description of the department's role in seeking the formal removal of Areas of Concern, or specific beneficial use impairments, from the federal list, including minimum cleanup goals for identified impairments based on applicable state and federal regulatory standards and the monitoring programs available for assessing progress in achieving those goals. In addition, the department will strive to apply for an equitable share of federal funding and technical assistance available to support the Area of Concern program and provide the funds needed to meet non-federal funding requirements.

Publications and Resources



New Publications and Resources

State of the Great Lakes 2003

U.S. Environmental Protection Agency and Environment Canada. The report presents information from the October 2002 State of the Lakes Ecosystem Conference in Cleveland. Contact Karen Thompson at 312-353-8547 or access it online at <http://binational.net/sog12003/>.

2001-2003 Priorities and Progress under the Great Lakes Water Quality Agreement

International Joint Commission. The report presents research, scientific and policy information related to stewardship of the Great Lakes basin ecosystem. Contact the IJC at 313-226-2170 or access the report online at www.ijc.org/php/publications/pdf/ID1541.pdf.

The State of Michigan's Environment 2003: Second Biennial Report

Michigan Department of Environmental Quality; Michigan Department of Natural Resources. The report presents a series of scientifically based indicators of environmental health. For a copy, email DEQ-Special-Projects@michigan.gov or call 517-335-3666. Available online at www.michigan.gov/deq.

Tittabawassee River Aquatic Ecological Risk Assessment Report

Galbraith Environmental Sciences, Oct. 2003. MDEQ-funded report identifies risks and impacts to wildlife resulting from dioxin and furan contaminated sediments in the Tittabawassee River. Available online at www.michigan.gov/Tittabawassee or from Sue Kaelber-Matlock, MDEQ Remediation and Redevelopment Division, 989-686-8025, ext. 8303.

Climate Change and Water Quality in the Great Lakes Basin

International Joint Commission. August 2003. The report includes a "white paper" by climate change experts exploring risks, opportunities, and responses associated with climate change and Great Lakes water quality. Available on CD from the IJC's Great Lakes Regional Office (email commission@windsor.ijc.org) and online at www.ijc.org/php/publications/html/climate/index.html.

Honoring Our Detroit River - Caring for Our Home

Wayne State University Press, edited by Dr. John Hartig. The book looks at key aspects of the Detroit River's history and impact on the surrounding ecosystem. To purchase the book, visit <http://wsupress.wayne.edu/glb/cranbrook/hartighodr.htm>.

Public Health Effects of Inadequately Managed Stormwater Runoff

American Journal of Public Health 1527-1533, September 2003, Vol 93, No. 9. The study investigated the scale of public health risk from stormwater runoff caused by urbanization. Requests for reprints should be sent to Stephen J. Gaffield, PhD, gaffield@facstaff.wisc.edu.

Funding for Habitat Restoration Projects: A Citizen's Guide

Restore America's Estuaries. The guide provides a comprehensive review of federal funds that may be used to implement on-the-ground habitat restoration projects. Available online as a printable PDF document and as an interactive database at www.estuaries.org/policyandfunding.php.

Conservation Design Resource Manual: Language and Guidelines for Updating Local Ordinances

Chicago Wilderness and Northeastern Illinois Planning Commission. Resource manual written for local governments interested in modifying local master plans, zoning and subdivision ordinances, and other ordinances to accommodate the principles and practices of conservation design. Access online at www.growingsensibly.org/cmappdfs/CD_Resource_Manual.pdf.

Great Lakes Watershed CD

Version 3 of this popular CD is an all-purpose outreach tool for information on the Great Lakes. Copies are available by leaving a message at www.epa.gov/glnpo/feedpp.html or by emailing Larry Brail, brail.lawrence@epa.gov.

Funding Opportunities: A Directory of Energy Efficiency, Renewable Energy, and Environmental Protection Assistance Programs

U.S. EPA State and Local Capacity Building Branch. This guide will help state and local governments, and nonprofit organizations identify potential funding sources for projects which reduce energy costs, improve air quality and public health, and enhance economic development. Grants are organized by topic, with detailed descriptions and contact information. There are links to online resources with more information. For a PDF of the directory, send a blank email to fundingopportunities@icfconsulting.com.

