Focus on International Joint Commission Activities

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UWindsor Administrator
University of Windsor, scholarship@uwindsor.ca

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FOCUS
On Great Lakes Water Quality

Recognition of Great Lakes Importance

In recent months several important conferences and events have focused attention on the value and importance of the Great Lakes.

GOVERNORS' CONFERENCE

The latest event was the Midwest Governors' Conference at Mackinac Island, Michigan, June 10-11. The eight States and the Provinces of Ontario and Quebec were represented.

Eight resolutions were adopted by the conference addressing: 1) Great Lakes Water Quality Agreement; 2) Great Lakes water quality; 3) diversions; 4) control of consumptive uses of Great Lakes water; 5) Great Lakes institutional arrangements; 6) Soo Locks; 7) Great Lakes Cargo Marketing Corporation, and 8) maritime cost recovery and user charges.

Great Lakes Water Quality

Summary: Seek federal/state arrangements and adequate funds directed toward meeting Great Lakes Water Quality Agreement objectives.

WHEREAS, the United States and Canada have entered into an Agreement to protect the water quality of the Great Lakes; and

WHEREAS, it is the position of the Great Lakes States that such an Agreement is vital and necessary to assure the continued high quality of the Great Lakes; and

WHEREAS, Ontario and Canada have a federal-provincial agreement which funds their obligation to the Great Lakes Water Quality Agreement; and

WHEREAS, the Comptroller General of the United States has found that the United States is having difficullty meeting its commitments under the Agreement; and

WHEREAS, the Great Lakes States were not signatories to the 1972 and 1978 Great Lakes Water Quality Agreement; and

WHEREAS, many of the programs necessary to meet the objectives of the Agreement are the responsibilities of the states; and

WHEREAS, it is clear that United States funding, as now recommended, will not be adequate to meet Agreement objectives related to municipal waste treatment water quality programs, Great Lakes monitoring and Great Lakes research; and

WHEREAS, no mechanism exists that relates the responsibilities of the government of the United States and the governments of the Great Lakes States to meet the objectives of the Great Lakes Water Quality Agreement,

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NOW, THEREFORE BE IT RESOLVED, by the undersigned states, that there be transmitted to the President and the United States Congress a request for the establishment of a formal arrangement between the United States Government and the Great Lakes States to meet the objectives of the Great Lakes Water Quality Agreement, and that adequate funding be directed to maintain research, monitoring and programs essential to the implementation of the terms of the Agreement.

Great Lakes Water Quality

Summary: Seek uniform Basinwide contaminant standards for ecosystem quality and have IJC establish protocols for monitoring toxic substances in fish.

WHEREAS, the Great Lakes represent a food, water, recreation and income generating resource for persons residing in or visiting the basin area; and

WHEREAS, the quality of this resource should be recognized and evaluated on an ongoing basis; and

WHEREAS, the issue of possible chemical contaminants is of particular importance because the presence of such contaminants can directly impact humans using the water or consuming food obtained from the waters; and

WHEREAS, atmospheric deposition of contaminants on and in the Great Lakes Basin is becoming an issue of increasing basin-wide concern; and

WHEREAS, the governmental jurisdictions bordering the Great Lakes have a responsibility to inform and advise the public about conditions concerning the lakes and fish obtained from the waters; and

WHEREAS, in order to expeditiously carry out this function, it is essential that the responsible agencies in all jurisdictions have access to monitoring data as it is created and to the scientific and social factors used to justify decisions resulting in public pronouncements and advisories which are issued,

NOW, THEREFORE, BE IT RESOLVED that the Governors and Premiers of the Great Lakes Region support the establishment of uniform standards for various contaminants in Great Lakes fish and water.

BE IT FURTHER RESOLVED, that the International Joint Commission is hereby urged to develop protocols, in conjunction with the appropriate state, provincial, and federal agencies, to coordinate and standardize the monitoring of toxic substance levels in Great Lakes fish.

Diversions

Summary: Object to new out-of-Basin transfer of Great Lakes waters.

WHEREAS, the States and Provinces in the Great Lakes Basin have been blessed with an incomparable water resource; and

WHEREAS, increasing evidence points to severe freshwater shortages in other parts of the United states, shortages that are already apparent and are expected to reach major proportions in the next decade; and

WHEREAS, the search has already begun for alternative sources of water for those regions, with support for some of that search coming from the United States Federal Government; and

WHEREAS, the water of the Great Lakes is needed to meet the current and future domestic, industrial, navigational, power, agricultural and recreational needs of the Great Lakes and St. Lawrence region;

WHEREAS, the findings of the International Joint Commission's Great Lakes Diversions and Consumptive Uses Study Board indicate that we will be faced with substantial increases in consumptive uses within the Basin over the next half century to meet our own growing needs; and

WHEREAS, the diversion of water from the Great Lakes Basin to other water basins reduces the net supply of water available to the Great Lakes Basin and lowers lake levels; and

WHEREAS, lowered lake levels and reduction of flows in connecting channels could result in serious losses in water supply, navigation and recreational values causing critical economic, social and environmental problems adverse to the people of the Great Lakes States and Provinces; and

WHEREAS, the wise use and development of the water resources of the Great Lakes is essential to the economy and prosperity of the Great Lakes and St. Lawrence States and Provinces; and

WHEREAS, the diversion of Great Lakes waters to other regions of the United States or Canada could result in severe restrictions in the growth and development of the Great Lakes Region; and

WHEREAS, it makes far more sense for development to occur where abundant supplies of fresh water already exist, rather than moving the water to other regions; and

International Joint Commission
United States and Canada
Great Lakes Regional Office

Editor: Patricia Bonner
Design & Layout: Yvan Gagné

For Additional Copies:
Write to Patricia Bonner, Editor, Focus on Great Lakes Water Quality, IJC Regional Office, 100 Ouellette Ave., Windsor, Ontario, Canada N9A 6T3

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WHEREAS, we share in the responsibility for the stewardship of the tremendous natural resources which the Great Lakes provide;

WHEREAS, the Boundary Waters Treaty of 1909 requires that any change in the flows and levels of any boundary waters is subject to approval by the federal governments of both the United States and Canada.

NOW THEREFORE BE IT RESOLVED by the Great Lakes States and Provinces that based on existing information that they object to any new diversion of Great Lakes water for use outside the Great Lakes States and Provinces; and

BE IT FURTHER RESOLVED that no future diversions be approved until a thorough assessment, involving all jurisdictions continguous to the Great Lakes, of the impacts on navigation, power generation, environment and socio-economic development for all said jurisdictions takes place.

BE IT FURTHER RESOLVED that any future decision on the diversion of Great Lakes water for use outside of the Great Lakes States and Provinces be made only with the concurrence of the Great Lakes States and the United States Federal Govenment and the Federal Government of Canada and with the Provinces contiguous to the Great Lakes System.

Control of Consumptive Use of Great Lakes Water

Summary: Request that IJC monitor consumptive uses and study possible control measures for managing such uses.

WHEREAS, the International Great Lakes Diversions and Consumptive Uses Study Board of the International Joint Commission has projected that consumptive use of Great Lakes water

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Great Lakes Water Quality

The First Decade

April 15, 1982 was the 10th anniversary of the signing of the 1972 Great Lakes Water Quality Agreement, a monument to Canada-U.S. cooperation in environmental management whose success paved the way for the subsequent signing of a revised and expanded version, the 1978 Great Lakes Water Quality Agreement.

Cooperation between the two countries sharing one of the world's major aquatic resources has lengthy tradition, dating back to their signing of the 1909 Boundary Waters Treaty. During this period, the International Joint Commission (created by the Treaty) played a vital role in settling problems relating to transboundary waters, and in the past decade, its role has become even more important as the six Commissioners (three each from Canada and the U.S.) have worked to help the two governments achieve the objectives set out in the 1972, and later, the 1978 Agreements.

