Dear Interested Citizen:

The Lake Ontario Toxics Committee thanks you for participating in the review of the draft Lake Ontario Toxics Management Plan.

The Committee is currently preparing the final Plan: The enclosed summary gives a preliminary indication of how the draft Plan is being modified in response to public comment. A more comprehensive Public Responsiveness Document will accompany the final Plan.

The Lake Ontario Toxics Committee currently projects completion of the final Plan in September. Upon approval by the four involved agencies, the final Plan and Public Responsiveness Document will be distributed to the public.

If you have any questions, please contact:

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Sincerely,
The Lake Ontario Toxics Committee

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Enclosure

EXECUTIVE SUMMARY

PUBLIC COMMENT

AND

RESPONSES

DRAFT LAKE ONTARIO TOXICS MANAGEMENT PLAN

INTRODUCTION

On February 4, 1987, the Four Parties (Environment Canada, the Ontario Ministry of the Environment, the United States Environmental Protection Agency, and the New York State Department of Environmental Conservation) signed a Declaration of Intent that included a commitment to develop a Toxics Management Plan for Lake Ontario.

The Four Parties formed a Lake Ontario Toxics Committee, under the direction of the existing policy level Coordination Committee, to develop the Plan.

On January 28, 1988, at an open public meeting in Niagara Falls, New York, the Lake Ontario Toxics Committee presented a draft Plan to the Coordination Committee. At that meeting, the Coordination Committee directed the Lake Ontario Toxics Committee to:

- Pursue an aggressive public outreach effort to ascertain the public's views on the draft plan; and
- Continue its efforts to develop supplemental information and data to improve the Plan.

Since that time, the Lake Ontario Toxics Committee has:

- Developed a summary of the draft Plan entitled "Draft Lake Ontario Toxics Management Plan: Summary and Issues for Public Discussion";
- Made the draft Plan and Summary available at repositories around the basin;
- Mailed approximately 6500 copies of the Summary to the public;
- Conducted five public meetings;

  Toronto, Ontario - 57 in attendance
  Rochester, N.Y. - 26 in attendance
  Watertown, N.Y. - 34 in attendance
  Niagara Falls, N.Y. - 22 in attendance
  Oswego, N.Y. - 27 in attendance

- Responded to requests for 178 copies of the draft Plan;
- Received 39 sets of written comments on the draft Plan, including one letter co-signed by representatives of twenty organizations.

As a first step in revising the Plan to reflect the views expressed by the public, the Lake Ontario Toxics Committee has prepared this "Executive Summary: Public Comment and Responses". The "Executive Summary" reflects only comments received as of April 30, 1988. The Public Responsiveness Document that will accompany the final Plan will address all comments submitted by the public. With the approval of the Coordination Committee, the "Executive Summary" is being mailed as preliminary feedback to all those who attended the public meetings or commented in writing on the draft Plan.

Concurrently, the Lake Ontario Toxics Committee is beginning preparation of the final Plan. Considering the extensive nature of the supplemental information and data that has been collected and the extensive public comment that has been received, the Lake Ontario Toxics Committee now projects that a final Plan will be available in September.

RESPONSE TO PUBLIC COMMENT

Public comment is discussed below in seven categories:

1. The Toxics Problem in Lake Ontario
2. Goals
3. Today's Programs
4. Geographic Areas of Special Concern
5. Future Approach
6. Communication and Reporting; and
7. General

These categories correspond to those used in the Plan Summary. For each category there are sections summarizing:

- o What the Draft Plan Says;
- o What the Public Says; and
- o Proposed Response.

1. THE TOXICS PROBLEM IN LAKE ONTARIO

What The Draft Plan Says

The draft Lake Ontario Toxics Management Plan concludes that:

- o Toxics are a problem in fish flesh because they accumulate to levels unsafe for human consumption;
- o The ecosystem may be under stress from chemical contamination, but more information is needed to understand what is taking place;
- o Toxics are considered by health agencies not to be a problem in treated drinking water;
- o Toxics in the Lake, and toxics continuing to enter the Lake are a problem because they make it impossible to achieve the Great Lakes Water Quality Agreement goal of virtual elimination of persistent toxics.

What The Public Says

There was no one who disagreed with the statement that bio-accumulated toxics in fish flesh are a problem.