Web Sites

Great Lakes Interagency Task Force – www.epa.gov/glnpo/taskforce

Created by an executive order from President Bush on May 18, 2004, the Task Force will focus on outcomes like cleaner water and sustainable fisheries, and target measurable results.

EnviroTools – www.envirottools.org

Site aims to involve communities in the cleanup of polluted sites. It contains

educational materials on Superfund and Brownfields sites, along with sites cleaned up under state programs.

USGS Great Lakes–St. Lawrence Region – <http://water.usgs.gov/orh/nrwww/index.gl.2D>

Web site dedicated to communicating information on USGS research and monitoring programs in the Great Lakes–St. Lawrence region.

Results of the Lake Michigan Mass Balance Study: Atrazine Data Report – www.epa.gov/glnpo/lmmb/results/atra_dataprpt.html

U.S. EPA Great Lakes National Program Office online results from atrazine sampling conducted under the Lake Michigan Mass Balance (LMMB) project.

NOAA Restoration Portal – <http://restoration.noaa.gov>

Site provides centralized access to information about NOAA restoration programs, projects, and activities. It serves as a gateway to detailed NOAA restoration publications, web sites, audio-visual materials and case studies.

Biodiversity Project – www.biodiversityproject.org

The Biodiversity Project works to make people aware of the importance of biodiversity and to build their commitment to saving it. The Project engages and empowers people to act by making the connection between biodiversity and people's daily lives and basic values.

Engaging the Public on Biodiversity: A Road Map for Education and Communication Strategies – www.biodiversityproject.org/roadmap.htm

This online only (out of print) publication is an assessment of public outreach efforts as they relate to biodiversity, and a review of strategic opportunities. It includes information on public attitudes and promising outreach approaches.

EPA Office of Grants and Debarment – www.epa.gov/ogd/

This web page contains links to open solicitations under EPA's various grant programs, federal grant application instructions and downloadable forms. Users can access information on active EPA grants, current grants, policies and regulations, and training and guidance on managing assistance agreements.

Grants.gov – www.grants.gov

This comprehensive web site contains information on searching and applying for federal grants. The easy-to-use search engine allows users to quickly find information on most federal grants listed in this document. Grant seekers can also search by keyword to find additional funding opportunities and prepare and submit grant application packages online. ♦

Clinton River

By Bill Smith and Jessica Pitelka Opfer

The Michigan Department of Environmental Quality (MDEQ) has awarded the Clinton River Public Advisory Council a grant to develop preliminary restoration targets for the Clinton River Area of Concern (AOC). The PAC will form a technical committee to develop targets for the AOC's eight beneficial use impairments. These targets will eventually be used by local planning groups to complete subwatershed management plans in the watershed.

Six subwatershed groups have completed their Public Participation Plans and are now beginning subwatershed management plans, as required by the NPDES Phase II stormwater regulations. The three subwatershed groups in Macomb County (Clinton River East, Red Run, and Lake St. Clair) have received 2004 funding from the Army Corps of Engineers to support their work, which begins this summer.

The Clinton River Watershed Council (CRWC) completed the Stony Creek subwatershed management plan (covering northeastern Oakland/northwestern Macomb counties), funded by a Section 319 grant, in December 2003. The CRWC will be receiving a follow-up grant from MDEQ to upgrade the plan to meet new requirements for future Section 319 funding and to conduct implementation activities.

The Anchor Bay Yachting Association (ABYA), the CRWC and the Marine Environmental Education Foundation (MEEF) are launching the Lake St. Clair Clean Boating Campaign based on MEEF's Dockwalker program. Forty ABYA members attended a "train-the-trainer" workshop in April and a public awards ceremony and stakeholder cruise were held as part of River Day in June to officially kick off the campaign.

Severe rainstorms in late May caused the worst flooding in many years across the Clinton River watershed. Farmlands north of M-59 in transition to residential subdivisions experienced flooding, as did downstream low-lying areas that have experienced flooding in the past. The flooding illustrates the need for wetlands protection, stormwater management, erosion control, and upgrades to wastewater plants to reduce sewage discharges.

The Macomb County Water Quality Board (WQB) Fertilizer Committee and Macomb County MSU Extension hosted a workshop on "Local Water Impacts from Fertilizers and Soil Erosion" on June 2, 2004. Topics included U.S. EPA nutrient development criteria for surface water, nutrient ecoregions, and total maximum

daily loads (TMDLs); the impacts on water quality from fertilizers, soil erosion, and aquatic health; current models for water sampling and sediment transportation; and proposed county fertilizer ordinances.