The signing of the latter Agreement has undoubtedly been the major milestone of the last decade, signalling as it did a marked change in focus. While the 1972 Agreement concentrated on the cleanup of point source (industrial and municipal) discharges of pollutants, especially phosphorus, the 1978 Agreement incorporated a far broader approach. Recognition was accorded to the actual or potential impacts of a wide range of toxic substances in the air, land and plant and animal life of the Great Lakes System on the lakes themselves, and recommendations and objectives were established based on this recognition of the Great Lakes as an ecosystem.

This growing emphasis on non-point sources of contamination was given impetus by the findings of a major, five-year study delivered to the IJC in 1978 by its Pollution from Land Use Activities Reference Group (PLUARG). In addition to revealing extensive Great Lakes pollution from diffuse (non-point) sources, the Reference Group also called attention to atmospheric deposition of pollutants as a significant source of contamination. Increasing attention has consequently been given to issues such as long range transport of airborne pollutants, the environmental impact of energy developments on the Great Lakes System, and toxic substances control programs, especially relating to industrial waste management practices (most notably in the Niagara River, which the IJC has designated as a high-priority area for cleanup).

As the focus of the Great Lakes Water Quality Agreement has been broadened, so has the role of the IJC. Its primary functions continue to be monitoring, assessment, and reporting to the two Governments on the state of the Great Lakes ecosystem and the adequacy and effectiveness of measures being taken to meet the terms of the Agreement. However,the ecosystem approach has enabled it to expand the range of matters which it may examine on the grounds of their possible impacts on the overall system (and ultimately on the lakes themselves).

This past dynamic decade has also seen continued work on issues such as Great Lakes shipping, dredging and water levels (in 1979 a new Great Lakes Levels Advisory Board was formed to assist the Commission). One of the major current concerns, however, has been the effect that recent U.S. government spending cuts may have on Great Lakes programs. Reductions in funding have already taken their toll on some U.S. information and research programs and activities, and more cutbacks are anticipated.

As Great Lakes Water Quality Agreement work begins its second decade, there is concern as to whether

past levels of achievement will be maintained. (Reprinted with the permission of *Eco/Log Week* from its April 23, 1982 issue).

Great Lakes Water Quality

The Second Decade

CANADIANS RENEW GREAT LAKES AGREEMENT

On July 12, in Toronto, Federal Environment Minister John Roberts and Keith Norton, Minister of the Environment for Ontario, signed the 1982 Canada-Ontario Great Lakes Water Quality Agreement.

Mr. Roberts said, "signing this Agreement highlights the high priority that Canada places on cleaning up the Great Lakes". Noting the cooperative nature of the Agreement, Mr. Norton said it "formalizes Ontario's pledge to preserve, maintain and improve, where necessary, the quality of the world's greatest inland waterway."

A federal-provincial scheme for financing and upgrading sewage treatment facilities is part of the 1982 Agreement. The plan provides $65 million in federal money over three years to Great Lakes Basin municipalities to supplement Ontario and municipalities' expenditures. Environment Canada also has pledged to fund one-half — up to $1.2 million — for extra surveillance work to meet requirements of the 1978 Canada-United States Great Lakes Water Quality Agreement.

The Canada-Ontario Great Lakes Water Quality Agreement not only renews existing obligations but also has programs directed at controlling toxic substances and pledges both jurisdictions to continue discussions of development of programs aimed at controlling and reducing nonpoint pollution of the Great Lakes from urban and rural land drainage. This is the mechanism which would be used for implementing recommendations made by IJC to the Governments of the United States and Canada as a result of the Pollution from Land Use Activities Reference.

UNITED STATES GREAT LAKES COMMITMENT QUESTIONED

According to a May 21, 1982 General Accounting Office report to the U.S. Congress, "A More Comprehensive Approach is Needed To Clean Up The Great Lakes" (CED-82-63), the United States is not fully meeting its Water Quality Agreement commitments. GAO made recommendations to Congress and to the Environmental Protection Agency (EPA).

To Congress GAO suggested that, with the Secretary of State and the Administrator, EPA, it determine whether "the Great Lakes Water Quality Agreement commitments are overly ambitious and sufficient funding to meet Agreement objectives and commitments can be provided, given current economic and budgetary conditions." GAO also recommended that Congress pass the Great Lakes Protection Act, thereby establishing a Great Lakes research office in the National Oceanic and Atmospheric Administration (NOAA) within the Department of Commerce.

GAO recommends that the U.S. EPA: develop a comprehensive plan and strategy to control phosphorus, non-point and toxic pollution problems in the Region; elevate the Great Lakes National Program Office within EPA and give it the necessary resources and authority to direct federal water quality activities; revise its interagency agreements with the Army Corps of Engineers and the Soil Conservation Service to include other agencies with responsibilities for nonpoint programs affecting the Great Lakes; enter into an interagency agreement with NOAA to define the duties and responsibilities of each agency concerning Great Lakes research.

A second report, this one directed to the Secretary of State, "International Joint Commission Water Quality Activities Need Greater U.S Government Support and Involvement" (CED-82-97, June 23, 1982), states that the U.S. Government "has not adequately supported or been sufficiently involved in the water quality activities of IJC. It states that "To help the Commission to more effectively carry out its advisory role, the United States needs to (1) develop and implement a system to follow up on IJC reports and recommendations and provide timely written responses to IJC, (2) develop and formally transmit to the President of the United States a policy and procedure for establishing staggered fixed terms for U.S. IJC commissioners", and (3) involve key Federal agencies in Commission advisory board activities.

Copies of the two reports can be obtained from: GAO, Document Handling and Information Services Facility, Box 6015, Gaithersburg, MD 20760; (202) 275-6241.

BOOKSHELF

Citizens for a Better Environment (CBE) has published a Citizens Guide "How to Protect Michigan's Environment Through Surface Water Discharge Permits" as part of its Toxics Waterwatch activity. It's designed to help the average citizen prepare effective comments on any National Pollutant Discharge Elimination System permit. Copies from CBE, 59 E. Van Buren St., Suite 1600, Chicago, Illinois 60605; (312) 939-1530.

* * * * *

The Lands Directorate of Environment Canada has published a 200-page

casebook documenting energy-related land use planning practices in North America. *Planning Land to Conserve Energy: 40 Case Studies from Canada and the United States* focuses on responses to energy problems primarily in urban areas, although regional and rural examples are provided. The study is available free of charge from the Lands Directorate, Environment Canada, Ottawa, Ontario K1A 0E7.

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The 1982 editions of the Ontario publication "Guide to Eating Sport Fish" are available from Ontario's Ministry of the Environment (MOE). These advisories, published annually since 1978, report the accumulated results of tests for contaminants in fish from Ontario lakes and rivers. Consumption guidelines recommended by environmental medical specialists in the Ministry of Labour are based on the results of more than 70,000 fish analyses performed primarily by the MOE Laboratory from more than 1,100 bodies of water, including 139 stations on the Great Lakes.

Copies of the bilingual (handbooks) "Guide to Eating Ontario Sport Fish," (Southern Ontario and the Great Lakes edition and northern Ontario and Lakes Superior and Huron edition) are available at no charge from regional and district offices of the ministries of the Environment, Natural Resources and Northern Affairs, from the Liquor Control Board of Ontario, and Brewers Retail outlets in vacation areas as long as supplies last.

* * * * *

Water Quality Guidelines for Development Plan Reviews: A Handbook for Local Officials in Southeast Michigan, though specific to Michigan, gives a step by step explanation of how local governments can review site plans and subdivision plats to address water quality problems related to stormwater runoff, erosion and sedimentation and septic systems. Copies of the 121-page book are available for $5 (US) from SEMCOG, 800 Book Building, Detroit, MI 48226.

