EPA U.S. Environmental Protection Agency Region 5 Responses to Public Comments on the Draft Lake Michigan Lakewide Management Plan

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Summary of Public Comments to January 1992 Draft of Lake Michigan Lakewide Management Plan and EPA Responses to Comments

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EPA U.S. Environmental Protection Agency Region 5 Responses to Public Comments on the Draft Lake Michigan Lakewide Management Plan

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **03 Appendix A**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 5-6**

The Comments were

Appendix A: We support the efforts to identify sources of contamination. However, we can no longer afford to continue to document sources and allow additional sources to be permitted in an already burdened ecosystem. We urge a halt to additional discharges or emissions of bioaccumulating persistent toxics. There must be a plan developed to reduce the levels of toxics in our lake and environment.

On page A-16, Pollution Prevention is given only one page. We request additional emphasis on the important solution. Indiana has recent legislation about this issue and there is much support for this concept. More resources should be spent on this issue.

The EPA Response is

The Lake Michigan Lakewide Management Plan (LaMP) is designed to reduce levels of toxic pollutants that are impacting the Lake Michigan watershed. Source identification for the LaMP pollutants is a critical component of the LaMP process. In order to effectively reduce loads and ambient concentrations of toxic pollutants and restore a healthy environment, we need to know the sources of these chemicals. However, the participating Agencies agree that action can be taken to reduce loads even if all sources are not known. For example, we can take steps to reduce loadings of a particular substance from stormwater (for example) even if we are not sure whether there are other sources of that chemical. The action agenda in the document reflects this approach. Pollution prevention and reduction activities are underway or proposed based on available information, despite incomplete understanding of relative loadings from different sources. As the LaMP process continues, additional actions will be undertaken as additional sources are identified.

Concerning pollution prevention (P2), the revised draft LaMP does place more emphasis on this topic. The LaMP Pollution Prevention Workgroup has drafted a P2 Strategy which is included in Chapter 5 of the revised LaMP. USEPA is funding a number of P2 projects, listed in the LaMP action agenda. In addition, the revised draft LaMP contains a more substantial inventory of ongoing P2 activities for toxic pollutants in the Lake Michigan basin.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **SAVE DUNES COUNCIL** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **05 Appendix C**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.2/par.3,7**

The Comments were

[The Appendix C, for 304 (l) waters, does not list the Grand Cal.]

Appendix C: We urge you to complete this list with current data.

The EPA Response is

The list of 304(l) waters has been updated in the revised draft LaMP, and the Grand Calumet is included.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **08 Appendix F**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 8**

The Comments were

Appendix F: This data is not only not current, it is not complete or accurate. There are facilities on the list which do not discharge into the basin, such as Modine in LaPorte, Indiana. There are also facilities which discharge and are not on the list, like the Indiana steel mills. We also urge EPA to include the releases from electric power generating facilities, which are exempt from TRI reporting.

The EPA Response is

Information from the Toxics Release Inventory (TRI) has been incorporated into Chapter 4, on sources and loads, and is no longer listed in an appendix. The TRI data incorporated into Chapter 4 of the revised draft LaMP has been checked for accuracy and completeness. Releases of LaMP pollutants from all sources will be evaluated by the governments when making recommendations for control activities. However, for purposes of summarizing TRI data, it is unlikely that releases from electric-power generating facilities will be included since they are exempt from TRI reporting. Releases from these facilities will be analyzed from other program databases (such as the Permit Compliance System for water dischargers).

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **11 Sediments**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 3-4**

The Comments were

... We also are very concerned about the problem of contaminated sediments in our waterways and how best to develop Best Management Practices to reduce sediment loading.

The Great Lakes Critical Programs Act of 1990 mandates the development of management plans for Confined Disposal Facilities (CDFs) around the Great Lakes. We know this has not been done. There is a CDF in Michigan City, subject of a federal lawsuit, that has had no management plan and little, if any, inspection for the past 15 years. We urge you to enforce compliance with this federal law.

The EPA Response is

The U.S. Army Corps of Engineers (COE) is responsible for the oversight of CDFs. No management plan has been developed for the Michigan City CDF due to lack of funding. It has been filled in twice, and was sealed and capped in 1990. This CDF has been subject to annual inspections, including groundwater, and no problems have been found. Michigan City will soon take control of the land that holds the CDF, and the COE is working on a CDF guidance document for the city. In addition, the federal government is developing an issue paper to address outstanding CDF issues, examine the current status of CDFs, and how to improve CDF design and inspection in the future. No firm date has been given for the release of this report.

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These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 1**

The Comments were

Conclusion: The Save the Dunes Council supports the effort to develop a lakewide management plan for Lake Michigan. However, we urge to look beyond an inventory of impaired uses or emissions calculations and develop methods to address the know problems.

The EPA Response is

USEPA agrees that specific actions can be implemented now based on available information to address known problems. Pollution prevention, reduction, and remediation activities, as well as data collection and assessment activities, are identified in the revised draft LaMP action agenda.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **P 1, PAR 2-3**

The Comments were

Objectives: We support the concept of a lakewide management plan. We also support the broad goals and objectives outlined in your document. However, on page 1, the "emphasis on native species," has caused some consternation with local sportfishing groups. We have been very fortunate to have the support of many of these groups in efforts to improve water quality and habitat. We are concerned that this goal not divide groups which have common interests, such as a cleaner environment. Therefore, we urge continued cooperation with the sportfishing community to resolve concerns about this issue. For example, years ago the alewives were seen as a scourge upon the lake, with die-offs fouling our beaches. The stocking of the salmonids created a solution to those large numbers of alewives and helped establish an important economic and recreational industry. We urge a coordinated approach to this issue using all available resources, including fishery professionals, to address the future of fishery management.

We support coordination with the objections of the International Joint Commission and the Great Lakes Water Quality Agreement.

The EPA Response is

The goal of the Lake Michigan LaMP is to reduce levels of toxic pollutants impacting Lake Michigan and its watershed. Progress towards this goal will benefit all Lake Michigan species. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will attempt to dictate fishery management.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 3-4**

The Comments were

Section 2: Sources and loadings to not seem to be complete. We support the effort to identify all sources, including atmospheric deposition. However, the are omissions. For example, on page 46, there is a chart which identifies the Grand Calumet River as contributing 23% of the PCB loading to Lake Michigan. The Appendix C, for 304 (l) waters, does not list the Grand Cal.

Further, on page 50, there seems to be an underestimate of metals discharges by industry. For example, a recent newspaper series by the Post-Tribune identified 200,000 pounds of lead discharged by Inland Steel into Lake Michigan alone in 1990, based on TRI data. Yet you state, on page 51, only 40,000 pounds into the entire lake! Something is wrong! We urge you also look at TRI data.

The EPA Response is

The loading estimates in the revised draft LaMP has been revised based on the most recent data available for all sources. However, loadings data for many toxic pollutants is scarce. Also, a number of assumptions frequently have to be made when calculating loads based on available data. It is not unusual, unfortunately, for calculations based on the same data to differ by an order of magnitude or more depending on whether conservative, moderate, or worst-case assumptions are made. Obtaining precise loadings estimates are not really necessary for driving load reduction efforts, but what is important is understanding the relative importance of various sources. Nonetheless, every effort has been made to ensure that loading estimates in the LaMP document are as precise and accurate as possible.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **D Municipal**

These comments were found at the following locations in the comment letter: **P 2, 3; PAR 1, 1**

The Comments were

On page 15, the conclusion the local government is addressing local beach closings is false. We know that there are numerous cities in Northwest Indiana that continue to bypass raw sewage into the Lake, one has 80 CSOs alone. This must be addressed.

... The CSOs in Northwest Indiana, for example, will take enormous resources to address. However, it is hard to understand why one city such as Michigan City, was required to spend $40 million to upgrade its wastewater treatment plant, while another city within 30 miles has 80 CSOs that continue to dump raw sewage during every rain event.

The EPA Response is

USEPA recognizes that combined sewer overflows (CSOs) continue to be a problem in many cities around Lake Michigan, and a problem whose correction is very expensive. USEPA also recognizes that CSOs likely contribute LaMP pollutants into Lake Michigan and its tributaries, though estimating loads from this source is difficult. USEPA has recently proposed a CSO policy whose elements include implementing, at a minimum, technology-based controls, giving priority attention to environmentally sensitive areas, and requiring municipalities to develop long-term CSO control plans. The policy also indicates USEPA's intent to initiate enforcement actions against dry-weather CSOs, and provides guidance on enforcement of wet-weather policy elements.

Regarding the specific comment about a city 30 miles from Michigan City that has 80 CSOs, it is not clear to which city the commentor is specifically referring. We assume it to be Gary or Hammond. Both cities have developed CSO control requirements and operational plans under a consent decree. These plans characterize the CSO problem, and propose to maximize CSO treatment, sewer storage, and implement a sewer-use ordinance. These plans, representing a first step, short-term solution, are being reviewed by USEPA and have not yet been approved. The northwest Indiana Remedial Action Plan (RAP) recommends eliminating all CSOs through the use of controls and treatment. Thus, while we recognize that CSOs continue to be a problem, steps are being taken to address CSOs. It is misleading to suggest that nothing is being done to improve the situation.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 2**

The Comments were

We also urge that EPA communicate the information about wildlife impairments, pages 16-23. This information should be part of an education outreach program by EPA. The public is much more likely to support increased financial expenditures when they have a reason to do so.

The EPA Response is

Public education and outreach is an important component of the LaMP process. There are a number of issues that have been or can be addressed through outreach activites. We agree that one issue that would be a good candidate for education efforts is the impact of toxic pollutants on the physical and biological resources of the Lake Michigan basin. We will consider this issue when planning future education and outreach activities.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **29 Tributaries**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 5**

The Comments were

We support the concept of watershed plans. We have been very active in an effort to develop a watershed plan for Trail Creek, a salmonid stream and tributary to Lake Michigan. Much more needs to be done.

The EPA Response is

USEPA and other Federal and State agencies believe that the LaMP should protect and restore the ecological integrity of the entire Lake Michigan watershed as well as the Lake itself. A healthy Lake Michigan cannot be achieved if its tributaries and watershed are not fully protected and restored.

These comments are from Docket Code Number **LM001** The comments were dated **1-8-1993**

The commenter was **Save Dunes Council** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 2**

The Comments were

Finally, the Council is very concerned about the Inland Steel lakefill. When people hear about a steel company that dumps its waste into the open waters of Lake Michigan in 1993, no one can believe EPA would even consider this proper waste disposal. In conclusion, we request EPA to address issues such as the Inland lakefill, in addition to the data collection effort of the LaMP.

The EPA Response is

The Inland Steel lakefill is being addressed through USEPA base programs such as permitting, compliance and enforcement, and sediments. USEPA has reached a consent decree with Inland Steel in March 1993 to address Safe Drinking Water Act, Clean Water Act, Toxic Substances Control Act, and Clean Air Act violations. The consent decree requires Inland Steel to develop and implement projects to improve the environment around the plant, reduce pollutant generation and release, and assess and remediate contaminated sediments.

These comments are from Docket Code Number **LM002** The comments were dated **12-28-1992**

The commenter was **WI FED - GREAT LAKES** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 5**

The Comments were

2. Reference to acceptable contamination levels in humans (risk assessment) should be avoided; as scientific knowledge in this area is confusing, and uncertain at best.

The EPA Response is

There is a great deal of uncertainty concerning the impacts of toxic pollutants on human health, especially concerning threshold levels of chemicals required to induce impairments in humans. There is much variation among individuals and among pollutants. Ultimately, our goal to prevent toxic pollutants from accumulating in fish, wildlife, and humans. As a result, the LaMP document will not suggest that there are "safe" levels of toxics in humans, and such references have been deleted from the revised draft LaMP.

These comments are from Docket Code Number **LM002** The comments were dated **12-28-1992**
The commenter was **WI FED - GREAT LAKES** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **16 Env Objectives**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

1. There must be recognition that it is impossible to return to the pristine, preintroduction of critical pollutants.

The EPA Response is

The LaMP does not suggest that we should or could return the system to a completely pristine condition. However, we believe that it is realistic and desirable to restore and protect the ecological health of Lake Michigan and its watershed from toxic pollution.

These comments are from Docket Code Number **LM002** The comments were dated **12-28-1992**
The commenter was **WI FED - GREAT LAKES** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **F Fish Populations**
These comments were found at the following locations in the comment letter: **P 2, PAR 1**

The Comments were

3. Reference to types of species should be eliminated from the aquatic communities statement. We believe it goes beyond that scope of the plan. How does one protect human health and water quality with restoration of self-sustaining fish population?

The EPA Response is

The goal of the Lake Michigan LaMP is to reduce levels of toxic pollutants impacting Lake Michigan and its watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM002** The comments were dated **12-28-1992**
The commenter was **WI FED - GREAT LAKES** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 1-2**

The Comments were

First we of the Wisconsin Federation of Great Lakes Sport Fishing Clubs, wish to thank the EPA for extending the comment period on the Lake Michigan Lakewide Plan. We believe that from the attendance at the public meetings fishermen have shown their concern and interest in the quality of water in Lake Michigan.

Because we as a group use the lake and have firsthand knowledge of physical changes in the lake, we feel we can be a vital part in identifying problems or as they're called impairments. We therefore would request, that as a group more fishing oriented organizations be included in future development of this plan and strategy updates.

The EPA Response is

USEPA is interested in getting participation in and input on the LaMP process from as many groups as possible. Stated simply, the more the better. Any organization or citizen interested in being placed on the LaMP mailing list should call USEPA at (312) 886-0152, or contact your State environmental protection agency (see address and number in the LaMP document).

These comments are from Docket Code Number **LM002** The comments were dated **12-28-1992**

The commenter was **WI FED - GREAT LAKES** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 2-3**

The Comments were

4. We feel that there is enough evidence of impairment within the Lake Michigan Basin, that references to problems in c Ohio River and in various oceans, are not required. This is a Lake Michigan plan. Let's keep the scope to Lake Michigan.

In summary we are disappointed with many of the references in this document. They are grossly out-of-date. Lake Michigan is very dynamic, and five-year-old or more data or observations, just aren't good enough.

The EPA Response is

The revised Lake Michigan LaMP document considers impairments in the Lake Michigan watershed only. We agree that references to the Ohio River and oceans are irrelevent from the perspective of this document. In some cases, however, it is appropriate to mention impacts of a Lake Michigan LaMP pollutant on other areas to support the case for reducing loads and ambient levels of that pollutant. However, the focus should clearly be Lake Michigan.

We have tried to use more recent data and information in the revised draft LaMP, and have eliminated some of the older references. However, because information on many toxics is generally lacking, there are times when the only data available are from older studies.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.3, Par7**

The Comments were

The action plan contains a lot of data gathering and analysis activities. Problem identification is crucial, however the document says very little about implementation and time tables for actions. For example, the action plan does not clearly specify how monitoring of long-range transport sources form outside the watershed will be achieved. An inventory of ongoing program and activities related to the LaMP objectives should be included in the LaMP...

P.8, Par.2:

P. 75 Section 3 Agenda Items: Most of the agenda items are outdated, and some of the items have been completely changed or re-prioritized. The assumption is that these agenda items will be updated before the draft document is finalized. We recommend that EPA Region V, Water, Air and Waste Divisions discuss work activities with their state counterparts in order to develop this agenda...

P.8, Par.5:
P. 79 The following action item could be added. The Great Lakes states in cooperation with USEPA and under the direction of the Great Lakes Commission are currently working in the development of an emissions inventory of toxic air pollutants for the Great Lakes region. This inventory includes 30 pollutants of concern to the Great Lakes and addresses some of the pollutants under the Lake Michigan LaMP.

The EPA Response is

The action agenda in the revised draft LaMP has been updated from the previous draft, and does include several implementation activities and schedules in addition to data gathering and analysis items. These items are being prioritized based on discussions among the agencies. Appendix A of the revised draft LaMP contains an inventory of ongoing pollution prevention, reduction, and remediation activities in the Lake Michigan watershed related to the control of toxic chemicals.

The item concerning the air emissions inventory has been included in the action agenda of the revised draft LaMP.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **03 Appendix A**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.10, Par.1**

The Comments were

A-7: Par. 3: The final number of pollutants to be included in the toxic emissions inventory work for the Great Lakes is 30 and not 25.

The EPA Response is

Actually, the correct number is now up to 43 pollutants to be included in the emissions inventory. One can only wonder whether this number will increase again before the revised draft LaMP is completed.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **04 Appendix B**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.10, par.2**

The Comments were

B Appendix B should be a review of the pollutants which are present in Lake Michigan, the use impairments which are suspected in Lake Michigan, and which chemicals are associated with the impairments present, in Lake Michigan.

Appendix B should present only Lake Michigan specific information justifying the inclusion of a pollutant in Level I, II, III, or IV. The appendix could include information on the strength of the association between the critical pollutants and use impairments (i.e. PCB and fish consumption advisories are strongly associated).

The EPA Response is

Appendix B, the summary of use impairments, in the January 1, 1992 draft Lake Michigan LaMP has been included in the main body of the revised draft LaMP as a separate chapter (Chapter 2). We feel that this will place a greater emphasis on identifying current ecological impairments and associated toxic pollutants in the Lake Michigan watershed. Because the Great Lakes Water Quality Agreement directs the LaMP to restore and protect beneficial uses, the use impairment summary should be a prime focus of the document. The use impairment summary has been expanded based on available information, and has been updated to reflect the most recent data.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **06 Appendix D**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.7, par.7**

The Comments were

P.61 Par.2 & Appendix D: The list of Wisconsin's RCRA facilities is incorrect. Tables I, II, III in Attachment IV list RCRA treatment, storage, and disposal (TSD) facilities which are active, closed, or involved in the RCRA Corrective Action Process respectively. Other states should review their lists for accuracy.

The EPA Response is

The list of Wisconsin RCRA facilities has been corrected based on the information provided by WDNR.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**
The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **09 Atmosph. Dep.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.7, par.4-6**

The Comments were

p. 56, par.1: This paragraph needs to address both wet and dry deposition (not just dry deposition). The main point that should be made is that toxic substances in the atmosphere can reach the earth's surface in different forms of precipitation, such as deposition as snow or rainfall and gas or particulates, and that additional monitoring is needed to quantify the source and loadings.

p.58 par.1: The definition of a major source should read "..which emit 100 tons or more". Also, under the 1990 Clean Air Act Amendments, a major source of toxic air pollutants is defined as that which emits 10 tons or more of a toxic pollutant or 25 tons or more of a combination of toxic pollutants. This definition might not apply to the TRI data but it applies to the Great Lakes states that are developing emissions inventories.

par. 3: The need to develop emissions inventories for the lake basin is mentioned. The development of emissions inventories for the lake basin is already underway as part of the Great Lakes Regional Air Toxic Emissions Inventory Project.

p.9, par.1:
p.83: Item 4: The development of emission factors under the Great Lakes Regional Toxic Emissions Inventory Project should be mentioned.

The EPA Response is

The revised draft LaMP section on pollutant loadings from air deposition (Chapter 4) mentions that both dry and wet deposition from the air are important pathways of pollutants to the Lake. The participating agencies have developed a monitoring study to quantify atmospheric deposition of LaMP pollutants to Lake Michigan, and this is included in the action agenda.

Major air sources are defined in the revised draft LaMP based on this comment. The development of air emissions inventories and emission factors are now mentioned in the action agenda of the revised draft LaMP.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**
The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.5, Par.3,7**

The Comments were

While we recognize that the use impairments are defined by the IJC, we believe the LaMP should consider a broader interpretation of the "fish tumors and other deformities" impairment to encompass fish health or physical and functional impairments...Unpublished studies relating a contaminant with a biological effect should not be used. In Table 1.2, draft reports on suspected pollutants should not be used. A scientific panel could be used to review the studies and determine acceptability.

The EPA Response is

USEPA concurs that unpublished studies or reports should not be used in the LaMP document in support of important conclusions or recommendations. We also interpret "fish tumors and other deformities" broadly to include physical, behavioral, and reproductive impairments.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **11 Sediments**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P3, par.5**

The Comments were

Contaminated sediment is likely a major source of critical pollutants to the Lake Michigan system. Sedimentation, nutrients and other pollutants are not addressed but need to be recognized as important. Control of sediments from urban and rural runoff into surface water is essential to control pollutants carried by sediments. The contaminated sediment section gives background information, but does not characterize the current knowledge of sediment contamination within the basin. Remediation strategies for contaminated in-place pollutants need to be considered in management actions section of the plan...

p.9, para.7
p.89 Item 3: The LaMP relates sediment remediation to clean-up only in the context of enforcement. This should be expanded to include voluntary and privately funded projects such as the USCOE obligation to clean-up contaminated sediments when dredging harbors for navigation. The use of current enforcement mechanisms may delay sediment clean-up activities as opposed to accelerating them.

The EPA Response is

USEPA Region 5 has completed an inventory of contaminated sediment sites in the basin, and have developed a contaminated sediment prioritization method to identify high priority sites at which no remediation action is underway. This information should serve as a basis for discussion among federal and state agencies for sediment remediation activities. USEPA and the States have funded and pursued a number of sediment remediation projects in the Lake Michigan watershed, and will continue to do so in the future. All participating agencies recognize contaminated sediment remediation to be a high priority.

Because sediment remediation is a priority, we need to consider all options for cleaning them up, including enforcement, voluntary efforts, and privately funded efforts. USEPA does not consider enforcement to be the only way to remediate sediments, nor does the LaMP imply this. Voluntary clean-up activities are frequently the most desired option; unfortunately, this is not an option or is not effective in all situations. Both approached should be considered and used as appropriate.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P5, PARA4**

The Comments were

p. 13: Table 1.1 should only include Lake Michigan specific information...

p.5, para.8:
It is good to see pollutants of concern in the RAP AOCs considered in the LaMP...

p6, para.9-10:
p. 53 The reference to controls of the critical pollutants through BAT is misleading. The discussion should acknowledge that WQBEL apply no matter what the industrial category and may be more limiting.

Table 2.7: This table is incomplete since it does not list the metals. It would be better to simply list the categorical limits (if any) exist, and also include state water quality criteria or limits in the table to provide for a more complete picture as to how these substances are controlled...

p.2, para.3:
We applaud the effort by EPA to convent the Critical Pollutants Workgroup. This group has developed a workable process and listing of pollutants for the LaMP to focus it's attention.

The EPA Response is

We concur that the summary of use impairments and the pollutants associated with these impairments should be restricted to Lake Michigan and its watershed. The role of both Water Quality Based Effluent Limits (WQBELs) and Best Available Technology (BAT) in the control of critical pollutants in discharges from NPDES facilities is discussed in the revised LaMP. Table 2.7 in the 1/1/92 draft LaMP has been eliminated from the revised draft LaMP. We felt that it did not provide particularly useful information.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter:

The Comments were

P5, PARA5 See: P. 13 & 15 The last sentence in paragraph one (literature search did not provide extensive information regarding which pollutants...) appears confusing in light of the last sentence in the first paragraph on page 15 (pollutants... have been associated in readily available literature).

P5, PARA6 See: P. 15 & 25 The terms "beneficial use impairments" and "ecosystem impairments" are used interchangeably. Beneficial use impairments refer to use impairments for humans, this is much different than ecosystem impairments.

P5, PARA9 See: P. 25 "Lamp should provide incentives..." Examples or ideas should listed.

P6, PARA8 See: P. 50 Table 2.5: Specific comments on this table are included in the body of this comment letter. In addition, do blanks represent zero, or quantities less than the level of detection, or no available data? This information needs to be clarified.

P7, PARA3 See: Table 2.8: Although some caveats are given in the paragraph preceding the table, more information should be presented to explain results. For example, 1988 total Zn in WI is 41,000kg, but recoverable Zn is zero. This is most likely an impossibility. This information supports the argument that total metals are not biologically available, and thus should not be considered pollutants of concern. This is not the kind of "suggestions" that should be made.

P14 See: Attachment II Grammatical Errors

See: P.1 Beneficial use impairments are defined in Annex II of the Great Lakes Water Quality Agreement. This is referenced several times throughout the document (p.4, p.6, p.7, p.8, p.9). One reference is sufficient.

See: P.13 Table 1.1: The first citation in Table 1.1 (WDNR and WDOH, 1991) is not listed in the "Literature Cited" section.

Par. 2, second sentence: "includes" should be changed to "includes".

See: P.15 Par.2. Review grammar in the second paragraph. "Nickle" should be spelled nickel.

Last sentence: Change the "as" to "are"

See: P.21 Figure 1.3: Some figures and charts are illegible.

See: P.38 Par. 2: The third sentence should read..."monitor toxic pollutants in effluents emission sources and ambient conditions..."

See: P.42 Last paragraph, 3rd line from bottom: Replace "recover" with "recovery".

See: P.44 Par. 1: Change "data is" to "data are".

See: P.61 Par.1: The work "transport" is used incorrectly and should be replaced by "treatment".

See: A-7 Many program's (TRI, RCRA, CERCLA) goals and objectives are explained more that once. For example, in both section A-7 and page 44 there is a similar description of the TRI. Programs and inventories such as TMDLs, TRI, Air Emissions Inventories, RCRA and CERCLA are discussed in both Section 2, and Appendix A.

See: B Section 1 should refer to Appendix B and does not need to repeat that information other than presenting a summary as is done in Table 1.1. In this way, the majority of the information presented on pages 14 to

24 could be moved to and combined with Appendix B.

The Great Lakes Water Quality Agreement listed the fourteen beneficial use impairments to be considered in the identification of Critical Pollutants for the LaMP. This correlation is listed in section B-1 paragraph1, p.11. twice on p.12.

Reorganization of the document could eliminate this kind of duplication.

Attachment III Public Comments

P12, PARA6 See: Objective No.4: Change "The Lake Michigan and nearshore zones..." to "Lake Michigan and nearshore zones".

The EPA Response is

All editorial comments have been considered and incorporated into the revised LaMP as appropriate.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **15 Env Indicators**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P3, PAR2**

The Comments were

In addition to monitoring pollutant concentrations, biological monitoring should be utilized to ascertain whether the state of the ecosystem is improving and determine if a site has been adequately remediated to reduce contaminant loading for the sake of consumption advisories and the health of the ecosystem. Biological monitoring should include biological and health assessments in addition to measuring contaminant concentrations. Coordination between the state's nearshore monitoring efforts and EPA's open lake monitoring (Lake Guardian) should be carefully coordinated to utilize the information to its full extent and avoid overlap...

P5, PARA1:
P. 8-9: References as to the official status of the longjaw and deep water ciscos should be used (see official federal and state registers on endangered, threatened, and extinct species). Becker (1983, Fishes of Wisconsin. The University of Wisconsin Press. Madison, WI) states that the longjaw cisco is endangered. The Miller 1989 reference should be listed in the reference section.

The EPA Response is

The LaMP recognizes the need for biological as well as chemical monitoring to measure progress towards environmental goals. The ultimate endpoint is healthy, diverse, and contaminant-free biota at all trophic levels in the Lake Michigan watershed community. The participating agencies must identify biological components that are indicators of progress, and the quantitative levels that should be set for these endpoints. The next step in the process would then be to determine which of these endpoints are currently being monitored by an agency, and if not, which agency is best equipped to collect that information. USEPA's Environmental Monitoring and Assessment Program (EMAP) will be collecting some valuable biological information in Lake Michigan that could be used in the LaMP process. The action agenda in the revised draft LaMP provides a schedule for development and adoption of environmental indicators, and mentions the EMAP effort.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **16 Env Objectives**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P1, PAR6**

The Comments were

If the ecosystem goals are to remain a major component of the LaMP, much more attention needs to be given to their development. The LaMP should provide justification for the ecosystem goals for aquatic communities, along with an explanation of how the goals complement the goals previously established for Lake Michigan. For example, the LaMP's ecosystem goals for aquatic communities must relate to the common goal statement of the Great Lakes fisheries agencies and the Lake Michigan Fish Community Objectives. (See Lake Michigan Fish Community Objectives in: Great Lake Fishery Commission. 1990. Lake Michigan: An ecosystem approach for remediation of toxics). How is the LaMP's ecosystem goal for aquatic communities consistent with vision statements of the Great Lake Fishery Commission for the Decade of the 1990s?..

The EPA Response is

The ecosystem goals in the 1/1/92 draft Lake Michigan LaMP are essentially the same as those developed for the Lake Ontario Toxics Management Plan. A workshop, held in December 1991, convened representatives from numerous State and Federal agencies, as well as interested public organizations, to expand and modify these objectives. However, to date there has been no process for public review or for formal Agency approval. USEPA sees the public comment process for the LaMP to be the opportunity for public review and comment on the objectives. Based on these comments, the Agencies should modify the objectives and officially adopt them for Lake Michigan. Environmental objectives for Lake Michigan developed through the LaMP process will be coordinated with the detailed fishery goals already developed under the auspices of the Great Lakes Fishery Commission and other fishery agencies.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P4, PARA2**

The Comments were

p.4, para. 1

Programs, initiatives and mandates that led to the development of the LaMP should be discussed early in the document. This would identify the purpose of the document and clarify its association to other Great Lakes Programs. The relationship between the LaMP, RAPs, the Great Lakes Water Quality Initiative and other Great Lakes Programs needs to be clarified. This type of information could be in the form of a schematic or chart. As the document currently stands, this information is unnecessarily repeated and dispersed throughout the beginning of the document...

P5, PARA2:

P. 12: While the LaMP may be the vehicle to address impairments on a regional scale, it may be the local scale that produces the most reduction in pollutant loads and ecological improvements. The LaMP does not clarify how it will integrate activities at the local level (i.e. RAP activities)...

P9, PARA2:

P. 85: The wasteload and load allocation strategy needs to be defined with the Management Committee before the allocations are actually made.

The EPA Response is

The first chapter in the revised LaMP document discusses the mandate for LaMP development, and describes the relationship of the LaMP to other Great Lakes programs and initiatives such as RAPs and the Great Lakes Water Quality Initiative. USEPA agrees that these discussions are essential for placing the LaMP process in perspective.

The LaMP process sets a framework for identifying and prioritizing activities designed to restore and protect the ecological health of the Lake Michigan watershed, and for coordinating ongoing local, State, and Federal activities. As pollutant sources are identified and loads quantified, we will develop a better understanding of control options most effective and efficient for reducing LaMP pollutant loadings. Many of these options will undoubtedly be local projects, especially activities implemented through the RAP process. The LaMP will not interfere with or diminish the importance of local efforts, but rather place them in the context of their impact on a larger scale, i.e. Lake Michigan. In other words, the LaMP provides a framework for implementing local and regional activities.

We concur that the Management Committee needs to have further discussions on the load and wasteload allocation strategy, and how it should proceed.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **pgs. 1,2,7,8,12**

The Comments were

p.1, para.4,5
Ecosystem Objectives and LaMP Goals. The ecosystem objectives identified in the LaMP are very broad and support the general concepts identified in the Great Lakes Water Quality Agreement. These objectives must be refined to apply specifically to Lake Michigan in order to provide the framework on which the comprehensive plan can be developed. The objectives should be developed in a forum which includes federal, state, private and public interests in order to assure that the established objectives are reasonable and applicable to the Lake Michigan ecosystem.

While the objectives in the draft plan are broad, the LaMP goals are very specific. The LaMP is focused toward reducing priority toxics using existing regulations. We support the LaMP's current focus on toxics, and understand that future developments will expand the goals of the LaMP to encompass a more comprehensive, ecosystem approach to remediating lakewide problems...

p.2,para.4:
Due to limited funding and resources, we feel that load quantitation data will allow the states to focus their regulatory and management programs on specific locations where they will be most effective. The LaMP will act as the vehicle to prioritize activities to identify and assess sources of critical pollutants.

p.7, para.8:
Table 2.11: The Moss American and Kohler Landfill Superfund Site each have a remedy selected (RS) and a remedy design (RD). The Sheboygan Harbor Superfund Site was omitted from the table. Site studies (SS) are ongoing for PCBs, lead, chromium, cadmium and PAHS.

p.8, para.1:
p.74 Actions in Section 3 are too focused on ongoing programs, especially the NPDES program. This imbalance may not address other (possibly more significant) sources of critical pollutants to Lake Michigan. For example, product bans, sediment remediation, air standards, and innovative land use management schemes need to be promoted in the LaMP, rather than placing emphasis on extracting the last remaining quantities of pollutants from the end of a pipe. Comprehensive, innovative actions need to be considered...

p.12, para.5:
P. 1 Objective #1, aquatic communities: Many citizens, especially those representing the sport and commercial fishing industries, were concerned with the emphasis on self-sustaining communities of native species. Many citizens involved in the fishing industry viewed the goal as a statement against the stocking of non-native salmonid species such as coho and chinook salmon and brown and steel head trout. Many felt that this objective should be changed or completely deleted...

p.12, para.7:
p. 2 Goal No 1(a): What are minimal health risks? If the LaMP is to act as a stand alone document, a brief description of risk assessment should be included. Without a general understanding of risk and risk assessment, it is difficult for the general public to understand how for instance, a metal can be both essential and toxic.

The EPA Response is

The process for developing ecosystem goals and objectives is defined in the revised draft LaMP, and it has included the State and Federal agencies, as well as interested public organizations and citizens. The focus of the LaMP document is currently toxics.

We concur that quantifying loads is an important component of the LaMP process. USEPA, U.S. Geological Survey, and the States of Indiana, Illinois, Michigan, and Wisconsin has developed a comprehensive tributary and atmospheric load deposition monitoring plan. This plan is described in Chapter 5 of the revised draft LaMP.

Table 2.11 has been revised to address WDNR's comments.

USEPA agrees that the LaMP process must consider and evaluate the impacts of pollutant loadings from all potential sources. This requires evaluation of loadings from NPDES facilities in addition to nonpoint sources. Based on these evaluations, opportunities for load reductions from all sources will be identified. If an opportunity for load reduction presents itself for a particular source, the fact that that source may contribute only a small percentage of the total loadings should not preclude the agencies from taking action on that source. The point is well-taken, however, that for the LaMP to be successful, we must focus on all sources and not just on NPDES facilities.

The goal of the LaMP is to reduce levels of toxic pollutants impacting Lake Michigan and its watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been revised to eliminate the apparent perception among some that the LaMP is a fishery management plan.

We do not wish to use the LaMP document to fully describe the concept of risk and risk assessment. USEPA has published descriptions and guidance on this topic, and it does not seem appropriate to deal extensively with the topic in the LaMP. THe LaMP goal is to reduce loads and ambient levels of toxic chemicals in the watershed, which will decrease human health and ecological risks. However, USEPA will evaluate text in the LaMP to which risk or risk assessments are referred, and make sure that the reader does not need advanced knowledge of risk assessment to understand the points being made.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.3, Par.4**

The Comments were

p.3, par. 4:

We strongly disagree with the use of WPDES permit limitations as current loadings to Lake Michigan. Wisconsin, through the WPDES permits, has attempted to cap the maximum loadings of 21 bioaccumulation substances to the Great Lakes. Loading values should be based on actual discharge data not permitted or otherwise authorized levels. Use of data, other than actual discharge data, will result in poor decisions relative to the management of the Lake and therefore the tables must be either reworked to make a more accurate portrayal, or they should be deleted. Loadings estimates from industrial and municipal dischargers generated by Wisconsin through grant X99S176-01 should be used to revise Table 2.5. These reports estimate toxic substance discharges to surface waters using the following data sources: priority pollutant scans, annual reporting by industries of their discharges as required in NR101, Wis. Adm. code, 1990 Data Summary for Wisconsin of the Toxic Chemical Release Form (SARA 313), and WPDES discharge monitoring reports (DMRs). These reports represent thousands of analyses performed by Wisconsin point sources discharging to Lake Michigan and are more indicative of loadings than using permit limits. Other states should be urged to provide similar summaries...

p.6, par.3:

p. 45 & 46 In both Tables 2.3 and 2.4 the contaminant loadings from the Milwaukee and the Menominee Rivers are the same. It is unlikely that the urbanized Milwaukee River and would contribute the same amount of PCBs to Lake Michigan as the Menominee River. Is this a mispelling (Menominee vs. Menomonee) or the result of rounding?..

p.6, par.11:

p.55, par.1: This paragraph discusses the statistical analysis of loadings information based on PCS. This contradicts the discussion on p.52 that suggests that information in the PCS data base does not lend itself to statistical analysis. Because of this, and the extremely high standard of error associated with this type of analysis, this discussion should be revised, as discussed earlier...

p.8, par.7:

p. 82, par.2: As discussed in the attached letter, estimates of critical pollutant loads should be based on what is actually in the discharge instead of projections of what BAT can achieve. This will provide a better indication of what is currently going into Lake Michigan from point sources.

The EPA Response is

Loading estimates from NPDES facilities have been revised, as suggested by WDNR, based on loadings information provided by the States of Illinois, Michigan, and Wisconsin. We agree that loading estimates should be based on actual discharge data and not permit limits or BAT projections. The tables containing loading estimates based on discharge and BAT have been deleted from the revised draft LaMP.

Table 2.3 from the 1/1/92 draft LaMP has been removed from the revised draft LaMP because of inaccuracies and the uncertainty of the data on which Table 2.3 was based.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter:

The Comments were

p.2, para.5

More emphasis needs to be placed on tributary monitoring to quantify all loadings. Data for all parameters from all pathways is needed to quantify tributary and atmospheric inputs of contaminants to the Lake ecosystem. The document needs to describe the kind of monitoring needed to estimate these loadings. Tributary data can be used to quantify loads, identify pollution sources and hot spots, and serve as base-line data for trend analysis. Sampling efforts should be focused on quantitation of all loads (tributary and atmospheric) with a "limited" amount of data taken in various environmental compartments...

P.2, Par.6:

In lake data should include whole lake dissolved and particulate concentrations of critical pollutants, surficial sediment concentration and concentrations in "selected" predator fish species. Sampling should be limited to a few (2-4) master stations that represent major portions of the lake areas (i.e. southern lake, northern lake) and be used for validation (qualitative checks) of the existing screening mass balance model developed by the Large Lakes Research States (Endicott et. al.) and at long term trend monitoring locations that should be revisited on a 3-5 year basis...

p.6, Para.1-2:

P. 42 Monitoring and Mass Balance section: Clarification is needed in terms of how the monitoring, mass balance budget and mass balance model will be integrated. Pollutant loads should be the inputs for a mass balance budget and should be available prior to the larger scale mass balance model. The integrated monitoring program is the critical first step.

Par. 1: The monitoring program discussed in the last sentence of this paragraph should be presented in the LaMP...

P.8, Par.4:

P. 76 As part of the effort to identify bioconcentratable substances, lipid and bag studies, caged fish studies, or other bioconcentration studies should be considered along with fish tissue analysis. These types of studies could indicate the presence of critical pollutants which, using standard analytical methods, might not otherwise be detected. This type of study is being proposed for the tributary monitoring program currently being designed.

The EPA Response is

USEPA is funding a comprehensive tributary and atmospheric deposition study for LaMP pollutants to Lake Michigan. This study was developed by USEPA, USGS, Illinois, Indiana, Michigan, and Wisconsin, and is described in Chapter 5 of the revised draft LaMP. The USEPA Great Lakes National Program Office collects annual fish samples from Lake Michigan and analyzes tissues for levels of contaminants. Sediment and water column data will be collected to calibrate and validate the mass balance model developed by USEPA's Large Lakes Research Station.

Load monitoring data collected during the tributary and air deposition monitoring study will be used by the mass balance model as pollutant inputs to Lake Michigan. In addition to this loading information, the mass balance model requires information about fate and transport of pollutants once they enter the Lake. Therefore, data on water column, sediment, and fish tissue concentrations will be collected from Lake Michigan. This information will allow the model to predict system responses to various load reduction scenarios.

The State of Michigan recently conducted a study in its Lake Michigan tributaries using a new analysis technique called the bioconcentratable substances protocol. This study scanned fish tissues for thousands of bioaccumulative pollutants. This is a qualitative technique, and is designed to detect whether fish are accumulating chemicals not identified through the LaMP process as impacting the watershed. This technique will serve as something of an "early warning system" for pollutants whose levels in Lake Michigan waters may be increasing. The analyses have almost been completed, and a final report will soon be completed.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.2, Par.4**

The Comments were

It is acknowledged early in the document that the significance of contributions from point source discharges to surface waters has been significantly reduced. Nonpoint sources of pollution have been identified as large contributors of toxic pollutants to the Lake Michigan system. However, throughout the LaMP and in the action items the discussion focuses on point sources regulated through the NPDES action items.

While some reduction in the amount of critical pollutants may be achieved through tighter controls on current wastewater regulations, the LaMP will need to act as the vehicle to identify and prioritize activities to identify the sources and reduce the impacts of critical pollutants in and beyond the Lake Michigan watershed. The LaMP provides a unique opportunity to creatively address the significant contributors of the critical pollutants. Additionally, the LaMP should serve as a forum for the states, EPA, and others to work towards developing and influencing control of critical pollutants from sources outside of the basin and to focus activities on the most significant sources of the pollutant. For example, if contaminated sediment and atmospheric deposition are the most significant sources of the critical pollutants. LaMP should be the mechanism to focus efforts and address these sources.

The EPA Response is

USEPA agrees with this comment. The LaMP will not fully restore and protect beneficial uses if the focus is solely on point source discharges. Nonpoint sources of pollutants must be identified and controlled. The LaMP is a process; we may be able to address some problems now, while other problems may require longer-term strategies and solutions. As our understanding of source contributions improves, we will be able to more effectively target our efforts and reduce pollutant loads. We may not have all of the solutions right now; however, the LaMP process serves as a framework for identifying where additional control measures are necessary, and for developing multi-media solutions to existing problems. The action agenda in the revised draft LaMP does contain a number of load reduction activities geared towards nonpoint sources of toxic pollutants.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.5, Par.11**

The Comments were

p.41, par. 3: The route of delivery of dioxin and furans to Lake Michigan should be discussed, as done for other contaminants...

P.6, Par.5:
P. 49 The discussion of point source dischargers should include a listing of the specific major dischargers in the Lake Michigan basin (as is done for the RCRA and Superfund sites in the basin).

P.6, Par.6:
P. 49 Table 2.4: It is misleading to suggest that volume of discharge from a facility, let alone a category of industry, is indicative of the mass of pollutant being discharged...

P.6, Par.8:
A summary of how releases from POTWs were estimated would assist in comparing the information between the two major categories of dischargers.

P.7, Par.4:
Tables 2.5, 2.6 and 2.8 present estimates of loadings from point sources all in different units (lb/yr, tones/yr, kg/yr). These tables should be reduced to similar units so that they can be compared. Loading estimates vary significantly between different data sources. A statement should be make with respect to which sources represent the best data and why.

P.9, Par.3-4:
P. 87 Item 1: Item 1 seems to imply that all municipalities along the Lake will complete user inventories. Is this the intent, or will this activity focus on the major POTWs?

Analytical methods for sludge characterization need to be appropriately defined before the POTWs are required to further characterize sludge for critical pollutants. The current accepted methods for the NPDES program may not provide usable data, and may require a shift of methods to those used in RCRA.

The EPA Response is

The known sources and delivery route of dioxins and furans will be included in the revised draft LaMP, as with other LaMP pollutants.

Appendix B of the revised draft LaMP contains a list of major NPDES dischargers in the Lake Michigan watershed.

Table 2.4 simply lists effluent flows from categories of facilities in the Lake Michigan watershed. Nowhere in Table 2.4, its heading, or the text is it suggested that flow volume is indicative of the mass of pollutants discharged. In fact, the text contains the statement "It is important to bear in mind that volume of flow and concentration and toxicity of waste water do not necessarily show a direct, positive correlation".

The methods for estimating releases from POTWs are presented in the cited reference (Great Lakes Water Quality Board 1989).

We agree that all loading estimates should be presented in the same units to facilitate comparisons. All loading estimates in the revised draft LaMP have kg/year as the units. As stated previously, table 2.5 in the 1/1/92 draft LaMP has been eliminated from the revised draft LaMP. USEPA, the States, and local governments must have more discussions about the value of POTW user inventories relative to other potential activities. If there is agreement that user inventories should be a priority, a process and schedule must be developed. Similarly, we need to have addition discussions on POTW sludge characterizations and potential analytical methods.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.8, para.8**

The Comments were

Pollution Prevention: The Hazardous Waste Management Program along with the DNR's Office of Pollution Prevention has established a program to encourage waste minimization at hazardous waste TSDs and generators. This includes checking for waste minimization activities as part of inspections and conducting informational seminars targeted at groups of generators. This kind of pollution prevention should be emphasized as a major component of load reduction.

The EPA Response is

We agree that pollution prevention should be a major point of emphasis in the LaMP process. The revised draft LaMP contains information about WDNR's Hazardous Waste Management Program pollution prevention efforts in the action agenda in Chapter 5.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.8, Par. 4**

The Comments were

P.8,par.4

P. 78 The Great Lake Fishery Commission, the states, interested citizenry and others need to participate in developing the ecosystem goals. It is not clear who was involved in the development of the ecosystem goals. How will this participation be obtained?..

P. 12, Par 2-4:

The length of the comment period was a major concern. Many citizens felt that because the LaMP needed additional work and review, an extended comment period would give them the opportunity to review the document more extensively. This was a concern reiterated at both workshops, as well as the public meetings. We recognize the EPA's commitment to obtain public comment by the extension of the comment period.

Another issue was the incorporation of comments into the document. Concerned citizens, environmental groups, and local industries want assurance that their comments will be heard. Interested parties requested, at a minimum, a second opportunity to review and comment on the ecosystem goals as revised by EPA in response to the public comments received during the comment period. A management committee meeting, open to the public, could meet to discuss comments received on the draft LaMP before it is finalized.

Interested parties want to be participants in the development of the ecosystem goals, not just reviewers. Public participation on the development of goals should be sought from both governmental agencies and interested and affected citizenry...

P.12, Par.8:

P.4 Programs mandating the development of the LaMP should be discussed before goals and objectives are defined. In order to acquire public support for the LaMP it is essential for the public to understand the purpose of the LaMP and how it relates to ongoing programs. Without this kind of understanding the LaMP will be view as "another document".

P.13, Par. 1:

P. 10 "Input from the public will have considerable influence on the direction the LaMP program takes in the future". Concerned citizenry wants to be assured a more active role in future LaMP developments.

The EPA Response is

The process for public and agency input into the environmental objectives is described in the response to a previous WDNR comment. The revised draft LaMP is the vehicle for public review and comment on the objectives. They will be revised and adopted based on the comments received.

This response to comments document was developed to demonstrate to the public that their comments were heard and have been considered. The revised draft LaMP will be published in the Federal Register in October 1993 for a second round of public review. This should further demonstrate USEPA's committment to public input and review of all facets of the LaMP process.

The mandate for LaMPs is discussed in the first chapter of the revised LaMP document, along with a discussion of how the LaMP relates to other Great Lakes programs and initiatives.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **29 Tributaries**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.6, para.4**

The Comments were

PCB loadings from the atmosphere could be visually represented along with the tributary loadings. This would put the actual loading from tributaries into perspective.

The EPA Response is

This is a good suggestion, and has been summarized in a table in Chapter 4 of the revised draft LaMP. However, even if one source contributes much greater quantities of a pollutant than another source, such a diagram should not be interpreted to suggest that we should ignore load reduction opportunities from less significant sources.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.8, Par.6**

The Comments were

P. 80 Third bullet: It is not clear what further action is being requested by this item, other than a possible means to account for the cumulative findings of these investigations. The universe of RCRA TSD facilities is known. Many of these (most high priority facilities) are involved through licensing actions or enforcement orders in corrective action. The investigative phase of corrective action includes assessment of contaminants being released from a facility. Specific evaluation of generators as part of this LaMP activity will be difficult. Statewide, in Wisconsin, there are over 1000 large quantity generators (>100kg/month), 3500 small quantity generators of hazardous waste (between 100 and 1000 kg/month), and even more very small quantity generators. Evaluating the potential for releases at these facilities will be time consuming and expensive, even after detailed evaluation criteria are determined...

P.9, Par. 5-6:
P. 88 EPA does not currently have a written policy supporting agricultural clean sweeps. The Wisconsin legislature has directed the state's Department of Agriculture, Trade and Consumer Protection to implement and agricultural clean sweep program funded by state grants. WDNR and WDATCP have come to agreement on what hazardous waste requirements should be followed. Consequently, most state sponsored agricultural clean sweeps are done without specific concurrence from EPA. Current rules and guidelines should allow for agricultural clean sweeps. Currently, most agricultural clean sweep programs will not take certain banned or canceled pesticides because there is no place to properly dispose of them. If agricultural clean sweeps are to be successful in the collection of banned wastes there needs to be a facility that will take them for subsequent proper management.

Item 3: Through DNR, Wisconsin already has a grant program established for household clean sweep programs. Each year all grant funds are distributed by the Hazardous Waste Program to interested communities. Some communities proceed without funding. The Hazardous Waste Program does not receive any grant funds for administering this program. Communities are now looking into establishing permanent household collection centers.

The EPA Response is

The action agenda has been revised and updated in the revised Lake Michigan LaMP. The action item under the third bullet on page 80 of the 1/1/92 draft LaMP has been deleted from the revised draft LaMP. While USEPA views this as an important activity, there should be further discussions between USEPA and the States about the feasibility of completing a review of all RCRA TSD facility releases and how such evaluations should proceed.

Regarding clean sweeps for agricultural pesticides, they are funded from a variety of sources. As pointed out by WDNR, the States provide funding for these sweeps and conduct them on their own. USEPA has provided grants to the States to expand clean sweep activities in the Lake Michigan and Lake Superior watersheds. The important point is not who is funding the clean sweeps, but that they are taking place. A box in the action agenda of the revised draft LaMP has been added to clarify that WDNR also funds clean sweep activities.

These comments are from Docket Code Number **LM003** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.5,5,7 par.2;4;10;2**

The Comments were

P.3, Par.2:

We are concerned about the consistency and accuracy of the data presented. It appears there is a large disparity between states in the amount of data being presented (i.e. Table 2.8). The final version should balance the type and amount of data presented form each state...

P.3, Par.4:

Only information pertinent to Lake Michigan should be presented in the LaMP...

P.5, Par.10:

P. 38-40 The discussion on "Historical Perspective" should be broadened. For example, advances made in reducing atmospheric deposition through the Clean Air Act and historical assessments of nonpoint source impact improvements could be included. In addition to loading information on the Great Lakes as a whole (Table 2.1), information specific to Lake Michigan should be included in the historical perspective...

P.7, Par.2:

There seems to be a disparity between states in the amount of data being presented. This problem is discussed in the body of the letter. This data also misrepresents actual loadings as discussed in the letter.

The EPA Response is

We concur that the data presented on a State by State basis must be balanced. If one State provides more detailed information on loadings than the other States, this data should not be presented in a way that implies that facilities in that State contribute greater pollutant loadings than the others simply because more data was provided. This legitimate concern has been taken into account as the LaMP document is revised.

Regarding the comment on broadening the section in Chapter 2 on the historical perspective of pollutant loadings, we agree with WDNR. More historical information and perspective are provided in the revised draft LaMP. We also agree that data should be specific to Lake Michigan as much as possible.

The revised draft LaMP includes more historical discussion about other pollutant sources such as runoff, stormwater, and atmospheric deposition, and tries to get away from too much focus on NPDES facilities. However, it is not the intent of the LaMP to go into any great deal about the history of each program. This section on historical perspectives, while being expanded slightly to discuss additional sources, will remain a fairly concise summary of the topic.

These comments are from Docket Code Number **LM003A** The comments were dated **1-8-1993**

The commenter was **WDNR-WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **pgs.1-11 of atch. A**

The Comments were

Table 1: Active Wisconsin TSDs

Table 2: Closed TSD Operators

Table 3: RCRA Facilities in Corrective Action Process As Of August 25, 1992

The EPA Response is

These comments are from Docket Code Number **LM004** The comments were dated **1-7-1993**

The commenter was **TIP OF MITT/WATERSHD** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 7**

The Comments were

I recommend reorganizing and expanding upon Section 3 - "Action Plan for LaMP Development and Implementation" to include goals, objectives, timelines, priority ranking and evaluation of the entire program. The action plan should extend for at least three fiscal years. The lead agency or organization to execute the action should continue to be included (many of the actions had to information under this column). This information will make the proposed LaMP actions more understandable and better define the overall strategy.

The EPA Response is

The action agenda has been updated in the revised draft LaMP. The action agenda lists the activity, timeline, lead agency, and other agencies that will be involved. The revised draft LaMP also contains a list of tentative recommendations and mutually agreed upon priorities among the participating agencies. In many cases it is difficult to extend the action agenda for three fiscal years. We agree that the agenda should plan for the long-term as much as possible. However, as new information becomes available, additional opportunities to reduce pollutant loads will arise and priorities could change. Resource availability also changes each year, making it difficult to project into the future. Some activities will require several years to complete; in some cases, however, it is not possible to develop a complete action agenda covering the next three fiscal years.

These comments are from Docket Code Number **LM004** The comments were dated **1-7-1993**

The commenter was **TIP OF MITT/WATERSHD** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1; PAR 1, 4-5**

The Comments were

The Great Lakes are an incredibly valuable international resource. Unfortunately, improper management of these ecosystems has resulted in irreparable damage. Long term management plans are an important step forward in improving the health of these systems. The Tip of the Mitt Watershed Council is pleased with the development of the lakewide management plan (LaMP) and supports implementation efforts to reduce critical pollutants.

... The first criticism regards the title and how it related to the content of the document. The title "Lake Michigan Lakewide Management Plan" is not an appropriate title for this document, considering that the plan only addresses impacts and reduction of critical pollutants. To be a lakewide management plan, the document would have to be expanded to include other important lakewide issues such as, lake levels, land use development, lake water diversions, alien species introduction, etc.

It is my understanding that the International Joint Commission's original intention for the LaMP's was to address lakewide management of critical pollutants. However, since "critical pollutants" is no longer stated in the title, the current title (Lake Michigan Lakewide Management Plan) does not accurately describe the purpose of the document. This is misleading to the general public. A more descriptive and accurate title might be - "Lake Michigan Critical Pollutant Reduction Management Plan". In short, either the plan should be expanded to address lakewide issues in addition to critical pollutants or the title modified to more accurately describe the contents of the document.

The EPA Response is

The title of the revised draft LaMP has been modified to indicate that it is a lakewide management plan for toxic chemicals. This should eliminate confusion concerning the scope of the plan.

These comments are from Docket Code Number **LM004** The comments were dated **1-7-1993**

The commenter was **TIP OF MITT/WATERSHD** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 1-3**

The Comments were

More actions which address nonpoint source pollution need to be included in future action plans. The 1992 Action Plan only addressed nonpoint source pollution by mentioning current federal and state administered programs (319 grants, stormwater regulations, pollution prevention, etc.). Will these programs continue as the status quo or will there be modifications in the implementation of these programs to specifically address critical pollutants in Lake Michigan? These programs play an important role in pollution reduction but must be expanded if they are to significantly reduce critical pollutants within the entire Lake Michigan basin.

