



GREAT LAKES UNITED, SUNY COLLEGE AT BUFFALO, CASSETY HALL, 1300 ELMWOOD AVENUE, BUFFALO, NY 14222
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GLU Annual Meeting Was Spirited, Productive

By David J. Miller, GLU Executive Director

A "motherhood" issue—that's what environmental protection is to the U.S. and Canadian public. It was only fitting then, that more than 150 dedicated citizens met over Mother's Day weekend in Cleveland, Ohio for Great Lakes United's (GLU) Sixth Annual Meeting. The weekend brought together citizen and government representatives from each of the eight Great Lakes states and two Canadian provinces.

It was an opportunity to hear the latest breaking developments in Great Lakes issues, research and legislation. It was also an opportunity for the diverse GLU community to set new directions, select new officers and reinforce old resolutions for the organization.

The weekend "kicked off" with a special social event: a nighttime tour up the Cuyahoga River aboard the Goodtime II. Here, the connection between

cleanup of the river and revitalization of the riverfront was self-evident. Highlighting the festivities and the live jazz music was a ceremony to honor the invaluable contribution that the George Gund Foundation has given to Great Lakes protection. The hard work of the Canadian Consulate and Cuyahoga UAW CAP made the event a great success.

On Saturday morning, after thoughts on "Visions for the Future of Lake Erie" were shared by Ohio EPA director Richard Shank, Ohio Environmental Council director Steve Sedam and Dick Kubiak, Pennsylvania Federation of Sportsmen Clubs, an array of international speakers outlined the impact toxic chemicals have on water quality, sediments and living organisms in the Great Lakes Basin. In the workshop on Lake Erie's Lakewide Management Plan, both the speakers and the audience learned that close coordination will be needed between the five states and one province that border the lake, if such a plan will

be effective.

In the contaminated sediments workshop, the four panelists underscored the urgency of this issue by the fact that 99 of the 42 Great Lakes Areas of Concern have yet to resolve their contaminated sediments problem.

Fish biologists in the wildlife workshop described abnormalities in fish species related to toxic chemicals. Dr. Theo Colburn of the Conservation Foundation outlined alarming results linking toxic contamination and adverse impacts on more than a dozen sensitive species ranging from the lowest to the highest levels of the food chain, including mammals.

After lunch, Tom Martin, Michigan Office of the Great Lakes, and Dr. Alfred Beeton, U.S. National Oceanic & Atmospheric Administration, portrayed the budget needs for the Great Lakes. Dr. Beeton demonstrated how severe budget cuts during the Reagan administration have drastically reduced staffing for a wide array of Great Lakes programs. He emphasized the need for citizens and local governments to push to restore funding, if Great Lakes goals

are ever to be met.

On Saturday afternoon and Sunday morning, delegates from environmental, sportsmen, union and community groups developed 23 policy resolutions dealing with issues of water and air quality, contaminated sediments, hazardous wastes, land use and fish and wildlife. These are summarized on page 2.

Annual Meeting participants were presented with a final report on airborne toxic pollution to the Great Lakes, *Sweet Water, Bitter Rain*, produced by Great Lakes United, Sierra Club, Citizens for a Better Environment and Lake Michigan Federation. This report was a follow-up to the original 1987 report *Toxic Air Pollution in the Great Lakes Basin: A Call for Action*, which documented the problem of toxic fallout in the Great Lakes and recommended a regulatory approach to controlling sources. In 1987, we stated that a significant amount of toxic loading to the Great Lakes not only comes from point sources or runoff, but also falls from the atmosphere onto our land and water resources.

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Wildlife Contamination: Reviewing the Evidence

By Theo Colburn, Ph.D. and Richard Lirio, Ph.D., the Conservation Foundation

Since the 1950s, 16 top predator species have exhibited reproductive problems or population declines in the Great Lakes or their shorelines. These include 10 bird species, 3 species of mammals, 2 native fish species, and 1 reptile species. In each instance, high concentrations of one or more organochlorine compounds, pesticides or industrial chemicals have been found in the animals. There has been a marked recovery in reproductive success and increases of populations for many of the bird species. Reproductive problems of fish-eating birds now appear to be confined to specific sites such as Green Bay and Saginaw Bay.

These are some of the findings of a wide-ranging review of scientific information on toxic substances in Great Lakes fish and wildlife. Produced for use as a working paper for a larger Environmental Canada examination of toxic substances in the Great Lakes, this analysis draws together findings from numerous published scientific papers, government documents and other sources.

The report notes that levels of contaminants in wildlife are a function of what an animal eats, what its position is in the food web, and where it lives. The levels found also depend on how much body fat animals tend to have (because some chemicals accumulate in fatty tissues), and how the animal's systems metabolize the substances.

Generally, predators at the top of the Great Lakes aquatic food web exhibit the highest concentrations of contaminants. This is the result of biomagnification of persistent toxic substances. For example, measured concentrations of PCBs in herring gulls can be as much as 25 million times the concentration measured in water.

In five species, the published litera-

ture implies that contaminants can be passed from parents to offspring, thereby affecting the viability of the embryo or newborn. Subtle effects, in addition to cancer or birth defects that are readily visible and frequently documented, are passed to the next generation by exposed sex cells—ovum or sperm—in the adult. These effects can include loss of body weight, abnormal development and behavioral changes.

Researchers have noted decreasing trends in wildlife disorders, and these are supported by reports of decreasing trends in contamination of wildlife species. In areas where problems persist, concentration in the animals are still high. These are areas of known contamination, as indicated by analyses of water and sediment.

Long-term trends show that concentrations of selected organochlorine compounds and pesticides, after a period of decline, have leveled off. In some areas around the lakes, the levels are at unacceptably high concentrations when compared with IJC objectives and FDA levels of concern in fish.

The research reviewed here supports the major role of animal bioindicators as sentinels of environmental quality. Animals at the top of the food web concentrate contaminants to high levels compared with the low and often undetectable concentrations in air and water.

These and other data on environmental quality will be updated and incorporated into a report on the state of the environment of the Great Lakes Basin, currently being produced by the Conservation Foundation in Washington and the Institute for Research on Public Policy in Ottawa. Scheduled for publication in mid-1989, the report will include information on trends in environmental quality, and a review of government activities designed to protect basin resources. □



Ohio EPA Director Richard Shank was keynote speaker for GLU's Annual Meeting. (l. to r.) GLU Vice President Sen. Margen Hoffman; GLU Exec. Director David J. Miller; Mr. Shank; GLU President Paul Brown.

Will Free Trade Act Make Water Diversion Possible?

By Donald J. Gamble, Exec. Director, Rattson Academy of Aquatic Science, Ottawa

In 1985, the Great Lakes governors and premiers signed an agreement to guard against "transfers" or "diversions" of water to the Midwest and Southwest. Two years later, in November 1987, the Canadian Federal Water Policy was released. It promised to "take all possible measures within the limits of the federal government's constitutional authority to prohibit the export of Canadian water by inter-basin diversions..." These clear policy directions have recently been placed in doubt.

On June 2, 1988 at the International Water Resources Association (IWRA) conference in Ottawa, Mr. Tom Kierans, president of the Grand Canal Company, described his proposal to build a new freshwater lake. Damming the mouth of James Bay and then pumping its water back to the Great Lakes Basin and beyond in a continental water grid would supply the water-deficient regions of the United States and Canada.

This scheme is sponsored by most of Canada's large engineering companies and is endorsed by Quebec's Premier Robert Bourassa.

At the IWRA conference, Kierans announced that in recent discussions with the U.S. Army Corps of Engineers, he was encouraged to make the necessary applications to proceed. The Corps, according to Kierans, has volunteered to assist. Given the previous policies, this is a disturbing development. But it is one that does not stand alone.

Before being appointed as Canada's free trade negotiator, Mr. Simon Reisman was an advocate of the GRANDCo scheme. In a 1985 article in *Canadian Business*, Reisman described water as the most important bargaining lever for Canada in the negotiations—indeed he saw it as the means for obtaining full National Treatment for Canadian goods and enterprises. Prime Minister Brian Mulroney, in a 1985 interview with *Fortune* magazine, also indicated the need to keep the water export option open.

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150 Attend GLU Annual Meeting

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Saturday night culminated in the Annual Banquet, which offered fine food and an address by Ohio EPA director Richard Shank. He reiterated the State of Ohio's commitment to water quality programs such as Remedial Action Plans. Speaking on behalf of Ohio Governor Celeste, he urged Great Lakes United delegates to support creation of the Great Lakes Protection Fund. This fund, proposed by the Council of Great Lakes Governors, would use revenues generated by the states to establish a \$100 million endowment fund for critical Great Lakes research. Mr. Shank also commended GLU for serving a vital role in pursuing water quality objectives for Lake Erie.

Following the keynote address, GLU President Fred Brown thanked Director Shank and announced the presentation of a plaque given to Governor Dick Celeste Friday afternoon for his support of Great Lakes programs. In addition, awards were given to recent GLU board members for outstanding service to Great Lakes United: Cathy Alpaugh of the Great Lakes Institute, Ontario; Dr. Katherine Davies of the Toronto Department of Public Health; and Ron Scudato, SUNY College at Oswego.

