

GREAT LAKES NEWS

Great Lakes United—an international coalition to conserve and protect the Great Lakes/St. Lawrence River ecosystem

Premiers & governors may reform water use law to prevent export

by Reg Gilbert

The premiers and governors of the Great Lakes provinces and states are nearing agreement on changing basin water laws so that water use proposals are judged by their effects on the ecosystem. Their hope is to provide a better basis than current law for defeating proposals to export or divert bulk water out of the Great Lakes basin.

Current state and provincial water use laws are designed to prevent harm to other users of water, with little consideration given to the effects of water use projects on plant or animal life. In some jurisdictions this purpose

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Ontario's response to Walkerton: better reporting, same downloading

by Shelley Petrie

Toronto Environmental Alliance

Ontario Premier Mike Harris and Environment Minister Dan Newman ignored repeated warnings from expert ministry staff that the safety of drinking water in Ontario was at risk. Now, no one is likely to forget Walkerton.

In May, six people died from drinking Walkerton's local water, contaminated with a deadly strain of the E. coli bacterium. Over two thousand town residents, nearly half the population, fell ill.

The safety of drinking water supplies dominates public concern in Ontario. Many of the province's municipalities contend with daily questions about local drinking water quality.

Boil-water advisories are spreading across the province, confirming public fears.

Highly publicized cuts to Ontario's Ministry of Environment and the Harris' governments deregulation and lean government agenda, have called into question the current government's ability, competence or pure willingness to protect public health.

A total break-down in public confidence in drinking water quality has occurred.

New regulation inadequate

In August, a full three months after the Walkerton crisis began, the Ontario government finally took action to protect drinking water by announcing a new regulation, which a confident Premier Harris insisted will "do the job."

Essentially, the new regulation forces all responsibility to provide safe drinking water onto individual municipalities. Critics agree that the new rules are meaningless unless the Ministry of the Environment hires more staff to monitor and enforce them. So far, the MOE has decided not to fulfill this role.

Briefly, the new drinking water regulation that takes effect this fall:

- ④ Requires large waterworks to release a free, quarterly report to the public on their drinking water, and all test data. Members of the public must first request a copy of the report
- ④ Requires municipalities to post public notices when test results show a problem
- ④ Establishes clear lines of reporting drinking water violations. Municipal water supply managers must immediately inform MOE and the local medical officer of health
- ④ Mandates treatment procedures for all

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The Walk to Remember

The circumambulation of Lake Superior June 29–August 25 (see page 2)

A Walk to Remember •

Walkers circling Lake Superior this summer cross the bridge at Sault Ste. Marie from Ontario into Michigan on August 31.



by Bob Obgard, *Lake Superior Alliance*

On June 29 a group of nearly sixty people began a spiritual journey around Lake Superior. Walking from community to community carrying a special ceremonial staff, they have touched hundreds of people with their gentle but absolute commitment to reverence for the sacredness of their home.

In ceremonies, in talking circles, a new community emerged during the Walk to Remember, one with no boundary except its

dedication to protecting Lake Superior for our great-grandchildren's great-grandchildren.

The group of walkers, whose number have fluctuated from six to sixty, was made up of native Anishinabe and non-native people with no organizational affiliation except their love for Lake Superior. Their method was simple: to walk all the way around the world's biggest lake, sharing their ceremonies and their message with communities along the way.

Al Hunter of the Paisy River First Nation was one of the group's leaders. He was adamant: This was not an event.

On the first day, before the first of many ceremonies, Al tells the nearly sixty people assembled at Waverly Beach, east of the Bad River community: "This is one big ceremony."

It is the first of many sunrise ceremonies. Al is holding the Protect the Earth staff and telling stories about the feathers it holds, the work they've done, and the work they have yet





Walking to Ironwood, Michigan, in August.

to do to bring forth community. Al is emphatic that this will be a journey of discovery, not a preprogrammed event. "We aren't the ones directing this," he says, adding: "We are going to see things we are never going to see again."

Spirit power

With dew still heavy on the grass and the light of dawn still a honey yellow, the ceremonies begin. Five Bad River women begin a water ceremony.

They have come into the circle carrying a red bundle. Out of the red cloth they produce a copper bowl and cup. They, the women of the tribe whose people host the beginning of the Walk, will bring their spirit power to protect the walkers on their journey. After singing their water prayer, a song with fluid, lyric lines, they bring the copper cup, filled with water and blessed by their spirit prayer, to each of us in the circle.

As one of the Walk's ceremonial leaders, Al Hunter has spent much of the previous few months consulting elders about what the ceremonies should consist of. According to Al, the news that they are walking is welcome among the elders. "They've foreseen this," he says of the Walk.

Following their instructions faithfully,

Walk participants make offerings of tobacco and metal coin at each of Lake Superior's streams and rivers.

After twenty days of ceremonies, blisters, black flies, mosquitoes, scorching heat and pouring rain, the group has walked Minnesota's North Shore, joined Grand Marais's Fourth of July parade, held a momentary vigil outside North Shore Mining's front gate, and been feasted by the North Shore's tribes at Grand Portage and Pays Plat.

As they approach the half-way point of their twelve hundred mile walk, the Pic River First Nation on the east side of the Pukaswa National Park, just east of Marathon, Ontario, the sky itself seems to join in their welcome. It is a very foggy day and a group of nearly fifty Pic River First Nation people gather by the highway to greet the Walk.

A sudden clap of thunder cracks the sky. With the thunder still echoing across the hills, children who have been waiting for nearly an hour by the roadside start jumping up down, shouting: "There they are. Look, look." At that moment, the walkers appear out of the fog, carrying the Protect the Earth staff.

Pic River community members pull their drum out of a van and carry it into the road to greet the walkers with an honor song. As they

begin, rain starts to fall. Voices in the crowd take notice. Whispers move through the crowd saying: "First the thunder, now the rain, this really is about the water."

Later, Fond Du Lac tribal member Esther Nagahnub, who has been with the Walk from the start, will tell Pic River community members how much she was moved at the sight of the welcoming throng:

"When I came over the hill and saw all of the wonderful people standing there, it made me feel really warm, really good, really proud to be here, to see all of your wonderful faces, all of you wonderful people standing there in the rain."

After the honor song and greetings, the staff is passed to four-year-old April, the youngest and the first of many girls and boys from Pic River to who carry the staff on the final eight kilometers into their community.

"They will protect the water"

As Pic River community members and Walkers pass the staff and talk about their feelings at this community welcome, Al Hunter tells the welcoming crowd, "I am so glad to see the girls carrying the staff, because it is they who will protect the water." Pic River community member Eva Couchie echoes the sentiments



Nearing the Pic River Ojibway First Nation territory in late July.

of many who feel they have experienced something extraordinary: "The power, I could feel it! I heard the thunder. I heard the drum. What you are doing is so important to all of us."

Ms. Couchie's sentiments are not restricted to the members of native communities. The evening following the Pic River welcome, Walkers are invited to make a presentation at the Pukaswaa National Park visitor center.

The public meeting, arranged by the park's administrator starts off as a question and answer period about toxic chemicals. Members of the Indigenous Environmental Network talk about how pollution is devastating native cultures worldwide.

We talk about health, chemicals and community. People in the audience, about twenty mostly white Canadians from southern Ontario, ask many questions, but what they really want to know is, Why are we walking?

Esther Nagahub, an elder and school teacher from Fond Du Lac, answers by saying she wants to talk to the women. Esther explains that because women carry life inside them in water, "women are the keepers of the waters."

Making eye contact with each woman in

the room, Esther moves from face to face, pausing with a smile on her own her face as she comes to a small blond girl who squirms in her mother's lap: "This little girl too," she says. "She will be a keeper of the water."

Then Esther's eyes light up. "You know this makes me think about our friend Walter Bresette," she says. "One morning early he called and said, 'You know Esther, they're not going to leave.'"

"Who's not going to leave, Walter? Are you having trouble? Do you want me to come over?"

"You know. Them! All of these newcomers."

Some in the audience start to laugh as they realize whom Esther is talking about. Walt, who died unexpectedly last year, is well known in the region's native communities.

Esther is telling this story to all of us newcomers tonight to let us know that we had better get in touch with the notion that this is our home. And that maybe, just maybe, she and her people have a role to play in our ability to do that.

"So if they're not going to leave," Walter says, "maybe what we should do is throw a big

party and welcome them." Esther says, concluding the story.

"Welcome home"

At that, Al Hunter stood up. Esther passed him the staff. He began to smile as his gaze passed from face to face in the audience. "This makes me think about the welcome ceremony some of our people had for our brothers and sisters who went to the residential schools," he said, his smile changing subtly to a thoughtful gaze.

It was simple, Al told us. They joined hands and made two circles, one inside of the other. The circle of those who knew their family was on the outside facing in and the circle made up of those who did not know their family was on the inside facing out. Then, those in the outside circle said together: "Welcome home" to those on the inside circle.

"We could do this here tonight. Would you join us in this welcome?" Al asked. "I ask our brothers and sisters from Pic River to join us in making the outside circle."

The welcome ceremony began. Native people from Pic River and the native people on the Walk joined hands in the outer circle,

enclosing an inner circle that contained the rest of us.

As we formed our impromptu human rings, we ran into a problem a lot like the real-world situation for which this long-overdue welcome might be part of the solution. The native people were fewer and they, tasked with forming the outside ring, had the larger circle to describe with their bodies and outstretched hands. There were more of us non-native people on the inside, children standing in front of their parents, couples leaning close, all of us crunched into more of a ball than a circle.

With all hands joined, the native, Lake Superior Chippewa on the outside and their white guests on the inside, our native brothers and sisters joined together in saying: "Welcome home."

"Welcome home." It was one of those

moments that movie producers run in slow motion to try to show how our collective act of recognition can focus so intensely for just an instant that time itself seems to stop. The moment did grow on us, so large in fact that no one in the room was ready for what would happen next.

Within seconds we were hugging and shaking hands like long-lost brothers and sisters meeting for the first time in decades. At least for the moment of ceremonial chemistry, the Pukawsa visitor center was transformed. We were all encountering long-lost relations, greeting brothers and sisters glad to see us.

No one stopped to think how right (or how odd) it felt. And in fact we were greeting long-lost relations, lost to each other only through the arbitrariness of cultural separation, a separation we've allowed to devastate our relationships with each other and with the home we

are challenged to share here on our little blue ball in space.