Some of these programs do not even apply to certain Lake Michigan basin communities, in particular the northern Michigan communities. For example, the new stormwater regulations are only relevant for communities with populations of 50,000 or greater. Many communities in the northern Lake Michigan basin are exempt. A more comprehensive nonpoint source pollution program is needed. Reducing nonpoint source pollution in northern Michigan and throughout the Lake Michigan basin will be much more cost effective than restoration.

I also recommend expanding future action plans to address land use development, specifically at the local level. The majority of land use decisions are made at the local level, and efforts must be made to include local governments/communities and organizations with LaMP actions that address land use and shoreline development.

The EPA Response is

Nonpoint sources of pollution are believed to be a significant source of many LaMP pollutants to Lake Michigan. The action plan contains a number of activities aimed at reducing and/or better quantifying toxic loads from these sources. There are several activities related to contaminated sediment remediation and air deposition included in the action plan. Other nonpoint sources receive less attention, such as urban and agricultural runoff, though these may be significant sources of toxics. The LaMP is a process, and the action agenda will be reviewed, revised, and expanded each year as our understanding of chemical sources and loads improves. Some problems clearly are more difficult to address than others. There may be problems uncovered for which we do not currently have any solutions. However, the LaMP provides a context in which to force attention on that problem or source, and to begin to develop creative, innovative solutions. There are also recommendations concerned with reducing pollutant loadings from nonpoint sources, as well as improving our understanding of the relative contributions from these diffuse sources.

Regarding the comment concerning land use, there is no doubt that land use practices can have profound impacts on loadings of toxic chemicals to surface (and ground) waters. The LaMP will not be a document that regulates land use; on the other hand, it should provide a framework or overview against which local land use decisions can be made. For example, if through the LaMP process we discover that a critical pollutant enters the Lake primarily in areas with a particular land use, then local land use planners should use this information when considering specific decisions. Such decisions should be made with an eye toward potential environmental consequences. We must reiterate, however, that the LaMP itself will not regulate these decisions.

These comments are from Docket Code Number **LM004** The comments were dated **1-7-1993**

The commenter was **TIP OF MITT/WATERSHD** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

For your information, the Tip of the Mitt Watershed Council is a private, nonprofit organization that strives to protect or enhance water quality and promote the wise use of water resources in the watersheds of Antrim, Charlevoix, Cheboygan, and Emmet Counties of northern Michigan. Through education, advocacy, research, and technical assistance, the Watershed Council works to preserve the environmental integrity and the economic and aesthetic values of lakes, streams, wetlands, and groundwater. Our service area includes over 100 miles of Lake Michigan shoreline and 35 miles of Lake Huron shoreline.

The EPA Response is

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**

The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

2 - Assure that standards for persistent toxic substances are low enough to protect wildlife throughout the food chain so that bioaccumulations will be prevented;

The EPA Response is

The Great Lakes Water Quality Guidance, when finalized, will set uniform standards throughout the Great Lakes basin that are protective of aquatic life, wildlife, and human health. The Guidance is an important tool for the LaMP process to ensure that the ecological health of the Lake Michigan watershed is restored and protected, and to prevent bioaccumulation of persistent toxic chemicals.

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**
The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 7**

The Comments were

5 - Control all substances identified as toxic, not merely the limited number of Tier I chemicals presently listed;

The EPA Response is

The Great Lakes Water Quality Agreement, which provides the mandate for the development of Lakewide Management Plans, states that LaMPs are to identify critical pollutants that are causing or are likely to cause ecological impairment. The State and Federal agencies participating in the LaMP have identified those chemicals for which evidence exists that they are, or could be, contributing to lakewide impairments. While we would ideally like to control the release of all toxic pollutants, the agencies feel that given limited resources, we need to focus our efforts on those pollutants which are most clearly responsible for Lake Michigan impairments. It should be noted that many activities (e.g. sediment remediation, pollution prevention) designed to reduce levels of the LaMP pollutants in the environment are likely to reduce releases of other toxics as well. The LaMP is a process; as levels of the current LaMP pollutants are reduced and more information becomes available, we will continue to identify other toxic chemicals that may be a threat to the environment. The action agenda in the revised draft LaMP contains a number of activities designed to identify and prevent other pollutants from becoming problems in the future. Steps can be taken as necessary to address these additional substances.

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**
The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 6**

The Comments were

4 - Place the burden of proof upon the discharger to meet the anti-degradation standards;

The EPA Response is

Permits are issued by the States and reviewed by USEPA to ensure that the discharge will not prevent the attainment of water quality standards for the receiving waterbody. In cases where ambient water quality is greater than that required to meet standards, there is an anti-degradation provision to prevent degradation of water quality below that which is currently being achieved.

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**
The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **23 Nonpoint Srces**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 8**

The Comments were

I understand that non-point sources will be addressed in phase 2 of the Initiative. It is imperative that we move quickly to protect Great Lakes waters from the cumulative effects of these persistent substances which pose such grave threats to future generations.

The EPA Response is

The revised draft LaMP identifies actions that are necessary to reduce loads from nonpoint sources, as well as data collection needs to better identify and quantify loads of toxic pollutants from nonpoint sources. Nonpoint sources must be addressed to fully restore and protect the ecological health of the Lake Michigan watershed.

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**
The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **24 Point Sources**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

1 - The need for a single standard controlling discharges, which standards presently vary from state to state;

The EPA Response is

The Great Lakes Water Quality Guidance, proposed in the Federal Register in April 1993, sets uniform standards for water quality criteria and values, as well as containing anti-degradation procedures. The implementation procedures focus on industrial and municipal NPDES facilities across the entire Great Lakes basin. This Guidance, therefore, does set uniform standards for NPDES discharges across the Great Lakes basin.

These comments are from Docket Code Number **LM005** The comments were dated **11-15-1992**
The commenter was **BENN, PHYLISS A.** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **30 Zero Discharge**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 5**

The Comments were

3 - Zero discharge by new dischargers and accelerated phaseout of diluted discharges;

The EPA Response is

The goal of the Lake Michigan LaMP, as defined by the Great Lakes Water Quality Agreement, is to restore and protect the 14 beneficial uses listed in the Agreement. LaMPs are to be steps towrds the goal of virtual elimination. Therefore, the Lake Michigan LaMP does not require zero discharge by new or existing dischargers, unless it is determined that, in order to restore and protect a beneficial use, zero discharge of a specific pollutant is necessary. The LaMP process will take steps that lead to reduce loads of LaMP Pollutants, thereby moving us closer to the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM006** The comments were dated **12-1-1992**
The commenter was **DUNES-CAL AUDUBON** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **01 Action Agenda**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

3. In Section 3: Lake Michigan LaMP Action Agenda for Federal Fiscal Year 1992, were the "completion dates" for all actions met as scheduled? Were there any delays?

The EPA Response is

Some of the activities listed in the action agenda of the draft 1/1/92 Lake Michigan LaMP were completed as scheduled, whereas other were not completed by the date indicated for a variety of reasons. The action agenda in the revised draft LaMP has been updated to indicate the status of these activities.

These comments are from Docket Code Number **LM006** The comments were dated **12-1-1992**

The commenter was **DUNES-CAL AUDUBON** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

1. The USEPA proposal for an annual update of the Critical Pollutant list for Lake Michigan is very good. Would a bi-annual update be impossible?

The EPA Response is

It is unlikely that updating the critical pollutant list twice a year would feasible or necessary. These chemicals are persistent and degrade in the environment at a very slow rate. Also, monitoring programs to quantify levels of these chemicals and identify new ones generally run over a long period (monthly to yearly), in addition to the time required to complete analyses. Therefore, we believe that an annual review of the list is sufficient.

These comments are from Docket Code Number **LM006** The comments were dated **12-1-1992**

The commenter was **DUNES-CAL AUDUBON** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

2. In Section 2: Sources and Loads, I agree that the need for a comprehensive, systematic monitoring and data management program is urgent. Is anything being done to meet this need?

The EPA Response is

The governments have developed a comprehensive tributary and atmospheric deposition monitoring program for Lake Michigan. This program is described in Chapter 5 of the revised draft LaMP.

These comments are from Docket Code Number **LM007** The comments were dated **1-8-1993**

The commenter was **EPA REG 5 - REG DEV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1;2;3 PAR 3;1;1-2**

The Comments were

As for Section 3, I ask that the target dates be revisited for their accuracy. For the Air Program, page 79 should state establish an inventory, not complete an inventory. We have established an air toxics inventory that will require continual updates by the States. On page 83, the language should say complete a as opposed to complete the Lake Michigan study. On page 89, the first action item should read, "identify facilities emitting a critical pollutant for to ensure permitted limitations are in compliance" with a due date of ongoing. Under the Pollution Prevention, the first action item from the Air Program is responsible for is okay, however, I am unsure as to the intent of the second action item on page 91. We have not, to my knowledge, been approached to develop a strategy such as this. I was under the impression that Lake Michigan was to be a source reduction area and Lake Superior a pollution prevention area. In any event, the Air Program has not developed a strategy under this action item.

The final action item on page 91 has not been completed since the deposition efforts by ORD are not completed. We have revised the completion date to September, 1993.

You have heard our presentation on the Regulatory Framework as it relates to air toxics deposition. We emphasize the need for good science and coordination among all programs to achieve the goal of restoration to the Great Lakes. I am attaching a memorandum prepared to provide an overview of the presentation and the establishment of the Great Lakes Action Team. I would appreciate it if this is incorporated into Section 3 as an indication of what the Air Program in Region 5 plans to do in FY93 and beyond.

... QUARTERLY HIGHLIGHTS

A major effort of the Air and Radiation Division this quarter has been to define a framework by which regulatory and analytical tools can be used to address air toxics deposition to the Great Lakes. This framework was presented to the Great Lakes Advisory Committee on May 18, 1992, in Washington, D.C. Partners in this effort included the Great Lakes National Programs Office, the Office of Air Quality Planning and Standards, the Office of Research and Development, Regional offices and State air pollution control agencies. In order to reduce and/or eliminate the deposition of toxic compounds into the Great Lakes, it is critical that any decisions to do so be based on a proper understanding of environmental regulatory authorities as well as the best available scientific data and procedures. This regulatory and scientific framework will require good communication and coordination among multi-media programs, as well as a balance between emissions inventory efforts, deposition modeling efforts, deposition monitoring efforts, and data integration.

As a follow-up to the Great Lakes Advisory Committee meeting on May 18, the Great Lakes Air Team, composed of representatives of the offices listed above, convened a meeting on June 25, in Chicago, Illinois. The objective of the meeting was to continue discussions on the development of a more detailed and integrated action plan to reduce toxic chemicals entering the Great Lakes through atmospheric deposition.

The EPA Response is

The action agenda has been revised and updated to incorporate the items listed in this comment.

These comments are from Docket Code Number **LM007** The comments were dated **1-8-1993**

The commenter was **EPA REG 5 - REG DEV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 1-2**

The Comments were

The following is in response to the request for comments during the public comment period for the LAMP for Lake Michigan. These comments are for the section entitled, "Atmospheric Deposition" on page 56 and Section 3. First, the Atmospheric Deposition section does not adequately convey the universe of activities ongoing within the Great Lakes States, academia, and nationally as they relate to atmospheric deposition. This section should include a discussion of the Green Bay Mass Balance Study for PCBs and the findings. The Great Waters Program as required by the Clean Air Act Amendments should be referenced in this section. This Program is a major effort on behalf of the Air Programs and this is the first time Congress has mandated a study to quantify air toxics deposition to the Great Lakes and coastal waters. Although the report is due to Congress in 1993 and findings of the study have not been released, reference to this study should be incorporated in the LAMP to establish the basis for future reporting in the next revision. In addition, the second paragraph references the requirements of the 1990 CAAA, however, it does not state specifically what the requirement is. This paragraph also suggests that we have satisfied the requirements of the CAAA. This language should be changed to suggest that these are initial efforts to address the requirements of the Great Waters Program and further efforts are ongoing.

The Lake Michigan/Lake Superior loading study should be referenced in this section. This study should also be referenced in Section 3 of the LaMP in more detail. The Urban Air Toxics Study conducted by ORD, OAQPS and academia last summer should be referenced in this section to solicit future updates. The air toxics inventory effort by the eight Great Lakes States should be referenced in this section, as well as the pilot study by the States under the Urban Area Source Program (Section 112(k) of the CAAA).

The EPA Response is

The activities mentioned in this comment were incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM008** The comments were dated **11-4-1992**

The commenter was **BOTH, MELVIN L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 7**

The Comments were

I appreciate the opportunity of listening to the excellent presentation on the 2nd, and being allowed to address my concern with the manner in which the LaMP program is offered to the media , so as not to reemphasize unnecessarily the presence of contaminants in the fish, as a negative. Tremendous improvement and reduction to very low levels has already been accomplished, thus it should be mentioned as a further improvement on those programs which have already been successful.

The EPA Response is

Over the past 10-15 years, levels of many toxic chemicals in fish have declined. The 1/1/92 draft LaMP mentioned this trend. However, over the last few years these declines have leveled off, indicating that additional efforts to reduce levels of toxics entering or already in the environment are warranted. Fish consumption advisories still exist for Lake Michigan fish, and one goal of the LaMP is to eliminate these advisories.

These comments are from Docket Code Number **LM008** The comments were dated **11-4-1992**

The commenter was **BOTH, MELVIN L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2-6**

The Comments were

#1. Under the Lake Michigan Ecosystem Objectives and LaMP Goals The stated GOAL#1 should be modified by eliminating the words REPRODUCING AND SELF SUSTAINING COMMUNITIES IN DYNAMIC EQUILIBRIUM, WITH AN EMPHASIS ON NATIVE SPECIES.

The LaMP has nothing to do with the species in the lake, nor the lakes fisheries management, therefore reference to it is inappropriate.

A more appropriate goal would be, then #1 Aquatic Communities to improve the water quality of Lake Michigan to a level where it is capable of supporting healthy, contaminant free, and diverse aquatic communities.

#2. I see no mention of the prevention of the entry of exotics (via ballast water in tankers for example) which then in turn might bring about contamination in a variety of forms. For example, the zebra mussel which may require the use of undesirable chemicals for control, or, allow the entry of exotics which could result in windrows of some species on the beach.

I realize that this area could and should be covered under some other plan, however, a duplication of this key problem should be better than not addressing it.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic chemicals impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities will be reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

USEPA recognizes that some exotic species, such as the zebra mussel, can have negative impacts in Great Lakes waters. However, as stated above, the focus of the LaMP is on toxics reduction, not deciding which species should or should not be present in the watershed. As pointed out by the commentor in the first part of this comment, references in the LaMP to species in the Lake is inappropriate.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**

The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 4**

The Comments were

8. Explicit treatment of "atmospheric deposition" is on 2+ pages (pp. 56-59). I wonder if this is adequate.

The EPA Response is

The section on atmospheric deposition has been updated and expanded in the revised draft LaMP based on more recent data. We agree that this section deserves more treatment.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**
The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 2-3**

The Comments were

6. I applaud the inclusion (p. 25) of the concept of a tiered critical pollutant list. It means, as indicated on page 31, that we are in the business of monitoring for ecosystem toxics "now and forever more."

7. "Conventional pollutants" are given very brief discussion (pp. 38-39). While they have been significantly reduced in the Great Lakes, they still retain the potential to induce ecosystemic reactions. I am thinking particularly of reduced system capability to sequester and/or safely assimilate toxic chemicals. The LaMP in fact recognizes (pp. 58-59, B-5) reduced ecosystem assimilative capacity from conventional pollution. Therefore, I wonder why the LaMP appears to address conventionals only from a "historical perspective"?

The EPA Response is

While we consider monitoring of toxics important, this should not imply that the LaMP will not take actions to reduce levels of toxics in the environment. A number of actions are being currently being implemented, even before the monitoring program has begun.

The goal of the LaMP is to reduce levels of pollutants to restore and protect the ecological health of the Lake Michigan watershed. While conventional pollutants certainly have the potential to impair the ecological health of the Lake, there is no evidence that they are currently doing so on a lakewide scale. Some conventionals pose problems in a few local areas of the Lake (e.g. Grand Traverse Bay), however we do not have evidence that they are causing problems on a lakewide scale.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**
The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **13 Ecosy Approach**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

1. What is the Lake Michigan ecosystem as covered by the LaMP? Is it the entire basin, or just the area covered by the lake? It appears that you give credence to the entire basin because the Water Quality Agreement (Annex 2) specifies that the Lake Michigan LaMP shall take a "comprehensive ecosystem management approach" (p. 4). But elsewhere in the LaMP (e.g., p. 9), I am left with the impression that the aquatic portion defines the "system". The definition of the Lake Michigan ecosystem as viewed in the LaMP should be unambiguous.

The EPA Response is

The Lake Michigan "ecosystem", as currently envisioned in the LaMP, are the waters (surface and ground) of the Lake Michigan watershed. This includes the open lake, nearshore waters and harbors, tributaries, and groundwater. The terrestrial portion of the basin is considered in as much as it affects pollutant loadings and transfers to the aquatic portion of the watershed. For example, forest management practices are not addressed from the perspective of the forest, but only as these practices impact toxics loadings to the Lake or its tributaries.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**
The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 3-5**

The Comments were

2. If the focus is on the Lake per se, the scope is too limited to adequately address LaMP goals (pp. 1-2).

3. Why not consider this: Outline the full array of objectives for comprehensive basinwide planning (including ecoregional mapping for the entire basin, watershed stewardship demonstrations, etc.), then identify those elements to be addressed in this phase of the LaMP. That approach might entice others to address unmet objectives.

4. "Stewardship" is a stated objective (p. 2). I could find no exposition of the concept beyond page 2. This objective is of particular interest to non-governmental organizations and subregional planners (consider the Grand Traverse Bay project). I suggest that the LaMP devote a section to stewardship, even if actions are not being contemplated by Environmental Protection Agency (EPA).

The EPA Response is

Although the LaMP is currently a toxics reduction plan, the stated objectives include other issues because we recognize that the LaMP focus may need to be expanded at some point in the future to address these concerns. The current focus of the LaMP process is on toxic chemicals. This should not diminish the potential importance and value of basinwide planning envisioned by the commentor, but our view is that this issue should be taken up in the future, with other agencies taking the lead. The LaMP is a process, and we will not be able to address every issue relating to Lake Michigan right away. As the process develops, other issues and problems can be addressed.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**
The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **22 Monitoring**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 1**

The Comments were

5. "Reduce loadings ... before they reach levels sufficient to cause degradation ...." (p. 12). This goal seems to embody the concept of "Limit of Acceptable Change" (LAC), now in vogue in the literature on environmental monitoring. LACs are to be set a priori in a monitoring plan, and I hope the agencies developing a monitoring program for the Great Lakes basin (p. 43) are doing just that. If so, then the IJC's proposed "sentinel species" might be brought into the scheme. Shouldn't the LaMP discuss the use of bald eagle, mink, and otter within the context of LAC?

The EPA Response is

The agencies participating in the LaMP process have not yet identified the quantitative indicators and measures of progress for the Lake Michigan LaMP. This is a priority for the next year, and is listed in the action agenda of the revised draft LaMP. We recognize the importance of selecting biological as well as chemical indicators of progress, and will likely include bald eagles and mink. We must identify quantitative values for populations and health that will indicate a healthy, diverse biological community.

These comments are from Docket Code Number **LM009** The comments were dated **1-5-1993**

The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.2, para.5**

The Comments were

9. Run-off sediments provide substrates for toxic compound absorption (p.58). The importance of this phenomenon appears to be made minimal in the discussion on page 39. That which I'm attempting to point out here is the LaMP's apparent minimization of land use management (e.g., agriculture, forestry) within the equation of toxic chemical pollution in Lake Michigan.

The EPA Response is

USEPA recognizes the impact that sediment runoff can have on transport of toxic chemicals to surface waters. The LaMP document does not try to minimize the importance of this relationship. One possible reason for the commentor's impression may be the current paucity of quantitative data in this area. Chemical loadings from agricultural runoff on a lakewide scale are very difficult to quantify, and few if any estimates are available. The result is that the LaMP document, in discussing sources and loads of toxics, only discusses nonpoint runoff in general terms. This should not imply that the agencies will ignore this pollutant source, however. Through the LaMP process, activities to reduce sediment and associated toxics runoff will be identified and implemented.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.5, para.2**

The Comments were

EPA specifically acknowledges that nonpoint sources are the primary cause of Lake Michigan pollution, stating that "current information indicates that the most significant sources of these contaminants [toxic compounds] are probably contaminated sediments and atmospheric deposition. Other nonpoint sources most likely contribute the bulk of the remainder." LaMP at (i). Atmospheric deposition has been estimated to be the dominant contributor of PCBs and DDT to the upper Great Lakes, for example, contributing 90% of the total PCB loading to Lake Superior. (footnote provided) In fact, the LaMP concludes that atmospheric deposition and transport and resuspension of contaminated sediments are believed to provide the primary pathways for the transport of bioaccumulative, halogenated organic compounds to the water column and ultimately to the biota of the basin. (footnote provided) LaMP at 42.

The EPA Response is

We concur that atmospheric deposition and contaminated sediments are major sources of toxic chemicals to the biota and waters of the Lake Michigan system.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.14,para.1**

The Comments were

III. EPA needs to take into account the most current toxicological information before assuming the need for further regulation of (footnote referenced) certain pollutants.

Attached as Exhibits B and C8 are extensive comments prepared by GE and submitted to EPA in 1991 and 1992 discussing the toxicology of PCBs and, in particular, the proper derivation of human health-based and wildlife-based standards for this class of chemicals. As discussed at length in these Exhibits, GE seriously disagrees with EPA's assessment of the risk of PCBs to human health and wildlife. Specifically, GE believes that, in EPA's PCB risk assessment, EPA has relied on invalid and/or unsupported scientific theories, has misread relevant scientific studies, has relied on scientific studies which have been shown to have serious defects, and has used several overly conservative assumptions. Any questions regarding these Exhibits should be directed to Dr. Steven B. Hamilton, GE Corporate Environmental Programs, (203) 373 - 3316.

The EPA Response is

USEPA believes that the toxicity of PCBs to humans and other biota have been demonstrated through the weight of evidence of toxicological research. We do not dispute that there are some studies which have found little or no effect of PCBs on biota. Different species, and even individuals within a species, do not always react the same way to varying doses of chemical. Therefore, it is not surprising that some studies fail to document effects of PCBs (or other chemicals for that matter). A large number of credible studies, on the other hand, have documented clear toxicological impacts of PCBs to several organisms, including humans. We feel that a weight of scientific evidence, as opposed to absolute agreement of every study ever conducted, is sufficient to warrant efforts to control releases and reduce levels of a chemical.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.13, para.2**

The Comments were

The continuing decrease in environmental concentrations of PCBs in the environment is an excellent example of this phenomenon. Attached at Exhibit A is an August 1992 study entitled "Documenting Temporal Trends of Polychlorinated Biphenyls in the Environment" (Regulatory Network, Inc., Aug. 1992). That document demonstrates the substantial reductions of PCB in the human diet, human tissues, and fish and shellfish tissues that occurred from the early 1970's to the late 1980's. PCBs in the human diet today are less than 1% of what they were in the early 1970's. PCBs in human adipose tissue has decreased almost as much -- EPA data shows a decrease in the percentage of persons with over 1ppm of PCBs in adipose tissue from 62% in 1972 to 2% in 1984. From the early 1970's to the late 1980's PCB contamination in fish and shellfish has decreased by factors ranging from 2 to 10. Figures set forth at pages 9, 15, 16, 20, 26, 29, 30, 31, 34 and 37 of Exhibit A demonstrate graphically the substantial decreases that have occurred.

Exhibit A also discusses the chemical and biological recovery processes that act on PCBs. Although much of the decrease in PCB concentrations since the early 1970's is due to the 1976 TSCA ban on the manufacture of PCBs, much of the decreases seem more recently are attributable to natural recovery. It has now been clearly established that PCBs degrade in the environment, through both chemical and biological processes, and Exhibit A concludes that concentrations of PCBs are expected to continue to decrease in the future. As indicated in Exhibit A, recent data for both fish and mussels continue to show significant decreases in PCB concentration.

The EPA Response is

The draft LaMPs present data that clearly shows a decline in levels of PCBs and other toxic chemicals in fish tissues over the past 10-15 years. USEPA does not dispute this data at all. However, data from the last few years indicate that this decline has leveled off, and that PCB concentrations in Lake Michigan fish are remaining almost constant. Considering that fish consumption advisories for PCB contaminated fish still exist for Lake Michigan, this recent evidence suggests that additional efforts to reduce ambient levels of PCBs and other toxics in the environment are warranted.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.2, para.1**

The Comments were

GE fully supports this approach. However, GE believes that the LaMP itself departs from this concept in one key respect: Although the LaMP prioritizes on the basis of the pollutants believed to have the greatest impact on the Lake Michigan ecosystem, the LaMP does not prioritize among the sources of such pollutants. Instead of focusing on identifying and regulating the primary sources of pollutants in Lake Michigan --nonpoint sources-- the LaMP instead calls for further regulation of point source dischargers which, as the LaMP explains, contribute a minor fraction of the pollutant loading to the Lake. This approach is wholly inconsistent with the LaMP's stated goal of targeting pollution prevention dollars at the greatest risks. Moreover, the time schedule set forth in the LaMP agenda -- especially with respect to the regulation of point sources -- should take into account the fact that EPA is in the process of gathering more comprehensive and current data with respect to the extent of Great Lakes pollution and the sources of that pollution. Substantial additional pollution reduction and prevention dollars should not be spent to address point source contributions to water quality problems unless and until it has been verified that further control of such sources will result in a significant improvement in water quality.

p.4, para.1

I. GE agrees with the LaMP's statements that the LaMP should "weigh risks and opportunities" in deciding where "pollution reduction and prevention dollars should be targeted." Although the LaMP has followed its concept of prioritization in the development of a list of pollutants that pose the most risk, the LaMP has failed to prioritize with respect to sources. GE urges EPA to do so, and to address the larger potential sources -- non point sources -- before seeking to further regulate minor sources -- point source discharges.

Although the LaMP has followed its concept of prioritization in the development of a list of pollutants that pose the most risk, the LaMP has failed to prioritize with respect to sources. Instead of focusing initially on the primary sources of pollution of the Lake, which the LaMP states are nonpoint sources, the agenda in the LaMP requires early action primarily with respect to point source dischargers. GE supports EPA's position that the LaMP should address all potentially significant sources of "critical pollutants" (as defined in the Agreement). (footnote provided) GE strongly agrees with EPA's statements that "[s]uccess in reducing toxic loadings to Lake Michigan and restoring the chemical integrity of the Lake depends on the ability of those involved in the LaMP to focus on the highest-risk problems, LaMP at 32, and that the LaMP should "allow agencies to weigh risks and opportunities for success in deciding where pollution reduction and prevention dollars should be targeted." 57 Fed. Reg. 35,822 (Aug. 11, 1992). Consistent with these goals, the LaMP should focus on ways to identify and regulate nonpoint sources, as opposed to further regulating point source dischargers in an attempt to show demonstrable, albeit inconsequential, reductions in discharges of critical pollutants.

p.14, para.2

GE urges EPA to use the LaMP process as a tool to achieve real improvements in Lake Michigan water quality. As the LaMP recognizes, such improvements can be achieved only through control of nonpoint sources of pollutants. Further reductions of pollutant discharges by point sources through the use of extremely stringent, and extremely costly, implementation procedures for determining water quality-based effluent limitations will produce little, and perhaps immeasurable, improvements in water quality. Although the Great Lakes Critical Programs Act of 1990 requires promulgation of uniform Great Lakes water quality standards and the adoption of implementation procedures to achieve those standards, nothing in the Act requires those procedures to focus on point sources, to require extraordinary expenditures by industry, or to try to achieve the impossible --

The EPA Response is

Because we have evidence that the toxic chemicals identified in the LaMP document are having negative impacts on the waters and biota of the Lake Michigan watershed, we believe that releases of these chemicals must be reduced from all sources. The fact that contaminated sediments, air deposition, or other nonpoint sources may contribute greater quantities of a chemical than point sources does not mean that opportunities for load reductions from point sources should not be pursued. It would be inappropriate, in this scenario, to expect all load reductions to come from point sources alone, while ignoring other sources. However, the LaMP process identifies opportunities to reduce chemical releases from all sources, including sediments and air deposition. That we frequently have more load information from point sources relative to other sources should not be construed to suggest that we are only "going after" point sources. We recognize that all sources must be addressed to accomplish the goals of the LaMP.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.12, para.1**

The Comments were

II. EPA needs to collect and assess additional data regarding both the nature and extent of Lake Michigan pollution, and trends in the ambient concentrations of relevant chemicals, before adopting extremely stringent limits on discharges. Such data will show that ambient concentrations continue to drop due to existing controls and naturally occurring recovery processes, and may indicate that further regulation of some pollutants is unwarranted.

As pointed out by comments on the LaMP filed by the Great Lakes Water Quality Coalition, much of the data on Lake Michigan contamination cited by the LaMP is out of date. Moreover, the LaMP fails to reflect that pollutant levels in Lake waters, sediments and biota have decreased markedly in recent years, and will continue to decrease in the future. These past and continuing reductions are attributable to both decreased discharges to the Lake and natural recovery processes, such as degradation. Without fully understanding the continuing downward trend in Lake contamination, the LaMP could easily make the mistake of calling for additional stringent (and expensive) controls which will be unnecessary.

The EPA Response is

The governments, through the LaMP process, have developed a comprehensive tributary and atmospheric deposition monitoring program to better quantify chemicals loadings to Lake Michigan. The revised draft LaMP document describes this program in detail.

We recognize that some of the data cited in the 1/1/92 draft LaMP is out of date, and more recent information has been incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.7,9 par.1,2**

The Comments were

p.7, par.1

Other than conducting a "clean sweep" program for banned or cancelled pesticides and initiation of a program for voluntary replacement of PCB transformers, no "actions" have been scheduled to reduce pollution from nonpoint sources. Thus, point sources will be incurring huge costs to achieve, essentially, zero discharge while the real problem, nonpoint sources, continues to be largely unregulated.

p.9, para.2

For example, given that air pollution and urban and agricultural runoff are the primary sources of Great Lakes pollution, the LaMP could -- and should -- provide for adoption of air pollution regulations on an expedited basis to reduce lake pollution resulting from air deposition, and new stormwater regulations to target non-industrial stormwater discharges. The LaMP could then provide that after these main sources of Great Lakes pollution are reduced (as appropriate, given technical and economic considerations), EPA and the states would determine whether the small, remaining, contribution to Great Lakes pollution caused by point sources needs to be further controlled to attain the Great Lakes water quality standards.

The EPA Response is

In addition to the clean sweep program and the PCB transformer replacement effort, other nonpoint source action items that have been initiated include contaminated sediment remediation and air emission reduction activities under the Clean Air Act Amendments of 1990. Additional activities are ongoing in the 10 Areas of Concern around Lake Michigan. To date, point sources have not been subject to additional regulation or controls through the LaMP process. Though we have more loadings information from point sources than nonpoint sources, most of the LaMP resources and action items have targeted nonpoint sources. It is incorrect to suggest that "point sources will be incurring huge costs" through the LaMP while nonpoint sources are ignored.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **C Industrial**

These comments were found at the following locations in the comment letter: **p.1, para.1**

The Comments were

General Electric (GE) has been following developments pursuant to the Great Lakes Water Quality Agreement of 1978 (Agreement) and the Great Lakes Critical Programs Act of 1990 (Act). GE has numerous plants within the Great Lakes Basin that discharge wastewater either directly to rivers or lakes within the basin or to municipal wastewater treatment plants that in turn discharge to waters within the basin. GE is interested in developments under the Agreement and the Act that are likely to impact direct and indirect dischargers within the Great Lakes Basin.

The EPA Response is

We appreciate GE's interest in the Lake Michigan LaMP and look forward to their participation at all levels of the process.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.2,3,6,7,8**

The Comments were

In addition, GE strongly believes that EPA needs to collect and assess additional data, regarding both the nature and extent of Lake Michigan pollution and the potential health effects of the chemicals proposed for regulation, before adopting extremely stringent limits on discharges, primarily point source discharges. Given reductions in discharges of various chemicals to the Great Lakes over the past decade, as well as the natural recovery processes acting on those chemicals, pollutant levels in the great Lakes are much lower than just a few years ago and are continuing to decline. The data set forth in the LaMP is not current, and the LaMP incorrectly assumes that concentrations of chemicals in the Great Lakes will not continue to decline, through natural process, in the future. Before further regulating discharges, EPA needs to better understand current conditions in the Great Lakes and to project future trends.

With respect to the potential health effects of the chemicals proposed for regulation, EPA needs to take into account the most current toxicological information before assuming the need for further regulation, especially of point sources. In the case of PCBs, for example, EPA should reassess its assumptions regarding the risks posed by this class of chemicals before imposing further, more stringent, controls.

p.6, para.1
Notwithstanding the overwhelming evidence that point sources are not the problem, the early deadlines and specific programs in the LaMP's action plan focus almost exclusively on point source dischargers. For example, the agenda provides that, on an ongoing basis, the States and EPA must identify those NPDES facilities discharging Critical Pollutants and/or Level III and IV pollutants into the Lake Michigan basin and ensure that "appropriate" limits and monitoring requirements are included in their permits (footnote referenced). Specifically, by September of 1992 (footnote referenced), permits for such dischargers are to required facilities to develop and implement pollutant reduction /elimination programs to eliminate Critical Pollutants from waste streams. In addition, NPDES permits are to require the development and implementation of stormwater minimization plans to eliminate the release of critical pollutants. Finally, the agenda contemplates the development of a pollution prevention strategy targeted at the industrial/commercial producers and users of critical pollutants and Level III and IV pollutants. (footnote referenced)

p.7, para.2
The LaMP's emphasis on further regulation of point sources clearly cannot be cost effective and, based on the LaMP's own conclusions, will have virtually no impact on cleaning up the Great Lakes. According to the studies and figures compiled in the LaMP, achieving zero discharge from all point sources in the Great Lakes Basin will reduce total loadings of all pollutants to the Great Lakes by an insignificant amount. It is questionable whether any expenditure of pollution prevention dollars is justified by efforts to achieve these minimal benefits.

p.8, para.2,3
Moreover, it is clear that the costs of achieving these minimal benefits will be huge. A report prepared by Hinshon Environmental Consulting has estimated that compliance with the GLI water quality standards alone (not including the other point source reduction programs identified in the LaMP) will cost POTWs in the Great Lakes Basin $2.7 billion. A study conducted by the Chemical Manufacturers Association (CMA) has estimated that compliance with the GLI will require capital expenditures for CMA members in the Great Lakes Basin of between $190 to $397 million, with annual operating and maintenance costs of between $26 and $94 million.

GE believes that CMA's figures are extremely low. A preliminary study performed by GE at its Erie, Pennsylvania, plant indicates that compliance with the GLI water quality standards at that plant alone will cost a minimum of $20 million. It is therefore difficult to square the LaMP's focus on point sources with the LaMP's goal of prior

The EPA Response is

The LaMP document has been revised and updated to include more comprehensive and recent data regarding chemical loadings, ambient concentrations, sources, and toxicological effects on the environment. We concur that much of the information cited in the current LaMP document is out of date, though often this is due to the paucity of available data on many toxic pollutants.

Data on fish tissue concentrations indicate that while levels of many toxics have declined during the past decade, this decline appears to have leveled off in recent years, suggesting that additional efforts to reduce contaminant levels in the Lake Michigan watershed are warranted.

As mentioned above, most of the actions initiated to date through the LaMP process have been directed at nonpoint sources rather than point sources. Certainly, the participating agencies will look for opportunities to reduce loads from point sources where such efforts are warranted, as they will for all potential sources of LaMP pollutants. This issue has already been addressed in the response to a previous GE comment (on LaMP goals).

Regarding GE's comments on the Great Lakes Water Quality Guidance, these issues have been considered during Guidance development. It is inappropriate and irrelevant to respond to this comment in the context of the Lake Michigan LaMP.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.15, para.1**

The Comments were

In addition, EPA should rely on the most recent environmental data, and scrutinize that data carefully, before mandating additional, costly controls of discharges in the Great Lakes region. Recent data, particularly that concerning environmental concentrations of PCBs, indicates that such levels have decreased substantially, and will continue to decrease. Additional controls should be mandated only if necessary, taking all relevant data into consideration.

The EPA Response is

As mentioned in the response to a previous GE comment, the LaMP has been revised and updated to include more recent data on loadings, ambient concentrations, and sources.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p. 9,11**

The Comments were

p.9, para.1

GE realizes, of course, that pursuant to the Act the Agency is required to adopt uniform water quality standards and implementation procedures for the Great Lakes states. Nothing in the Act, however, states that the implementation procedures must apply -- at all, or exclusively -- to point sources. Moreover, although the Act required implementation procedures to be promulgated by EPA in June of 1992 and by the states within two years thereafter, the Act does not specify what implementation procedures are required or set forth dates by which particular implementation procedures must go into effect. Thus, EPA has the discretion, through the LaMP process, to further investigate the real problems facing the great Lakes, to better determine the sources of those problems, to prioritize those sources and, finally, through existing regulatory authorities, to design appropriate implementation procedures --applicable to both point and nonpoint sources -- to address the most significant sources of pollutants.

...

p.10, para.2

Probably the best example of the GLI's and the LaMP's failure to prioritize problems and to a prescribe remedies in the absence of sufficient information about the cause of problems is the GLI proposal to eliminate mixing zones for "bioaccumulative chemicals of concern" ("BCCs") within 10 years after promulgation of the GLI. There is simply no reason to believe today that elimination of mixing zones -- ten years from now -- will be of any benefit whatsoever. Within 10 years, all dischargers in the Great Lakes Basin will presumably be complying with water quality-based effluent limitations based on new, uniform, water quality standards, many new effluent guidelines will have been promulgated, the new stormwater permitting program will have reduced pollutant loadings from stormwater point source discharges, many remedial action plans ("RAPs") will have been implemented, and (presumably) there will have been substantial reductions in nonpoint source discharges to the Great Lakes through air pollution controls and controls on urban and agricultural runoff. There can simply be no basis to conclude, in January 1993, that compliance with the GLI water quality standards is dependant on eliminating mixing zones for critical pollutants in 2003.

...

p.11,para.1

The draft GLI contains several other extremely stringent implementation procedures that simply cannot be justified at this time. Among these are the proposals to require NPDES permittees to conduct chemical minimization programs even when pollutants are not detectable in their outfalls, to "ratchet down" NPDES permit discharge limits from present levels to "existing effluent quality" even when water quality standards are being attained, to limit mixing zone demonstrations for dischargers to lakes to a 10:1 dilution ratio, and to deem water quality standards set at levels below detection to have been violated by an NPDES permittee when the analysis of a single downstream receiving water sample indicates detection of a pollutant for which such a standard has been established. None of these draconian provisions, and the concomitant expense, is called for given that point source dischargers account for only a minimal amount of pollutant loadings to the Great Lakes.

The EPA Response is

Once again, it is inappropriate, in the context of the Lake Michigan LaMP, to respond to comments on the Great Lakes Water quality Guidance. Through the LaMP process, the agencies have, as GE points out, identified the chemicals impacting Lake Michigan, identified the sources of these chemicals, and prioritized load reduction activities for all sources of LaMP pollutants.

These comments are from Docket Code Number **LM010** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.11, para.2**

The Comments were

EPA might seek to justify such stringent provisions by citing the Agreement's goal of achieving "virtual elimination" of critical pollutant discharges to the lakes. The question, it would appear, is what does "virtual elimination" mean? GE believes, and the studies discussed in the LaMP confirm, that elimination or substantial reduction of nonpoint source discharges would constitute "virtual elimination." Seeking to eliminate even below detection level discharges from point sources, which account for an extremely small fraction of loadings in the first place, goes well beyond "virtual elimination" and does so at a cost which clearly outweighs any environmental benefit.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses (listed in the Agreement) in the Lake Michigan watershed. LaMPs are to be steps toward the goal of virtual elimination. Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific chemical is necessary to restore or protect a beneficial use. The LaMP process will take steps to reduce loads of critical pollutants, thereby moving us closer towards the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM010A** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1 of atch.A**

The Comments were

DOCUMENTING TEMPORAL TRENDS OF POLYCHLORINATED BIPHENYLS IN THE ENVIRONMENT

The EPA Response is

These comments are from Docket Code Number **LM010B** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.2,4 of atch B.**

The Comments were

p. 2, of attach. B.

COMMENTS OF THE GENERAL ELECTRIC COMPANY ON THE ADVANCE NOTICE OF PROPOSED RULEMAKING OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CONCERNING DISPOSAL OF POLYCHLORINATED BIPHENYLS

p.4, of attach B in executive summary, para.1-2 GE has participated with EPA for over a decade in developing rules and practical guidance for the proper use and disposal of PCBs. GE has also performed and supported much research in order to understand better the potential risks represented by PCBs to human health and the environment. We fully support the Agency's effort in this proposed rulemaking regarding various issues such as large volume items, mixed waste and other issues.

However, we believe there are more fundamental issues that EPA should address as part of the rulemaking and that these issues should take precedence over the practical issues that EPA plans to address. The crux of the issue is that EPA continues today to regulate all PCBs as if they represented equivalent risk to Aroclor 1260 (60% chlorinated mixture) in the face of scientific information that only the 60% chlorinated mixtures are carcinogenic in rats. Lesser chlorinated mixtures, which made up about 90% of PCBs sold in this country, are shown to be non-carcinogenic in rats and are less persistent in the environment.

The EPA Response is

These comments are from Docket Code Number **LM010C** The comments were dated **1-8-1993**

The commenter was **General Electric** Which is a/an **1 Industry**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1 of atch.c**

The Comments were

COMMENTS OF GENERAL ELECTRIC COMPANY TO THE GREAT LAKES WATER QUALITY SUBCOMMITTEE OF THE ECOLOGICAL PROCESSES AND EFFECTS COMMITTEE OF THE SCIENCE ADVISORY BOARD ON THE PROPOSED GREAT LAKES WATER QUALITY INITIATIVE

The EPA Response is

These comments are from Docket Code Number **LM011** The comments were dated **1-7-1993**

The commenter was **BROWN, FREDERICK L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3-4, PAR 3**

The Comments were

Sec. 3, pages 73-93 inclusive, lists specific actions and completion dates. The use of specific time lines is commendable. However, time lines that are unrealistic and/or not achieved is misleading. Have tasks listed for completion in federal FY '92 been done? Items of special interest include Regional contaminated sediment inventory, p. 75; compounds to be measured in 1993, p. 76; completion of L. Michigan Ecosystem Objectives and proposed ecosystem indicators, p. 78; monitoring requirements for facilities discharging a critical pollutant or Level III or Level IV pollutants, p. 83, p. 86; selection of a second tier of sites for sediment remediation, p.89; pollutant prevention data by sectors, p. 91, p. 92; and toxic load tracking systems, p. 94. Implementation of a final LaMP demands significant progress on these and other action items.

The EPA Response is

Some items in the action agenda of the 1/1/92 draft LaMP were completed by the indicated dates, while others were not. We agree that it is important to set realistic and accurate dates. However, there simply will be times when anticipated completion dates will not be met for any number of reasons. There certainly is no intent for the dates to be "misleading".

Regarding the specific activities referred to in the comment, some have been completed (or will be very soon), while others have not. The contaminated sediment inventory, the determination of compounds to measure in the monitoring program, the selection of second-tier sediment remediation sites, development of environmental objectives, and pollution prevention activities are complete, nearly complete, or are ongoing. Some work has occurred on the other listed activities (toxics tracking system, monitoring requirements for facilities discharging LaMP pollutants) but are far from being complete.

These comments are from Docket Code Number **LM011** The comments were dated **1-7-1993**

The commenter was **BROWN, FREDERICK L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2;3, PAR 2;1-2**

The Comments were

The emphasis on critical pollutants is commendable. However, my review suggests that "critical pollutants" is defined in various ways and gives rise to some confusion. I suggest your attention to p. 3, footnote 1; p. 7,last paragraph; p. 11, last paragraph; p. 25, last sentence; p. 26, second paragraph; p. 27, last paragraph; Tables 1.3 and 1.4.

The tiered approach (p. 24-29) is practical so long as it receives constant review and modification. I suggest reconsideration of designations found in Table 1.4 with specific reference to metals, other than mercury,designated as Level IV and furans as Level III. Within the document furans are included among pollutants linked to bioaccumulation and subsequent toxic effects, p. 16, paragraph 1. The "dioxin-like" mode of action of furans as planar halogenated hydrocarbons is noted, p. 17, paragraph 2. Dioxins and furans are commonly produced and found in association with each other as low-level byproducts in industrial and combustion processes, p.41, paragraph 3. With this commentary linking the furans and dioxins, why should the furans not be considered along with the dioxins as Level II?

Similarly, metals other than mercury, especially lead, receive significant comment, p. 43, paragraphs 4 and 5; p. 44, Table 2.2; Fig. 2.1; p. 51, Table 2.5; p. 52, Table 2.6; p. 61, Table 2.10; p. 63, Table 2.11; p. B-2;p. B-4; and Appendix F. Why should lead not be included with mercury in Level I?

The EPA Response is

We apologize for confusion created by any contradictory definitions of "critical pollutants" in the 1/1/92 draft LaMP. We have tried to make sure that a consistent definition is used in the revised draft LaMP.

The 4-tier system used for listing pollutants in the 1/1/92 draft LaMP has been revised by the LaMP Critical Pollutant Workgroup, and these changes are fully described in the revised draft LaMP. One change agreed to by the workgroup is that furans are now included with dioxin as a critical pollutant, for many of the reasons mentioned by this commentor. Regarding lead, workgroup members do not feel that it is clearly contributing to lakewide impairments at the present time, and should not be included with mercury on level 1. We recognize, however, that lead is present in the surface waters and sediments of the Lake Michigan watershed, and has the potential to contribute to lakewide impairments in the future. As a result, lead is included with the other heavy metals on level 2 as a pollutant of concern.

These comments are from Docket Code Number **LM011** The comments were dated **1-7-1993**

The commenter was **BROWN, FREDERICK L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1;2, PAR 2;1**

The Comments were

I suggest that the document is too narrow in scope. The complexities of the Lake Michigan ecosystem is noted in the opening paragraph, page i, but limitation of the Plan to reduced loadings of toxic pollutants will not, in my view adequately address these complexities. There is only minor commentary on the complex interactions of various aspects (physical, chemical, biochemical, and biological) of the flora and fauna (aquatic and terrestrial) of the total ecosystem.

To avoid any mis-understanding, I am not suggesting that initial drafts should be exhaustive background treatments of these complex interactive elements as they now exist, as they did exist prior to our industrial societal impact, or an anticipation of what we can reasonably expect in the next 20-100 years. However, I do believe that any comprehensive management plan for the L. Michigan ecosystem must look beyond the impacts of a short list of "critical pollutants" and at least develop an outline of a phased program that recognizes and comments upon the complexities of the interactive elements of the total ecosystem and further recognizes the necessity of dealing with them in a holistic way.

The EPA Response is

We recognize that control of toxic chemicals is only one component of a healthy environment, and that there are other issues that must be addressed in the long run to ensure a fully functioning Lake Michigan. The fact that the Lake Michigan LaMP currently focuses on toxic chemicals does not diminish the importance of these other issues. As the commentor points out, issues such as wetlands and land use are frequently interrelated to loadings of toxic chemicals. The LaMP is a process; the fact that it now is a toxics management plan does not mean that it cannot be expanded in the future to incorporate other concerns. The LaMP process also can provide a framework for evaluating and addressing these broader issues.

These comments are from Docket Code Number **LM011** The comments were dated **1-7-1993**

The commenter was **BROWN, FREDERICK L.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 4-5, PAR 1**

The Comments were

The issue of citizen and nonprofit organization participation needs resolution. Funding of such participation through expense grants is crucial. Meetings should be regular and established with adequate lead time. Function of citizen and non-governmental organizations should be clearly defined. Maximum benefit will be achieved when the above are given a meaningful voice in decisions. A pertinent question - who has represented the Lake Michigan Forum on the Technical Coordinating Committee, p. 6, paragraph 3?

The EPA Response is

USEPA is currently working with members of the Lake Michigan Forum to clarify and define the role of the Forum in the LaMP process. We fully believe that public involvement in the LaMP process is crucial for its success. If the public does not support the LaMP, then it is likely to fail. To date, the Forum has primarily acted as reviewers, and have not had much of a proactive role, such as making recommendations on specific issues. Forum members agree that they would like an expanded role in this process, and USEPA has been trying to encourage this for some time. We now have an independent organization that facilitates Forum meetings, and regular, quarterly meetings have been held since February 1993.

Regarding funding, many Forum members have mentioned this as a constraint to their participation. USEPA has very limited resources for the LaMP, but we are considering ways of providing some funds for travel to Forum meetings in order to improve participation.

The Technical Coordinating Committee has been meeting quarterly since June 1993. In addition, these individuals identify the experts within their agency who should participate in various ad hoc workgroups, such as monitoring, critical pollutant, and pollution prevention workgroups. The Forum has no representative on the Technical Coordinating Committee, and have had little participation in the workgroups. USEPA would like to have a Forum member participate in each workgroup, and we are working with the Forum to accomplish this.

These comments are from Docket Code Number **LM012** The comments were dated **12-8-1992**

The commenter was **BLASLAND&BOUCK ENG.** Which is a/an **7 Consultant**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.2, Par.5**

The Comments were

(4). The preliminary PCB budget understates the relative importance of atmospheric PCB deposition.

Although the report does acknowledge the uncertainty of lakewide PCB loads, it then proceeds to embrace an unpublished source of loading estimates without any justification. On page 46 the LaMP presents the findings of the National Wildlife Federation (NWF) that "about 75% of the annual load of PCBs to Lake Michigan comes from tributaries and 25% from the atmosphere". This is out of line with prior estimates from published and peer-reviewed sources such as that by Swackhamer et al. (1986) which the report also cites. Roughly half or more of the total load is attributable to atmospheric loading according to those references. The report uncritically accepts the unpublished PCB mass-balance model developed by NWF and does not reconcile the differences from the published estimates. The citation for the NWF model suggests that United States Environmental Protection Agency did not critically review the NWF model before publishing its findings. The primary reference for the model appears not to be Fink (1991), but rather Lamey (1990) as cited by NWF (1991).

The EPA Response is

We agree that unpublished studies should not be cited as a basis for drawing conclusions or making recommendations. When evaluating chemical pathways to Lake Michigan, estimates and studies should be critically reviewed prior to their incorporation into the LaMP document. Unpublished estimates are not cited in the revised draft Lake Michigan LaMP.

These comments are from Docket Code Number **LM012** The comments were dated **12-8-1992**

The commenter was **BLASLAND&BOUCK ENG.** Which is a/an **7 Consultant**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1-2, Par.2,1-3**

The Comments were

(1). Discussion of the mode of action of dioxin and dioxin-like compounds is inaccurate.

The discussion of mechanism of action planar halogenated hydrocarbons (p. 17) refers to the formation of "toxic intermediary compounds." To our knowledge, this has not been clearly established as the mechanism of toxicity for dioxins and dioxin-like polychlorinated biphenyl (PCB) compounds. It is generally acknowledged that dioxin and dioxin-like PCB compounds bind to a receptor (the Ah receptor) which results in induction of certain enzyme systems, and that induction of these enzymes is somewhat correlated with observations of toxic effects. However, it is not clear that this toxicity involves formation of toxic compounds. For example, in the recent Banbury report on dioxin toxicity, Whitlock (1991) also cited the following as other possible mechanisms of dioxin toxicity: 1) changes in the extent to which cells express receptors for hormones,and 2) changes in levels of enzymes that degrade hormones. In addition, the LaMP appears to misinterpret the results of the Tillet et al. (1991) study as demonstrating the production of "toxic intermediary compounds" in rat hepatoma cells exposed to PCB-containing extracts. In fact,our review of this study indicates that it only identifies increased enzyme activities in these cells and does not identify "toxic intermediary compounds."

P2, PARA1-5:
(2). The inference that PCBs were the causative agent in the effects documented by Rogan et al. (1988) is unsupportable. The LaMP's portrayal of the Rogan et al. (1988) study of the Yuecheng poisoning incident in Taiwan suggests that PCBs were the primary causative agent of observed toxic effects. However, the LaMP fails to point out that the authors of that study actually attributed most of the observed toxic effects to polychlorinated dibenzofurans rather than PCBs.

(3). The alarming suggestion that human reproductive and developmental abnormalities are occurring as a result of exposure to chemicals in Lake Michigan lacks a technical foundation. The statement on page 21 that "recent investigations suggest that reproductive and developmental abnormalities in Lake Michigan humans and wildlife continue to occur", and implicit suggestion that human "abnormalities" are attributable to chemicals in Lake Michigan, are alarmist and without foundation. The LaMP cites two studies in support of this assertion: one by Jacobson, Jacobson, and Humphrey (1990) and an unpublished study by Ludwig et al. The study by Ludwig et al. apparently presents the results of research related to two bird species. The Jacobson et al. (1990) reference presents the results of a correlative analysis of the results of cognitive assessments using the McCarthy Scales of Children's Abilities. Reproductive endpoints are not addressed by the publication at all. The paper reports a statistical association between prenatal exposure (cord serum PCBs) and verbal and memory deficits. Although the method employed by the authors in attempt to control for confounding variables is questionable, the more important qualification of their work in general is that parallel studies fail to confirm their observations. The evaluation of a much larger sample by Gladden and Rogan (1991) found no association between cord serum PCBs and the McCarthy Scales.

In addition, it is quite inaccurate to cite Jacobson et al. (1990) as the basis for the statement which appears on page 20: "Children born to women who routinely consumed Lake Michigan sportfish displayed poorer short-term memory function on both verbal and quantitative tests in a dose-dependent fashion than did controls." The cited reference did not compare children of fish-consuming mothers to children from both groups were pooled for statistical evaluation. This correlative study was a departure from the authors' previous analytical strategy. The numbers of children in the pool that were born to mothers who did not consume Lake Michigan fish were not reported. The paper's failure to address the two groups

The EPA Response is

The discussion on the mode of action of dioxin and similar compounds has been reviewed and revised based on this comment. From the LaMP perspective, the mode of dioxin toxicity is not really important; that dioxin is toxic is important. Nonetheless, we have attempted to correct any inaccuracies in the discussions on LaMP pollutants.

The revised draft LaMP contains much more detailed information about properties of specific chemicals and their impacts on Lake Michigan. However, the revised draft LaMP does not include much of the discussion on bioeffects research. It is well established that the chemicals listed in the LaMP can exert toxic effects on a range of organisms. For purposes of reducing loads of toxics, we are less concerned about the mechanisms of these toxic effects. That the chemicals are toxic is important. We apologize for any misinterpretations of the studies mentioned in this comment.