During a spirited meeting Sunday, officers and board members were elected, changes to our by-laws were made and comprehensive new policy resolutions were passed to direct our conservation efforts for the upcoming year. GLU delegates left Cleveland with many new challenges to tackle for the protection of the Great Lakes. The Annual Meeting ended with just enough time for everybody to return home to support that other "motherhood" issue—the annual Mother's Day recognition. □

By Bruce Kershner, GLU Lake Erie Coordinator/Editor

A total of 23 resolutions was adopted during GLU's Annual Meeting in May:

Water Quality

Detailed criteria were developed for reviewing the adequacy of RAPs, especially relating to public participation, achieving water quality objectives, and effectiveness of remedial strategies. GLU resolved to develop a white paper reviewing the progress of New York's Great Lakes programs, and also to support full membership of New York and Pennsylvania in the Council of Great Lakes Governors (see articles on page 3 and page 7). Federal funding of five Great Lakes Research labs should be restored to 1980 real dollar figures, and the full \$11 million appropriation should be made by Congress to implement the Great Lakes Clean Water Act. GLU supports creation of a region-wide Great Lakes Protection Fund to supplement financing of Lakes research, monitoring and clean-up activities. Toxic pollution control regulations in Wisconsin should be strengthened and expanded. In addition, GLU will develop a strategy to promote public reviews of the implementation of the Great Lakes Water Quality Agreement and will also define and focus attention on the Agreement's goal of zero discharge of persistent toxic substances.

Air Quality

GLU urges the U.S. and Canada as well as state and provincial legislatures, to swiftly adopt legislation to control toxic air pollution. GLU also supports creation of a Detroit-Windsor Air Pollu-

Summary of GLU's 1988 Resolutions

tion Board to set standards for transboundary air and water pollution. We further request that Ontario's new Regulation 308 identify ways to deal with effects of transboundary air pollution. Great Lakes United applauds the signing of the Montreal Accord for ozone protection and encourages phasout and development of alternatives to production and use of chlorofluorocarbons.

Contaminated Sediments

The federal governments should establish numerical criteria with public input to assess the degree of contamination of sediments and options for disposal and treatment. GLU supports the creation of a North American "Aqualund" to comprehensively implement research and cleanup of contaminated sediments through both countries.

Dredging of contaminated sediments should be regulated as point sources of pollution and should require permits. A moratorium on open-water dumping is needed, as well as high level studies to identify sound alternatives to dredging, and the availability of preventative measures. Criteria should be developed to measure ecological soundness and effectiveness of advanced technologies for treating contaminated sediments. Agencies should fund development of Best Available Technologies. For currently untreatable sediments, a plan for secure above-ground storage should be devised. An immediate ban is urged for new water-diked disposal facilities, while existing ones need to be evaluated for their soundness as a barrier.

Hazardous Wastes

Each government should adopt programmes to achieve a waste management reduction goal of an additional 10 percent in each of the next five years. Best Available Technology should be the basis for licensing hazardous waste conversion facilities. GLU resolves that above-ground storage of hazardous wastes should be the preferred option to below-ground landfills. We urge each government to set up programmes to remove household and industrial hazardous wastes, as well as infectious wastes, from the municipal solid waste stream. A minimum 50 percent target for removal of these wastes should be set and attained through legislated reduction, reuse and recycling. Great Lakes United will also diligently campaign to reclassify Class C nuclear wastes from low-level to high-level nuclear waste.

Land Use

GLU urges the U.S. Congress to promptly extend the protective Coastal Barrier Resource System to undeveloped coastal barriers, such as wet-

lands, bluffs, dunes and beaches, along the Great Lakes. We also support the establishment of the Two-Hearted River and the U.S.'s first Wild River National Park, and the acquisition of Lake Superior's Grand Island as an addition to Pictured Rocks National Lakeshore.

Shipping

Because of a new proposal to open the Great Lakes-St. Lawrence System to winter navigation, GLU reaffirms its strong opposition to this concept. Lastly, research and regulation should be devised to stop the introduction of exotic species into the Great Lakes Basin by ship ballast waters. □

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At the 1988 GLU Annual Meeting, former GLU board member Carol Svinchuk receives Special Award from GLU President Fred Brown for her years of devoted service.

From The President

By Frederick L. Brown, Ph.D.

By resolution at the Annual Meeting in Cleveland, May 8, Great Lakes United addressed several unresolved concerns relative to the Great Lakes Protection Fund proposed by the Council of Great Lakes Governors. These concerns remain unresolved. As of this writing, the public still has not been given clear answers, and GLU has not been provided a structure of public involvement for the development of those answers.

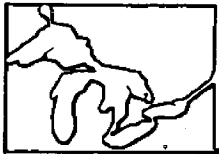
There is no question of the value of and the need for a continuing source of

seed money for research, but there is a need for more than just money. Ultimately, clearly identified and long-term goals must be established, research projects must be coordinated with ongoing efforts around the Basin, data management systems must be developed to provide universal accessibility and utility, and fund dispersal must be free of parochial control.

But, most important in the near term, the public must know how and by whom the whole concept of the Protection Fund will be managed. The categorical makeup of the first governing body must be publicized and must

include provisions for significant non-governmental membership. Obviously, the Council of Great Lakes Governors should be represented but, in my view, should not control.

Additionally, near term information should clearly state whether, when and how environmental groups will be involved. Funding is a major factor in the Great Lakes water quality equation. I believe GLU will accept some responsibility for leadership in developing public support for funding, but not bind. WE NEED MORE INFORMATION!! WE NEED MORE ASSURANCE!! □



Ontario/St. Lawrence Region

White Paper Reviews Status of New York's Great Lakes

By Ronald J. Scrudato, Ph.D., SUNY College at Oswego

New York's accomplishments and shortfalls were publicized on June 20, 1988 when Great Lakes United released a white paper on the status of New York's Great Lakes. The format of the white paper provided for a constructive dialogue with state officials in order to recognize and improve our efforts to protect the Great Lakes. The report summarizes progress made since the December 15, 1986 meeting held with Governor Cuomo and Great Lakes United representatives.

Great Lakes United applauded the State for its strong stand against water diversions, continued opposition to winter navigation proposals and its involvement in programs under the Great Lakes Water Quality Agreement. Chapters focus on recommendations to improve current water quality, coastal zone management, hazardous waste, fish and wildlife habitat and research programs through legislative, budgetary, and regulatory initiatives. The report emphasized the need for a comprehensive Great Lakes program and proposed the creation of a Great Lakes Advisory Council to the Governor to advise on regional/federal Great Lakes activities, improvements to specific state Great Lakes efforts, and the implementation of the proposed New York State Great Lakes agenda.

Chapter one of the 29-page report introduces the white paper and summarizes the December 15, 1986 meeting. The following chapter reviews New

"New York is applauded for its strong stand against water diversion and winter navigation"

York's activities on a regional and federal level and makes specific recommendations for greater involvement by the Governor and also by the Department of Environmental Conservation (DEC) in Great Lakes and St. Lawrence River issues. Great Lakes United commended the Governor for his efforts in obtaining full membership to the Council of Great Lakes Governors. Chapter three addresses lake levels, water diversions and coastal zone management. This chapter also briefly summarizes the \$300 million contributed annually by New York State's Great Lakes sport fishing industry. This portion of the report stresses the need for the State to develop a more comprehensive coastal zone management plan which would address not only shoreline management, but

also those areas that are susceptible to high water impacts and flooding. It emphasizes the need to improve overall public access to coastal regions, and to ensure that the State identify and protect Great Lakes and St. Lawrence River sensitive environmental habitats.

The need to protect sensitive fish and wildlife habitats is addressed in chapter four and calls on the State to utilize Environmental Quality Bond Act funds to ensure that these areas are protected.

Chapter five addresses water quality issues and focuses on Remedial Action Plans (RAPs) and the State Pollutant Discharge Elimination System (SPDES). Six areas within New York's Great Lakes Basin have been identified as Areas of Concern (AOCs) by the International Joint Commission. Citizen committees have been established by DEC to assist with the development of Remedial Action Plans for the AOCs. Citizen committee members working in concert with regional and Albany DEC staff on RAPs have been frustrated by DEC's adherence to New York's stream classification system to establish impaired uses within the AOCs. The Department is reluctant to assess impairments on future stream classifications, thereby setting limitations on the future or desired uses of the AOC.

The report emphasizes the need for restoring all Great Lakes waterways to Class A streams to ensure that overall water quality within New York Great Lakes will be suitable for drinking and capable of supporting a sustainable, edible fishery. This chapter also focuses on the need to improve the SPDES program to ensure the eventual elimination of persistent toxic chemicals from Great Lakes waters. This can only be accomplished if stringent and consistent standards are established for all tributaries to the Great Lakes Basin.

The concerns over hazardous wastes and contaminated sediments are dealt with in chapter six. This chapter introduces those subjects by identifying major sources of contaminants to the Great Lakes Basin. It focuses specifically on the future of potential sources of contaminants from remediated, inactive hazardous waste sites. The U.S. Environmental Protection Agency has been directed through the Superfund Amendments and Reauthorization Act (SARA) to adopt clean-up strategies at inactive hazardous waste sites whenever possible. Many of the National Priority List sites within New York State are currently being addressed by the EPA, and there is clear evidence that the Agency is continuing to adopt containment strategies to demonstrate to Congress that rapid progress is being made

in the federal Superfund management program. The Agency, however, appears to be far more interested in numbers of sites remediated without fully considering the clean-up emphasis of SARA. New York State citizens are concerned that the federal government is not giving due consideration to the SARA clean-up directives. Unless clean-up strategies are adopted, many waste sites will continue to contribute contaminants to area waters and ultimately to the Great Lakes.