A walk to remember

According to its participants, this is what the Walk to Remember was supposed to be about: restoring, building and discovering community, a community committed to protecting Lake Superior for the seventh generation.

On August 9 forty walkers from both sides of the border crossed over the International Bridge from Canada to the United States at Sault Ste. Marie. And eight weeks after its start, on August 25, the Walk returned to the Bad River community for its Pow Wow. For photos and further information on the Walk to Remember, log on to the Walk Web sites at: www.lifeinrealtime.com, and www.protecttheearth.com.

Children, led by April, four years old, at center, carry the sacred stuff into the Pic River First Nation territory.



Canada-U.S. toxics strategy—Is it working?

by Margaret Wooster

As part of our almost three-year involvement in the Canada-U.S. Binational Toxics Strategy, Great Lakes United has evaluated existing U.S. state regulations and progress toward meeting the strategy goals of the 1997 agreement—eliminating eleven of the worst toxic actors, the so-called “Level I” substances.

The full evaluation, *The Road to Zero?*, in two parts, is now available from Great Lakes United and can be found on our Web site. A similar assessment for Ontario has been compiled by the Canadian Institute for Environmental Law and Policy in its *Ontario's Environment and the Common Sense Revolution: A Four Year Report* (1999).

Taken together, these reports provide a view of the states' and province's current capacity to reduce and eliminate ultra hazardous substances from the Great Lakes region.

We looked at each state in terms of:

- ✦ Commitment to the Binational Toxics Strategy (BTS)
- ✦ Relevant water and air quality programs
- ✦ Contaminated sites and programs for them
- ✦ “Source sectors”—industrial categories—for ongoing releases of BTS substances
- ✦ Total progress on the eight specific BTS “challenges” to reduce long-lived toxic substances in the environment

What is working?

Partnership agreements. All of the Great Lakes states, with the possible exception of Pennsylvania, appear to have “Performance Partnership Agreements” with U.S. EPA, largely focused on reducing mercury, a major cause of state advisories about eating fish in the Great Lakes basin. Illinois, in partnership with the National Hospital Association, is leading an effort to reduce hospital uses of mercury by 50 percent. Household hazardous waste collection programs in many of the states have recovered several thousand pounds of mercury. New York has a recently initiated a pilot project to replace certain automobile parts that contain mercury.

Minnesota/Lake Superior initiatives. Minnesota appears to be farthest along in developing initiatives that lead toward a complete end to the discharge of certain toxic substances. For example, a Minnesota statute

now compels a sustained and orderly transition to cleaner forms of electric generation. The electricity sector, primarily coal-burning generating plants, accounts for about 40 percent of the state's mercury releases. Creation of new nonrenewable generation capacity is forbidden unless renewable energy alternatives are demonstrated to be not in the public interest. The same law mandates that any utility owning a nuclear power plant in the state must install capacity to provide 425 megawatts of wind energy by December 2002. The Minnesota Public Utilities Commission recently ordered the state's largest electric utility to install an additional 400 megawatts of wind power for a total of 825 megawatts.

Minnesota also has a “Listed Metals in Specified Products” law prohibiting the sale or use of any product listing lead, cadmium, mercury or hexavalent chromium within the state. Lake Superior's designation as an “Outstanding Resource Water” has led Minnesota to prohibit new or expanded discharges into its portion of the lake. Minnesota appears to be the only Great Lakes state to have successfully included this designation and consequent “antidegradation” policy (no further decline in water quality) in its rules.

Toxics right to know. One of the things that is working best for all citizens in the Great Lakes basin are the toxic release inventories—required reporting by industry of its toxic pollution releases each year—published in both countries. This information, provided in fairly raw form by the government after a three-year lag, becomes usable due to the “scorecard” Web sites produced by Environmental Defense Fund and RTK Network. These sites offer point-and-click summaries of pollution in given places and one-stop explanations of toxic dangers.

As participants in the Binational Toxic Strategy workgroups have found, “source sector” (polluting industries) information for the toxic substances of concern is difficult to obtain. Toxic release data provides a good beginning for public understanding of the quantities of substances still being released into our environment. As reporting thresholds are lowered and new source sectors are added, toxic inventories will become even more useful for measuring progress on elimination goals.

What is not working?

State regulations. It is safe to say that the states' regulatory and compliance systems are not supporting the strategy's overall goal of virtual elimination of long-lived toxic substances.

The problem starts with ambiguity about the goal. The Binational Toxics Strategy was negotiated and signed to help fulfill the binding commitment to improving water quality made by Canada and the United States in the form of the Great Lakes Water Quality Agreement. That commitment is stringent—even-tual elimination not only of releases of certain toxic pollutants, but also the removal of past deposits of these toxic substances.

The agreement's specific objectives in this area are *interim* objectives toward the ultimate goal—not mere improvement but water as close to clean as humanly possible. The agreement called this ultimate goal *virtual elimination*—the end of new pollution and the removal of all but the most inaccessible, tiny amounts of long-lived pollutants released over the decades of industrial misuse of the Great Lakes.

Unfortunately, state regulations ignore the overall goal in favor of the interim steps. The states set acceptable concentrations in water for the long-lived substances addressed by the strategy, with no plan for getting to complete elimination. The states then often compound the problem with loopholes such as “mixing zones”—places in the water, usually near discharge pipes, where concentrations of the targeted substances can be extremely high—or “criteria compliance times” (a Pennsylvania innovation), which measure toxic levels at a point fifteen minutes or in some cases twelve hours downstream from the discharge pipe.

The U.S. federal government's Total Maximum Daily Load program and even state and federal fish advisory criteria all assume there is some acceptable level for the worst, long-lived toxics substances in streams or in the human body—despite the fact that the United States and Canada have signed a solemn agreement rejecting this approach, and despite the fact that the scientific evi-

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... water use reform

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is not even enforced through government permitting, but by "common law" - non-statutory general principles enforced in the courts.

The provincial/state effort would change all that. A draft of the proposal released by Gov. John Engler of Michigan lays out the basic guidelines that would be used for assessing proposed new or increased "withdrawals" of water from anywhere in the basin water system:

"The aforementioned agreement(s) will include a standard that no State or Province will allow a new or increased withdrawal of the Waters of the Great Lakes Basin unless the applicant for the withdrawal establishes that its proposal, together with any existing use being increased:

- "A. Results in an improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and
- "B. Does not, individually or cumulatively, cause significant adverse impact to the quantity or quality of the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and
- "C. Includes implementation of all reasonable and appropriate water conservation measures; and
- "D. Complies with all applicable laws."

A potentially significant advance

The combination of points A and B is rare in environmental law. Wetlands protection and some other environmental laws sometimes require improvements to make up for permitted damage. But this proposal would require *both* no significant damage *and* improvement in order to obtain a water use permit.

Unfortunately, this potential advance is substantially undermined by the proposal's definition section, which declares "improvement" to mean that the "adverse impacts of any proposed withdrawal... are outweighed by the beneficial, restorative impacts of any associated conservation, enhancement, or restoration measures undertaken by, or on behalf of, the withdrawer." That is, government agencies judging proposed damaging uses could be given wide latitude to weigh degrees of (allegedly not "significant") harm against degrees of (sometimes very speculative) improvement. Furthermore, the definition does not require

that the improvements be strictly related to the water system, making far-removed efforts such as park maintenance eligible as improving activities.

The new system is being proposed as an amendment to the Great Lakes Charter, a 1985 nonbinding document signed by the states and provinces that, among other things, provides for consultations among the jurisdictions on proposals to divert more than 5 million gallons of water a day out of the Great Lakes basin.

Among other important provisions, the governors and premiers' proposal would make the new elements of the charter binding and formally include the public in future water-related decision-making.

For a copy of the draft proposal and a more detailed critique by Great Lakes United, contact the Great Lakes United Buffalo office.

Changes needed

The proposal must be changed in a number of ways to successfully protect the basin from export and diversion proposals that are sure to increase in number and seriousness as the continent gets drier in coming decades:

- 1) The definition of "improvement" must discard any reference to making up for harm caused by a proposed water use and be narrowed to include only actions that restore or improve the basin water system
- 2) The proposal must mandate an overall strategy for protecting the Great Lakes basin ecosystem. Even well-intended improvement measures will be ineffective unless they are part of a plan - unless the states and provinces set overall water-related ecosystem improvement goals, with specific interim objectives and dates for achieving them
- 3) The proposal's water conservation provisions are weak. The states and provinces should require maximum achievable water conservation before new or increased uses are even considered. Strong conservation measures are the cornerstone of both effective protection of the Great Lakes basin ecosystem* and* our region's domestic and international credibility that we are protecting the lakes for their own sake rather than for the (often illegal) benefit of local economic interests
- 4) The scope of human water-related actions affected by state and provincial scrutiny should go beyond mere water "withdraw-

als" (that is, taking water out of lakes, rivers, or the ground) to include the full range of human actions that damage the basin water system and the living things that depend on it. For example, simply slowing down a river's flow can make it impossible for certain fish to reproduce in the river. The impact of certain uses that remove no water from the system can be far worse than standard withdrawals of even large amounts of water

- 5) Public involvement must be broadened to include both input into the proposed amendment to the charter as well as design of the individual provincial and state policies following it up. Public involvement should also include local governments, because they must eventually play a lead role in implementation of most water protection measures
- 6) The Great Lakes basin should be defined to include the St. Lawrence River. As the farthest downstream jurisdiction, Québec is the most vulnerable to abuses of the Great Lakes water system; it needs to be centrally involved in protecting it.
- 7) The formulation of the charter amendment and any new agreements for managing the basin's water uses should include the region's First Nations and tribes, who have sovereign rights to basin waters and a long history of environmental concern.

The governors and premiers need to know that the public is watching and concerned that they take strong action. The proposal they are now considering, potentially the most sweeping change in regional environmental law in a generation, might be finalized this fall. Please call or write your chief executive by October 1 urging him to push for and sign a strong agreement to reform the Great Lakes basin's water use laws:

Ontario—Premier Mike Harris, Office of the Premier, Legislative Building, Queen's Park, Toronto ON M7A 1A1, (416) 325-1941

Québec—Premier Lucien Bouchard, 885, Grande Allée Est, 3e étage, Québec City, PQ G1A 1A2, (418) 643-5321

Illinois—Gov. George Ryan, 207 Statehouse, Springfield, Illinois 62706, (217) 782-0244

Indiana—Gov. Frank O'Bannon, 206 State House, Indianapolis, IN 46204, (317) 232-4567

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GLU's sister-country project on the Niger River

by Stéphane Gingras

The villagers were waiting for us as we drew up to the shore at the village of Kandadji in the long, narrow pirogue, a vehicle used to transport people, animals, products and especially fish in this part of the world.