These comments are from Docket Code Number **LM012** The comments were dated **12-8-1992**

The commenter was **BLASLAND&BOUCK ENG.** Which is a/an **7 Consultant**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P. 3, Par. 3-4**

The Comments were

(5) There is no evidence to suggest that PCBs are responsible for eutrophication and for degradation of phytoplankton and zooplankton populations in Lake Michigan.

On Page B-4, PCBs are listed as a "pollutant believed responsible for eutrophication" in Lake Michigan.. PCBs are also listed on page B-7 as a "pollutant believed to be responsible for degradation of phytoplankton andzooplankton populations". The studies cited to support these assertions (Glooschenko and Glooschenko, 1974) and McNaught(1982) present the results of experiments involving exposure levels generally three orders of magnitude times those expected to be found in Lake Michigan. The wider literature and the ambient levels of PCB in Lake Michiganindicate that PCBs would essentially have no influence on plankton.

The EPA Response is

We concur that there is no evidence that PCBs contribute to eutrophication in Lake Michigan. The statements in the 1/1/92 draft LaMP linking PCBs with eutrophication were based on laboratory studies indicating that PCBs theoretically could have the potential to cause eutrophication. These statements have been removed from the revised draft LaMP.

These comments are from Docket Code Number **LM012A** The comments were dated **12-8-1992**

The commenter was **BLASLAND&BOUCK ENG.** Which is a/an **7 Consultant**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1 of atch A**

The Comments were

Literature Cited

The EPA Response is

These comments are from Docket Code Number **LM013** The comments were dated **10-13-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 5-8**

The Comments were

The Tier 1 list - those to be the major focus of LAMP - PCBs, dieldrin, chlordane, DDT and metabolites, and mercury are mostly banned substances. Some others, given less priority in the LAMP, including hexachlorobenzene, PAHs, dioxins, and furans, we believe have sufficient information on them to warrant Tier I listing and priority action. Dioxins, a Tier II pollutant, are considered to be some of the most toxic synthetic chemicals known to man.

The Water Quality Board of the International Joint Commission, in its 1991 report, recommends targeting other pollutants also for immediate action including toxaphene, mirex and hexachlorobenzene.

Detection of Emerging Problems

The LAMP will apparently only evaluate compounds after they are in the system and begin having negative ecological effects on Lake Michigan.

The LAMP should include a process whereby new compounds developed for use are evaluated to ensure that their introduction into the Lake Michigan ecosystem has no negative effects.

The EPA Response is

The chemicals listed on Level 1 are those which USEPA, Fish and Wildlife Service, and the four Lake Michigan States believe are contributing to lakewide impairments. In the revised draft LaMP, dioxins and furans are included on level 1. The pollutants on level 2 in the revised draft LaMP (levels 3 and 4 in the 1/1/92 draft LaMP) are those which the critical pollutant workgroup believes are present in the watershed and contributing to local impairments. However, there is not sufficient data indicating that they are contributing to impairments on a lakewide scale. As pollutants of concern, however, pollution prevention and load reduction opportunities will be identified for these substances on level 2. PAHs, toxaphene, and hexachlorobenzene are included on level 2. Mirex is a serious problem in Lake Ontario, but has rarely been detected in Lake Michigan waters. We will certainly consider and review new data concerning any chemical as it becomes available. If anyone has data indicating that a chemical is contributing to ecological impairments in Lake Michigan, please call (312) 886-4680.

The process for listing and delisting chemicals has been revised and improved. The new process incorporates more of a prevention and evaluation approach than the previous method. This process is explained in the revised LaMP.

These comments are from Docket Code Number **LM013** The comments were dated **10-13-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 6;1-2**

The Comments were

The way in which the LAMP is structured and organized makes it somewhat difficult to read and understand. In addition, the focus of the LAMP is stated in different terms throughout the document and is generally unclear. Language used in the LAMP is confusing and unnecessarily lengthy.

Each of the three sections in the LAMP deals with too large a topic - the titles are too long and complicated. The information would be better understand if separated into smaller topics.

An executive summary of the LAMP for the public would be helpful and allow the basic focus and plan of the LAMP to reach a larger audience.

The EPA Response is

The revised draft LaMP has been reorganized and streamlined to improve its flow and improve its readability. The chapters have generally been broken down to focus on a more specific topic and provide more continuity to the reader. We believe that these modifications will greatly improve the basic structure and flow of the document.

The revised draft LaMP has a list of recommendations and priorities at the beginning of Chapter 5. This should allow readers to find the major themes and conclusions without having to read the entire document.

These comments are from Docket Code Number **LM013** The comments were dated **10-13-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2,3; PAR 3-4, 1**

The Comments were

Comprehensive descriptions of the Critical Pollutants are needed, as given in, for example, Cleaning Up the Great Lakes, A Report on Toxic Substances in the Great Lakes Basin Ecosystem, a report by the Water Quality Board of the International Joint Commission.

The draft LAMP appears to focus too narrowly on control of critical pollutants. In the Great Lakes Science Advisory Board, 1991 Report to the International Joint Commission, the Board endorses "a broad interpretation, viewing LAMPs as a comprehensive, systematic planning framework within which many activities are pursued, including, but not limited to, the control of critical pollutants."

... Many of those listed detail implementation of existing programs and enforcement of laws. A focus on existing programs may not be enough to achieve the goal of the LAMP - ultimately, a healthy Lake Michigan ecosystem.

The EPA Response is

More detailed descriptions of the critical pollutants have been provided in the revised draft LaMP.

The LaMP is a process, with the current focus on toxic pollutants. This focus should not suggest that the agencies do not recognize the importance of other non-toxics issues. As the LaMP process develops, the agencies will discuss opportunities to incorporate other issues into the process, and evaluate the relative magnitude of all threats to Lake Michigan.

The LaMP process identifies specific activities to reduce loads and ambient levels of the LaMP pollutants. Some of these activities are better implemented through existing programs or by using existing laws. However, we recognize that there will be situations where existing Federal, State, and local programs do not address specific problems, and we will need to go beyond these programs. The LaMP provides recommendations and resources to address these kinds of problems; in other words, identify gaps in the protection efforts of existing programs and identify opportunities to fill these gaps.

These comments are from Docket Code Number **LM013** The comments were dated **10-13-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 2**

The Comments were

Public participation in development of the LAMP has been severely lacking - meetings of the Lakewide Advisory Council have been cancelled and postponed. Members of the Council were not provided with adequate time to review the draft LAMP prior to its being placed on the Federal Register. In addition, comments from citizens attending workshops around the lake designed to gather input on the development of the LAMP have been virtually ignored.

The EPA Response is

Several Lake Michigan Forum meetings were cancelled or postponed for a variety of reasons. However, the Forum has been meeting quarterly since February 1993. Discussions have been held between USEPA and the Forum to identify opportunities for the Forum to become more proactive and provide recommendations to the Management Committee on specific issues, rather than simply reviewing LaMP products. Substantial progress has been made in this area over the past 6 months.

USEPA did ensure that Forum members had adequate time to review the revised draft LaMP.

Seven public workshops and comment sessions were held around the Lake Michigan basin in the fall 1992. Public reaction to these workshops was very positive. These workshops were not mandatory, but USEPA felt that the public should have the opportunity to learn about the LaMP. All comments received during these sessions have been considered in the revision of the LaMP document; therefore, the commentor's assertions that citizen comments from these workshops have been virtually ignored are puzzling.

In summary, we fully agree that public participation in the LaMP process must be (and is being) improved; however, USEPA has taken steps beyond those required to ensure public input into the Lake Michigan LaMP.

These comments are from Docket Code Number **LM014** The comments were dated **12-2-1992**

The commenter was **IL DEPT CONSERVATION** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 2-5,1**

The Comments were

In general, we concur with the proposed process of reducing the loadings of critical pollutants in order to restore beneficial uses of the open waters of the lake. We do, however, recommend revision of the draft ecosystem objective for aquatic communities which is stated in the draft LAMP as:

"The waters of Lake Michigan shall support healthy, diverse, reproducing, and self-sustaining communities in dynamic equilibrium, with an emphasis on native species."

This objective was apparently derived from two questionnaires and the ecosystem goals and objectives workshop coordinated by the Michigan Sea Grant Program. We attended this workshop and noted that representation by the Great Lakes Fishery Commission (GLFC) and the Lake Michigan fishery management agencies was noticeably absent. In essence, the goal is to reduce pollutants so that no adverse health effects in aquatic plants or animals would be caused. The objective, however, emphasizes self-sustaining communities of native species in dynamic equilibrium. No reference is made to the fact that a number of exotic species now occur in the lake, some of which may not reproduce, but are beneficial in terms of regulating the abundance of other species; i.e., Pacific salmon predation and alewife. We therefore recommend that the Agency consider revising the objective to:

"The waters of Lake Michigan shall support healthy and diverse aquatic communities including bacteria, algae, plants, invertebrates and fish that are either self-reproducing or ecologically beneficial."

This revision is in line with fisheries objectives we have stated through our participation in the "Operational Subcommittee of the Whole (advisory to the GLFC Commission. The state and provincial fisheries management agencies have stated their Great Lakes fisheries objectives as being " ... committed to establishment of self-sustaining fish populations wherever possible, minimizing the need to utilize stocked fish. Judicious stocking of fish for both rehabilitation and recreational objectives is compatible with native species restoration goals. Because of invading species and drastic habitat modifications, total reliance on self-sustainability may preclude full utilization of the ecosystems' potential. The agencies will continue to utilize stocking as a recruitment tool to achieve fish community goals and objectives as established through the Joint Strategic Management Planning process."

The EPA Response is

The goal of the Lake Michigan LaMP is to reduce levels of toxic pollutants in the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been revised to eliminate the apparent perception that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM015** The comments were dated **10-1-1992**

The commenter was **COOTER, WILLIAM S.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 2-4,1**

The Comments were

My general impression is there is no firm commitment to any definite actions that could abate the introduction to the body of Lake Michigan of highly persistent, or bioaccumulative, toxicants. There is much arm waving in reference to initiating "pilot" TMDLs, increasing outreach efforts to help people wanting to eat fish to "manage their risks", and obscure references to tweaking QAQC plans to get labs to lower their detection limits on certain toxics. I can't see how this will substantially accelerate the movement toward virtual or complete elimination from all waste streams of the most worrisome poisons (e.g., mercury and tribe of dioxins and furans). I can read things being put out by the IJC that seem much more specific, which is ludicrous since the IJC has no power to make anything happen. The LAMP should more squarely face up to the challenge that for certain toxicants, the output in waste streams must be pegged at ZERO, and new ways of making things and disposing of things must be found QUICKLY.

In short, the Great Lakes ecosystem, both its human components and its equally important non-human members (too bad they can't vote) can no longer endure any "tolerable" loading of certain poisons. I am particularly astounded that the authors of the LAMP would waste the time hoping that something as anachronistic as the TMDL process will help. This fossil was tacked onto Title III of the CWA at the behest of Ruckelshaus, a bunch of civil engineers who thought they could model anything, and a herd of industrial lobbyists. It is anathema to the whole spirit underlying the original Clean Water Act, which clearly mandated EPA and the States to move to ZERO POLLUTANT DISCHARGE as soon as possible.

If you check your recent history, close parallels to the impotence of this LaMP can be found in such initiates as the Safe Drinking Water Act Well head Protection Program and the Clean Water Act Section 319 Nonpoint Source management Program. In both cases, the typical management proposals amounted to a rehash of existing (and woefully inadequate) programs and lots of chatter about "program development" and the need to view the plans as "dynamic". Instead of pretending that with a little "development" the status quo will carry the freight, you might honestly admit that new legislation, new powers, and more money are needed. Provide outlines of the content of such legislation (or model ordinances for local governments), and put forth a timetable for petitioning the proper government authorities to consider these proposals.

Finally, the damage done to the Great Lakes is so substantial that genuine recovery may take decades. The honest approach would be to spell out this likelihood clearly. There will be no 90 day miracles in these LAMPs. To the degree that some limited ecological miracles might happen, your LAMP is virtually silent. What about more space for ecological restoration projects? This may be harder to sell for Lake Michigan than for other of these great waterbodies -- but if you ever get to Lake Erie, you'll discover that about the only way to break the current deadlock is to start restoring the wetlands on a massive scale. I find virtually nothing in your LAMP about restoring ecological services. Maybe you expect the RAPs to solve that for you?

The EPA Response is

We disagree with the commentor's statement that there are no commitments to specific actions in the revised draft LaMP, as there are a number of them in the action agenda. The mandate for LaMPs is to reduce levels of toxic chemicals in the environment in order to restore and protect ecological health. The LaMP will help us move towards the goal of zero discharge, but the LaMPs have no authority to mandate zero discharge, desirable as this may be to some.

The LaMP process attempts to focus existing programs to address specific threats to Lake Michigan where these programs have the capacity to do so. However, we recognize that the LaMP will need to identify gaps in existing programs and tackle problems not being addressed through base programs. We do not have all of the answers right now. We hope to take some steps now, and other efforts will need to be undertaken in the future. The LaMP process provides a framework to identify where additional protection efforts and/or laws are necessary, but everything will not happen overnight, unfortunately. If the commentor has any specific suggestions, we would be happy to consider them.

Finally, we recognize that elimination of toxic chemicals is a long-term process. Because the LaMP chemicals are very persistent, it will be difficult to get them out of the environment. The LaMP document states this clearly, and does not predict any miracles. However, the agencies are a bit more optimistic than the commentor that some success can be achieved through the LaMP process.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **11 Sediments**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

First, I'm very pleased to see reinforcement for our view that contaminated sediment is a major source--possibly the limiting source--of persistent bioaccumulative toxic compounds to the lake's food chain and, therefore, that removal and treatment of this sediment has high priority in a lakewide plan.

The EPA Response is

We concur that sediments remain a major source of LaMP pollutants to Lake Michigan, and therefore sediment remediation is an important component of the LaMP.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, 3; PAR 3-4, 3**

The Comments were

As far as the list of chemicals itself, mercury is clearly at the top of the LAMP drafters' list of priorities for contaminants still actively being discharged, but I could find no detailed reference on sources and strategies for reducing it such as is presented for PCBs. When will we see such strategies?

I was, of course, concerned that dioxin compounds are not listed in Tier 1 and wonder why not. I am also puzzled that hexachlorobenzene and PAHs, especially benzo(a)pyrene, are so low on the list.

Although, good intentions are noted about developing a system of early detection for compounds not yet on this or other priority lists, I could find no proposals for how to implement such a laudable strategy. If the Great Lakes Water Quality Initiative is implemented in something like its current form, presumably that will help begin this process by shifting the burden of proof on new chemicals to the dischargers--at least for point sources.

... If a critical pollutant is "de-listed" as a result of new monitoring, however, what will the implications be of such de-listing? I trust that ongoing efforts to keep discharges of the de-listed chemicals low or absent will not be relaxed at that point? Elaboration would seem in order.

The EPA Response is

The revised draft LaMP contains more information regarding uses and sources of mercury. Based on this information, the Federal and State agencies participating in the LaMP process will identify opportunities to reduce mercury loads to Lake Michigan. The action agenda (Chapter 5) contains some activities to reduce mercury, and the Agencies will identify and implement additional efforts to reduce loads of mercury, and all other critical pollutants, as the LaMP process develops.

Dioxin was listed on Level 2, which made it a critical pollutant and provided for the same management focus as Level 1 chemicals received as described in the 1/1/92 draft LaMP. However, the Critical Pollutant Workgroup met in February 1993 and decided to combine the previous Levels 1 and 2 into the new Level 1 (as described in the revised LaMP) to eliminate this confusion. Thus, dioxin is now a Level 1 pollutant along with the other critical pollutants.

In fact, the 1/1/92 draft LaMP document did contain proposals for developing an early detection system for pollutants not yet listed. One of these is the use of the bioconcentratable substances protocol which analyzes fish tissues and sediment for several thousand acid-soluble bioconcentratable chemicals. This effort is being piloted in Lake Michigan tributaries in the state of Michigan, with the final report due soon. In addition, the Critical Pollutant Workgroup agreed to create a new level, Level 3, to detect emerging pollutants that are not yet listed on Levels 1 or 2, but which have characteristics indicating a potential to impact the Lake Michigan watershed. Level 3 chemicals are described in more detail in the revised draft LaMP.

If a chemical is delisted due to reductions in loadings or ambient levels, that pollutant will no longer be a focus of the LaMP process. However, this should not be interpreted to mean that we will allow loadings of that chemical to increase again. All existing regulations and pollution control activities will ensure that the chemical does not impact Lake Michigan in the future.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **16 Env Objectives**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 6**

The Comments were

I am pleased with the ecosystem objectives contained in the LAMP, particularly with the emphasis given to wildlife, to habitats and to restoration of native species. This is much broader than the set of LAMP goals proposed originally by EPA.

The EPA Response is

While the objectives apply to the entire system, the current focus of the LaMP is reducing loads of toxic pollutants to the Lake Michigan watershed. This does not mean that habitat issues are not important and can't be addressed in future iterations of the LaMP. Also, the mention of native species restoration should not be considered an endorsement of a Lake Michigan with native species only. The LaMP is not a fishery management plan; it is a toxics reduction plan. As such, its success will benefit all species in Lake Michigan.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **19 LaMP Plan Proc**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3, PAR 4**

The Comments were

I confess some confusion about a passage in the document that describes the scope of the LAMP as including all "open lake waters including bays, harbors, and inlets, except Areas of Concern." It seems to me that you surely want to look at contaminants that are affecting the whole lake ecosystem from whatever sources--whether it's air, sediment, or point and non-point sources from any tributary, whether or not that tributary is an Area of Concern. The caution was expressed that EPA doesn't want, in its LaMP effort, to get caught up in addressing pollutants that have only local impacts, but, after all, the AOC Remedial Action Plans, too, profess to be focusing on impacts on the lake and not those internal to the watershed. Clarification would be appreciated.

The EPA Response is

The LaMP considers Areas of Concern (AOCs) as sources of contaminants to Lake Michigan. Also, any toxic pollutant that is known to contribute to an impairment in an AOC is listed in the LaMP as a Level 1 or 2 pollutant, depending on the geographic extent of its distribution in the watershed. Thus, the LaMP does tie-in with the Remedial Action Plan (RAP) process. However, the Agencies recognize that clean-up and control activities are going on in the AOCs through the RAP process, and the LaMP does not intend to interfere or duplicate these activities. Actions carried out through the RAP process serve to reduce loadings to Lake Michigan, and therefore contribute to the LaMP process as well. The LaMP process serves as an "umbrella" under which the individual RAP activities are conducted. In addition, the LaMP provides a lakewide context in which to evaluate the success of RAP activities in reducing toxic chemical loadings to Lake Michigan.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, 2; PAR 5, 1**

The Comments were

I am pleased to see a strong emphasis in the LAMP document on the very serious damage caused by releases of halogenated organic compounds to the environment, but I fail to see an aggressive proposal to ban production, use and distribution of a larger group of these compounds. I would like to see specific support for our own earlier recommendation as well as that of the International Joint Commission for banning chlorinated organics in industry feedstocks. At a minimum, I would recommend inclusion of more specific proposals for implementation of in-plant pollution prevention strategies for these chemicals (involving product substitution, in-plant recycling and re-use, etc. as an interim step on the way to zero discharge).

... It would be helpful to have included some more detailed reference to the EPA-led multi-agency and stakeholder Five-Year Strategy for the Great Lakes as well as the Great Lakes Fishery Commission's own Lakewide Management Plan for fisheries. This would be especially helpful, since the current LAMP only lists detailed action plans for fiscal 1992, now over.

The EPA Response is

There are a number of pollution prevention activities underway in the Lake Michigan watershed to reduce the use of halogenated organic compounds. Some of these efforts are being carried out through the LaMP process and are listed in the action agenda of the revised draft LaMP. The revised draft LaMP does recommend the banning of some chemicals whose use has been restricted (Chapter 5). Many of the LaMP critical pollutants already are banned, restricted, or suspended, including PCBs, DDT, chlordane, dieldrin, and toxaphene. The goal of the LaMP is to restore and protect Lake Michigan beneficial uses, not specifically to achieve zero discharge of chemicals. If, through the LaMP process, we determine that these uses cannot be restored or protected unless a chemical is banned, then the LaMP will make such a recommendation. Therefore, while the current LaMP does not make such a recommendation, as the process develops such proposals could be made in the future.

The revised draft LaMP document makes references to the Great Lakes 5-Year Strategy and the Great Lakes Fishery Commision's fishery objectives, and explains how the LaMP relates to other related activities.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **22 Monitoring**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3, PAR 2**

The Comments were

I am strongly supportive of the proposals for increased tributary and air monitoring and also for regularizing and regularly evaluating such monitoring in order to provide course corrections in remedial strategies.

The EPA Response is

The Agencies concur that air, tributary, and open-lake monitoring are important components of the LaMP process to measure loads of LaMP pollutants and to detect the presence of pollutants not currently listed.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **23 Nonpoint Srces**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

As a natural corollary to this action, much more aggressive controls on land runoff of contaminant-laden soil are also needed. This is stated as a goal in the LaMP, although I would like to see much more detail on proposed strategy and continued funding to states who will be carrying out non-point source work. Particularly lacking are details on implementation of urban and industrial non-point source controls. Plans submitted by municipalities and individual facilities to comply with new stormwater regulations are already showing promise, but resources are sadly lacking to enforce these regulations or even to provide information and keep track of voluntary measures.

The EPA Response is

We agree that contolling pollutant releases into surface waters from nonpoint source runoff is critical. Controlling runoff is very difficult, and we do not have all the answers at this time. Based on available information, the Agencies need to discuss what activities should be initiated and/or expanded to address this pollution source. The commentor is correct that the current LaMP does not contain a detailed stategy for reducing loadings from urban and agricultural runoff. However, the LaMP does provide a context for evaluating the importance of runoff to toxics loadings to Lake Michigan, and to develop a strategy and specific actions to address nonpoint source runoff.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**
The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **24 Point Sources**
with the following subarea (if any) **D Municipal**
These comments were found at the following locations in the comment letter: **P 2, PAR 7**

The Comments were

My final recommendation on implementation of an effective Lakewide Management Plan is that Publicly Owned Sewage Treatment Works be empowered to play a much bigger role in implementing both point source goals of the LAMP and in public education on pollution prevention. We have been working with a number of POTWs in the Great Lakes basin over the past year and see great promise in this means of affecting industries that discharge into sewage systems as well as domestic and small, unregulated commercial and industrial dischargers through broad-based public education and training sessions.

The EPA Response is

POTWs and industrial facilities should play a critical role in the LaMP process, in reducing pollutant loads where technologically and economically feasible, and in education and outreach. Representatives of POTWs and industry have participated to a limited extent in the LaMP process, and we would like to see them play an even larger role. We also commend the efforts of the Lake Michigan Federation in working with municipal dischargers to reduce loads and increase public awareness concerning environmental issues.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 6**

The Comments were

Another lack in the current LAMP draft that was recommended in our citizen meetings all around Lake Michigan is a proposal for integrated point source facility permit management. Implementation of new Clear Air Act legislation will surely help enormously in reducing pollution of persistent toxics to Lake Michigan but only if it is linked to NPDES permits for water and to sludge controls (Contents and uses/disposal of sludge, in particular, needs much more attention). No discharger should be able to shift pollutants from one medium to another.

The EPA Response is

The Agencies concur that there is no benefit to be gained by shifting pollutant releases from one media to another. Pollution prevention, inspections, compliance, and enforcement efforts are starting to focus more on preventing and reducing facility releases from all media, not just shifting from one to another. Chapter 5 of the revised draft LaMP contains a recommendations relating to the elimination of cross-media pollutant transfer. The LaMP process provides a framework to look at multi-media load reduction, and to emphasize the importance of considering discharges from a multi-media perspective, including air, water, sludge, and solid waste.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, 3; PAR 2, 5**

The Comments were

Two years ago, many of you met with LMF here or at Indiana Dunes National Lakeshore to develop a Citizen's Lakewide Management Plan. I'm happy to say today that many of our suggestions have been incorporated into EPA's LAMP, although other recommendations are not presented here as strongly as we'd like.

... My final concern is for improvements in meaningful public involvement as this LAMP process continues. It has been inadequate so far, and the reason given is the need to meet Congressionally mandated deadlines for completion of a draft LAMP. In the coming year, environmental groups throughout the Great Lakes will be forging our own priorities and acting on them and we welcome the involvement of any interested citizens here tonight.

The EPA Response is

While USEPA has tried to ensure sufficient opportunities for public participation and involvement, we recognize the need to improve this process. We are encouraging the Lake Michigan Forum to meet regularly, and to take a more proactive role in the LaMP process by addressing specific issues and making recommendations to the Management Committee. The Forum has met regularly since February 1993, and is taking steps to become more active. We have sent numerous materials to groups and individuals on our general mailing list to keep them informed about LaMP activities. We look forward to continued and even greater involvement from all members of the public, including environmental groups, industry, academia, local government, and interested citizens.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2,3; PAR 9,1**

The Comments were

The data presented seems, overall, to have been collected hurriedly and therefore has many omissions that I trust will be corrected in later drafts. Much of it seems old (often before 1983) and some of it seems irrelevant. I hope no computer modeling for mass balance studies will be based on such old data! I assume up-to-date fish tissue analysis will be included in a later draft as well as data gathered from EPA's Assessment and Remediation of Contaminated Sediments Program and Region V's new Air Toxics Inventory. The RCRA tables in the back don't include treatment storage disposal facilities. TRI data is presented only for 1988 and only for PCBs, lead and heptachlor. Many charts appear to focus on volumes of pollutants rather than on concentrations and toxicity of, for example, wastewater discharges. A table on page 40 is described as presenting reductions in loads and effluent concentrations (from 1967 to 1983, nothing more recent) but lists percentages of loadings and concentrations from paper companies, for example, only for biological oxygen demand and suspended solids. This seems almost beside the point. I could continue ....

I would appreciate hearing what plans are underway to correct these data deficiencies

The EPA Response is

The Agencies recognize that much of the data presented in the 1/1/92 draft LaMP are outdated and that there are data deficiencies in some areas. This is due in some cases to the general lack of data on many toxic chemicals. The revised draft LaMP will contain more detailed information on use impairments and specific chemicals, and more recent data will be incorporated. Overall, we feel that that quality and quantity of data presented in the revised draft LaMP is much improved.

These comments are from Docket Code Number **LM016** The comments were dated **11-19-1992**

The commenter was **LAKE MI. FEDERATION** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **35 Enforcement**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 2**

The Comments were

In general, I see only vague and general references to a commitment to increased enforcement actions relating to the priority critical pollutants listed and would like to hear more specific plans.

The EPA Response is

Enforcement of existing laws and regulations is certainly an important component to reducing loads of toxic chemicals to surface waters, land, and air. Enforcement actions are regularly carried out through Federal and State base programs for all media, and as a result may seem to be ignored in the LaMP document. However, the Agencies will continue to conduct compliance inspections and enforcement actions for LaMP critical pollutants (Level 1) and pollutants of concern (Level 2), as well as all substances for which permits or regulations are violated. Enforcement is a major tool for achieving the load reduction goals of the LaMP. USEPA and the Great Lakes States have developed a Great Lakes Enforcement Strategy, designed to reduce significant noncompliance among facilities discharging LaMP Pollutants. This Strategy is briefly described in Chapter 1 of the revised draft LaMP.

These comments are from Docket Code Number **LM017** The comments were dated **12-6-1992**

The commenter was **GREEN BAY SW HI ENV** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 6,8**

The Comments were

Pollutants - If the I.J.C. came up with over more than 300 different pollutants, why are only about 50 listed as dangerous to Lake Michigan? I would like to know the other pollutants' names and why they were left off the list.

... Our group is also worried about the chemicals used to clean the pollutants. Are these compounds environmentally safe? What will happen to them after they do their job? Are they something we can control?

The EPA Response is

The list of IJC chemicals refers to substances present throughout the Great Lakes and/or that have characteristics indicating the potential to impact any part of the Great Lakes system. Many of these substances are not present in any appreciable quantity in the Lake Michigan watershed. One example of this is mirex. Mirex is a major problem in Lake Ontario and the Niagra River, but is rarely even detected in Lake Michigan. The LaMP has focused on those chemicals that are known to be present in the Lake Michigan watershed and to be contributing to ecological impacts and beneficial use impairments. Based on available information, the revised draft LaMP lists these chemicals. The Agencies feel that, given limited resources, we should focus activities on those substances causing the most serious damage and posing the greatest risk to environmental integrity, as opposed to diluting resources by trying to address some 300 chemicals. The LaMP process will ensure that as additional chemicals are found to be impacting Lake Michigan, steps will be taken to reduce their loadings and ambient levels. Because a chemical is not listed in this version of the LaMP does not mean that it cannot be listed in later versions as more data become available.

These comments are from Docket Code Number **LM017** The comments were dated **12-6-1992**
The commenter was **GREEN BAY SW HI ENV** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, 3; PAR 2, 1**

The Comments were

Politics - First, the politics involved in the cost and the actual cleaning of the area may hinder the action of saving the Lake environment. The LaMP says a lot about what chemicals are dangerous and which factories and areas contribute the most to pollution but, there is little said of who will enforce these guidelines on the factories and whether stricter enforcement of the present laws will take place. Yes, cleaning the area is primary but, let's not waste our time unless education and regulation of industry or, the common person for that matter, takes place. We can't forget the power industry has in Washington and unless specific action is taken against them, this program is for nothing.

... Wildlife - We are also concerned with the wildlife of the lake. Will exotic species like the Cisco fish be reintroduced? Will anything be done to eliminate the lamprey eels or zebra muscles which also contribute to environmental hazards? Also, is there any chance for further research into animal deformities caused by pollutants?

The EPA Response is

The LaMP is a multi-media effort to reduce loads and ambient levels of toxic pollutants. Enforcement of existing regulations is an important component of the LaMP process. As stated in the response to the previous commentor, all media base programs will continue compliance inspections and enforcement actions against violators. However, other sources besides industrial facilities contribute substantial loads of pollutants to Lake Michigan waters and need to be addressed. What makes the LaMP process unique is its ability to assess chemical loads on a lakewide basis and to consider the relative importance of all sources. Though efforts to reduce releases from point sources should continue, the success of the LaMP hinges on its ability to control pollutant releases from all sources. We must be careful not to focus solely on industrial facilities. We concur that education of all members of the community is important for raising environmental awareness.

The LaMP is not a species management plan; it is a toxic reduction plan. While we recognize that some exotic species are having negative impacts on the Lake Michigan biological community, these issues are not currently addressed in the LaMP. In the future, however, the LaMP may be expanded to include exotic species issues. While LaMP resources will not be used to fund research activities, we certainly encourage the Great Lakes community to continue to research the effects of toxics on biota. There are a number of Agencies and universities that conduct research of this kind.

These comments are from Docket Code Number **LM017** The comments were dated **12-6-1992**
The commenter was **GREEN BAY SW HI ENV** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **23 Nonpoint Srces**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 7**

The Comments were

Another problem is the small amount of info on the non-point sources of pollution. If these sources cause over more than 50% of the lakes pollution than, most of this document should be dedicated to stricter regulations of factory emissions, farmland runoff and education of the public on what they can do to help deter water pollution.

The EPA Response is

The amount of information available on pollutant loads from nonpoint sources is quite small compared to that available for point sources. As a result of the Clean Air Act Amendments of 1990, more information is being collected on the impacts of air deposition of toxics on the Great Lakes. Much of this data is included in the revised draft LaMP. We agree that greater efforts to control runoff and air emissions are required to significantly reduce toxic loadings to the Lake. The Agencies will use available information to identify and implement activities that focus on these sources of toxic pollution.

These comments are from Docket Code Number **LM017** The comments were dated **12-6-1992**

The commenter was **GREEN BAY SW HI ENV** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2; 3; PAR 1,3; 2**

The Comments were

As a person who has grown up in Green Bay and has witnessed the pollution and exploitation of the Green Bay and Fox River but never had a chance to take any positive action to help solve the problem, I am glad to have some sort of positive input towards achieving a cleaner environment here and around the rest of Lake Michigan. It would disturb me when I would visit the Neville Public Museum here in Green Bay and see pictures of people swimming at Bay Beach and wonder why I couldn't do the same. At that young age is when I started realizing the negative impacts of industry on the environment. Since then it has been the Green Bay Southwest High Environmental Groups and my own objective to have a hand in the cleaning of the Fox, the Bay and Lake Michigan. That is why we feel it's important to express our views on the Lakewide Management Plan and point out what we see as four problem spots with the document.

... Another problem is the E.P.A.'s remoteness. A group stationed in Washington and Chicago may have problems realizing what's going on in Wisconsin. I think it would be wise if the EPA set up some sort of contact agency in each Lake Michigan state so it may better handle the individual problems with Lake Michigan.

... The largest problem with a document of this magnitude is a lack of the populations concern for the problem. We suggest a newsletter sent to all those interested from a mailing list of those who attended that hearing. A insert in the local paper may also be useful. The articles should contain a summary of everything being done with the LaMP and how others can help.

The EPA Response is

We agree that USEPA may not have the same perspective of local problems as the citizens living there and the local agencies. That is why we are working with each of the State agencies in the LaMP process. We recognize that the States often have a better grasp of problems within their State than does a Federal agency like USEPA. That also is why we have tried to solicit public involvement in the LaMP through the public workshops held in the Lake Michigan watershed. The Wisconsin DNR is our contact agency within that State to ensure that we address the greatest problems in Wisconsin related to Lake Michigan.

All citizens attending the LaMP workshops around the Lake are on the LaMP mailing list and will be receiving materials on LaMP activities. We consider public education and outreach as an important piece of the LaMP process, and we are always looking for ways to improve these efforts. Anyone wishing for specific information can contact Gary Kohlhepp (USEPA) at (312) 886-4680 or can contact their State water quality agency.

These comments are from Docket Code Number **LM018** The comments were dated **1-7-1993**

The commenter was **SHEBOYGAN, WI PCCA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **P 1, 2; PAR 4-5,1**

The Comments were

We feel that a self-sustaining population should not be a goal of this plan. Instead we feel that the maintaining of the present ecosystem with it salmon stocking and stocking of exotics species is preferred by the major of the people of the state of Wisconsin. This is certainly true among the charter captain of Sheboygan and around the state.

It is impossible and undesirable to change the current ecosystem for the past system not only the cost, but we feel the present fishery is an improvement over the old system, which will never return no matter what we do, nor do we want to change the current ecosystem. But rather wise management is preferred and essential.

Emphasis on Native Species point two, must be considered a very low priority simply because this fish "Lake Trout" has a very limited value to us as a food source, or sport fishery, therefore of very little commercial value, when being compared with the other species of fish currently being supported by Lake Michigan. The current Lake Michigan is truly too vital a resource to change without very careful consideration of the facts, and their impact on this treasure of the future.

The EPA Response is

As stated in previous responses to this comment, the Lake Michigan LaMP is a toxics reduction initiative; it is not a fishery management plan. As a result, its success will benefit all species in Lake Michigan. The objective for aquatic communities has been reworded to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM019** The comments were dated **12-7-1992**

The commenter was **ALTO DAIRY COOPERATV** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1,2; PAR 4-6,2,4**

The Comments were

1. We support the idea of identifying and concentrating initial efforts to reduce the toxic pollutants that are known to be most harmful to human, fish and animal life.

2. We support the idea that once the sources of worst toxic pollutants are identified that government technical experts and financial help (loans) be available to help the responsible parties solve the problem.

3. We support the idea that the timetable for implementing actions to reduce pollutants must be approximately the same for Lake Michigan as for the other Great Lakes, as well for the nation, so as not to create an uncompetitive disadvantage to some area or region.

... We feel this activism of farmers as a group is unfounded, especially in terms of the amount of Critical Pollutants Levels I & II list currently entering Lake Michigan. To imply that the majority of farmers, people whose livelihood is the water, air, and land resources of our nation, are knowingly and deliberately causing harm as suggested at the Green Bay hearing is wrong.

... 6. We support the idea of evaluating the costs of proposed actions versus the environmental value to be obtained. Failure to do this, in it's self, could be a waste of resources.

The EPA Response is

The goal of the Lake Michigan LaMP is to identify the pollutants that are known to contribute to ecological impairments in the Lake, and to take actions to reduce loads and ambient levels of these chemicals. A similar process is taking place on Lakes Superior and Ontario, is just beginning on Lake Erie, and will begin next year in Lake Huron.

The Agencies have never implied that farmers are "knowingly and deliberately causing harm" as the commentor states. We have pointed out that chemicals from runoff, both urban and agricultural, are among many sources of pollutants to surface waters. We apologize if any impressions were given that we feel that farmers are deliberately harming Lake Michigan, as we know that this is not the case. However, we doubt that any such implication was ever made.

As far as cost-benefit analysis, the Agencies do not beleive that any additional costs will be directly attributable to the LaMP document or LaMP process. The LaMP process coordinates a wide range of existing programs, as well as suggesting where additional actions might be necessary to achieve LaMP goals. Actions taken under existing programs have been subject to cost-benefit analyses as part of the development of each program. For example, the Great Lakes Water Quality Initiative has been subject to extensive cost-benefit analyses, and this is true of other efforts as well. The LaMP attempts to ensure better coordination of existing programs, as well as better focussing resources on the highest priority problems, taken in a lakewide context. As a result, it is the Agencies position that a cost-benefit analysis is not required for the LaMP.

These comments are from Docket Code Number **LM019** The comments were dated **12-7-1992**

The commenter was **ALTO DAIRY COOPERATV** Which is a/an **1 Industry**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 3**

The Comments were

5. We support sampling programs to identify potential sources of toxic pollutants, however, if the evidence of a scientifically designed monitoring program shows pollutant levels to be insignificant, we suggest the frequency of the sampling program be adjusted accordingly.

The EPA Response is

The tributary and air deposition monitoring program will allow the Agencies to measure loads of the LaMP Levels 1 and 2 pollutants. If quantities of a chemical are found to be very low and it ceases to contribute to use impairments, then that chemical will be removed from the list or dropped to a lower level as warranted.

These comments are from Docket Code Number **LM019** The comments were dated **12-7-1992**

The commenter was **ALTO DAIRY COOPERATV** Which is a/an **1 Industry**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 1**

The Comments were

4. We support the idea that more effort should be directed at determining the role non-point pollution plays and the source of this non-point pollution. We question the accuracy of the statements made at the Green Bay hearing that: "50% of the pollution of Lake Michigan is non-point" and "the major source of non-point pollution is farming".

The EPA Response is

The significance of a particular pollutant source to total loadings can vary substantially depending on the specific chemical in question. Nonpoint sources may be significant sources for some substances but not others. Estimating the contributions of nonpoint source agricultural runoff to total releases is difficult, and any such loading estimates should be considered as only rough ones, likely with a substantial margin of error. If the commentor has data that estimates nonpoint loadings of LaMP pollutants, we would be interested in receiving this information.

These comments are from Docket Code Number **LM020** The comments were dated **1-4-1993**

The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1,2; PAR 2,4; 1**

The Comments were

The data included in the LaMP indicate that the primary sources of contamination to the lake are atmospheric deposition and leaching from contaminated sediment. The proposal, however, indicates that due to existing administrative structures under the NPDES permit program, new requirements would first be promulgated for surface water dischargers. This is in direct conflict with the data included in the LaMP on sources of contamination. In order to achieve significant pollution loading reductions in the basin, the financial resources of the region should be used to reduce atmospheric deposition and to clean up sediment. It is extremely inefficient to impose additional cost on surface water dischargers when the return on investment will be very poor.

... The proposed goals included under the LaMP could result in significant pollutant loading limitations on dischargers within the basin. The reduction of these loadings would require a major cost commitment by industrial and municipal dischargers. An economic analysis of the impact on the basin of the proposed limits included under the LaMP, should be completed prior to implementation of any new discharge limitations.

I believe that the draft LaMP requires a significant review concerning the data used in the generation of the plan, the interpretation of the data, and the economic impact that the LaMP will have on users within the basin. The proposed plan, as included in the draft LaMP, will be very costly and will result in a minimal improvement of the water quality of Lake Michigan.

The EPA Response is

The LaMP process has a multi-media focus and tries to identify opportunities to reduce loadings from all pollutant sources. We do not intend for the LaMP to focus only on NPDES facilities, and a substantial amount of LaMP resources have gone for contaminated sediment assessment and remediation. Because the LaMP focusses on chemicals impacting Lake Michigan, we need to look reduce loads, where possible, from all sources. Therefore, although one source may contribute a lesser quantity of a chemical than two other sources, this does not mean that we should not try to reduce releases from this source.

The LaMP is not a regulation, and therefore will not impose more "requirements" on NPDES facilities. The LaMP may use existing requirements to reduce loads from any source, however, and determine whether existing requirements are sufficient to control LaMP pollutant releases. Because the LaMP coordinates regulations and base program activities, which themselves have been subject to cost-benefit analyses, the Agencies do not feel that a separate cost-benefit analysis for the LaMP is necessary or appropriate.

These comments are from Docket Code Number **LM020** The comments were dated **1-4-1993**

The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

The analysis of the pollutant loading in the basin appears to require further review. For example, materials that are sent to secure landfills are considered releases to the basin. This is an incorrect assumption, sincelandfills require leachate collection systems and daily cover, and do not release material into the lake system. Municipal wastewater treatment plant sludges are also considered contaminant loadings to the basin. Sludges generated at the Mt. Pleasant Wastewater Treatment Plant arethoroughly digested and applied at agronomic rates which do not result in any release into the lake basin.

The EPA Response is

Pollutant loading estimates have been updated and improved in the revised draft Lake Michigan LaMP document. Loading estimates on a lakewide scale are difficult to make, and should only be considered in relative terms. Determining the quantity of a substance that gets from a landfill or sludge to the environment and Lake Michigan (from a variety of sources) is difficult. Assuming that all material placed into a landfill or sludge makes its way into the Lake clearly is a worst-case scenario estimate, and is not the most appropriate way to estimate contributions from these sources. Again, these estimates have been reviewed and improved in the revised draft LaMP.

These comments are from Docket Code Number **LM021** The comments were dated **1-7-1993**

The commenter was **ILLINOIS FARM BUREAU** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 3-6;1-2**

The Comments were

Illinois Farm Bureau feels that farmers should at all times be alert to potential sources of contamination on their farms and should minimize the dangers from the use of potentially hazardous substances. We encourage the use of best management practices, voluntary approaches, education, and incentive-based programs to solve problems. Many times, using mandates to address environmental problems can have the opposite of the desired effect. Positive incentives with a voluntary program can increase ownership of the problem and the options to address it. This kind of approach is working in Illinois.

Here are some examples of various programs farmers are now involved with and what is being accomplished in the state to address several issues.

Illinois farmers are still ranked first in the nation in their use of soil saving conservation tillage methods, according to the 1992 Conservation Technology and Information Center Survey. Illinois' total 11.1 million acres of conservation tillage is up 14% from 9.8 million acres in 1991. 48% of Illinois' 23 million acres of cropland is farmed using some form of reduced tillage or no-till. Illinois acres account for almost 13% of the nation's total. These soil conservation measures have all been accomplished by voluntary efforts on the part of farmers. Programs in place now that address soil conservation are the Farm Bills and the Illinois T-by-2000 program.

Illinois farmers reduced the amount of herbicides used by about 25% from 1982 to 1990 according to a University of Illinois study. According to the U of I, in 1988 approximately 80% of all corn and soybeans acres were scouted for weeds and about 98% and 64% were scouted for insects and diseases respectively before any crop protection chemicals were applied.

According to an Illinois Farm Bureau survey, farmers are changing the way they farm to protect the environment and 89% of the farmers are licensed and certified to apply pesticides on their farms. In order to get this certification, farmers have to pass a test given by the Illinois Department of Agriculture. The 1990 Farm Bill states that farmers must also keep records on restricted use pesticides.

Landowners are also beginning to seal abandoned wells in the state. The Illinois Groundwater Protection Act (which was supported by IFB) says that wells must be sealed to protect groundwater and to insure safety of humans and animals. Sealing demonstrations have been held across the state to educate well owners about sealing those older wells. The favorable response to this has steadily increased.

Each farm is different in the state and we realize that no one farming method will work with all farms. Illinois Farm Bureau supports methods of farming which result in a clean environment, a profit for the farmer, the production of a safe food supply and an adequate supply of high quality food. We are keenly aware that the means to accomplish this may vary from one farm operation to another and that no one single method of operation will work with every operator. We also support research aimed at reducing overall inputs needed to sustain farming operations, incentives that encourage farmers to accept the risk of testing non-traditional means of farming and efforts to provide information on proven means of improving the efficiency of inputs such as chemicals and fertilizers. We oppose attempts to mandate one method of farming over another.

The EPA Response is

We agree that positive incentives, education, and voluntary efforts to reduce chemical releases are in many cases a better approach to pollution control than additional regulation. The LaMP certainly does not attempt to mandate one method of farming over another, as mentioned in the last statement in this comment. We appreciate the efforts that Illinois farmers, and those in other States as well, are pursuing to ensure a cleaner environment and reducing pollution. Everyone benefits from a cleaner, healthier environment, particularly farmers.

These comments are from Docket Code Number **LM021** The comments were dated **1-7-1993**
The commenter was **ILLINOIS FARM BUREAU** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, 2; PAR 2, 5**

The Comments were

In reading the Lake Michigan Lakewide Management Plan, it was difficult to determine how the document would specifically affect Illinois' farmers. Issues discussed in the draft are definitely ones that are of interest to us.

... Illinois Farm Bureau is interested in continuing to find out about the quality of the state's water and developing voluntary programs to address problems that may surface. We appreciate the opportunity to convey our views about environmental issues that are discussed in the Management Plan.

The EPA Response is

The Agencies look forward to working with the Illinois Farm Bureau in the future as issues of interest arise.

These comments are from Docket Code Number **LM021** The comments were dated **1-7-1993**
The commenter was **ILLINOIS FARM BUREAU** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **34 Cost/Ben Analy**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 3-4**

The Comments were

Agriculture adds 16% to the GDP and 17% to the number of jobs in the state (taking into account related food and fiber jobs). The 81,000 farms produced taxable revenues of $7 billion in 1987, including export earnings of $3.2 billion. Illinois leads the nation in the total U.S. economy, and yet the average net farm income in Illinois is only about $10,000.

I'm relaying this to you to point out that if the government starts to mandate one farming method over another, it may spell financial ruin for some farmers since the margin of profit for many is narrow. When the cost of farming increases for farmers, they have no way to pass that cost along to consumers.

The EPA Response is

Nowhere in the LaMP document are there any references to mandating farming methods, or anything even close to this. The Agencies are interested in working with relevant groups to prevent and/or reduce loadings of LaMP toxic pollutants to waters in the Lake Michigan watershed.

These comments are from Docket Code Number **LM022** The comments were dated **12-21-1992**
The commenter was **CEDAR LAKE, TOWN OF** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 1-2**

The Comments were

In reviewing the draft Lake Michigan LaMP, we have one major problem. We cannot determine from the maps included in the draft if the Town of Cedar Lake is in or out of the "process".

I would suspect that there are other municipalities that find themselves in a similar position of not knowing if they need to take a more active role in Lake Michigan affairs.

The EPA Response is

The Cedar Lake, IN is just outside of the Lake Michigan watershed. In other words, any discharges into surface waters would not make their way to Lake Michigan.

These comments are from Docket Code Number **LM023** The comments were dated **1-4-1993**
The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 2**

The Comments were

Care should also be used in interpreting data gathered using biological indicators; especially with persistent compounds such as DDT and PCB residuals. Decreases in loadings may not clearly show a quantifiable decrease in biota. Levels of persistent compounds in fish, for example, will decrease when the concentration in the sediments decrease.

The EPA Response is

The Agencies recognize that there will be a substantial lag between the time when persistent toxic pollutant loadings are reduced and the levels of these chemicals decrease in biota tissues and sediments. These substances will not disappear overnight.

These comments are from Docket Code Number **LM023** The comments were dated **1-4-1993**
The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **19 LaMP Plan Proc**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 3**

The Comments were

What the LaMP should do is:

1. A priority analysis to determine where and how to begin;

2. Develop methods to accurately measure loadings, identify sources of loading, and develop strategies to decrease the most significant loadings;

3. Establish a centralized evaluation process for data gathered from the various governmental agencies;

4. Develop a plan to decrease atmospheric deposition from sources outside the basin including Mexico and Central America; and

5. An economic analysis of the impact on the basin of the proposed LaMP processes.

The EPA Response is

The LaMP process is doing the first three of these points. While the LaMP itself has not to date addressed the issue of reducing air emissions of pollutants over the entire North and Central American continent, the Clean Air Act Amendments of 1990 will do much to reduce these emissions in the United States. We understand that pollutants from Mexico and Central America can make their way into the Great Lakes. This issue cannot be addressed solely by the Lake Michigan LaMP, although the LaMP can and does recommend that sources of air emissions from neighboring countries be reduced.

Regarding an economic analysis, the Agencies do not feel that this is necessary or appropriate for the LaMP. The LaMP focusses and coordinates existing regulations and base programs, which themselves have been subject to cost-benefit analyses, to achieve loading reductions. The LaMP also may recommend the need for additional efforts where actions are currently lacking. If new regulations are considered as a result of LaMP recommendations, then an economic analysis on those regulations may be required. However, we feel that an economic analysis for the LaMP itself is unnecessary.

These comments are from Docket Code Number **LM023** The comments were dated **1-4-1993**

The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 1, 3**

The Comments were

As an operator of a municipal wastewater treatment facility, I wish to give you my perspective of the LaMP program. Data contained in the LaMP, indicate that point source surface water discharges are a relatively minor part of the current problem for many pollutants. The data also indicate that atmospheric deposition and contaminated sediment (among other sources) are very significant sources for toxic pollutant loadings in the basin. However, the plan admits to placing surface water dischargers in a position of implementing and paying for loading reductions before more significant dischargers.

... I think because the authors and implementers of the plan understand the water problems best, the initial emphasis is on reducing a minor input. The LaMP should address the major sources first. If expertise in the regulatory programs dealing with sources other than point source surface water discharge sources is needed, then that expertise should be incorporated.

The EPA Response is

Please see the response to a previous comment by the City of Mt. Pleasant (docket code LM020) regarding LaMP goals and too much focus on NPDES facilities.

These comments are from Docket Code Number **LM023** The comments were dated **1-4-1993**

The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 1**

The Comments were

I also question the adequacy of the data on which the LaMP is based. Much of the material is as much as eight years old and some data older; this data may not represent current conditions in the basin. The TRI (Toxic Release Inventory, is used to calculate loadings and estimate loadings in the basin. This information should be used with care to accurately estimate toxic pollutant releases to the environment. Materials sent to secure landfills were considered releases. Secure landfills with leachate collection systems and daily cover are not releasing the LaMP estimated amount of pollutants. Municipal treatment plant sludge, that is subsurface injected at agronomic rates, should not be considered a release.

The EPA Response is

We concur that there was insufficient data in some areas of the 1/1/92 draft LaMP, and that many references were relatively old. The revised draft LaMP has been updated to include more recent data and a greater quantity of data in general. Load calculations have been revised as necessary based on additional information.

These comments are from Docket Code Number **LM023** The comments were dated **1-4-1993**

The commenter was **MT PLEASANT, MI-CITY** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **34 Cost/Ben Analy**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

Realizing that financial resources are indeed limited, the LaMP should provide for an economic analysis of the impact of the plan on the basin. The basin must be economically viable, with capital investment occurring within the basin to fund the changes necessary to achieve the goals of the plan. Each dollar spent as a result of the LaMP should be targeted at achieving maximum results. To initially focus on point surface dischargers rather than the more significant sources of pollutant loadings is, to use an old cliche, putting the cart before the horse. To quickly achieve significant pollutant loading reductions in the basin, financial resources should be used to reduce atmospheric deposition and sediment cleanup.

The EPA Response is

Please refer to the response to another Mt. Pleasant commentor (docket code LM020) regarding LaMP goals and too much emphasis on NPDES facilities.

Concerning the economic analysis comment, please refer to the previous response to this commentor on the LaMP planning process.

These comments are from Docket Code Number **LM024** The comments were dated **12-1-1992**

The commenter was **G.L. Sport Fisherman** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Par.3-4**

The Comments were

Our comment to you ---- This plan presents a very grand procedure to ensure the cleanup of Lake Michigan waters. This we are all for 100%! But, we cannot endorse the whole plan because of one particular statement of which we are very much concerned. It is the statement which reads - 1. Aquatic Communities- The waters of the Lake Michigan shall support healthy, diverse, reproducing, and self-sustaining communities in dynamic equilibrium, with an emphasis on native fish.

We cannot support this plan because Salmon & Trout, except Lake Trout, are neither a reproducing and self-sustaining community of fish nor are they a native species in Lake Michigan. Any plan that would suggest that the above mentioned fish communities be eliminated in favor of only ones as described would be simply ludicrous. The Salmon & Trout fishery, that we have in all of the Great Lakes, is far to important not only for the World Class Salmon & Trout Fishery that it offers, but also for the very high economic value this sport fishery, as a whole, offers to the states and their cities bordering each of the Great Lakes.

The EPA Response is

The Lake Michigan LaMP is a toxics reduction plan; it is not a fishery management plan. Reducing levels of toxics in the Lake Michigan system will benefit all species in Lake Michigan. The aquatic communities objective has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM024A** The comments were dated **12-1-1992**

The commenter was **G.L. Sport Fisherman** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1-4, Attch.A**

The Comments were

"65 signatures of sport fisherman in support"

The EPA Response is

These comments are from Docket Code Number **LM025** The comments were dated **12-5-1992**

The commenter was **HARDY, RAYMOND REED** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

... An important additional note here is the need to include the many existing toxins for which a proven toxicity level has not yet been reached in the Lake in your targeting. We must include these chemicals if we are to monitor them in an attempt to prevent toxicity instead of simply respond to reduce it once it has begun to harm humans and the ecosystem.

The EPA Response is

We concur that the LaMP process must not only address problems that already exist, but also prevent problems from occurring. The Agencies are using a screening protocol for fish tissues and sediments to detect chemicals that are present in the environment but are not listed in the revised draft LaMP on Levels 1, 2, or 3. In addition, the Critical Pollutant Workgroup envisions that Level 3 would include substances that have characteristics indicating the potential to cause impacts in the Lake, although such impacts have not yet been clearly documented. A number of pollution prevention activities are being funded through the LaMP, which will prevent loadings of many toxics. We believe that these efforts will alert the Agencies to chemicals that may be emerging as problem chemicals.

These comments are from Docket Code Number **LM025** The comments were dated **12-5-1992**
The commenter was **HARDY, RAYMOND REED** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 1-2**

The Comments were

I have been apprised of a new "Lakewide Management Plan" being developed by EPA for Lake Michigan and environs. I am writing now to say that I applaud your efforts on behalf of environmental protection and to suggest some ideas for inclusion in your planning. As a research psychologist and teacher who is acutely aware of, and deeply concerned about, environmental degradation I believe I have some important contributions to make. I hope you will agree.