"New York's SPDES program needs to improve if we are to eliminate toxic chemicals from Great Lakes waters"

Billions of dollars will be spent in New York State to remediate inactive hazardous waste sites by the year 2000. Although the State is in the initial stages of developing RAPs, there are few dollars available to address the severely contaminated sediments that exist in many of the AOCs. Contaminated sediments are continuing sources of toxic substances to Great Lakes waters and biota. The white paper recognizes the difficulty in addressing contaminated sediments in harbors and rivers, but stresses that New York State begin developing innovative technologies to address this very serious source of contamination to Great Lakes waters.

Chapter seven of the white paper addresses the toxics problem and research programs of the State. This chapter commends the State for establishing the Center for Hazardous Waste Treatment Management at the State University at Buffalo. The Center's agenda, however, is not specific to the Great Lakes but focuses on treatment technologies for current hazardous wastes and on the development of innovative technologies for the remediation and cleanup of inactive hazardous waste sites. The Center does not specifically fund Great Lakes research needs.

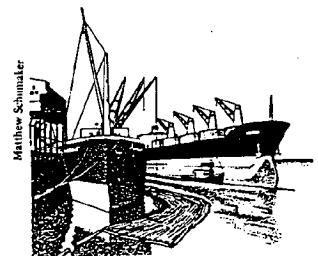
The white paper notes the great strides that have been made during recent years with the establishment of a State research infrastructure by the creation of the New York State Great Lakes Research Consortium (GLRC). However, this year the Consortium failed to receive a State allocation, and the Consortium is being kept alive by funds provided by the seven participating academic institutions. The report calls upon the Governor to restore full funding to the Consortium in

the 1989-90 State Budget. This section of the report also requests that DEC develop and implement a surveillance strategy which meets the goals of the IJC's 1985 Lake Ontario, Niagara River and St. Lawrence River surveillance plans. The chapter stresses the need to initiate a comprehensive research program to develop technologies to eliminate toxic substances from future industrial and municipal discharges. Additionally, the Governor should assume a leadership role to ensure that the U.S. Congress appropriates sufficient funds to carry out the research activities in the 1987 Reauthorization of the Clean Water Act.

The latter portion of chapter seven focuses specifically on fish and wildlife and calls for a resource inventory within the Great Lakes Region in order to improve the quality of fish and wildlife habitats within the Great Lakes Basin.

The final chapter of the report is a summary of recommendations and concludes with a call for cooperation and a greater emphasis by the Governor and New York State for a stronger Great Lakes Program to protect and properly manage New York's Great Lakes-St. Lawrence ecosystem. The white paper stresses the need for increased cooperation by State representatives and citizens of the State's Great Lakes. The proposed Great Lakes Advisory Council would further this constructive partnership to attain our mutual conservation objectives.

To receive a copy of the white paper, please contact the GLU office. □



Is Winter Navigation Back?

The Army Corps of Engineers has reintroduced plans to extend winter navigation shipping to January 31 (plus or minus two weeks) by submitting a draft Environmental Impact Statement this spring. In a letter to the Corps, Great Lakes United demanded that the project be dropped for the following reasons:

- The Corps has failed to establish any demonstrated need or economic benefit for the extension.
- The project would increase the risk of an ecological disaster such as an oil or toxic waste spill that in winter would make cleanup "all but impossible."
- Ship-generated waves and ice scouring will increase shoreline erosion, damage shoreline structures, and disrupt or destroy vegetation and wildlife habitat.
- Winter navigation would increase the likelihood of ice jams and flooding.

Environmental and conservation groups, unions, state governments and the Lake Carriers Association have all opposed the Corps' plans. The last time this measure was discussed in Congress during 1983-84, over 200 congressional members signed a "Dear Colleague" letter to kill the project.

Continued pressure is needed to abandon this project on environmental, social and economic grounds. Send letters to: Corps of Engineers Detroit District office, Box 1027, Detroit, Mi. 48231, with copies to your elected officials. □

Native Nations Enter RAP Process

By Jim Ahl, GLU Technical Analyst

For the first time, Native Nations' Chiefs and tribal representatives from reserves located near or adjacent to 11 of the 17 designated Areas of Concern (AOC) throughout Ontario gathered together as a group during the last week of April. The purpose of this gathering was the Great Lakes Basin Native Remedial Action Plan Workshop, conducted at the Cornwall Civic Center, Cornwall, Ontario. Dr. Henry Lickers and staff of the Mohawk Governments of Akwesasne are to be commended for their hard work in successfully securing funds for the workshop and the well-organized exchange of ideas, frank expressions of concerns and agenda of topics.

The purposes of the conference were: (1) to bring together Native Nations in the Great Lakes Basin to learn about

Remedial Action Plans (RAPs); (2) to learn from each other's experiences; and (3) to strategize a working relationship with each other as well as the RAP teams within the AOCs.

Non-Native participants invited to attend and provide background information on the RAP process included: Ed



Bailey from the IJC; Jeanette Anderson and Wayne Wager, RAP Coordinators for Ontario Ministry of the Environment, and Jim Ahl, Technical Analyst for Great Lakes United. Native speakers included Chief Harold Tarbell, St. Regis Tribal Council, Akwesasne and Chief Jake Swamp, Mohawk Nation, Akwesasne.

It was appropriate that this workshop was held at Cornwall because the Massena, New York - Cornwall, Ontario portion of the St. Lawrence River has been designated an AOC by the International Joint Commission (IJC). The Mohawk Council of Akwesasne has a well-established track record of environmental studies undertaken and technical expertise gained, relative to the toxic contamination issues on the St. Lawrence. They continue to support the concept of an international RAP and are prepared to provide information and technical staff on a reciprocal basis in the plan's development and implementation.

Great Lakes United is pleased with the success of this workshop and looks forward to working with Native Peoples on the continuing toxic assault of our Mother Earth. □



Shipping Industry: Bigger is Not Better

By Bernard Uhlmann, Director, Saginaw Bay Advisory Council

It is an economic fact that the more tonnage a lake carrier can load per trip, the lower the cost per ton the businessman has to pay for the product. More profits can be made by the ship owner because less fuel is used to move more tons of product.

As a result, major changes have occurred. Formerly, most ships plying the lakes required 27 feet of water when fully loaded. The standard length of "lakers" was 600 feet, and they ranged from 60 to 75 feet wide. New designs call for 32 or more feet of depth. Today's newer ships range from 730 to 1000 feet long and more than 100-feet wide. This has increased the tonnage from the 7,000- to 12,000-ton range to an amazing 59,000 tons carried by the new ships. On the surface, these design changes appear to be an economic benefit to everyone. Certainly, it should mean lower prices to the consumer and more profit to the producer.

So what is the problem? There are hidden costs which the taxpayers of both Canada and the United States have to pay to accommodate these design changes: Ships drawing 32 feet need channels dredged to deeper depths to permit the passage of these vessels. Ships 730-feet long can no longer turn in the same basin the 600-footers used. New locks must be proposed for the lifting of larger ships. Wider channels are necessary to accommodate 100-foot wide vessels. Super-expensive containment basins must be constructed to contain contaminated sediments.

We cannot object to doing a job more efficiently, at a lower cost to shippers and consumers. The dredging of shipping channels has been an ongoing practice for decades, and subsidizing of transportation has been a priority of government for the past two centuries. But the shipping industry has convinced our legislators that, without the benefits of deeper and wider channels, shipping on the Great Lakes will become too costly, and job losses will result. But have they convinced anyone that the hidden costs are affordable?

The advent of environmental awareness has produced a change in priorities among the citizens of the Great Lakes Basin. Environmental concerns have caused people to wonder if the costs of supporting lakes shipping is outweighing the benefits gained by a community. No longer can contaminated sediments be removed from channels and deposited into lakes at random without raising concern. This has forced citizens to take a second look at the rationale for dredging. It is increasingly difficult to demonstrate that the practice of dredging benefits all taxpayers. Indications are that present dredging practices degrade the quality of life in communities where they are practiced.

Recent studies of socio-economic trends overwhelmingly show that people who have the ideas which create jobs move to environmentally-clean areas. They are the innovative, entrepreneurial and upwardly-mobile segment of our population. They no longer accept the smokestack mentality of post-World War II America. To them, the quality of life of the area in which they live is as important as the amount of money they will make.