Recognition ... cont'd from pg. 3

will increase from the 1975 rate of 4,900 cfs to an amount which would range from approximately 16,000 cfs to 37,000 cfs by the year 2035; and

WHEREAS, the consumptive use of Great Lakes water reduces the net water supply to the lakes, thereby lowering lake levels in the unregulated lakes of Michigan, Huron and Erie anywhere from 0.4 feet to as much as 1.13 feet; and

WHEREAS, this lowering of lake levels will cause minor benefits to coastal zone interests and huge losses to navigation and power interests such that the net economic loss to the region could be well in excess of $200 million annually by the year 2035; and

WHEREAS, the Diversions and Consumptive Uses Study Board of the International Joint Commission has concluded that "consumptive uses should be periodically monitored and their impacts, along with various control strategies, studied...",

NOW, THEREFORE, BE IT RESOLVED that the Great Lakes Governors and Premiers request that the Governments of the United States and Canada send a reference to the International Joint Commission requesting them to monitor consumptive use of Great Lakes water and study possible control measures (along with their impacts) for managing consumptive uses of Great Lakes water.

Great Lakes Institutional Arrangements

Summary: Form group to recommend ways to strengthen present institutional framework.

WHEREAS, there is a history of cooperation among and between the Provinces and States regarding Great Lakes issues; and

WHEREAS, increasing demands are being placed on the Great Lakes now and in the foreseeable future; and

WHEREAS, the Premiers and Governors agree that the present institutional arrangements for cooperation among and between the Great Lakes States, Provinces and Federal Governments need to be strengthened to effectively address such issues as navigation, water quality, toxic contaminants, interbasin diversions and consumption uses, and regional economic development; and

WHEREAS, there are a number of institutional arrangements that exist at various levels of government, both national and international; and

WHEREAS, existing mechanisms such as the International Joint Commission and the Great Lakes Commission might be utilized to improve the coordination and cooperation among and between the States and Provinces; and

WHEREAS, the cooperative mechanisms provided by each of these arrangements have varying advantages and disadvantages.

NOW, THEREFORE, BE IT RESOLVED that the Great Lakes States and Provinces shall be invited to appoint a working task force to develop specific recommendations as to how to strengthen Great Lakes Basin institutional arrangements.

Soo Locks

Summary: Duplicate large lock at Soo, but mitigate environmental impacts.

WHEREAS, the United States Federal Government has owned, maintained, and operated the locks at Sault Ste. Marie since 1881; and

WHEREAS, marine traffic using the Soo Locks has continued to grow steadily and is now approximately 85 million

tons per year; and
WHEREAS, such traffic includes large quantities of iron ore, grain and coal which are the most basic commodities to the national economy; and
WHEREAS, the sizes of the largest vessels using the Soo Locks have increased so that there are 26 vessels in the United States Fleet which must use the Poe Lock and which account for 46 percent of the Fleet's capacity; and
WHEREAS, incidents of damage and potential damage to the Poe Lock and other locks in the system illustrate a danger that the single large lock could be disabled, resulting in severe economic consequences;
NOW, THEREFORE, BE IT RESOLVED that the Governors of the Great Lakes States strongly urge the the Federal Govenment duplicate the capacity of the Poe Lock by renovation of either the Davis or Sabin Locks to dimensions similar to those of the Poe Lock, and that appropriate environmental mitigation measures be an integral part of the design, construction and operation of the second large lock.

Great Lakes Cargo Marketing Corporation

Summary: Support Corporation, and urge greater public and private maritime interests' participation.

WHEREAS, the Great Lakes maritime industry has over the past decade experienced a severe reduction in vessel sailings and cargo handled; and
WHEREAS, the efforts of individual ports and states have not been successful in reversing this decline; and
WHEREAS, each of the Great Lakes States, ports and private industry has invested substantial amounts in the development of port facilities to accommodate overseas cargoes, and
WHEREAS, the Great Lakes/St. Lawrence Seaway System provides the most cost effective means to ship to many overseas trade areas, and
WHEREAS, the Great Lakes Cargo Marketing Corporation (GLCMC) represents a unique opportunity for the entire Great Lakes maritime industry to sponsor a coordinated, unified approach to promote the attributes of the Great Lakes, to market the transportation services and to revitalize the shipping industry; and
WHEREAS, a start up date of January 1, 1982 has been set for the GLCMC; and
WHEREAS, the GLCMC has received pledges from members for approximately one-half the first year budget;
NOW, THEREFORE, BE IT RESOLVED:
1. **That the Great Lakes Governors support the formation of the Great Lakes Cargo Marketing Corporation; and,**
2. **That the Governors call for increased participation in the GLCMC by the private and public maritime interests on the Great Lakes.**

Maritime Cost Recovery and User Charges

Summary: Support, with certain reservations, user fees to maintain navigation systems.

WHEREAS, the Federal Administration has proposed ending its 200-year-old responsibility for the nation's deep-draft port system by the imposition of user charges to recover costs; and
WHEREAS, improved deep-draft ports are essential components of the nation's efforts to increase foreign trade and vitally important for stimulating the national economy; and
WHEREAS, each year the U.S. deep draft ports handle the shipment of approximately one billion tons of international cargoes and 500 million tons of domestic cargoes; and
WHEREAS, fundamental changes in port financing will induce modal shifts and port traffic consolidation which, in turn, will cause social and economic disruptions and dislocations; and
WHEREAS, the Great Lakes/St. Lawrence Seaway navigation system is unique in having paid tolls and user fees since the seaway's deepening in 1959; and
WHEREAS, there is a pressing need to shorten the navigation project development process which can take 25 years from project identification to completion; and
WHEREAS, existing customs duties now provide approximately $5.5 billion per year in revenues, of which a substantial proportion is collected in the nation's deep-draft ports.
NOW, THEREFORE, BE IT RESOLVED that the Governors of the Great Lakes States reaffirm their belief and understanding of the federal responsibility to provide and maintain adequate public navigation channels in the nation's ports and harbors and support in concept the imposition of user charges to fund the development and maintenance of the navigation system based on the following points:
1. **That, following a thorough study of potential impacts, a uniform, national system of federally administered and collected user fees, applicable to all commercial traffic, both internatonal and domestic, should be established to cover the costs of providing and maintaining public navigation channels.**
2. **User fees collected at any particular port should not determine the priority of dredging to be undertaken at that port, nor should user fees be set at levels which would create competitive disadvantages to particular commodities or ports.**
3. **A national trust fund should be established to receive and disburse user fees. Such a trust fund should be used for financing deep-draft**

ports and Great Lakes connecting channels separate from the inland waterway system and should not be used for projects exceeding 45 feet in depth.

4. **Suggest that consideration be given to the use of a portion of customs revenues to be placed in the national trust fund and used to support the costs of providing and maintaining the deep-draft navigation system.**
5. **The St. Lawrence Seaway's outstanding capital construction debt, estimated at approximately $110 million, should be cancelled and the seaway's operations, maintenance, and improvements should be financed from the national trust fund to be established. If seaway operations and maintenance are to be financed from continuing tolls, such tolls should be applied as credits toward the payment of user fees levied in Great Lakes ports.**
6. **Procedures should be established to shorten approval and implementation of all navigation projects, while ensuring that adequate environmental safeguards are maintained.**
7. **That because of the international nature of the Great Lakes System, consultation with the Canadian governments should occur before the implementation of user fees.**

CITIZENS' CONFERENCE

Only two weeks prior to the Governors Conference the Joyce Foundation and Michigan United Conservation Clubs sponsored a conference on Mackinac. Sixty some invitees talked about Great Lakes issues and whether and how to organize, on an international basis, to meet the challenges of the 1980's.