First, I believe any successful effort of this sort depends greatly upon clear and appropriate targets. I believe that the goals of your management plan must be strongly stated to be the complete removal of health risks to humans and the restoration of a healthy Lake Michigan ecosystem. I think you agree with this, but fear you may default to other agencies (like the Federal Food and Drug Administration's guidelines for dioxin, mercury, pcb's, and others) to determine your practical targets. I do not wish to be overly idealistic, but, to me, environmental protection does not mean meeting minimal standards of contamination; it means striving for appropriate standards of cleanliness. We need to set out sights a little higher than minimum if we are to succeed at improving our environment.

The EPA Response is

The goal of all environmental protection efforts must be restoration and protection of a healthy environment, and the elimination of threats to human health. This goal is embodied in the 14 beneficial uses listed in the Great Lakes Water Quality Agreement, and restoring these beneficial uses (which is the mandate for the LaMP) will lead us to the goal of a healthy system.

These comments are from Docket Code Number **LM025** The comments were dated **12-5-1992**
The commenter was **HARDY, RAYMOND REED** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **22 Monitoring**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1-2, PAR 3**

The Comments were

One additional issue that I need to address is monitoring. I believe that very frequent monitoring of ALL contaminants is very important to our success in protecting the environment. According to my sources, the EPA often requires industrial polluters to provide only one or two dioxin samples in a five year period. This is clearly not appropriate. Five or six samples each year would allow careful scrutiny and would not be onerous. But, in addition to more frequent monitoring, I feel we must be very careful to avoid the possibility that toxins that are being produced are safely disposed of. If a company is known to produce a given level of toxic waste is suddenly no longer producing that waste, it is important to determine why/how this abrupt reduction in toxins has occurred. In one such case in our town (De Pere, WI) a company called "Better Bright" was reliably producing chromium laden liquid wastes for several years. But, in an effort to cut costs the owners decided to dump the wastes behind their workshop. Now, many public dollars are being spent cleaning up what we should have avoided in the first place. If Better Bright's waste production had been under scrutiny they never would have slipped this unethical action past us.

The EPA Response is

Facilities are required through the NPDES program to monitor for contaminants that they generate or are suspected to generate based on the type of industrial processes that they use. When their permits come up for reissuance every five years, they are required to do scans for a whole suite of pollutants. The permit is then written based on the results of this scan and dictates which substances are limited and monitored. States also visit facilities and test for compliance with the permit. It is important to ensure that wastes are being properly disposed. Unfortunately, there are examples like the one cited by the commentor where materials are improperly (and illegally) dumped, and the Federal and State Agencies must strive to eliminate these.

These comments are from Docket Code Number **LM025** The comments were dated **12-5-1992**

The commenter was **HARDY, RAYMOND REED** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 1**

The Comments were

I fear a similar breach is currently being committed by Fort Howard Paper Company in Green Bay. They have been cited for high toxin levels in their sludge ponds near Austin Straubel Airfield. In an attempt to reduce these toxin levels in the ponds Fort Howard is now sending its sludge to another company where it is incorporated into insecticide products which will eventually be dispersed on farm fields. It seems very likely that the toxins Fort Howard is producing will eventually find their way into our surface streams and ground water as they leach from the farm fields, but since the sources will be dispersed the degradation will be viewed as coming from a "non-point" source for which regulations are not as clear or powerful.

The EPA Response is

Any materials that are incorporated into insecticides are subject to the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA is designed to try to prevent the scenario described by the commentor, where pollutants are essentially transferred from one media to another. Insecticides must be registered with USEPA, and evidence must be provided that demonstrates that the insecticide does not pose unacceptable risk to humans or wildlife. Strict guidelines are placed on the use of the insecticide. In addition, insecticides can only be applied by certified applicators. Therefore, while the sludge from Fort Howard may be incorporated into an insecticide, it is still be regulated by FIFRA to prevent impacts to the environment.

These comments are from Docket Code Number **LM026** The comments were dated **11-25-1992**

The commenter was **API/NFPA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

The LaMP concept is new and the issues numerous and complex. As an example, the plan is directed only to the "open waters" of the Great Lakes, excluding those areas designated as AOCs. It is not at all clear how these two programs would be coordinated, nor is it clear what the relationship will be between the LaMP and the proposed GLI.

The EPA Response is

The scope of the LaMP includes nearshore waters of Lake Michigan as well as the open-lake waters, and therefore encompasses Areas of Concern. The LaMP program will coordinate with the RAP programs to document sources of pollutants and estimate pollutant loads to Lake Michigan from the AOCs. The Agencies will determine whether or not AOCs contribute significantly to lakewide impairments. Pollution prevention, reduction, and remediation activities carried out through the RAP process will serve to reduce toxic pollutant inputs into Lake Michigan. The LaMP will not duplicate or interfere with RAP efforts, but rather will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic chemical contributing to a use impairment in a Lake Michigan AOC is listed as a LaMP Critical Pollutant or Pollutant of Concern, depending on its spatial distribution.

In the context of the Lake Michigan LaMP, the water quality criteria proposed by the Great Lakes Water Quality Guidance may represent the objective towards which activities in the Lake Michigan watershed will be directed. The Guidance will serve as a valuable regulatory tool to reduce loads of LaMP pollutants from NPDES facilities, and the LaMP will assist in focusing the implementation of the Guidance by identifying those facilities releasing LaMP Pollutants and where further reductions from nonpoint sources are necessary.

These comments are from Docket Code Number **LM026** The comments were dated **11-25-1992**

The commenter was **API/NFPA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, 2; PAR 3, 5**

The Comments were

Unfortunately, the intended regularly scheduled briefings for interested stakeholders as work progressed on developing the proposed plan have not occurred on a regular basis as anticipated. We understand that there have been a number of circumstances at work here, and do not wish to be critical of the Agency's efforts, nor those of Sea Grant's in conducting the workshops and hearings around the Basin. However, it would appear that large segments of the regulated community and other stakeholders are entirely unaware of the proposed LaMP. Moreover, to date we have not been able to obtain copies of the numerous references included in the proposal, as an a official docket apparently has not been established.

... We would find it extremely difficult to obtain enough information to be able to fully grasp the bases of many of the Agency's recommendations and to be able to respond coherently by December 9. Therefore, we respectfully request that the comment period be extended for an additional 60 days. We would also suggest that EPA consider holding one or two additional hearings within the Basin prior to the end of the extended comment period.

The EPA Response is

The commentor is correct that meetings of the public participation group, the Lake Michigan Forum, were not convened on regular intervals for a number of reasons. Since February 1993, however, the Forum has been meeting quarterly and will continue to do so. The Forum is taking a more proactive role in the LaMP process, as opposed to only commenting on already completed products. Several members of the regulated community have been invited to, and do, participate in the LaMP process through the Forum, and many individuals representing the regulated community are on the Forum.

The public comment period was extended for 30 days. Seven public workshops were held around the basin in the fall 1992, and it was not practical to convene additional workshops per the commentors request.

These comments are from Docket Code Number **LM027** The comments were dated **1-8-1993**

The commenter was **MI. COAL. CLEAN WTR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

2. The currently proposed classification of toxic pollutants into Levels I, II, III and IV is appropriate given the range of impacts which those pollutants have on the Lake;

The EPA Response is

The LaMP Critical Pollutant Workgroup refined the classification system for LaMP pollutants to include three levels as opposed to four, in order to clarify and tighten up the distinctions between the levels. The changes to the pollutant classification scheme are described in detail in Chapter 3 of the revised draft LaMP.

These comments are from Docket Code Number **LM027** The comments were dated **1-8-1993**

The commenter was **MI. COAL. CLEAN WTR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **16 Env Objectives**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

1. In 1990 U.S. EPA, and in 1992 the State of Michigan each completed an extensive "Relative Risk Assessment" as a means to setting environmental priorities in a time of limited resources. We believe those efforts can be used to focus attention on the scientifically proven significant environmental issues. In considering the importance of LaMPs, we urge U.S. EPA to contrast this effort with other efforts to improve the environment;

The EPA Response is

In a sense, the Lake Michigan LaMP is similar to a risk assessment in that the LaMP identifies the pollutants have the greatest impacts on the ecological integrity of the Lake Michigan watershed and the most significant sources of these pollutants. By coordinating the actions of several Agencies, the LaMP ensures that the highest-priority problems are addressed in an efficient manner and no duplication of efforts and resources occur.

These comments are from Docket Code Number **LM027** The comments were dated **1-8-1993**

The commenter was **MI. COAL. CLEAN WTR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 5**

The Comments were

3. MCCW concurs that surface water point source dischargers contribute a relatively minor toxic pollutant load to the Lake.

The EPA Response is

The relative contribution of point sources compared to nonpoint sources to total pollutant loadings varies substantially depending on the specific pollutant. In many cases, total loadings from nonpoint sources such as contaminated sediments and urban and agricultural runoff are difficult to quantify. Because there is evidence that the toxic pollutants identified in the LaMP are contributing to negative impacts on the water and biota of the Lake Michigan watershed, the Agency believes that releases of these substances must be reduced from all sources. The fact that other sources may contribute greater loads than NPDES facilities does not mean that opportunities for load reductions from all sources should not be pursued. However, it would be unfair to expect point sources to carry the entire burden for load reductions while ignoring nonpoint sources. The revised draft LaMP contains a number of actions to reduce loads from nonpoint sources, and the Agencies will continue to pursue nonpoint source load reductions.

These comments are from Docket Code Number **LM028** The comments were dated **12-1-1992**

The commenter was **HOY, THOMAS J.** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 1-2**

The Comments were

I would like to offer a comment about the LaMP document that was provided at the hearing in Green Bay in October, 1992. It would appear that you may have overlooked a significant contributor to toxic waste in regards to infectious hospital waste and chemotherapy drug disposal. Both of these items are often left to the discretion of the hospitals which may or may not incinerate at the proper temperatures.

All in all your document is a very good attempt to categorize pollutants by type and by source. I suggest that you also survey and include all hospitals in the region and investigate the procedures implemented for their type of "industrial waste". Although there are guidelines provided by the JCAH in these respects, targeting the healthcare industry not only in the hospital setting but also the small clinics for scrutiny of disposal procedures would be in the public best interest.

The EPA Response is

While the current Lake Michigan LaMP does not specifically address the issue of toxic wastes from hospitals, it is important that all potential sources of LaMP pollutants be identified. Hospital waste should be considered to determine whether in fact it is a significant source of any LaMP pollutant, and whether steps need to be taken to address this source.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**

The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2; PAR 5-6,1,4,5**

The Comments were

2. The argument for determining the initial phases of the program and for selecting the initial list of 11 critical pollutants is badly flawed and should be abandoned. EPA uses the presence or absence of scientific data on use-impairments as the basis for determining where to focus its efforts. Because data are lacking on the effects of known toxics on Lake Michigan, "Therefore, USEPA proposes that the LaMP process in Lake Michigan focus on reducing loads to the lake of persistent, bioaccumulative pollutants associated in the existing scientific literature with use impairments ... during the initial phases of the program." (p. 8) (Footnote: Reference) On this bad justification is based the selection of the 11 Critical Pollutants warranting LaMP attention.

Discussion: EPA surveyed the literature to determine which pollutants are critical in impairing beneficial uses. The data on toxic substances is extensive, including which ones are persistent and which ones are bioaccumulative. But the research linking persistent toxic substances in the environment with use-impairments in Lake Michigan waters is very limited. According to Dr. Anders Andren, head of the Water Chemistry program at the University of Wisconsin, only PCBs, lead, and Cesium 137 have been studied to any great degree. The absence of research does not mean there is no or very little effect by other known toxic substances on use-impairments in the Lake Michigan ecosystem. It merely means there has not been much grant-money or interest invested in the subject.

3. Many substances not selected as the 11 critical pollutants are of known toxicity. EPA should include them on the list of critical pollutants. In particular, the full list of toxicants mentioned in the IJC agreement should be considered in the LaMP. Where data on use-impairments are missing, one goal of the LaMP should be to fund research.

... 6. The draft LaMP's proposal to stratify critical pollutants into four categories, with load reduction efforts concentrated on categories I and II pollutants is unacceptable. Under EPA's proposed tiered system, extremely toxic substances like furans, lead, hexachlorobenzene, toxaphene, PAHs would be assigned to categories III and IV, where pollution prevention activities would be merely "encouraged" but not mandated.

The outcome of EPA's tiered approach if made a permanent part of the LaMP would predictably have the following outcome: toxic substances not identified in category I or II would be allowed to accumulate in Lake Michigan. Not until toxics reached such concentrations that they significantly impaired beneficial uses would there be inclination to shift them into Category I or II, and managed for load reduction. Known toxics that have not yet reached dangerous concentrations in Lake Michigan should be prevented from entering Lake Michigan in the first place.

The EPA Response is

The mandate for LaMPs comes from the Great Lakes Water Quality Agreement, which calls for LaMPs to restore and protect the 14 beneficial uses listed in Annex 2 of the Agreement. Therefore, the Agency surveyed available information to identify those substances that are known to contribute to use impairments. We recognize that there are other chemicals that have the potential to impair beneficial uses, or that may be impairing beneficial uses but have not been documented. We feel that it is best to focus our efforts and limited resources on those pollutants known to be contributing to use impairments.

The LaMP process is designed to provide a context for using new and existing monitoring and research activities to identify additional pollutants that may be impairing beneficial uses. We are piloting a new method for screening fish for a range of bioaccumulative pollutants that are present in the surface waters of Lake Michigan and tributaries. In addition, the Critical Pollutant Workgroup revised the tiering system to include substances that have characteristics indicating a potential to impact Lake Michigan. These changes also are spelled out in the revised draft LaMP.

The goal of the LaMP is not to fund research. While research activities are integral to better understanding impacts and behavior of toxic pollutants, we feel that the limited LaMP resources should be spent on actual load reduction activities. The LaMP is an ongoing process; we are concentrating on the highest-priority pollutants, i.e. those associated with use impairments. As loads of current LaMP pollutants are reduced, and more information becomes available, some pollutants may drop off the list while others can be added as necessary and appropriate. Because of this flexibility, it does not make sense to focus on large numbers of chemicals at once. We want to target specific chemicals and reduce their loads and ambient levels; as we are successful and the process develops, we can move on and target other substances.

We agree that substances should be prevented from building up in the Lake Michigan basin prior to becoming a problem. The revised system for listing pollutants allows the Agencies to be more proactive by listing those substances whose loads/concentrations are increasing, or those whose characteristics indicate a potential to impact the watershed. The new fish tissue screening procedure mentioned above also provides a mechanism for detecting the presence of chemicals before they contribute to lakewide impairments.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **16 Env Objectives**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3, PAR 6**

The Comments were

15. Many of the points we have emphasized above are buried in the body of the draft proposal. They have somehow become lost in the overall strategy envisioned for the LaMP. For example, we approve the comment, p. 45: "This underscores the need to re-orient, strengthen, and in some instances, to re-build the source and ambient monitoring programs for the Great Lakes. Furthermore there is a pressing need to establish a focused data management process that is designed to answer key management questions related to the sources and inputs of toxic substances into the Great Lakes basin and to the eventual reduction and elimination of these substances from the basin." It should be given more prominence in the LaMP.

The EPA Response is

The Agencies have developed a detailed tributary and atmospheric deposition monitoring program for Lake Michigan to assess sources and loads of toxic pollutants. This program is described in the revised draft LaMP. The Agencies also recognize the need for a consistent, lakewide data management system, in order to better address management questions. USEPA, the Army Corps of Engineers, and the Lake Michigan States are working cooperatively to develop such a system. This effort is mentioned in Chapter 5 of the revised draft LaMP. Though not discussed extensively in the LaMP, a central data management system is a high priority of the participating Agencies.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **19 LaMP Plan Proc**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 8-9**

The Comments were

8. The LaMP gives the EPA a chance to correlate work now being conducted by a multitude of agencies on air and water quality in the Lake Michigan ecosystem. More attention in the LaMP should be given to how this can be done. EPA needs to provide standards for recording and reporting data so that results from various agencies can be compared and made usable. It needs to oversee placement of monitoring devices. It needs to set standards for states to use in developing regulations.

9. In order to avoid duplication, the LaMP has separated off RAP studies in Areas of Concern from the rest of the LaMP process. But a better mechanism for relating the data on toxics in these AOCs to the entire eco-system needs to be provided in the LaMP. Administratively the AOCs may be handled separately, but chemically and physically they are intimately tied to Lake Michigan.

The EPA Response is

Because the Federal and State water quality agencies are participating in the LaMP process and meet on a regular basis, we ensure that various programs are fully coordinated and not duplicative. With regard to the comment on data reporting and monitoring, please refer to the response to the previous comment.

The revised draft LaMP spells out the relationship between the LaMP and the RAPs, and how these programs will interact. The LaMP program is coordinating with the RAPs to document sources and loads of pollutants to Lake Michigan from the AOCs. Pollution prevention, reduction, and remediation activities carried out through the RAP process will reduce toxic pollutant inputs into Lake Michigan. The LaMP will not duplicate or interfere with RAP efforts, but rather will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic pollutant contributing to an impairment in a Lake Michigan AOC is listed as a LaMP Critical Pollutant or Pollutant of Concern, depending on its spatial distribution.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3, PAR 4-5**

The Comments were

13. Deadlines should be included in the LaMP.

14. To forestall continued controversy over fish advisories, EPA regulations should be changed so that advisories are consistent. We recommend Wisconsin DNR regulations as a guide.

The EPA Response is

Schedules and estimated completion dates are provided in the LaMP Action Agenda (Chapter 5). There is a workgroup, consisting of U.S. EPA, State, and tribal representatives, that is working towards the implementation of consistent fish consumption advisories throughout the Great Lakes basin.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **22 Monitoring**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 2-3**

The Comments were

4. Greater emphasis needs to be put on developing and installing monitoring equipment to determine the presence and concentration of all toxicants on the IJC list.

5. The EPA as coordinating agency for the agencies working on Lake Michigan water quality issues should look seriously at developing an extensive computer grid model for monitoring toxics in the lake. A model worth looking at is the Lake Michigan Ozone Study photochemical grid model, being developed by a consortium of the four states ringing Lake Michigan.

The EPA Response is

The U.S. EPA, States, and U.S. Geological Survey have developed a detailed tributary and air deposition monitoring program for Lake Michigan. This effort is described in Chapter 5 of the revised draft LaMP. This data will be used to develop and calibrate a mass balance model for Lake Michigan for selected pollutants, likely to include PCBs, lead, atrazine, and trans-nonachlor.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**

The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 2**

The Comments were

11. EPA should re-examine NPDES permits to see whether they are consistent with the goals of the LaMP for reduced loadings and virtual elimination of critical pollutants. If not, NPDES permits should be revised.

The EPA Response is

The Agencies are looking to reduce loads of LaMP pollutants from all potential sources. Where NPDES facilities are discharging these substances, we will consider lowering effluent limits as appropriate when the permit is up for reissuance. Such considerations are based on whether water quality standards are being met in the receiving water. Because more stringent water quality criteria are proposed in the Great Lakes Water Quality Guidance, it is likely that NPDES permit limits will be lowered.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**

The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 7**

The Comments were

7. Greater emphasis should be put on pollution prevention in the initial phases of the process for all toxic substances on the IJC list. Here lies the chance to achieve the virtual elimination of those toxics for which there is a known potential to cause massive use-impairment but which may not yet reside in high concentrations in Lake Michigan. EPA should not wait until concentrations are high enough to cause harm before seeking to reduce loadings.

The EPA Response is

Pollution prevention is an important component of the LaMP process for reducing loads of LaMP pollutants. A number of pollution prevention activities, listed in Chapter 5 and Appendix A, are being implemented in the Lake Michigan watershed. It is the policy of USEPA that pollution prevention is the preferred option for environmental protection, followed by recycling and treatment. Pollution prevention efforts will prevent the release of a large number of toxic and conventional pollutants.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **30 Zero Discharge**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

1. The mandate given the EPA to design the LaMP is considerably broader than is reflected in the proposed Plan. In particular the initial LaMP should address the requirement from the Great Lakes Water Quality Agreement of 1978 (GLWQA), as amended by Protocol in 1987 for the "virtual elimination" of toxic substances. The draft Plan virtually dismisses this requirement by calling it the "ultimate" goal, to be addressed later. 'Ultimate' does not mean 'later in time.' How the virtual elimination goal will be addressed should be part of the initial LaMP.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect beneficial uses (listed in Annex 2 of the Agreement) in the Lake Michigan watershed. The Agreement states that LaMPs are to be steps towards the goal of virtual elimination. Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific pollutant is necessary to restore or protect a beneficial use. The LaMP process will take actions to reduce loads of LaMP pollutants, thereby moving us closer towards the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **32 Inadequate Ref**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 2, PAR 6**

The Comments were

The attempted analogy between toxic substances-lists and endangered species-lists is badly flawed and should be omitted.

The EPA Response is

The analogy between the LaMP pollutant list and the endangered species lists has been eliminated from the revised draft Lake Michigan LaMP.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**
The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **33 Mass Bal Model**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3, PAR 1**

The Comments were

10. We strongly support the proposal (p. 42) to develop a mass balance budget and to apply the mass balance model to Lake Michigan. But we also request that you include in the mass balance not just the 11 critical pollutants identified earlier but all IJC-listed toxics.

The EPA Response is

A mass balance model for Lake Michigan, based on tributary and air deposition monitoring data, will be developed for Lake Michigan. The model likely will focus on PCBs, lead, trans-nonachlor, and atrazine. It is not feasible to do a mass balance for all IJC-listed toxics because there simply is not enough information on the fate, transport, and chemical behavior of most of these substances. The four substances listed above are those for which understanding may permit development of a credible mass balance for the entire Lake.

These comments are from Docket Code Number **LM029** The comments were dated **1-7-1993**

The commenter was **SIERRA CLUB-J. MUIR** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **35 Enforcement**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 3**

The Comments were

12. The program for the LaMP should be more than a plan. It should be enforceable. If there is insufficient authority, EPA should so indicate and we will try to persuade our legislators to enact the needed legislation.

The EPA Response is

The LaMP considers all potential tools for reducing pollutant loads, including regulation and enforcement. Where regulations seem to be insufficient to control pollutant releases, the Agencies, through the LaMP process, can make recommendations regarding the need for additional regulations and enforcement efforts.

These comments are from Docket Code Number **LM030** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - PCB CTRL** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 1**

The Comments were

I find this plan adequate. The toxicity background and monitoring parts are sufficient to define the problem well but there is not much space dedicated to solutions, PCB disposal, phaseout etc. The document may workanyway. I hope so. I find Howard Zar's comments about disposal problems appropriate. Unfortunately, it is probably premature to go into disposal issues but I think it would be worthwhile to figure out how to dedicatespace to this. I cannot offer any significant material in this regardbut I am starting to compile PCB land disposal figures. Incineration figures may be available for compilation as well.

The EPA Response is

The revised draft Lake Michigan LaMP is an assessment of the status of the ecological integrity of the Lake Michigan watershed, and it identifies the persistent toxic pollutants that are impacting the watershed. While a portion of the LaMP is devoted to specific actions, the LaMP process will ensure that we use all available tools to address these problems. Where sufficient tools do not currently exist, additional needs must be identified and recommended. The current Lake Michigan LaMP document does not contain all of the solutions to every problem; however, as the process develops and focuses base programs, the LaMP provides a framework for continually identifying and implementing solutions to lakewide problems.

These comments are from Docket Code Number **LM031** The comments were dated **1-8-1993**

The commenter was **EPA REG 5 - PESTICID** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1, sen. 7-14**

The Comments were

p.29 Toxaphene is a probable human carcinogen. Studies in rats (liver and thyroid) and mice (liver) showed sites with cellular abnormalities.

p.59, para 2 Best Management Practices (BMPs) should be defined.

p.59, para. 3 Some suspended and canceled pesticides are still in use in Canada and present a para possible air deposition situation. Is there any evidence of this (I know of none).

p.59, para.4 Delete "at least" from the first sentence in paragraph 4. It should read, "To partially address..."

p.59, para.4 Remove comma after 2,4, D and insert dash 2,4-D in line 8 of paragraph 4

p.60, para.1 Clean sweep in the Lake Michigan Basin in 1992 have netted over 53,000 pounds of pesticides. The Lake Michigan clean sweep programs will continue in 1993 in Wisconsin counties. The pesticides are packaged appropriately and then transported to an incinerator or treated and landfilled.

p.79 In the Action Plan in the third box under the Responsible Agency column, change to "PARTICIPATING: U.S. EPA Headquarters, Office of Compliance Monitoring and under the Completion Date column, change first date to: March 93 (In progress). National Survey of Pesticides in Drinking Water (EPA 510/9-90-015 Report I, November 1990) not found. FIFRA section 6(g) is not feasible for end users (farmers) but has been applied to dealer level.

p.88 In the Action Plan in the second box under Action column, add bullet: Final project reports on clean sweeps $ for 1992 and date (in third column) June 93 and change in the third column, change May 92 to July 92.

The EPA Response is

The editorial comments have been incorporated and the action agenda dates have been revised as suggested by the commentor. Regarding the question on pesticides, the ones that are LaMP Critical Pollutants (DDT, dieldrin, and chlordane) are no longer in use in Canada, but are used in Mexico. It is believed that emissions from Mexican facilities do contribute some quantity of these pesticides to the Great Lakes. In addition, some of these pesticides, while banned from use in the U.S. and Canada, are still produced here for export to foreign countries. Therefore, there could still be emissions from facilities that produce these chemicals.

These comments are from Docket Code Number **LM031** The comments were dated **1-8-1993**
The commenter was **EPA REG 5 - PESTICID** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.1, para. 3-4**

The Comments were

p.16 Check IJC objectives with FDA Action Levels (21 CFR Parts 109 and para.4 509) regarding DDT concentrations of 1mg/kg.

p.25, footnote 4 Have these factors been considered within each supporting study? For example, would a study with n = 4 have as much weight as one with n = 40 or n = 400, where n=sample size.

The EPA Response is

A number of factors are involved when considering the validity and value of a scientific study. All other things being equal, one would likely have more confidence in the results of a study with a sample size of 400 than in the same study with a sample size of 4. However, the studies cited in the LaMP document were not formally evaluated and ranked based on these criteria. A great deal of best professional judgement and weight of evidence considerations are needed when drawing conclusions about pollutant effects in the environment.

The IJC specific objective for DDT/DDE in fish is 1.0 ppm, while the FDA action level for DDT/DDE in fish is 5.0 ppm.

These comments are from Docket Code Number **LM031** The comments were dated **1-8-1993**
The commenter was **EPA REG 5 - PESTICID** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.1, para. 1,2,5,6**

The Comments were

Specific Comments
(editorial corrections)

p.1, para.1: p.7 The LaMP is not a static document,... in order to capture changes...

p.1, para.2: p.13 The Literature review includes information

p.1, para.5: p.26 para.2 Pollutants placed within Level or II...

p.1, para.6: p.26 para. 2 Define "immediate LaMP action"

The EPA Response is

The revised draft LaMP has been revised with editorial comments considered and incorporated where appropriate.

These comments are from Docket Code Number **LM031A** The comments were dated **1-8-1993**

The commenter was **EPA REG 5 - PESTICID** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p. 16, para.4**

The Comments were

Comments provided in the margin of LaMPs document.

The EPA Response is

Comments were considered and incorporated as appropriate.

These comments are from Docket Code Number **LM031A** The comments were dated **1-8-1993**

The commenter was **EPA REG 5 - PESTICID** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.59, para. 2**

The Comments were

..."if Best Management Practices (BMPs) are not in use"...should be defined.

..."the most likely continuing sources of these substances to the Lake Michigan environment (notwithstanding contaminated aquatic sediments) include accidental and intentional releases of privately held"...Continuing use - Canada possible air deposition - any evidence? (I know of none.)

The EPA Response is

Best management practices are defined in the revised draft Lake Michigan LaMP.

There is evidence that air deposition is a source of LaMP pesticides to Lake Michigan. Published estimates of pesticide loads from air deposition to Lake Michigan are presented in the revised draft LaMP.

These comments are from Docket Code Number **LM032** The comments were dated **11-19-1992**

The commenter was **NAT'L COAL ASSN.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR all**

The Comments were

... As discussed below, NCA recommends that the LaMP be changed to focus on the specific forms of mercury which cause health problems such as methylmercury. NCA is concerned that the repeated references to mercury throughout the LaMP tend to obscure the fact that an issue of importance is the formation of methylmercury. Repeated references to mercury prejudge the issue of whether control of atmospheric emissions of mercury from fossil fuel combustion will limit the formation of methylmercury. It is the transformation of inorganic mercury to methylmercury in bodies of water which should be the focus of concern. Control of mercury emissions from the combustion of coal probably will not sufficiently address the methylmercury concern.

As a preliminary matter, EPA must recognize that Congress has addressed the issue of anthropogenic release of mercury into the atmosphere in the Clean Air Act Amendments of 1990. Section 112(n)(1)(B) (101 STAT. 2558)requires EPA to transmit to Congress within four years "a study of mercury emissions from electric utility steam generating units, municipal waste combustion units, and other sources." The study is to include information on emissions, health effects, and control technologies. Theformulation of provisions of the Lake Michigan LaMP related to atmospheric emissions of mercury should not proceed in advance of the completion of this study.

NCA's conclusion that the reduction of mercury emissions associated with coal combustion will probably not reduce the formation of methylmercury is premised on the product of the National Acid Precipitation Assessment program (NAPAP). Twenty-seven State-of-Science and State-of-Technology (SOS/T) Reports were published in 1990 as the definitive scientific and technical synthesis of information from the $500 million NAPAP effort. The SOS/T series represents a comprehensive survey of relevant technical information from all sources about the causes, effects, and control of acid deposition and associated pollutants . One of these reports, NAPAP Report 23, entitled Indirect Health Effects Associated with Acid Deposition, is pertinent to the LaMP.

The report concluded that "The transformation of inorganic mercury to methylmercury in acidic bodies of water is of most concern in potentially causing increased methylmercury concentrations in fish." The human health risk was related to the level of consumption of fish (NAPAP Report 23, p. 23-21).

The major source of mercury in the atmosphere was identified as the "natural degassing of the earth's crust" which was estimated to be up to 150,000 tons per year (NAPAP Report 23, p. 23-24). It is estimated that mercury from U.S. coal combustion is about 41 tons per year (NAPAP Report 23, p. 23-28). This forms the basis for NCA's doubt that reductions of mercury from coal combustion sources would result in reduced formation of methylmercury. NCA freely admits that further research may remove this doubt. NCA is advocating the research efforts be conducted before controls are mandated.

The EPA Response is

There is sufficient evidence that the most toxic and bioavailable form of mercury is methylmercury. However, anthropogenic releases of inorganic mercury to the environment can be converted to methylmercury in aquatic systems. Therefore, efforts to reduce anthropogenic releases of any form of mercury, from all sources, should be considered.

Mercury is contributing to fish consumption advisories in some areas of the Lake Michigan watershed, and there is evidence that mercury concentrations in the Great Lakes basin are increasing. Therefore, the Lake Michigan LaMP identifies and recommends pollution prevention, reduction, and remediation actions to reduce mercury loadings and ambient levels. This does not obviate the need for additional research and study of mercury releases and impacts, such as those efforts required by the 1990 Clean Air Act Amendments. The LaMP program also is funding an intensive tributary and air deposition monitoring program which includes mercury. However, we feel that some load reduction actions should be taken and not be delayed until all these studies have been completed.

We recognize that mercury is a natural element, and that anthropogenic releases of mercury are only a portion of the total mercury in the environment. Obviously, we are not going to eliminate the presence of a natural element in the environment. However, current fish consumption advisories and evidence that mercury levels in the Great Lakes basin are increasing suggest that the Agencies should take steps to reduce anthropogenic releases of mercury to the extent possible.

These comments are from Docket Code Number **LM032** The comments were dated **11-19-1992**

The commenter was **NAT'L COAL ASSN.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2-3, PAR all**

The Comments were

Of course NCA recognizes that there are other anthropogenic sources of mercury. NAPAP Report 23 at page 23-34 concludes that "although anthropogenic sources of mercury have reached about 8,000 to 10,000 tons since 1973, nonanthropogenic sources are the predominant factor." Also, NCA is not contending that the report exonerates anthropogenic sources of mercury, but neither does it condemn such sources. Instead, the report documents the importance of increasing acidity and anaerobic bacteria in methylmercury formation. Set forth below is a two-paragraph discussion from NAPAP Report 23 at page 23-35 which demonstrates the complex issues which must be resolved to understand the methylmercury problem:

Calculations based on mercury content of the Greenland ice cap show an increase from the year 1900 to the present day and suggest that the increment is related to an increase in background levels in rainwater and is related to manmade release. As much as one-third of atmospheric mercury may be due to an industrial release of organic or inorganic forms. Fitzgerald and Watras (1989) estimated annual inputs of 15 ug/sqm from the atmosphere to a typical north central Wisconsin lake. These data were collected using ultraclean protocols and are considered more reliable than earlier estimates of much higher deposition rates. Nevertheless, this deposition rate could account for the total mass of mercury in the fish and water, as well as the annual transfer of the sediment. On the other hand, subtle changes in the remobilization rate from the sediment, perhaps caused by small changes in the pH, could also account for the total amount of methylmercury in fish tissue. It is clear from this definitive work that: (1) much of the earlier published data must be considered suspect due to compromising field and laboratory practices; (2) mercury concentrations and fluxes are much lower than previously reported; and (3) the impact of acidic deposition,whether by anthropogenic emissions to the atmosphere or remobilization from the sediment, can substantially increase the accumulation of methylmercury in fish.

Regardless of source, both organic and inorganic forms of mercury may undergo environmental transformation. Metallic mercury may be oxidized to inorganic divalent mercury, particularly in the presence of organic material such as in the aquatic environment. Divalent inorganic mercury may, in turn, be reduced to metallic mercury when conditions are appropriate for reducing reactions to occur. This is an important conversion in terms of the global cycle of mercury and a potential source of mercury vapor that may be released into the earth's atmosphere. However, the most important chemical transformation occurs as a result of methylation of divalent mercury to methylmercury by anaerobic bacteria. This process is strongly pH dependent over the pH range 4 to 7, and the bioaccumulation of methylmercury in fish is increased with increasing acidity of lakes and is greatly influenced by acid rain.

There are several important points to be gleaned from the above discussion. One, care must be used with respect to the reliability of existing studies. Two, acidity is an important factor and the impact of the Clean Air Act Amendments of 1990 acid deposition control program and the opportunity for lake liming must be considered. Three, anaerobic bacteria which live in waters with no oxygen are a major factor and that these conditions are created in waters with high levels of nutrients from agricultural and residential fertilizer run-off. This run-off should be addressed in the non-point source aspects of the LaMP.

The EPA Response is

It is well-established that estimates of mercury levels during the 1970s and early and mid-1980s were inaccurately high due to problems with sampling and analytical methods and the absence of clean techniques. However, recent measurements based on improved methods and clean techniques still suggest that mercury levels are increasing in the Great Lakes and are contributing to fish consumption advisories in the Lake Michigan watershed. As a result, the Agencies feel that pollution control efforts for mercury are necessary and warranted.

Acidity is clearly an important factor in the chemistry of mercury. The chemical changes that mercury can undergo in the aquatic environment are complex and dependent on a number of factors. Nonetheless, this does not obscure the need for controlling and reducing anthropogenic releases of mercury to the environment in order to restore and protect beneficial uses.

Urban and agricultural runoff are addressed in the revised draft LaMP. The relationship of nutrient runoff into surface waters and mercury chemistry is noted.

These comments are from Docket Code Number **LM032** The comments were dated **11-19-1992**

The commenter was **NAT'L COAL ASSN.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3-4, PAR 3;1**

The Comments were

Pursuant to the 1978 Great Lakes Water Quality Agreement, the United States and Canada have agreed to virtually eliminate the discharge of persistent toxic substances. The application of this goal to mercury requires special consideration. Because the natural degassing of the earth's crust and oceans is the main source of atmospheric mercury, this goal cannot be reached. Unless it can be demonstrated that a reduction of anthropogenic emissions of mercury will result in a reduction of methylmercury,strict implementation of this goal does not appear necessary.

NCA is aware that there is an insufficiency of reliable information concerning the atmospheric cycle of mercury, that research is continuing, and new information is being released. As such the NAPAP Report 23 represents a stage in our understanding, but it is a peer-reviewed document which was approved for publication by the Environmental Protection Agency, the Department of Agriculture, Commerce, Energy, and Interior, and the Council on environmental Quality. There will be improvement in our understanding and new information which should be subject to such a peer review process . It is not known whether the study of mercury required under the Clean Air act Amendments of 1990 will achieve the consensus displayed in NAPAP Report 23, but it will be a report which should be considered.

In conclusion, NCA urges that the January 1, 1991 Lake Michigan Lakewide Management Plan be amended to identify methylmercury as the substance of concern in most instances where the term "mercury" is currently used in the draft. NCA would also urge that the LaMP recognize that actions related to the atmospheric emission of mercury should await the completion of the study mandated by the Clean Air Act Amendments of 1990.

The EPA Response is

We concur that virtual elimination of mercury in the environment, because it is a natural element, is impossible. Our goal is to restore and protect beneficial uses in Lake Michigan and its watershed, and therefore to ensure that mercury does not contribute to beneficial use impairments.

As stated in response to a previous NCA comment, we feel actions should be taken to reduce mercury releases even while research efforts are ongoing. As these research efforts progress and our understanding of mercury improves, additional actions to reduce mercury levels will be identified and considered for implementation. We feel that sufficient evidence is now available to warrant mercury control actions, and that such actions should proceed concurrently with additional studies.

Finally, while the Agency agrees that methylmercury is the most toxic form of mercury, it would not make sense to list methylmercury in the LaMP as opposed to mercury in general. If we focused only on methylmercury, releases of inorganic and other forms of mercury would continue. Once in the environment, these other forms of mercury could be converted to methylmercury, and the purpose of the LaMP will have been defeated. Therefore, the Lake Michigan LaMP will continue to focus on all forms of mercury.

These comments are from Docket Code Number **LM032** The comments were dated **11-19-1992**

The commenter was **NAT'L COAL ASSN.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.5, para.1**

The Comments were

Valid scientific analysis should include outside scientific peer review of all conclusions and recommendations. Unfortunately, the LaMP document includes information that was not peer reviewed. Prior to being used as the basis for implementation, all such material should undergo such peer review. For example, "unpublished" (e.g., page 19) and acceptable access. Another example of a study cited without any evidence of peer review or acceptable access. Another example of a study cited without any evidence of peer review is the one on page 46 and 47 especially conclusions (1), (4), and (8) which may not stand up to outside peer review. Furthermore, the considerable output of new reports by U.S. EPA identified in Section 3 in the tables on pages 75-94 should be peer reviewed for any conclusions or actions that would have significant cost if implemented. And finally, the concept of "eliminate critical pollutants" (page86) doesn't meet the criteria that a chemical should be removed from the list once the impairment has been eliminated (page 31 (a) i) which is the appropriate scientific test.

Prior to reliance on the numbers for permitting and standards setting process, one should be aware of available scientific information, source monitoring data and ambient fish tissue, sediment and water monitoring data. In addition, advocacy literature should not be cited as authoritative references.

The EPA Response is

The Agency concurs that unpublished studies should not be used as a basis to draw conclusions and recommendations. Similarly, published studies that have not been peer-reviewed also must be considered with extreme caution. Because the Critical Pollutants are known to be contributing to lakewide impairments, the LaMP process will identify opportunities to reduce loads of these substances from all sources. However, the commentor is correct in that the LaMP goal is to restore and protect beneficial uses, not eliminate the presence of a pollutant entirely. In some instances, however, it may be that the Agencies determine that the elimination of a pollutant is required to fully protect beneficial uses.

These comments are from Docket Code Number **LM034** The comments were dated **12-16-1992**

The commenter was **USGS - WATER RES.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **17 Ground Water**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 1-5**

The Comments were

I have reviewed the Lake Michigan Lakewide Management Plan draft and offer the following comments. The draft is generally well written and extensive. Below are some comments you may wish to consider primarily on the section on Ground Water on page 60.

1. The U.S. Geological Survey (USGS) Regional Aquifer System Analysis (RASA) model cannot be directly applied for estimation of toxic chemical loads to the shallow ground-water system of the Lake Michigan basin. The RASA model can be used to generally estimate ground-water flow in the shallow aquifer system in the model area. A ground-water flow model of the Lake Calumet area completed by the Indiana District of the USGS simulates flow in the shallow ground-water system and could be used to estimate flow to or from the shallow ground-water system to the lake in that particular area.

2. More emphasis should be given for estimation of direct ground-water discharge to the lake. Several USGS studies have shown that contaminated ground water in the shallow subsurface directly discharges to the lake.

3. Other sources of contamination other than injection wells should be mentioned. It is probable that the majority of contamination is from near-surface sources.

4. The first paragraph of the section requires edification. Direct ground-water discharge to the lake is not related to surface-water flow. If the purpose of this paragraph is to give a percentage of the surface-water flow that is ground-water discharge then a general value should be given. For example, an estimate of the direct recharge to the lake could be .18 times the surface-water flow. The indirect recharge could be .5 times the surface-water flow. A reference such as Cartwright and others gives a value of ground-water flow (6,700 cubic feet per second) in the near-shore sediments. One of the conclusions from this study is that the total ground-water discharge to the lake is affected by near shore sand bodies underlying the area.

The EPA Response is

The purpose and function of the USGS RASA model has been more accurately described in the revised draft LaMP. We agree that more emphasis should be given to groundwater discharge to Lake Michigan along with associated toxics. However, such information on a lakewide scale appears to be rare or nonexistent. If such estimates do exist, the Agency would be happy to incorporate them into the LaMP. It is difficult enough to estimate groundwater discharge to Lake Michigan; it is even more difficult to estimate loads of toxic pollutants from groundwater to the Lake.

The first paragraph of this section has been reviewed and reworded to eliminate any confusion as to what the numbers refer.

These comments are from Docket Code Number **LM035** The comments were dated **11-2-1992**

The commenter was **McGRAW, JEAN** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1-2, PAR 3**

The Comments were

2. At last, strict laws should be passed to control non-point pollution of all types. Perhaps government subsidies can also be granted to those watersheds who will aggressively attack this pervasive problem.

The EPA Response is

The Agencies recognize the importance of reducing loads of LaMP pollutants from all nonpoint sources. The LaMP will use all tools, both regulatory and nonregulatory, to address nonpoint sources releases of pollutants. Where existing regulations and technologies are not sufficient to control such releases, the LaMP provides a context for recommending additional laws or technology development needed to combat nonpoint sources of pollution. The revised draft LaMP does contain a number of actions and recommendations to reduce pollutant loadings from nonpoint sources.

These comments are from Docket Code Number **LM035** The comments were dated **11-2-1992**

The commenter was **McGRAW, JEAN** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2**

The Comments were

1. Paper mills - both those on the Lake and those on rivers emptying into the Lake - should convert to the oxygen bleaching process. With a new federal administration and Congress, perhaps we can promote legislation to give tax credits to paper mill to help finance the changeover. Many countries in Europe have already implemented this change and refuse to buy papers processed with the chlorine bleach method.

The EPA Response is

In order for such a suggestion to be successful, demand and buying habits for paper products would have to be altered. Changes in market demand are difficult to address in the context of the LaMP. While the LaMP could recommend the ecological (and possibly economic) value of process changes, carrying out these changes goes well beyond the scope of the LaMP. One mechanism for implementation of process changes is through legislation. While this option is not recommended in the revised draft LaMP, it could be discussed among participating Federal and State agencies and potentially be included in future iterations of the Lake Michigan LaMP.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**
The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 3-4, PAR 4-8,1**

The Comments were

Critical Pollutant List: The initial list is too conservative. There are tens of thousands of chemicals in use in the Great Lakes Basin. I do not believe that EPA has proof of the benign nature of the chemicals it has excluded from this list. It is so short that it minimizes the problem.

As a visionary process, one that seeks to virtually eliminate persistent toxics, the list of Critical Pollutants should be as broadly defined as possible. Any hint of biological or ecological effect should warrant inclusion. We MUST look at the state of the Lake from the worst case scenario. We can't afford to discover in ten years that we were short sighted.

The Critical Pollutant listing/delisting criteria should not be based on vague concepts such as the strength of association to ecological effects. What is the definition of strong or weak? This type of definition changes with the wind and is not acceptable. Elimination of impairment is also vague subject to interpretation depending on the narrowness of the definition of impairment.

The listing threshold should be far lower and the delisting threshold should be higher. RAP pollutants should still be listed even if primary action is not within the LaMP scope. The LaMP must provide a full and complete picture of the Lake and its associated basin.

At the very least, chemicals should be included in category IV UNTIL THEY HAVE BEEN PROVEN TO HAVE NO EFFECT. This does not mean minimal, discernible, apparent, perceived, negligible, or insignificant effect, - it means no effect. From the other direction, you should not wait to list a chemical because of insufficient information.

Perhaps a fifth category is needed to deal with unknowns. This is much more honest than the impression given that only the chemicals appearing on the list are of concern or could have effect.

The EPA Response is

The Agency surveyed available information to identify those substances that are known to contribute to use impairments. We recognize that there are other chemicals that have the potential to impair beneficial uses. However, we feel that the best course of action is to focus our efforts and limited resources on reducing levels of those pollutants known to be having the greatest impact on the Lake Michigan watershed. The LaMP is an ongoing process; we are concentrating on the highest-priority pollutants, i.e. those associated with use impairments. As loads of current LaMP pollutants are reduced, and more information becomes available, some pollutants may drop off the list while others can be added as necessary and appropriate. Because of this flexibility, it does not make sense to focus on large numbers of chemicals at once. That will only serve to dilute our efforts. Instead, the Agencies will target specific chemicals and reduce their loads; as we are successful and the process develops, we can move on and target additional substances.

There is now a category in the revised draft LaMP (Level 3) to deal with chemicals that have the potential to impact Lake Michigan, based on presence in the basin, toxicity, persistence, and bioaccumulation, but for which impairments are unknown or have not been documented.

Regarding the comment on RAP pollutants, all Lake Michigan RAP toxic pollutants that have been associated with a use impairment in an AOC are listed as LaMP Critical Pollutants or Pollutants of Concern, depending on the geographic extent of the specific pollutant.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**

The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **13 Ecosy Approach**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2,3; PAR 5,1**

The Comments were

Ecosystem Objectives The Great Lakes Water Quality Agreement states that "Lakewide Management Plans shall embody a systematic and comprehensive ecosystem approach to restoring and protecting beneficial uses in ... open lake waters." [Annex 2, par. 2(a)] "Such Plans shall provide a continuing historical record of the assessment of ... Critical Pollutants, proposed remedial actions and their method of implementation;, as well as changes in environmental conditions that result from such actions, including significant milestones in restoring beneficial uses ..." [Annex 2, par. 2(b)] Such Plans shall be designed to reduce loadings of Critical Pollutants in order to restore beneficial uses." [Annex 2, par. 6(a)].

In light of these parameters, a Lakewide Management Plan based on a chemical by chemical approach is inadequate. Objectives have been developed for Lake Michigan. These must not only be included but actually integrated into the LaMP.

The EPA Response is

While the focus of the Lake Michigan LaMP is on toxic pollutants, the participating Agencies recognize that issues associated with habitat quality and quantity, particularly as they relate to endangered and threatened species, are significant factors in addressing the overall ecological health of Lake Michigan. As the LaMP process develops, the Agencies will identify opportunities for addressing these issues in conjunction with toxic load reduction activities. In this manner, the LaMP will further the broader goal of the GLWQA of identifying beneficial use impairments and restoring and protecting the Lake Michigan ecosystem. Chapter 5 in the revised draft LaMP contains a table outlining the actions and estimated timetables required to expand the LaMP to include habitat issues.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**

The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 3, PAR 3**

The Comments were

Geographic Scope: This document falls woefully short in dealing with the Lake Michigan system. It characterizes the Lake as part of the Great Lakes ecosystem, but fails to recognize that its own basin is in need of attention. The RAPs do not cover all the lands in the basin, only those designated as Areas as Concern. In order to deal with the Lake, its entire basin must be considered.

The EPA Response is

The geographic scope of the LaMP does include all of the surface waters of the Lake Michigan watershed. It also includes the land and air insomuch as these media are pollutant sources to Lake Michigan basin surface waters.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**

The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1,2,3; PAR 6,1-5,2**

The Comments were

One of the things that is missing from this document (and, incidentally from the Lake Ontario Toxics Management Plan as well) is a real assessment of the ability of current programs to address the problems, to outline gaps and weak areas, and to propose measures or even new programs to deal with those weaknesses.

This should be a tool to help strengthen the position and ability of the agencies to accomplish its goals of environmental protection. It should not present current programs as the only options.

The Vision I am very disappointed that EPA has chosen to avoid a strong vision to guide them through this process. I can almost hear the voices saying "We can't say that! We can't do that! We can't commit to that!" This document is supposed to visionary. It is ok to state a strong goal and admit that, at the moment, it does not seem attainable. The challenge is far greater, but the possibility of achievement is far higher. If you start with a limited vision, you will produce only limited solutions.

LaMP Goals It is not sufficient to say that the Great Lakes 5-Year Strategy will deal with everything else. The LaMP must show how it is to coordinate with these programs. It must provide a complete and integrated picture of the Lake and its associated basins. It must delineate what programs within the 5-Year Strategy will be active within the Lake Michigan basin and how they relate to the LaMP.

The goals as stated in the introduction need to be modified and expanded to incorporate an ecosystem approach. For instance, the first goal of dealing with Critical Pollutants should be so that the Lake's water quality and sediments are capable of sustaining healthy, diverse, reproducing, self-sustaining, and adequately sized communities of sensitive living resources.

In addition, the health goal should be to eliminate health risks, not to minimize them. "Minimal," as a goal, is inappropriate. Besides the fact that minimal is not definable, goals should incorporate the vision of the desired state of the Lake.

... Using the title of the LaMP as is a Management Plan for Critical Pollutants to limit the scope of the vision is inappropriate. It must be clear that the health of the ecosystem is the actual goal. The LaMP should be a vehicle to move toward all the objectives, not just critical pollutants.

The EPA Response is

The revised draft LaMP assesses the state of the Lake Michigan system and identifies impediments to a fully functioning, healthy system. The action agenda (Chapter 5) contains a list of actions that various Agencies are implementing to address some of these problems. However, this does not mean that additional activities will not be implemented as the process develops. One of the things that the participating Agencies now must do is determine, based on this assessment, which problems can be addressed by reorienting existing programs and where new programs/measures are needed. The LaMP provides the context for such an evaluation, but it is not something that will happen all at once. As the process develops, these determinations will be made based on current information and incorporated into the LaMP document.

The goal of the LaMP, as specified in the GLWQA, is to restore and protect beneficial uses in Lake Michigan and its watershed. The LaMP "Vision" is a Lake Michigan system where no beneficial use impairments exist and where ecological integrity is maintained and protected.

A description of how the LaMP relates to other Great Lakes initiatives, including the Great Lakes 5-Year Strategy, is included in Chapter 1 of the revised draft LaMP.

The goals and objectives of the LaMP have been modified in the revised draft LaMP based on an ecosystem objectives workshop that was held in December 1991 in Chicago. The commentor's suggestions have been incorporated into these goals.

With regard to the LaMP addressing the health of the entire ecosystem, we concur. The focus of the LaMP currently is on toxic pollutants; in the future it can be expanded to include other issues. This process is outlined in the action agenda (CHapter 5). Please refer to the response to the previous comment.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**

The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 4, PAR 2-3**

The Comments were

Sources and Loads: Why haven't incinerators been addressed?

TRI data will be useful in developing load estimates over time. All estimates will become more accurate over time. Wh not just say that? Why not actually talk about sources you could be missing or not counting right? Why not put the loadings in terms of a range of values? This would clearly demonstrate the real possibilities of the problem. By limiting your use of numbers to those you are absolutely sure of, you are automatically minimizing. What are you leaving out by only counting major point sources? How many small point sources are there? They could be numerous enough to provide a significant source.

The EPA Response is

Incinerators, TRI data, sources, and loadings are discussed in the revised draft LaMP. Limitations of TRI data and data gaps in our understanding of sources and loads also are included in the LaMP.

The loading estimates for NPDES facilities are now based only on major facilities (those with mean daily flow > 1 MGD). We recognize that minor dischargers also may contribute substantial loads of LaMP pollutants to Lake Michigan waters. The Agencies will begin to summarize available information from minor facilities and incorporate this data into future iterations of the LaMP.

These comments are from Docket Code Number **LM036** The comments were dated **11-12-1992**

The commenter was **AM CLEAN WATER PROJ** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P1,4,5-6PAR1-5,4,all**

The Comments were

The Public Involvement Process: First of all, the public involvement process has not been full or open Even though EPA has nominally sponsored a "Forum" made up of stakeholders, it has not allowed full participation. The most blatant example of this was the withholding of the draft from the Forum until the public comment period. Everyone in this body was outraged that an entity that supposedly had the charge of providing valuable feedback to EPA was not allowed to even see drafts while it was being written.

Furthermore, by defining this group as a forum instead of an advisory committee, EPA neatly sidestepped obligation to include the views of the body. I don't mind them wanting to avoid red tape, but this seemed more of a tactic for giving the appearance of open process without the responsibility for incorporating real input.

The public (meaning any interested person) should be able to see the work in progress and make comments. This is not an impossible task. The New York State Department of Environmental Conservation sponsored a very effective work group when they were developing their Non-Point-Sour;ce Assessment and Management Plans several years ago.

There was an invited set of persons included in the work group, but this was not a closed set. Interested individuals were added throughout the process. With each iteration, the work group was led through the rationale for changes and allowed to make further comments.

This is the most inclusive process I have ever been involved in. It wasn't consensus by any means, but it provided an enormous amount of access and opportunity for discussion. By comparison, this process has been a weak effort at best.

... There is more, much more, to be said about both general and specific aspects of this document. I expect to be able to discuss them with the staff DURING the next rewrite. The interested public is ready and willing to help in the process. Please recognize our right to do so. Thank you.

... I am furious about the way the LaMP is being handled. At the last "Forum" meeting, all of the participants: environment, local government, AND industry were united in expressing their dissatisfaction with EPA's disregard of its constituency.

EPA has the responsibility to make sure those who wish to be involved with the LaMP development are given ample opportunity to do so.

This has not happened.

We request specifically that:

1. Meetings be scheduled on a regular basis.

2. Meetings be scheduled with sufficient advance notice so that those who must make travel plans are able to, for example, buy advance sale discount plant tickets.

3 No closed door discussions take place.

4. Interim information be distributed in a timely fashion, and

5. The "stakeholders" be treated as equal partners in the process.

This has not happened.

At that meeting you expressed pleasure in the usefulness of the meeting. You finally had a working set of parameters for the Forum. You expressed what I thought was a commitment to follow through.

This has not happened.

I received a call from your assistant prior to the last scheduled meeting telling me the meeting, that I had planned on and around, had purchased a plane ticket in order to attend, had been "indefinitely postponed" She had no explanation as to why, no information about when it might be rescheduled, and nothing to justify the abrupt change of plan other than to say the date was only tentative. When I, understandably upset, mentioned my expense, she offered to have you call me.