Cities have now realized the economic importance of attracting this sector of our population to their com-

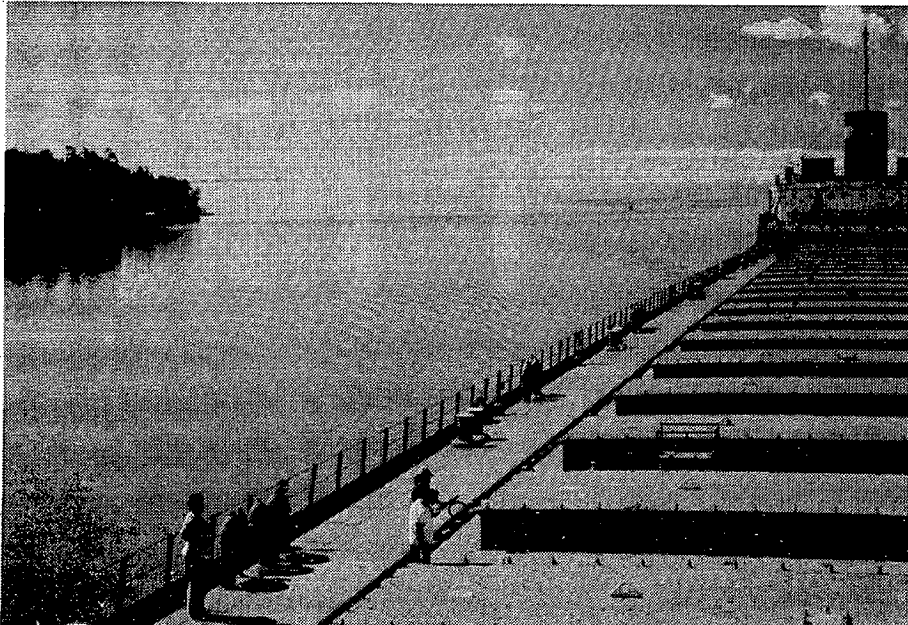
munities. A river carrying polluted sediment, off-canted by a dredge, doing a cheap job of digging a hole up the middle of the river, becomes a liability to those, who demand a clean environment in which to live. Studies show they do not tolerate the degradation of their community and prefer to pick up their families and relocate to where life and the environment is of the quality they expect.

To avoid losing vitality and population, communities now have to decide

which is more important -- the shipment of goods by larger ships, which increases environmental and health risks, or protecting the environment and making the area an attractive place to live, work and invest? If they choose the latter, consumers may have to pay more for the products shipped to them and for maintenance of channels through environmentally-sound techniques. However, the cost of this maintenance should be borne by the producers of the goods as well as their consumers. No longer

should industry be allowed to charge the taxpayer the cost of digging new channels, widening new basins and putting up with health risks without sharing some of that cost.

Solutions to this problem must be found. The resurgence of environmental awareness has caused people to realize that "bigger is not always better." One approach is smaller, more maneuverable, fuel-efficient, mechanized vessels operated by only a few crewmen. The building of these ships would also generate jobs. But, if the shipping industry decides it can make a profit only with larger vessels, with citizens paying the costs and taking the risks, then sociological winds of change may become an ill wind for this industry. □



Large vessels like this one are much smaller than the even larger ones that are proposed for the Great Lakes.

Is It Really Clear Water?

The Town of Sarnia, Ontario, is adjacent to the City of Sarnia which became famous as the home of the toxic "Blob," the large deposit of contaminated sediments in the St. Clair River. The "Blob" has subsequently been vacuumed up. Recently, the Town of Sarnia voted to formally change its name. (No, it is not Blobville.) It is now called the Township of Clearwater. □

Is the "Sixth" Great Lake on the Way to Recovery?

By Peter Lemon, City of Owen Sound

Virtually the same size as Lake Ontario, Georgian Bay, the great bay of Lake Huron is viewed by many as the "sixth" Great Lake. As with some of the other Great Lakes, Georgian Bay also shows signs that it has started on the slow path of regeneration. Both Environment Canada and Provincial reports indicate things are getting better, but it will still be a long road to total recovery.

Back in the 1920's, before pollution, lampreys and over-fishing struck, Georgian Bay and the North Channel were producing over 1.3 million pounds of whitefish and between 1.7 and 2 million pounds of lake trout each year. In fact, commercial production of all fish in these waters, according to the Great Lakes Fishery Commission, ranged from 4.1 to 5.5 million pounds per year.

In the late 19th century and early 20th century, the Georgian Bay fishery was a major employer from Owen Sound and Meaford in the south to the wilds of the North Channel. It was an export industry as well, since salted fish were exported to other regions, including England and continental Europe.

In the 1920s, Georgian Bay produced close to 25% of the total Lake Huron catch, but by 1960 this had dropped to 4%, or a mere 425,000 pounds of commercial fish. Although documentation is not available, it is believed the sports fishery suffered a similar decline -- both in total catch and quality of catch.

I believe part of the cause of this decimation is a change in water quality and pollution. Since Georgian Bay is not a flow-through system, it is reasonable to believe that once undesirable chemicals get into the system, it takes longer for them to wash out again.

Because of the slow natural regeneration of the lake system, humans must help. The Ontario Ministry of Natural

Resources has been stocking fish in Georgian Bay, but much of the money has been spent on the hybrid splake program. The merits and demerits of this program are much debated here.

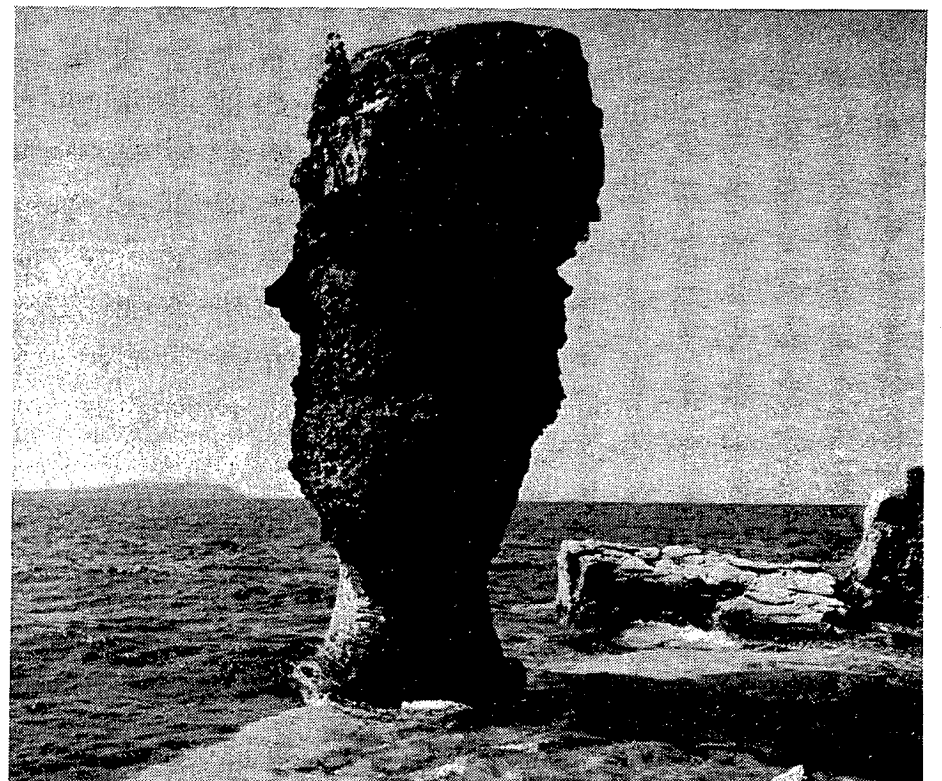
However, there is a bright light to this report. The Sydenham Sportsmen's Association has undertaken its own restocking program. The organization does receive some funding from the Province, but a large portion of the cost and all the work comes from this club. Dedicated volunteers have learned about operating their own hatchery and, in some cases, have cleared the streams where these fish are implanted.

The stocked fish have helped the

sports fishery, but more important, it is a case of a grassroots organization recognizing the vast potential of a totally under-utilized resource. From my observation, this type of concern is a model for all organizations in our mutual fight to preserve, enhance and redevelop the great potential of the lakes system.

As an organization, Great Lakes United should be seeking similar volunteer groups to help raise the awareness of all levels of government to the vast potential of the Great Lakes ecosystem.

Georgian Bay is not a dead lake; while it is getting better, we must face the challenge of water quality or it will become another casualty of the 20th century. □



Picturesque Flower Pot Island is at the tip of Bruce Peninsula which forms part of Ontario's Georgian Bay.



Self-Unloading Super Laker



Self-Unloading Laker



Conferences Focus On Contaminated Sediments

By Glenda Daniel, Executive Director,
Lake Michigan Federation, and Jim Ahl,
GLU Technical Analyst

A major North American conference on contaminated sediments is scheduled to be held at the Holiday Star Plaza in Merrillville, Ind., from November 30 to December 3, 1988. Co-sponsored by Great Lakes United and the Lake Michigan Federation, this conference will provide a forum for citizens to be updated on current technologies, scientific studies and governmental regulatory programs and procedures. It will address both the problems here in the Great Lakes Basin and in our coastal bays and estuaries.

Conference objectives are to:

- Provide the most recent scientific data and research on impacts of contaminated sediments.
- Review current and emerging technologies in treating contaminated sediments.
- Present governmental regulatory agencies' programs on contaminated sediments.
- Develop a citizens' blueprint or guidelines on contaminated sediments.

This three-day conference is possible because of the persistence of the Federation and GLU in pulling together the leading experts on the issue from across North America. Funding is being provided by the Great Lakes National Program Office and Office of Water of the Environmental Protection Agency based in Washington, D.C. Environment Canada is providing scholarship funds for Canadian citizens groups, scientists and government officials attending this event.

Contaminated sediments are rapidly being recognized as one of the most complex ecological problems facing the Great Lakes and our coastal bays and estuaries. Over 40 harbors, bays and inlets in the Great Lakes have contaminated sediments. As Remedial Action Plans (RAPs) continue to be undertaken throughout the Basin, a great deal of information is needed if this problem is to be properly assessed and the necessary corrective actions implemented. The problem multiplies greatly as we look at our Atlantic, Gulf, Pacific and inland river shoreline areas.