As a result of that meeting a Great Lakes Charter was adopted and a bylaws committee formed. The charter is as follows:

WHEREAS, the Great Lakes are the greatest fresh water system on earth; and

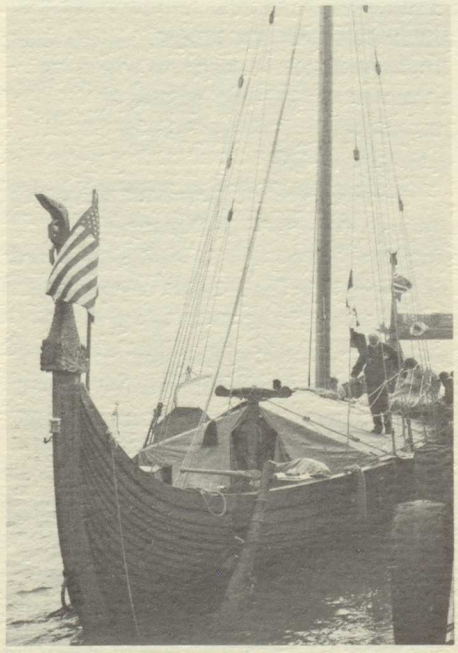
WHEREAS, 50 million people live within and influence the Great Lakes ecosystem and millions more receive economic, recreational and spiritual benefits from them; and

WHEREAS, there is a need for economic strategies compatible with maintenance of the natural system; and

WHEREAS, there is a need for cooperative and coordinated citizen action on behalf of the Great Lakes; and

WHEREAS, we have agreed on the need for such action on the critical issues of:

- Water quality;
- Hazardous and toxic substances;
- Atmospheric deposition;
- Regulation of levels and flows including diversions;



In May, Hjemkomst, a 76-foot replica of a Viking ship stopped in Windsor on its 5,934 mile journey from Duluth, Minnesota to Bergen, Norway. Robert Asp built the ship from 1971 to 1980. He died two months after its completion. It was his four children with eight others and skipper, Norwegian Eric Rudstrom, who lived out his dream. (Photo by Y. Gagne).

- Fish and wildlife management and habitat protection;
- Energy development and distribution;
- Land quality and land use practices;
- Navigation issues such as winter navigation, additional locks, channel modifications, etc; and
- Public support for Great Lakes ecosystem research, education, and management:

THEREFORE, we resolve to establish a Great Lakes organization to provide an information exchange and a forum for working together on these issues.

On June 29 the bylaws committee gathered for a full day to develop a preliminary draft. There are tentative plans for, a bylaws ratification meeting to be held this fall. All interested individuals and organizations will be invited to attend. At that session, a steering Committee will be formed to recommend a slate of officers, develop a budget and funding proposals, and prepare formal articles of incorporation. People attending the ratification meeting will be able to take the approved bylaws back to their organizations so that decisions can be made regarding affiliation with the new group. For details contact: Wayne Schmidt, Michigan United Conservation Clubs, P. O. Box 30235, Lansing, Michigan 48909; (517) 371-1041.

GREAT LAKES COMMISSION

In May the Great Lakes Commission (GLC) met in Toronto and developed several resolutions on similar topics. The Commission voiced objection to any new Great Lakes diversions urged that the Governors do the same, and requested the Governments of Canada and the United States to refer the monitoring and consumptive uses and study of control measures for managing those uses to the IJC. The GLC urged the 97th Congress "to support the continuation and adequate funding of federally funded Great Lakes

research agencies and programs" and took action to transfer $75,000 to the Great Lakes Cargo Marketing Corporation to help begin its operation.

WATER DIVERSION

On May 10-11 in Milwaukee the State of Wisconsin's Coastal Management Council sponsored a conference which focused national attention on Interbasin Transfer of Water. The majority of attendees concluded that, on a strictly economic basis, large-scale diversion of Great Lakes water to the Southwestern United States is not feasible. A point of interest is that the Southwest is not short of water per se; it lacks the water for the tremendous irrigation necessary to grow crops under semi-arid conditions. The costs of bringing water to those crops from the Great Lakes would be too great for the farmers or states to bear. Further, in all likelihood, Canada and Ontario would oppose any attempt of large-scale diversion. However, a political decision to spend federal money to underwrite building the pipelines could change everything.

All these events have received international attention. Perhaps the renewed enthusiastic commitment to the resource of the Great Lakes will keep media interested, citizens concerned, and politicians listening.

Editors Note: Please write to *Focus* about any Great Lakes Regional events which help direct national attention to the importance of the Great Lakes as an international natural resource of economic importance.

International Law or Old-Fashioned Horse Trading?:

The Case of the Disposition of Wolfe Island In the St. Lawrence River

by Michael F. Scheuer

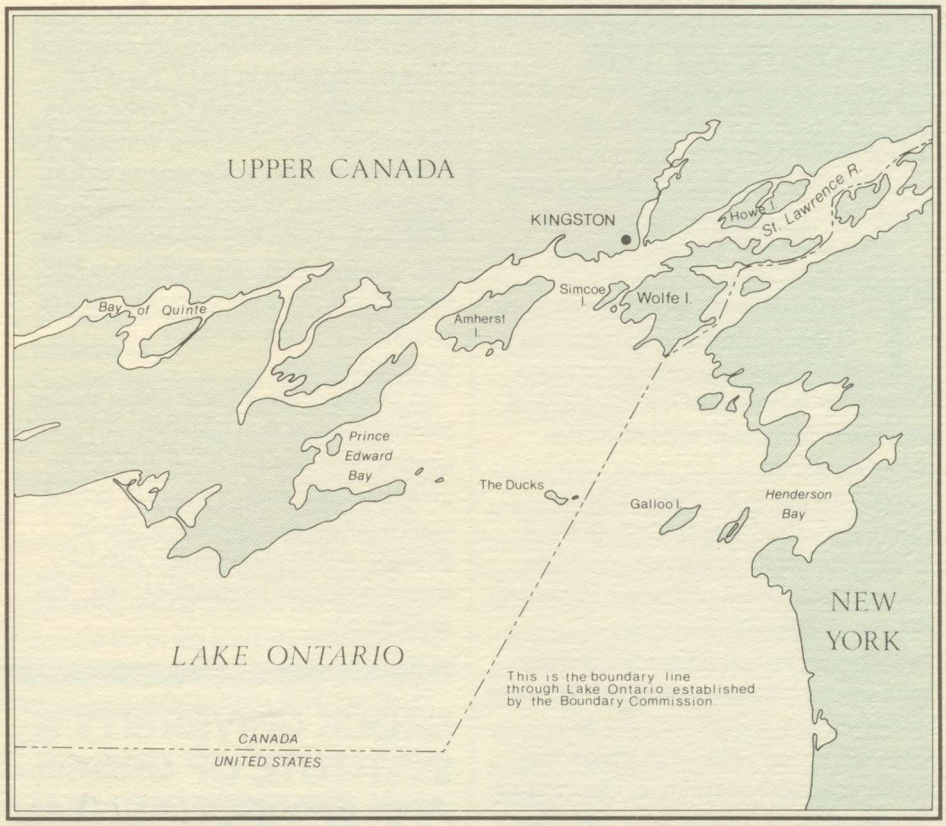
In the popular mind the conduct of international relations is apt to be thought of in terms of formal treaties and conventions which are grounded on the hoary tenets of international law. In most cases the popular conception is an accurate one. The nations of the world do their best to dress their agreements in formal and legalistic garb to give them an air of solemnity and the appearance of permanence. Behind these formalities, however, there often occurs a good deal of negotiation, wrangling, compromise and, not infrequently, the simple implementation of decisions which are governed more by the dictates of expediency than by the rules of international law.

The resolution of diplomatic squabbles through the vehicle of expediency has long been accepted as a standard method of operation in the conduct of Canadian-American relations. One case of expediency occurred just after the War of 1812 when Great Britain and the United States undertook the task of establishing the international boundary through the Great Lakes.

The Treaty of Ghent (December 1814) brought the War of 1812 to a close. It provided for the creation of four Anglo-American joint boundary commissions and assigned to them the responsibility for delineating the international boundary from Passamaquoddy Bay on the coast of Maine to the most northwestern point of the Lake of the Woods. Each of the commissions was allocated a specific section of the boundary. The commission established under Article VI of the treaty was assigned the section which ran from a point near Cornwall, Ontario through the St. Lawrence River, Lake Ontario, Lake Erie and Lake Huron to the water connecting the last mentioned lake with Lake Superior[1].

