

FOURTH ANNUAL REPORT

GREAT LAKES WATER QUALITY



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The 1975 Annual Report of the Great Lakes Water Quality Board cited on the opposite page is available, supplies permitting, from:

International Joint Commission,
Great Lakes Regional Office,
100 Ouellette Avenue
Windsor, Ontario, Canada N9A 6T3

Telephone Numbers:

United States — (313) 963-9041

Canada — (519) 256-7821

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The International Joint Commission is pleased to transmit, with its endorsement, the 1975 Annual Report of the Great Lakes Water Quality Board, including its assessment of the progress made in the United States and Canada during the year 1975 in implementing the terms of the Great Lakes Water Quality Agreement of 1972. This progress, according to the Board, was "generally slow, uneven, and in certain cases disappointing." Also included in the Board's report is an evaluation of the water quality condition of the lakes at the end of 1975.

The Commission wishes to first make note of this departure in form of reporting to the various governments and the public from its previous three reports. It is the Commission's view that the Great Lakes Water Quality Board, and its several subgroups and committees have presented an excellent report on the effectiveness of the Great Lakes Water Quality Agreement and efforts of the Parties to improve the water quality of the lakes. Its assessment is forthright everywhere and critical where necessary. Its findings and recommendations are well documented with substantive data contained in the four appendices. Therefore, the Commission believes that it is not necessary for it to summarize and comment on all aspects of the Board's report.

The Commission endorses, in general, all recommendations contained in the report and offers the following special comments on several important matters as a means of identifying those issues to which it believes the governments should give substantial priority consideration:

Municipal Treatment

While the Commission recognizes that sizable programs for the construction of water pollution control facilities in the Great Lakes Basin are currently in progress in the United States and Canada, it nevertheless perceives that these efforts must be strengthened and in fact accelerated if the water quality objectives of the Agreement are to be achieved by the end of this century.

The cities of Detroit and Cleveland continue to be the two largest sources of municipal pollution in the Basin. The Commission cannot emphasize too strongly, the need to complete these two major municipal projects on the highest priority basis.

Surveillance

Each year since the signing of the Agreement, the Commission has advised governments that it could not report accurately on progress, or lack of it, toward achieving the goals of the Agreement because existing surveillance programs were inadequate. The Water Quality Board has now developed a comprehensive surveillance program which when implemented would overcome the shortcomings of the present programs. The Commission fully endorses this program which is described in Appendix B of the Board's report.

Because of the critical need to launch the program as soon as possible and recognizing time constraints of the budgetary cycle in the United States and Canada, the Commission has already taken action on this matter. In a separate communication, dated August 27, 1976, to the Parties, the Commission has urged them to ensure that fiscal programs over the next 10 years provide ongoing funds at the level proposed (\$16 million annually), for the Agencies of federal, state and provincial governments having responsibility for water quality surveillance and monitoring activities in the Great Lakes. The Commission now reiterates its concern and urges once more the recommended actions.

Combined Sewers

The Commission is concerned that programs to control pollution from the overflow of combined stormwater and sanitary sewers are fragmented and obviously inadequate. The Commission is aware that any solution to this problem will be extremely costly, but it also recognizes that strong efforts by appropriate authorities to find adequate solutions must be continued. It is imperative that this significant source of pollution from major metropolitan areas of the Great Lakes be brought under control at the earliest practicable time. The Commission, therefore, recommends that the governments continue both research and demonstration programs at least at present levels, including programs for reducing the amount of pollutants reaching storm sewers and for treating the stormwater itself. The Commission also recommends that site-specific studies be initiated or strengthened in the major metropolitan areas of the Basin.

Industrial Pollution

In spite of the progress of governments in instituting remedial programs in industrial pollution control by the end of 1975 as provided in the Great Lakes Water Quality Agreement, the Commission notes with concern that a number of major polluting industries are not expected to have adequate controls in place by the end of 1977. In view of the substantial increase in data available on the discharge of pollutants from point sources, the Commission urges the vigorous enforcement of the industrial pollution control laws in both countries without delay.

Toxic Substances

Toxic substances, e.g., heavy metals and persistent organic contaminants, may well be the most serious and long term problem governments face in ensuring future beneficial uses of the Great Lakes. They pose threats to water quality, the fishery, human health and ecology in general. Too little is known about these substances, their identity, sources, amounts present, characteristic forms and behavior, and their effects. Control and monitoring programs are imperative. Research is required to enable the establishment of objectives and the evaluation of potential hazards. Effective control laws must be enacted and implemented to the fullest extent possible in both countries as quickly as possible.

Radioactivity

A new, refined Great Lakes radioactivity water quality objective has been proposed by Task Forces established by the two Governments and is now undergoing review by appropriate federal, state and provincial agencies. The Commission believes that the Governments should reach agreement on a refined radioactivity objective as soon as possible. Public hearings on these objectives should be held in the Basin.