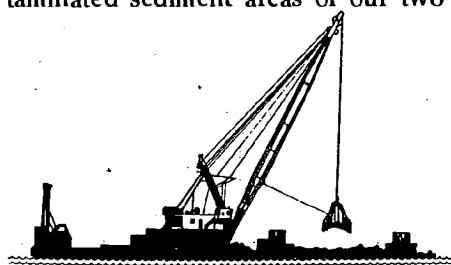
Scientific investigations and research is showing that a wide variety of toxic contaminants which have been entering our waterways' ecosystems, have been deposited in the sediments in alarmingly large quantities. These contaminants, including heavy metals, PAHs, PCBs and even dioxin, are able to re-enter the water column upon disturbance of the sediments. The resuspension can occur by dredging, wave action, ship movement (wave and propeller action) or by benthic biota. This resuspension means that these contaminants are once again re-entering the food chain to bioaccumulate within the organisms. High tumor incidence in bottom feeding fish, and deformities of birds feeding in highly contaminated controlled disposal sites, are just two of the vivid signs that this issue needs immediate action.

Besides the very serious potential for long-term adverse effects on the continent's ecosystem, including human health, there are also short-term economic problems exacerbated by contaminated sediments. Debates over the safe disposal of such sediments include the loss of income from sport fishing and duck hunting due to fish advisories and the interruption of shipping activities due to dredging delays related to con-

taminated sediment disposal. The latter is now occurring in the Mississippi River area due to the extremely low water depths.

New scientific research and technologies dealing with disposal of contaminated sediments can greatly aid in resolving the problems here in the Basin and in our contaminated coastal waterways. Even the scientific community is finding it difficult to keep up-to-date in assessing and evaluating all of the new developments and techniques being presented. Government agencies, which have the responsibility of legally controlling or directing the increasingly more complicated environmental programs both in the U.S. and Canada, are finding it quite difficult to keep pace with these developments.

This problem is being examined at a variety of levels in both Canada and the States. Recently, the Committee on Contaminated Marine Sediments, convened by the Marine Board of National Research Council, conducted a symposium and workshop in Tampa, Fla. The conference, attended by both authors, focused on the special technical problems and engineering issues associated with mitigating the impacts of contaminated marine sediments. Also presented were regulatory programs (primarily EPA), dredging technology (Army Corps of Engineers), Superfund clean-up contracting, natural resource damage assessment, environmental and industrial interests and current scientific research (marine and freshwater). Valuable information concerning dredging techniques, management strategies and recent scientific investigations have provided the Federation and GLU with excellent background material and a list of potential speakers for the scheduled fall conference. In addition, a conference steering committee has been formed, made up of citizens, scientists and regulators from contaminated sediment areas of our two



Could Mississippi Mud Open Taps On Water Diversion?

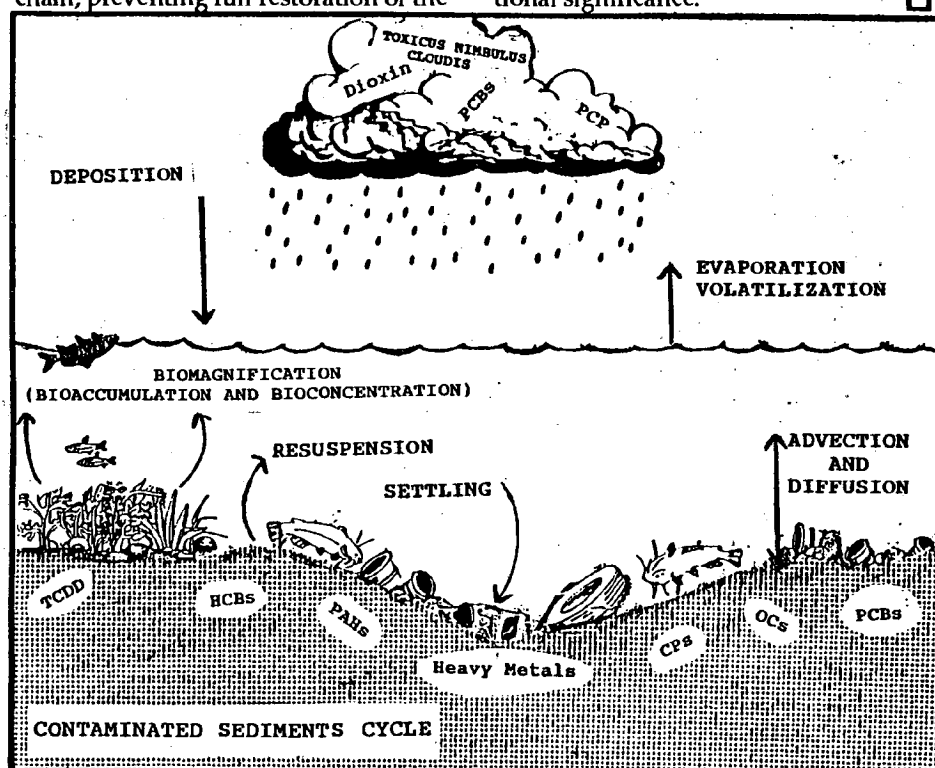
The Army Corps of Engineers has proposed to increase the Chicago diversion to 10,000 cubic feet per second (cfs) to bring more water to the drought-stricken Mississippi Valley. Currently, hundreds of barges are held up due to low water levels in lower Mississippi ship channels.

Great Lakes United and the Lake Michigan Federation sent a letter to the states and the Corps objecting to this proposal because of the adverse impacts the diversion could have on the Great Lakes. In particular, it contradicts the intent of the Great Lakes Charter, and sets a dangerous precedent which could open the gates for more Great Lakes diversion proposals. In addition to Great Lakes concerns, GLU President Frederick Brown noted that the increase in the Chicago diversion would not have a significant impact on the water levels in the lower Mississippi River. Great Lakes United will keep you informed of this late-breaking development as information is obtained. □

countries.

The urgency of centering our attention on this critical issue can be found in the 1987 Water Quality Board Report to the IJC: "The presence of persistent toxic substances in sediment remains a major concern, especially in Areas of Concern. These sediments can function as a source of pollutants into and through the food chain, preventing full restoration of the

ecosystem...the Board views the lack of a coordinated programmatic approach to this complex issue as a major obstacle to restore and protect the Great Lakes ecosystem." We have learned that the Great Lakes are a warning system for continental and global environmental problems. Solutions found in Merrillville will have national and international significance." □



Wisconsin Clean Water Rules Weakened

The Wisconsin Campaign for Clean Water was launched in January by several state, regional and national environmental groups. Its aim is to ensure Wisconsin adopts rules to establish water quality standards limiting the amount of toxins that will be allowed in Wisconsin's lakes and streams; adopts regulations to control the dumping of toxins by Wisconsin industries and cities into the state's waters; adopts rules protecting high quality waters from new or increased sources of toxic pollution and issues new pollution control permits to the major pulp and paper mills in the state.

The State of Wisconsin's progress has been abysmal. Indeed, there has actually been an erosion of these goals. Since January, hearings have been held on all of these rules. The Natural Resources Board was to have approved the rules and submitted them to the legislature for their review. To our dismay, the Wisconsin Department of Natural Resources (DNR) bowed to industry pressure and seriously weakened the rules that were brought before the Board in May.

In the water quality standards rule (NR 105), the DNR has increased the human cancer risk level by ten-fold. This is not only disturbing in its own right but it is also inconsistent with Wisconsin's existing groundwater law. In January, the rule would have taken into account the fact that people are exposed to toxins from many sources other than fish and water, e.g., air, food and the workplace. Now, these other exposures will not be considered, thereby underestimating the total exposures people face and therefore underprotecting them. Furthermore, the DNR has lowered the amount of fish Wisconsinites are assumed to eat to 15 grams per day (one 8 oz. fish meal every 11 or 12 days). This is not realistic for Wisconsin

and it is vital to the rule since the assumed consumption directly translates into the assumed exposure to a toxin.

The rule meant to control the dumping of toxins by industry and cities (NR 106) merely legitimizes the old saying that "the solution to pollution is dilution." The rule allows and, therefore encourages, dischargers to dilute their effluent below the level of detection, which would be interpreted as "no pollution." The rule also allows ten times more human carcinogens to be dumped in lakes than can be dumped in rivers. The bioaccumulative impact of this will be staggering.

Finally, the "Antidegradation Rule" (NR 207) is really a staged degradation rule. A high quality water could be degraded from its current level down to the minimum water quality standard without even having the rule apply! This is absurd. Moreover, the list of Outstanding Resource waters, those that receive the highest level of protection, is woefully inadequate. It does not include all of our important trout streams and does not include such resources as Horicon Wildlife Refuge, the Apostle Islands or sensitive habitat areas for endangered species.

The DNR Board did not take action on these rules in May as scheduled. Instead, they postponed action until their July 20-21 meeting at which we testified. We encourage others to send letters to Helen Jacobs, Chair, Natural Resources Board, P.O. Box 7921, Madison, Wisconsin 53707. If the Board approves the rules, they will be sent to the legislature for review. If the Board does not strengthen the rules, we hope the legislature will.

If you have questions, please call Bill Davis, (608) 251-7020, Susan Mudd, (414) 271-7280 or Mark Van Putten, (313) 769-3351. □



St. Mary's Clean-Up Planning Begins

By Wayne Wager, Environment Ontario
RAP Co-Coordinator

The St. Marys River, which flows approximately 110 km from Lake Superior to Lake Huron, is one of five IJC-designated International Areas of Concern (AOCs) located on the Great Lakes channels. Ontario shares three of the connecting channels with Michigan and two with New York and has signed a Letter of Intent on Shared Areas of Concern with Michigan to prepare Remedial Action Plans (RAPs) for the St. Marys, Detroit and St. Clair Rivers. The St. Marys River RAP is in response to the IJC's determination that such a program be undertaken because of the degraded water quality, impaired water uses and contaminated sediments. The primary area is in the immediate vicinity of Sault Ste. Marie and immediately downstream.