This has not happened.

It is totally unacceptable to cancel meetings at the last minute with no explanation and even worse to take refuge in the excuse that the date was only tentative!

Is EPA must follow through on its stated commitment of including the public in the development process. This looks suspiciously like tokenism. If this is so in any degree, be warned. The public will not accept anything less than a superlative effort to restore and protect their natural resources This m

The EPA Response is

The Agency recognizes that public participation in the LaMP process must be improved, and we are taking steps to make these improvements. The Forum has been meeting quarterly since February 1993, and the Forum's roles have been more specifically defined based on discussions with the Forum. These meetings have been scheduled well in advance and information has been distributed as necessary. It is not clear to what the commentor is referring with regard to the item on "closed door discussions".

The Forum have had the opportunity to review and comment on the revised draft LaMP prior to the October publication in the Federal Register for public comment. Contrary to the commentor's assertions, USEPA does value the input of the Forum as well as the general public The Forum has been open to any group or individuals wishing to be included on it. In recent meetings, Forum members have expressed a desire to develop criteria for membership, and they will work out the details of the criteria. In summary, we recognize that Forum participation has not been adequate for a variety of reasons, but we are working with the Forum to improve the situation.

In addition, the commentor failed to mention that seven public workshops were convened around the Lake Michigan basin during the fall 1992. The purpose of the workshops was to inform citizens about the LaMP process, and to solicit their comments on the LaMP These workshops were not required, but we wanted to give individuals the opportunity to learn about the LaMP and to get their input on it. This Response to Comments document has been compiled to demonstrate that we have read and considered all comments that we have received.

These comments are from Docket Code Number **LM037** The comments were dated **1-8-1993**

The commenter was **EPA REG 5-COMPLIANCE** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **04 Appendix B**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 2, PAR 5**

The Comments were

- Under Appendix B, "Degradation of Aesthetics", in addition to the significant impairments listed, also add "dead fish" either washed up on beaches or floating. Seeing these dead animals is a major influencing factor of peoples perception of the quality of the Great Lakes.

The EPA Response is

We concur that dead fish washed up onto the beach should be considered under Degradation of Aesthetics. However, the revised draft LaMP focuses on use impairments caused by toxic contaminants. Obviously toxics can lead to dead fish, but many of these incidents are due to natural phenomena such as population\community interactions, seasonal events, etc. Where there is evidence that toxics contribute to fish die-offs, such impacts will be listed under Aesthetics Degradation.

These comments are from Docket Code Number **LM037** The comments were dated **1-8-1993**

The commenter was **EPA REG 5-COMPLIANCE** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1,2 PAR 2-5;1-4**

The Comments were

- The second paragraph on page 15 states that: "Beach closings caused by elevated bacterial levels from sewer overflows are common enough throughout the basin to be considered a lakewide problem, but the position of the LaMP Management Committee is that these overflows as [sic] being addressed by local governments in programs outside of the regional scope of the LaMP."

However, in addition to elevating bacterial levels, these Combined Sewer Overflows (CSOs) have contributed substantial amounts of pollutants to navigable waters, and the attendant sediments, within the Lake Michigan Basin. Pollutants from these discharges , which contain untreated industrial and municipal waste waters, include Mercury (Critical Pollutant), heavy metals (Level IV Pollutants) and organic compounds.

The fact that local governments are "addressing" these overflows does not eliminate their impact on the Lake Michigan Basin. The LaMP committee should not disregard this source of pollutants to the basin, unless they are absolutely certain that the CSOs' impact is insignificant.

According to the subject document this certainty has not been established. The list of potentially significant sources of PCBs to Lake Michigan on pages 47 and 48 includes "combined sewer systems", as well as "industrial stormwater runoff", and "stormwater runoff from urban/suburban surfaces" which may discharge to combined sewers.

Therefore, to ensure effective prevention, removal, and reduction of Lake Michigan pollutants, the scope of the LaMP should include discharges from Combined Sewer Overflows in the Lake Michigan Basin.

- Page 52 of the subject document states that "few industrial and municipal facilities have had data reported on any of the Critical Pollutants to the Permits Compliance System (PCS)." However, as stated on page 53, lead and mercury have been monitored, limited, and reported in PCS for over five years. Chromium, Copper, and Zinc (Level IV Pollutants) are also reported in PCS.

- Include an Appendix, such as for RCRA and CERCLA, listing all NPDES permittees in the Lake Michigan basin. This list should indicate major/minor status, whether the facility discharges to the shore or near-shore of Lake Michigan, whether the discharge is to a tributary of Lake Michigan, whether Level I, II, III or IV Critical Pollutants are present in the discharge, and whether the facility in compliance with it's permit. Violations should be noted if the facility is in non-compliance.

- Include an Appendix listing all Industrial Users (IUs) of POTW's; separate lists should identify IUs in cities with approved pretreatment programs, and IUs in cities without approved pretreatment programs.

The EPA Response is

The revised draft LaMP does consider potential loadings of LaMP pollutants from combined sewer overflows. While it is difficult to quantify total loadings from CSOs, it is clear that they are a significant source of LaMP pollutants (particularly metals) to Lake Michigan basin surface waters. The Agencies need to take actions to control pollutant discharges from CSOs. USEPA has recently proposed a policy to control CSOs, and this policy is briefly described in Chapters 1 and 5 in the revised draft LaMP. The paragraph cited by the commentor simply refers to the fact that beach closings, as a beneficial use impairment, occur in response to localized events in local areas. Also, beach closings are generally not caused by toxic contaminants, but by elevated bacterial levels. The Agencies do not feel that it is appropriate to consider bacteria as critical pollutants.

These comments are from Docket Code Number **LM038** The comments were dated **1-8-1993**
The commenter was **Chem. Manu. Assoc.** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **19 LaMP Plan Proc**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

Accordingly, we urge the Agency to consider the comments of the GLWQC in preparation of the final Lake Michigan LaMP and in the preparation of other watershed planning activities, including the remaining LaMPs for the GreatLakes.

The EPA Response is

The Agency has considered the comments of the Great Lakes Water Quality Coalition in revising the draft Lake Michigan LaMP.

These comments are from Docket Code Number **LM038A** The comments were dated **1-8-1993**
The commenter was **Chem. Manu. Assoc.** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **34 Cost/Ben Analy**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter:

The Comments were

Attachment A: Findings and Recommendations of the Chemical Manufacturers Association on the Costs and Benefits o the Great Lakes Water Quality Initiative

The EPA Response is

It is not appropriate nor relevant to respond to a comment specifically related to the Great Lakes Water Quality Guidance in the context of the Lake Michigan LaMP.

These comments are from Docket Code Number **LM039** The comments were dated **12-3-1992**
The commenter was **USDA SCS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **23 Nonpoint Srces**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 9**

The Comments were

I would like to see more information on the influence the SCS and SWCDs have had on soil and water management ove the past 50 years in the Great Lakes. NACD has put out information on this.

The EPA Response is

The Soil Conservation Service has a number of programs related to soil conservation and water management, and man of these programs have impacts on the quantities of toxic pollutants entering surface waters from agricultural runoff. The revised draft Lake Michigan LaMP assesses the ecological health of the Lake Michigan basin and identifies substances that are impacting its health. The Agencies do not feel that the LaMP should include detailed descriptions o historical impacts of various Agencies and programs on general water management and quality. This is not meant to minimize the importance of these programs; rather, we merely wish to focus on what these Agencies and programs can do now and in the future to address the problems identified in the Lake Michigan LaMP.

These comments are from Docket Code Number **LM039** The comments were dated **12-3-1992**

The commenter was **USDA SCS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 8**

The Comments were

Comments: The role of the SCS, IDNR and SWCD as it relates to FSA/FACT and now NPDES, "Rule-5" in IN, should be included.

The EPA Response is

Please see the response to the previous comment.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 8-9, PAR 8-9, 1-3**

The Comments were

Proposed Tiers for Critical Pollutants: The Coalition believes that the list of proposed critical pollutants, level I through IV, is sufficiently comprehensive and that no additional pollutants should be added until an effective management strategy is developed for the existing list.

The pollutants in the tiers include all those for which current science supports or infers potential Lake Michigan-wide impacts. Other pollutants may have specific, localized adverse impacts, but do not fall within the basin-wide scope of the LaMP. A small number of pollutants are responsible for widespread effects of most concern in the Great Lakes. For example, the Chemical Manufacturers' Association's analysis of the Great Lakes initiative, "Potential Benefits from the Great Lakes Water Quality Initiative" (attached), found that in the open waters of the Great Lakes almost all curren fish consumption advisories result from a few substances: PCBs, DDT, dieldrin, chlordane, other pesticides, mercury and dioxin. The manufacture and use of these substances have been banned or severely restricted. The study assumed that fish advisories are key indicators of ecosystem impairments. The study also found that less than two percent of the total loadings of PCBs and lead to the Great Lakes come from U.S. permitted point sources. For mercury, permitted point sources contributed approximately 2.4 percent of estimated total loadings to Lakes Ontario and 7.4 percent of total loadings to Lake Erie (p. 1).

Further efforts to add substances to the Critical Pollutant list are likely to sidetrack available resources which would be better used to manage pollutants already identified. Management actions to control one pollutant may have incidental controls on other pollutants beyond the targeted pollutant. The Coalition believes that focusing on the current list of Critical Pollutants and identifying and implementing effective management strategies will have greater potential of achieving LaMP goals.

EPA should use all available information to determine whether significant sources are discharging Annex I pollutants (p. 30). We suggest for efficiency that this effort be limited to Annex I persistent substances rather than all Annex I pollutants. Moreover, we encourage EPA to use all available data to determine how critical pollutants should be ranked. We would like additional information on how the list will be updated annually. We note that because of the large amount of work to date, the chart on page 40 shows major reductions have been achieved in the industrial category. We would be interested in seeing source reduction percentages from other categories.

We agree that a focused data management process needs to be established, not only to answer key management questions relating to sources and inputs, but to focus limited resources where they will have the most environmental benefit.

The EPA Response is

The system for listing and separating LaMP pollutants has been revised by the Critical Pollutant Workgroup, as described in the revised draft Lake Michigan LaMP. The Agency concurs with the commentor that the LaMP should focus on the highest-priority pollutants, rather than listing all Annex 1 substances. As more information becomes available, and we reduce loads of some pollutants, we can include additional pollutants on the list as warranted.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 10, PAR 3**

The Comments were

The draft LaMP uses the term "sources" or "sources of pollutants" when describing the LaMP process (p. 6-7), or when discussing the skeleton strategy for reducing loads of Critical Pollutants (p. 73), and in other places in the draft document. We recommend that the LaMP clarify that sources means "source categories" or a "class of sources," and that the term "sources" does not mean individual discrete points at which pollutants are discharged or enter the Lake Michigan Basin.

The EPA Response is

We have tried to make certain that the revised draft LaMP clearly distinguishes between individual sources of pollutants and pollutant classes or categories, and that it is clear to which we are referring when these terms are used.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P8,12; PAR 2-4,1-2**

The Comments were

The Coalition agrees in large part with the logic sequence of the LaMP development process (outlined on p. 6 and 7). We are concerned, however, that the steps in the draft document would permit the LaMP to be developed without consideration of whether it is addressing the most significant sources of critical pollutants and without consideration o the potential effectiveness of proposed strategies to reduce releases of critical pollutants.

Annex 2(6)(a)(v) of the Water Quality Agreement states that LaMPs shall include: "an evaluation of remedial measure in place, and alternative additional measures which could be applied to decrease loadings of Critical Pollutants." Implicit in this statement is a requirement that reduction measures be evaluated for effectiveness as part of the LaMP process.

... LaMP Coordination with the RAP and GLI: The LaMP will not address problems in Remedial Action Plans (RAPs), but the RAP and LaMP processes are to be strongly coordinated. The procedures to implement that coordination must be expressly provided in the LaMP to preclude conflicting goals and solutions in the various Lake Michigan RAPs. Th small role seemingly given the RAPs by the draft LaMP is contrary to the LaMP's underlying mission of employing an ecosystem approach to managing Lake Michigan.

The second phase of the Great Lakes Water Quality Initiative, which is underway, will address nonpoint source pollution in the Great Lakes Basin. The LaMP and Phase II of GLI should contain clear statements as to how they will interrelate.

The EPA Response is

The Agency believes that the LaMP process will, in fact, allow for the identification of the most significant sources of pollution. After determining which persistent toxic pollutants are exerting lakewide impacts, the revised draft LaMP summarizes available information to identify their sources and the relative contributions of each. By monitoring tributaries, air deposition, and other environmental indicators, the participating Agencies will evaluate the effectivenes of load reduction activities.

The relationship between the Lake Michigan LaMP, RAPs, and the Great Lakes Water Quality Guidance are described in Chapter 1 of the revised draft LaMP. The LaMP program is working with the RAPs to document sources of pollutants and estimate loads of LaMP pollutants to Lake Michigan from the AOCs. Pollution prevention, reduction, and remediation activities conducted through the RAP process will reduce toxic pollutant inputs into Lake Michigan. The Agencies also will determine whether or not AOCs contribute significantly to lakewide impairments.The LaMP will not duplicate or interfere with RAP processes, but rather will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic pollutant contributing to a use impairment in an AOC is automatically listed as a LaMP Pollutant of Concern or Critical Pollutant, depending on the extent of its impacts in the watershed.

Phase 2 of the Great Lakes Water Quality Initiative is in the very early stages of development, and its focus and intent i changing frequently based on discussions among Agencies. It will build on the Great Lakes Water Quality Guidance by addressing toxic contaminant inputs from a variety of nonpoint sources. These nonpoint source load reduction activities and recommendations, when finalized, will provide an important tool under the Lake Michigan LaMP for reducing loads of toxic pollutants into surface waters of the Great Lakes.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **P 3-4, PAR all**

The Comments were

Ecosystem Objectives: The Great Lakes Water Quality Coalition believes that clear statements of ecosystem objectives should be developed that relate to ecologically realistic constraints.

The LaMP statement of ecosystem objective for Aquatic Communities should be modified. It currently reads (page 1): "The waters of Lake Michigan shall support healthy, diverse, reproducing, and self-sustaining communities in dynamic equilibrium, with an emphasis on native species." This objective contrasts with the objective of some Lake Michigan-users as well as many state game management programs that the lakes sustain recreational and commercial fisheries. Coho and Chinook salmon are not native to Lake Michigan, and may not be self-sustaining populations at densities desired by fishermen. Consequently, the phrase about "emphasis on native species" needs to be reconsidered.

All ecological communities are dynamic. "Dynamic equilibrium" may not be a useful phrase for this objective. Certainly, any community, impacted or not, will be at some kind of dynamic equilibrium.

To the extent the term "reproducing" is repetitive of "self-sustaining," it adds little to the objective. It does not occur in the Wildlife objective.

Statements such as "swimmable waters" are not ecologically relevant or adequately delineated.

The term "healthy" is nebulous when applied to communities. It might mean fish free of tumors and lesions as observed in some harbors, but this is not a lake-wide problem. It might mean salmonids free of parasites, but lamprey eradication seems beyond the envisioned scope of the LaMP.

Identifying usable indicators of achieving the ecosystem objectives should be an integral part of objective development.

As noted in EPA's Framework for Ecological Risk Assessment (1992), the relationship of the indicators to the objective must be considered before adopting the indicators. Unless the indicator clearly reflects changes in the objective, it is not useful. Thus, changes in residue levels in fish might be useful as an indicator for evaluating human health objectives or wildlife objectives, but would not necessarily show that an aquatic community ecosystem objective was attained (unless better associations between body burdens and ecological function are developed).

Aquatic ecosystems have several basic functions. They convert sunlight to produce organic compounds, they take up phosphorus, nitrogen, silicates, etc., and incorporate them into organic compounds (i.e., geo-chemical cycles), and they provide food for aquatic and terrestrial communities. They also degrade compounds, both biotic and xenobiotic, demonstrating what is described as assimilative capacity. The challenge is to incorporate these functions into objectives.

Thus, the Coalition suggests the following ecosystem objective for aquatic communities: The waters of Lake Michigan should support diverse and self-sustaining communities capable of significant primary and secondary productivity. Populations of native species are to be encouraged. Management practices should optimize commercial and recreational uses of aquatic populations such as fish.

Indicators of these objectives would then include: use of ecological indicators of photosynthesis, nutrient budgets and population data, but could also use fishing effort, landings, or fish population size and age. Levels of toxics in fish would be a useful indicator of human health concerns and wildlife impacts, not of improvement of aquatic communities.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic pollutants that are impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

Dynamic equilibrium simply refers to the fact that biological communities are never perfectly stable, but that natural population fluctuations are always occurring. We see no problem with maintaining this phrase in the aquatic communities objective statement. References to "self-sustaining" and "reproducing" populations have been eliminated from the revised draft LaMP. We believe that, as a goal and objective, all waters in the Lake Michigan basin should be suitable for full-body contact. The Agency feels that healthy communities also should be an objective of the Lake Michigan LaMP. "Healthy" refers to physiological health, population health, and behavioral health. We recognize that many factors contribute to fully healthy communities, including things that may go beyond the current scope of the Lake Michigan LaMP (such as lamprey control). That some things may be beyond the current scope of the LaMP does not mean that the LaMP should not set high goals for Lake Michigan. The LaMP is a process, and can be expanded in future iterations to include these broader issues.

Environmental indicators, which provide quantitative measures of progress towards the objectives, have not yet been developed. These indicators must be able to reflect whether objectives are being met, and should include measures of both community structure (species population levels, presence/absence) and function (production, energy flow). We feel that the revised objective for aquatic communities is broader and more encompassing than the one proposed by this commentor. Indicators for the objective will include measures of productivity. Identification of indicators by the Agencies will begin in Federal Fiscal Year 1994.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 4-6;PAR MANY**

The Comments were

The LaMP should state more clearly that the identified Lake Michigan Ecosystem objectives and goals cannot be met solely through implementation of the LaMP.

Controlling critical pollutants will not in and of itself solve the Lake's use impairment problems. Habitat destruction, exotic species, and overfishing may be of equal or greater significance in the destabilization of the Lake's ecosystem. If EPA retains the current definition of the LaMP's process and scope, it should consider making this point more strongly and clearly in appropriate places throughout the LaMP document. For example, the ecosystem objective stated in the first two pages cannot be achieved without addressing other constraints on ecosystem quality. Meeting the objectives for wildlife and aquatic communities are dependent on habitat availability, which in turn is dependent on land use patterns in the Lake Michigan basin.

The first page of the draft LaMP proposes the five ecosystem objectives, which "have been developed within the framework of the Great Lakes Water Quality Agreement" (p. 2). Each objective contains the verb "shall," implying that the objectives are mandatory. Neither the Articles III and IV of the Agreement nor Annex II (specifically relating to LaMPs) include a list of "mandatory" objectives. Rather, Article III expressly indicates that "these waters should be free from substances ...." Use of mandatory terms goes beyond the Agreement and may prohibit the use of cost-effective approaches to remediating Lake Michigan.

EPA should consider revising the LaMP goals on page three to reflect the limitations of the focus on critical pollutants. Inserting the word "potentially" between "are" and "capable" in subpart (a) of Goal 1 would clarify that the LaMP is only one part of the process to establish "sustaining communities of sensitive living resources." Alternatively, EPA should consider the following text for Goal 1, subpart (a), largely taken from the scope/Topical section of the LaMP (p. 7): "ecosystem impairments caused by contamination no longer provide an impediment to sustaining communities of sensitive living resources."

The Coalition fails to understand how the second goal of the LaMP will provide any meaningful movement toward attaining the objectives when the source of the Critical Pollutant originates outside the Lake Michigan or Great lakes Basin. It does not seem reasonable to set a goal "to virtually eliminate the release of ... pollutants within the Lake Michigan Basin" without an assessment of whether this will provide any environmental benefit. It also is unreasonable to place the burden of "preventing the release" on entities within the basin when they may not have any control over where the Critical Pollutant originates. The Coalition requests a modification to the second goal to read: To prevent any further degradation of the Lake Michigan ecosystem caused by Critical Pollutant loadings within the basin when these loadings significant contributors to non-attainment of ecosystem objectives and to avoid potentially costly remedial actions in the future.

The EPA Response is

While the current focus of the revised draft LaMP is on toxic pollutants, the participating Agencies recognize that issues associated with habitat quality and quantity, particularly as they relate to endangered and threatened species, are significant factors in addressing the overall ecological health of Lake Michigan. As the LaMP process develops, the Agencies will identify opportunities for addressing these issues in conjunction with toxic load reduction activities. Chapter 5 contains a schedule for expanding the LaMP to include habitat issues. The LaMP process, by addressing these issues in the future, will ultimately lead to attainment of the stated goals and objectives. We believe, therefore, that it is appropriate to have goals and objectives that relate not only to toxics, but to other factors as well, in the revised draft LaMP.

The word "shall" has been changed to "should" in the revised draft LaMP.

While LaMP pollutants may enter the Lake Michigan watershed from air sources outside of the basin, all of these pollutants still have sources within the basin. These include runoff, storm sewers, contaminated sediments, and/or NPDES facilities. These pollutants are known to contribute to Lake Michigan basin use impairments; therefore, we must attempt to reduce their loadings from both inside and outside the watershed. As a result, it is not appropriate to delay actions to reduce these loadings while an assessment of loadings from outside the basin is being conducted. Assessment and control activities should proceed simultaneously.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 6-8,10-12;PAR MANY**

The Comments were

... LaMP Process and Priorities: We commend the process outlined in the LaMP of identifying all sources and then tackling the highest priority sources based on analysis of the risks/benefits to the ecosystem. We recommend the use of a risk-based planning approach to prioritize pollutant reduction activities.

The draft Lake Michigan LaMP presents a three-step summary of the strategy for reducing the loadings of critical pollutants to the lake from two major media compartments, the atmosphere and the watershed: "... [1]identifying all possible sources of pollutants, [2] quantifying the relative loadings from each source, and [3] targeting load reduction activities on the most significant sources and where the potential for success in reducing loadings is greatest" (p. 73; the sequence is addressed in greater detail on pages 6-7).

While identifying and quantifying loadings of critical pollutants are essential first steps, the LaMP fails to provide a mechanism for prioritizing pollutant reduction activities in a cost-effective manner. We strongly recommend the use of a risk-based planning approach. The draft Great Lakes Basin Risk Characterization Study prepared by the Great Lakes National Program Office states that future clean-up and management activities "should be based on targeting the most critical problems first from a risk perspective, while remaining aware of financial and institutional feasibility" (p. I-27). Significant public and private funds have been and continue to be spent to reduce loadings from many source categories. In a time of limited public and private resources, every dollar spent to reduce loadings of critical pollutants should be spent in a cost-effective manner to ensure the maximum environmental benefit. To the extent possible, the Coalition asks that EPA identify the anticipated benefits of actions proposed to remove the lake's use impairments.

... Step 4 (new): "Prioritize the sources of pollutants in approximate order of significance." Another option is to rank sources high, medium and low. (Renumber existing steps 4 and 5 as 5 and 6).

... The difference in definitions is very significant. If "source" means "source categories" or "class of sources," then the LaMP will lead to consideration of nonpoint sources, which are widely acknowledged to be the major sources of critical pollutants into Lake Michigan. On the other hand, if "source" means an individual discharge point similar to the regulatory definition of "point source," then the LaMP's commitment to address the most significant sources first may result in additional controls on the largest point sources and little or no attention to nonpoint sources. (The assumption behind this conclusion is that typical discrete nonpoint sources, while a contradiction in terms, will be quite small.) The LaMP should clarify that it intends "source" to mean addressing the major "sources" of critical pollutants, not adding costly and ineffective controls on point source dischargers.

The Coalition supports the Lake Michigan Management Plan's recognition that all potential sources of critical pollutants must be addressed if the LaMP is to have any chance of meeting its goals. The Coalition agrees that the presence of Critical Pollutants is not the only factor impairing ecosystem functions. As noted elsewhere, LaMP goals must not exceed what is possible from its sole focus on Critical Pollutants. The LaMP's central goal is to reduce and eliminate use impairments caused by these pollutants. As the document indicates, point source discharges to water have been controlled by the NPDES program. In addition, voluntary pollution prevention efforts should also be recognized.

... 2. Clean Sweep programs are a good idea. Industry, municipal, and state governments should work together to sponsor these events.

The EPA Response is

The Agencies participating in the LaMP process believe that the LaMP does provide a mechanism to rank the relative importance (i.e. risk) of pollutants, and then to evaluate the importance of various sources for each pollutant. By identifying the pollutants that are impacting Lake Michigan, and evaluating their loads from various sources, the Agencies can address the most significant sources first. Where there is insufficient data to rank sources, source monitoring efforts can be developed through the LaMP process. These monitoring activities will allow the Agencies to better target their resources on the highest-priority problems.

As stated throughout the revised draft document, the Lake Michigan LaMP will address all sources of LaMP pollutants, including both nonpoint and point sources where appropriate. The LaMP will not focus solely on point sources; we fully recognize that nonpoint sources of toxics are major contributors of toxic pollutants to surface waters. One of the benfits of the LaMP process is that it provides a context for a multi-media approach to pollution prevention, abatement, and remediation.

We agree that clean sweep programs for pesticides are effective in reducing the accidental release of pesticides into the environment.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 11, PAR 2-4**

The Comments were

Sources and Loadings to Lake Michigan: Valid information about sources and loadings is necessary to evaluate the effectiveness of the management strategy.

The Great Lakes Water Quality Coalition (GLWQC) believes that the major short term priority of the LaMP should be to complete its analysis of sources and loads of the critical pollutants. The draft document explains that work in this area is ongoing and expected to be available January 1, 1993. Until more valid information about sources and loadings is available, no management strategy can be logically evaluated for its efficacy. (If you do not know where the leak is, you cannot plug the hole.)

In addition, the fate of materials in the system must be addressed: knowing that X grams of material are entering Lake Michigan is insufficient. Processes that make materials unavailable to biota must be included inevaluating management strategies. The draft LaMP document states that mass balance model will be available by April 1992. This model should be put forward for public discussion as soon as possible (p. 43).

The EPA Response is

We concur that source and load information for LaMP pollutants is necessary and important. However, that does not mean that load reduction activities should not take place at the same time that assessment efforts are being conducted. Assessment and control actions should proceed simultaneously. As more information is collected and evaluated, the need for additional control activities may be revealed. On the other hand, additional data may indicate the a pollutant is no longer impairing beneficial uses and should be removed from the list.

A Level 1 Mass Balance has been completed for Lake Michigan by USEPA. This report is available and can be obtained by contacting Gary Kohlhepp at (312) 886-4680.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**
The commenter was **GLWQC** Which is a/an **1 Industry**
The main subject addressed in these comments was **23 Nonpoint Srces**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 7-8, PAR 2-4**

The Comments were

For instance, loadings of critical pollutants from municipal and industrial waste water treatment plants are already well regulated and therefore not a significant source of critical pollutants to Lake Michigan. It is therefore questionable whether additional controls on currently permitted point source discharges as envisioned by the Great Lakes Initiative will achieve significant incremental cost-effective reductions in loadings of critical pollutants. On the other hand, a scientific, risk-based assessment would show that other sources of loadings such as non-point aquatic and atmospheric inputs present significantly higher risks. Targeting limited resources to address nonpoint sources may achieve greater, more cost-effective reductions in loadings of critical pollutants to Lake Michigan.

Point sources are easily identified, and as the LaMP's areas of action attest, ready targets for additional controls. We ask that LaMP focus on the priority problems, which include nonpoint sources such as atmospheric deposition, urban and agricultural run-off, hazardous sites, contaminated groundwater and contaminated sediments. Focusing on nonpoint sources is not a device to get industry and municipalities "off the hook" but rather allocates limited resources, some of which may come from industry and municipalities, where they can yield the greatest environmental benefit.

The role of point sources in current loadings to the Great Lakes has been addressed in a number of arenas, including the November, 1992 meeting of the Society of Environmental Toxicology and Chemistry (SETAC). At that meeting, Don Mackay of the Institute for Environmental Studies, University of Toronto, Canada, described a mass balance model for Lake Superior. He noted that chemical levels had dropped off by about one-third since the 1970s, but have leveled off to decreases of only a few percent a year. He noted that for PCB's in Lake Superior, atmospheric deposition accounted for the bulk of current loadings (and industrial sources for roughly three percent).

The EPA Response is

USEPA agrees that the LaMP process must consider and evaluate the impacts of pollutant releases from all sources, including both nonpoint and point sources. Based on these evaluations, opportunities for load reductions from all sources will be identified. For the LaMP to be successful, we recognize that meaningful load reductions from nonpoint sources must be achieved. Point sources should not bear the burden alone of reducing loads. Steps should and can be taken to reduce releases of LaMP pollutants from both point and nonpoint sources.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**
The commenter was **GLWQC** Which is a/an **1 Industry**
The main subject addressed in these comments was **24 Point Sources**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 9, PAR 4**

The Comments were

Releases from effluent, air and sludge disposal are gathered in a chart (p. 52). We note that properly conducted sludge disposal operations have little impact on the Lake. The LaMP must take greater care to differentiate between environmental releases which have possible exposure and pose a risk to biota and those which do not.

The EPA Response is

The chart to which the commentor refers simply presents data for total releases to the environment through different media. Releases to different media may in fact lead to different relative exposures to biota. However, fate and transport data for toxics released into various media are scarce, and it is difficult to determine how much is bioavailable and how much is not. Bioavailability likely changes as environmental conditions and community structure changes, making a definite determination of what is bioavailable almost impossible.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 13, PAR 2**

The Comments were

Public Input: Prior to final publication of the LaMP, the Coalition recommends that the Lake Michigan Forum and Technical Work Groups be combined and reconvened to address and resolve outstanding issues as well as Great Lakes Water Quality Agreement requirements.

The EPA Response is

The Lake Michigan Forum has convened in February, May, and August 1993, to discuss their role in the LaMP process comment on the revised draft LaMP, and address specific issues related to the LaMP. The Technical Coordinating Committee also has met in June and August 1993 to discuss the future direction of the LaMP program, identify progran priorities, and review the LaMP document. We believe that it is inappropriate to combine the Forum and the TCC, as they have different roles and expertise. However, we have agreed to hold TCC and Forum meetings on consecutive days to allow Forum members to attend the TCC meetings if they desire, and vice versa.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**

The commenter was **GLWQC** Which is a/an **1 Industry**

The main subject addressed in these comments was **29 Tributaries**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 11, PAR 1**

The Comments were

A National Wildlife Federation report cited in the LaMP describes the role tributaries play in loadings to Lake Michigan. For one critical pollutant, PCB's, the report states that 75 percent of the loadings come from tributaries ana 25 percent from atmospheric deposition. The usefulness of this information is questionable as it does not define the origin of material to the tributary. In such situations, addressing only part of the source of the loading problem will no eliminate the use impairment. The origin of all sources of pollutants must be identified. The Coalition recognizes that many of the larger tributaries will be addressed by the Remedial Action Plans (RAPs), which is appropriate; however, greater coordination between the LaMPs and RAPs would also be appropriate.

The EPA Response is

We agree that when tributaries are identified as carrying large quantities of a pollutant, we must work up the tributary to determine the original sources to the tributary, as well as identifying all sources of the contaminant in the watershed.

The coordination and relationship between the LaMP and RAPs are described in the revised draft LaMP and are discussed in this document in responses to previous comments on this subject.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**
The commenter was **GLWQC** Which is a/an **1 Industry**
The main subject addressed in these comments was **30 Zero Discharge**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 6, PAR 1-4**

The Comments were

Virtual Elimination: "Virtual Elimination" is not an appropriate goal for the LaMP.

The LaMP inappropriately has as one of its goals to "virtually eliminate the release of persistent, toxic and/or bioaccumulative pollutants ...." Nowhere does the Great Lakes Water Quality Agreement identify "virtual elimination" as a LaMP goal. Rather, Annex 2, Subsection 2(B) states that LaMPs "... are to serve as an important first step toward virtual elimination of persistent toxic substances ...." Consistent direction is provided in other sections of the Great Lakes Water Quality Agreement, as well. [For example, Article IV, subsection (1)(f) reads "Pending virtual elimination of the persistent toxic substances in the Great Lakes System, the Parties ... shall identify and work toward the elimination of ... Critical Pollutants pursuant to Annex 2 ...", and Annex 2, subsection 6(A) states that "Such plans shall be designed to reduce loadings of critical pollutants in order to restore beneficial uses."]

Virtual elimination of some pollutants, if defined as zero discharge, is not possible without major adverse societal impacts. For example, certain constituents such as metals and salts naturally occur in crude oil; gasoline cannot be made without using crude and removing these substances in the refining process. Releases of pollutants can be, and have been, reduced, but zero discharge is not currently achievable.

There are levels at which pollutants may be present in the environment without causing adverse effects. This concept is the basis for the Clean Water Act's water quality standards system. Annex II, Subsection 6(b), of the Great Lakes Water Quality Agreement also appears to support this concept.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses in the Lake Michigan watershed. LaMPs are to be "steps toward the goal of virtual elimination". Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific chemical is necessary to restore and protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving us closer to the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**
The commenter was **GLWQC** Which is a/an **1 Industry**
The main subject addressed in these comments was **32 Inadequate Ref**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 11-12, PAR 5-6**

The Comments were

Data: The Coalition recommends that the most recent data available be used in the LaMPs and LaMP updates.

More recent data is available than indicated in the Lake Michigan Lakewide Management Plan's Section 1, "Environmental Status: Ecological Impairments and the Associated Pollutants." Much of the data cited is old, early 1980's data. More current information is available showing the trend in Lake Michigan is lower levels of contaminants in fish than cited in this draft document. Several articles and recent data on contaminants in Lake Michigan fish are attached. The LaMP should seek out and use the most recent data in updating the LaMPs. States are one source of such information.

The EPA Response is

The quality and quantity of references used in the revised draft LaMP have been improved. More recent data have been incorporated into the LaMP, and many of the older, outdated studies have been eliminated.

These comments are from Docket Code Number **LM040** The comments were dated **1-8-1993**
The commenter was **GLWQC** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **34 Cost/Ben Analy**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 8,10; PAR 6,1-2**

The Comments were

Step 7 (new): "Assess probably effectiveness of potential strategies, and first implement those measures which are the most cost-effective and have the greatest environmental benefit." (Existing step 6 becomes step 8.)

... LaMP Focus: Sources that contribute the most to use impairment and pose the greatest risk to beneficial uses of the Lake should be the primary focus of the LaMP process.

One of the LaMP's major objectives should be risk prioritization. EPA believes that the success of the LaMP program rests in its ability to prioritize documented ecosystem impairments and attack the most pressing problems first. The LaMP process must establish or determine the loading of Critical Pollutants from all sources and not select the easy route of addressing known sources that are well documented and regulated. Following this strategy is particularly important since many of the chemicals on the critical pollutants list are not longer produced or used, but they continue to be introduced to the ecosystem through diffuse sources. In the case of nonpoint sources, this effort must include increasing the available loading data on these sources to better control them.

The EPA Response is

These comments are from Docket Code Number **LM041** The comments were dated **12-1-1992**
The commenter was **PAPROCKI,M/M DOUGLAS** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P 1, PAR 3**

The Comments were

Second, the Tier I list of Critical Pollutants certainly should include hexachlorobenzene, PAHs, dioxins and furans. Serious "local" pollutants should be listed even if not considered lakewide pollutants at this time.

The EPA Response is

Based on discussions of the Critical Pollutant Workgroup in February 1993, dioxins and furans were moved to Level 1 (Critical Pollutants) based on their impacts to fish in Lake Michigan. PAHs and hexachlorobenzene are on Level 2 (Pollutants of Concern), as there is no evidence that they are contributing to use impairments on a lakewide scale. Any pollutant contributing to a use impairment in a local area (Area of Concern) is now automatically listed as a LaMP Pollutant of Concern (Level 2).

These comments are from Docket Code Number **LM041** The comments were dated **12-1-1992**

The commenter was **PAPROCKI,M/M DOUGLAS** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 4**

The Comments were

Lastly, the Plan is probably too optimistic in relying on existing programs and laws to fully achieve its stated and implied objectives.

The EPA Response is

The LaMP seeks to coordinate and focus existing Federal, State, and local programs in order to better address problems in the Lake Michigan watershed. However, the LaMP does not rely only on existing programs. Some activities, such as the tributary monitoring, clean sweeps, and some sediment remediation projects, have been initiated and funded through the LaMP program. Additional activities and gaps in existing programs have been identified through the LaMP process. Data gaps and needs not identified in the revised draft LaMP can be incorporated into future iterations as the process develops and more information is generated. Thus, the LaMP seeks to go beyond existing programs, but also works through these programs.

These comments are from Docket Code Number **LM041** The comments were dated **12-1-1992**

The commenter was **PAPROCKI,M/M DOUGLAS** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P 1, PAR 2, 5**

The Comments were

First, public notification about, and input on the development of, the draft LaMP have been inadequate. We only lately learned of the document through a recent U.S. Army Corps of Engineers publication. And as LM shoreline residents we have sought to be attuned to lake-quality improvement efforts. Subsequent communication with other individuals and organizations has indicated a similar general experience regarding the draft LaMP public interaction.

... In closing, we strongly support the concept of an effective LM LaMP and its vigorous implementation. In that regard, may we be kept informed of the progress of the LaMP effort and how we can be involved in the achieving of the Plan's goals?

The EPA Response is

The Agency recognizes that we need to improve public input into the LaMP process. We have been working with the Forum to ensure that they have more meaningful input into the LaMP process. The Forum will soon begin to address specific issues and make recommendations to the participating Agencies. We held seven public workshops around Lake Michigan to discuss the LaMP and solicit public comment on it. A number of mailings were distributed to citizens and groups involved with water quality issues to inform them of these meetings. USEPA has made an effort to inform the public about the LaMP process. We would be happy to entertain suggestions for improving public participation in the LaMP, however. Suggestions can be made by contacting Gary Kohlhepp at (312) 886-4680. In addition, one of the topics that the Forum is considering taking up for discussion is how to improve public participation in the LaMP process.

These comments are from Docket Code Number **LM042** The comments were dated **10-15-1992**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **P 1,2 Par 1-4,1-2**

The Comments were

The Lake Michigan Ecosystem Objectives and LaMP Goals (page 1, item 1) of the draft management plan need to be broader and reflect the realities of the 1990s. Specifically, your goal emphasizing native species is not consistent with the wishes of the angling public on Lake Michigan, nor is it consistent with the management goals and objectives of the States of Michigan, Indiana, Illinois, or Wisconsin.

Management of Lake Michigan fish stocks is the prerogative of the States. The states have exercised their prerogative by introducing several important sport species such as, rainbow trout (steelhead), brown trout, chinook and coho salmon. Introduction of these species has created a billion dollar recreational fishery on the Great Lakes. These species are here now and they will be here for the foreseeable future.

It is unrealistic to assume that we can go back to a Lake Michigan with a native aquatic community. For example, at one time the lake supported seven species of chubs, six of these species are now extinct. Species cannot be brought back from extinction. Even our native lake trout had to be reintroduced into Lake Michigan during the 1960's because over fishing and sea lamprey predation virtually eliminated the population. Furthermore, the lake trout which have been re-introduced into the lake are strains which are not native to Lake Michigan. At the present time we have a number of exotic "nuisance" species which live and reproduce in Lake Michigan such as the sea lamprey, European water flea, zebra mussel, and alewife. These species, whether we like it or not, will be with us long into the future. Sea lamprey populations, which the Federal Government is charged with controlling, have surged in Lake Huron and northern Lake Michigan. Man has been trying to control lamprey in the Great Lakes, and not to successfully, for over 25 years. My point is that Lake Michigan's aquatic community has been changed forever. There is no going back.

Your management plan for Lake Michigan needs to recognize the social, economic, and biological benefits of non-native species such as rainbow trout, brown trout, coho and chinook salmon. Although all these species are exotic, state management agencies and the angling public do not consider them "nuisance" species. In fact, I would like to point out that significant naturally reproducing populations of rainbow trout, brown trout and salmon exist in Lake Michigan today. Unfortunately, the same cannot be said for lake trout.

I would like to suggest a revision of your objective and goal for aquatic communities to read: The waters of the Lake Michigan shall support healthy, diverse, reproducing, and self-sustaining communities in dynamic equilibrium.

The EPA Response is

The goal of the Lake Michigan LaMP is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM043** The comments were dated **12-5-1992**

The commenter was **Port Wash. CCA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1, para 1-4**

The Comments were

As a member of the Port Washington Charter Captains Association, a group of nearly forty sportfishing business entrepreneurs, I'm concerned over the statements in the LaMP regarding aquatic communities and native species.

Our businesses have been built on the ability to catch fish from the salmonid family. These fish are, of course, exotic to Lake Michigan. The native species that you refer to in the LaMP would leave us with only the lake trout, as an offshore sportfish. This would certainly cause the collapse of my business, as well as several others along the coast of Lake Michigan.

Being that the fish (salmonids) are not the cause of the pollution in Lake Michigan, I believe hat all comments regarding fish management in the LaMP should be dropped. I also believe hat the efforts should be concentrated on removal of all toxins from the water. Furthermore, I believe the lake should support a variety of species, including exotics, living in harmony. I think that this variety, and harmonious existence, should be determined by the fishery staffs from the states bordering the lake. These are the people that are directly responsible for the success of their communities within their states, and the success of the lakes fishing resource, both commercial and non-commercial.

To agree with the final draft of the LaMP, only the statements narrowing species to native species would have to be omitted.

NOTE: This Letter from Gus Rankey, President, Port Washington Charter Captains Association. Nearly identical letter received from Capt. Gene Spaeth and logged in as docket LM049.

The EPA Response is

THe goal of the LaMP process is to reduce levels of toxic contaminants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM044** The comments were dated **11-19-1992**

The commenter was **Sierra Club (IL)** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 3**

The Comments were

Regarding enforcement, the Action Agenda for FY 1992 and for the coming year should place a greater emphasis on pollution reduction and should identify the statutory means by which each enforcement program will be carried out. This will help ensure that the LaMP will result in concrete environmental improvements rather than a restating of pollution problems. Also, the Action Agenda only vaguely addresses the role of States in the LaMP monitoring and enforcement processes and does not provide any guidance for municipalities or individual citizens. The Agenda for the coming fiscal year should identify specific steps for all of these entities to take to achieve pollution reduction and eventual elimination in the Lake Michigan basin.

The EPA Response is

In order to achieve the desired load reductions of LaMP pollutants, the LaMP will use a number of available tools, of which enforcement is one. There are some specific enforcement activities being implemented in the Great Lakes basin, involving both the States and USEPA. One of these efforts involves increased enforcement against facilities that are in significant noncompliance with their permits. As specific facilities releasing LaMP pollutants are identified, the Agencies will examine opportunities to reduce loads from these facilities. Enforcement action is only one component of this effort; pollution prevention activities and voluntary reductions are additional components.

The emphasis in the revised draft LaMP is on State and Federal activities. The commentor is correct that there are few activities in the current action agenda targeted towards municipalities and individual citizens. This is not meant to minimize the importance of actions at the local level. Now that we have an assessment of the status of Lake Michigan, identification of critical pollutants, and some information on their sources, the Agencies, in conjunction with municipalities and citizens, must begin to implement actions at the local level. The LaMP is a process, and as it develops we will make additional recommendations. Although the revised draft LaMP focuses on State and Federal activities, future iterations of the LaMP will contain more references to municipalities.

These comments are from Docket Code Number **LM044** The comments were dated **11-19-1992**

The commenter was **Sierra Club (IL)** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,2 para 3-4, 2**

The Comments were

As to the first concern, the document should provide more information regarding the threat to human health from each of the Critical Pollutants than it does; only Appendix A addresses the specific effects of the Critical Pollutants on human health, and then only the effects of PCB's and DDT's. A more thorough discussion of human health threats would better justify the inclusion or exclusion of substances from the list of Critical Pollutants.

Also, the four-tiered method for listing Critical Pollutants as described in Section I is confusing and problematic. In some sections of the document, it seems that Tier III and Tier IV pollutants will be considered "Critical Pollutants," but in other sections they are referred to separately. In addition, the division of the Critical Pollutants into the first two levels implies that Level I pollutants will be given higher priority. If so, dioxins should be listed as a Level I pollutant given their high level of toxicity. Also, since toxaphene-like compounds both violate USEPA water quality standards and are associated with fish consumption advisories, these compounds should be placed on the list of Critical Pollutants.

...

Finally, since listing as a Critical Pollutant is based on observed effects in the Lake Michigan basin rather than known potential hazards of a pollutant, the LaMP will not allow for a proactive program designed to head off pollution problems before they become critical if highest priority for action is given solely to Level I and Level II Critical Pollutants. Rather than a focus on the process for adding chemicals to the Critical Pollutant list, the LaMP should focus on both remediation of known Critical Pollutants and prevention of discharge of known toxic substances (e.g., those listed as Level IV pollutants) before their effects warrant listing as Critical Pollutants.

The EPA Response is

The revised draft LaMP includes information on the effects of toxic pollutants on human health, although there is not a lot of literature on this subject. More data generally are available for toxic pollutant effects on fish and wildlife.

The LaMP pollutant list has been revised to eliminate the confusion over the distinctions among levels. There are now three levels instead of four. These changes are detailed in Chapter 3 of the revised draft LaMP. Dioxin is now a Level 1 Critical Pollutant. There are no current State fish consumption advisories due to toxaphene for Lake Michigan fish. Toxaphene is a Level 2 pollutant of concern.

The Agency recognizes that there are other substances besides the LaMP pollutants that have the potential to impair beneficial uses in Lake Michigan. However, we feel that it is best to focus our efforts and limited resources on those pollutants known to be contributing to use impairments. The LaMP process is designed to provide a context for using new and existing monitoring and research activities to identify additional pollutants that may be impairing beneficial uses. USEPA and MDNR are piloting a new method in Michigan tributaries to Lake Michigan for screening fish for a range of bioaccumulative pollutants. In addition, the Critical Pollutant Workgroup revised the pollutant listing system to include substances that have characteristics indicating a potential to impact Lake Michigan. The revised listing system is described in more detail in the revised draft LaMP. The result is that that LaMP process is more proactive and tries to prevent problems from occurring in the first place.

These comments are from Docket Code Number **LM044** The comments were dated **11-19-1992**

The commenter was **Sierra Club (IL)** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

As to sources of the Critical Pollutants, the LaMP process offers an excellent opportunity to gather more information about non-point source pollution in the Lake Michigan basin so that laws and regulations can more accurately target non-point source reduction, and a priority of the LaMP process should be to direct resources toward the study and elimination of non-point pollution sources.

The EPA Response is

The revised draft LaMP identifies all potential sources of LaMP pollutants, including nonpoint sources, and implements actions to reduce pollutant releases from these sources. Nonpoint sources contribute substantial amounts of contaminants to Lake Michigan waters, and we need to use all available tools to reduce nonpoint sources loadings. Where existing programs and authorities are inadequate, a primary goal of the LaMP will be to recommend additional efforts that are needed for further reductions. This will be an ongoing process; we will not necessarily have all of the solutions right away. The Agencies will have to constantly evaluate the effectiveness of nonpoint controls, and determine which actions are the most effective.

These comments are from Docket Code Number **LM045** The comments were dated **10-15-1992**

The commenter was **Muskegon County, MI** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para all**

The Comments were

MUSKEGON-OTTAWA POLLUTION PREVENTION ALLIANCE (MOPP)

MISSION:

The Muskegon-Ottawa Pollution Prevention Alliance (MOPP) is a coalition of representatives from business, industry, government and education whose mission is to foster a healthy economic environment through promotion of business practices that minimize pollution and waste.

OBJECTIVES:

- serve as a clearinghouse for waste reduction, recycling and other pollution prevention information

- publish a quarterly newsletter including topics such as case studies on saving money through waste reduction and business environmental concerns

- sponsor one educational seminar per year

- coordinate quarterly roundtable discussions and tours on-site at industries

STRUCTURE:

The activities of MOPP will be coordinated by a steering committee which will include the chairperson(s), subcommittee chairpersons, and other interested parties. It is anticipated that subcommittees could be formed for the following areas: annual seminar,quarterly roundtable meetings, information clearinghouse, newsletter, membership, air quality, water quality, and solid waste. The steering committee will meet quarterly or as needed.

Membership in MOPP is open to all businesses, industries, and other interested parties in Muskegon and Ottawa County. Chairperson(s) and any other officers which are deemed necessary by the Steering Committee will be elected each year through a ballot enclosed in the newsletter. Any person can volunteer to be placed on the ballot but officers can serve for no more than three consecutive years in the same position.

The EPA Response is

USEPA looks forward to working with MOPP to coordinate pollution prevention activities, and we appreciate MOPP's efforts towards improving the water quality of Lake Michigan.

These comments are from Docket Code Number **LM045** The comments were dated **10-15-1992**

The commenter was **Muskegon County, MI** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para all**

The Comments were

Thank you for taking the time to conduct a public meeting in Grand Haven on October 13. I firmly support cooperative efforts to enhance the environmental quality of Lake Michigan. I do, however, believe that much of the actual "work" is and will continue to be done locally. In this spirit, I would like to inform you of some of the projects that we are accomplishing locally that tie into the LaMP program and its goals.

The County of Muskegon is active in many environmental projects that may be of interest to the EPA and the LaMP process. We sponsor a number of household hazardous waste collection day programs every year with great success. Continuing education on proper disposal of these hazardous materials is a large part of this program.

Our office is also involved in working with the Crockery Creek Watershed Council. This includes active work and planning to prevent further degradation to Crockery Creek, which is a tributary to the Grand River. This project includes both scientific and political solutions to non-point sources of pollution that threaten this stream.

You are likely aware that Muskegon County has two Areas of Concern (AOC). They are Muskegon Lake and White Lake. Newly formed Public Advisory Councils (PAC) have been formed (far in advance to MDNR's working schedule) to attack the problems facing these lakes. We are interested in forwarding any information from this process to you that you may be helpful to the LaMP program.

The County has taken a pro-active role in environmental protection by becoming involved in environmental planning within the county. We feel that proper land use and zoning practices will have a profound effect on the future quality of Lake Michigan, inland lakes and streams and ground water quality.

Most important to the LaMP program is our commitment to working with local industry and small business on environmental issues. The County of Muskegon is currently implementing a program to provide assistance to local companies on waste reduction, recycling, etc.

As an outgrowth of this program, the Muskegon Ottawa Pollution Prevention Alliance (MOPP) has been formed. This group has generated a great deal of interest within industry and small businesses alike in both Muskegon and Ottawa Counties. Although local government and academia are involved, we are pleased that the initiative and direction is coming from industry representatives. I have attached a copy of the Mission and Objectives of this group.

As I mentioned to you in the public meeting, I feel that all too often we ask "What is EPA doing for us?" My response is "What can we do for EPA to expedite and enhance their programs?" In light of this, I will continue to inform local industry of the LaMP program and I hope that you can utilize me as a local contact to follow up on what is being accomplished (or what needs more work, etc.) in the Muskegon County.

Again, thank you for your time. I look forward to assisting in any way that I can in the LaMP process. If you have any questions, please feel free to contact me at 616/724-6411.

The EPA Response is

We appreciate the efforts of MOPP to actively work towards solutions to water quality problems in Muskegon and Ottawa counties, and for their initiative in working on the RAPs and with local business and industry. We agree that local initiatives often are most effective and are well suited for getting participation from a range of interests. We certainly support local initiatives, and would like to learn about similar efforts in other locations around Lake Michigan. We also thank MOPP for their interest and participation in the LaMP program.

These comments are from Docket Code Number **LM046** The comments were dated **12-8-1992**

The commenter was **Bethlehem Steel Corp** Which is a/an **1 Industry**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 2**

The Comments were

The LaMP is extremely ambitious and is composed of many elements. The time schedule of five years coupled with the ultimate goal of "virtually eliminating persistent toxic substances from the Lake Michigan system" will impose an unrealistic burden on industrial dischargers. The Clean Water Act still contains the elimination of the discharge of pollutants as a national goal, not an absolute mandate. The specific legislative requirement of the LaMPs is for "restoring and protecting the beneficial uses of the open waters" [Sec. 118(a)(1)(I)]. This does not necessarily mean absolute elimination of pollutants. A more realistic goal, and one that should be applied to the LaMPs, is to eliminate the discharge of toxic pollutants in toxic amounts. Meanwhile, there is an absence of reliable data from which the benefits can be realistically determined.

The EPA Response is

The LaMP is an ongoing process rather than a five year process, and the Lake Michigan LaMP will be updated as more information and additional pollution abatement opportunities are identified. The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses in the Lake Michigan watershed. LaMPs are to be steps toward the goal of virtual elimination. Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific chemical is necessary to restore or protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving us closer towards the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM046** The comments were dated **12-8-1992**

The commenter was **Bethlehem Steel Corp** Which is a/an **1 Industry**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para 3**

The Comments were

One example, using the LaMP's own data, will illustrate the imprecision of the current state of knowledge of pollutant inputs to Lake Michigan and show that it is premature to expect the LaMP to be implemented by January 1, 1994. Review of Section 2 of the January 1, 1992 draft document shows widely disparate data sources. According to the draft document, "the most comprehensive loadings data available for any of the proposed Critical Pollutants or Level III and Level IV pollutants has been developed for lead and PCBs" [p. 43]. Using these "most comprehensive" values, the lead loading in three different data sources are compared as follows. Table 2.2 [p. 44] shows a total of 503 tons per year of lead loading to Lake Michigan from all sources, including atmospheric (1985 data). Less than 10% or 43 tons per year are attributed to direct municipal (37 tons per year) and industrial (5 tons per year) sources. EPA's Permit Compliance System (PCS) Database, shown in Table 2.8 [p. 55], estimates 15,425 kilograms per year or about 17 tons per year from municipal and industrial sources in the states of Illinois, Indiana, Michigan and Wisconsin (1990 data). Table 2.5 [p. 50] purports to show lead loading estimates to the Lake Michigan Basin for industrial dischargers only, based on permit limits and using 1990 data. The four-state total for lead is 40,000 pounds per year or 20 tons per year. The possibility for data gaps is evident in that the lead loadings for one state (Illinois) are reported as 2 pounds per year. The variability in the accuracy of the data in Table 2.5 is indicated by an estimate of 0.00003 pounds per year loading of PCBs from the state of Michigan. This degree of variability between state data bases and the large differences between different sources is cause for great concern. Clearly the assumptions and limitations built into these data sources need to be carefully evaluated before multi-million dollar decisions are made based on their results.