The boat trip across the Niger River had been a welcome change of pace and scenery after the three-hour car journey from the capital city of Niamey, and soon we were being helped onto the shore by the many children, young people, singers and drummers who were part of a self-appointed welcome committee.

Chairs and spaces had been cleared in front of the prominent Ecological Centre and there we were to enjoy an amazing program of new songs and sketches all about the invasive water hyacinth, other local environmental problems, and the environmental project we are part of. We were all inspired by the way in which the villagers had embraced the project, very much making it their own... and to think, this project had been merely a dream only two years ago.

The project

Great Lakes United Canada started to develop the project, which we call River to River (*D'un Fleuve à l'Autre*) with a partner environmental nongovernment organization in Niger.

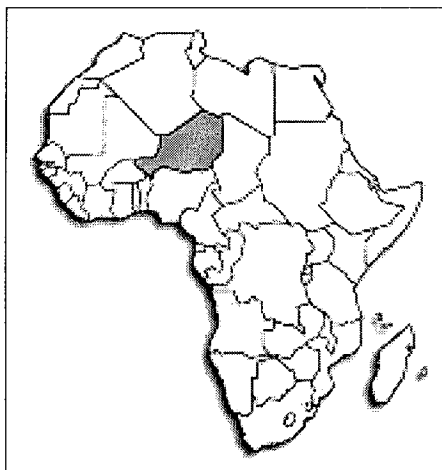
From the first meeting we have tried to build a bridge between local environmental activism in and around the St. Lawrence River and the same sort of action in and around the Niger River.

It is not only in the North that people need to protect the environment; the environmental problems that people from Africa are facing are huge, and are often directly linked to their survival.

Great Lakes United's strength has always been community empowerment and community action towards conserving and protecting the Great Lakes and St. Lawrence River ecosystem. It therefore made a lot of sense to start exchanging our knowledge and experience through a project funded by the Environ-

mental and Sustainable Development Program of the Canadian International Development Agency.

With that in mind, together with our Niger partner organization, Ecole Instrument de Paix - Niger, we have developed a project



focused on one community on the Niger River, a village called Kandadji.

The water hyacinth

The main problem for the community of Kandadji is a water weed called the water hyacinth. It is an exotic species, brought to

Africa from South America a couple of years ago, and one that is extremely invasive. It is the fastest-growing plant on earth, with a growth rate of 200 tons per year per hectare (dry weight).

The water hyacinth creates major problems for the environment, for human health, and for the economy. By invading the shoreline of the Niger River, the water hyacinth blocks the sunlight for native plants and drastically reduces the amount of oxygen available to fish in the river because it drops so many leaves in the river—the bacteria that break down decaying vegetation consume oxygen, and a huge 60 percent of the weight of the hyacinth is the leaves falling in the water on a regular basis.

The whole food chain is affected and the productivity of the river is greatly limited, which impacts directly on fishing, for just one very important example.

If reduced catch weren't bad enough for the Niger River's fishermen, the hyacinth also makes it difficult for boats to come ashore and for fishermen to use nets to catch fish because the hyacinth floats on the water.

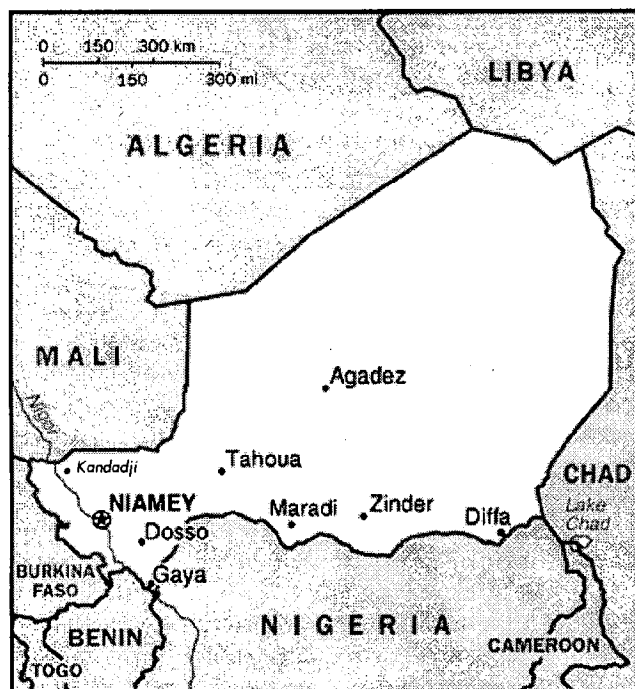
Finally, the mats of water hyacinth contribute to the spread of malaria and bilharziosis because they are so dense that they offer excellent protection from predators for mosquito larva and bilharzia worms.

For the entire length of the River Niger—four thousand kilometers from Mali through to Nigeria—the spread of the water hyacinth is having disastrous effects. No wonder then, that the villagers of Kandadji were extremely discouraged...

A solution?

Great Lakes United has been able to help by researching and providing low-cost, low technology solutions. For a start, we found out that other environmental nongovernment organizations around the world were doing very interesting things with respect to water hyacinth problems. None of them are trying to eliminate the weed from the lakes and rivers that it

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dence increasingly points to irreversible harm from the smallest amounts (perhaps even currently non-detectable amounts) of some long-lived chemicals like dioxin and PCBs that are particularly adept at building up in the food chain.

It is difficult if not impossible for regulatory regimes to keep up with ever lower "safe" thresholds for these substances. For example, although all Great Lakes states have passed revised water quality rules in compliance with a 1990 federal tightening of standards popularly called the Great Lakes Initiative, in most or all cases some ambiguity or loophole has delayed final approval by the EPA, so that ten years later permits are still not being written against these standards. In general, states continue to press for and use weaker policies and rules for measuring toxic releases.

Monitoring and enforcement are related problems at the state level. For example, Indiana has shifted water and fish monitoring schedules from every two years to every five years. Budgetary and personnel cuts have helped move states away from permit reviews and enforcement towards voluntary compliance programs that are usually far less effective than their predecessors.

What is needed?

Specifically, the states need clear federal guidance in certain areas:

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Michigan—Gov. John Engler, P.O. Box 30013, Lansing, MI 48909, (517) 335-7858

Minnesota—Gov. Jesse Ventura, 130 State Capitol, 75 Constitution Ave., Saint Paul, MN 55155, (800) 657-3717

New York—Gov. George Pataki, Executive Chamber, Albany, New York 12224, (518) 474-8390

Pennsylvania—Gov. Tom Ridge, 225 Main Capitol, Harrisburg, Pennsylvania 17120, (717) 787-2500

Ohio—Gov. Bob Taft, 77 South High Street, 30th Floor, Columbus, Ohio 43215, (614) 466-3555

Wisconsin—Gov. Tommy Thompson, 125 S. State Capitol, 53702, (608) 266-1212

Phaseout timetables. Federal and state regulatory agencies need to establish clear phaseout timetables for Level 1 substances, leading to an enforceable final ban on production, use or discharge of these substances. Likewise, pollution prevention strategies for Level II substances need to be developed with the goal of virtual elimination clearly in mind.

Examples of steps in the right direction can be found both in the region and abroad. The Lake Superior Lakewide Management Plan has set a goal of 100 percent virtual elimination of certain substances by the year 2020, together with milestones for getting there. Sweden has a chemical policy mandating that by the year 2012 production processes are "free from the deliberate use of persistent and bioaccumulating substances, or lead, cadmium or mercury," and that "the releases are free from substances that cause serious or chronic health effects."

These phaseout timetables will challenge industries towards technological innovation in a way that current "end of the pipe" regulation fails to do. Such timetables will also free government agencies from the enormous burden of setting, measuring, legally defending, and enforcing often arbitrary amounts of allowed pollution.

Strategies for reaching virtual elimination goals. To reach the goal of creating significant clean power alternatives, Minnesotans for an Energy Efficient Economy are advocating consumer education—including in electricity bills information such as how and where electricity is generated and describing the associated environmental costs. Such information would empower consumers to choose cleaner

power. Labeling of products to include the descriptions of the toxic substance they contain, such as Minnesota's listed metals law, allows states to prohibit categories of potentially dangerous products from within their boundaries.

The Road to Zero?

Great Lakes United contracted with eight researchers to analyze each state's progress toward the goals of the Binational Toxics Strategy: Atlantic States Legal Foundation (New York), Jay Burney (Pennsylvania), Citizens for a Better Environment (Minnesota), Clean Water Action Council (Wisconsin), Ken Fenner (Illinois), Improving Kids' Environment (Indiana), Michigan Environmental Council, and Ohio Environmental Council.

Some of our writers suggest that existing regulatory systems have done as much as they can to reduce conventional pollutants, and that the final step to eliminate discharges of BTS substances will be accomplished only through legislative bans or through state and local voluntary programs.

However, there is much room for improvement in the existing regulatory regime, including the need for clear and federally approved Great Lakes Initiative standards (*without* mixing zones and *with* strong "antidegradation" provisions), better monitoring and enforcement, greater commitment to thorough cleanup of contaminated sites, and systematic reduction of hazardous waste.

Above all, to be effective each of these improvements must be clearly integrated with a timetable for reaching the goal of eliminating long-lived bioaccumulative toxics from the Great Lakes ecosystem.

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has infested; instead they are finding ways to use the plant.

So we started to show the villagers of Kandadji how to convert the plant to a fairly decent compost. We built a water filtration system that uses aquatic plants such as the hyacinth to filter the water of the river, providing drinking water for the community.

This year we plan to help to produce home-made paper from the hyacinth so that villagers can sell the plant for a profit.

In less than two years, the River to River

project has proved a great success, giving great hope to the people of Niger. Something that once seemed like an environmental disaster has suddenly become a source of better food, better drinking water and even a potential income generator for the population of one of the poorest countries in the world.