Water flow of the river is controlled by the famous 'Soo' locks, power generating plants and compensating works. The locks provide access between Lakes Superior and Huron for the Great Lakes international shipping industry and also for recreational boat users. The river also serves as a source of drinking water for Sault Ste. Marie and for processing waters for major heavy industries, including steel-making and paper and pulp. A significant sport fisheries industry exists in the St. Marys River, primarily on the Michigan side of the River. The is significant recreational use of the river, primarily on the U.S. side, for swimming, boating, water skiing and fishing.

Power generation, shipping traffic

and discharges of nutrients and toxic substances from industrial and municipal point sources, as well as urban non-point source discharges and combined sewer overflows, have contributed to the degradation of the river's water. These are impacting fish habitat and contaminating the river's sediments and associated benthic organisms. Contaminants include conventional as well as heavy metals and organic compounds. Initial surveys of the river's sediment quality, benthic community structure and water quality, were conducted by the Ontario Water Resources Commission and the Ontario Ministry of the Environment as long ago as 1967. At that time the surveys revealed that the biota, sediments and water quality along the Michigan portion of the St. Marys River and also in Lake Nicolet was good and could sustain a variety of water uses. However, they also identified an impacted zone along the Ontario shoreline in the area downstream of industrial and municipal point source discharges. This zone was characterized by an impaired benthic community, with sediments contaminated by oils and greases and elevated concentrations of phenols, iron, zinc, cyanide and ammonia in both the river's surface waters and its sediments.

Subsequent river water quality surveys from above the St. Marys Rapids to as far downstream as Little Lake George and in the period from 1969 to 1980, showed a decline in the concentrations of industrial discharges of phenols, ammonia and cyanide. This decrease is attributed to reduced point source loadings and the doubling of the river's

flow along the Ontario shoreline from increased diversion to the Great Lakes Power Generating Station. In 1983, a surficial sediment and benthic macroinvertebrate community survey indicated a spatial distribution of contaminants similar to that observed in 1973. The 1983 benthic community revealed no significant improvements in diversity or abundance since 1973. These studies indicate that the areas of greatest sediment contamination and most impaired benthos are located along the Ontario shoreline of Sault Ste. Marie, downstream of discharges from Algoma and St. Marys paper discharges, as well as downstream of the East End WPCP in Sault Ste. Marie, Ont.

The 1983 survey found that the distribution of PCBs was similar to that of the metals, oils and greases, and was observed along both sides of the St. Marys River. No chlorinated phenols were detected in the sediment samples. Although young-of-the-year yellow perch collected from Sault Ste. Marie, Ontario contained PCBs, these concentrations were well below the Great Lakes Water Quality Agreement (GLWQA) objective of 100 micrograms per kilogram established for the protection of birds and animals which consume fish. Sport fish in Canadian waters do not currently contain levels of organochlorines (PCBs, organochlorine pesticides or 2,3,7,8-TCC [dioxin]) which exceed Health and Welfare Canada guidelines. However, a larger species including lake trout, northern pike and walleye do contain mercury at levels requiring advisories on consumption. There is suspicion that these mercury levels may be attributed to naturally-occurring high background levels of mercury.

Recent emphasis has been placed on determining the concentrations, distributions and availability of PAHs in the river. Clams have been placed in cages in the river and exposed for a three week period as a test for PAHs. Such a clam study conducted in 1984 determined significant accumulations of phenanthrene in the vicinity of Algoma Steel discharges and extending downstream of the facility. Similar spatial distribution patterns were also observed for several other PAHs. A preliminary investigation of the conductivity of the St. Marys River sediments adjacent to the 1000-acre Algoma slag site has shown areas where contaminated shallow groundwater at the shoreline of the site may be discharging into the river.

Consistent with the Ontario-Michigan Letter of Intent on Shared Areas of Concern, signed by Governor Blanchard of Michigan and Ontario Premier Peterson in December 1985, Ontario is taking the lead role in coordinating the RAP for the St. Marys River. Its preparation is contingent upon the completion of the Upper Great Lakes Con-

necting Channels Study (UGLCCS). Concurrent with the preparation of the final report from the UGLCCS, the St. Marys River RAP Committee, comprising representatives from Ontario Ministries of Environment and Natural Resources, Michigan Department of Natural Resources, USEPA and Environment Canada, prepared a status report for submission to the IJC in April 1987. The RAP team has initiated a program that will educate and actively involve the public on the present environmental conditions of the river. Through the RAP program, the public will also help identify the preferred uses to be achieved through the RAP process.

The St. Marys River RAP public involvement program is well underway. Nominations have been received for the Binational Public Advisory Council (BPAC). This BPAC should consist of an equal number of citizen representatives from Ontario and Michigan, shall comment to and advise the RAP team on key aspects of the RAP preparation and implementation. This will include: the goals of the plan, problems to be addressed, planning methodology, technical data, remedial action alternatives, plan recommendations and plan implementation. The goal is to arrive at a plan which the RAP team and Advisory Council can agree to and for which there is broad public support.

The UGLCCS is expected to be completed later this year, and the BPAC will be provided with the document as the technical background for the RAP. A draft RAP is expected to be completed by December 1989 with public review anticipated for March 1990. The target date for submitting the RAP to the IJC is October 1990.

Environment Ontario has commissioned a study of Algoma Steel Corporation Ltd's slag dump. This study will examine the hydrogeology of the 1,000-acre slag site and adjacent areas, investigate contaminant runoff from the site and evaluate contaminated groundwater leachates from river-bottom sediments. In an announcement issued by Environment Minister Jim Bradley, he stated, "This study will investigate the concerns my ministry shares with area residents about the potential effect of the slag site on the St. Marys River." Both the slag site and the recent reopening of Coke Oven Battery (COB) at the Algoma Steel facility are of great concern to residents on both sides of the river. Concerned citizens and grassroots organizations are very concerned that toxic contaminants from Algoma's plant effluent and slag site may have impacted area waters.

Mr. Bradley also stated, "The findings of the study will help us plan and implement appropriate clean-up action under the Remedial Action Plan we are developing for the St. Marys River." □

New Controls for Ontario's Pulp and Paper Polluters?

By Kai Millyard, Pollution Probe

Last year's discovery of dioxin in diapers, coffee filters and all other bleached white paper products sent a shock wave through the paper industry and generated anxiety among consumers for the safety of using paper products. But the dioxin created by bleaching paper to its brightest white is only the tip of the proverbial iceberg when it comes to pollution associated with the pulp and paper business.

New research has shown that the dioxin problem is only a tiny portion of the total amount of organochlorine chemicals produced and discharged to the environment as a by-product of bleaching pulp. While the total loadings of dioxins are in the order of ten grams per year from a typical bleached kraft mill, the loading of other organochlorines is roughly 35 TONNES PER DAY.

Eighteen months ago, the Ontario Ministry of the Environment (MoE) was in the middle of a major confrontation with the Kimberly-Clark Corporation over the cleanup of their giant kraft mill on the north shore of Lake Superior. The company was arguing that technology doesn't exist to reduce the toxicity of their effluent so that it could meet the "fish kill" test. The outcome of that battle was a compromise, but has led to the preparation of an independent report which has major implications for kraft mills everywhere.

The MoE struck an "Expert Committee" and asked them to conduct a thorough examination of what technology is available to clean up kraft mill effluents. Comprised of a biologist, an engineer and an economist, the Committee published a powerful report in April.

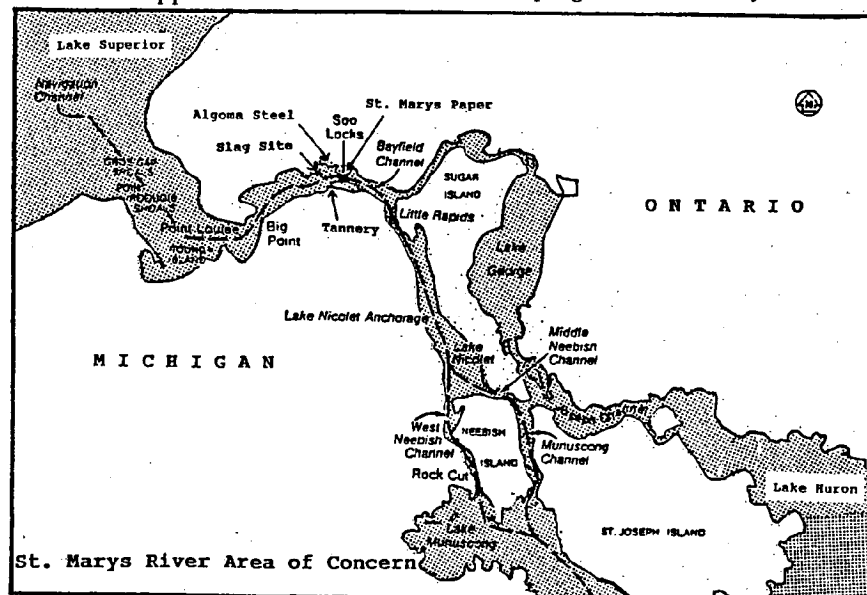
"Kraft Mill Effluents in Ontario" recommends immediate steps be taken to reduce the loadings of organochlorine compounds discharged by kraft mills. The authors concluded, "97 percent of the total organochlorine from a kraft bleach plant has not been identified as specific substances...and there does not seem reason to wait for the discovery of other subtle toxicants."