Most felt that the ecosystem is under stress. Some felt that toxics are clearly the cause; others accepted the Plan's premise that the cause/effect link still needs to be established. Some suggested additional references that may prove useful in evaluating cause and effect; others emphasized the need for further research.

Many saw the need to take a more holistic view of the impact of toxics on human health; they emphasized that we don't fully understand the impact of toxics from Lake Ontario on humans. Some saw the need for epidemiological studies which would show the integrated effect of toxics from all sources on humans in the basin.

Most were extremely uncomfortable with the statement, "In drinking water, toxics are considered by health agencies not to be a problem". Some felt that toxics in treated drinking water are a problem; others felt that it is premature to say that toxics in treated drinking water are not a problem.

The concept of virtual elimination was generally discussed in the context of goals, and not in the context of the toxics problem in Lake Ontario.

Response

We agree that the ecosystem is under stress. We welcome additional references that may assist in evaluating the causes of this stress. However, although it appears likely that toxics contribute to the stress, conclusive cause/effect evidence is not available. The Plan calls for the establishment of an Ecosystem Objectives Sub-committee. One charge to the Sub-committee will be to identify the research required to better understand the role of toxics in causing ecosystem stress. The Ecosystem Objectives Sub-Committee will also be responsible for developing a holistic assessment of the impacts of toxics in Lake Ontario on human health.

We recognize that the brief discussion of toxics in treated drinking water that is contained in the draft Plan is inadequate. The final Plan will include a much more in-depth evaluation of toxics in treated drinking water. To the extent that problems in treated drinking water are associated with raw water quality, they fall within the scope of this Plan. To the extent that they are associated with the water treatment process, they fall outside the scope of this Plan.

A Canadian federal interdepartmental task group comprised of representatives from Environment Canada, Fisheries and Oceans Canada, and Health and Welfare Canada has been formed to prepare a report on the effects of toxic chemicals in the Great Lakes. Part I of the two part report will be primarily a data compendium describing concentrations and levels of chemicals in Great Lakes media. The second part will interpret this information and describe the effects of these chemicals in the Great Lakes Basin. The report will be issued in July, 1989. The Lake Ontario Toxics Committee will review the results of the report to determine its applicability to the LOTMP and to our understanding of the human health impacts of toxics in Lake Ontario.

2. GOALS

What The Draft Plan Says

The draft Plan outlines the following goals:

- Short term - reduction of chemical inputs.
- Intermediate - achievement of protective ambient levels.
- Long term - virtual elimination of persistent toxics in the Lake.

What The Public Says

Many stated that we need a more visionary statement of our goals.

Many emphasized the need to associate deadlines with our goals.

Many felt there is a need to quantify our load reduction goals.

Many supported the step-wise movement towards the virtual elimination of toxics in Lake Ontario:

- o Load reduction, as a first step, had almost universal support.
- o Further load reduction for problem toxics, such that protective ambient standards are attained, had substantial support.
- o Load reduction to zero also had substantial support.

Many felt that virtual elimination was a reasonable goal; others felt that it was too utopian and needed to be tempered based on economic impacts; still others felt that, although utopian, virtual elimination should still be retained as a long-term goal- "it's ok if goals are unachievable". There were, however, many different definitions of what virtual elimination means. For example:

- o Zero discharge to the Lake;
- o Non-detect in the Lake;
- o Present in the Lake at levels that do not harm human health and the ecosystem.

Some suggested that virtual elimination should apply to all toxics, not just persistent toxics.

Response

The final plan will contain only one goal, a long-term goal. The goal will be a Lake Ontario that provides drinking water and fish that are safe for unlimited human consumption; and allows natural reproduction within the ecosystem of the most sensitive native species, such as bald eagles, osprey, mink and otters.

The plan will also include objectives that move us towards the long-term goal. Many of the activities carried out to fulfill these objectives can be undertaken concurrently. To the extent possible, the objectives will be quantified and will include target dates.

Objective 1. Reductions Driven By Existing And Developing Programs - Reduction of toxic inputs through the full implementation of existing and developing programs initiated prior to the Lake Ontario planning effort.

a. The final Plan will include a target date for the full implementation of existing and developing programs; many dates for the implementation of individual programs were included in the draft Plan.

b. The final Plan will not include an aggregated load reduction estimate associated with the implementation of all existing and developing programs; it will include load reduction estimates for sources where data are available; for those sources for which data are not yet available, estimates will be developed for inclusion in Plan updates.