The Macomb County WQB and St. Clair County WQB are very concerned about late notification to water plants of chemical spills and discharges from Sarnia's Chemical Valley. Several meetings have been held with state and provincial officials on notification procedures.

The City of Rochester Hills recently approved an open space millage for the November ballot, which would raise funds to purchase and preserve remaining natural areas in the community, particularly those along the Clinton River corridor. Several communities in Macomb County are moving closer to developing and adopting the first local wetland ordinances in the county.

The CRWC coordinated the third annual Clinton Clean-Up in September at a dozen sites and the seventh annual River Day in June with 40 recreation and stewardship events. The CRWC continues to coordinate the Stream Leaders student river monitoring program, with several thousand students participating in the fall and spring monitoring events and Student Congress. The CRWC continues to expand the business sponsorship program to help support Stream Leaders. Every General Motors facility in the watershed has now adopted at least one school; other sponsors include DaimlerChrysler Corporation Fund, Environmental Consulting & Technology, King Pharmaceuticals, and Rochester Rotary.

The CRWC, the City of Auburn Hills, the Michigan Department of Natural Resources (MDNR), and four local chapters of Trout Unlimited are gearing up for the second season of the Clinton River Coldwater Conservation Project to restore and enhance the trout fishery in the Main Branch and several tributaries. Due in part to the success of this project, MDNR stocked 30,000 steelhead trout in the Clinton River in Shelby Township in 2003 and 15,000 in 2004; additional stockings of brown trout were also made in Auburn Hills in 2004.

Deer Lake

By Diane Feller

The results are in! We decreased in-lake methylation in the North Basin of Deer Lake last summer (2003). This was a great example of what can be done with cooperation and timely use of data. The Public Advisory Council (PAC) conducted weekly water monitoring of both the North and South Basins, testing for temperature, thermocline, dissolved

oxygen and sulfide during the summers of 2002 and 2003. Each week the PAC forwarded the results to the company that maintains the dam. They used the information to determine the flow rate out of the valve near the bottom of the dam. This had to be carefully done to maintain adequate stream flow of quality water without lowering Deer Lake too much. Without constant monitoring and on-time relaying of data, this excellent result would not have happened. We are planning to follow the same procedure during the summer of 2004.

One of our proposed remediations was to release water from near the bottom of the Deer Lake dam to prevent the production of excess methyl mercury during years when the North Basin of Deer Lake Reservoir becomes thermally stratified. (Methyl mercury is the form of mercury that bioaccumulates in fish.) The remediation appears to be working. Operating the valve reduced in-lake mercury methylation by more than 50 percent in the North Basin. This is important because this source of methyl mercury is second only to atmospheric deposition. We cannot stop the atmospheric deposition of methyl mercury but we can greatly decrease in-lake methylation.

The North Basin sometimes becomes thermally stratified. When this happens the cold lower layer becomes a low oxygen environment, which facilitates sulfate-reducing bacteria to methylate mercury. The North Basin became thermally stratified in the summer of 2003. The valve was opened in a controlled manner. It had to be shut before the entire cold water layer was drained from the North Basin because of drought conditions. The water flowing in the Carp River below the valve appeared to have been naturally oxygenated by the small waterfall coming from the valve.

Preliminary mercury data from the May 2003 fish sampling looks very good. We are still waiting on the MDEQ data and analysis of the five largest walleye and five largest northern pike from the May 2003 sampling. This sample analysis has been delayed by state budget constraints. Results are expected in July 2004.

If the MDEQ data is similar to the preliminary data, then we are making good progress toward our delisting goal, which is no statistical difference between mercury concentrations in Deer Lake northern pike and Greenwood Reservoir northern pike up to 30 inches in length.

The PAC used the human health guideline limits for mercury consumption in fish for an easy benchmark; however, this does not mean that the PAC was unconcerned with

continued on page 14...