They concluded that not only are there technologies available for reducing organochlorine discharges, but that in many cases they are profitable investments.

The most meaningful solutions to the organochlorine problem are not the conventional "end of pipe" treatment techniques. Instead they are "waste reduction" solutions, which avoid the creation of the chemical wastes in the first place. They all revolve around reducing the use of chlorine gas for bleaching, so as to minimize the creation of organochlorines. The report recommends that within five years all mills be required to reduce organochlorine discharges to 1.5 kilos per tonne of pulp produced. This would be a cut of roughly 75% from current levels. In addition, these reductions would decrease the toxicity of the effluent.

Environment Minister Jim Bradley is pondering the report and, it is hoped, may soon announce special measures to require organochlorine controls for pulp mills in the near future. The report can be obtained from the Ministry of the Environment's Public Information Office in Toronto at (416) 323-4321. □

Kai Millyard is Pollution Probe's national affairs researcher in Ottawa and member of the MISA Advisory Committee to Environment Minister Bradley.





New York, PA., Join Great Lakes Council of Governors

New York and Pennsylvania have accepted an invitation by the Council of Great Lakes Governors to become full members of this important regional planning body. The Council of Great Lakes Governors was formed by Minnesota, Wisconsin, Illinois, Indiana, Michigan, and Ohio in 1982 to develop joint economic and water resource policies for the Great Lakes region. Great Lakes-related policies developed by the Council include the Great Lakes Charter (to protect against water diversions), Oil Drilling Ban in Great Lakes waters and the Great Lakes Toxic Substance Control Agreement.

Since a 1986 meeting with Governor Cuomo, Great Lakes United has actively pursued the inclusion of New York and

Pennsylvania in the Council. Council chairperson, Governor Celeste received letters from Governor Cuomo, Great Lakes United and its member groups in 1987 calling upon New York's and Pennsylvania's full participation. "We have maintained that the Council of Great Lakes Governors should represent all eight Great Lakes states," said Frederick L. Brown, President of Great Lakes United. "The inclusion of New York and Pennsylvania is a positive step in Basin-wide policy development for the Lakes."

The Council of Great Lakes Governors usually meets three times a year, giving each Governor an opportunity to share regional concerns and promote joint public policy initiatives. □

U.S. Environmental Legislation Progress Mixed

By Melanie Griffin, Sierra Club

Environmentalists working for a strong, comprehensive reauthorization of the Clean Air Act are frustrated by U.S. congressional inaction.

The Senate Environment Committee has passed Sen. George Mitchell's S. 1894, a strong Clean Air bill to address acid rain, smog and toxic air pollution. But because Majority Leader Sen. Robert Byrd (D-WV) does not support acid rain control legislation, he has not allowed the full Senate to consider S. 1894.

On the House side, committees are currently stalemated over provisions to clean up ozone and carbon monoxide pollution. To protect the auto industry from tighter controls, Energy Committee Chairman John Dingell (D-MI) has successfully stalled clean-up legislation year after year. Henry Waxman's (D-CA) subcommittee has made little progress with other proposals.

After years of stalemate between polluting midwestern states and polluted eastern states, Governors Richard Celeste (Ohio) and Mario Cuomo (New York) have agreed on a proposal for a

major cutback in the sulfur dioxide (SO₂) emissions that cause acid rain. Although environmental groups term the proposal "inadequate to achieve clean air in this century," Celeste is the first midwestern governor to endorse major SO₂ reductions, and the proposal is a significant political development.

Bipartisan support resulted in real progress on H.R. 2707, the Disaster Relief and Emergency Assistance Amendments Act. It will establish a \$100 million in federal grants over a period of five years to assist Great Lakes residents in the relocation, floodproofing or protection of dwellings or public facilities impacted by lake storms. It will also provide Federal funding in return for compliance with 30-year erosion and 100-year flooding set-back provisions for development in coastal areas.

A companion bill in the U. S. Senate is expected to reach the floor within the next two months. For information, contact David J. Miller at (716) 886-0142 or Cate Leger at Northeast-Midwest Institute (202) 544-5200. □

In The Public Interest

By Richard Lippes and Paul Muldoon

Q: A government agency recently initiated a suit against an industrial polluter whose landfill continues to leach dangerous chemicals which are affecting the quality of the community's water supplies, as well as causing other environmental harm to the detriment of the local tourist business. We are afraid the government is not pursuing the action as rigorously as it could and that the final remedial plan emanating from the suit will not be sufficient to protect the environment. As a community-based environmental organization, what can we do?

A: In the above question, there are essentially two options available to the environmental group. The group can either initiate its own action against the polluter or "intervene" in the existing government action. The first option, though, raises a number of difficulties.

Foremost, the group will have to be careful to base their claim in such a way to ensure that they will have "standing" or status before the court. The general rule is that those directly affected by the polluting activities of others have the right to go to court to halt the activities and seek compensation for the injuries which result from them. Some jurisdictions, particularly in Canada, do not allow groups or individuals to assert claims for "public wrongs" (that is, wrongs against the community as a whole). To overcome this problem, many jurisdictions have enacted statutes to give groups or individuals rights to protect the environment generally, and not just when private rights are infringed upon.

If standing is not a problem, an independent suit may still not be possible, since some jurisdictions will not allow private suits if the government is "diligently" pursuing a claim on the same or similar grounds. If an action is initiated, often the courts will con-

solidate both the governmental and private actions to avoid duplication of proceedings and inconsistent results.

The second option is for the group to "intervene" in the action. There are two types of intervention in both the Canadian and U.S. courts. The group can intervene as an "amicus" (a friend of the court). Usually, all of the rights of the amicus are determined exclusively by the trial judge. At times, the amicus can present evidence, cross-examine, and submit arguments. Often, though, the amicus' role is limited to one of submitting a brief or argument to the court.

Apart from amicus, the environmental group could also intervene to become a "party" to the proceeding. Added party intervention gives the intervenor essentially the same rights as the original parties to the proceeding. By intervening, the environmental group can test the evidence of the other parties and fully express its concern. Generally, added party intervention will be granted if the proposed intervenors can demonstrate an interest in the subject matter of the proceeding and that their viewpoint is different or not fully represented in the hearing. In some jurisdictions, where a private suit was prevented because of the government action, special provisions are in place to allow groups and individuals to intervene more readily.

While the concept of intervention has been utilized in the U.S. for some time, changes in Ontario law have only recently made this avenue readily available to groups in that province.

Intervention will not guarantee the proper result, but it will assist individuals and groups in ensuring their voice are heard before those ultimately making the environmental decision.

Finally, the environmental group can bring a common law tort action for damages that have been incurred and to stop the continuing pollution. Next issue, we will deal with this option. □

Free Trade Act Vs. Diversion

Continued from page 1

Although Canada's 1987 Water Policy suggests a move away from the export option, GRANDCo has every reason to believe the earlier positions of Reisman, Bourassa and Mulroney. This is supported by the Free Trade Agreement.

The text of the Free Trade Agreement (FTA) explicitly excludes some things. However, despite the policy statements with respect to water, water is included both implicitly and explicitly.

The evidence that the FTA implicitly includes water begins with the term "good". Article 105 states "Each Party shall, to the extent provided in this Agreement, accord national treatment with respect to trade in goods and services." Article 408 (export taxes) applies to the "export of a good." Article 201:1 states that "goods of a party means domestic products as these are understood in the General Agreement of Tariffs and Trade [GATT]." Tariffs covering water have been included for many years in the Schedules annexed to the GATT. Also, GATT has adopted the Harmonized System for classifying goods for custom tariff and other purposes, and it contains an item for waters. It is beyond reasonable doubt that GATT understands water to be a "good."

The explicit evidence that inter-Basin waters are included in the FTA is that tariff item 22.01, which is in both the Canadian and U.S. Tariff Schedules annexed to the Agreement as well as the Harmonized System, includes "all natural waters." Any good covered by a tariff item annexed to the FTA is subject to the provisions of the Agreement itself.

If implemented, the FTA would over-

ride any policy that conflicts with it. A unilateral policy statement made by the federal, provincial or state governments does not change the rights and obligations set out in the FTA. Thus, an investigation of the implications is needed. For example, there are nine Canada-U.S. treaties for boundary waterways, including the Boundary Waters Treaty of 1909 which established the International Joint Commission and set the dispute resolution mechanisms for U.S.-Canada boundary waters of the two countries. Does the FTA affect these agreements and, if so, how? Until this is properly addressed, the future for the Great Lakes and especially Canadian waters, remains in serious doubt. It is in the best interest of all peoples living in the Great Lakes Basin to have clear answers well before the FTA is implemented. □

ERRATUM

On page 4 of the Spring 1988 newsletter, the third paragraph of "Lake Trout Decline Still a Mystery," should read "the Great Lakes used to yield an estimated 13,000,000 to 15,000,000 pounds of lake trout..." We regret the omission.