Great Lakes United's River to River project is funded for the next three years and we hope we can achieve the main goal of this project: to give the power to this community to handle by themselves their own environmental and social problems while respecting the supporting capacity of the surrounding ecosystem.

GLU annual meeting: climate change, global toxics

Global impacts on the Great Lakes was the theme at Great Lakes United's eighteenth annual meeting, held June 4-6 northeast of Duluth in Superior Shores, Minnesota.

Al Hunter from Manitou Rapids Reserve, Ontario, along with Butch Stone and Amos from Bad River, Wisconsin, hosted the opening Friday evening session by leading a "talking circle" of all those attending the meeting. The three delivered an inspired account of preparations for a 1,200-mile walk around Lake Superior to begin at sunrise June 28 and end in late August (see the story and photos on this now-completed odyssey).

The talking circle proceeded from local Native speakers to the room at large, and all—young, old, Anishinabe, Québécois, trout fishers, chemical workers, teachers, activists—spoke to what brought them to the meeting and why a Great Lakes coalition is important.

"POPs"

Tim Brown of the Chicago-based Delta Institute and Jack Weinberg of the Environmental Health Fund summarized developments in the global negotiations to eliminate some of the worst toxic chemicals, twelve so-called "persistent organic pollutants" (POPs), from the world environment. Both have attended the global negotiating sessions.

The United States and Canada have pushed for a weaker treaty than European negotiators, despite being signatories of the Great Lakes Water Quality Agreement, which calls for zero discharge of POPs and other long-lived toxic substances. See separate article for more information. GLU's membership also passed a resolution on the subject. The last negotiating session for the treaty takes place this December in South Africa.

Climate change

John Pastor, a biology professor at the University of Minnesota at Duluth, discussed the relationship of forest type to climate, predicting dramatic changes in basin forest cover in coming decades, with the

Duluth-Lake Superior area a locus of change in the northern forest. Pastor said that at one time he had been on the fence regarding the certainty of climate change, but that the last couple years' data on global temperature and atmospheric carbon dioxide concentrations have convinced him.

J. Drake Hamilton, of Minnesotans for an Energy-Efficient Economy, described the escalating climate change problem in the Great Lakes, such as impacts on cold water aquatic species and agricultural productivity. She outlined action strategies including switching to cleaner, renewable energy sources, taxing vehicle emissions, and education.

Task Force action items

Great Lakes United four active task forces

met and developed action plans for the coming months.

The Biodiversity and Habitat Protection Task Force decided to campaign to eliminate commercial timber extraction on federal lands and campaign to educate and mobilize community groups on impacts of non-native fish stocking in the Great Lakes.

The Clean Production Task Force resolved to complete its report on the impacts of vehicle disposal in the Great Lakes and to prepare a fall workshop on "extended producer responsibility" for disposing of cars, and the potential impacts on the automobile industry of such a change.

The Sustainable Waters Task Force reviewed its consensus draft agenda for protecting Great Lakes waters from export, diversion, and misuse. It will be the basis of our work in this issue area for several years to come. The task force resolved to develop a citizen education campaign around water quantity issues, and campaign vigorously among Great Lakes decision-makers on steps needed to protect Great Lakes waters.

The Nuclear-free Great Lakes Task Force resolved to secure funding for building renewable energy sources into the Great Lakes energy portfolio mix.

Resolutions

Great Lakes United's membership passed nine resolutions in support of:

- 1 Full funding of the U.S. share of the cost to the Great Lake Fishery Commission of improving non-pesticide means of controlling the predatory invasive sea lamprey
- 2 Critical improvements in Canada's mining effluent regulations
- 3 Closure and decommissioning of basin nuclear reactors that have been removed from service for reasons safety and needed upgrades
- 4 Revised negotiating positions by the United States and Canada that will generate a "strong and effective, legally enforceable" treaty to eliminate certain long-lived toxic chemicals known as "persistent organic pollutants, or POPs, from the world environment
- 5 Removal of the four-lane Robert Moses Parkway running along the Niagara River

continued page 23



Alden Lind, a long-time protector of Lake Superior, was honored at the AGM with the presentation of GLU's John Monty Award. The award is given by Great Lakes United to a person who has exemplified the late Michigan environmentalist. Alden was recognized with a standing ovation and received an artist's ceramic plaque. Lind has been an invaluable and irreplaceable activist with Save Lake Superior Association since its inception and was a major figure in winning the battle that halted the dumping of uranium production waste into Lake Superior by the Reserve Mining company in the 1970s. It was one of the first, and at that time far and away the most significant, environmental legal cases seen in the Great Lakes.

The John Monty Award is not the first recognition Lind has received. Both the National Wildlife Federation and the Izaak Walton League have bestowed national honors on Lind for his decades of tireless advocacy. Asked in a 1999 interview what is essential in activism, Lind's answer was simple: the willingness to jump in and fight for what you believe in. Activism, said Alden, "is nothing more than what everybody is expected to do in democracy. 'Lind' friends would argue he's still far more. Alden and wife Ora will be leaving the shores of Lake Superior for his fall to move to Cottonwood, Arizona. He will be missed. We send them off with our best wishes.

—Bob Obligated with Glen Madburn

REPORTED TOXIC RELEASES, AUTOMOBILE INDUSTRY:

Great Lakes and St. Lawrence River Basins, 1997

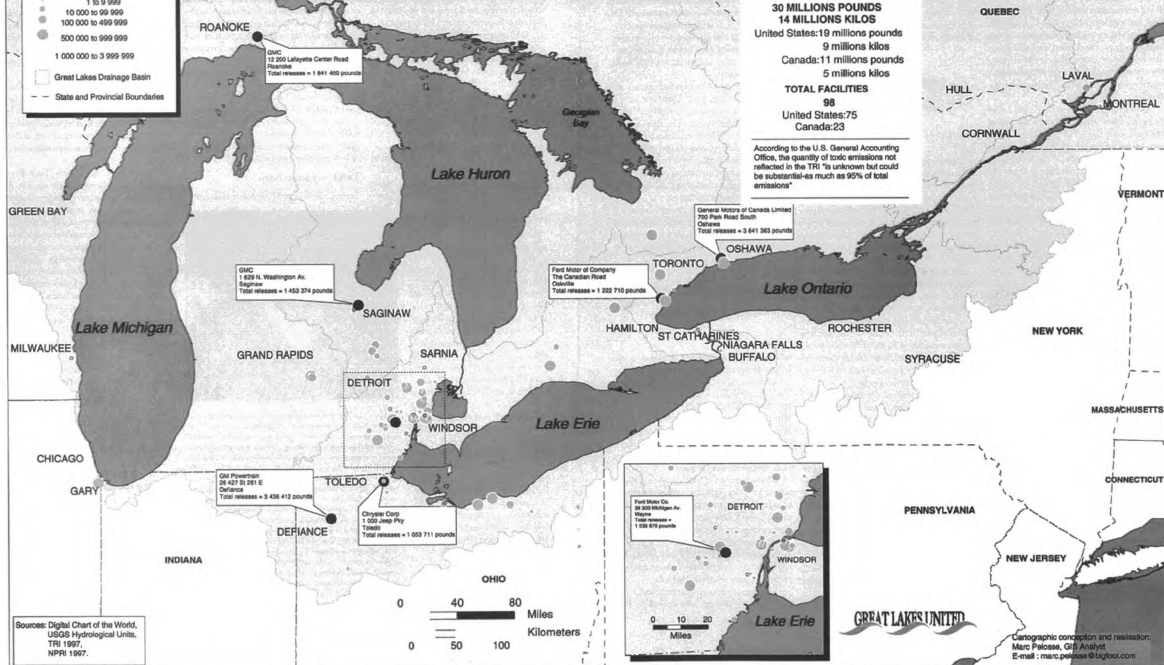
Total Releases (pounds)

- No releases reported
- 1 to 9 999
- 10 000 to 99 999
- 100 000 to 499 999
- 500 000 to 999 999
- 1 000 000 to 3 999 999
- Great Lakes Drainage Basin
- - - State and Provincial Boundaries

TOTAL RELEASES
30 MILLIONS POUNDS
14 MILLIONS KILOS
 United States: 19 millions pounds
 9 millions kilos
 Canada: 11 millions pounds
 5 millions kilos

TOTAL FACILITIES
98
 United States: 75
 Canada: 23

According to the U.S. General Accounting Office, the quantity of toxic emissions not reflected in the TRI is unknown but could be substantial—as much as 90% of total emissions*



Sources: Digital Chart of the World,
 USGS Hydrological Units,
 TRI 1997,
 NPRI 1997.

Cartographic conception and realization:
 Marc Pelosse, GIS Analyst
 E-mail: marc.pelosse@bigfoot.com

A guide to exotic species and

by Thomas Diggins, Ph.D.

Food web contamination, habitat degradation, and nutrient loading have all been justifiably ranked among the direst human threats to the integrity of the Great Lakes ecosystem. But one of the most pernicious alterations of the environment has been the introduction of exotic species, often called "biological pollution."

Biological invasions of the Great Lakes began in earnest with European settlement of the basin after 1800. The most comprehensive survey of exotic species in the Great Lakes places their number at 139, comprising plants, fish, plankton, and other invertebrates (Mills 1993, 1994) (see the end of this article for details on these sources). Several species have been added to the list since then. Some exotics go largely unnoticed, but the impact of a few has been disastrous. Great Lakes exotics form the basis of an extensive literature, but three excellent reviews are widely available: Emery 1985 and Mills 1993 and 1994.



Rainbow smelt

Small Mammals

The Laurentian Great Lakes (so-called to distinguish them from the Great Lakes of Africa) are not alone as recipients of biological invaders. By one estimate, typically 10 to 30 percent of species in any geographic region are non-native (Mills 1993). The great propensity of the human species to travel, migrate,

Alewife



Small Mammals

and ship goods assures a steady supply of outsiders to most of the world's ecosystems.

Terms

The terminology of exotic species has suffered from some confusion. The term *exotic* was

once reserved for species from a foreign land; intra-continental species transfers were viewed with less concern. An appreciation for the risk of all introductions has grown more recently,



Chinook salmon

Small Mammals

and *exotic* now refers to any species not native to the recipient ecosystem, even if the original geographic separation was minimal. The term is now essentially synonymous with *introduced*. Both imply that human activities facilitated the transfer. The term *invasive* refers in general to species capable of significant range expansion, but does not necessarily denote transfer by human activities.