Because of the growing number of nuclear facilities in the Great Lakes Basin, including power reactors, mining and raw materials processing, as well as waste materials processing, storage and disposal, the Great Lakes Water Quality Board has developed a special Radioactivity Surveillance Plan as part of the proposed IJC-Coordinated Surveillance Plan described in Appendix B of the Board's report.

Non-Point Pollution

As controllable discharges from municipal and industrial point sources are reduced to established limits, the significance of non-point sources of pollution, especially atmospheric fallout and sediment transport, is becoming more apparent. Research activities must provide improved methods of identifying such sources and indicate mechanisms to accelerate the design and implementation of control measures.

While recognizing that some investigatory programs are under way to address these problems, an interim strategy is required pending the outcome of these studies. Accordingly, the Commission urges all governments to strengthen their support of programs to identify loadings from diffuse sources, determine their relative significance, and implement measures to control further increases in pollutional loadings from these sources.

Phosphorus

The Commission believes that the United States policy of constructing phosphorus removal facilities has not been an effective means of reducing phosphorus reaching the lower lakes. The targets for phosphorus loadings contained in the Agreement are not being met.

Though completion and proper operation of facilities at Detroit and Cleveland, as well as other municipalities, will produce an early and measurable effect on Lake Erie and in turn Lake Ontario, more must be done to accelerate the recovery of the Lakes, including solutions to the problem of phosphorus input from the non-sewered population. Further, action must be taken to reduce loadings and thus prevent degradation of the Upper Lakes.

Since 1970 the Commission has recommended the limitation of phosphates in detergents. Recent studies and short-term results where limitations have been implemented have not only supported this recommendation, but suggest even greater limitations are in order. Therefore, the Commission believes that the Board's recommendation that a uniform 0.5% phosphorus by weight limit be placed on all detergents manufactured for use in the Great Lakes Basin, including dishwashing materials, should be implemented by the appropriate authorities as quickly as procedures will permit.

This action, however, will still not provide sufficient controls on phosphorus loading to the lakes. Therefore, the Commission supports the Board's recommendations to extend a 1 mg/L effluent limitation on all point source discharges of phosphorus throughout the entire Great Lakes System. In addition, there is an urgent need to define the pathways and design regulatory schemes to control the phosphorus contributions from the atmosphere, sediments and land drainage, and all other non-point sources.

Water Quality Objectives

The water quality objectives in the Great Lakes Agreement have been adopted by several governments as water quality standards for boundary waters within their jurisdictions. New and revised water quality objectives have now been developed by the Commission's Water Quality Board and its subcommittees for adoption in the Agreement.

The Commission intends to hold public hearings on these new and revised objectives to assist it in making a firm recommendation to the Governments at an early date. The Commission suggests that until its final recommendations on all the objectives recommended in the Board's report are submitted, all the objectives be accepted as guidelines for the development of water quality standards by the various jurisdictions and for planning future uses of the Great Lakes.

Special Studies

In July 1976 the Commission received the report of the International Reference Group on Upper Lakes Pollution. The Commission will hold public hearings and submit its final report to the two Governments in 1977.

The progress of studies being conducted under the Reference Group on Pollution from Land Use Activities is reported in the attached 1976 report of the Group. A major public consultation program is planned by the study group for implementation in 1977. This program is expected to increase public understanding of the objectives of the study and the complexities of the problems of pollution from land use. The final study report is expected in 1978.

The Great Lakes Research Advisory Board has again compiled an extensive Directory of Great Lakes Research and Related Activities, and is continuing its efforts to coordinate as closely as possible the Great Lakes related research programs in both countries. These efforts are reported in the attached Annual Report of the Board. Several effective seminars were held during the year under Commission auspices and others are planned for the current year. All are designed to focus on problems related to Great Lakes water quality.

The Commission wishes to commend the individual and collective efforts of a significantly large number of persons, including skilled scientists, effective administrators and dedicated public servants who have worked hard during recent months to collect large amounts of data, assess and

evaluate it, and prepare these excellent documents. It reflects great credit on the cooperative efforts of both countries to correct the very complex problems of Great Lakes water quality which have resulted from human neglect over many years.

Finally, the Commission notes that the Agreement calls for the Parties to "conduct a comprehensive review of the operation and effectiveness of this Agreement during the fifth year after its coming into force." It is the Commission's intention to prepare a special report within the next few months which will set forth the Commission's views on various provisions of the Agreement for consideration by the Governments during the aforementioned review process.

Respectfully submitted

Henry P. Smith III
Chairman, United States Section

Maxwell Cohen
Chairman, Canadian Section

Charles R. Ross
Victor L. Smith

Bernard Beaupré
Keith A. Henry

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