Before the start of surveying in the Spring of 1817, the two commissioners under Article VI, Peter B. Porter for the United States and Colonel John Ogilvy for Great Britain, agreed to govern their proceedings by two simple rules of procedure. The first rule involved adherence to the "middle line" rule in boundary making. In the international law current in the nineteenth century the "middle line" in any given body of water was simply defined as that line which was equidistant from both shores.[2]

The Commissioners next decided that they could not apply their first rule in a completely inflexible manner. The boundary area to which they had been assigned covered a distance of nearly 960 miles. Along this course, which consisted almost totally of bodies of water of differing shapes and sizes, lay more than two thousand islands.[3] A rigid application of the middle line rule would unavoidably divide a substantial number of the border islands into areas of British and American jurisdiction. Both Commissioners viewed this result as very undesirable in that the division of individual islands in this manner "would lead to collisions between the citizens and subjects of the two Governments, furnish facilities for breaches of the Revenue laws, and the



means of escaping from punishment for other crimes.[4]"

With these difficulties in mind the Commissioners concluded that they would modify the middle line rule by agreeing that the boundary would run entirely through the water and that no island would be divided between the two nations.[5] Whenever it was possible, therefore, the Commission would designate a middle line, but when that line threatened to divide an island into two sections the boundary line would be shifted to one side or the other in order to avoid it. In short, the Commissioners "determined that to whatever Power the greater part of an intersected island should belong, that Power should have the whole of the island."[6] The Commission proceeded in the manner described above and established a sort of "debit and credit" account of the amount of island acreage awarded to each nation as a result of the attempt to maintain a boundary which ran exclusively through the water.[7]

The efforts of the Commission's surveyors were greatly facilitated by this pair of decisions. In at least one instance, however, these guidelines proved inadequate and the Commissioners found themselves forced to render a judgement based upon what was expeditious rather than strictly upon their own rules of procedure and the norms of international law.

The point of difference which could not be adjusted according to the Commission's previously established methods arose over the question of the ownership of Wolfe Island, which lay in the St. Lawrence River about four miles off Kingston, Upper Canada. The Commissioners had initially scheduled the island to be awarded to the United States, but protests emanating from the British Government led to the cancellation of this arrangement. Britain's sudden opposition was prompted by her Admiralty's vigorous objection to American control of Wolfe Island.

As it happened, Kingston Harbour was the site of Great Britain's strongest naval installation on the Great Lakes and Americans would proceed to fortify it, thereby controlling access to and egress from the harbour. Should this occur, Britain's naval facilities at Kingston would be effectively neutralized. The Admiralty advised Anthony Barclay, who had become Britain's boundary Commissioner after the death of Colonel Ogilvy in September 1819, of its concern and requested him to make every possible effort to prevent the acquisition of Wolfe Island by the United States.[8] Barclay viewed the matter as being one of "primary concern" and after holding several conversations with Porter he was able to report to his government that he had "succeeded in inducing the American commissioner in appropriating this momentus island to Great Britain."[9] In order to obtain this result Barclay had concluded an arrangement with Porter which involved the cession of Wolfe Island by the United States in return for Britain's cession of Grand Island in the Niagara River and the Long Sault Islands, including Barnhart Island, in the St. Lawrence near Cornwall.[10]

Setting aside the rules of procedure they had earlier sanctioned, the utilization of which would have given Wolfe Island to the United States, Porter and Barclay proceeded to dispose of the potentially disrupting problem of Wolfe Island by resorting to the device of a simple exchange of territory. Control of the Long Sault Islands gave the Americans virtually complete command over navigation at that point in the river and they considered this fact to be adequate compensation for agreeing to an exchange which served to maintain and secure Britain's strategic position at Kingston Harbour.

When Porter and Barclay issued their final report in June 1822, it read as though the entire process of boundary-

making had gone smoothly and according to the letter of international law and the Commission's own procedures. In large measure this impression is perfectly valid but, in at least one instance, that of Wolfe Island, the law books were shelved in favor of a good old-fashioned bartering session. In regard to the disposition of Wolfe Island, expediency took precedence over a strict application of international law.

About the Author
Mr. Scheuer is currently completing his doctoral dissertation in history at the University of Manitoba in Winnipeg. His area of specialty is Canadian-American Relations since Confederation.

Notes:

1) The four joint boundary commissions were established under the auspices of Articles IV, V, VI, and VII of the Treaty of Ghent of 24 December 1814.
2) Don C. Piper. *The International Law of the Great Lakes.* Durham, North Carolina: Duke University Press, 1967, p. 9.
3) S. Whittemore Boggs. *International Boundaries. A Study of Boundary Functions and Problems.* New York: AMS Press, 1966, p. 40 and Peter B. Porter to John Quincy Adams, (12 February 1822). Peter B. Porter Papers, Reel 7, Document E-135-2. (The papers of Peter B. Porter are housed in the archive of the Buffalo and Erie County Historical Society in Buffalo, New York.)
4) Peter B. Porter to James Monroe, (10 December 1818). United States National Archives, Diplomatic Branch, RG 75, Entry 141.
5) Don C. Piper, *The International Law of the Great Lakes,* p. 11.
6) These words are those of Britain's chief surveyor on the boundary commission David Thompson and they are quoted in James White, "Boundary Disputes and Treaties", in Adam Shortt and A. G. Doughty, (eds.). *Canada and Its Provinces, VIII.* Toronto: Edinburgh University Press, 1913, p. 829.
7) Willliam A. Bird, "Reminiscences of the Boundary Survey Between the United States and the British Provinces," in *Publications of the Buffalo Historical Society.* Buffalo, New York: The Peter Paul Book Company, 1896, pp. 7-8.
8) James White, "Boundary Disputes and Treaties", p. 829.
9) Anthony Barclay to George Canning, (14 June 1823). Public Archives of Canada, MG 16, F.O. 5, Vol. 187, Reel B-1804, p. 93.
10) See "Decision of the Commissioners Under the Sixth Article of the Treaty of Ghent", United States National Archives, Diplomatic Branch, RG 75, Entry 131, 18 June 1822, p. 117.

THE GREAT LAKES INSTITUTE AT THE UNIVERSITY OF TORONTO

by Henry A. Regier

The Great Lakes have been studied at the University of Toronto since its beginning over a century ago. Among the hundreds of reports, those of geological, hydrological and fisheries nature dominate.

For a decade in the 1960's the University's Great Lakes Institute (GLI) thrived, almost as a research arm of the Canada Department of Energy, Mines and Resources. Major field surveys of hydrological and limnological variables were conducted. Impact assessments were undertaken, as at the Bruce Nuclear Complex on Lake Huron. A major field facility was created at Bruce. The Institute developed a network of researchers that included faculty at other universities, notably the University of Waterloo. With the creation of the Canada Centre for Inland Waters (CCIW) at nearby Burlington, federal interest naturally shifted. The new opportunities there attracted the Institute's key researcher, G. K. Rodgers, who is now director of the National Water Research Institute at CCIW.

GLI was supplanted at the University by an Institute for Environmental Sciences and Engineering which evolved into the present Institute for Environmental Studies. Studies on pollution of Great Lakes tributaries were reported by IESE researchers, for example.

The University's research on Great Lakes fisheries came to be affiliated with GLI and IESE through F.E.J. Fry and with IES through H. A. Regier. A twenty-year study on the impact of the Bruce Nuclear Comples on a resident bass population is now nearing completion. An interdisciplinary initiative on Great Lakes Ecosystem Rehabilitation has expanded since its inception in 1977. Again an inter-university network of researchers has evolved, now including Waterloo and Brock Universities in Canada as well as Michigan State, Wisconsin-Madison and Wisconsin-Green Bay universities in the U.S. The Rehabilitation initiative is fully interdisciplinary with respect to natural and social science - a major accomplishment.