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the ecosystem and non-game wildlife in the area. The PAC presumed that if we can get the easily-measured benchmark for human fish consumption within the range of the Greenwood Reservoir, then the wildlife would fare no worse than the surrounding area wildlife. The PAC determined that trying to get Deer Lake mercury levels better than a local reference lake was unrealistic. Currently only the large northern pike have problematic mercury levels. The perch in Deer Lake are much better today (0.5mg/kg vs. 1.5mg/kg). There are other local lakes where even the perch are above the 1.5mg/kg level, as they were in Deer Lake prior to remediation.

We are making great progress and are excited about the coming year.

Detroit River

By Jeannine Ansley

The Steering Committee for the Detroit River RAP, led by Jeannine Ansley, is working hard to address the river's beneficial use impairments, many of which center on ecological concerns such as impairments to fish and wildlife and loss of habitat. During the past several months, the committee focused on drafting delisting criteria for three of the river's fifteen identified impairments and is seeking public input on suggested delisting criteria for all identified impairments. The committee is also updating the Detroit River Remedial Action Plan to include emerging issues such as the presence of fire retardants and pharmaceuticals in fish tissue.

Detroit River RAP Steering Committee was a cosponsor of the Detroit River Forum hosted by Detroit River Navigator, John Hartig. Dr. Bruce Jones of the Grosse Ile Nature Conservancy and Christopher Lehr of Nativescapes gave a very informative presentation on their work to restore 800 feet of shoreline in Grosse Ile that was the site of a former missile base. Their efforts in planting wild rice and other native species along the shoreline were successful in attracting nesting fish, waterfowl, and wildlife.

Using a hands-on approach, the Steering Committee is working with active groups throughout the entire length of the Detroit River, including planting trees and bushes with parishioners from local churches to reduce sediment loading upriver and the removal of trash and debris downriver.

If you are interested in attending meetings on the draft Detroit River Remedial Action Plan, please contact Jeannine Ansley at 313-381-2835.

Kalamazoo River

By Rich Koster

The Kalamazoo River Watershed Council (KRWC) has been in conversation with officials from both the U.S. EPA and MDEQ regarding the Superfund process on the Kalamazoo River. There is a major new development taking place that will soon be announced and we are optimistic about making progress toward a settlement. U.S. EPA held a public information meeting on June 29 to present an update on progress in the Superfund Site, in particular to explain the details of the "facilitative discussions" soon to get underway.

Meanwhile, KRWC President Rich Koster traveled to Region 5 headquarters in Chicago and spoke with agency officials, including Richard Karl, the new director of the Superfund program. The Council has also applied for several grants, including a major grant from U.S. EPA to prepare a proposed plan and cost estimate for the removal of the Plainwell Dam.

The Watershed Council has received a \$10,000 grant from the Kalamazoo Community Foundation to design and execute a public information campaign in Allegan and Kalamazoo counties. The purpose of the campaign is to ensure that state legislators, county and city commissioners, township and village trustees, riparian owners along the Kalamazoo river, and concerned citizens are thoroughly informed about issues related to the proposed removal of four dams between Plainwell and Allegan.

The Council is also applying for a RAP grant from the Statewide Public Advisory Council to host a "Dam Summit" at which experts on dam removal will offer their recommendations, followed by a special session with representatives of federal and state agencies and the paper companies involved.

With funds from our technical assistance grant (TAG) we have contracted with Western Michigan University's Environmental Institute to produce a PCB Primer to use in the public information campaign and other outreach activities. The Primer will be available to other groups working with PCB contaminated sediment.

The KRWC continues to partner with other watershed organizations, particularly the Lake Allegan-Kalamazoo River TMDL Phosphorus Implementation Group. We are also involved in preparing the county to be fully compliant with Phase 2 stormwater regulations, especially as a partner organization in preparing a Public Participation Plan. The Council is also applying for membership in the Kalamazoo Environmental Council.

We are taking a leadership role in Kanoe the Kazoo 2004, including the overall planning and supervision of the Great Kalamazoo River Clean Sweep, which will recruit volunteers and secure industry support for an October 2 cleanup from Homer all the way to Lake Michigan. The Council also partnered with the MDEQ and other organizations in sponsorship of Kalamazoo-area Earth Day events this year and will continue to do so in the future.