Objective 2. Further Reduction Driven By Lake-wide Analysis Of Pollutant Fate - Further reduction of inputs for problem toxics such that we meet our goal for Lake Ontario. Our intention is to identify the input reductions required for problem toxics based on increasingly sophisticated analyses over time.

a. Preliminary models of fate* for toxics exceeding standards or criteria will be developed within one year. It is our intention to apply these preliminary models to identify the required input reductions. It is also our intention to identify target dates for the attainment of the required input reductions.

b. More fully-developed models of fate will be generated as necessary, after a careful evaluation of the preliminary models.

c. If standards and criteria are attained, but ecosystem objectives are not attained, further reduction of problem toxics will be required.

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* In this "Executive Summary" the term "preliminary model of fate" is synonymous with the term "mass balance model".

Objective 3. Zero Discharge - Further reduction of toxic inputs to zero through advances in technology and through restrictions or voluntary elimination of the manufacture and use of certain toxics.

a. The technology-based limits for some industrial categories (e.g. the paint formulation category in the United States) already call for zero discharge; as toxics control technology evolves, zero discharge can be required for additional industrial categories.

b. We cannot quantify this objective nor can we associate any target dates with it.

The Lake Ontario Toxics Management Plan deals with all toxics, not just persistent toxics.

3. TODAY'S PROGRAMS

What The Draft Plan Says

In New York State, present pollution controls are based principally on the use of technology to prevent toxic substances from entering the environment. Controls such as wastewater discharge permits and hazardous site remedial plans usually specify use of the best technologies available. Where it can be shown that application of the most effective technology is not sufficient to protect public health or the environment, additional control measures are required.

In Ontario, effluent guidelines are set in legally-enforceable Control Orders or Certificates of Approval, based on both technology and water quality factors. The Provincial Ontario Municipal-Industrial Strategy for Abatement (MISA), begun in June, 1986, will set monitoring regulations and effluent limit regulations based on best available technology (BAT).

The draft Plan describes existing toxics control programs and the activities that will be undertaken in the near future to fill gaps in these programs.

What The Public Says

There was general agreement that the full implementation of existing and developing programs will achieve a significant reduction of toxic inputs to the Lake.

There were a number of suggestions that the Plan include additional programs. Of particular note were concerns related to shock loadings and the need for source reduction.

There were also a number of specific comments on the individual programs.

Response

The final Plan will include descriptions of additional programs and commitments for their full implementation. They are:

- Air Toxics
- Spills
- Dredging and Dredged Spoil Disposal
- Product Control
- Source Reduction
  - o Waste Minimization
  - o Waste Exchanges
  - o Household Chemicals
- Sludge Disposal
- Solid Waste
- Water Monitoring
- Potable Drinking Water
- Program Integration Mechanisms

Specific comments on the individual programs will be addressed in the Public Responsiveness Document.

4. GEOGRAPHIC AREAS OF SPECIAL CONCERN

What The Draft Plan Says

The Plan recommends focusing corrective activities on specific geographic areas around Lake Ontario: the Niagara River and seven Remedial Action Plan (RAP) areas located around the Lake.

What The Public Says

The public fully supports intensive efforts focussed on geographic areas of special concern. They also believe this focus will have a marked positive effect. However, localized efforts to remediate these designated sites should not result in increased ambient Lake contamination.

Many emphasized the importance of the Niagara River and the upstream Great Lakes as sources of toxics to Lake Ontario.

A few want to expand the study area to include the St. Lawrence River.

Many would like for a process to list and de-list Areas of Concern.

Many see the need to coordinate the Lake-wide and RAP planning efforts.

Response

The Lake Ontario Toxics Committee acknowledges the importance of the Niagara River and the upstream Great Lakes as sources of toxics to Lake Ontario. The Lake Ontario Plan, using mass balance techniques, will identify the relative contributions of problem toxics entering the Lake from various sources, including the Niagara River and the upstream Great Lakes. This will, in turn, facilitate identification of proposed reduction targets and implementation of appropriate management responses.

The Niagara River Toxics Management Plan will be used as the vehicle to identify the required management responses within the Niagara River Basin. The Niagara River Toxics Management Plan will also be used as the vehicle for referring proposed reduction targets for the upstream Great Lakes to the appropriate jurisdictions for response.

The general process for listing and de-listing Areas of Concern is outlined in the Great Lakes Water Quality Agreement. To the extent that the Plan identifies additional Areas of Concern, they will be brought to the attention of the individual jurisdictions for appropriate action.