A variety of other Great Lakes studies are underway at the University of Toronto, some independent of those in IES. Oil pollution risks, anthropology of fishing communities, sedimentation, glacial geology, public participation with IJC, stream pollution, international law... the list goes on.

BROCK UNIVERSITY'S INSTITUTE OF URBAN AND ENVIRONMENTAL STUDIES at St. Catharines, Ontario

by Fikret Berkes

The Institute has three full-time core faculty, and has cooperating faculty from seven social science and science departments. An undergraduate program leading to a B.A. or a B.Sc. is offered. All students are co-majors in one of these seven cooperating departments. A cooperative studies option is offered to students after the second year.

All of the three core faculty members and currently four other cooperating faculty members have research interests in the Great Lakes area in environmentally related fields. The following is a summary of the current projects:

1. Lake Erie fisheries management: Social aspects of commercial and recreational fishery management;

2. Preservation of foodlands (especially of Region Niagara);
3. Urban planning and the quality of life;
4. Shoreline use and water quality studies;
5. Historical aspects of urban development in the Great Lakes basin; and,
6. Institutional aspects, resource and environmental policies in the Great Lakes area.

Faculty members and research students report their findings in technical journals and Great Lakes annual conferences organized by the International Association for Great Lakes Research. Some of the research-oriented student theses and other reports which are too long for journal publication are reported in the *Working Paper Series* of the Institute of Urban and Environmental Studies. These Working Papers are available from the Institute at cost.

About the Authors

Henry Regier and Fikret Berkes are the Directors of the two Institutes.

BRIEFS

The Joyce Foundation plans to commit $20 million at the rate of at least $2 million per year to support soil and water conservation efforts in the Midwest. Conservation education projects will receive $10 million.

* * * * *

Cleveland City Council is considering a comprehensive plan for development of the Lake Erie and Cuyahoga River, according to the newly formed Cleveland Waterfront Coalition. Plus, Ohio is planning $6 million in improvements to park sites along the Cleveland lakefront. (*Waterfront World*, March/April 1982)

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The 19 Soil and Water Conservation Districts in Indiana, Ohio and Michigan which are carrying out EPA funded Demonstration Projects on no-till and ridge-tillage assisted 560 cooperators to plant over 13,000 acres this spring.

* * * * *

The Midwest Industrial Waste Exchange, a clearinghouse that brings together disposers and potential users of industrial waste, won the 1982 Environmental Industry Council Award for Excellence in toxic pollution control. The President's Council on Environmental Quality and the Environmental Industry Council sponsor these annual awards recognizing excellence in pollution control and energy conservation.

* * * * *

After eight years of research, review and public consultation, Ontario has adopted a province-wide planning policy regulating land use in flood plain areas. The policy is to be used as a planning guide to prevent flood-related loss of life, minimize property damage and social disruption and encourage a coordinated approach to land use and water management. The policy states where buildings can be constructed in relationship to areas determined to have high flood risk and also sets standards for buildings on fringes of such areas.

* * * * *

On June 21, U.S. EPA formed a new Hazardous Airborne Pollutants Policy Group. Its task is to determine how best to use the Clean Air Act to regulate hazardous air pollutants. (*Air/Water Pollution* Report, June 28, 1982)

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All 10 regions of U.S. EPA have approved Sunohio's PCBX process for destruction of polychlorinated biphenyls (up to 10,000 parts per million in electric transformer oils).

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In July U.S. EPA completed the Agency's Superfund cleanup of the MIDCO I hazardous waste site in Gary, Indiana. The four-month, $880 thousand removal included 4640 tons of crushed and deteriorated 55 gallon drums, the remains of 20,000 drums on site, 210,000 gallons

Cont'd. on page 15

LETTERS TO THE EDITOR

Dear Pat:

I've enjoyed reading the *Focus* in its expanded version. The last issue (v.8, no. 1) however, contained a slight error that I would like to correct. The error is in the table of state and local wetland management authorities in the Great Lakes States which apparently came from the *National Wetlands Newsletter.*

In the column headed "Permit Programs" for the state of Michigan mention should be made of the Wetlands Protection Act, Act 203 of the Public Acts of 1979. Act 203 requires a permit for activities in wetlands contiguous to a lake or stream regardless of size. It requires a permit for activities in non-contiguous wetlands over five acres in size or designated as essential. In both cases there are exempted activities and provisions for general permits.

In the column headed "State Policies" for the state of Michigan mention should be made of Act 203 which established an overall wetland protection policy and of a Natural Resources Commission Policy formally adopted and providing for the protection of wetlands.

There are several other Michigan laws that can be used to protect wetlands and floodplains. There are many communities with strong local ordinances to protect wetlands as well which is provided for under Act 203.

Legal guides to Michigan's wetland/watercourse, floodplain and stormwater management laws have been published by the Clinton River Watershed Council and cover the issue in some detail.

If you have any questions I suggest contacting Peggy Johnson at the Clinton River Watershed Council, 8215 Hall Road, Utica, Michigan, 48087; (313) 739-1122.

Keep up the good work.

John Sobetzer, J.D.
East Michigan Environmental Action Council

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Composting Detroit's Sludge

by Donna Brown

Many people are familiar with the term, composting, as it relates to the natural decomposition of organic matter. Leaves and garbage are frequently used as composting material in home gardens.

This article will examine composting municipal sludge to produce a suitable product for use as a soil conditioner or fertilizer. The composting process, and land application of the resultant compost, is one possible means of sludge disposal for the City of Detroit. The term composting, within the context of a sludge disposal method, will be defined as "a process in which the organic component of sludge is biologically decomposed under controlled conditions to a state in which it can be applied to the land without adverse environmental effects." The presence of excess quantities of soluble nitrogen or active pathogens in improperly composted sludge could contaminate the land and groundwater, creating public health problems. Because of these risks, the State of Michigan has developed guidelines in the form of proposed rules to govern land application of sludges.

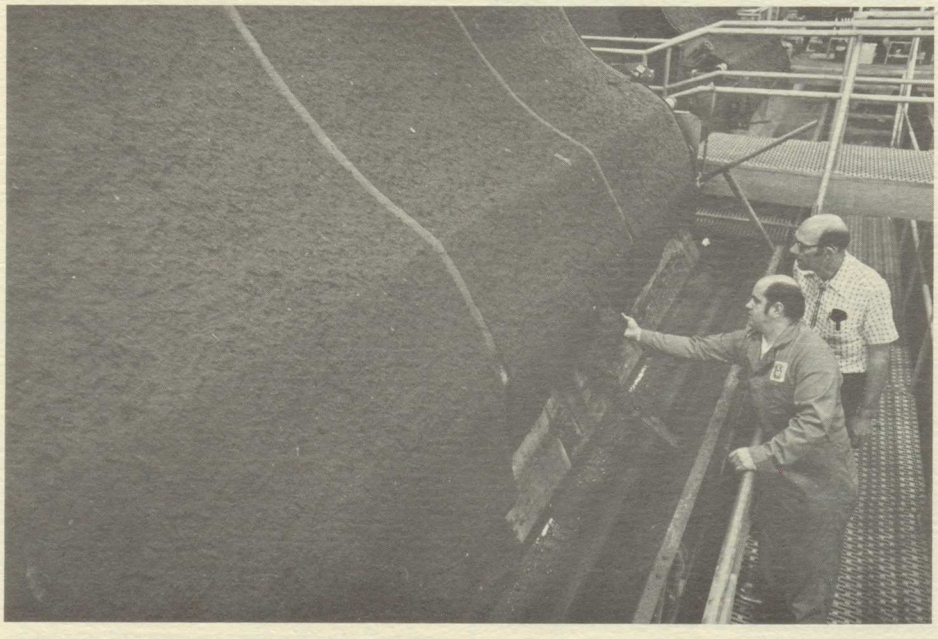
When sludge is properly composted, it is transformed into a sanitary, nuisance-free, soil-like material. It is essentially pasteurized, since the process occurs in the thermophilic (130-150°F) temperature range. Harmless by-products of the process are carbon dioxide and water.