Muskegon Lake

By Kathy Evans

In 2002 the Public Advisory Council developed the Muskegon Lake Community Action Plan, which established a restoration vision and a set of community-based qualitative restoration targets for restoration efforts. Over the winter of 2003-2004, the PAC developed a project to involve stakeholders in the development of numerical restoration targets for fish and wildlife, water quality and related natural resource issues. With this new project, the PAC will refine the quantitative targets, identify a suite of indicators and have them peer reviewed by a panel of experts coordinated by Grand Valley State University's Annis Water Resources Institute. The project is being supported by a grant from MDEQ and is being administered by the Great Lakes Commission.

Contact Kathy Evans at Timberland RC&D Area Council (616-784-1090, kevansrcd@aol.com), or visit www.natureandpeople.org, if you have questions or comments.

River Raisin

By Dan Stefanski

We are pleased to announce that the MDEQ Consolidated Lagoon PCB Cleanup Project is underway. The cleanup will remove PCB-contaminated paper sludge from ditches on Port of Monroe property. Sludge dredged from the area will be dewatered using geotubes. This is a new remediation procedure where contaminated dredge material is pumped to specially-designed geo-textile bags that allow the water to seep out, but trap the PCB-laden sediment. Filtrate from the geo-textile bags are collected by an underlying pad for proper disposal. Fifty-thousand cubic yards of contaminants are estimated to be removed in the project, which is scheduled for completion in the fall.

The MDEQ is attempting to utilize Clean Michigan Initiative funding as local match to leverage federal money under the Great Lakes Legacy Act to continue to address the contaminated sediment issue in the River Raisin.

continued on page 15...

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Rouge River

By Rich Badics

The Rouge River Advisory Committee (RRAC) has been busy. We have a newly-elected chair, Orin Gelderloos, from the University of Michigan-Dearborn. Bill Craig will continue as vice chair. Bill has been instrumental in keeping the RRAC focussed on restoration and habitat issues. Together, they will provide the RRAC with solid leadership.

The RRAC is happy to announce completion of the 2004 Rouge River Remedial Action Plan Revision. The document took over two years to complete. The RRAC took on this project because of the many changes that have occurred in the Rouge River watershed over the past twenty years, including the National Wet Weather Demonstration Project, the construction of combined sewer overflow (CSO) basins, the voluntary phase II storm water permits, among others. The document is available online at www.rougeriver.com.

The RRAC is partnering with the Rouge Assembly, a voluntary group of cities, townships, villages and counties in the watershed that have stormwater management responsibilities under a state-issued discharge permit. Activities will include watershed-wide sampling and monitoring as well as coordination of public education and involvement activities outlined in the watershed-based phase II permit. For more information visit the Assembly's web site at www.rougeriver.com/assembly.

Saginaw River/Bay

By Kristi Kozubal and Charlie Bauer

The Partnership for the Saginaw Bay Watershed has a new logo (see below), created by Ms. Hermelinda Roof, a design student at Saginaw Valley State University.

Public Sector Consultants is still working diligently on a low-head barrier dam study. A meeting in Frankenmuth and a site visit was held in May to discuss the project.



The Partnership continues its monthly speaker series. This year most of the presentations are focused on sediment and soil erosion issues. Robert Lehmann, with MDEQ's Soil Erosion and Sedimentation

Control Program, spoke at the April meeting and provided an outline of the program and the progress being made in the Saginaw Bay Watershed.

The Partnership, in conjunction with Public Sector Consultants, has submitted a grant proposal to the Great Lakes National Program Office to evaluate two beneficial use impairments: beach closings and fish tainting. The proposal would augment and help coordinate the monitoring of E. coli already being conducted by the Saginaw and Bay county health departments. For information on Saginaw County Health Department's monitoring efforts go to www.saginawpublichealth.org/ and click on "week of May 17th water samples" for a copy of the 2003 annual report.

St. Marys River

By Greg Zimmerman

Since our last report the governments of Canada and Ontario have contracted with a consultant to move forward on a plan to address contaminated sediments in the St. Marys River. Contaminated sediments, primarily resulting from wastes from a steel plant and paper industry, contribute to the beneficial use impairments in the St. Marys River AOC. The consultant has compiled a report of all available published information regarding contaminated sediments and conducted interviews with stakeholders on the river. A consultation meeting with stakeholders, including Algoma Steel, St. Marys Paper, the cities of Sault Ste. Marie Ontario and Michigan and the St. Marys River Binational Public Advisory Council (BPAC) was held in March. The meeting was well attended and it is hoped that lines of communication will remain open with all stakeholders in the communities.