LAKE LEVEL UPDATE

The decline in Great Lakes water levels continued for all the lakes. June 24, 1988 levels recorded by the Department of the Army were:

	Change from record June high	Since last June 24, 1987
Lake Superior	-21 in. (1986)	-8 inches
Lake Mich.-Hur.	-26 (1986)	-16
Lake St. Clair	-26 (1986)	-17
Lake Erie	-27 (1986)	-17
Lake Ontario	-34 (1952)	-3

Join Us!
*United! Together we can protect and promote
our common treasure -- the Great Lakes Basin.*

Name: _____
Organization: _____
Address & City: _____
State/Province: _____ Zip/Postal Code: _____
Phone: () _____

- ☐ Individual Membership (\$15.00)
☐ Organizational Membership (\$100.00)

Information Request:

- ☐ By-Laws ☐ Member Organizations
☐ Resolutions ☐ Other (Please specify)

Would you be interested in volunteering for Great Lakes United?

☐ Yes ☐ No

Time Available? _____

Please return this form with checks payable to:

Great Lakes United
Cassidy Hall
1300 Elmwood Avenue
Buffalo, NY 14222

For additional information, send request to the above address or contact:

David J. Miller, Executive Director
(716) 886-0142



The Fight for a Canadian Environmental Bill of Rights

By Paul Muldoon, Energy Probe

"I wish I could sue the bastards, but I can't!" More than an emotional out cry, the sentiment represents a legal reality. With increasing frequency, pollution victims, public interest groups and concerned individuals are trying to resort to courts and administrative tribunals to stop industry and governments from degrading the Canadian environment.

They are finding, however, that a number of obstacles leave them sitting on the courthouse steps, rather than in the courtroom. Meanwhile, in the meeting room, bureaucrats and industry have free rein to negotiate Canada's environmental quality.

An Environmental Bill of Rights is a law that seeks to remove these obstacles to court actions and to ensure public participation in the environmental decision-making process. Environmentalists in Canada have been pressing for such legislation since the early 1970s, and in recent years, they tried to enact an Environmental Bill of Rights at both the federal and provincial levels of government. While they have so far gained only one qualified success (Quebec's Environmental Quality Act), environmentalists are increasingly optimistic that the idea's time has finally come.

In most of Canada, courts usually restrict the right to use the courts to those people who are seeking to protect their personal interests, especially their property or commercial interests. When an entire community or area suffers similarly from pollution, individuals do not have the right to bring a public nuisance action in civil courts. In legal terms, the individual lacks "standing" to sue -- neither the individuals nor a group can go to court to defend the environment for its own sake. Instead,

only the attorney general can act on behalf of the public generally, and the concerned public is left hoping that the government will take some action.

By perpetrating the distinction between a private and a public wrong, an undesirable signal is sent to polluters -- if you are going to pollute, do it big; pollute the whole community.

Even if victims can gain standing, in order to win, they still need to prove a direct link between the polluter and the harm. That can be an impossible task, because of multiple sources of emissions, delayed health effects, and the unclear identity of causative agents.

One way to dismantle this barrier to "standing" is to entrench a constitutionally-guaranteed right to environmental quality. Because the 1981 Charter of Rights and Freedoms does not now include the right to health, the next best solution would be to enact an Environmental Bill of Rights.

An Environmental Bill of Rights is first and foremost a statutory guarantee of the right of each person to a healthy environment and the duty of governments to ensure this healthy environment in their role as the trustees of all public lands, waters, and resources for the benefit of present and future generations. Such a Bill of Rights would vest each person with two legal rights:

- the right to sue in civil courts for an activity that is causing or could cause significant environmental damage, without having to show any personal harm; and
- the right to participate in environmental decision-making processes by allowing any person to request a public hearing that reviews environmental standards or permit applications.

With standing and an array of statutory rights, those defending the en-

vironment would gain some clout -- the ability to go to a court or tribunal and have the matter settled by an impartial body. Without it, environmental proponents have few bargaining chips. As one commentator noted:

"[T]he polluter's use [of the environment] can stop the swimmer from using and enjoying a lake, but the swimmer's use cannot stop the polluter from polluting the lake."

Section 19.1 of Quebec's Environment Quality Act (EQA) is the first "qualified" Environmental Rights Bill. While it grants every Quebec resident the "right to a healthy environment ...," the right is qualified because standing is possible only when existing regulations are being violated.

The EQA does, however, expedite a way for groups and individuals to go to court to enforce the existing environmental laws. This procedure vests Quebec's residents with more environmental rights than other Canadians enjoy. Still, it falls short of the rights that would be granted under a more comprehensive Environmental Bill of Rights, like Ontario's proposed Bill 13.

Bill 13, the "Ontario Environmental Rights Act," introduced in 1987, would grant every Ontario resident an unqualified right to a healthy environment and would allow any person to bring a legal action to halt activities that may harm the environment. Under this Bill, the court would be empowered to order damages be paid for harm already occurred, or even order the polluter to install pollution control equipment.

The Bill has twisted and turned its way through the legislative process. As of December 1987, all three party leaders agreed with it in principle and voted to send it to a legislative committee for review. The ball is now in the Liberal court to ensure the eventual passage of the bill or introduce their own version of an environmental bill of rights.

Hopes for a federal law were most recently raised when Minister of the Environment Thomas McMillan boasted that his proposed Canadian Environmental Protection Act would include "an environmental bill of rights" for all Canadians. The 1986 so-called draft "bill of rights", however, turned out to be part of a legally unenforceable, essentially symbolic, preamble.

An Environmental Bill of Rights, in essence, vests each person with the right to live in a healthful environment, and make polluters and governments accountable should they infringe upon that right. Those who resist this initiative really fear that it may change the rules of the environmental decision-making game by empowering the disenfranchised -- namely, the public. In the end, the fight for an Environmental Bill of Rights seeks to ensure that the individuals, groups, companies, and the government are playing by the same rules. This would seem to be a reasonable goal in a democratic society.

(Adapted with permission from a 1988 article in *Alternatives* journal, Vol. 15, No 2.)

Paul Muldoon is a lawyer for Toronto-based Energy Probe and is on the GLU Board of Directors. □

GLU Moves Into New Home

Great Lakes United has a new home! After three and a half years at Medaille College, GLU moved its headquarters to the campus of Buffalo State College on July 1.

The college, formally known as State University College at Buffalo, is located on Elmwood Avenue in Buffalo, N.Y. GLU President Frederick L. Brown noted, "while our ties to Medaille will remain strong, this new opportunity offers great promise to the growth of Great Lakes United."

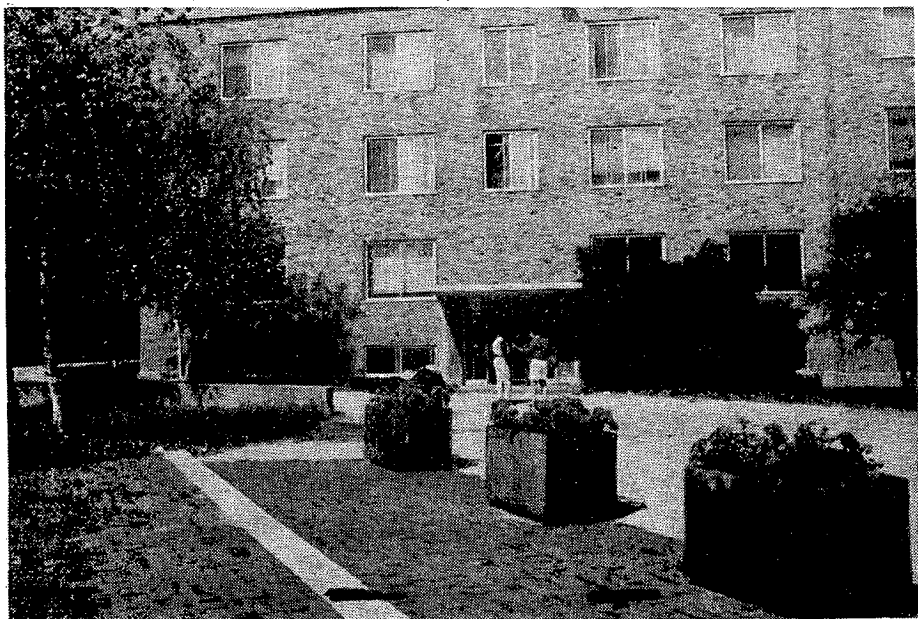
Great Lakes United deeply appreciates the hospitality of Medaille College, which provided GLU with its first permanent headquarters. GLU's need to expand, combined with Medaille's similar need, made the move necessary.

GLU's educational and informational programs to encourage public support and action on Great Lakes environmental issues are consistent with Buffalo State's long-range plans to establish a Center for Environmental Research and Education and the current work of its

Great Lakes Laboratory and Fisheries and Ecology Program. Buffalo State College President D. Bruce Johnstone noted, "Great Lakes United has grown into an effective environmental organization. We are proud to host its headquarters on our campus," he added. In August, Dr. Johnstone became Chancellor of the State University of New York System, the largest university system in the U.S.

The move to "Buffalo State" will benefit GLU providing larger office space, as well as access to more extensive library and conference facilities. We will also be adjacent to the Great Lakes Laboratory, an important research facility and a GLU member.

Only 3/4 mile from the Niagara River, Buffalo State has an attractive, 105-acre campus with 10,000 students. Founded in 1871, it has an active environmental program, among a wide range of other studies. While our phone number remains the same, please note our new address when sending correspondence.



Great Lakes United's new international headquarters at Cassety Hall, located on SUNY College at Buffalo's campus in Buffalo, NY.

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