In order to better coordinate the Lake-wide and RAP planning efforts, the following steps will be taken:

- The Lake Ontario Toxics Committee will prepare letters to the jurisdictions responsible for the individual RAPs, identifying chemicals that are problems on a Lake-wide basis, and seeking assistance in obtaining load reductions for these chemicals to the extent that they have been identified as problems in the Areas of Concern.

- Information exchanges between the LOTC and the individual RAPs will be encouraged.

- Public involvement efforts will be coordinated (See Communication and Reporting).

5. FUTURE APPROACH

What The Draft Plan Says

Future controls will limit toxics on a chemical-by-chemical basis to ensure protection of human health and the ecosystem. Ecosystem objectives will be established to evaluate the effectiveness of the chemical-by-chemical approach.

What The Public Says

The chemical-by-chemical approach is seen as having advantages and disadvantages.

- The three major advantages are:
  - o It allows us to set clear priorities;
  - o Existing regulatory programs can deal with problems identified on a chemical specific basis; and
  - o It is cost effective.

- The two major disadvantages are:
  - o It ignores cumulative and synergistic effects; and
  - o We don't have the knowledge to set adequately protective standards.

One element of the chemical-by-chemical approach, the development of mass balances for problem toxics, has wide support. There are, however, concerns about acceptability and enforceability of the results of the mass balance efforts.

To the extent that a chemical-by-chemical approach is used, there is a need for uniform standards and advisories.

The use of an ecosystem-based approach in parallel with the chemical-by-chemical approach is one of the most popular elements of the plan.

Many emphasized the need for broad involvement in establishing ecosystem objectives; representation of the public, particularly academics, were frequently recommended for involvement on the Ecosystem Objectives Sub-committee.

There were some suggestions for ecosystem objectives; many suggested that the ecosystem be defined to include humans.

Response

The Plan will retain the parallel chemical-by-chemical and ecosystem approaches. Each has advantages and disadvantages; they work well together. The mass balance approach is essential to the establishment of quantifiable input reduction targets on a chemical specific basis.

As outlined in the section on goals, preliminary mass balance estimates can be used to establish preliminary input reduction targets within one year. The cost to the Four Parties will be approximately $100,000 (U.S.).

Decisions on incurring the substantial costs required to construct fully-developed mass balance estimates will be deferred until the completion of the preliminary models.

The Four Parties will move towards more uniform standards and advisories by referring differences to the Sub-committee on Criteria and Standards. The Sub-committee will develop recommendations on resolving differences for consideration by the individual jurisdictions.

The Ecosystem Objectives Sub-committee will include representatives from the public, including academics. There will be costs to the Four Parties to cover invitational travel.

Specific suggestions for ecosystem objectives will be referred to the Sub-committee.

In establishing ecosystem objectives for Lake Ontario, the ecosystem will be defined to include humans.

6. COMMUNICATION AND REPORTING

What The Draft Plan Says

The draft Plan includes a number of continuing public involvement commitments. These are:

- Coordination Committee meetings, open to the public, will be held at locations around the Lake.
- The Plan will be updated every two years; status reports will be issued in alternate years.
- Mailing lists will be maintained. Those on mailing lists will receive Plan updates, status reports and bibliographies of technical reports.

- Technical reports will be maintained in repositories around the Lake.

What The Public Says

The Lake Ontario Toxics Committee received a clear message calling for increased public participation in the development and implementation of the Lake Ontario Toxics Management Plan. The message also highlighted needs for more information and increased dialogue overall. Of particular concern were accountability, outreach to develop an effective, basin-wide constituency, and coordination with other related efforts.

Considerable interest was expressed for the establishment of a citizen's advisory committee (CAC) associated with the Lake Ontario Toxics Committee. Some proponents indicated a need for funding to alleviate expenses while a few suggested funding should include a per diem stipend. Discussion also reflected concern about public participation in a multiplicity of such fora and the associated time commitments.

There was strong support for regular Coordination Committee meetings around the Lake. The suggested frequency ranged from every two months to every six months.

To ensure accountability, the public wants regular progress reports on the implementation of the Plan.

There were many suggestions for developing a basin-wide constituency. These included:

- Making informational materials more widely available by using local and university library systems;
- Using existing organizations such as the Lake Ontario Organizing Network;
- Using citizens to distribute information;
- Conducting bi-national conferences;
- Using newsletters;
- Developing educational curricula; and
- Making special efforts to involve industry, municipal government, labor groups, and other agencies.