In followup to this meeting and the contaminated sediments report, Lake Superior State University (LSSU) and the BPAC will host a series of public workshops to gain greater stakeholder involvement in the remediation of beneficial use impairments caused by contaminated sediments. The outcome of these meetings will be a scoping document, similar to a stage II report. The current stage II report deferred dealing with contaminated sediments. This project is funded by a grant from the U.S. EPA-Great Lakes National Program Office (GLNPO).

LSSU has received a number of grants connected with the RAP. Thanks to funds from the MDEQ (being administered by the SPAC and Great Lakes Commission), LSSU and the St. Marys BPAC will continue its education/outreach efforts through the BPAC office, our web site and the annual St. Marys River Area Environmental Summit. The web site will provide public access to data collected from the river over the past several years. An

additional project will update and reorganize the reference library in the BPAC office. The funding will also allow us to begin a "citizens' science" project in which we will establish a network of volunteers to help monitor biological integrity and water quality along the river and its main tributaries.

LSSU's Aquatic Research Lab also received GLNPO funding to assess biotic integrity of the St. Marys River. This summer we will develop standard operating procedures for the analyses, with field sampling to begin next summer.

The St. Marys River BPAC has chosen Donald Marles as its new chair. Donald represents the Sault Naturalists and has chaired the BPAC several times in past years.

White Lake

By Greg Mund

There's much to celebrate in White Lake and it's been a busy year for the AOC community. Fourteen years ago the Public Advisory Council was formed, recognizing that it would take the whole community to clean up White Lake. It's OUR responsibility, OUR community and OUR lake. It's fun, it's a challenge and the White Lake Community's vision is to restore the lake.

The dredging and treatment of chromium-tainted sediments in Tannery Bay, and wetland restoration is complete. The White Lake PAC, working with MDEQ, U.S. EPA and local partners – including Grand Valley State University's (GVSU) Dr. Rick Rediske – established a sediment monitoring plan to track results and verify the bay supports aquatic life. Next is the treatment plan for the contaminated upland soils and sludge lagoons. The PAC is working with the MDEQ, City of Whitehall and local partners to address these remaining issues to restore this toxic hot spot.

The Oxy (Hooker) Chemical site cleanup of contaminated sediments is complete, with 12,000 cubic yards of contaminated sediments (PCB, C-56) dredged from a 60-foot deep basin in White Lake. Oxy Chem is working on methods to speed up the removal of surface and subsurface contaminants at the former production site. Bench scale results will be available late 2004 or early 2005.

Funding for a nutrient balance study is being pursued by Grand Valley State University-Annis Water Resources Institute and will begin soon. Eutrophication and algal blooms are major beneficial use impairments for the community to address. The White Lake Association has committed approximately 20 percent of the cost of this two-year study, with the remaining funds being sought from the Clean Michigan Initiative monitoring program and NOAA.

Come visit us in White Lake, including the "Celebrate White Lake" festival scheduled for the last Saturday in July. ♦

Statewide Public Advisory Council

Clinton River

Representative:

William Smith, Mt. Clemens
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Alternate:

Timothy Backhurst, Clinton Township
(586) 463-6374

Deer Lake

Representative:

Diane Feller, Ishpeming
(906) 486-9967

Alternate:

Fred Minnich
(906) 486-4559

Detroit River

Representative:

Jeannine Ansley, Melvindale
(313) 381-2835

Alternate:

Jane Mackey, Gibraltar
(734) 675-4861

Kalamazoo River

Representative:

Rich Koster, Kalamazoo
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Alternate:

Robert Whitesides, Kalamazoo
(269) 382-6552

Manistique River

Representative:

Merilee Blowers, Manistique
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Alternate:

Leif Christensen, Manistique
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Menominee River

Representative:

Nancy Douglas, Marinette
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Muskegon Lake

Representative:

Kathy Evans, Muskegon (SPAC chair)
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River Raisin

Representative:

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Richard Micka, Monroe
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Rouge River

Representative:

Rich Badics, Ann Arbor
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Bill Craig, Livonia
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Alternate:

Greg Zimmerman, Sault Ste. Marie, MI
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Torch Lake

Representative:

James Trevethan, Houghton
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White Lake

Representative:

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