Most definitions of *exotic* emphasize establishment of a sustaining population in the new environment. Emery 1985 distinguishes between successfully introduced fishes (defined as reproducing, not necessarily as ecologically beneficial), and those that failed to become established. In addition, many tropical species undoubtedly are released into the Great Lakes each year, but succumb to the cold of the first winter they face.

A standard of reproductive establishment may not always coincide with ecological impact. Mills 1993 points out that the impact of salmonids stocked into the Great Lakes has been profound, even if the contribution of natural reproduction to their populations is minimal. Instead, yearly stocking keeps them predictably abundant. Stocked and managed sport fish are rarely considered invaders, but the major non-native species (such as chinook and coho salmon, rainbow and brown trout) are most certainly exotics in the Great Lakes.

Mills 1993 and 1994 systematically review the assemblage of Great Lakes exotics in terms of taxonomy (plants, molluscs, fish), chronology, geographic origin, and likely mode of introduction. More than half are plants or algae and nearly a fifth are fish, including alewife, rainbow smelt, sea lamprey, and the stocked salmonids.

The frequency of introductions has in-

creased steadily since the early 1800s, with periods of important introductions in the 1870s and since 1959. It is likely that some inconspicuous algae and plankton may have colonized the Great Lakes before detailed surveys of such taxa, and would not have been identified as exotic.

The majority of introduced species are Eurasian in origin, most likely due to the region's role in the settling of the Great Lakes and to its similar climate. The Atlantic and Pacific coasts of North America have been other significant sources of exotics. Primary modes of introduction have included both deliberate and unintentional release, direct spread through canals, and introduction through shipping activities.

Of these, shipping activities have introduced the most species, with many plants introduced in the solid ballast and packing materials used during the 1800s and a variety



Coho salmon

Small Mammals

of aquatic species invading the lakes in the ballast water carried by more modern vessels.

Completion of canals and locks in New York State (the Erie Canal in 1821), Ontario (the Welland Canal in 1829), the St. Lawrence River (1847), and Sault St. Marie (1855) allowed unrestricted movement of nineteenth-century ships throughout the basin, and greatly facilitated commerce with the Atlantic coast, and, ultimately, with Europe.

Modernization of the St. Lawrence Seaway in 1959 dramatically increased international commerce, and modern ships now travel to the Great Lakes directly from freshwater European ports. Consequently, the risk of ballast water introductions has mounted.

In contrast, Mills 1993 and 1994 conclude that *direct* migration of exotics through canals has been relatively limited.

However, two very important exotics, sea lamprey and alewife, have spread by this route.

problems they cause in the Great Lakes

Exotic fish: "profound effects"

About 10 percent of the 139 identified exotic species in the Great Lakes have had profound ecological effects, but for fishes this portion is

Rainbow trout



Virginia H. Woodruff/USFWS

perhaps 50 percent (Mills 1994). Mills 1993 and 1994 identify thirteen species having the greatest impact on the basin, including eight fish. The sidebars summarize some of the basin's most important invaders.

The colonization of an ecosystem by exotics depends on a combination of factors including the rate at which such invaders gain access, the ecological nature of the species involved, and the susceptibility of the recipient environment to invasion. With the level of human alteration of many of the world's ecosystems, the Great Lakes included, it is increasingly difficult to distinguish among these factors.

Human activities have doubtless greatly increased the frequency of species introductions, but they have also disturbed recipient habitats, making such invasions more likely to succeed. The Great Lakes were already suffering from deforestation, siltation, and degradation of streams and wetlands by the time the tide of exotics began to flow into the basin. Industrial pollution, over-fishing, and nutrient loading have only increased the level of disturbance in the present century. Likewise, many exotic species possess life history strat-

egies (for example, a high reproductive rate) and physiological traits (such as wide environmental tolerance) which make them invasive. Nonetheless, it is rarely possible to separate a

Sources

L. Emery, 1985, "Review of fishes introduced into the Great Lakes, 1819-1974," Technical Report #45, Great Lakes Fishery Commission, Ann Arbor, Michigan.

E. L. Mills, J. H. Leach, J. T. Carlton, and C. A. Secor, 1993, "Exotic species in the Great Lakes: A history of biotic crises and anthropogenic introductions," *Journal of Great Lakes Research*, volume 19.

E. L. Mills, J. H. Leach, J. T. Carlton, and C. A. Secor, 1994, "Exotic species and the integrity of the Great Lakes—lessons from the past," *Bioscience*, volume 44.

White perch



Virginia H. Woodruff/USFWS

S. H. Smith, 1995, "Early changes in the fish community of Lake Ontario," Technical Report #60, Great Lakes Fishery Commission.

Major Great Lakes exotic species

Fish

Sea lamprey. Sea lamprey were first noted in Lake Ontario in the 1830s, and spread into the upper lakes much later through navigation canals. By 1921 they were found in Lake Erie. There is speculation that sea lamprey inhabited Lake Ontario before European colonization (see Smith 1995), but introduction through the Erie/Oswego canals is more likely. These fish are normally anadromous (that is, migrating from marine to fresh water to spawn) but now complete their lifecycle in fresh water, spawning in streams. Feeding as ecto- (externally attached) parasites, they decimated populations of larger fish, including lake trout

and lake whitefish. Control by the selective larvicide TFM (3-trifluoromethyl-4-nitrophenol), applied to spawning sites, has reduced lamprey populations by more than 90 percent, but has not eliminated it.

Alewife. Alewife were discovered in Lake Ontario in 1873, and there is also some uncertainty regarding their colonization of the lake. Like sea lamprey, they spread to the upper



Virginia H. Woodruff/USFWS

lakes through canals, reaching Lake Erie by 1931. They have become the dominant plantivorous forage fish throughout most of the Great Lakes basin. Their population dynamics have tended to be unstable, and millions of dead alewife littered the shores of Lake Michigan before the reintroduction of top predators starting in the 1960s. Alewife compete for resources with native fish and are major predators on the fry of lake trout and whitefish.

Common carp. Eurasian carp were purposefully introduced to the Great Lakes in the mid-1800s, intended as a stock for fish-cul-

Sea lamprey



Virginia H. Woodruff/USFWS

turing. However, they have not become popular as a food item, and their foraging and spawning activities increase turbidity in shallow areas of the lakes. Carp are now widespread and abundant, and are generally considered a nuisance.

Rainbow smelt. Smelt were stocked into Crystal Lake, Michigan, in 1912, and from there migrated to Lake Michigan. They have become a major forage fish throughout the Great Lakes. Lake Ontario may have been colonized by fish migrating up the Erie/Os-

continued next page



Virginia H. Woodruff/USFWS

wego canals. They have become a major forage fish throughout the Great Lakes. Lake Ontario may have been colonized by fish migrating up the Erie/Os-

... exotic species

continued from previous page

wego Canal from the Atlantic coast.

Coho salmon. This Pacific species was first stocked in 1933 by the State of Ohio, but intensive stocking began in the mid-1960s, with several million fish stocked annually. Some natural reproduction occurs among coho salmon, but populations are largely maintained by stocking of hatchery fish. As with the other introduced salmonids, the stocking of cohos has had widespread effects on the ecosystem, but also supports a very productive recreational fishery.

Chinook salmon. Pacific chinook were first stocked in 1873 and again in 1933, in both cases unsuccessfully. They have been a major component of the basin-wide stocking programs implemented since the 1960s. Populations are maintained primarily by stocking.

Rainbow trout. Pacific rainbow trout and the anadromous form steelhead have been widely stocked in the Great Lakes since the late 1800s. Rainbows reproduce well in many areas of the lakes, but stocking is required to support the very high angling pressure on these fish.

Brown trout. European brown trout have been widely stocked since their first introduction into the Lake Michigan drainage basin in 1883. Some populations may be self-sustaining, but the fishery is primarily maintained by annual stocking throughout the lakes.

White perch. White perch were first found in Cross Lake, New York, in 1950, eventually migrating to Lake Ontario and the rest of the basin. They most likely travelled through the New York State Barge Canal from their Atlantic home range. White perch both compete with and prey upon native forage fish, but are also landed by anglers.

Ruffe. European ruffe were first found near Duluth, Minnesota, in 1986, and have since spread to other Great Lakes river mouths and harbors. Ruffe were most likely introduced in the ballast water of grain freighters. There is concern that ruffe could disrupt Great Lakes forage fish populations, including native yellow perch.

Round goby. Another Eurasian species introduced in ballast water, round goby were first found in the St. Clair River in 1990. These small benthic (bottom-dwelling) fish aggressively defend their territories, and could adversely affect native species such as sculpins.

Non-fish species

Numerous non-fish exotics have also invaded the Great Lakes, and some have had profound affects on the basin's fishery.

Zebra and quagga mussels. Two closely related Eurasian mussel species invaded the Great Lakes in ballast water during the late 1980s. Zebra mussels were first found in Lake St. Clair in 1988, and now occur throughout the lakes. They have also spread to the interior of North America and the Mississippi drainage basin.

Quagga mussels are increasing in abundance in Lakes Erie and Ontario, but have not spread to the other lakes. Both these organisms are extraordinarily prolific and have become the dominant benthic invertebrates in the Great Lakes. Their filtering activities have dramatically altered the flow of energy through food webs, but they have also increased water clarity in many areas. They are major bio-fouling organisms and have caused extensive economic damage to industries and municipalities using Great Lakes water. They are also a major nuisance to commercial and recreational boaters. The desire to understand and predict the effects of zebra and quagga mussels has driven a large research effort in North America and Europe.

Purple loosestrife. Purple loosestrife has been spreading throughout North American wetlands since its introduction in the mid-1800s, either in solid ballast or as a cultivated plant. Essentially terrestrial, it has had a profound impact on the Great Lakes by outcompeting native vegetation, adding one more stressor to the already much reduced wetland habitat of the basin. While monospecific stands of loosestrife may be aesthetically beautiful, they provide distinctly poorer habitat than native plants.

Eurasian milfoil. Of the several important introduced macrophytes (underwater plants), none has had a greater impact than Eurasian milfoil, first found in the basin in the 1950s. It causes problems by competing with native flora, but it is probably best known to Great Lakes users wrapped around their props and oars. Milfoil's long, tangled strands can make some shallow areas of the lakes nearly impenetrable to boats. It is an otherwise colorful and attractive plant, and may have entered North America through the aquarium trade.