The EPA Response is

We recognize that there are large disparities in loading estimates for toxic pollutants. For many of the LaMP pollutants, loading estimates to the entire Lake do not exist, nor are there even loading estimates from any one source. One of the goals of the LaMP program is to improve loading estimates for toxic pollutants to Lake Michigan. The tributary and air deposition monitoring plan, described in Chapter 5 of the revised draft LaMP, will be a giant step forward in estimating pollutant loads and identifying sources. However, the participating Agencies feel that once sources have been identified, pollution prevention, abatement, and remediation efforts can be implemented. We cannot afford to wait to take action until complete, definitive toxics loadings data are in hand; if we did, nothing would happen for several years. Instead, it is our belief that control actions should proceed simultaneously with loading estimate studies and source identification. As more assessment data become available, we can continue to identify and target available resources to reduce pollutant levels in the environment.

These comments are from Docket Code Number **LM046** The comments were dated **12-8-1992**

The commenter was **Bethlehem Steel Corp** Which is a/an **1 Industry**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

In the draft document, EPA admits that the need for a comprehensive, systematic monitoring and data management program is imperative. This is an understatement. EPA's concept of prioritizing pollution reduction spending is laudable. A cost-benefit analysis should be required for all environmental regulations. However, good decisions cannot be made on the basis of bad or incomplete data. More attention needs to be given to developing an accurate data base from which to make decisions and predict the effect of additional requirements before any remediation measures are proposed.

The EPA Response is

The Agencies, through the LaMP process, are working to improve monitoring and data management systems. These efforts are spelled out in the revised draft LaMP.

Because the LaMP is not a regulation, we do not feel that a cost-benefit analysis is necessary. The LaMP seeks to coordinate a wide variety of existing programs that have already been subject to specific cost-benefit analyses. The Agency believes that these analyses fulfill the need for an assessment of costs and benefits associated with the LaMP. In fact, the LaMP should add to individual program benefits by increasing their efficiency and coordination with other programs. However, USEPA does not feel that there is any merit in trying to define the benefits that result from better planning and coordination.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1, para.6**

The Comments were

6. Page 16, paragraph 4: Please specify here, as well as for other concentrations discussed in this document, if tissue concentrations of contaminants as: 1) wet or dry weight, and 2) skin-on fillet, skinless fillet or whole fish concentrations.

The EPA Response is

This information is provided in the revised draft LaMP.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**
The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 1-2, para 2,7**

The Comments were

2. Page 5, Structure (1): Please define Level III and IV pollutants, or reference Table 1.3 Proposed Tiering Concept for Lake Michigan LaMP".

...

7. Pages 28-29, Table 1.4: Throughout the document, the text states the importance of obtaining consistent and accessible data, and warns that observed concentration differences may be masked by changes (differences) inanalytical methods. For this reason, the pollutants should be identified in more detail, referring the Specific Objectives and monitoringcapabilities:

a. When the critical pollutant is a class of compounds, individual compounds or a subset of the class should be specified (e.g., carcinogenic polycyclic aromatic hydrocarbons).

b. When the critical pollutant can exist in more than one form, specify which form is of concern (e.g., inorganic and organic mercury, metal ions).

c. When the critical pollutant is a "method defined parameter" (e.g., metabolites), the method used should be identified.

The EPA Response is

Pollutant levels 3 and 4 in the January 1, 1992 draft LaMP have been combined into one level (Level 2) in the revised draft LaMP, based on discussions of the Critical Pollutant Workgroup.

In the case of pollutant forms, we are presently focussing on total PAHs, total mercury, and total PCBs. As more information becomes available the Critical Pollutant workgroup will consider whether we need to focus on specific forms of the pollutant. The pollutant list will be reviewed annually. It is likely, for example, that we will focus on the 16 carcinogenic PAHs, rather than all PAHs (since there are thousands).

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**
The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 2 para 6-7**

The Comments were

9. Section 3:

a. For action items with 1992 completion dates, please list the status (i.e. "completed ___/___/92") or a new completion date.

b. Please include any new action items for fiscal year 1993. Fiscal year 1993 negotiations were to begin in January 1992.

The EPA Response is

These comments have been incorporated into the action agenda in the revised draft LaMP.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 3**

The Comments were

3. Page 6, bullet 3 and paragraph 1 "The Lakewide Advisory Council (LAC) ... will have the opportunity to review all documents produced during LaMP development and implementation .. .": Please identify who will have approval/oversite authority to ensure the quality and synchronization of LaMP activities (e.g. action items in Section 3 and related activities in Appendix A).

The EPA Response is

USEPA Region 5 Water Division has overall authority and responsibility for the Lake Michigan LaMP, in consultation with the other Federal and State agencies and the Lake Michigan Forum.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 1,4**

The Comments were

1. Page 5, second bullet, "Publish in the Federal Register a final Lakewide Management Plan LaMP) and begin implementation by January 1, 1994": This statement is confusing considering the LaMP is an "iterative process" and the list of completed and ongoing action items in Section 3. Please describe "what" will be implemented upon promulgation that is not already occurring.

4. Page 6, Process: This sequence should include a step to set "specific objectives (defined n page 4)" for the pollutants identified in step 1. "Specific objectives" must be known to complete step 4. The development and use of "specific objectives" should be discussed in section 2 and listed as an action item in Section 3.

The EPA Response is

The Critical Programs Act of 1990 requires that a "final Lake Michigan LaMP" be published in the Federal Register in January 1994. However, the LaMP is an iterative process, and the document will be revised as necessary to reflect program successes and failures, and as pollutants are removed from the list and new ones are added. Program priorities will change as pollutant levels in the environment change, and additional activities are identified and implemented. Thus, while the Lake Michigan LaMP document will be published in the Federal Register in January 1994, the process will be ongoing and the document revised as necessary.

The development of environmental objectives and indicators are listed as an action item in Chapter 5 of the revised draft LaMP. The preliminary objectives are listed in the Introduction of the LaMP document, and load reduction targets (step 4 in the process) must be set to achieve these objectives. Quantitative indicators will be determined to measure progress towards the achievement of the objectives. Essentially, the load reduction targets should be embodied by the chemical indicators, in order to ensure that the environmental objectives are attained.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1, para.5**

The Comments were

5. Page 7, paragraph 1: Please describe the process by which new information will be distributed to participants and incorporated into LaMP document(s).

The EPA Response is

New information obtained by the participating Agencies related to toxic pollution in Lake Michigan will be incorporated into the LaMP each time that it is revised. While notices of LaMP products and activities are distributed to our general mailing list, it is not likely that we will distribute actual data to the public unless someone specifically requests it. If the data is related to a specific workgroup, then obviously the data will be distributed to members of the workgroup for their consideration.

These comments are from Docket Code Number **LM047** The comments were dated **1-7-1993**

The commenter was **EPA REG 5 - QA** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **33 Mass Bal Model**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 5**

The Comments were

8. Page 43, paragraph 3, "The mass balance model will serve as a tool for organizing data and making predictions ... The model will be calibrated using monitoring data and mass budget information, and verified by future monitoring": The term "calibrated" implies that all factors and relationships have been defined. The term "developed" would be more appropriate.

The EPA Response is

The wording in the revised draft LaMP has been changed to address this concern.

These comments are from Docket Code Number **LM048** The comments were dated **12-2-1992**

The commenter was **At. Sta. Legal Found** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,2 para 1-2;1-2**

The Comments were

I am writing to you at this time to protest the entire LaMP process, and specifically the Lake Michigan LaMP process, as it is being carried out at EPA under your coordination. The spirit, if not the legal requirements, of the Clean Water Act (see 33 USC 1268) have been violated in the slap dash manner in which these important plans are being prepared with essentially no involvement by either the general public or the more expert, involved, environmental constituencies. This is especially true for Lake Michigan, notwithstanding the contract that you have with Michigan Sea Grant. A LaMP with the requirements for ecosystem goals and objectives needs everyone's expertise if it is to be successful in guiding the program for years to come. In this case, the only expertise that seems to be of any consequence is that which resides in government agencies.

The Congress of the United States recognizing that the EPA was not on its own fulfilling its responsibilities under the Water Quality Agreement mandated that the Lake Michigan LaMP be completed, in first draft, by the first of this year. That deadline was missed by essentially six months and no doubt the January 01, 1993 deadline for submission to the IJC will also be missed. In addition, the planning process calls for consultation and involvement by those with interest and expertise. Measured against that goal the exercise you coordinated does not even qualify as a sham. In contrast to this, the extended and continuing public involvement, with the four parties to the Lake Ontario and Niagara River Toxic Management Plans soon to be made into a LaMP is exemplary. The exercise regarding Lake Michigan is particularly unfortunate in that at least three environmental organizations -- Atlantic States, American Clean Water Project and Lake Michigan Federation -- have had funds to work with an augment any public involvement program that could have been undertaken by EPA. Instead of cooperating with us, you told us to deal with Michigan Sea Grant who has ignored us completely.

At the very least, the process requires that citizen members be on all committees (technical, management, public involvement) dealing with the LaMP and that funds be provided to enable those committees to meet and carry out their business. Without this the draft Lake Michigan LaMP EPA submitted to the public is of questionable validity and should be scrapped pending a more extensive process. Specifically, EPA should go back to Congress and explain its incompetence and ask for additional time and money to do the job properly. Our experience with Lake Ontario and in particular in dealing with the highly emotionally charged issues of new realities of fishery management make it a foregone conclusion that without the alliance of all those interested in restoring the lakes to their pristine conditions that the exercise will result in complete failure.

In addition to the above, those of us on the so-called public advisory committee deserve better treatment and an apology for the way meetings get scheduled, canceled, avoided, etc. In fact, during the course of developing the draft Lake Michigan LaMP, only three advisory committee meetings were held, the latest nearly six months ago before the public draft was issued. Public participators are not trophies to be checked off a list of requirements to satisfy public policy. At a time of lessened fiscal resources of the federal government, your example of running this program will make it increasingly difficult for all of us to get any commitment towards these important programs.

The EPA Response is

USEPA recognizes that while we have made efforts to solicit public input on the LaMP process, we need to improve upon these efforts. As pointed out by the commentor, meetings of the Lake Michigan Forum were held irregularly, and the Forum was not actively involved in the process. We are working with the Forum to improve upon past efforts. USEPA has brought in a facilitator for the Forum meetings and to help coordinate Forum activities. Quarterly meetings of the Forum have been held since February 1993. The Forum has identified its roles in the LaMP process, and are working on criteria for Forum membership. The Forum, with the support of USEPA, has expressed the desire to become more proactive in the LaMP process, and one of the issues that USEPA has suggested for Forum consideration is to develop recommendations for improving public participation in the LaMP.

In addition, seven public workshops were held around Lake Michigan to inform the public about the LaMP process and solicit their comments on the LaMP. Workshops were held in Illinois (1), Indiana (1), Michigan (3), and Wisconsin (2). The public comment period on the Federal Register notice of availability, originally scheduled for 120 days, was extended for 30 days based on public requests.

Therefore, while USEPA recognizes the need to improve public participation in the LaMP process, and are taking steps to do so, there have been opportunities for the public to be involved in the process. In the past, USEPA has not provided travel money for public participation because of limited resources. While are resources are still very limited, we are considering whether a small amount of money could be set aside to fund travel for some Forum members to attend meetings. This is a decision that must be made in consultation with all participating Agencies, and is being considered.

These comments are from Docket Code Number **LM049** The comments were dated **12-5-1992**

The commenter was **Port Wash. CCA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1, para 1-3**

The Comments were

As a member of the Port Washington Charter Captains Association, a group of nearly forty sportfishing business entrepreneurs, I'm concerned over the statements in the LaMP regarding aquatic communities and native species.

Our businesses have been built on the ability to catch fish from the salmonid family. These fish are, of course, exotic to Lake Michigan. The native species that you refer to in the LaMP would leave us with only the lake trout, as an offshore sportfish. This would certainly cause the collapse of my business, as well as several others along the coast of Lake Michigan.

Being that the fish (salmonids) are not the cause of the pollution in Lake Michigan, I believe that all comments regarding fish management in the LaMP should be dropped. I also believe that the efforts should be concentrated on removal of all toxins from the water. Furthermore, I believe the lake should support a variety of species, including exotics, living in harmony. I think that this variety, and harmonious existence, should be determined by the fishery staffs from the states bordering the lake. These are the people that are directly responsible for the success of their communities within their states, and the success of thelakes fishing resource, both commercial and non-commercial.

NOTE: This Letter from Capt. Gene Spaeth. Nearly identical letter received from Gus Rankey, President, Port Washington Charter Captains Association and logged in as docket LM043.

The EPA Response is

The goal of the Lake Michigan LaMP process is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM050** The comments were dated

The commenter was **Barbara Spring** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p1, para 2-5,7**

The Comments were

I spoke out on a problem of Great Concern: the spent fuel rod buried near Palisades Nuclear Power Plant near South Haven.

I was not satisfied with the response to my statement. While people agreed with me about the seriousness of the problem, it does not appear that LaMPs is addressing the problem at all even though plutonium is the deadliest pollutant of all.

Someone else at the program had found other radionuclides in the bottom sediments of Lake Michigan while working for civil defense.

Doesn't this require action? Isn't the time now? The Clinton Gore administration may be willing to do something about this. Lake Michigan lies completely within the United States' jurisdiction.

There are 37 nuclear power plants in the Lake Michigan basin alone.

The EPA Response is

USEPA recognizes that nuclear waste disposal is a very serious issue. The Nuclear Regulatory Commission is responsible for ensuring that nuclear waste is stored and disposed of in an environmentally safe manner. From the perspective of the Lake Michigan LaMP, nuclear waste does not appear to be impacting the Lake on a lakewide scale. This does not minimize the importance of this issue in South Haven, and concerns and/or knowledge of violation of regulations should be reported to the Nuclear Regulatory Commission.

These comments are from Docket Code Number **LM050A** The comments were dated

The commenter was **Barbara Spring** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1 of atch.A**

The Comments were

Letter to Rolland Lickus, Director
State and Governmental Relations
Nuclear Regulatory Commission
799 Roosevelt Rd. Bldg. 4
Glen Ellyn, IL 60137

The EPA Response is

These comments are from Docket Code Number **LM050B** The comments were dated

The commenter was **Barbara Spring** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **31 Waste Programs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.1, of atch. B**

The Comments were

Letter to Jessie Dalman, Asst. Minority Whip
450 Brecado Court
Holland MI 49423

The EPA Response is

These comments are from Docket Code Number **LM051** The comments were dated **1-5-1993**

The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 2-3**

The Comments were

4. Some of the figures, for example Figure 1.3, need to be redone and are difficult to read.

5. Need to run a spell check, for example; page 24, 6th line, undesirably; page 26, 12th line, within.

The EPA Response is

Spelling corrections have been made in the revised draft LaMP, and the figures have been improved as appropriate.

These comments are from Docket Code Number **LM051** The comments were dated **1-5-1993**

The commenter was **NATIONAL PARK SVC** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para 4-5**

The Comments were

2. When I first started reading the plan, the title led me to believe that the plan would incorporate all of the Lake Michigan basin and all of its problems. I found the title quite misleading and strongly recommend that it be changed to more accurately reflect the scope of the plan. A possible suggestion would be to add some reference to toxics, such as Lake Michigan, Lakewide Management Plan: Part I. Toxics Abatement. This would support the concept of an evolving plan as was mentioned in the document.

3. I believe that toxics in the Great Lakes Ecosystem is a very serious environmental problem. However, there are other equally critical problems that cause degradation in Great Lakes Ecosystems. Although the plan briefly addressed the problems of habitat degradation and exotic species introductions (page 8 bottom), I think that these problems are just as important as toxics issues. These problems need to be addressed in much greater detail, especially if the title of this document remains that of a Lakewide Management Plan. I can put you in contact with the Aquatic Nuisance Species Task Force, this group has just completed a proposed Aquatic Nuisance Species Program. Although coordination of the two programs would be a monumental task by itself, it nonetheless is a necessity.

The EPA Response is

The title of the Lake Michigan LaMP has been modified to reflect its focus on persistent toxic pollutants and eliminate any confusion as to its scope. While the focus of the LaMP is currently on toxic pollutants, the participating Agencies recognize that issues associated with habitat quality and quantity, particularly as they relate to endangered and threatened species, are important factors in addressing the overall ecological health of Lake Michigan. As the LaMP process develops, the Agencies will identify opportunities for addressing these issues in conjunction with toxic load reduction activities. A table in Chapter 5 lays out the process and schedule for expanding the LaMP to include habitat issues. In this manner, LaMPs will further the broader goal of the Agreement of identifying beneficial use impairments, and restoring and protecting the Lake Michigan system.

These comments are from Docket Code Number **LM052** The comments were dated **12-2-1992**

The commenter was **Reel Pleasure Chart.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 1**

The Comments were

I would first applaud the goal, even though I doubt if it's attainable in my lifetime. To attain this goal, the LaMP must challenge a world wide attitude to control the atmospheric pollutants, which you have found to be one of the major sources of pollution.

The EPA Response is

Air deposition is a major source of some contaminants to Lake Michigan waters. Air sources include both those within the watershed and from outside the watershed. Researchers have documented that some pollutants released into the air in Mexico travel into the Great Lakes. The Clean Air Act Amendments of 1990 authorized a study of the impact of air deposition of toxics on the water quality of the Great Lakes, and mandates additional air controls if needed to protect the Great Lakes. These reports are due to Congress in November 1993, and are currently under review. The LaMP also will provide recommendations for reducing pollutant inputs from air deposition into Lake Michigan as appropriate.

These comments are from Docket Code Number **LM052** The comments were dated **12-2-1992**

The commenter was **Reel Pleasure Chart.** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1, para 3**

The Comments were

My main concern however, is in regard to the LaMP's statements addressing fish management. I am a small business person operating a sportfishing charter service. My customers are 95% interested in catching exotic game fish such as Chinook and Coho Salmon, Rainbow, Brown and Brook Trout. If the LaMP reaches its number 1 goal or objective, (The waters of the Lake Michigan shall support healthy, diverse, reproducing, and self-sustaining communities in dynamic equilibrium, with an emphasis on native species.) this will mean the collapse of my "American Dream."

Instead, I propose to the Agency that all elements of fish management be left in the hands of the states that border Lake Michigan. Furthermore, I will not feel comfortable until this is clearly stated in the LaMP.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objectiv for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among som that the LaMP will dictate fishery management.

EPA U.S. Environmental Protection Agency Region 5 Responses to Public Comments on the Draft Lake Michigan Lakewide Management Plan

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**

The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2-4 para9-13+table**

The Comments were

Page 82, Action 4, add: "..through all waste streams and provide pollution prevention information to the facility."

Page 87, Action 1, second bullet, add: "..load elimination program for the Critical Pollutants focusing on pollution prevention techniques"

Page 88, Action 1, add: " Provide pollution prevention information to the sources within the watershed

Page 89, Action 2, add: "Assure that pollution prevention is considered in all enforcement actions taken

Page 90, replace the pollution prevention section with the following

ACTION	RESPONSIBLE AGENCY	COMPLETION DATE
* Encourage the ongoing institutionalization of pollution prevention into USEPA and State program activites (inspections, permits, enforcement, and planning).	USEPA Region V all media Divisions and States	Ongoing
* Identify high quality watersheds and develop watershed management programs to prevent degradation with a focus on pollution prevention.	USEPA Region V Water Division, USDA, States	
* Identify and implement pollution prevention opportunities for Critical Pollutants·	USEPA - Region V, all Divisions, GLNPO.	
* Identify data available on sources of Critical Pollutants;		Oct 92
* Identify categories of sources (SIC code, storm water run-off, non-point source, agriculture, consumer, etc.);		Jan 93
* Identify pollution prevention opportunites for the sources;	USEPA - Region V, all Divisions, GLNPO, States	March 93
* Plan pollution prevention activities to reduce the loads of pollutants from each sector.		June 93
* Evaluate data from air deposition studies and expand pollution prevention efforts outside the Lake Michigan Basin if necessary.	USEPA - Region V, Air and Radiation Division	July 93
* Encourage the ongoing institutionalization of pollution prevention into USEPA and State program activites (inspections, permits, enforcement, and planning).	USEPA - Region V, all media Divisions and States	Ongoing
* Evaluate sources and where possible facilitate and focus pollution prevention activities already underway within the Lake Michigan basin to reduce emissions of lead.	USEPA - Region V, Planning and Management Division	TBD
* Identify pollution prevention activities already underway in the Lake Michigan Basin and Identify gaps and opportunites.	USEPA - Region V, all Divisions, States	August 93

The EPA Response is

These comments and additions have been incorporated into the pollution prevention portion of the action agenda of the revised draft LaMP

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**
The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **01 Action Agenda**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.4, para.1**

The Comments were

Page A-15, #4 change to: "Initiate a broad spectrum pollution prevention initiative with the local industries and municipalities to promote compliance with environmental laws and regulations.

The EPA Response is

This change has been incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**
The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **Many, see text**

The Comments were

p 1,2 par 3-4,6-9; 1-2,4-5

The tables which run onto second page should have headers.

We suggest that a new appendix be added as Appendix G and include the plans/strategies/charters, of the current US EPA/State work groups.

...

Page 2, #1, add: "To achieve specific reductions in the use, release, and ..."

Page 3, line 14, add: "...minimize the potential risk to the Lake Michigan ecosystem associated with their introduction to, and presence in the ecosystem."

Page 7, Figure 2: A box stating "Implement Pollution Prevention Activities" should be added to the flow chart at the box stating "Identify sources".

Page 7, #4, add: "...cut back on the use and release of pollutants..."

Page 8, line 21, add: "...the LaMP process will be used to initiate other pollution prevention and reduction projects..."

Page 9, line 29, add: "Additionally, pollutant sources may originate outside of the Great Lakes Basin which affect the open waters of the Lakes."

Page 27, Table 1.3, Level III, remove: ("eg. life cycle analysis)".

Page 27, Table 1.3, Level IV, add: "Opportunity and Pollutant-Focused Approach".

The EPA Response is

These changes and additions have been incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**

The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 8**

The Comments were

Page 60, line 7, add: "Educational information is being provided through the "clean sweep" programs on the proper use and disposal of pesticides, and on the pollution prevention aspects of pesticide usage. This information is important in building a strong base for non-point source protection."

The EPA Response is

This addition has been incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**

The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p1,2,4,5; par many**

The Comments were

Wherever pollution reduction is mentioned, pollution prevention should be added.

...

Page i, last paragraph, add: "The Pollution Prevention Act of 1990 established an environmental management hierarchy for the purposes of prioritizing decision making on environmental issues. The first choice in environmental management is pollution prevention. Pollution that cannot be prevented should be recycled in an environmentally sound manner; and where there are no feasible prevention or recycling opportunities, environmentally sound treatment and disposal should be used as a last resort. This environmental management hierarchy will be used routinely in the LaMP decision making process."

...

Page 26, second paragraph, add: "The environmental management hierarchy established by the Pollution Prevention Act of 1990 will be applied to all actions considered for the Critical Pollutants and for the Level III and IV pollutants. It must, however, be recognized that source reduction opportunities are limited for some of the Critical Pollutants such as the canceled and suspended pesticides."

...

Page 42, paragraph 3 - What is meant by "estimates of the relative loading ... information collected through the implementation of pollution reduction programs"? Which programs are these?

...

Pages A-16: The National Pollution Prevention Strategy should be included here, as the first paragraph in Section A.7, emphasizing the preferred hierarchy for addressing pollution prevention the following is suggested language:

"The passage of the Pollution Prevention Act of 1990 marked the initiation of an enhanced level of protection for the environment that extends beyond the traditional "command and control" scope of the U.S. EPA's media programs. The Pollution Prevention Act of 1990 describes pollution prevention as any practice which reduces the amount of any hazardous substance, pollutant or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and reduces the hazards to public health and the environment associated with the release of such substances, pollutants or contaminants.

The Act declares pollution prevention to be the national policy and establishes the following hierarchy for environmental management:

- pollution should be prevented or reduced at the source whenever feasible;

- pollution that cannot be prevented should be recycled in an environmentally sound manner; and

- Where there are no feasible prevention or recycling opportunities, environmentally sound treatment and disposal should be used as a last resort.

U.S. EPA Region V is pursuing this policy by integrating pollution prevention into its base programs, regulatory activities and non-regulatory activities. Training for enforcement and permitting staff also allows pollution prevention to be incorporated into the primary regulatory programs and fosters an awareness of potential problems, such as cross-media transfers of pollutants.

The Federal government is not alone in its advancement of pollution prevention programs. U.S. EPA Region V is committed to pioneering a comprehensive and cooperative pollution prevention movement in partnership with the great Lakes States. The pollution prevention component of the Lake Michigan LaMP, currently being developed by the U.S. EPA and the States of Michigan, Indiana, Illinois and Wisconsin, will be a key component of this commitment.

The LaMP process is not intended to duplicate efforts, it is a process to focus resources into the Lake Michigan Basin and to build upon already existing programs. Pollution prevention activities targeted through the LaMP process will complement the activities outlined in the Great Lakes Pollution Prevention Action Plan, and State and National pollution prevention strategies."

The EPA Response is

These additions have been incorporated into the revised draft LaMP. The programs referred to on page 42, para. 3 are those base programs which collect information concerning loads and ambient levels of toxics into Lake Michigan waters. These programs are implemented at both the Federal and State level. Examples include NPDES permits, Superfund, RCRA, sediments, and air. Each of these programs generate information concerning releases of toxics from specific facilities, or concerning pollutant concentrations in various media (e.g. air, water, sediments, fish).

These comments are from Docket Code Number **LM053** The comments were dated **1-9-1993**

The commenter was **EPA REG 5 - POL PREV** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 5,6; par many**

The Comments were

Page A-17 should include the following language regarding on-going pollution prevention activities as the second paragraph:

"A number of pollution prevention activities are currently underway at the Federal, State and local level:

- Illinois Partners in Pollution Prevention Program;

- Greater Chicago Pollution Prevention Project;

- Greater Milwaukee Toxics Minimization Task Force;

- Iron and Steel Pollution Prevention Conference;

- Technical assistance is offered to facilities in the Lake Michigan Basin by University of Wisconsin Extension Service, Illinois Hazardous Waste and Information Center, Michigan Office of Waste Reduction Services, and US EPA, Region V, Office of RCRA;

- Educational seminars and workshops sponsored by University of Wisconsin Extension Service, Illinois Hazardous Waste Information Center, Michigan Office of Waste Reduction Services, and Purdue University;

- Farm-Assist Program was piloted on Wisconsin farms;

- US EPA's 33/50 Program, and;

-Michigan Auto Pollution Prevention Project

The EPA Response is

The activities mentioned in this comment have been incorporated into the revised draft LaMP in the Action Agenda and Appendix A.

These comments are from Docket Code Number **LM054** The comments were dated **12-26-1992**

The commenter was **Gr Lks Spts Fsh Coun** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2,3 par 6-10; 1-2**

The Comments were

The Jacobson, Jacobson, Humphrey (Jacobson) Study released in 1989 purported to show a direct correlation between pregnant women and their newborns and the ingestion of Lake Michigan fish. The Jacobson study also attemptedto show malformed, underweight, poorer memory and smaller headed babies.

However, the notoriety this Jacobson Study gained comes from the scientific community at large and three studies refuting it. Dr. Nigel Paneth, director of epidemiology at Mich. State University; Drs. Genevieve M. Matonoski and Jacqueline Agnew, professors of epidemiology at John Hopkins University; and Drs. Beth C. Gladen and Walter J. Rogan from the epidemiology branch of the National Institute of Environmental Science all agreed the study was greatly flawed.

Major areas of significant differences were found between the two study groups, the fish-eaters and non fish-eaters, i.e.:

1. Pre-pregnancy weight

2. Alcohol use before and during pregnancy

3. Consumption of caffeine before/during pregnancy

4. Consumption of cold medicines during pregnancy

5. Smoking before and during pregnancy.

The scientific community by and large has disassociated and distanced itself from this study. More importantly no one has attempted another study like it, yet the environmentalists -- uneducated and misinformed -- considerit gospel and still quote from it.

Yet, I don't understand how or why USEPA would reference this study which has now fallen into disrepute. It certainly is misleading disinformation and not in the best interests of the American public.

The EPA Response is

USEPA, as well as the larger scientific community, have acknowledged that there are some flaws and a number of questions regarding the Jacobson study. While citing this study in the Lake Michigan LaMP is legitimate, there also needs to be discussion of the study's shortcomings and caution should be used when using this study to support conclusions. In fact, the Agency is not using this study to support any of the conclusions of the revised draft LaMP.

These comments are from Docket Code Number **LM054** The comments were dated **12-26-1992**
The commenter was **Gr Lks Spts Fsh Coun** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 2, para 2**

The Comments were

3. P. 16-17, References to "....high concentrations of these compounds...." Again, I question where EPA really wants to go with this kind of statement. (See No. 2 above).

4. P.18, "....environmental toxicology studies...." See No. 2 above.

The EPA Response is

Because fish consumption advisories for Lake Michigan fish exist, the position of USEPA is that fish tissue concentrations for some toxics are too high. Our ultimate goal is to eliminate the presence of toxic contaminants in fish tissues, although we recognize that this goal may not be realistically attained in the near future. In the meantime, one goal of the LaMP is to eliminate the need for any fish consumption advisories in Lake Michigan waters.

These comments are from Docket Code Number **LM054** The comments were dated **12-26-1992**
The commenter was **Gr Lks Spts Fsh Coun** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **F Fish Populations**
These comments were found at the following locations in the comment letter: **p 1,2 para 2-6; 3**

The Comments were

1. P. 1, Ecosystem Objectives: The proposed ecosystem objective for Lake Michigan "... with an emphasis on native species," appears to be but a statement extracted from the Lake Ontario Toxics Management Plan. It is contrary to the Lake Michigan Committee's fish community objectives which refers to "... judicious plantings of hatchery reared fish," and agreed to by Illinois, Indiana, Michigan, Wisconsin, and the Chippewa-Ottawa Treaty Fishery Management Authority, and widely accepted by stakeholders of those entities.

It is contrary to an agreement reached on Nov. 20, 1992 by the LaMP Lakewide Advisory Council at EPA Region V offices, and chaired by Ms. Constance Hunt. During that meeting it was agreed to modify the aquatic community goal statement and include the beneficial and judicious plantings of salmonids in the Great Lakes. THIS STILL HASN'T BEEN DONE.

A Michigan Sea-Grant sponsored workshop on Dec. 16, 1991 also referenced this objective with a subsequent agreement to a modification.

This ecosystem objective is also contrary to the bi-national agreement of the Joint Strategic Plan for Management of the Great Lakes Fisheries (SGLFMP) (1981) and adopted by the Great Lakes Fisheries Commission.

I would hope that USEPA will at some point acquiesce to these bi-national and state agreements as well as the workshops which have generated opposition to the ecosystem objective as it presently is stated.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM054** The comments were dated **12-26-1992**

The commenter was **Gr Lks Spts Fsh Coun** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,2 para 7;3**

The Comments were

2. P.16, references to Frank 1981, Holter & Johnson 1977, Meier 1981, etc:

References to these outdated studies without additional references of a more current nature (Houk, Ames, Gald, Skea, Voiland, Michigan State U., etc.) raise serious questions by this reader. Questions such as establishing worst case scenarios, bias and controlled writings, suggestions of an attempt to placate environmental groups at the expense of establishing factual and responsible data to the American public.

...

5. P. 19, Reference to a small number of abnormal cormorants:

Ninety (90) of 30,000 which had been studied in 16 years on two rookeries in the Green Bay area should not prompt reference here. Data is limited and incomplete, as are the studies. The comment "...data suggest that chemically-mediated toxicity is responsible...." would appear to be scientifically irresponsible and of questionable self serving tactics.

The EPA Response is

The references used in the revised draft LaMP have been updated to ensure that the most recent data available is incorporated. We agree that many references cited in the January 1 1992 draft LaMP are out of date.

We feel that it is entirely appropriate to reference data on deformed cormorants in the LaMP. The revised draft LaMP presents available information, and the reader can draw his/her own conclusions about the weight of evidence regarding the effects of toxic pollutants of biota. We recognize that available data on toxics are limited and incomplete. However, this does not mean that no actions should be taken until data are perfectly complete and cause-effect is unquestionably demonstrated. Scientific data are always open to interpretation. The Agency takes a weight-of-evidence approach when evaluating impacts of toxics on biota. It is our belief that there is sufficient evidence to suggest that toxic pollutants do contribute to increased deformities in wildlife, and that failure to present this information would be irresponsible.

These comments are from Docket Code Number **LM055** The comments were dated **12-1-1992**

The commenter was **Gr Bay Metro Sew Dis** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1;2 para 3;4**

The Comments were

Our general comment is that the content of the document does not fulfill the reader's expectations based on the title. A "Lakewide Management Plan" would be expected to identify and evaluate alternatives consistent with active management. No such information can be found in the document. It appears to be a thorough inventory of existing information, but is not a true plan. A more complete description of "action items" will be necessary to allow for an improved level of understanding by the regulated community as well as the general public.

...

In summary, we believe the LaMP goals are appropriate, and the assessment activities related to the plan are workable. However, the substance of the document does not satisfy the definition of a Plan. The most difficult, yet least defined, component of the plan involves the loads reduction implementation strategy. It is this facet, requiring real innovation and a change in regulatory philosophy, which will ultimately lead to the success or failure of the LaMP. We will need a more thorough description of this process in order to judge its efficacy.

The EPA Response is

The revised draft Lake Michigan LaMP is an assessment of the ecological health of the Lake Michigan watershed, an identification of toxic pollutants contributing to ecological impairments, and an assessment of the relative importance of various sources of each listed pollutant. Data gaps and information needs also are identified. As frequently stated, the LaMP is a process. The next step in the process is for the participating Agencies, in cooperation with the Forum, to use the information in the LaMP to identify necessary pollution prevention, abatement, and remediation activities for restoration of all beneficial use impairments. Based on the identification of action alternatives, recommendations will be made as to what our priorities should be. The Agencies have already identified some actions and recommendations for implementation, and these are described in the revised draft LaMP. As the LaMP process continues to develop, additional recommendations will be made and more actions implemented.

These comments are from Docket Code Number **LM055** The comments were dated **12-1-1992**

The commenter was **Gr Bay Metro Sew Dis** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1-2**

The Comments were

The process flow chart (Figure 2 in the document) presents a logical procedure necessary to achieve the LaMP goals. However, several components need further development in order for the regulated community and the general public to fully understand the implications.

1. "Identify Services/Quantify Loads". This task alone would represent the annual expenditure of millions of dollars. After all, various state and federal agencies have been attempting to answer this question for years, though primarily aimed at point sources. How will the LaMP hope to adequately quantify the non-point component?

The EPA Response is

Source identification is an ongoing process, and we have a good idea of where many of the LaMP pollutants are coming from. Determining the relative importance of each source to total loads is more problematic for many toxics. USEPA, USGS, and the States, through the LaMP process, will conduct an air deposition and tributary load monitoring study in the Lake Michigan basin starting in February 1994. This effort is described in Chapter 5 of the revised draft LaMP. This monitoring will allow the Agencies to estimate total loads of LaMP pollutants to the Lake, and assist in the identification of pollutant sources. By estimating loads from tributaries, the nonpoint source loadings will be captured. We can estimate point source loadings based on NPDES permits for a given tributary. Total pollutant loads at the mouth of the tributary, minus that believed to come from point sources, should be roughly equal to loads from nonpoint sources. Clearly, getting good loading estimates and identifying all pollutant sources is a continuous, ongoing challenge for all of the Agencies.

These comments are from Docket Code Number **LM055** The comments were dated **12-1-1992**

The commenter was **Gr Bay Metro Sew Dis** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **32 Inadequate Ref**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 4**

The Comments were

We also have some specific suggestions concerning the document. First, Table 1.1 in the LaMP document lists "Use Impairments" which affect the Lake Michigan basin. For three of these (Eutrophication; Restrictions in Drinking Water; and Degradation of Aesthetics) the table reports "no evidence of use impairment in the Lake Michigan basin." We question this assessment, as all three have been indicated as significant problems in the Green Bay Remedial Action Plan.

The EPA Response is

The confusion appears to be in the wording. The table should read, for the 3 impairments referred to by the commentor, as follows: "no evidence of the use impairment on a lakewide scale in the Lake Michigan basin". That is, while we recognize that these impairments exist in one or two local areas, they are not problems throughout the Lake Michigan basin. These impairments existing in Green Bay should be addressed through the RAP process. While the LaMP coordinates with the various RAPs, the LaMP focuses on impairments that are found in many locations in and around Lake Michigan.

These comments are from Docket Code Number **LM055** The comments were dated **12-1-1992**
The commenter was **Gr Bay Metro Sew Dis** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **34 Cost/Ben Analy**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 2, para 3**

The Comments were

2. "Establish load reduction targets." This may be the most critical component of the LaMP. How will this be achieved? Will criteria for load reductions include a thorough analysis of cost effectiveness on a watershed basis, in order to maximize the benefits of dollars spent? Will there be appropriate criteria available to compare the cost effectiveness of point source versus non-point source controls?

The EPA Response is

In defining the LaMP process, the Agency did not envision that there would be any specific costs that would be directly attributable to the LaMP itself. The LaMP seeks to coordinate a wide variety of existing programs that have already been subject to specific cost-benefit analyses. The Agency believes that these analyses fulfill the need for an assessment of costs and benefits associated with the LaMP. In fact, the LaMP should add to individual program benefits by increasing their efficiency and coordination with other programs. However, USEPA does not feel that there is any merit in trying to define the benefits that result from better planning and coordination.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**
The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **01 Action Agenda**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 3, para 9**

The Comments were

Section 3: The FY 92 table of activities should be updated and a table of FY 93 activities should be added.

The EPA Response is

The action agenda and associated time-lines have been updated in the revised draft LaMP.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**
The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 3; para 2**

The Comments were

Page 16, line 23: ". . . to terrestrial animals in the Lake Michigan basin." What about to humans who directly consume Lake Michigan fish as opposed to humans who consume Lake Michigan terrestrial animals who, in turn, have consumed Lake Michigan fish?

The EPA Response is

Fish also are the major transfer mechanism of toxic contaminants to humans as well as wildlife. As far as the relative importance of transfer to humans by fish or wildlife consumption, this depends on how much fish is eaten compared to how much wildlife is consumed. Certainly humans can be exposed to toxics either through consumption of fish or wildlife. Because contaminants accumulate as you move up the chain, it is likely that exposure will be greater through consumption of wildlife that consume fish, as opposed to direct human consumption of fish, assuming that equal quantities of fish and wildlife are eaten. That is, human exposure would presumably be greater if one pound of wildlife is eaten rather than one pound of fish.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **11 Sediments**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 8**

The Comments were

Page 66: The preliminary results of the Assessment and Remediation of Contaminated Sediments Program bench scale and demonstration projects should be included here. All demonstration projects are on schedule to be complete by the end of this year.

The EPA Response is

The results of the ARCs benchscale study will be presented to the public in November. Therefore, while these results have not been incorporated into this revised draft LaMP, they likely will included in the final LaMP.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 3-4**

The Comments were

Page 26, line 10: "Level II consists of those pollutants that the LAMP Management Committee determines are strongly associated with ecological impairments in Lake Michigan." What specific criteria for designation beyond that will be used? What constitutes "strongly," as opposed to "moderately" or "possibly?"

Page 30, line 19: "If existing information indicates a strong association ... the substance will be considered for listing as a Critical Pollutant." This contradicts the tiered approach to the designation of Critical Pollutants outlined on page 26. In that explanation, four tiers of Critical Pollutants are outlined, including two (Tiers III and IV) which only require moderate or possible associations between the designated pollutants and ecological impairments. I suggest Tiers I and II be referred to as Critical Pollutants and Tiers III and IV be designated as Pollutants of Concern. The Tier III and IV lists can then be used to "feed: the Tier I and II lists. Also, with the interpretation afforded by these categorizations (Critical Pollutants and Pollutants of Concern), the definition on page 30 could stand as is. These categorizations would also support the review process discussed on page 31.

The EPA Response is

The listing system for LaMP pollutants has been revised. These revisions are described in detail in Chapter 3 of the revised draft LaMP. The distinctions among strong, moderate, and weak associations with use impairments have been eliminated to ensure sharper distictions among levels. Level 1 in the revised draft LaMP is a combination of the previous Levels 1 and 2, while Level 2 in the revised draft LaMP is a combination of the previous Levels 3 and 4. The new Level 3 consists of those substances that have characteristics (presence, toxicity, persistence, bioaccumulation) indicating the potential to impact Lake Michigan.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,2 para 5-8,4-9**

The Comments were

Specifically, the following comments are provided on the document itself:

Page2, line 5: "... at levels that adversely affect..." This language should be added when these goals are adapted to Lake Michigan.

Page 3, line 14..."associated with their introduction to and presence in..."

Page 3, line 15: "This Introduction..." (so as to distinguish this portion of the document from Sections 1 and 2).

Page 5-6: I suggest moving the whole section on Structure to the end of the Introduction. The previous "Overview" and the following "Process" sections flow when placed one after the after. The "Structure" section, where it is placed now, interrupts that flow and discusses topics that have not yet been introduced (i.e., Level III and IV pollutants).

Page 7, line 13: With respect to the re-evaluation that is discussed in this line, some mention of how often this is to occur should be included here. I know that an annual re-evaluation/update has been mentioned, but the general public would not know this.

Page 7, line 19: The some comment mentioned above should be applied here for "frequent review and revision."

Page 7, line 29: "...the initial scope of the LAMP process..."

Page 8, line 21: "...to initiate other pollution prevention and reduction projects..."

Page 8, line 26: "...process is to target and eliminate..."

Page 9, lines 6-13: This paragraph contains four separate ideas that should be more effectively linked together. I propose:

"Other components are being addressed by the U.S. Policy Committee, which is comprised of___and does___. The U.S. Policy Committee is developing and implementing... Thus, the focus... The LAMP will coordinate with the other program components comprising the inter-agency strategy mentioned above, thus ensuring..."

Note: "..." means continue on with rest of sentence as printed.

The EPA Response is

These suggestions have been considered and incorporated into the revised draft LaMP as appropriate. The Introduction has been substantially revised, reorganized, and rewritten to ensure that the sequence of sections flows better.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 2-3**

The Comments were

An additional point I would like to bring to your attention for consideration is that the Lake Michigan Management Committee and Lake Michigan Forum are convened on a regular basis, but the Technical Coordination Committee (TCC), per se, is not. The TCC, as presented in this document, appears to be a full-fledged committee that also convenes on a regular basis. The TCC, in fact, functions in the form of numerous ad hoc work groups and has never come together as a whole. The language describes this committee should be clarified so that it does not leave the reader with the impression that the TCC meets regularly, too.

However, on a personal note, I feel that the work groups that currently comprise the TCC should meet as a committee on at least an annual or semi-annual basis. That way, the ad hoc work groups can benefit from, and function more effectively in their respective roles as a result of, the input they receive from the other work group/committee members.

The EPA Response is

The language describing the Technical Coordinating Committee (TCC) has been changed in the revised draft LaMP to eliminate any confusion regarding its role and composition. The TCC met in June and August 1993, and will meet on a regular basis (quarterly) in the future. We agree with the commentor that these meetings are necessary to keep everyone better informed of LaMP activities and to help set direction and priorities, with Management Committee approval, to the LaMP process.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 1**

The Comments were

Page 12, line 3: "...attack the most pressing problems first." This is fine as is, but shouldn't we mention risk in terms of eliminating the greatest risks first?

The EPA Response is

The phrase quoted by the commentor essentially means that the Agencies need to start the LaMP process by eliminating the greatest risks first.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**
The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **24 Point Sources**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 3, para 6-7**

The Comments were

Pages 49-55: A discussion of the proposed Great Lakes Water Quality Guidance should also be included here, with a summary breakout (like the Terrine document) of the guidance as it relates to aquatic life, wildlife and human health, and the antidegradation policy and implementation procedures.

Page 52, line 3: Include a more specific description of PCS here since it is the first time this data system is mentioned.

The EPA Response is

The relationship between the Lake Michigan LaMP and the Great Lakes Water Quality Guidance is described in Chapter 1 of the revised draft LaMP, and the Guidance is listed in the action agenda in Chapter 5.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**
The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 1,2 para 2-3; 1**

The Comments were

Generally, the time frame for LAMP document review should be stated more prominently throughout the LAMP document. In my former position with the Great Lakes National Program Office (GLNPO), I received a number of questions regarding future opportunities for public input, and the inclusion of additional information, into the LAMP. Although the document, as presently composed, mentions the iterative nature of the LAMP process, it does not provide a proposed schedule for future review opportunities.

Also, I would like to suggest that press releases announcing LAMP document input opportunities be distributed to all major newspapers within the Lake Michigan Basin to coincide with future LAMP "release" dates (i.e., Federal Register publication or submission to the IJC). This would provide an additional mechanism of outreach to those members of the public who might currently fall outside of the community of traditional environmental contacts.

...

Page 6, line 12: The general outreach and information exchange program for the public at large and the more formal process to solicit comment from the public at large should be described in greater detail. Also, an annual list of LAMP Management and Lake Michigan Forum meetings and dates (if known) should be included. Lakewide Advisory Council should be changed to Lake Michigan Forum.

The EPA Response is

The revised draft LaMP contains a schedule for the next update, which will beigin in 1995. Anyone with information that could be incorporated into the LaMP should contact Gary Kohlhepp at (312) 886-4680. Public input can occur through the Forum, by commenting on LaMP documents noticed in the Federal Register, and through public outreach efforts currently being carried out through the Sea Grant network.

A press release was issued to announce the publication of the draft Lake Michigan LaMP notice of availability in the Federal Register, and we will continue to distribute press releases when future LaMPs are published. Meeting dates for the Forum for the next year have been reserved, with the next one being convened on November 9, 1993. All references to the Lakewide Advisory Council have been changed to Lake Michigan Forum in the revised draft LaMP. The formal process for soliciting public comment on the LaMP is through the Federal Register. This is mentioned in the LaMP and cannot really be expanded upon any more.

These comments are from Docket Code Number **LM056** The comments were dated **11-26-1992**

The commenter was **Lisa Thorstenberg** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **33 Mass Bal Model**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 5**

The Comments were

Pages 43-47: Results of the Green Bay Mass Balance Study should be incorporated here.

The EPA Response is

The results of the Green Bay mass balance study are included in the revised draft LaMP.

These comments are from Docket Code Number **LM057** The comments were dated **11-12-1992**

The commenter was **MI S&S Fishermen's** Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1-2, para 2-8, 1-2**

The Comments were

I will point out the areas of concern individually, explain our concerns, and then offer a rewording of the statement.

The first concern is with the first paragraph of the preface beginning with "The delicate network of life..." Our concern is two-fold. The term exotic species is open to interpretations. The second concern is the emphasis on native species.

The recommendation is to change the sentence to read "The delicate network of life has been further weakened by the unintentional introduction to the lakes of exotic species ie...sea lamprey, zebra mussel and river ruffe that upset the balance of the aquatic ecosystem and make survival difficult for the lakes other inhabitants."

The next concern is with the introduction page, one, Lake Michigan Ecosystem Objective and LaMP Goals. Aquatic Communities "The water of Lake Michigan..." There is an emphasis on native species. The Lake Michigan lake trout strain have been extinct for forty years. The strains now being planted are from other areas of the country and are not native to Lake Michigan. Lake trout have not reproduced in Lake Michigan, although we certainly don't object at the attempt to get a self sustaining community, even though our test tube biology hasn't worked yet. We recommend this sentence to read, "The waters of Lake Michigan shall support a healthy and diverse population in dynamic equilibrium."

The next concern is page 8 the last paragraph beginning with "The presence of Critical Pollutants..." This statement is very ambiguous. We would very much object to any interpretation that intentionally introduced sport fish has had greater significance in the destabilizatio;n of the ecosystem.

We feel strongly that the second sentence of that paragraph be changed to read, "Habitat losses and unintentional human-induced shifts in species composition ie...sea lamprey, zebra mussel and river ruffe are probably factors of equal, or in some instances, greater significance in the destabilization of the ecosystem."

Our last area of concern is Appendix B page B-2 second topic "Degradation of Fish and Wildlife Populations." We recommend deleting this entire section. It contains general statements based on assumptions and doesn't add any credibility to your document.

In summation, the Michigan Steelhead and Salmon Fishermen's Association supports a diverse fishery to be enjoyed by all as a benefit to society. We are opposed to any emphasis on native species since the original Lake Michigan lake trout strain is extinct. The homesteaded steelhead and brown trout have been in Lake Michigan now much longer than lake trout strains now being planted. We would object to the federal government trying to usurp state rights to manage the fishery. It is also very important that your document be very specific, making it very difficult for special interest groups to create misinterpretations or misrepresentations for their own self perpetuating agenda.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic chemicals impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

The section referred to by the commentor on page 8 of the January 1 1992 draft Lake Michigan LaMP has been revised and the concern expressed by the commentor has already been addressed.

Appendix B in the 1/1/92 draft LaMP has been expanded and is now contained in Chapter 2 of the revised draft LaMP. This chapter is an evaluation of the status of the 14 beneficial uses in the Lake Michigan watershed. We feel that this information should be included in the LaMP, as it provides the basis for identifying LaMP pollutants and measuring progress to restoring beneficial uses in Lake Michigan. Data for each impairment has been included in the revised draft LaMP to make this section more informative and specific.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 13, para 1-2**

The Comments were

The U.S. EPA has a wide array of legal tools it may use to accomplish this task. To address sources outside the Basin yet still within the U.S., such as leaking capacitors, U.S. EPA could more rigorously exercise its authority under Toxic Substances Control Act Section 6(a)(6) to eliminate threats to Lake Michigan. For out-of-basin and international atmospheric sources, the Clean Air Act ("CAA") Amendments of 1990 provide for Great Lakes atmospheric deposition monitoring (reference provided), requires U.S.EPA to address "area sources" of toxic pollutants (reference provided), and authorizes the U.S. EPA Administrator to address international sources of air pollutants (reference provided).

The LaMP must identify all sources contributing to use impairments and water quality standard violations, including out-of-basin sources, and recommend in the action agenda steps to eliminate those sources.

The EPA Response is

The LaMP should identify all sources of LaMP pollutants, evaluate the relative importance of each, and take actions to reduce and eliminate, where possible, releases from these sources. Air deposition of toxics to the Great Lakes from sources outside the Great Lakes basin is well documented. As pointed out by the commentor, the Clean Air Act Amendments of 1990 does have provisions requiring USEPA to assess impacts of air deposition on Great Lakes water quality. Reports evaluating these impacts are being reviewed. The revised draft LaMP does list some steps being taken by the Agencies to reduce pollutant loadings to and ambient levels in Lake Michigan. Additional actions can be identified and implemented by the Agencies as the LaMP process develops.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **05 Appendix C**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 5,6, para 2-6, 1-2**

The Comments were

The Draft LAMP fails to include any identification of Lake Michigan waters as water quality-limited, by either the Lake Michigan States or U.S. EPA. The U.S. EPA in Appendix C of the Draft LaMP includes a list of "Lake Michigan Basin Rivers on 304(l) List Containing Critical Pollutants, Level III or Level IV Pollutants." The LaMP, however, avoids designating the waters listed in Appendix C as "water quality-limited waters" even though 304(l) waters are qualified as water quality-limited. In sum, the LaMP does not comply with settlement term #1 because it fails to indicate water quality-limited waters for toxic pollutants "within the meaning of 303(d)."

Further, even if the Appendix C waters are considered water quality-limited within the meaning of Section 303(d) (but just not being identified in the LaMP as such), U.S. EPA has not complied with Settlement Term #2 because it has not indicated in the LaMP that it has requested TMDLs be set for those waters.

The Lake Michigan States' submissions on these items must be included in the Draft LaMP. Although U.S. EPA may be operating under the assumption that the requests for submission, as well as the actual submissions and their evaluations, are due only for the final LaMP, that assumption would be erroneous. This assumption would be erroneous because requesting and evaluating States' submissions for inclusion in the final LaMP alone defeats the purpose of Settlement Term #5, which affords the public an opportunity to comment "prior to publication of the final LaMP" on "the appropriateness of Section 303(d) listing for all or part of any toxic pollutant" (reference provided). In conclusion, U.S. EPA has failed to fulfill Settlement Terms #1 and 2.

Therefore, NWF urges that U.S. EPA immediately publish an amendment to the Draft LaMP for public review and comment which:

- Identifies each Lake Michigan State's response to U.S. EPA's request to identify water quality-limited waters for toxic pollutants within the meaning of CWA Section 303(d) and applicable guidance.

- Ensures that all state-identified water quality-limited waters include fish consumption advisories that would be issued according to U.S. EPA's risk assessment guidelines (footnote--Reliance by the Lake Michigan States on Food & Drug Administration ("FDA") action levels in issuing fish consumption advisories has been acknowledged by U.S. EPA and FDA as inappropriate. Therefore, U.S. EPA should ensure that FDA methodologies are not used in making determinations pursuant to Section 303(d).

- Identifies the TMDLs set by Lake Michigan States for those water quality-limited waters identified by the Lake Michigan States. For these TMDLs, Lake Michigan States must provide to U.S. EPA all existing advisories applicable to their jurisdictions and explain how they were considered in making their determinations.

The EPA Response is

The revised draft LaMP contains a list of State submissions to USEPA of waters under Section 303(d) of the Clean Water Act. These are waters that are water-quality limited and require TMDLs. The proposed schedules for TMDL development also are provided. The public has had an opportunity to review these lists in local newspapers and also will be able to comment on the list of waters in the Lake Michigan watershed when they review the revised draft Lake Michigan LaMP.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **06 Appendix D**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 18, para 1**

The Comments were

Appendices should detail contaminant types and releases from RCRA/Superfund facilities, NPDES discharges, and other pertinent contaminant sources. Appendix D gives related but only cursory information.

The EPA Response is

Releases of LaMP pollutants from the source categories listed by the commentor are summarized in Chapter 4 of the revised draft LaMP, and facility lists for NPDES, RCRA, and CERCLA are listed in appendices to the revised draft LaMP. CERCLA and RCRA facilities known to be contaminated with, handling, generating, or storing of LaMP pollutants are identified.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **09 Atmosph. Dep.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

These impacts have often been the result of long-term and far-reaching sources of pollution: Chicago's air pollution problems are known to contribute to air quality standard violations across the Lake in Eastern Michigan (reference provided). Nearly 20 percent of the nation's steel and 40 percent of the nation's paper is produced in the Lake Michigan Basin. The impacts from decades of production by these and other industries have left parts of the Lake and its tributaries ecologically scarred (reference provided).

The EPA Response is

USEPA recognizes that there are a number of ongoing and historic pollution sources to Lake Michigan, including heavy industry with air and water releases. The revised draft LaMP identifies the relative importance of each source based on available information, as well as data gaps in this area, for LaMP pollutants, and lists and recommends pollution prevention, abatement, and remediation actions to respond to these existing problems and prevent future ones.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,2, para 2**

The Comments were

Lake Michigan's ecological balance is under siege perhaps more than that of any of the other Great Lakes. Lake Michigan, for example, has the biggest problem with PCB, DDT, and Dieldrin contamination of all the Great Lakes (reference provided). And the Lake's human, fish, and wildlife populations often feel the effects of being one of the most heavily-industrialized and populated urban centers in North America. Residents of Chicago's southeast side are at a higher risk of contracting cancer than populations in many other areas across the country due to atmospheric pollution from local industries (reference provided). Children born of women who ate certain Great Lakes fish during or before pregnancy are at risk of exhibiting suppressed cognitive, motor, and behavioral development, among other impacts (reference provided). Many Great Lakes' fish, bird, and mammal populations have experienced pollution-related impacts such as birth deformities in aquatic birds, population declines and reproductive problems in fish-eating mammals (reference provided).