A number of environmental factors must be optimally controlled for composting to occur. The optimum moisture content for the needs of the organisms is 50% to 60%. Sludge must have a bulking agent added such as wood chips, to achieve this. Optimum temperature levels for the process are from 130-150°F. Such levels are achieved toward the center of the pile as a result of microbial activity in the composting process. The optimum pH range for most bacteria is between 6 and 7.5. For fungi, it is between 5.5 and 8.0. Carbon and nitrogen are required for energy sources in a ratio of 30 parts of carbon for each part of nitrogen. The optimum oxygen concentration is between 5% and 15% by volume. When this optimum environment exists, the bacteria, actinomycetes, and other fungi decompose the sludge.

The process steps in composting include: 1) addition of bulking agents, such as wood chips, for porosity and moisture control or nutrients, such as carbon, in the form of sawdust, rice hulls, etc.; 2) attainment of a temperature in the 130 to 150°F range for pasteurization and moisture content reduction; 3) storage to stabilize the mixture at lower temperatures; 4) additional air drying if the cured compost is too wet for further processing; and 5) a separation operation if the bulking agent is reused.

The windrow and aerated, static-pile processes are generally used for

Composting operations at USDA's Beltsville Maryland Research Center process municipal sewage sludge mixed with wood chips into an excellent soil conditioner.



Checking the sludge for consistency as it rolls off vacuum filters at the Blue Plains wastewater treatment plant near Washington D.C. Samples of the sludge are taken daily and analyzed for acidity, chemical content and bacteria.

Administrator: Focus on Great Lakes Water Quality (ISSN 0711-0855): vol.8 iss.2

composting municipal sludges in the United States. The windrow process is conducted in an open field. A windrow is a long parallel row of mixture to be composted, approximately fifteen feet wide and three to seven feet high. The composting mixture generally consists of the digested sludge, bulking agents such as wood chips to increase porosity, and possibly a nutrient source such as rice hulls. Oxygen is circulated by mechanical turning of the windrows. Windrows are usually turned once or twice a week for a composting period of about five weeks. High temperatures prevail inside the pile due to the heat generated from the decay process.

The aerated, static-pile process utilizes forced air to control oxygen and temperature conditions in the pile rather than relying on natural ventilation, as in the windrow process. This process offers the advantages of being applicable to undigested sludges, superior odor control, great inactivation of pathogens, and use of less site area. The following table further illustrates the difference in the two processes.

COMPARISON OF TWO COMPOSTING PROCESSES

Process	Bulking Agent	Air Movement	Temperature	Composting	Curing Period
Windrow	Enough to obtain mixture solids content of 40-50%.	Turning windrows or controlling porosity & windrow size.	Maintain at 55°C in center of windrow for 15 of the total 21-30 day composting period.	5 Weeks	2-4 Weeks
Aerated Static Pile	Determined by need for structural support & porosity.	Provided by centrifugal fans with porous & non-porous tubing attached.	Maintain at minimum of 55°C continuously for 3 days in coolest part of pile.	5-7 Days	3-4 Weeks

High temperatures generated by bacteria decomposing organic material in compost piles are measured by a heat-sensing probe. (Bangor, Maine)

The largest operating windrow process is located at the Joint Water Pollution Control Plant for Los Angeles County in Carson, California. Two hundred and seventy dry tons of digested primary sludge are processed every day. Recycled composted sludge is added as the bulking agent to the sludge that is to be composted before the windrow is constructed. A compost mixing machine turns the mixture regularly.

The West Windsor Pollution Control Plant in Ontario, Canada initiated a composting program in 1979, utilizing the aerated static-pile technique. Raw, wet sludge is processed at the rate of 130 tons per day. The humus produced after a four-week composting period is utilized as a soil conditioner during construction of a 160-acre park and golf course on a former landfill site. Savings of one million dollars have been estimated, due to the use of compost in lieu of purchased topsoil for the site.

Composting is a desirable sludge disposal method because the organic matter in composted sludge is an excellent soil conditioner. Composted sludge is especially useful for increasing the water content and retention for sandy soils, enhancing the aeration, permeability, and water infiltration for clay soils... and promoting greater root depth.

Composting can solve two major problems that exist in disposal of raw sewage sludge on land, by: 1) Stabilizing excess nitrogen quantities that might otherwise percolate to the ground water; 2) Killing disease-causing organisms or pathogens. It also decomposes at a slower rate and remains effective for a longer period of time.

The presence of heavy metals in toxic quantities (amounts considered harmful to living beings) is a potential problem encountered in land application of composted or uncomposted sludge. However, if sludge is composted with another material, the concentration of metals becomes diluted, presenting less of a problem.

What is the feasibility of composting as a sludge disposal method for the City of Detroit? That is a question that remains to be answered. It is known, through past sampling and analysis of Detroit sludge, that the PCBs and heavy metals (chromium, lead, cadmium, zinc, copper and nickel) have previously been present. A significant source of these metals has been industrial discharges to the wastewater treatment plant. Once pretreatment programs are fully implemented in Detroit, the metal concentrations in the sludge are expected

to decrease. How much concentrations will decrease is presently unknown.

About the author

Donna Brown is a Project Manager/Engineer with EcolSciences Environmental Group (ESEI, Inc.), a strategic planning and resource management firm. She holds a Masters Degree in Environmental Engineering.

Photos by Robert C. Bjork, U.S. Department of Agriculture.

Persistant Toxic Substances

by Robert E. White

Several years ago it became clear that many chemicals were inadvertently or deliberately placed in our ecosystem with little knowledge of their potential to cause long-term harm to one or more ecological niches. Some of these harmful chemicals can now be found nearly everywhere. There seems to be little choice but to accept their presence and to track their gradual disappearance through physical, biochemical, and chemical change. Further, with a new awareness of our past behaviors, additional contaminants constantly are being identified and quantified.

In drafting the 1978 Great Lakes Water Quality Agreement the Parties recognized the need to address this problem and to seek ways of preventing similar future circumstances. Within Annex 12 of the Agreement entitled Persistent Toxic Substances, general principles to be followed, programs to be undertaken, monitoring to be implemented, human health action levels to be set, and research to be conducted are noted. Also among identified elements to define and eliminate toxic substances within the Great Lakes Ecosystem, the Annex calls for the development of an Early Warning System.

Paragraph 5 of the Annex states:

"*Early Warning System.* An early warning system consisting of, but not restricted to, the following elements shall be established to anticipate future toxic substances problems:

(a) Development and use of structure-activity correlations to predict environmental characteristics of chemicals;

(b) Compilation and review of trends in the production, import, and use of chemicals;

(c) Review of the results of environmental testing on new chemicals;

(d) Toxicological research on chemicals, and review of research conducted in other countries;

(e) Maintenance of a biological tissue bank and sediment bank to permit retroactive analysis to establish trends over time;

(f) Monitoring to characterise the presence and significance of chemical resides in the environment;

(g) Development and use of mathematical models to predict consequences of various loading rates of different chemicals;

(h) Development of a data bank for storage of information on physical/chemical properties, toxicology, use and quantities in commerce of known and suspected persistent toxic substances."

Both countries are responding to this Annex in a variety of ways.

One notable contribution toward developing an Early Warning System is a computer data base called the Information System for Hazardous Organics in Water (ISHOW). Its development has taken several years and the efforts of many. U.S. EPA has provided the bulk of the funding for computer programming and data entry through grants to the University of Minnesota-Duluth, and supplied much of the data through research and computer transfer.

ISHOW's principal uses are to predict those chemicals which are potential contaminants to the Great Lakes System and to assess the significance of the substances found. In developing the system it was first assumed that compounds manufactured or used in large quantities in the Great Lakes Basin have an increased likelihood of contaminating the aquatic ecosystem. Therefore, to determine which chemicals might be present and where, an inventory of over 14,000 chemicals and the quantities used and manufactured by each company on a geographical basis was compiled. Further, to assess the significance of possible contaminants the known physical, chemical, and toxicological characteristics have been listed with each chemical. Of primary interest are those chemicals which might bioaccumulate, e.g. chemicals which are fat soluble (lipophilic).