\$50 million lakes cleanup in trouble

by Emily Green

Sierra Club Great Lakes Program

For what feels like the first time in years, Congress is again discussing the fate of the Great Lakes, bringing some much needed national attention to some of our difficult environmental problems.

In January, Vice-President Gore announced that President Clinton's budget would contain \$50 million for the cleanup and restoration of the Great Lakes. In response, Representatives James Oberstar (D-MN) and Vernon Ehlers (R-MI) introduced bills in the House Water Resources Subcommittee that would authorize the Great Lakes Legacy Fund—\$50 million per year for a total of five years for Great Lakes cleanup.

Both bills are focused on the issue of contaminated sediments, one of our greatest barriers to clean water and fish that are safe to eat in the Areas of Concern, the forty-two worst toxic hotspots located around the Great Lake basin.

The funds would be used to help clean up "orphan sites," places where the responsible industries are out of business or bankrupt, and thus unable to help solve the problem.

The Oberstar and Ehlers "authorizing" bills—which would permit federal funds to be used for cleanup but would not actually release the needed money—remain in subcommittee. The necessary companion action, "appropriating" the money so it can be released, is even farther from realization. There are no funds yet allocated in the House of Representatives' relevant proposed appropriations bill.

For these funds to become a reality, several things need to happen. First, Congressman Ehlers and Congressman Oberstar need to come to agreement on the language for a single, bipartisan bill to authorize the Great Lakes Legacy Fund. As long as there are two competing bills, one sponsored by a Republican and the other by a Democrat, the issue will never move forward.

Second, the Senate needs to introduce and pass a companion bill—a bipartisan bill that would authorize these funds on the Senate side. No senator will introduce such a bill unless the House comes to agreement on their own bipartisan language. However, several Great Lakes senators have indicated that

IJC blasts U.S. and Canadian Great Lakes protection performance one more time

by Margaret Wooster

The International Joint Commission released its *Tenth Biennial Report on Great Lakes Water Quality* in July this year. The sixty-eight-page report is strongly critical of both governments for their failure to make significant progress on several areas of growing concern: human health effects from eating Great Lakes fish, lack of cleanup of contaminated sediments, air deposition of persistent toxic substances, urban land use, and ongoing needs for monitoring and information.

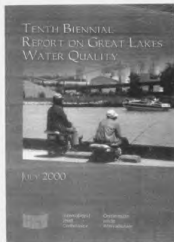
"Failure to address the challenge of restoration during this time of economic prosperity will result in future generations of Great Lakes citizens inheriting the consequences of our inaction," the IJC warns.

The International Joint Commission is made up of six commissioners—three appointed by Canada's prime minister, three by the president of the United States—with the responsibility for monitoring government progress towards the water quality goals of the Great Lakes Water Quality Agreement. The commission's assessment is informed by two standing boards, the Water Quality Board and the Science Advisory Board, biennial reports from the EPA and Environment Canada, and public testimony from its last major public forum, held in September 1999.

In an open letter to the Great Lakes community, the IJC criticizes the Canadian and U.S. governments' implementation efforts. "Although progress has been made, Governments have not committed to adequate funding or taken decisive actions required to restore and protect the Great Lakes. Much more must be done to ensure that citizens of both countries can safely swim in and drink

water and eat fish from the Great Lakes."

The report cites slow progress on cleaning up the forty-two Areas of Concern (AOCs), highly contaminated rivers and harbors around the Great Lakes, as one major area of unjustifiable inaction.



"Current concentrations of polychlorinated biphenyls (PCBs) in samples of Great Lakes water are still about a hundred times higher than the water quality criteria under the Great Lakes initiative. Without sediment cleanup, injury to the health of humans, fish and wildlife will continue and will impose increasing costs on both the United States and Canada.

"A survey of Great Lakes anglers in New York state between 1988 and 1996 revealed that almost half of those surveyed no longer plan to fish in the Great Lakes, citing contami-

nants as the reason. This decline... is a small example of the cost of inaction."

Nor does the report let governments off the hook because of staff reductions and budget cuts. The commission acknowledges the public's right to know what actions to expect in the future and calls for an accounting of what remains to be done, what funds are needed, what will be the timetable and what role will the governments play to finish the necessary work in each AOC.

The report concludes by identifying "several key actions and remedies which, if adopted, can alter the otherwise inevitable maintenance of the *status quo*." These recommendations call on the governments to reactivate Remedial Action Plans (for restoring the forty-two AOCs), improve fish advisories, cost out and establish timetables for cleaning up contaminated sediments, quantify in-basin and out-of-basin sources of airborne pollutants, strengthen the Binational Toxic Strategy, study the impacts of urbanization on Great Lakes water quality, develop ballast water standards to deal with invasive species, and develop the monitoring and surveillance programs necessary to fulfill the governments' commitments under the Great Lakes Water Quality Agreement. The last recommendation calls for specific reports on progress at the State of the Lakes Ecosystem Conference, scheduled for October 16-18 in Hamilton, Ontario, and biennially thereafter.

A copy of the IJC report can be obtained on the commission Web site, at www.ijc.org, or in hard copy by contacting the IJC's regional office in Canada at (519) 257-6734 and United States at (313) 226-2170 or by email at commission@windsor.ijc.org.

they would consider drafting a bill once the issue moves forward in the House.

Third, the funds have to be included in the appropriations bills. The House bill is final and does not include funds for the Great Lakes. However, the Senate bill has not yet moved forward. Therefore, there is a chance to include the funding on the Senate side, then negotiate its inclusion in the final bill that

combines the House and Senate versions.

The bad news is that, in an election year, this issue may not be given the attention or commitment that it deserves. In particular, Republicans and Democrats may not work hard enough to come to agreement, putting posturing in front of progress before voters go to the polls. Therefore, it may be difficult to bring these funds to the Great Lakes this year.

However, we should keep raising the issue, reminding our elected officials that the Great Lakes are very important to us and that we are paying attention to what they are doing to bring these funds home. After all, we are in a time of almost unprecedented fiscal health and it is time to invest in our environment, so that we can ensure a healthy future for our families.

The hybrids are coming! The hybrids are coming!

by Alexandra McPherson

They're called "hybrids" – cars that use the combination of an electric motor and an internal combustion engine to generate far less pollution than standard cars and get great gas mileage. They're on the market just in time to alleviate the drain on consumer pocket books caused by high gas prices.

Unfortunately, we can't give credit for this boon to the U.S. Big Three car companies, as it is Honda and Toyota who have jumped on board to make cleaner cars a reality in the United States. Both companies have already introduced their new hybrid vehicles into the American market. Although hybrids are not the ultimate solution to the need for a completely clean car, they are definitely a big step in the right direction.

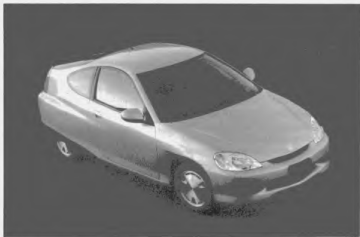
The *Insight* and *Prius* run on a combination of an electric motor and a small, efficient internal combustion engine. Unlike electric cars, hybrids never have to be plugged in, because their batteries are charged with energy recovered from braking. The small gasoline engine is used for added power or acceleration when needed. Its high efficiency allows for fuel savings and greatly reduced tailpipe emissions.

The two-seater Honda *Insight*, which looks much like a sporty Honda CRX, uses the electric motor as a booster for its small gas engine – this means that the *Insight's* gas engine is in continuous use.

By contrast, Toyota's four-seater, Corolla-size *Prius* starts out in the battery power mode and then automatically fires up its gas engine when the batteries lose more than 40 percent of their charge. Without the dash-mounted gauge, you would not even notice when the engine switched between the gas and the electric motors. More noticeable however is the *Insight's* gas-saving "idle stop," which shuts the engine down completely when the car is stopped. But the engine restarts within a tenth of a second as soon as the driver touches the clutch.

The Clean Car Campaign and Standard

The cars have come to market at the perfect time. The Great Lakes Clean Car Campaign has just started ramping up efforts to educate basin consumers on the need for clean-running, gas-efficient, cleanly produced and assembled vehicles.



The Honda *Insight*

With the pressing problems of global warming, air pollution and natural resource depletion, the Clean Car Campaign welcomes the hybrid. The *Insight* gets an impressive 70 miles per gallon. This fuel efficiency is 85 percent higher than a typical subcompact, which well exceeds the Clean Car Standard's call for 50 percent improvement over the class average. Compared to a typical subcompact, the *Insight* will reduce global warming carbon dioxide emissions by 17 tons and gasoline consumption by 1700 gallons throughout its useful life.

The *Insight* falls short, however of the Clean Car Campaign's vehicle emissions standard, which is to meet California's Super Ultra Low Emission Vehicle (SULEV) standards. However, the *Insight* is 82 percent cleaner than other typical vehicles available today meeting federal "Tier 1" standards.

The *Prius*, which has been on sale in Japan since 1997, gets 66 miles per gallon and is the first car to be marketed nationally that meets both of the Clean Car Standard's fuel efficiency and emission targets. The U.S. version of the *Prius*, which reduces tailpipe emissions



The Toyota *Prius*

by as much as 96 percent from comparable vehicles, meets SULEV standards. Its fuel efficiency is 50 percent higher than other vehicles in its class.

When compared to existing Tier 1 standards, the *Prius* reduces hydrocarbon and nitrogen oxide emissions (both major contributors to air and water pollution) by 97 percent, carbon monoxide by 76 percent and particulate emissions by 90 percent.

Since the Clean Car Campaign is interested in the "lifecycle impacts" of cars—the impacts of a car from cradle to grave—we have asked Toyota and Honda to provide us with information on the manufacturing process and design of the *Prius* and the *Infinite*.

We want to know the recycled content of the car, the recyclability and reuseability of the car at the end of its life, and whether or not it contains substances of concern such as heavy metals and long-lived toxic pollutants that build up in the food chain.

We are also looking for emissions released from painting the vehicle. To date, neither company has provided us with this information, although Toyota has said they will give us the data in the near future.