The public also saw the need to coordinate with other ongoing public involvement efforts:

- Coordinate Niagara River Coordination Committee activities with Lake Ontario Coordination Committee activities; and

- Coordinate with RAP public involvement efforts.

Response

There will be one Coordination Committee for Niagara River and Lake Ontario issues. Business meetings of this Committee will be held to review status reports on Plan development and implementation, and to deal with problems and issues as they arise. These meetings will be open to the public. Meetings on the Niagara Plan will be held in Niagara Falls, Ontario or Niagara Falls, New York. Meetings on the Lake Ontario Plan will be held at various locations throughout the Lake Ontario Basin.

Following a careful evaluation of the identified needs and options for ongoing public involvement in the Lake Ontario effort, the LOTC recommends the Communication and Reporting component of the LOTMP be expanded considerably from that proposed in the draft Plan. It is felt the following recommendation reflects concerns on the part of both the agencies and of the participating public for an efficient and effective vehicle of communication. It is also the intent to implement this proposal for a one year trial and evaluate its effectiveness in meeting the needs of both the agencies and the public in the cooperative development and implementation of the LOTMP.

The LOTC recommends that public consultative activities build on the RAP processes around the Lake Ontario and Niagara River basins to disseminate information and air concerns for the Lake-wide activity. This takes advantage of established networks of stakeholders and concerned interests, focusses work in designated "hotspots" around the basin within the context of a Lake-wide program, and promotes coordination between the various interests at work in the basin. This will be supplemented with bi-national workshops held at least once a year (coincident with the release of annual status reports and updates) and additionally as issues and concerns arise that demand a more Lake-wide focus. The latter will feature specialists brought together to bring their collective expertise to bear on specific problems in a public forum. The LOTMP will not become a prime focus for existing RAPs, but Lake Ontario can be part of RAP agendas as issues arise and the responses will set direction for more comprehensive activities (such as workshops) as need arises.

It is felt this approach will better serve the larger jurisdiction of a whole lake system, while, at the same time, ensuring the most effective use of the resources contributed both by the agencies and by the public. There is a large and diverse range of activities that make up the whole. The proposed strategy provides both the focus needed to effectively address these components and the mechanism for knitting them into a comprehensive and holistic plan of attack. The procedure also facilitates carrying out most of the specific suggestions referenced above.

7. GENERAL

What The Draft Plan Says

Not applicable.

What The Public Says

The public perceived the Plan to be "a good beginning". Many were impressed with the ability of the Four Parties to work together to produce a Plan. Most emphasized the need for further work. A few thought that the Plan was merely a rehash of existing information.

There were three additional recurring themes:

1. The Plan should identify the laws that will need to be created or amended to achieve the goals of the Plan.

2. The Plan should include a discussion of the costs and sources of funding for implementation of the Plan. Some asked that options at different cost levels be included.

3. The Lake Ontario Toxics Management Plan should serve as the basis for the Lake-wide Management Plan required by the GLWQA; there should be one plan for the Lake.

Response

We thank the public for its kind remarks. We agree that the Plan is just a beginning and that extensive further work is essential. We note that there are many elements of the Plan (e.g. mass balance, ecosystem objectives) that are new. The lack of legislative authority has not yet been identified as an impediment to the implementation of any Plan recommendations. This is because all implementation activities thus far included in the Plan fall in the category of existing and developing programs. However, with the completion of the

preliminary mass balance efforts a year from now, we may begin identifying control needs that do go beyond existing legislative authority. If so, the Plan will recommend legislative changes.

Similarly, with regard to the costs of implementation, the Plan thus far relies on existing and developing programs not initiated as part of this planning effort. For this reason, the Plan has not yet imposed any incremental costs on the regulated community. However, with the completion of the preliminary mass balance efforts a year from now, we may begin identifying control needs that do impose incremental costs on the regulated community. If so, the Plan will estimate the costs and benefits of those controls.

This Executive Summary does identify incremental costs associated with continued development of the Lake Ontario Toxics Management Plan.

The Lake Ontario Toxics Management Plan will serve as the Lake-wide Management Plan required by the GLWQA. It may need to be modified as consultation within the IJC community further defines the requirements for Lake-wide management plans under the GLWQA.