The EPA Response is

Contamination of Lake Michigan fish, waters, and sediments by toxic chemicals, especially PCBs, DDT, and dieldrin, is still a major problem. The goal of the Lake Michigan LaMP is to reduce the loadings and ambient levels of these pollutants and to fully restore and protect the beneficial uses of Lake Michigan. This includes the elimination of impacts to all biota, including humans, and to the physical and chemical integrity of Lake Michigan and its watershed.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 10-11, para 3,1-3**

The Comments were

1. The LaMP's List of Critical, Level III, and Level IV Pollutants Must Be Expanded

Annex 2, Section 1(b) of the Agreement lays out three categories of substances to be considered critical pollutants. They are substances that cause use impairments due to their:

(i) presence in open lake waters;

(ii) ability to cause or contribute to a failure to meet Agreement objectives associated with the protection of human health or aquatic life; or

(iii) ability to bioaccumulate.

This scope is extremely broad and should be used by the LaMP to its fullest advantage. For example, chronic oil pollution is a widespread problem in the Great Lakes System that degrades fish and wildlife populations(beneficial use impairment (iii) in Annex 2 of the Agreement) and directly violates Article III(b) of the Agreement. However, the Draft LaMP's listing of the proposed Critical Pollutants seems to rely mostly on substances'"ability to concentrate", as embodied in criterion (iii) above, almost to the exclusion ofthe other criterion (reference provided). Recommendation:

- Although we strongly agree that those substances or combinations of substances that pose the greatest biological risks should be addressed first, those that pose lower health risks, including but not limited topetrochemical substances, should be listed.

- Contaminants on which the Great Lakes Water Quality Initiative will initially focus should be listed. U.S. EPA, in proposing its list of Critical Pollutants, should also consider other significant literature, such as U.S. EPA's "National Study of Chemical Residues in Fish" (reference provided) and National Wildlife Federation's "A Prescription For Healthy Great Lakes" (reference provided).

The EPA Response is

The LaMP pollutants are identified based on their contributions to beneficial use impairments. Those contributing to use impairments on a lakewide scale are the Critical Pollutants (Level 1). Those substances contributing to impairments in one or a few local areas are Pollutants of Concern (Level 2). Those having characteristics indicating the potential to contribute to use impairments are listed as Emerging Pollutants (Level 3). The participating Agencies feel that it is best to focus our efforts and limited resources on those pollutants known to be contributing to use impairments in Lake Michigan. We do not feel that it would be a good idea to take actions on substances that are not currently contributing to impairments, as this would dilute our attention from reducing loads and ambient levels of the highest-risk pollutants. The LaMP is a process, and if additional pollutants need to be added to the list in the future, we have the flexibility to do that. However, the Agencies feel that we must focus on a limited number of high-priority pollutants at the present time. When we show success in reducing levels of these substances, we can turn our attention to other chemicals that may pose a hazard to the ecological integrity of Lake Michigan.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 17, para 5-7**

The Comments were

3. Additional Information Must Be Included In The LAMP

Many key decision makers involved in the LAMP process do not work on Lake Michigan issues on a day-to-day basis. Therefore, it is important in the LAMP itself to drive home the point that the Lake is a living, breathing ecosystem that supports enormous populations and varieties of life.

In addition, many of the problems facing the Lake and their remedial measures cannot be competently crafted, or at least fully understood, without first understanding the Lake itself. Therefore:

- The LAMP should include a section that describes the Lake. Geographical information, surrounding land uses, fish and wildlife populations, and other pertinent information would be very useful. Maps would be effective tools as well.

The EPA Response is

While including the general information suggested by the commentor might be interesting, The Agency does not feel that it should necessarily be included in the Lake Michigan LaMP. This information can be found in other sources. While there are a number of items that could be incorporated into the revised draft LaMP, we do not want to distract from the primary messages of the LaMP: a description of the LaMP process and its relationship to other Great Lakes efforts, an assessment of the ecological status of Lake Michigan waters, identification of critical pollutants and their sources, and a listing of recommendations and action items to reduce loads of LaMP pollutants.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **16 Env Objectives**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 15, para 1-5**

The Comments were

4. The LaMP Unduly Restricts Gauges of Success to the Elimination of Beneficial Use Impairments

Annex 2 of the Agreement requires LaMPs to be established to reduce critical pollutants that are associated with beneficial use impairments. Although this system is effective, it is not complete: beneficial use impairmentsmay actually exist in the Lake's waters that the U.S. EPA has not yet recognized.

For example, Trail Creek, running through Michigan City, Indiana, has been documented as being subject to at last a half-dozen beneficial use impairments (reference provided). However, neither U.S. EPA nor the State ofIndiana has recognized them. Thus, these use impairments would not be officially recognized by the Draft LaMP.

Also, in the late 1980s, a waterfowl consumption advisory was published for certain Wisconsin waters in the Lake Michigan basin. While the Draft LaMP recognizes restrictions on fish and wildlife consumption as a beneficialuse impairment, the Draft LaMP does not include anyproposed critical pollutants because of their contribution to these waterfowl consumption advisories.

These two examples illustrate a flaw in the LaMPs' total reliance on beneficial use impairments as a means of measuring where ecological problems exist and when they have been resolved. All LaMPs would thus benefit from having an additional means of evaluating successes and failures. State water quality standards would provide such a means. In fact, the NWF v. Adamkus settlement recognizes that the LakeMichigan LaMP is to provide a forum for addressing NWF's allegation that U.S. EPA has failed to set TMDLs for certain Lake Michigan waters. TMDLs are, of course, required when water quality standards are violated. Water quality standards are thus required, albeit indirectly, to play a role in the Lake Michigan LaMP. We believe that using water quality standards as a measure of LaMP success or failure is one such means.

- The LaMP must use water quality standards, in addition to beneficial use impairments, for measuring LaMP success or failure.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses in the Lake Michigan watershed. We recognize that there may be impairments that have not yet been documented. However, as these impairments are documented, they will be incorporated into the LaMP, along with the pollutant responsible for the impairment. The LaMP is a flexible process that can be adjusted to incorporate new information as it becomes available. WDNR waterfowl consumption advisories are discussed in the revised draft LaMP, and they are triggered by high concentrations of PCBs.

In a sense, water quality standards are used in the LaMP process. Any toxic pollutant known to violate a Federal or State water quality or biota (fish/wildlife) standard in the Lake Michigan watershed are automatically considered as Critical Pollutants and are targeted for control actions. Eliminating violations of these standards are essentially required to fully restore and protect Lake Michigan beneficial uses. Therefore, we believe that consideration of water-quality standards has been incorporated into the LaMP process.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 9, para 4**

The Comments were

- The LaMP must more clearly identify how it plans to use other significant sources of information, such as EMAP, ARCS, and the Great Lakes Water Quality Initiative.

The EPA Response is

Other programs and initiatives, such as those listed by the commentor, represent valuable sources of information on toxic pollutants in Lake Michigan. As data from these sources are generated, they will be reviewed by the various Agencies participating in the LaMP, and actions based on these data will be considered as warranted. When the LaMP is revised in subsequent years, this data will be incorporated into the document itself where necessary. The LaMP is a coordinating process that seeks to take information generated through various programs and summarize it in one central location (the LaMP document). This allows managers from the participating Agencies to evaluate and integrate all of the information and make information-based decisions.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2,8-9/2,1-3,1**

The Comments were

These are serious health problems caused by contaminants that course through Lake Michigan's ecosystem in what are often insidious ways. The United States and Canada understood that a comprehensive forum for identifying these problems, then prioritizing and implementing remedial measures, would be critical to revitalizing Lake Michigan's ecosystem. Thus, U.S. EPA and the Lake Michigan States cannot afford to not give the Draft LaMP its fullest and best efforts. Most importantly, residents of the Lake Michigan Basin cannot afford to forego the opportunity presented by the LaMP to hold accountable for LaMP success their federal and state governments. These Comments will compare other Lake Michigan water quality protection programs to the LaMP as a means of helping to ensure the LaMP does not fall short of its goals as the other programs have done.

...

Instead, the Draft LaMP suggests more information is required before strong progress can be made in achieving the LaMP's goals. Other Lake Michigan water quality programs included demands for action based on incomplete data. For example, the Strategy requires planning based on "available data" (reference provided). Also, Congress required that TMDLs be set with a "margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." And U.S. EPA itself recognizes that a "[l]ack of information about certain types of pollution problems should not be used as a reason to delay implementation of water quality-based controls" (reference provided). Despite agency and Congressional mandates that both programs use the best available information, the U.S. EPA and Lake Michigan States have failed to see the Strategy and TMDL process through to success in restoring beneficial uses and compliance with water quality standards (reference provided).

U.S. EPA's pursuit of more complete information before major action (such as sunsetting or phaseouts) is apparent from the Draft LaMP's call for the development of a mass balance budget and mass balance model. Before either the budget or model can be developed, U.S. EPA claims it will be necessary to "re-orient, strengthen, and in some instances, to rebuild the source and ambient monitoring programs for the Great Lakes" (reference provided). However, the Draft LaMP should act immediately on the best available information; not wait for the development of "ambient monitoring programs" (reference provided). Where ambient monitoring data are needed, U.S. EPA should use the Great Lakes Water Quality Initiative as the primary means by which information can be collected (through discharger monitoring).

While few familiar with the complexities of the Great Lakes ecosystem would deny that more information is always helpful, U.S . EPA has a greater variety of data available today than was available during the development oft he Strategy. However, U.S. EPA and the Lake Michigan States were willing to move forward with the Strategy while collecting data. The LaMP itself recognizes certain data are now available that were not available before. For example, U.S. EPA uses TRI data in the Draft LaMP. RAPs, recent studies on tributary pollutant loadings,NPDES data, and research from ARCS, among others, are identified by U.S. EPA in the Draft LaMP as other sources of information that provide a better information base for decision making than was available in 1986 for the strategy. The Great Lakes Water Quality Initiative, although not yet promulgated,may be finalized by the time of final LaMP publication. This should be prominently noted as another key potential information source.

The EPA Response is

The revised draft LaMP clearly states that actions can be taken while more data are collected, and suggestions to the contrary by the commentor is simply untrue. The revised draft LaMP points out that more information on sources, loads, and impacts of a number of the LaMP pollutants is needed to better prioritize pollution prevention, reduction, and remediation activities. However, it lists a number of actions that are being implemented based on available data. In addition, the Agencies are developing specific recommendations for pollution control activities and priorities based on available information. Thus, while more information is needed to better focus our efforts, the Agencies have already taken load reduction actions based on existing data.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 12,17/1-4,1-4**

The Comments were

1. Areas of Concern Should Be Included As Open Lake Waters

The Agreement requires LaMPS to address "open lake waters". NWF supports a broad definition of this term because in the Agreement's ecosystem approach requires protection of all of the Great Lakes System's components (reference provided). Those areas designated as Areas of Concern ("AOC") should also be included in the definition of "open lake waters". While NWF does not disagree that Remedial Action Plans ("RAPs") are the proper vehicle for addressing AOC-specific use impairments, the categorical exclusion of AOCs from the geographical scope of the LaMP puts at risk the objective of the "LaMP program ... coordinat[ing] with the RAP programs" (reference provided). If AOCs are covered by the LaMP, such coordination will not be overlooked.

- Areas of Concern should be included in the definition of open lake waters.

2. The Geographical Scope of Pollutant Sources Must Be Expanded

One of the most noticeable shortfalls of the LaMP is its overly narrow focus on critical pollutant sources in the Lake Michigan Basin only. Because the Agreement requires LaMPs to reduce loadings of critical pollutants without limitations on where those loadings come from and because loadings of some critical pollutants originate outside the Great Lakes System, the LaMP must evaluate those "sources and pathways" and recommend remedial measures to achieve load reductions from those sources and pathways. This includes sources and pathways outside of the Basin.

It has been long documented that the contamination of Lake Michigan and the other Great Lakes is due in part to loadings of pollutants from outside the Great lakes system and even outside of the Basin. For example, a likely source of PCBs to Lake Michigan are leaking electrical capacitors and other equipment (reference provided). Although monitoring data are inadequate to pinpoint the exact location of these PCB sources, capacitors and other PCB-leaking equipment exist in various areas across the country;their atmospheric contributions may well not be limited to in-basin areas. An even better illustration is the contribution of DDT to the Lakes from Central and South America (reference provided).

...

2. Better Prioritization of Ecological and Remedial Measures is Needed

Although the Draft LaMP does an adequate job in laying out the ecological problems facing Lake Michigan, the LaMP does not, but should to the extent possible, prioritize problems according to health risks. Similarly,Section 3's action agenda should prioritize remedial measures.

While prioritizing problems and remedial measures without complete data is a difficult task, it is a crucial step in the LaMP process. Other Lake Michigan water quality management schemes have failed because they have not resulted in concrete progress toward ecological restoration and maintenance. This failure to make progress has been due in large part to the failure to prioritize and attack problems.

There are some pragmatic benefits to prioritizing problems and remedial measures. It will help elected officials to obtain funding and will help citizens to better focus on assisting in the funding effort. That the Lamp is an iterative document will help ensure that U.S. EPA has flexibility in making adjustments in these priorities.

- The LaMP should prioritize Lake Michigan's environmental problems according to ecological health threats and prioritize remedial measures.

The EPA Response is

The scope of the Lake Michigan LaMP does include nearshore waters of Lake Michigan as well as the open-lake waters, and therefore encompasses Areas of Concern (AOCs). The LaMP program coordinates with the RAP programs to document sources of pollutants and to estimate pollutant loads to Lake Michigan from the AOCs. Pollution prevention, reduction, and remediation activities carried out through the RAP process will serve to reduce toxic pollutant inputs into Lake Michigan. The LaMP will not interfere or duplicate RAP efforts, but will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic pollutant contributing to a use impairment in a Lake Michigan AOC is listed as a LaMP Critical Pollutant or Pollutant of Concern, depending on its spatial distribution.

We recognize the need to address sources of LaMP pollutants that are outside of the Lake Michigan watershed as well as those inside. The Clean Air Act Amendments of 1990 provides authorization to USEPA to evaluate the impacts of air deposition of toxics on the Great Lakes, and to implement control measures as necessary to eliminate these impacts. This is the best tool currently available for addressing out-of-basin sources. USEPA and the States will look for available opportunities to reduce pollutant inputs from these distant sources. However, the public must understand that this likely will be a long-term, ongoing process and will not be solved in the near future.

We concur with the commentor that an important step in the LaMP process is the prioritization of prevention/reduction/remediation activities based on the data presented in the Lake Michigan LaMP. The various Agencies have identified some priorities and made recommendations in the revised draft LaMP on where we should focus our efforts. These priorities and recommendations will be reviewed as necessary as new information becomes available and program successes and failures become evident. We understand that the information in the LaMP must be used in a meaningful way to improve environmental protection efforts.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p13-14,18pa3-5;2-5;2**

The Comments were

3. The LaMP Must More Aggressively Promote Pollution Prevention

Commendably, U.S. EPA states that one goal of the LaMP is to "prevent any further degradation of the Lake Michigan ecosystem" (reference provided) and to detect emerging problems (reference provided). However, the means by which such pollution prevention will be achieved is not adequately addressed by the LaMP.

Although the Draft LaMP lists pollution prevention as a goal, deeper reading of the document exposes its skeletal strategy "for reducing loads of critical pollutants", consisting of:

1) identifying all possible sources of pollutants;

2) quantifying the relative loadings from each source;

3) targeting load reduction activities on the most significant sources and where the potential for success is greatest (reference provided).

This proposed strategy is reactionary in nature, not preventive. While U.S. EPA dedicates a section of the Draft LaMP to prevention of degradation, this section concentrates on identifying substances for potential listing as critical pollutants only after "significant concentrations of a pollutant are detected in the Lake or in a tributary" or after U.S. EPA has evaluated "risks posed by pollutants."

One means by which the LaMP can prevent beneficial uses from being impaired rather than merely responding to them is to focus on chemical characteristics, such as chlorine, that are known to be associated with beneficial use impairments. Section III(B) of these Comments explain in more detail the need for addressing chemical characteristics.

Yet another means the LaMP can prevent beneficial uses from being impaired is to strongly embrace the scheduled phaseout of production (also known as "sunsetting") of critical pollutants and "critical characteristics" as described above (reference provided). Clean Water Act Section 118 calls for U.S. EPA to develop Lake Michigan's LaMP and Section 118(a)(2) directs U.S. EPA to achieve the goals embodied in the Great Lakes Water Quality agreement. Unless sunsetting is addressed in the LaMP, U.S. EPA will fail to achieve some of the Agreement's most central guiding principles.

Most notably, the United States has agreed to pursue a Great Lakes System that is "[f]ree from materials [that]...will produce conditions that are toxic or harmful to human, animal, or aquatic life" (reference provided). U.S. EPA cannot effectively achieve this and other key Agreement objectives without addressing comprehensive bans on the production of the most harmful chemicals and chemical characteristics.

- As called for in Section III(B) above, the LaMP should include in the list of Critical Pollutants or use an additional list that addresses critical characteristics that are often responsible for Lake Michigan's most pressing health hazards.

- U.S. EPA must immediately address comprehensive bans on -- or sunsetting of -- chemicals associated with Lake Michigan's most toxic substances.

...

- The LaMP could also benefit from inclusion of other relevant sources of information such as U.S. EPA's efforts with the voluntary pollution prevention in the auto industry and the Milwaukee Metropolitan Sewage District's prevention study.

The EPA Response is

The pollution prevention section of the revised draft LaMP has been updated and expanded to put more of an emphasis on pollution prevention. A pollution prevention strategy has been finalized and is included in Chapter 5 of the revised draft LaMP. Pollution prevention activities are being funded through the LaMP process, and other ongoing pollution prevention efforts and initiatives have been included in the document. It is the policy of USEPA that pollution prevention is the preferred approach to environmental protection, followed by recycling, and treatment and disposal as a last resort. We recognize that pollution prevention must be an integral component of the Lake Michigan LaMP.

The goal of the LaMP, as specified in the Agreement, is to restore and protect beneficial uses. If the Agencies determine that bans or phase-outs of certain substances are required to achieve this goal, then such a recommendation will be made.

In developing the listing process for LaMP pollutants, the characteristics that are responsible for the greatest risks to Lake Michigan have been identified by the Agencies. These include presence in the basin, toxicity, persistence, and bioaccumulation. Substances that have these characteristics, but are not yet associated with use impairments, are listed on Level 3. The LaMP recommends that these substances be evaluated and data collected to determine whether they may be impacting Lake Michigan. This proactive approach to prevent problems before they occur is similar to that advocated by the commentor.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 16, para 2-7**

The Comments were

1. Citizen Representation and Decision-Making Authority Must be Strengthened

The Management Committee, according to the Draft LaMP, consists of five federal agencies, representatives of the Native American tribes, and governments of the Lake Michigan States. Absent from the Management Committee structure are representatives of the public. Although the public is included in the Lake Michigan Forum, little justification exists for excluding representatives of the public from the Management Committee.

- Representatives of the public, and most importantly populations most heavily-impacted by toxic contamination (reference provided), should have representation on the Management Committee and assist in making decisions on that Committee.

- Logistics must be improved: meeting and notification of meetings of all bodies must be scheduled as far in advance as possible. Members of all committees must have adequate advance time to review and comment on all LaMP work products.

- The obligations of each entity -- be it an agency or the Management Committee -- must be clearly spelled out. Without such definition, the potential for duplicating efforts, communication gaps, and unfulfilled LaMP requirements -- in general, inefficiency -- is enormous. These obligations may be clarified by developing a memorandum of understanding among the various players.

- The LaMP should specifically name the departments and/or divisions and if possible the contact person for each, so that citizens may contact them with questions. This may be accomplished by providing in the LaMP's appendices a directory of agencies and stakeholders in the LaMP.

- Finally, membership on the Management Committee by "States bordering Lake Michigan" deserves clarification. There are about a dozen state departments, commissions, and offices that could have a strong role in LaMP management by the States. Citizens and the regulated community alike should be able to know the responsibilities of each state office so that they may provide the proper input to them. Again, this information should be listed in a directory appendix to the LaMP.

The EPA Response is

The Lake Michigan Forum co-chairs have been invited to attend and participate in Management Committee meetings. Representatives of all segments of the public have been invited to participate on the Lake Michigan Forum. The Forum, in addition to reviewing all LaMP work products, plans to address specific issues and to make specific recommendations to the Management Committee. The Forum has indicated a desire to take on this expanded role.

Membership lists for various committees have been provided to Forum members, and are available to anyone upon request (call 312-886-4680). The roles of the various committees are detailed in the revised draft LaMP (Chapter 1). We feel that it is unnecessary and burdensome to have a memorandum of understanding for all of the players.

The idea of including contact persons and their telephone numbers in an appendix is a good idea. We were not able to include this list in the revised draft LaMP, but it will be included in the final LaMP. The States are represented on the Management Committee by the water directors for the water quality agencies. These include the Illinois Environmental Protection Agency, Indiana Department of Environmental Management, Michigan Department of Natural Resources, and Wisconsin Department of Natural Resources.

These comments are from Docket Code Number **LM058**
The comments were dated **1-5-1993**
The commenter was **Natl Wildlife Fed**
Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **28 TMDLs**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 3,4, para 3-4, 1**

The Comments were

A. History of the National Wildlife Federation v. Adamkus Litigation

In NWF v. Adamkus, NWF claimed that the U.S. EPA and Lake Michigan States failed to set Total Maximum Daily Loads ("TMDLs") for Lake Michigan waters in violation of the Clean Water Act.

Clean Water Act Section 303(d) requires states to submit to U.S. EPA lists of water quality-limited waters. Water quality-limited waters are waterways in which water quality standards are not achieved despite the application of best practicable control technology and secondary treatment to non-publicly owned treatment works ("POTWs") and POTWs, respectively. States must then set, subject to U.S. EPA approval or disapproval, TMDLs for those water quality-limited waters. TMDLs are numerical limits on the amount or concentration of contaminants that cause or are likely to cause a violation of water quality standards in water quality-limited waters.

As part of its suit, NWF alleged that Lake Michigan waters were water quality-limited due to health risks posed to humans from eating certain Lake Michigan fish. NWF alleged in its Complaint that despite Lake Michigan waters' water quality-limited status, neither Illinois, Indiana, Michigan, Wisconsin (collectively, the "Lake Michigan States"), nor the U.S. EPA had set TMDLs. Resolution of NWF's suit resulted in U.S. EPA's commitment to undertake certain actions to fulfill its obligations under Clean Water Act Section 303(d)'s TMDL mandate. According to the Settlement, U.S. EPA committed to undertaking certain actions within the context of the Lake Michigan LaMP process.

The EPA Response is

The revised draft LaMP contains a list of State submittals for waters requiring TMDLs under section 303(d) of the Clean Water Act, and the proposed schedules for TMDL development for each of these waters. The public will have an opportunity to comment on these listings when the revised draft LaMP is released.

These comments are from Docket Code Number **LM058** The comments were dated **1-5-1993**

The commenter was **Natl Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p9-11 par3,6;1;4-5**

The Comments were

- Move immediately to eliminate critical pollutants from the Lake Michigan System despite incomplete or old data. Clearly, the LaMP cannot wait for the results to emerge from mass balance budgeting or mass balance models for the entire Lake before actual steps are taken toward achieving the LaMP's goals.

...

While mentioning virtual elimination, the LaMP fails to take assertive steps toward its achievement. The LaMP recognizes as a secondary goal the virtual elimination of the release of persistent, toxic, and/or bioaccumulative pollutants within the Lake Michigan Basin (reference provided). However, the LaMP's action agenda merely commits U.S. EPA to pursuing the reduction/elimination of "Critical Pollutants and/or Level III or IV pollutants into the Lake Michigan basin" (reference provided). Although this part of the action agenda also commits the U.S. EPA to addressing stormwater contributions to the Lake, it fails to recognize non-point, atmospheric, and in-place sources of Critical, Level III, and Level IV pollutants. The LaMP's stated goal of the virtual elimination of persistent, toxic, and/or bioaccumulative pollutants will fail unless it addresses these sources.

Even more noticeable is the LaMP's failure to recognize the Agreement's philosophy of zero discharge (footnote: One policy of the Agreement is for the discharge of persistent toxic substances be virtually eliminated, Article II(a), and that "[r]egulatory strategies for controlling or preventing the input of persistent toxic substances [adhere to the Agreement's philosophy of] zero discharge." Annex 12, 2(a)(ii). The Lake Michigan LaMP could be a perfect example of such a regulatory strategy.). Zero discharge is one of the centerpieces of the Agreement and the CWA. The LaMP's failure to recognize this sets up the LaMP for failure before it has even been finalized. For these reasons, U.S. EPA should include in the final LaMP:

-Concrete steps to be taken, such as the sunsetting and phaseout of persistent and/or bioaccumulative toxic pollutants, toward virtual elimination and zero discharge.

...

2. Listing Criteria Should Include "Critical Characteristics"

The Draft LaMP at this time mostly lists chlorinated compounds; it does not -- but should -- address the common characteristics of several proposed critical pollutants. For example, one common characteristic of many of the critical pollutants proposed by the LaMP is that they contain chlorine. According to one source, approximately half of the 362 chemicals on the Water Quality Board's working list are chlorine based, and other chlorinated organic substances are entering the environment that have yet to be identified (reference provided).

- The LaMP should include in the List of Critical Pollutants or use an additional list that addresses ingredients or characteristics of substances, such as chlorine as a feedstock, that are commonly attributed to Lake Michigan health concerns.

The EPA Response is

As stated in the response to a previous comment by this commentor, the Lake Michigan LaMP does list concrete actions being implemented to reduce loads and/or ambient levels of LaMP pollutants in the Lake Michigan watershed. The Agencies will continue to identify and implement actions based on available information as the LaMP process develops. It is not USEPA's intention to delay load reduction activities until more data is collected.

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses of the Lake Michigan watershed. LaMPs are to be steps towards the Agreement goal of virtual elimination. Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific chemical is necessary to restore or protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving closer to the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM059** The comments were dated **1-7-1993**

The commenter was **Growmark** Which is a/an **1 Industry**

The main subject addressed in these comments was **23 Nonpoint Srces**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para 2-5, 1-5**

The Comments were

We are concerned about the LaMP's impact on agriculture, especially since non-point source pollution and the efforts to monitor it are not well-defined in this document.

It is vital that the USEPA recognize that the agricultural industry has invested substantial effort to reduce the incidence and impact of non-point source pollution. Some examples of these recent efforts are:

1. Secondary Containment. All of the agrichemical facilities in the GROWMARK System have secondary containment for bulk chemical and fertilizer tanks. In fact, GROWMARK participated in setting the standard for secondary agrichemical containment. Concrete mixing and loading pads and reinstate recycling is also utilized to reduce the incidence of pesticide migration off-site. This helps us to keep potential contaminants from entering the non-point source stream.

2. Best Management Practices. We actively promote BMP's, which include using pesticides only when necessary, recommending as few inputs as possible to accomplish crop production goals, and timely product applications to reduce product drift or migration off-site.

3. Maintaining Application Equipment. We promote careful maintenance and calibration of application equipment. We are also incorporating new varying rate technologies to reduce drift and achieve ultimate results from pesticide and fertilizer applications as new equipment becomes available.

4. Grower Education. GROWMARK is extremely active in educating farmers to enable them to choose the most viable and environmentally sound inputs to achieve their production goals. We communicate frequently with them via the FS member companies to make them aware of environmental concerns and to help assure that the farmers who purchase our products employ best management practices.

In addition, our industry is proactive in many areas concerning the protection of our environment. For example, Ciba-Geigy voluntarily changed their atrazine label to help reduce the incidence of this pesticide occurring in our water resources.

The agricultural industry continues to look at ways to limit non-point source pollution. Food production encompasses many different elements of product use; therefore, there cannot be a simple, "catch-all" method to help reduce non-point source pollution. Instead, government and private businesses should focus their efforts on providing incentives for pollution prevention instead of forcing industry to try to comply with unattainable standards.

GROWMARK and the FS member companies believe that the solution to reducing non-point source pollution lies in promoting voluntary industry actions that are proven to solve real problems, not perceived ones. We appreciate having the opportunity to express our views on improving the quality of the region's water resources, and offer our assistance to you as you prepare to further implement the LaMP program.

The EPA Response is

USEPA recognizes that the agricultural industry has taken a number of steps to reduce runoff from farms into surface waters and to otherwise ensure the use of environmentally sound practices. The Lake Michigan LaMP attempts to identify the relative importance of all sources of LaMP pollutants to the extent possible, including agricultural runoff. When significant sources are identified, the LaMP process will recommend actions to reduce loadings from these sources where possible. Many of the actions will include voluntary and incentive-based pollution prevention activities, while others may include better use and enforcement of existing regulations. Thus, the LaMP process will use all available tools to achieve load reductions, with enforcement of existing or new regulations being only one component. We do not intend to burden the agricutural industry, or any other for that matter, with a series of new regulations.

These comments are from Docket Code Number **LM060** The comments were dated **12-8-1992**

The commenter was **Joanna Waugh** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para 3-4, 1**

The Comments were

According to the Commission's Science Advisory Board, "Unequivocal evidence of injury to humans by persistent toxic substances may be difficult or impossible to obtain." Columnist Al Spiers quotes Indiana's Department of Natural Resources in Hoosier Outdoors Nov/Dec, '92 issue: "Long-term effects of human exposures to PCBs and pesticides have not been fully determined by health experts." Nevertheless, the International Joint Commission adopted a "weight-of-evidence" approach to toxic substances. Wildlife studies and laboratory animal experiments are taken together to provide circumstantial evidence that persistent toxic substances negatively effect human health.

Such an approach is fraught with inconsistencies and highly susceptible to subjective interpretation. For example: Love Canal prodded scientific research on the human health effects of dioxins. In lab experiments, Guinea pigs exposed to relatively small dioxin levels exhibited benign and cancerous tumors. Yet hamsters could withstand 5,000 times greater dioxin doses without adverse effect. Which data should be applied to human health? Likewise, scientists have studied fifteen Great Lakes wildlife species since the end of World War II. They cite reproductive and genetic abnormalities in the double-crested cormorant, lake trout and coho salmon as proof that Great Lakes pollution adversely effects humans. But there are questionable aspects to these studies. The osprey, for example, relies solely on fish plucked from the water. By contrast, the herring gull is a scavenger that frequents garbage dumps. Of the nine Great Lakes birds tracked since WWII, the osprey exhibits the least number of abnormalities (3 of 11) while the herring gull exhibits the most (10 of 11). More importantly, one must ask: why are only eight aquatic birds tracked? Mallard ducks and merganizers, wood ducks, Canadian geese, canvas backs and black ducks all frequent the Great Lakes and their surrounding tributaries and marshes. What about the myriad of terns, coots, grobes, snipes, rails, and sandpipers? What about swans, egrets, and herons? If scientists want a complete picture of Great Lakes water pollution effects, all aquatic life must be considered. Are the abnormalities reported by the IJC simply a case of Guinea pig findings versus hamster data?

There are other cases for subjective scientific research. One study cited in the IJC's 1991 report concerns the effects on children born of mothers who consume Great Lakes fish. This Michigan research claimed to find elevated levels of PCBs, DDT and dieldrin in mother's breast milk. Based on lab studies of rhesus monkeys, scientists combined the data and concluded that presence of these chemicals later contributed to hyperactivity in children. But even the IJC admits that "breast milk of women in the Great Lakes region is not significantly more or less contaminated with PCBs, DDT and dieldrin than are other parts of North America and Europe." Even the Commission acknowledged the scientific community considers the study flawed because it did not allow for other environmental effects or genetics. Yet the Michigan study continues to be touted by green groups as proof that Great Lakes pollution is responsible for a myriad of human ailments. They sweep under the table statements like that from Dr. Greg Steele of the Indiana State Department of Health who claims "...it is far more dangerous to smoke cigarettes, or to not wear a seat belt than to eat fish caught in Indiana waters." Al Spiers adds: "It should be noted that the concentration of contaminants in fish tissue is decreasing in Indiana waters..."

The EPA Response is

There is considerable uncertainty and variability in the scientific literature regarding the effects of toxic pollutants on human health. Though studies have suggested impacts of toxics on human health, the results of some of these studies may be influenced by other factors that were unaccounted for. The Agency has adopted a weight-of-evidence approach to these toxicological studies, and we feel that there is sufficient evidence of toxic pollutant effects on humans to warrant concern over the presence of these substances in the environment. If we delayed any action until there was absolute, complete cause and effect data on toxics impacts to humans, we would not ever do anything to control these substances until it was too late. Anyone familiar with biology realizes that biological entities are by nature highly variable, and do not react the same way to the same things every time. We believe that there is some benefit to erring on the conservative side to protect human health. In addition, the Lake Michigan LaMP is concerned about the effects of toxics on all biota, not just humans. All organisms, both at the individual and population level, should be protected from the impacts of toxic pollutants.

These comments are from Docket Code Number **LM060** The comments were dated **12-8-1992**

The commenter was **Joanna Waugh** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 2**

The Comments were

PCB

Banned from production and use since 1979, PCBs still exist in lake sediment and landfills. They were once widely used in place of mineral oil in transformers and other electrical equipment. Removal from sediments, landfills and storage facilities will be extremely costly. Says the International Joint Commission's biennial report: "Despite considerable research and study, how does one remove such contamination from the ecosystem or effectively isolate it?"

The EPA Response is

The Agency recognizes that it would be very costly to remove all of the PCBs that exist in the environment. That is why the LaMP process is so important. The Agencies can evaluate the relative importance of all PCB sources to total loads, identify which sources pose the greatest risk, and therefore ensure that our limited resources are better targeted and spent on the highest priority problems.

These comments are from Docket Code Number **LM060** The comments were dated **12-8-1992**

The commenter was **Joanna Waugh** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p2-3 pa2-3;1,3-7**

The Comments were

Why, then, do doomsday predictions about Great Lakes water toxins persist? Because the IJC and local environmental groups support the concept of "zero discharge." "Zero discharge" is the complete discharge elimination of all chemicals into the Great Lakes. It would require municipalities to treat all rainwater runoff from streets and force all Great Lakes industries to more effectively clean their production wastewater or discharge it into local municipal sewage treatment plants. Great Lakes communities would be forced to vastly expand their sewage treatment facilities and install more sophisticated (and costly) equipment. Municipal sewage treatment would include pesticide taint from lawns, trace chemicals from industry as well as rainwater flowing into storm sewers. Some experts believe zero discharge is an overreaction to a relatively minor problem -- like killing a mosquito with a hammer.

The International Joint Commission defines a toxic substance as "one which can cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological or reproductive malfunctions or physical deformities in any organism or its offspring, or which can become poisonous after concentration in the food chain or in combination with other substances." (emphasis added) This philosophy assumes that, if a specific dosage level causes any of these manifestations, then any dose -- no matter how minute -- carries an unacceptable risk. Thus, government agencies have adopted zero tolerance as the standard for dealing with toxic substances.

Likewise, the International Joint Commission embraces zero tolerance in its strategy for "virtual elimination" (zero discharge) of persistent toxic substances. (A persistent toxic substance is any toxin that possesses a half-life -- the time it takes for it to diminish one-half its original value -- in water of greater than eight weeks.) The IJC wishes to apply zero discharge/virtual elimination to the ten most persistent Great Lakes toxins: PCBs, DDT, dieldrin, toxaphene, mirex, benzene, dioxin, furan, lead and mercury.

...

DDT

A pesticide still produced in the United States but exported abroad, DDT is used extensively in Central America. The IJC believes DDT enters the Great Lakes atmospherically. (Atmospheric emissions are considered to be released from incinerators, wood stoves, fireplaces, barbecues, landfills, industrial smoke stacks, car and truck tailpipes, pesticide sprays and contaminated soil.) Virtual elimination of DDT would require a worldwide ban on its production and use.

dieldrin & toxaphene

Production and use of these two chemicals was halted 10-15 years ago but small quantities are still permitted. Dieldrin and toxaphene persist in landfills and may also be atmospherically transported from Central America. Virtual elimination would require mitigation of waste disposal sites plus a worldwide ban on production and use.

benzene

A pesticide and industrial by-product, benzene's use and discharge into the Great Lakes has declined over the last decade. However, the International Joint Commission claims benzene is also present in the fly ash and flue gas emissions of municipal waste incinerators. Virtual elimination would require a ban on its production as well as installation of emission controls or incinerators.

TCDD (a dioxin) TCDF (furan)

By-products of the industrial process, dioxin and furan also persist in lake sediments and landfills. Zero discharge would involve point-source elimination as well as remediation of those waste sites. Also present in incinerator emissions.

mirex

A chemical whose production and use has been banned. Inputs continue to occur from waste disposal sites along the Niagara River as well as atmospheric transport from Central America. Virtual elimination would require a worldwide ban and waste site remediation.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect the beneficial uses in the Lake Michigan watershed. LaMPs are to be steps toward the goal of virtual elimination. Therefore, the LaMP does not require the virtual elimination of pollutants, unless virtual elimination of a specific chemical is needed to restore or protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving us closer to the Agreement goal of virtual elimination.

These comments are from Docket Code Number **LM060** The comments were dated **12-8-1992**

The commenter was **Joanna Waugh** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p4 para. 1-2**

The Comments were

lead and mercury

Naturally occurring metals, lead and mercury are also by-products of fossil fuel combustion. Prime lead/mercury producers are electrical generation plants, smelters, and incinerators. Virtual elimination would require smokestack remediation as the technology becomes available. Lead was eliminated from paints and gasoline more than a decade ago, yet it persists in landfills. It also manifests itself in unexplainable ways among young children. John E. Kinney, a engineer with the National Council for Environmental Balance (Louisville, Kentucky) observes that agencies like the EPA routinely ignore the role nutrition plays in body chemistry. He cites one study in which, "high lead levels in the blood of black children were attributed to lead in gasoline. Data on blood levels in black children in areas unaffected by car exhaust also showed high lead. A change in diet to increase iron and copper...caused the levels to drop." Mercury can be found in equipment like electrical relays and thermometers as well as old cast-iron gas regulators. Lik lead, it too is a by-product of gasoline use but, unfortunately, mercury cannot be phased out in any practical time frame

The IJC recommends that production, use, storage and disposal of these persistent toxic chemicals be internationally banned. The world community of nations must somehow find a way to destroy those that remain in our environment. Since toxins do not biodegrade and no technology is yet available to "neutralize" them, virtual elimination of their presence seems impossible for now. Public reaction against the proposed SONAS soil incinerator in the Port of Indian highlights the social unacceptability of incineration as a solution to eliminating some toxic wastes. It also seems unlikely that countries like Panama will ban the use of DDT against mosquitos.

The EPA Response is

Continuation of previous comment

These comments are from Docket Code Number **LM060** The comments were dated **12-8-1992**

The commenter was **Joanna Waugh** Which is a/an **4 Private Citizen**

The main subject addressed in these comments was **34 Cost/Ben Analy**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 4, para 3**

The Comments were

Alessa Bell, director of the Great Lakes Water Coalition, claims that Great Lakes businesses are concerned about zero discharge's "cost impact versus the amount of environmental improvement." Many residents within thebasin believe prohibitive remediation costs will put local economies at a disadvantage in the 21st Century global market. To stay economically viable, Northwest Indiana must remain practical in its approach to Lake Michigan pollution. It must recognize what is and is not achievable.

The EPA Response is

The goal of the Lake Michigan LaMP is not zero discharge or virtual elimination, as explained in the response to the previous comment. Therefore, it is not relevant in the context of the Lake Michigan LaMP, to get into a discussion of the costs versus benefits of zero discharge. However, we do agree that we must target our limited resources to ensure the best environmental results and ensure that the highest priority problems are addressed in an efficient manner.

These comments are from Docket Code Number **LM061** The comments were dated **1-2-1993**

The commenter was **WI Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

The Wisconsin Wildlife Federation would like to have deleted from the LaMP draft, in the USEPA views and proposed goals, paragraph (1) section (a) the Lake's water quality and sediments are capable of sustainingcommunities of sensitive living resources (AQUATIC and TERRESTRIAL) and (b) the health risks to humans and wildlife in drinking Lake water or consuming Lake fish and wildlife.

The EPA Response is

The section on LaMP goals have been substantially reworked in the revised draft LaMP, and those phrases cited by the commentor are no longer included in this section.

These comments are from Docket Code Number **LM061** The comments were dated **1-2-1993**

The commenter was **WI Wildlife Fed** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1,3, para 3,1-3**

The Comments were

The EPA and the Federal Agencies did not give the nongovernmental organizations time to respond, and the Wisconsin Wildlife Federation asked for more response time and that the WWF to have some input into the final (LaMP) draft.

...

We the Wisconsin Wildlife Federation petition Region V of the E.P .A. for response extension to January 9, 1993.

The purpose for the extension, is to give the general public and the state associations time to study the LaMP draft and time to respond.

The length of time the LaMP draft was written and than presented to the general public and state association is more than the response time.

The EPA Response is

The public comment period for the 1/1/92 draft Lake Michigan LaMP was extended by 30 days to January 8, 1993, in response to requests from several citizens and groups.

These comments are from Docket Code Number **LM062** The comments were dated **11-18-1992**

The commenter was **MI Charter Boat Assn** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **04 Appendix B**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

A second set of concerns deals with Appendix B, page B-1, and the recommendation to limit consumption of certain species of Lake Michigan fish. Fish consumption advisories are hotly criticized by public health officials throughout the Great Lakes. There have been well documented studies conducted by unimpeachable agencies which question and directly contradict the alleged dangers of other fish consumption advisories. If the advisories to limit fish consumptio are valid for sports caught fish, why aren't the same advisories valid for the same fish, from the same waters, caught b Native Americans and sold commercially in markets like Chicago and New York? We all recognize that there are risk in every activity we undertake. Eating fish has some hazard, but less than eating peanut butter or char-grilled meat, and certainly much less than just being in a room with a cigarette smoker. If references to fish advisories are absolute necessary, the risk of eating fish should be placed in the proper perspective, which is minimal and much less than othe foods we eat daily. Your attention to limit consumption of certain species of Lake Michigan fish without this risk perspective raise questions of credibility and the true purpose of LaMP.

The EPA Response is

The States have issued fish consumption advisories for Lake Michigan fish, and therefore it is appropriate to cite these advisories in the LaMP. We recognize that some uncertainty exists when setting these advisories, but advisories are se on best available information. These are just advisories; if individuals choose to disregard the advisories, that is their perogative.

The commentor is correct in that there is some risk in everything that people eat and everything they do. We do not fee that it is appropriate to get into an analysis of the risks posed by fish consumption compared to the risks posed by eating every other food or engaging in every conceivable activity. However, there is a workgroup that has been working on setting consistent fish consumption advisories throughout the Great Lakes basin through a risk-based approach.

EPA U.S. Environmental Protection Agency Region 5 Responses to Public Comments on the Draft Lake Michigan Lakewide Management Plan

These comments are from Docket Code Number **LM062** The comments were dated **11-18-1992**

The commenter was **MI Charter Boat Assn** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1,2, para 1-4;2**

The Comments were

The Michigan Charter Boat Association represents over seven hundred Michigan based holders of U.S. Coast Guard licenses to carry passengers for hire, and over 95% of our members operate sport fishing charter boats on the Great Lakes. We have some serious concerns about the interpretation of some statements contained, and the omission of some facts, in the Lake Michigan Lakewide Management Plan (LaMP) Draft -- January 1, 1992.

Our first set of concerns derive from statements about "native species" in three different areas of the draft. Specifically, we refer to:

1. Preface, opening paragraph, second last sentence beginning with "The delicate network..." and ending with "...native species."

2. Introduction, page 1 - The proposed objective "1. Aquatic Communities" again refers to "...native species."

3. Introduction, pages 8 and 9 - the paragraph beginning on the bottom of page 8 and ending on the top of page 9, refers to the "...detrimental effects of introduced species (68%)."

Our concerns center on the interpretation of "exotic" and "native" as used in these three statements. The sports fishing charter industry in Michigan has an economic impact of approximately $100 million annually and in Lake Michigan focuses primarily on five species of fish. They are, in order of impact, Steelhead, King or Chinook Salmon, Coho Salmon, Lake Trout, and Brown Trout. All are deliberately introduced species since the last Lake Michigan strain of Lake Trout became extinct over forty years ago. Are all five of the preceding species of fish considered "exotic" since none are native to Lake Michigan, and therefore "...upset the balance of the aquatic ecosystem..."? Or are the Steelhead, Chinook and Coho Salmon, and the Brown Trout now considered "native" since they have acclimated and there is substantial natural reproduction of the species, and conversely, are the introduced strain of Lake Trout considered "exotic" because they have failed to reproduce despite over 35 years of intense effort by the U.S. Fish & Wildlife Service? You should be aware of the "Strategic Vision of the Great Lakes Fishery Commission for the Decade of the 1990s". We believe they are misguided in their attempt to restore Lake Trout at the exclusion of other more desirable sports fish already introduced and surviving in Lake Michigan but you may be in opposition to their "Vision." Depending on your interpretation of "exotic" and "native" is the future of a multi million dollar recreational sports industry and the related jobs.

...In summary, the Michigan Charter Boat Association has concerns about what species of fish are considered "native" and which are "exotic" and the resulting impact on Michigan's $100 million sports fishing industry and jobs. Secondly, we question the validity of incomplete statements regarding the consumption of Lake Michigan sports fish.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM063** The comments were dated **1-8-1993**
The commenter was **Great Lakes United** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **13 Ecosy Approach**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 1, para 2**

The Comments were

Needless to say, there has been considerable concern expressed about the draft LaMP. The issues raised have been difficult ones to address, especially within the context of the Great Lakes Water Quality Agreement. The planning process needs to proceed expeditiously, but it also needs to proceed carefully (and correctly) utilizing an ecosystem approach.

The EPA Response is

We concur with this comment.

These comments are from Docket Code Number **LM064** The comments were dated **11-24-1992**
The commenter was **Gr Traverse Bay WITF** Which is a/an **2 Environmental Org.**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p 1, para 2**

The Comments were

A Task Force comprised of several regional and local organizations has coordinated the strategic planning and communications for the Initiative during the past two years. This group is particularly concerned that nutrients have not been included in the list of critical pollutants identified in the Lake Michigan LaMP. Nutrients are the single most critical pollutant in the Grand Traverse Bay region, threatening the high quality resources and the biodiversity that ar essential to the area's tourism and recreation industries. Pollution prevention in the Grand Traverse Bay depends on controlling nutrient loadings from point and non-point sources, including atmospheric deposition. We feel it is essent that future management efforts and funding for Lake Michigan projects be directed to proactively control nutrients in order to avoid the tremendous expense of reversing the degradation caused by these pollutants. The cases of Saginaw Bay and western Lake Erie demonstrate that nutrients, and not just toxic chemicals, are priorities for pollution prevention planning. We would like EPA to answer this question:

How will lakewide management planning address nutrients in those regions where nutrients are the most critical pollutants?

The EPA Response is

While eutrophication caused by nutrients is a problem in some nearshore areas of Lake Michigan, particulary some AOCs and Grand Traverse Bay, we do not have evidence that this impairment exists on a lakewide scale. The Agencie participating in the LaMP process believe that our top priority, at least for the present time, should be persistent toxic pollutants. This does not imply that nutrient inputs should not be controlled or reduced further. We recognize that excessive nutrient loads to Lake Michigan would have serious environmental consequences. However, we believe that toxic pollutants are having greater impacts on Lake Michigan on a lakewide scale. If future data suggest that addition controls are needed for nutrients, then the LaMP could address this issue. We feel that our limited resources are best spent on reducing inputs of toxic pollutants at this time.

These comments are from Docket Code Number **LM065** The comments were dated **12-5-1992**

The commenter was **Port Wash. CCA** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1, para 2,3**

The Comments were

Our businesses have been built on the ability to catch fish from the salmonid family. These fish are, of course, exotic to Lake Michigan. The native species that you refer to in the LaMP would leave us with only the lake trout, as an offshore sportfish. This would certainly cause the collapse of my business, as well as several others along the coast of Lake Michigan.

Being that the fish (salmonids) are not the cause of the pollution in Lake Michigan, I believe that all comments regarding fish management in the LaMP should be dropped. I also believe that the efforts should be concentrated on removal of all toxins from the water. Furthermore, I believe the lake should support a variety of species, including exotics, living in harmony. I think that this variety, and harmonious existence, should be determined by the fishery staffs from the states bordering the lake. These are the people that are directly responsible for the success of their communities within their states, and the success of the lakes fishing resource, both commercial and non-commercial.

The EPA Response is

The goal of the LaMP process is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress toward this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM066** The comments were dated **12-8-1992**
The commenter was **Endometriosis Assoc.** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1**

The Comments were

The Endometriosis Association is an international nonprofit organization representing millions of women with the frustrating and puzzling disease endometriosis. An estimated 5 million women with endometriosis live in the United States. At this time, scientific proof of the cause of the disease is lacking as well as the ability to cure the disease or prevent it. The disease causes untold pain, infertility, disruption of a woman's ability to work at times and carry on normal activities, and appears to cause a host of related immunological and hormonal health problems.

Recently, scientists have established a link between toxic contaminants, particularly Dioxin and PCB's, and endometriosis. A colony of rhesus monkeys exposed to Dioxin developed endometriosis in a highly significant fashion statistically $p<0.001$. In addition, studies showed that the Dioxin caused far more severe endometriosis than the very mild disease that occurs in rhesus monkeys spontaneously.

A similar study carried out under the auspices of the Federal Canadian Government, found that PCB's caused severe endometriosis in a rhesus colony.

Because of the complexity of the immune and endocrine reactions in a disease such as endometriosis, and related heal problems, it can safely be predicted that numerous other health implications will occur due to the toxic exposure common to all surrounding Lake Michigan area. It will be many years before we fully understand the full health implications, intellectual implications, and behavioral implications of toxic damage to the human population, but enough is already known to paint a picture of untold nightmare unless we seize the opportunity now to limit the damag and clean up what already has been damaged.

Some will argue that it is too costly to clean up the damage or limit pollutants such as PCB's and Dioxins. However, the cost to our society in health, lower productivity, or totally lost productivity, the learning ability and intellectual performance of our children and overall well-being of society are immeasurable.

The EPA Response is

The Agency agrees that there is sufficient evidence on the impacts of PCBs and dioxins to humans, wildlife, and fish to warrant actions to reduce their loadings and ambient levels in Lake Michigan.

These comments are from Docket Code Number **LM066** The comments were dated **12-8-1992**
The commenter was **Endometriosis Assoc.** Which is a/an **8 Other Citizen Grp.**
The main subject addressed in these comments was **30 Zero Discharge**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.2, para.2**

The Comments were

Please take all measure possible to eliminate the discharge of the six pollutants identified into Lake Michigan and beg the clean-up process so that future generations can enjoy health and happiness.

The EPA Response is

The Agencies participating in the LaMP process will identify and implement pollution prevention, reduction, and remediation activities to reduce loads of the Critical Pollutants in the Lake Michigan watershed.

These comments are from Docket Code Number **LM066A**

The comments were dated **12-8-1992**

The commenter was **Endometriosis Assoc.**

Which is a/an **8 Other Citizen Grp.**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Attch.A**

The Comments were

Background material on endometriosis

The EPA Response is

These comments are from Docket Code Number **LM067** The comments were dated **10-1-1992**

The commenter was **Lake MI FCATF** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **F Fish Populations**

These comments were found at the following locations in the comment letter: **p 1-2, para 1-3, 1-2**

The Comments were

The Lake Michigan Fisheries Citizen Advisory Task Force, comprised of representatives from Michigan's major sport fishing organizations, affiliated industries, and Michigan Department of Natural Resources personnel, strongly opposes some statements in the publication "Strategic Vision of the Great Lakes Fishery Commission for the Decade o the 1990's." We support healthy Great Lakes ecosystems, but we are appalled at the Commission's negative statements about fish stocking of naturalized species. It's quite clear to the Task Force that the Great Lakes Fishery Commissio (GLFC) is promoting only lake trout to drive the predatory system. The GLFC ignores the other introduced salmonid and the socio/economic benefits which these fisheries have provided. We view these statements by the GLFC as disruptive to the states' and agencies' management of Great Lakes fisheries. Moreover, the statements attached to Visions on Healthy Ecosystems are ambiguous and contradictory.

The Great Lakes ecosystem is complex and ever-changing in the man-altered environment, which now has a fish speci composition significantly altered from pre-lamprey days. The development of a multi-million dollar sport fishery by th states based on the introduced stocks of salmonids is real and here to stay. Stability of a high quality sport fishery can only be sustained through a multi-species mix of native and homesteaded species.

The GLFC, with its long history of partnerships, must have been aware that all fishery agencies are committed to the establishment of desirable self-sustaining fish populations wherever possible, thereby minimizing the need to utilize stocked fish. However, the judicious stocking of fish for both rehabilitation and public benefit is compatible with the goals of native species restoration, and also provides for full utilization of the ecosystem's potential. According to the memorandum (B. Shupp, May 11, 1992), submitted to the GLFC by the operations subcommittee, the agencies will continue to utilize stocking as a recruitment tool to achieve fish community goals and objectives as established through the joint strategic management planning process. We encourage the GLFC, through stronger partnerships with these agencies, to become better informed on the state agencies' own visions in the development of fish community goals. Parts of the GLFC visions and statements appear cloned from those of some U.S. Federal agencies and are not truly representative of the majority of management agencies bordering the Great Lakes.

We suggest the GLFC could best serve its partners and a healthy Great Lakes ecosystem by expending all its energies and resources on the failing sea lamprey programs. We all know there are no obtainable, desirable visions in fisheries with uncontrolled sea lamprey populations.

We believe that those who have promulgated some of the GLFC visions statements, those who enthusiastically embrace the goals and concepts of some of these visions statements, have an unstated motive. We allege the motive to be the usurpation of the authority of the Great Lakes states, agencies and the Province of Ontario to manage the fisheries within the boundaries of each. Presently the only authority of the GLFC is lamprey control and research which originally was predicated on lake trout rehabilitation.

The EPA Response is

USEPA has no control over what is published by the Great Lakes Fishery Commission, so it would be inappropriate to comment on this publication in the context of responding to comments on the Lake Michigan LaMP. However, the goal of the LaMP is to reduce levels of toxic pollutants impacting the Lake Michigan watershed. Progress towards this goal will benefit all species in Lake Michigan. The LaMP is not a fishery management plan. The objective for aquatic communities has been reworded in the revised draft LaMP to eliminate the apparent perception among some that the LaMP will dictate fishery management.