The Big Three

The Clean Car Campaign has requested that the Big Three, General Motors, Ford, and Daimler Chrysler join the hybrid race, and give Americans the opportunity to buy an American-made hybrid. Ford has quietly said that it plans to have a hybrid on the market by 2003. Ford Chairman Bill Ford, Jr., has gone so far to say that he thinks by 2010, 20 percent of the cars on America's roads will be hybrids.

You can help us send the message to the Big Three that there is a market for cleaner cars in the United States and Canada by logging onto the Clean Car Campaign's Web site, www.cleancarcampaign.org, and signing our Clean Car Pledge.

As always, the cleanest car is the car not driven. However for those of us who have to drive, the hybrid is an economically viable option that drastically reduces greenhouse emissions, air pollution, and natural resource destruction and depletion.

Hopefully the emergence of the hybrid is a sign from automakers that the long-outdated internal combustion engine is on its way out and innovative clean car technologies are on their way in.

Western New York leads the way in "mercury switchout" project

by Alexandra McPherson

The New York State Department of Environmental Conservation has launched a pilot project that could ignite a national effort to prevent mercury from being released to the environment when cars are recycled.

Many of today's automobiles contain mercury in the switches that turn on hood and trunk convenience lighting. Recent studies conducted by the U.S. Environmental Protection Agency conclude that releases of mercury from automotive switches contribute significantly to our national mercury release inventory. Mercury switches are found in American-made vehicles manufactured from the 1970s to the present.

An estimated six to ten tons of mercury are released each year when cars are shredded and melted down to produce recycled steel. Auto salvage yards release smaller quantities when they crush cars, as do scrap metal yards, which crush cars even further.

Replacing these switches would reduce the mercury pollution caused by vehicle recycling by an estimated 90 percent.

The state project will make free replacement switches available to the public at participating vehicle inspection stations in the Buffalo area. Area automobile owners will be able to request the mercury-free replacement switches when their autos are serviced at participating locations. The switches are free and take less than a minute to install.

Two thousand replacement switches, identical to existing switches except for a silver-plated, copper ball bearing instead of mercury, will be available from participating Western New York Monro Muffler-Brake, Mr. Oil Change and Valvoline Instant Oil Change locations that are New York State vehicle inspection stations.

The danger

Mercury escaping into the environment from just one switch, usually through evaporation into the air, has the potential to contaminate a one-acre lake for a year. The process is now

well understood—rain moves airborne elemental mercury into lakes and streams; once elemental mercury is in the water, bacterial action converts it to poisonous methylmercury, which is highly toxic to animals and humans; methylmercury is stored in animal bodies, and becomes more highly concentrated as larger animals eat smaller animals; very high concentrations of mercury therefore



Photo Courtesy

ultimately appear in Great Lakes fish, including game fish.

Mercury is a potent nerve toxin that very low levels can cause subtle but permanent damage to the brain and the central nervous systems. At higher levels mercury can damage the lungs and kidneys. Warning "advisories" to limit or avoid entirely the consumption of various fish due to mercury contamination now exist in all the states and provinces bordering the Great Lakes.

Industry opposition

The Auto Alliance, the trade association of U.S. automobile manufacturers, opposes New York's pilot project on the grounds that mercury switches should be removed when vehicles reach the end of their commercial lives. Unfortunately, it is well documented that the mercury switches are not being removed at automobile scrap yards.

Despite the fact that mercury poses enormous risks to human and ecological health, General Motors and Ford Motor Company continue to use mercury-containing switches. Daimler Chrysler has ended its use of switches containing mercury.

continued next page

... mercury switchout

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The ball bearing switch alternative used in the replacement project is functionally equivalent to the mercury switch, and provides a drop-in replacement option for manufacturers at a cost of approximately ten cents more per switch.

U.S. automakers have also been unwilling to provide resources for a mercury switch collection program to ensure that already installed switches do not end up in steel recycling facilities. The automakers' unwillingness to address this problem prompted New York to start the pilot project in hopes that it would coax cooperative action from the automotive industry.

Recycling the mercury

Switches collected from New York's pilot program will be sent to a permitted recycling facility where the mercury will be removed, cleaned, and repackaged for distribution as a commodity. An agreement with a mercury product manufacturer will ensure that the recycled mercury will be used only in products that are part of an "end-of-life take-back program."

When the two thousand switches offered by New York's program are installed, and the mercury-containing switches are properly recycled, the project will have prevented the release of nearly five pounds of mercury.

Once the free switches offered by the pilot program are gone, participating companies could elect to continue offering the mercury switch replacement for free, or at cost, approximately a dollar.

The governments of Connecticut, Wisconsin, and Michigan have asked New York for help setting up automotive mercury switch replacement programs in their states.

The New York project will hopefully raise public awareness of the fact that automakers continue to put unnecessary amounts of mercury in cars despite viable alternatives. Wide-scale public concern may prompt automakers to be more responsive in devising a long-term solution to this problem, including phasing out the use of mercury switches and setting up collection centers for existing switches.

Proactive initiatives, where government and automakers work together on a mercury reduction and recycling plan, may be the best approach to assure prompt action.

Canada-Ontario lakes agreement in limbo

by John Jackson

With regrettably little fanfare and poor prospects for quick renewal, the Canada-Ontario Agreement expired at the end of March 2000.

The COA is critical for the implementation of the landmark Great Lakes Water Quality Agreement, last amended in 1987, because it is the mechanism by which the federal and provincial governments commit to work together to restore and protect the Great Lakes. Without COA, many critical programmes, including the cleanup planning for the basin's toxic hot spots and Canada's lakewide management planning processes, are placed in a precarious status.

Over the past many months both the federal and provincial governments have stated their intention to negotiate a new COA, but they have not been able to agree on how to work together or even on how to consult the public about what to do. Over the past year, the federal government has been doing some consultations through its Great Lakes advisory committee on a new COA as it develops its new Great Lakes programme.

In August Ontario held its first public

consultation on a new COA. At this meeting, government staff said they wanted a new COA negotiated by April 2001—a year after the previous COA has run out. They plan to develop a COA that includes a vision for the Great Lakes and guiding principles. There would then be a series of annexes on specific issues: harmful pollutants, areas of concern, land use, biodiversity, exotic species, human health, monitoring and surveillance, research and development, lakewide management plans, and infrastructure.

At the meeting Great Lakes United urged Canada and Ontario to conduct a joint consultation in the development of the new COA. Canada stated their agreement with this joint approach.

GLU also emphasized that each annex should include specific goals with dates by which the goals are to be achieved and plans for how each goal will be met, including who is responsible for each activity and financial commitments to carry out the work. GLU also urged that an annex be added on water quantity issues.

... global toxics

continued from back page

emissions from other countries using these chemicals will continue to be dropped into the Great Lakes region by prevailing air currents. The Great Lakes region, more than any other place in the United States besides Alaska, attracts airborne POPs particles.

Unfortunately, the Administration's position to date supports only a reduction in the production of POPs. If adopted, this approach will allow for continued emissions of POPs and airborne deposits of POPs into the Great Lakes region.

Pollution "management" approaches have proven ineffective when applied to POPs. Regardless of how diluted or dispersed these pollutants are when released into the environment, their persistence and other properties ensure that they reaccumulate in colder regions and become concentrated to toxic levels in wildlife and humans. That is why they have been banned in this country.

A POPs treaty that does not mandate virtual elimination of POPs also will undermine current toxics elimination policies governing the Great Lakes region. The 1978

amendments to the U.S.-Canada Great Lakes Water Quality Agreement committed both nations to the virtual elimination of POPs. The amendments phased out the intentional production and use of POPs and altered production processes and chemical feedstocks handling to prevent POPs from being produced as unwanted byproducts.

Your help in influencing the Administration's negotiating positions is urgently needed now. Led by the State Department, the Administration is likely within the next two months to solidify its positions for the final round of treaty negotiations scheduled for December.

Just three years ago, the Administration was a leader in pushing for an effective POPs treaty. We call on you to act quickly to urge the Administration to reclaim its leadership role by promoting a global treaty that will legally mandate virtual elimination of POPs. With your help, the treaty can lead the way to a toxics-free future for your constituents and their communities.

Thank you for your help on this important public health issue.

... Walkerton

continued from cover page

surface and groundwater supplies in the province

- § Transforms Ontario's drinking water objectives into legally binding standards.

Many environmentalists and municipalities are criticizing the Ontario government for failing to tackle the root problem—the sources of pollution to surface and groundwater drinking water supplies.

The new regulation may mean fewer deaths in Ontario due to consumption of public drinking water simply because more boil water advisories will be announced. However, the regulation does little to keep E. coli bacteria and industrial chemicals from polluting drinking water supplies. Farm waste runoff, industrial chemicals and toxic leachate from landfills and mines will continue to pollute provincial waters.

Above all, Ontarians continue to be denied the right to drink safe water, unlike our neighbors in the United States.

Ontario needs Safe Drinking Water Act

Environmental groups are urging the province to introduce more proactive legislation to protect Ontario's drinking water.

The Toronto Environmental Alliance, the Canadian Environmental Law Association

and Dr. Adam Winterton of Chesley, Ontario, have filed a formal request to the MOE, under the Environmental Bill of Rights, to review the need for a Safe Drinking Water Act in Ontario.

The U.S. Safe Drinking Water Act, over twenty-five years old, has steadily decreased the incidence of water-borne disease outbreaks, such as E. coli, in American cities and towns and steadily improved the quality of water throughout the country.

An Ontario Safe Drinking Water Act would protect public health, rebuild public trust in drinking water supplies and share the responsibility of delivering clean water between municipal governments and the province. Specifically, an Ontario Safe Drinking Water Act would:

- § Legally compel governments to correct the cause of a drinking water violation, for example enforce or toughen laws governing farm waste runoff or sewer overflows in urban areas. Under the current regulation only a boil water advisory needs to be issued. Some Ontario communities have lived with regular notices for years.
- § Secure provincial funding for municipal infrastructure repairs to water and wastewater treatment facilities. To date, the Ontario government has warned that citizens may have to make a choice between building a new arena for their kids or hav-

ing water that is safe to drink.

- § Allow Ontario to have access to data and evaluate the success of current pollution control programs and regulations in protecting drinking water supplies and forecast future pollution trends. This would create an early warning system that was lacking at the time of the E. coli outbreak in Walkerton.