Estimates of chemical lipophilic characteristics are made through specific laboratory measurements or theoretical structure considerations. In ISHOW and elsewhere these characteristics are expressed as the $\log_{10}P$, a log of the ratio of the chemical's concentration in an organic solvent versus water while the chemical is in equilibrium with both. Briefly, all other considerations aside, the higher its P value the more likely the chemical is to bioaccumulate and concentrate in the food chain. Currently about 2,000 P values are listed in ISHOW and more are being added as they become available.

By specific retrievals, P values and U.S. Great Lakes chemicals production/use data, when combined with the many other properties of ISHOW, scientists, engineers, and managers can predict potential chemical contaminants, determine where to expect them, confirm their presence, predict the harm caused,

and most importantly effect remedial action through identifying their source and limiting their quantities.

Through the use, expansion and updating of ISHOW, several elements of the Early Warning System are being met and it may be possible to identify potential problems and prevent lake-wide contamination in the future.

About the Author

Robert E. White is Senior Scientist with the International Joint Commission, Great Lakes Regional Office.

LAW AND THE COURTS

The United States Environmental Protection Agency announced revisions to its financial requirements for the country's 10,000 hazardous waste facilities owners and operators. EPA must have demonstration that such facilities have sufficient funds to close down a site safely and provide long term maintenance after closing. New options are a financial test demonstrating ability to meet liability claims (self-insurance) in case of sudden accident (at least $1 million per sudden occurrence with an annual limit of $2 million; at least $3 million per non-sudden occurrence with a $6 million annual limit), or closure and post-closure insurance. These options are added to trust funds, security bonds and letters of credit.

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The Wisconsin's Legislature this spring failed to pass a ban of phosphates in detergents. Wisconsin's former five-year ban ran out and legislation that would have extended the ban failed to pass by only two votes.

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In April the Wisconsin Legislature enacted Assembly Bill 839, requiring protective zoning of shoreland wetlands in cities and villages. AB 839 defines "shorelands" as lying within 1,000 feet of a lake, pond, or flowage or within 300 feet of a river or stream or to the landward side of a floodplain. Wetlands to be zoned must be five acres or more in size and must be shown on the final wetlands inventory maps prepared by DNR.

If a rural wetland regulated by a county shoreland zoning ordinance is annexed by a city or village, the protection afforded by urban shoreland zoning must be at least as stringent as that in effect prior to the annexation. *(National Wetlands Newsletter, Volume 4, Issue 2)*

* * * * *

Ontario intervened June 30, 1982 in public proceedings before Michigan's Air Pollution Control Commission (MAPCC) to oppose an application by Detroit Edison to delay compliance of its Monroe Power Plant with the state's "one per cent of equivalent sulphur in fuel" regulation. The Michigan - Ontario Air Pollution Board of IJC filed a letter with MAPCC July 20, stating that the application was incomplete because it did not consider the transboundary impacts. Monroe discharges 290,000 tons of sulphur dioxide annually. MAPCC requested Edison to make another application.

Briefs ... cont'd from pg. 11

of liquid and solid wastes, plus 5,000 cubic yards of contaminated soils and sludges. Materials removed from MIDCO I were transported, using manifests through all handling to their receipt at state approved waste facilities in Indiana, Illinois, Ohio and Alabama.

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The United States General Accounting Office in May published "Environmental Protection: Agenda for the 1980's." The eight issues on the Agenda are hazardous waste, water pollution, construction grants, air pollution, pesticides, drinking water, regulatory strategies and environmental impact statements. More information from: S. A. Madonia, Planning Director/Environment, GAO, 441 G St. NW, Washington, D.C. 20548; (202) 275-5165.

EVENTS

IJC's Annual Meeting on Great Lakes Water Quality will be held in Windsor, Ontario at Cleary Auditorium, November 15-17, 1982. For details concerning the agenda of Great Lakes Water Board and Great Lakes Science Advisory Board reporting and public participation opportunities, write to the *Focus* editor. Blocks of rooms have been set aside at the Holiday and Richelieu Inns. For additional accommodations information, write to *Focus*.

* * * * *

"Open House 1982" will be September 22-25 at the Ontario Ministry of the Environment's Analytical Laboratory in Rexdale at 125 Resources Road (Highway 401 near Islington Avenue exit) from 9AM to 4PM. Contact: Darka Migus (416) 248-3512.

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The Canadian Nuclear Association and the American Nuclear Society will sponsor a conference on the Decontamination of Nuclear Facilities in Niagara Falls, Ontario, September 19-22, 1982. For details contact: J. E. LeSurf, London Nuclear Services, Inc., 2 Buffalo Avenue, Niagara Falls, New York 14303.

* * * * *

The 1st International Symposium on Operating European Centralized Hazardous (Chemical) Waste Management Facilities will take place in Odense, Denmark, September 20-23, 1982. The emphasis will be on practical application of the Danish System with Kommenekemi as the central treatment plant, where incinerators, oil and physical treatment facilities and controlled landfill have been operating successfully since 1975. For details, write: Ted Storm, Chemcontrol A/S, 56 Harrison St., P. O. Box 499, New Rochelle, New York 10802; (914) 632-2951.

Experimental Lake Neutralization Project

In late June, the Ontario Ministries of Natural Resources and Environment announced their studies of three northern lakes as part of the five-year Experimental Lake Neutralization Project, under the Acid Precipitation in Ontario Study. Lake neutralization is viewed as an interim measure to restore damaged lakes, and to protect sensitive lakes. It is not a long-term or permanent solution.

The lakes to be studied are Ruth Roy, Bowland and Trout. Bowland Lake, 68 km north of Sudbury, is acidic and may be a candidate for rehabilitation experiments. Trout Lake at North Bay is non-acidic and will serve as a control for the study lakes.

Ruth Roy Lake in Killarney Provincial Park is acidic but is believed once to have supported a healthy trout population. The lake has two distinct basins, making it ideal for experimentation. Beginning next spring, project scientists will add neutralizing materials such as slaked lime and limestone to one basin of the lake. After that the same lake basin will be stocked with trout and their food, minnows. Separated by a curtain, the second basin will be left as an acidic control. Follow-up studies will evaluate the success of the lake stocking program and examine the effects of neutralization on lake water chemistry and aquatic life.

In addition to whole lake experiments, some site specific neutralization experiments will be done on other acidic lakes. Scientists will test the feasibility of liming sensitive areas such as inlet streams or fish spawning shoals.

Another part of the project will examine the feasibility of protecting the fish community of a lake in danger of becoming acidic. There are ten candidate lakes on Crown Land in the Muskoka-Haliburton-Algonquin area with a threatened sport fishing population. From that set of lakes, one will receive intensive study over the next four years. The lake will be neutralized after two years. Studies will continue for at least two years to determine effects on the lake and its fish population. (Adapted from June 24, 1982 MOE/MNR news release).

MORE ON WASTE EXCHANGES

The Canadian Waste Materials Exchange, founded in November 1977, is operated by the Ontario Research Foundation (Sheridan Park Research Community, Mississauga, Ontario L5K 1B3 - (416) 822-4111). Like many of its United States counterparts, this exchange acts as a clearinghouse, disseminating information on the availability of potentially useful wastes and their potential buyers.

Ten waste categories are listed in the Exchange's bulletin: organic chemicals and solvents; oils, fats and waxes; acids; alkalis; other inorganic chemicals; metals and metal-containing sludges; plastics; textiles; leather and rubber; wood and paper products, and miscellaneous. Listings include volumes and regions of origin.

FOCUS
On Great Lakes Water Quality

IJC Great Lakes Regional Office
100 Ouellette Ave.
Windsor, Ontario N9A 6T3