Taking Action

A public inquiry into the Walkerton tragedy begins this fall. Walkerton's deadly water has placed a microscope on the Harris government's environmental record and policy of downloading (responsibilities to local government), deregulation (of polluting enterprises) and downsizing (of government environmental protection efforts). The new regulation is another indication that the Harris government continues to want to pass the buck to municipalities.

The new drinking water regulation is open for public comment. Please log on to the Ministry of Environment Web site at www.on.ene.gov. Also, please fax Environment Minister Newman in support of a SDWA for Ontario at (416) 314-6748 and fax a copy to the Toronto Environmental Alliance at (416) 596-0345.

Join Great Lakes United!

Sure! Somebody's got to care! Sign me up as a member:

☐ Individual—\$25 ☐ Family—\$50 ☐ Library—\$50 ☐ Small Organization*—\$25 ☐ Large Organization—\$100

*annual budgets of \$15,000 or less

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PRESIDENT'S MESSAGE



As Great Lakes United's outgoing U.S. treasurer and incoming president, I would like to introduce myself and share with our members a look back and a look forward into what Great Lakes United is and will be doing.

I joined the Great Lakes United Board of Directors in 1995 representing Trout Unlimited, and during most of that time have co-chaired GLU's Biodiversity and Habitat Protection Task Force.

"Development"

Further broadening Great Lakes United's financial stability will be a priority of my work in the coming year and beyond.

There is a lot of good work to build on. On the organizational front, Executive Director Margaret Wooster, departing Development Coordinator J.D. Hartman, former president Jack Manno and other members led the GLU board into a year-long reexamination of the organization's revenue sources and the executive director's role in securing the unrestricted money that assures the future of every not-for-profit enterprise. Great Lakes United must have more such unrestricted money to permit us to fund the unpopular project, allow us to react more effectively to the unanticipated, and keep the organizational boat afloat.

With all directors and staff now committed to a personal role in the effort, Jack will chair the Development Committee that is charged to evolve a comprehensive development plan that GLU will follow for the next several years, that will focus on honing those skills that staff and board need to secure the personal financial assistance of that broad spectrum of the population concerned with environmental quality, and that will advise

and assist staff in all dimensions of revenue generation. For the foreseeable future the board will be driving toward the goal of achieving a revenue stream that is one third undesignated funds.

Policy

Over the past two years, Jack, his board and the GLU staff had to make several difficult environmental policy decisions. The clearest example was the decision to oppose the renegotiation of the Great Lakes Water Quality Agreement. In meetings with coalition members, they carefully considered the compelling arguments on both sides of the issue. They concluded that emphasis on implementation, not on renegotiation, was the better choice. In the end, their logic prevailed. This outcome—bolstered by the International Joint Commission's recent unflattering review of progress to date on implementation of the Agreement—will help shape GLU's Task Force agendas for the foreseeable future.

On the one hand, this outcome implies an obligation for GLU's member-driven Clean Production and Healthy Communities Task Forces to restore relationships strained in the decision-making process by working with the regulatory community and other partners to assure implementation of the Agreement.

On the other hand, this outcome implies an obligation to seek alternative mechanisms for achieving the positive components of the "renegotiate" position that were sacrificed. For example, GLU's Biodiversity and Habitat Task Force might reinvigorate investigation of issues surrounding public policy for the protection of the region's plants, animals and their habitats. Again, yesterday's actions will guide tomorrow's.

The issuance of a single bulk water export permit in a government office in Ontario in 1998 blared out one of those occasional reminders to the entire basin of the fragility and vulnerability of the water of the Great Lakes. Almost overnight, every commission, government, and organization that had anything to do with water was taking a fresh look at such specters as diversions and withdrawals.

GLU's Sustainable Waters Task Force was in place and ready, but Jack, Margaret, the board, the staff, coalition member organizations and environmentally concerned foundations together reinvigorated that task force

Great Lakes United

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clean production coordinator

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biodiversity and habitat coordinator

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accountant

maureen sileo
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administrative assistant

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and made it an important player in the ensuing dialog. The din surrounding the issues may have quieted somewhat lately, but those issues are far from resolved. The Sustainable Waters Task Force will continue to shape public water policy and it will continue to foster implementation of conservation measures tomorrow, just as it did yesterday.

Directors' work

GLU strongly encourages all of its directors to take a leadership role in the organization's program work as well as its overall management. Some directors have already or will step into roles on task forces with established, ongoing activities with a view to broaden their focus or to make those coalition driven programs even more successful. Others have or

will turn their personal attention to retooling the programs of those less well-supported GLU task forces to make them more broadly appealing to member organizations and to funders.

In either case, as are directors of all successful coalitions, GLU's directors are charged to bring their own and others' issues to the table, to organize interested parties around those issues, to contribute to the articulation of programs, and to actively assist GLU staff to find the means to carry those programs forth. I have every confidence that this set of directors will respond to this charge admirably. Through personal initiative and effort, they will assist the members of this coalition to continue the fine work of their predecessors.

—Ed Michael

ENDOWMENT FUND UPDATE

by JD Hartman

Great Lakes United has now established something we can really bank on—an endowment fund. The new fund, which will be administered by a Buffalo-area foundation, will generate income for Great Lakes United into perpetuity.

Great Lakes United is the only basinwide, international coalition designed to look after our shared waters. GLU's strong, independent voice has been making a difference for eighteen years. Our new endowment fund is giant step toward ensuring that we will be around for a good many more.

Our heartfelt thanks go out to all of you who have worked with us to protect and restore the waters of the Great Lakes and St. Lawrence River. In addition, we would like to offer a special thank you to everyone who has made a monetary contribution to the endowment fund.

Your commitment and generosity has enabled us to surpass this summer's endowment fundraising target and to collect a matching contribution of \$3,500 from the Community Foundation of Greater Buffalo. The endowment will be managed to return an annual income, forever, to Great Lakes United to be used for program work. The principal will left intact to grow.

If making a contribution to help ensure the financial sustainability of Great Lakes United could be your way of working to ensure the safety of our drinking water—or to keep our

beaches open for swimming, or to nurture an indigenous population of fish, or to prevent the export and diversion of our water—please give today. Our goal is \$25,000 by year-end.

Together we are making a difference! Thank you activists, members and donors, one and all.

... annual meeting

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from Niagara Falls to Lewiston, New York and the restoration of the area to natural tree and meadow vegetation

- An extension program to restore the native fish population of the Great Lakes and gradually reduce stocking of non-native fish species until it is eliminated
- Completing development of a Lake-wide Management Plan for Lake Huron
- Full protection against the logging of old-growth forest and other new protections in New York State's Zoar Valley Multiple Use Area
- Appointment of an independent panel to review the restart of Ontario's Pickering A nuclear reactor. The review should include severe accident analysis and an economic evaluation

See www.glu.org for full resolution texts.

Great Lakes need global toxics elimination

by Alexandra McPherson

Under the auspices of the United Nations Environment Programme this coming December the global community will enter into the final negotiating sessions for a groundbreaking treaty aimed at reducing or eliminating twelve of the worst poisons known to society from the world environment.

The substances, known as persistent organic pollutants (POPs), include eight pesticides (DDT, aldrin, chlordane, dieldrin, endrin, heptachlor, mirex and toxaphene), two industrial chemicals (hexachlorobenzene and polychlorinated biphenyls or PCBs), and two industrial byproducts (dioxin and furans).

Most of these substances are known to cause cancers, reproductive failures and slow development in children and have either been banned or targeted for elimination in Canada and the United States.

Domestic bans, however, are not enough to protect communities and ecosystems from exposure to these substances. POPs are still used elsewhere in the world and they can travel long distance through the atmosphere. As it happens, they favor depositing themselves in colder regions. The Great Lakes' characteristic of retaining water for long periods of time (due to the lakes' large surface area and their small drainage basin), makes them very vulnerable to POPs. This problem has been documented in the continued existence of toxaphene, chlordane, mirex and DDT in basin fish advisories decades after these contaminating substances were banned.

United States obstruction

Despite the necessity of a global ban to fully protect human and ecological health, the United States has a very weak position on the treaty. In contrast with Europe and other countries, who are pushing for elimination of POPs, the United States and its allies continue to push for mere reductions and minimi-

zations of POPs.

This is not only unacceptable for protecting human health, it also contradicts related U.S. policy, particularly the commitments the United States assumed under the Great Lakes Water Quality Agreement. That agreement calls for elimination of many of the same targeted substances in the POPs treaty. In short, the current U.S. negotiating position on the global treaty will severely undermine our



efforts to eliminate dangerous toxins from the Great Lakes.

To further exacerbate the problem, both the United States and Canadian governments are having trouble providing even the needed domestic leadership to transition away from end-of-the-pipe pollution controls to the far more simple and effective pollution prevention programs such as eliminating the original use of toxic materials in production processes. We have proven over and over again that control technologies allow for continued exposure to dangerous POPs.

With cancer, abnormal childhood development, and infertility on the rise, we cannot afford to adopt a treaty that calls for anything short of elimination of the targeted POPs.

Write against a weak treaty

At our annual meeting in June, the membership of Great Lakes United strongly endorsed a resolution to increase public support for a stronger U.S. position. Time is running out: the global community meets for the last time in South Africa this December, so we need to act now and let our voices be heard. One way you can do this is by signing onto the following letter we are sending to members of Congress's Great Lakes Task Force.

Please contact Alexandra McPherson at alex@glu.org or (716) 886-0142 to sign on or to become involved in our POPs campaign.

Dear Representative / Senator,

We are writing to express our deep concerns about the Administration's positions in the global treaty negotiations on persistent organic pollutants (POPs) and to urge you to intervene with the Administration on behalf of the people of the Great Lakes region.

The region has an enormous stake in these negotiations. Many of the POPs covered by the treaty already pose great risks to Great Lakes communities. Great Lakes fish advisories are in place for PCBs, dioxins, mirex and chlordane, all substances targeted in the treaty. As a result of contamination not only in fish but also in dairy products and other food sources, Great Lakes residents carry residues of these toxic chemicals in their body fat, blood, and milk.

Without a treaty that calls for virtual elimination of POPs, it will be impossible to clean up the Lakes and provide a safer environment for all inhabitants of the region. Progress has been made in reducing POPs pollution from local and other U.S. sources. We have already banned, in the United States, the production and use of the industrial and agricultural POPs covered by the global treaty.

Without a global treaty, however, POPs

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