These comments are from Docket Code Number **LM068** The comments were dated **1-8-1993**

The commenter was **Sen. Carl Levin** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 1**

The Comments were

(1) Identification of Priorities. Perhaps the most important step would be to strengthen Section 3 of the LAMP, which contains the action plan, by identifying top LAMP priorities. While the eight charts outlining agency actions to accomplish various LAMP task are important and need to be retained, the section should also separately identify the top two or three LAMP priorities for the upcoming year -- the actions most important for the health and future of Lake Michigan. Explanations for selecting these top priorities could be provided as well and could range, for example, from supporting the most cost-effective pollution reduction strategy, to conducting surveys identifying the Lake's most serious pollution sources, to meeting other LAMP needs. The LAMP process is not only well-designed to develop consensus on these priorities, but generating this type of consensus is critical for guiding Great Lakes community efforts on Lake Michigan.

The EPA Response is

The LaMP process needs to set priorities for reduction activities. Based on the information analyzed and summarized in the revised draft LaMP, the participating Agencies have provided some recommendations to reduce levels of LaMP pollutants. This information also will be used to generate program priorities for future years, and to refocus various base programs as necessary to address the identified problems.

These comments are from Docket Code Number **LM068** The comments were dated **1-8-1993**

The commenter was **Sen. Carl Levin** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 2**

The Comments were

(5) Description of Lake Michigan. Another strengthening measure could be to add to Section 1 of the LAMP a brief, factual description of Lake Michigan. Many LAMP users may be unfamiliar with the Lake's particular character, and this description, which could be inserted before the LAMPS's explanation of current use impairments, could help provide a common understanding of the Lake's needs. This information could include brief descriptions of the Lake's physical characteristics, key fish and wildlife populations, shoreline land uses, largest cities, environmentally protected areas, and areas of concern.

The EPA Response is

While this information could be incorporated into the Lake Michigan LaMP and would provide interesting information, we believe that it is unnecesary. This information can be found in many other publications and reports on the Great Lakes. The LaMP document, which is already quite large, should be as concise as possible. Also, the focus of the LaMP is on an assessment of ecological health, toxic pollutants contributing to impairments, pollutant sources, and a list of actions to reduce loads of these substances. We feel that anything that dilutes this focus, and is not absolutely necessary, should not be included in the LaMP.

These comments are from Docket Code Number **LM068** The comments were dated **1-8-1993**

The commenter was **Sen. Carl Levin** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **15 Env Indicators**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2 para 3**

The Comments were

(3) Clarification of Ecosystem Objectives. The draft's discussion of Lake Michigan ecosystem objectives and LAMP goals, as set forth in the introduction, now appears to consist of boilerplate language unrelated to Lake Michigan's particular needs. This key discussion could be strengthened by including the information contained in pages A-4 to A-. of Appendix A on the need to develop Lake Michigan-specific chemical and biological indicators to track the Lake's health. Even more importantly, these indicators could be spelled out in the main body of the LAMP. Since the LAMP draft is now more than one year old, those indicators could either be identified in the next revision, or the work performed to develop them and a target date for their completion could be provided.

The EPA Response is

Quantitative chemical and biological indicators that track the progress of the Lake Michigan LaMP towards the achievement of broad goals and objectives still need to be developed. The Agencies participating in the LaMP process recognize this as a priority and an important component of the LaMP. These quantitative measures will not be developed in time for inclusion into the Lake Michigan LaMP by its publication in the Federal Register in January 1994. The steps required to complete this process and the proposed schedule is listed in the Chapter 5 action agenda.

These comments are from Docket Code Number **LM068** The comments were dated **1-8-1993**

The commenter was **Sen. Carl Levin** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2-3, para 2,3**

The Comments were

(2) Update Mechanisms. The draft introduction recognizes the the LAMP is intended to be a living document, "a plan of dynamic, interrelated actions ... [which] will require frequent review and revision" to restore Lake Michigan's health. This discussion could be strengthened by specifying the mechanisms which will ensure the LAMP's periodic revision. These mechanisms could include, for example, specifying dates for issuing annual LAMP reports (similar to the annual updates of the Lake Ontario Strategy), issuing annual action plans, holding annual meetings, and holding annual public forums. These items could also be incorporated in a separate chart within Section 3's action plan.

...

(6) Additional Cross-references. Finally, the draft LAMP would benefit from additional cross-references to other Great Lakes activities that affect Lake Michigan. For example, the LAMP's discussions of pollution prevention activities could reference the pollution initiative in the automobile industry and the waste minimization project sponsored by the city of Milwaukee. The LAMP's mass balance analysis could include mention of the Green Bay study, the GAO study that used permit discharge data to calculate Great Lakes' pollutant loads, and pertinent TRI data. Its discussions of air toxics could reference the Great Waters study in the Clean Air Act, and its monitoring analysis could reference EPA's new EMAP program in which the Great Lakes is playing a leading role. These and other references are vital to increase the LAMP's usefulness in coordinating federal, state, local and private initiatives affecting Lake Michigan.

The EPA Response is

The Lake Michigan LaMP will be updated continuously, with the next update likely to occur in mid-1995. Because the LaMP is a process, we will use the information provided in the document to identify program priorities and to implement specific load reduction activities. These actions will be identified annually based on program successes and failures, and new data that is generated through the monitoring and other programs. The critical pollutant list also will be reevaluated each year after reviewing the latest data.

The revised draft LaMP does contain more references to ongoing initiatives and programs, such as those listed by the commentor, in Chapter 1, the Action Agenda (Chapter 5) and Appendix A. These efforts should be included in the LaMP to ensure maximum coordination among programs.

These comments are from Docket Code Number **LM068** The comments were dated **1-8-1993**

The commenter was **Sen. Carl Levin** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **24 Point Sources**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 1**

The Comments were

(4) Additional Appendices. The draft's appendices currently provide useful information specific to the Lake Michigan basin, particularly those identifying impaired waters, RCRA facilities, Superfund sites and relevant TRI inventory data Two additional appendices which might be of equal value could list: (1) the basin's major pollution sources, with estimates of their relative contributions to the total load of critical pollutants in Lake Michigan; and (2) the basin's major dischargers and their permit expiration dates. Several of the appendices could also be improved by adding maps illustrating the physical locations of the facilities or problems identified.

The EPA Response is

The revised draft LaMP contains appendices with all of the major NPDES dischargers in the basin, though permit expiration dates are not included. This is a good idea, however, and we will attempt to incorporate the permit expiration dates before the LaMP is published in the Federal Register in January 1994. The information on the major sources of LaMP pollutants in the Lake Michigan watershed, and estimates of their relative contributions to total loads is provided in Chapter 4 of the revised draft LaMP where such data are available. Additional maps have been includea in the revised draft LaMP to illustrate locational information.

These comments are from Docket Code Number **LM069** The comments were dated **12-10-1992**

The commenter was **Grand Valley** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 1-3**

The Comments were

Our citizens group hopes to be continually informed of developments dealing with the LaMPs effort. We are especially interested in areas involving the granting of permits to dump, spray, or otherwise diffuse wastes generated by a for profit situation as in residential mobile home parks, farms, and commercial endeavors.

We feel the chances of system failure or neglect are greater in a private situation and therefore require much more extensive inspection vigilance when and if permits are granted. Hopefully something as serious as the possibility of damaging groundwater, streams and lakes in the Great Lakes basin would call for an end to private permits. These private permits also allow a greater chance of a loss of accountability in case of system failure (the guy could skip town). We also feel that for the privilege of degradation of public property (effluent discharge into a lake or stream) some compensation should be required in the form of a discharge tax based on the profit derived from such pollution o public property.

If a permit is granted, we feel a greater public awareness is called for. Presently, the Michigan Department of Natural Resources shall give notice to a hearing to only those individuals immediately adjacent to the proposed facility. We feel this is entirely unsatisfactory. All members of a community and sometimes beyond are owed information on these subjects. The information dissemination cost should be billed to the developer via the D.N.R.

The EPA Response is

Issues relating to State permit programs and their procedures should be discussed with the Michigan Department of Natural Resources. It is not appropriate for USEPA to comment on State procedures for permitting in the context of the Lake Michigan LaMP.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**

The commenter was **USF&WS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.2, Par.7**

The Comments were

Pgs. 75-94, Completion Date columns: Many of these dates as given are no longer realistic. It would be much more helpful to the reader to either show these as "Complete" if they are so, or add another column showing "Current Status" to bring these more up-to-date. Additionally, it would be beneficial for the LaMP to address the delivery vehicle (such as a completion report) for the activities identified.

The EPA Response is

The Action Agenda, including completion dates, has been updated in the revised draft LaMP to more accurately reflect current schedules.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**

The commenter was **USF&WS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **03 Appendix A**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.2, Par.8**

The Comments were

Pg. A-4, "Wildlife Contamination", lines 11-13: Inclusion of Apostle Islands National Lakeshore may confuse some here since the previous sentence talks about sampling only on National Wildlife Refuges. To retain Apostle Islands it might be better to change the previous sentence to read "National Wildlife Refuges and National Lakeshores". We also suggest inclusion of a Great Lakes Basin map highlighting the points where these collections were made. As the various LaMP-specific activities are implemented, it may be prudent to limit this information to these activities and avoid confusion by using examples from other Lakes in the basin.

Pg. A-17, lines 3-4: Here both the LaMPs and Remedial Action Plans (RAPs) are predicted to serve as a major implementation vehicles for benefiting the Great Lakes. As such, EPA as the Action Agency is required to determine whether an action it is proposing to undertake (in this case, implementation of the LaMP or a particular portion of this comprehensive plan) may affect (adversely or beneficially) listed endangered or threatened species or critical habitat. Formal consultation is initiated by a written request from the Action Agency (EPA in the case of LaMPs) to the Service. To comply with current section 7 (of the Endangered Species Act) regulations, this request must include all of the following information:

1. A description of the action being considered.

2. A description of the specific area that may be affected by the action.

3. A description of any listed species or critical habitat that may be affected by the action.

4. A description of the manner in which the action may affect any listed species or critical habitat and an analysis of any cumulative effects.

5. Relevant reports, including any environmental impact statements, environmental assessments or biological assessments prepared on the proposal pursuant to section 7(c) of the Act.

6. Any other relevant information available on the action, the affected listed species, or critical habitat.

An Action Agency can initiate formal consultation on a number of similar actions within the geographic area or a particular portion of a comprehensive plan as long as the effects of the entire action are considered. Any information provided by an Action Agency must represent the best scientific and commercial data available.

In this instance, EPA and its partners need to determine how implementation of this LaMP will be in compliance with the requirements of the Endangered Species Act. Because of the complexity and numerous operational program elements which will come into play in Lakewide pollution prevention and remediation actions, we suggest a coordination meeting be held as soon as possible to address the best course of action to integrate Endangered Species Act requirements into the LaMP process.

The EPA Response is

References in the revised draft LaMP are restricted to Lake Michigan information as much as possible, though there are some references to other Great Lakes information. With regard to this specific comment, the reference to the Apostle Islands has not been included in the revised draft LaMP.

Meetings between USEPA and the Fish and Wildlife Service have been convened to discuss consultation between Agencies on the potential impacts of specific actions on endangered or threatened species. USEPA staff have solicited a list of endangered species in the Lake Michigan watershed from USFWS staff, along with known or suspected distributions. Because USFWS is represented on the Lake Michigan LaMP Management Committee, this consultation and coordination between Agencies should not be a problem.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**

The commenter was **USF&WS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **04 Appendix B**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.3, Par.2-5**

The Comments were

Pg. B-2, Paragraph 4: A better reference for the bald eagle is (Kubiak and Best, 1991). Remove the Ludwig and Kurita reference.

Pg. B-4, line 5: Reference should be Gilbertson et al, 1991 instead of Ludwig and Kurita, 1988 which should be removed.

Pg. B-5, line 5: Insert a comma after "invertebrates" and change "and fish" to "fish and other vertebrates".

Pg. B-7, "Degradation of Phytoplankton or Zooplankton Communities": Should be addressed jointly with "Eutrophication or Undesirable Algae" to maintain an ecosystem approach. Also the term "exotic compounds" should be defined here. Is this loosely synonymous with "toxic compounds"?

Pg. B-8, "Loss of Fish and Wildlife Habitat" line 4: Insert "wildlife" between "and" and "habitat". Line 6: Insert "fish and" between "force" and "wildlife". Line 8: Insert ", coast" between "land" and "and" and replace "seascape" with "offshore areas". Line 9: Insert "certain agricultural practices" between "urban areas," and "and". We suggest that additional sentences be added: "The loss of breeding habitat for species such as the bald eagle, if left unchecked, will seriously compromise the eagle's ability to serve as an indicator species for reproductive effects of toxic substances because nesting pairs could choose to nest only where quality habitat exists. The LaMP plan, in concert with species protection initiatives under the Endangered Species Act, will need to integrate these physical habitat preservation and management needs consistent with the Lake Ecosystem Objectives being proposed on pages 1-2 of the draft LaMP, especially Objective 4. Planning should recognize the need to avoid physical habitat destruction which eliminates any species, especially a Threatened species or a species qualified to serve important ecosystem health indicator functions.

The EPA Response is

These changes and suggestions were incorporated into the revised draft LaMP as appropriate. The term "exotic compounds" has been replaced with "toxic pollutants" in the revised draft LaMP.

Discussions between USEPA and the Fish and Wildlife Service (USFWS) have occurred to discuss the process for consultation between the Agencies. USEPA have solicited from USFWS staff a list of endangered and threatened species in the Lake Michigan watershed, along with their known or suspected distribution. Because the USFWS is represented on the LaMP Management Committee, consultation and coordination between the two Agencies as the Lake Michigan LaMP moves into implementation should not be a problem.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter:

The Comments were

p.2, para.2
Pg. 17, 1st paragraph, should include the reference (Kubiak and Best, 1991) after the last sentence. In the second paragraph, same page, remove the language "produce toxic intermediary compounds" from the second sentence. This language is not consistent with the knowledge that parent dioxin-like compounds are more toxic than metabolites (henc toxic intermediary compounds are not appropriate here). The same comment applies to the first sentence of the last paragraph on this page.

P.2, Par.5-6
Pgs. 21, Figure 1.4: The parameters of choice here should be PCBs and DDE. See page 383 of Environment Canada, 1991; Volume 1 - Contaminants Levels and Trends.

Pgs. 28-32, Table 1.4: does not address our previous input concerning the need for a assessment of elevated arsenic levels in Lake Michigan fish before finalizing the tier III and IV critical pollutants. What is the status of this assessment? Also, we have previously provided considerable background information on "PCB substitute compounds" which were to be used as an example for pollution prevention and monitoring that is proactive in avoiding the same mistakes we have witnessed with PCBs, etc.. We strongly recommend that this discussion be included and that items in need of further work be identified to show how new generation compounds, be they industrial compounds or pesticides, will be addressed in the LaMP framework for critical pollutant designation and related actions.

The EPA Response is

These changes have been incorporated into the revised draft LaMP as appropriate. Arsenic is now a Level 2 pollutant of concern due its contributions to use impairments in Lake Michigan AOCs. This decision was made by the LaMP Critical Pollutant Workgroup. USEPA Region 5 has formed a workgroup to look at different methods for performing risk assessments and recommending a consistent approach for such assessments. A draft report will be complete by September 1993. The risk assessment for arsenic in Lake Michigan will then be completed using the recommended methodolgy. The Critical Pollutant Workgroup also decided to include five PCB replacement compounds on Level 3 of the revised listing system. This level requires that more information on these substances be collected to determine whether it should be moved up on the list. A more detailed discussion of the pollutant listing system is presented in Chapter 3 of the revised draft LaMP.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1, Par.2**

The Comments were

For the benefit of non-technical reader and due to the number of acronyms and technical terms used throughout this document,it would benefit the average reader to include a "Table of Acronyms" and/or a Glossary in future iterations.

The EPA Response is

This is a good idea. A glossary is included in the revised draft LaMP.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P. 1, Par.3**

The Comments were

There should be an additional discussion of the participants associated with the LaMP management framework. Specifically, agency representatives on each committee/forum, with contact telephones and addresses, should be provided in the "Overview of the Lakewide Management Planning Process" section which begins on page 3. This would prove useful to open up the process to the public and provide a reasonable means of allowing participants in the LaMP process to be contacted by reviewers of the draft and to provide a base of dialog throughout LaMP implementation.

The EPA Response is

A list of Agency and workgroup contacts and phone numbers also is a good suggestion. We were unable to include this in the revised draft LaMP, but it will be included in the final LaMP.

These comments are from Docket Code Number **LM070** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **32 Inadequate Ref**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.19, par.last**

The Comments were

Pg. 19, Figure 1.2: A better reference is (Fox et al, 1991). You may wish to use the graphics from this paper instead of the one used in the draft figure.

P. 19, Last paragraph, The same comment as on page 17 applies to the second to last sentence of this paragraph. Suggest you add the references "Fox et al, 1991, Tillitt et al, 1991 and Tillitt et al, 1992" to this sentence.

The EPA Response is

These changes have been incorporated into the revised draft LaMP as appropriate.

These comments are from Docket Code Number **LM070A** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1 of Attch. A**

The Comments were

An article journal entitled, "Wildlife Risks Associated With Passage of Contaminated, Anadromous Fish At Federal Energy Regulatory Commission Licensed Dams In Michigan."

The EPA Response is

These comments are from Docket Code Number **LM070B** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1, Attch.B**

The Comments were

A journal article entitled, "Reproductive Outcomes in Colonial Fish-Eating Birds: A Biomarker For Developmental Toxicants In Great Lakes Food Chains."

The EPA Response is

These comments are from Docket Code Number **LM070C** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **15 Env Indicators**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1, Attch.C**

The Comments were

A journal article entitled, "H4IIE Rat hepatoma Cell Bioassay-Derived 2,3,7,8-Tetrachlorodibenzo-p-Dioxin Equivalents in Colonial Fish-Eating Waterbird Eggs from the Great Lakes."

The EPA Response is

These comments are from Docket Code Number **LM070D** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1, Attch.D**

The Comments were

A journal article entitled, "Polychlorinated Biphenyl Residues and Egg Mortality In Double-Crested Cormorants From The Great Lakes."

The EPA Response is

These comments are from Docket Code Number **LM070E** The comments were dated **1-7-1993**
The commenter was **USF&WS** Which is a/an **5 Government Agency**
The main subject addressed in these comments was **10 Bioeffects**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.1 Attch.E**

The Comments were

A report entitled, "Toxic Chemicals In the Great Lakes And Associated Effects Volume I Contaminant Levels And Trends."

The EPA Response is

These comments are from Docket Code Number **LM070F** The comments were dated **1-7-1993**

The commenter was **USF&WS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Attch.F**

The Comments were

A journal article entitled, "Great Lakes Embryo Mortality, Edema, and Deformities Syndrome (Glemeds) In Colonial Fish-Eating Birds: Similarity To Chick-Edema Disease."

The EPA Response is

These comments are from Docket Code Number **LM071** The comments were dated **11-20-1992**

The commenter was **GLWQC** Which is a/an **2 Environmental Org.**

The main subject addressed in these comments was **26 Public Partic.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 2-4**

The Comments were

The Coalition views the draft Lake Michigan Lakewide Management Plan (LaMP) as a significant and positive component in the overall strategy for improving Great Lakes water quality. This key document is deserving of a broad review by all affected parties before submission to the IJC. The efforts of Sea Grant and EPA to solicit comments by conducting workshops and hearings around the basin are appreciated. However, the Coalition believes that adequate participation has not been achieved; and, therefore, requests a 60 day extension of the December 9, 1992 deadline for submission of public comment.

An extension of the deadline would allow several actions to take place. In addition to time for more public awareness and response, it would allow time for development of LaMP components missing from the draft yet required by the Great Lakes Water Quality Agreement. There is potential for use of the Lake Michigan Lakewide Management Plan as a model for other LaMPs. Therefore, it is important that it be as complete as possible. The GLWQC Technical Analysis Group is collecting data believed to be more current and technically more appropriate than some studies now included in the draft LaMP. GLWQC input and comments are being developed on this and other aspects of the draft LaMP.

A 60 day extension of the December 9, 1992 public comment deadline can truly benefit the development of the Lake Michigan LaMP. The Great Lakes Water Quality Coalition would appreciate your serious consideration of this request.

The EPA Response is

The public comment period for the 1/1/92 draft Lake Michigan LaMP was extended for 30 days to 1/8/93. The total comment period for the draft LaMP was 150 days.

These comments are from Docket Code Number **LM074** The comments were dated

The commenter was **IDEM - WATER MGMT.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **03 Appendix A**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P1. PAR.1**

The Comments were

I. Page A-15 should add a paragraph under "NW Indiana Initiative". A wasteload allocation project for the Grand Calumet River/Indiana Harbor Ship Canal was completed in 1992. The report contains three municipal communities and sixteen major industrial plants.

The EPA Response is

Information on Northwest Indiana Initiative activities have been included in the revised draft LaMP.

These comments are from Docket Code Number **LM074** The comments were dated

The commenter was **IDEM - WATER MGMT.** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P1 PARA 2,3,4**

The Comments were

II. Typo - Page 13, Line 9- "...incudes..." should be "...includes..."

III. Typo - Page 24, Line 1, below the table - "...in the in the..." should be "...in the..."

IV. Page A-12, Table A-1 - "Grand Calumet/Indiana Harvor, Illinois" should be "Grand Calumet/Indiana Harbor, Indiana"

The EPA Response is

These corrections have been incorporated into the revised draft LaMP as appropriate.

These comments are from Docket Code Number **LM075A** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter:

The Comments were

Michigan Sportfish advisories for Lake Michigan.

The EPA Response is

These comments are from Docket Code Number **LM075B** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter:

The Comments were

Size and Seasonal Variations of PCBs In Chinook Salmon (Oncorhynchus tshawytacha) Fillets From Lake Michigan Near Ludington, Michigan, USA

The EPA Response is

These comments are from Docket Code Number **LM075C** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter:

The Comments were

Fish Management Report 132

Polychlorinated Biphenyl Concentrations of Eight Salmonid Species From The Wisconsin Waters Of Lake Michigan: 1985

The EPA Response is

These comments are from Docket Code Number **LM075D** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **34 Cost/Ben Analy**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Title**

The Comments were

A Discussion of the U.S. EPA Methodology for Determining Water Quality Standards (WQS).

The EPA Response is

These comments are from Docket Code Number **LM075E** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Title**

The Comments were

CONTAMINANT RESIDUES IN THE BLOATER (COREGONUS HOYI) OF LAKE MICHIGAN, 1969-1986

The EPA Response is

These comments are from Docket Code Number **LM075F** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P. 2, APPENDIX A**

The Comments were

INVENTORY OF NATIVE FISH CONTAMINANT MONITORING PERFORMED IN SUPPORT OF MICHIGAN'S FISH CONTAMINANT MONITORING PROGRAM, 1980 - 1991

The EPA Response is

These comments are from Docket Code Number **LM075G** The comments were dated

The commenter was Which is a/an

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P. 1, TITLE**

The Comments were

Prediction of Concentrations of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Equivalents from Total Concentrations Polychlorinated Biphenyls in Fish Fillets.

The EPA Response is

These comments are from Docket Code Number **LM080** The comments were dated **1-8-1993**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 1-3**

The Comments were

An action plan should include a prioritized list of activities that reflect the consensus of the participants. The Action Agenda should distinguish between: 1) actions that have already been initiated as part of the LaMP process or as part of other initiatives, and 2) a prioritized list of recommendations based on conclusions made in the preceding sections of the LaMP.

As currently presented, the draft Action Agenda appears to be a "wish list" of activities without clear justification or established priorities. The dates listed for many of the action items are incorrect. Several of the activities that were scheduled to be initiated early in 1992 have not been initiated at all. The Action Agenda for Fiscal Year 1992 was extremely ambiguous and is now out of date. Some important ongoing efforts such as the promulgation of standards required under the Clean Air Act Amendments and the Great Lakes Water Quality Initiative have not been included.

In addition, the Action Agenda lists activities such as "accelerate the remediation of contaminated sediments" and "accelerate cleanup activities" at Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation and Liability Act sites. The LaMP program's potential to influence these types of activities can only be realized if the potential benefits to Lake Michigan are more clearly defined.

The EPA Response is

The Action Agenda has been changed substantially in the revised draft Lake Michigan LaMP. Schedules and deadlines have been updated to reflect current realities. Additional ongoing activities, such as those mentioned by the commentor, have been included in the action agenda. The items listed in the Agenda primarily represent activities that have already been initiated by the Agencies through the LaMP process, as well as ongoing initiatives and efforts that involve toxics reduction but are not directly the result of the LaMP process. A list of priorities and recommendations based on available information is included in Chapter 5. These priorities and recommendations may change as new information is reviewed and collected. Now that much of the Lake Michigan assessment work has been completed, the Agencies must use this information to discuss additional recommendations and evaluating alternatives for load reduction actions.

These comments are from Docket Code Number **LM080** The comments were dated **1-8-1993**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 3-4**

The Comments were

Environmental Status: Ecological Impairments and the Associated Pollutants

The status and causes of the impaired uses in Lake Michigan should be discussed in detail using the criteria developed by the International Joint Commission (IJC) or other suitable criteria. A summary of impaired uses and causes of the impairments should be used to develop the list of Critical Pollutants and other causes of impairments. This summary should also be used to identify data gaps regarding the causes and status of the impaired uses, and aid in the development of a prioritized list of specific recommendations to fill data gaps and restore and protect beneficial uses.

The document currently lists a number of pollutants associated with or believed responsible for use impairments (Tabl 1.1 and Appendix B). However, many of these parameters are not discussed as either potential Critical Pollutants or Tier III or IV pollutants. The text does not include enough specific information to provide recommendations regarding additions to the list of critical pollutants or the deletion of parameters listed in Table 1.1 and Appendix B. In addition, the extent, location, cause and severity of the listed use impairments are inadequately defined. Further, no direction toward developing a consensus on a prioritized list of remedial activities is provided.

The EPA Response is

Chapter 2, on beneficial use impairments and associated pollutants, has been expanded in the revised draft LaMP. The Critical Pollutants listed in the LaMP have been identified based on their association with use impairments. Data gaps in existing information also have been identified. Recommendations for filling these gaps must come from the Management Committee, with input from the Forum.

Table 1.1 and Appendix B in the 1/1/92 draft LaMP include pollutants associated with use impairments in laboratory experiments and other Great Lakes as well as in Lake Michigan. The substances associated with impairments in laboratory experiments or in other Great Lakes, but not in Lake Michigan, are not included as Lake Michigan LaMP Critical Pollutants or Pollutants of Concern. This is why some of the chemicals listed in Table 1.1 and Appendix B are not listed as LaMP pollutants. These pollutants are not listed in the revised draft LaMP.

These comments are from Docket Code Number **LM080** The comments were dated **1-8-1993**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, para 1-3,1**

The Comments were

... we recommend that the document be modified to embody the objectives of the Great Lakes Water Quality Agreement (GLWQA). The following general and specific comments are provided for your consideration.

Future iterations of the draft Lake Michigan LaMP should encompass a broader focus. The general principles outlined in Annex 2 of the GLWQA call for the LaMP to embody a systematic and comprehensive ecosystem approach to restoring and protecting beneficial uses. The narrow "Critical Pollutant" focus offers little opportunity to meet some of the general objective statements. The discussion of impaired uses (pages 8 and 9) indicates that factors other than pollutants (e.g., habitat loss, shifts in species composition, exotic species, etc.) may be the primary cause of some use impairments. Therefore, a critical pollutant focus will not include all of the activities necessary to restore and protect Lake Michigan. For example, money allocated to a particular load reduction activity may do less to restore or protect a beneficial use than an equal amount of money applied to a habitat restoration or protection project. Ultimately, there should be a single ecosystem plan for Lake Michigan, not numerous plans covering individual topics such as critical pollutants, habitat, or fisheries.

I understand that the United States Environmental Protection Agency (USEPA) is interested in maintaining an action oriented LaMP process. However, the draft Lake Michigan LaMP does not serve as a mechanism to develop and implement a comprehensive action plan to restore and protect beneficial uses in Lake Michigan. While the MDNR agrees that all participating agencies should continue to conduct activities to restore and protect beneficial uses, the MDNR also feels that the real purpose of the LaMP program is to provide a process for all agencies and interested public to agree on a course of action. The document must provide an adequate problem definition (including causes), a set of goals and objectives with quantified endpoints, and a prioritized list of specific activities that can be conducted to reach those endpoints. The MDNR feels that proper discussion of these three components is necessary in order to build a consensus on a comprehensive action plan.

...

Lake Michigan Ecosystem Objectives and LaMP Goals

The goals and objectives need to be quantitative so that participants in the LaMP process have a clear idea of the direction we intend to proceed and an opportunity to measure progress toward achieving our goals. Quantitative goals will also be necessary to develop a schedule of load reductions as required in Annex 2 of the GLWQA.

The EPA Response is

While the focus of the Lake Michigan LaMP currently is on toxic pollutants, all of the Agencies participating in the LaMP process recognize that issues associated with habitat quality and quantity, particularly as they relate to endangered and threatened species, are important factors in the overall ecological health of Lake Michigan. As the LaMP process develops, the Agencies will identify opportunities for addressing these issues in conjunction with toxic load reduction activities. Chapter 5 of the revised draft LaMP contains a table outlining a process and schedule for expanding the LaMP to include habitat issues. In this manner LaMPs will further the broader goal of the Agreement of identifying all beneficial use impairments, and restoring and protecting the Lake Michigan watershed.

USEPA agrees with the commentor's assessment of what the LaMP should be. The revised draft LaMP provides a problem definition for Lake Michigan, and a list of actions that have been implemented to date. It contains a tentative list of recommendations and priorities, which should be expanded and made more specific as existing information is reviewed and new data are collected. The quantifiable indicators have not yet been developed. The Lake Michigan LaMP Technical Coordinating Committee has recommended that a workgroup be convened to begin the process of identifying potential indicators (chemical and biological) and setting specific, quantifiable targets for each indicator. Chapter 5 of the revised draft LaMP contains a table spelling out the process and schedules for completing this activity. Likewise, the participating Agencies must use available information to develop additional recommendations and priorities for load reduction activities.

These comments are from Docket Code Number **LM080** The comments were dated **1-8-1993**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 2, para 5-6**

The Comments were

Sources and Loads

This section should summarize the estimated loads of critical pollutants and clearly identify data gaps. A summary of data gaps and a comparison of load estimates could be used to develop and prioritize specific actions including future monitoring and load reduction activities.

All available information on loadings has not been presented in this section. The USEPA cites an IJC report that concludes "information was inadequate for load estimates for any pollutant other than lead." At the same time the USEPA-Large Lakes Research Station completed a preliminary draft mass balance model for toxic chemicals in Lake Michigan. The authors of the draft mass balance model were able to find enough load information to conclude that the model could be used to make management decisions about source reduction strategies. This load information should b available to the USEPA-Region V and incorporated in the next draft.

The EPA Response is

Additional source and load information have been incorporated into the revised draft LaMP to improve loading estimates. The preliminary mass balance model for Lake Michigan also has been added to the revised draft LaMP.

These comments are from Docket Code Number **LM080A** The comments were dated **1-8-1993**

The commenter was **MDNR** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.1, Attachment A**

The Comments were

Specific comments provided in margin of LaMP document.

The EPA Response is

These comments have been reviewed and incorporated into the revised draft LaMP as appropriate.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **01 Action Agenda**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **Many, see text**

The Comments were

p 4,5,6,7 para 8-14; 1-2; 7; 6-8

p78 Discussion: Action Plan: Development Environmental Objectives and Indicators for Lake Michigan.

a. The dates seem wrong. The Objectives could be set by May 1993, the initial set of indicators by January 1994.

b. The responsible "lead agency" being GLNPO is subject to question. Support from the LaMP Management Committee has been weak, at best.

c. We support the language for objectives and their indicators as written, but the LaMP focus on toxic contaminants should be reflected in the Action items. We suggest leaving the Objectives action as is . The Indicators action might be modified as follows:

Suggested Alternative Language: Propose initial set of indicators of progress toward achievement of the ecosystem objectives as impaired by toxic contaminants.

d. Add another Action item:

Suggested Additional Language: Propose initial set of indicators of progress toward achievement of the ecosystem objectives as impaired by stresses other than toxic contaminants.

Responsible agency: LEAD; USEPA-GLNPO; Participating: USCOE, USGS, USFWS, GLFC, States

Completion Date: January 1995

...

p91 Discussion: The deadlines for this entire section should be changed.

...

The LaMP States: "The LaMP Management Committee and Lakewide Advisory Council will review and revise the action agenda each year..."

Discussion: Is it feasible to revise the action agenda each year?

Suggested Alternative Language: ...revise, when appropriate,...

The EPA Response is

The completion dates in the Action Agenda have been revised and updated in the revised draft LaMP.

The LaMP Action Agenda will not be revised each year. Rather, USEPA and the States should use this agenda as a basis of discussion during the annual workplanning process when program priorities are identified through consensus. As new information becomes available and program successes and failures become apparent, the Agencies must review the agenda and consider whether additional actions should be implemented. Other activities, as they are completed, should be removed from the Action Agenda. The next LaMP revision is planned for mid-1995. At that time it is appropriate for the Management Commmittee to review the agenda and make necessary revisions to reflect changes in priorities.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **03 Appendix A**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 5,6, para 5,14**

The Comments were

pA-5 Discussion: In the section entitled "Lake Ontario Ecosystem Objectives Development", the reference to the BODC is accurate, but should be updated to reflect the changed organization structure. The BODC has been abolished, and the EOWG now reports to the Binational Operations Committee (BOC).

...

pA-15 Discussion: In bullet #4 under the Northwest Indiana Initiative, there is discussion regarding a pollution prevention initiative "as an alternative to federal enforcement." If a local industry or municipality is out of compliance with a federal environmental law, it is difficult to believe that EPA would have the flexibility not to enforce. Pollution prevention can be integrated into an enforcement action. By the same token, pollution prevention can be promoted as a way to comply environmental laws and regulations.

The EPA Response is

The changed organizational structure for ecosystem objectives development is reflected in the revised draft Lake Michigan LaMP.

The comment regarding enforcement and pollution prevention is correct. Pollution prevention actions often are incorporated into enforcement actions and settlements. We did not mean to imply that pollution prevention is a substitute for compliance with Federal and State laws.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **10 Bioeffects**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **Many, see text**

The Comments were

p 2,3 para 7-18;1,2,8-10

p.i The LaMP States: "Heavy metals...have increased...to levels where...they cause adverse effects in humans."

Discussion: Do studies exist supporting this increase or that such an increase has caused adverse human health effects? Probably human exposure to many metals such as lead is decreasing, with the possible exception of mercury. At any rate, the "increase" should be placed in the time frame for which it is true. Also, statements about environmental exposure causing human health effects should be made carefully, as in may cause adverse human health effects.

Suggested Alternative Language: Environmental releases and concentrations of heavy metals such as lead increased during the 1960s and 1970s. They have declined during the 1980s as lead has been removed from such products as gasoline and paints, first in the United States, more recently in Canada.

p8 The LaMP States: "Evidence in the form of continuing reproduction and developmental impairments throughout the Great Lakes basin demonstrates a continuing regional saturation of the environment with persistent toxic substances."

Discussion: This sentence overstates the problem. Adverse health effects tend to be localized in pockets around the basin, not exactly the same thing as "throughout" the basin.

p16 The LaMP States: "A review of Great Lakes toxicity and bioeffects literature provides linkages between presence of such halogenated compounds as PCBs...and subsequent toxic effect in wildlife and humans."

Discussion: Does the literature show toxic effects (e.g., death, disease) in Great Lakes residents? Are subtle developmental deficits toxic effects? They are adverse human health effects, caused by a substance that is also a toxicant, but are they toxic effects?

Suggested Alternative Language: A review...and subsequent adverse health effects in wildlife and humans.

p17 The LaMP States: "The effects of exposure to these compounds (dioxin like) are roughly similar across species..."

Discussion: This sentence is not correct. Dioxin is unbelievably virulent in rats, but until recently the only known human effect was chloracne, a severe skin disorder. Recent work has detected higher incidences of cancer among workers who had lengthy and high exposure to dioxin. In general, many species react differently to toxicants, as stated later in the same paragraph. The two sentences seem contradictory.

p18-19 Discussion: Scientific evidence of reproductive problems in endangered Forster's terms in Green Bay in 1983 and of cormorants in 1988 seem to be quasi-anecdotal (i.e., true for a snapshot in time). It would be helpful to know in a timely fashion 1) the contaminant body burdens of these birds over time, and 2) their reproductive success over time. Inquiries should be made to determine if such data is available. Perhaps Jim Ludwig or Bud Harris could be contacted.

Discussion: The LaMP should be updated to reflect more recent findings regarding forster's terns in Green Bay. The same colonies were looked at again in 1987, with the encouraging result that the PCB body burdens had fallen by two thirds and the reproductive success rate was much improved. Since that time, too, the observed population of forster's terns had risen about 500%. (Reference: State of Green Bay Report, 1990).

Discussion: Obtain information on PCB levels in Green Bay walleye (which was cited but not displayed at the December, 1992 Balancing the Bay Conference). If levels are declining then that suggests that levels will continue to fall in birds which feed on these fish. Discussion of the health problems of birds should be placed in context of their contaminant burden trends.

p19 The LaMP States: "Humans have demonstrated effects from exposure to halogenated organic compounds that are similar to the effects in recorded wildlife."

Discussion: This sentence is incorrect. Effects on birds include deformed and dead offspring. Human effects are much more subtle.

p28 The LaMP States: Table 1.4 says

The EPA Response is

Some of the statements made in the 1/1/92 draft LaMP were probably not entirely consistent with the data from available bioeffects studies. This portion of the LaMP has been revised substantially, and these comments and suggestions have been incorporated into the revised draft LaMP.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1-2, many**

The Comments were

P.1 Par. 5-9

In discussing toxic contamination in the Great Lakes, it should be made clear that, in general, levels of PCBs, dioxins, etc., have greatly declined from those of the 1970s and continue to ebb. This is important to bring out, because, it gives perspective; for instance, although we increasingly appreciate that contaminants come from all sorts of facilities, via all sorts of pathways, we als know that, in general, new releases are diminishing and as a result environmental concentrations are headed downward toward a eventual equilibrium.

p.i. The LaMP States: "...toxic compounds have accumulated in humans and wildlife, resulting in teratrogenic effects in offspring."

Discussion: This statement could mislead a reader into thinking that bioaccumulative toxicants are presently increasing in bodies of Great Lakes residents, when the opposite is probably true (see: p. 18 of EPA Journal, December 1990 - shows that the incidence of US population with high blood levels of PCBs fell from 7.5% in the mid-70s to near zero percent in early 1980s; Pag IV-42, OPPE, Environmental Results, May 1992 - blood lead levels have fallen in US population).

Also, teratrogenic literally means developmental malformations and monstrosities. While teratogenic effects have been documented in a number of wildlife species, they have not been documented in humans.

Suggested Alternative Language: Toxic compounds have accumulated in humans and wildlife; they have fallen significantly in bot humans and wildlife during the last two decades and continue to ebb. It is likely that during the 1970s and into the 1980s they caused birth defects in sensitive wildlife species, usually high in the Great Lakes food web. There is also disturbing evidence that children whose mothers have eaten Great Lakes fish may suffer small, but detectable, developmental deficits.

P.2 Par. 1-6

p.i. The LaMP States: "...much of the planet has become contaminated with toxic pollutants that cause chronic effects at low concentrations."

Discussion: Cause/effect is seldom proved.

Suggested Alternative Language: ...much of the planet has been contaminated with toxicant pollutants that are suspected to cause chronic effects at low concentrations in plants, fish, and other wildlife.

p.i. The LaMP States: "...dioxins and furans continue to enter the environment in minute, yet toxic, quantities."

Discussion: ERL-Duluth analyzed dioxins and furans in Great Lakes fish from 1978 and 1988. 1988 levels of TCDD-2,3,7,8 across all lakes tended to be 25% of those in 1978, when they could be detected at all. So though these contaminants continue to enter the environment, it is worth noting that their release is much lower than during the 1970s, as are the environmental concentrations. This is not to minimize the risk; it is to put it in perspective. The fact that they continue to enter the environment does not necessarily mean the problem is getting worse; it has in fact gotten much better than it was.

Suggested Alternative Language: Dioxins and furans continue to enter the environment in toxic quantities, though at much lower levels than a decade ago.

The EPA Response is

The revised draft LaMP states that inputs and ambient levels of many toxic contaminants, including PCBs, DDT, and dioxins, have declined in the past 10-20 years. However, these declines appear to have levelled off in recent years, suggesting that additional load reduction activities should be implemented. The specific comments and suggestions have been incorporated into the revised draft LaMP as appropriate.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **12 Critical Pollu**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3,5,6, many**

The Comments were

p 3, par 3-5:
p31 The LaMP States: Section (a)(i) "Contaminants currently listed as Critical Pollutants (Level I or II) for which evidence indicates that removal from the list is warranted because loads have been reduced, resulting in elimination of the impairment and /or compliance with the standard, criteria, or action level on a lakewide basis."

Discussion: Should removal from the list be allowed just because a standard, etc. is met if there is still the impairment in the lake which can be tied/linked to that particular pollutant? This type of result is possible if reading the sentence with the 'or.'

Suggested Alternative Language: Contaminants currently ... impairment and compliance ... lakewide basis.

...

p 5, par 11:
p27. The LaMP States: Table 1.3 calls for the use of life cycle analysis as a management action for Level III Critical Pollutants.

Discussion: Is EPA definitely committed to conducting a life cycle analysis? If not, it should not be used as an example of a possible management action for Level III pollutants.

...

p6, par 6:
p 77. Discussion: The Pollution Prevention Workgroup has developed a list of pollutants, tracked by TRI, which are emitted/released in the Lake Michigan Basin. This information would be useful in the annual review of TRI data by Region V Water and Environmental Sciences Divisions.

...

p 7, par 4-5:
p31 The LaMP States: "USEPA proposes an annual update of the Critical Pollutants list for Lake Michigan."

Discussion: Is an annual update of the Critical Pollutant list feasible? Under the Auto Pollution Prevention Project, the big three auto makers felt strongly that the list of persistent toxic substances targeted for pollution prevention efforts remain in effect for four years. During negotiations, the State was pushing for review of the list every two years. While it is important to have a mechanism to add pollutants that will be targeted under the LaMP (this entitlement was strongly echoed by the States during a P2 Workgroup meeting), it is important that the targeted pollutants do not become moving targets which will make it difficult to focus efforts on them.

The EPA Response is

Critical Pollutants will not be removed from the LaMP pollutant list until use impairments caused by the specific substance are eliminated. Presumably, State and Federal water quality standards are set at levels below which all beneficial uses will be protected, which is the reason for the phrase "elimination of the impairment and/or compliance with the standard...".

USEPA currently does not plan to conduct a full life-cycle analysis for the LaMP pollutants, though this may be a possibility for the future. Hence, references to life-cycle analyses have been removed from the revised draft LaMP.

It may not be in the LaMP's best interest to change the LaMP pollutant list every year or two. Given the time required to reduce levels of persistent toxic pollutants and to restore beneficial uses, however, we do not believe that this will happen. When reviewing this list, the Critical Pollutant Workgroup will not only evaluate whether pollutants should be added or deleted from the list, but also ensure that the latest information on these substances is available and reviewed by all of the participating Agencies. Therefore, we believe that annual reviews of the LaMP pollutant list are appropriate.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **14 Editorial only**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 6,7 para 3-5;9**

The Comments were

p. 30 The LaMP States: "Again, when the information...including enforcement, voluntary actions and technical assistance.

Suggested Alternative Language: Again, when the information...including enforcement, voluntary actions and technical assistance to promote source reduction.

III. Editorial Comments

pi, para 1 Is it oxymoronic to talk about "fragile...rocks"?

Replace "constantly recycles...a sustainable yield of fish..." with "continually generates a sustainable yield of fish". Living things are not recycled in this sense of the word.

Mention the much reduced abundance of species and habitat, as well as diminished biological diversity.

p1, para 1 Who comprises the "international community"?

p7, para 4 "capture", not "captture"

p12, para 2 reference should be to p30, not p31

p12, para 2 "includes", not "incudes"

p20 Figure 1.3 should be broken into four figures. It tries to show four contaminants simultaneously which may be confusing to readers.

p26, para 3 first line of last paragraph ("Level III...") is not a grammatically correct sentence.

p42, para 4 "recovery", not "recover"

p58, para 3 "tons", not "tonnes"

p58, para 3 "runoff", not "run-off"

p73 The LaMP States: "The following tables contain USEPA's proposed action agenda..." Discussion: Is it relevant to talk about a "proposed action agenda" for FY92? It would be more useful to talk about activities completed or under way in FY92.

p73, para 1 The federal fiscal year ends September 30, not 31.

p 89 The Natural Resources Damage Assessments are listed as a separate authority, while in fact the NRDA authority is found in Section 107(f)(1) of CERCLA.

The EPA Response is

These comments and suggestions have been incorporated into the revised draft LaMP as appropriate.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **15 Env Indicators**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 5, para 4**

The Comments were

p93 Discussion: The section entitled "Establish Ambient Monitoring Program..." should specifically reference the "indicators" of progress toward achievement of the objectives, and require federal and state support for the monitoring effort needed to collect the data.

The EPA Response is

Quantitative biological and chemical indicators that track the progress of the Lake Michigan LaMP towards the achievement of broad goals and objectives still need to be developed. The Agencies participating in the LaMP process recognize this as a priority and an important component of the LaMP. Chapter 5 contains a table with a list of actions and proposed schedules required to develop quantitative environmental indicators.

The Lake Michigan tributary and air deposition monitoring program is being developed and supported by USEPA, USGS, and the States.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **16 Env Objectives**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3,4 para 11;1-7**

The Comments were

p1 Discussion: The inclusion of Lake Michigan Ecosystem Objectives in the LaMP is important. The Lake Michigan LaMP Management Committee has taken the position that the LaMP shall begin as a toxics management plan and not address other ecosystem stresses that affect Lake Michigan. However, the LaMP should acknowledge that other factors also contribute to perturbations in the Lake Michigan ecosystem. If we were to apply a magic "toxic sponge" that soaked up and removed all the toxic chemicals in the lake, the ecosystem would still not be healthy. We suggest the addition of the following few lines after the listing of the ecosystem objectives.

Suggested Additional Language: Lake Michigan is a complex ecosystem, perturbed by many stresses, e.g., habitat destruction, tributary alterations, nutrient loadings, exotic species introductions and toxic contaminants. Persistent, bioaccumulative chemicals is but one of the recognized stressors, albeit a major one. While recognizing that an integrated ecosystem approach to restoring environmental integrity to Lake Michigan is valuable, this LaMP focuses on the contribution of critical toxic contaminants to ecosystem disruptions and the non-attainment of the ecosystem objectives.

p1 Discussion: The listed Ecosystem Objectives are identical to those adopted for Lake Ontario. However, an EPA GLNPO-sponsored workshop was held in December 1991 to receive public input and suggestions concerning ecosystem objectives for Lake Michigan. The findings are presented in the report, "The Lake Michigan Ecosystem Goals and Objectives Workshop," prepared by the Michigan Sea Grant College Program. These materials should be used by an appointed team to refine the objectives and consider their adoption. Therefore, keep the language that the ecosystem objectives are proposed.

p7 The LaMP States: "The USEPA recommends that, in accordance with the GLWQA, the scope of the LaMP process be focused on reducing Critical Pollutant loads to the Lake Michigan system..."

Suggested Alternative Language: USEPA recognizes that, in accordance with the GLWQA, the scope of the LaMP process begins with a focus on reducing Critical Pollutant loads to the Lake Michigan system...

p9 The LaMP States: "the U.S. Great Lakes Policy Committee ... implementing programs ... address habitat and biological impairments ... embodied in the Great Lakes 5-Year Strategy. The focus ... in its initial phases, ... reduction of loadings ... restoration of beneficial uses."

Suggested Alternative Language: The U.S. Great Lakes Program recognizes the need to address habitat and biological impairments in the Basin. The Initial focus of the Lake Michigan LaMP, however, will be on the reduction of loadings of Critical Pollutants to Lake Michigan and on the restoration of beneficial uses.

The EPA Response is

While the focus of the Lake Michigan LaMP currently is on toxic pollutants, the participating Agencies recognize that issues associated with habitat quality and quantity, particularly as they relate to endangered or threatened species, are important factors in the overall ecological health of the Lake Michigan watershed. As the LaMP process develops, the Agencies will identify opportunities for addressing these issues in conjunction with toxic load reduction activities. Chapter 5 in the revised draft LaMP contains a table that lists actions and schedules for incorporating habitat issues into the LaMP. In this manner, LaMPs further the broader goal of the Agreement of identifying beneficial use impairments, and restoring and protecting the Lake Michigan watershed.

The revised draft LaMP contains the environmental objectives developed at the December 1991 GLNPO-sponsored workshop, and will be finalized and adopted based on public review and comment of these objectives. Therefore, we particularly encourage comment on the ecosystem objectives.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 7, para 3**

The Comments were

p23 Discussion: The distinction between LaMPS and RAPs is unclear. the LaMP addresses open lake waters while RAPs deal with geographically specific nearshore areas. The relationships and differences between the two strategies should be better defined.

The EPA Response is

The scope of the Lake Michigan LaMP includes nearshore waters of Lake Michigan as well as open lake waters, and therefore encompasses Areas of Concern. The LaMP program will coordinate with the RAPs to document sources of pollutants and estimate pollutant loads to Lake Michigan from the AOCs. Pollution prevention, reduction, and remediation activities carried out through the RAP process will serve to reduce toxic pollutant inputsinto Lake Michigan. The LaMP will not duplicate or interfere with RAP efforts, but rather will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic pollutant contributing to a use impairment in a Lake Michigan AOC is listed as a LaMP Critical Pollutant or a Pollutant of Concern, depending on the extent of its distribution in the watershed.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **20 LaMP Goals**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 2-4**

The Comments were

p2 The LaMP States: A related observation is that the LaMP, as shown in Figure 2, envisions that its process necessarily entails steps 3 (measuring loads reaching the Lake) and 4 (establishing load reduction targets).

Discussion: In fact, many critical pollutants permeate the environment at extremely low concentrations, so it is expensive and difficult to do step 3, and perhaps often unnecessary to do step 4, since we know that more of these substances is undesirable. While load reduction calculations for phosphorus are understandable, load reductions for PCBs are not.

Suggested Alternative Framework: Thus, can we also draw another arrow connecting step 2 (source identification) with 5 (implement remedial actions)? Then, whenever we can take this shortcut, we can focus monitoring resources where they will yield the greatest returns -- on source identification and on EMAP. We could still keep a longer, parallel loop through steps 2, 3, 4, and 5, for instances when we want to know more about the relative importance of one source versus another so as to advise decision-makers.

The EPA Response is

It is important to keep in mind that the steps in the LaMP process presented in the flowchart (Figure 1.1) do not necessarily have to proceed sequentially, but rather are proceeding simultaneously. Therefore, when it is not feasible or necessary to estimate loads or set reduction targets, for example, these steps can be omitted as necessary. The revised draft LaMP explains more clearly that these steps do not have to be rigidly followed in sequence.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **21 Loading Est.**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 7, para 1-2**

The Comments were

p56 The LaMP States: Table 2.9 shows contradictions in loadings for six studies in similar years. For example, Murphy, 1984 shows PCBs at 4,966 kg/year for the late 1970s/early 1980s. Eisenreich, et. al., 1981, show 29,300 kg/year for PCBs during the late 1970s.

Discussion: Do later studies show similar disparities? Is there an explanation for these disparities?

The EPA Response is

Generally, the large disparities in loading estimates among studies are due to differing assumptions that are used when calculating loads. Loadings data for toxic pollutants are rarely complete and well-documented. As a result, it is necessary to make a number of assumptions when estimating these loads. Some researchers use conservative assumptions, while others may use worst-case assumptions. When a number of assumptions are made, there are likely to be substantial differences in loading estimates. These disparities also exist in more recent load estimates.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **22 Monitoring**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 1, para 1**

The Comments were

Discussion: One great lesson derived from reading the LaMP is the potential value of an ecosystem monitoring program, such as EMAP, which would provide scientifically-based general overview of the state of the ecosystem. Much of the evidence cited in the LaMP is piecemeal, because available information is spotty; someone has done a study here, someone there. The LaMP, and indeed management of an ecosystem, need sound indicators showing general trends in, for instance, contaminant levels in birds over time and resulting reproductive success over time.

The EPA Response is

Monitoring programs, both chemical and biological, must be improved. USEPA, in conjunction with USGS and the States, will implement a comprehensive tributary and air deposition monitoring study, which are described in Chapter 5 in the revised draft LaMP. Environmental indicators still have not been identified, and is a top priority among the participating Agencies. The status of environmental indicators in discussed more fully in the response to a previous comment by this commentor.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **25 Pollution Prev**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p5,6 par 6-10;2,8-13**

The Comments were

p 5;6 para 6-10;2,8-13

p2 The LaMP States: "To achieve specific reductions in the release and deposition of pollutants into the Lake Michigan ecosystem..."

Suggested Alternative Language: To achieve specific reductions in the use, release, and...

p7 The LaMP States: "(4)...cut back on the release of pollutants..."

Suggested Alternative Language: (4)...cut back on the use or release...

The LaMP States: In Figure 2, the flow chart reads "Identify and Implement Remedial Actions".

Suggested Alternative Language: Identify and Implement Pollution Prevention Opportunities and Remedial Actions.

p26 Discussion: The discussion in the draft LaMP seems to imply that only Level III and IV pollutants will be targeted for pollution prevention. It is desirable that the environmental management hierarchy set out in the Pollution Prevention Act of 1990 be applied to all of the pollutants being targeted under the LaMP, including Level I and II Critical Pollutants. Under the hierarchy, pollution prevention (defined as source reduction) is always the first option considered when finding the solution for an environmental problem. If prevention is not appropriate or feasible, recycling is considered. If recycling is not appropriate or feasible, treatment and then disposal should be considered.

Discussion: It should be recognized that source reduction opportunities are limited for some of the Critical Pollutants such as the banned pesticides.

...

Discussion: The pollutant-focused approach and the opportunity-focused approach are highlighted as management actions for Level III and Level IV pollutants, respectively. The Pollution Prevention Workgroup elected to work with the pollutant-focused approach for prevention efforts in Lake Michigan. Once the sources of the Critical and Level III and IV pollutants are ascertained, opportunities for prevention will be explored.

...

The LaMP States: "Conduct a sector evaluation...and develop a pollution prevention strategy..."

Discussion: The Pollution Prevention Workgroup (PPWG), composed of USEPA and State representatives, decided to not use a sector approach for pollution prevention efforts in the Lake Michigan Basin. Rather, prevention activities will focus on the Critical Pollutants and the Level III and IV pollutants. Note that efforts will not go beyond the pollutants formally recognized under the LaMP. Once sources and relative loadings for these pollutants have been ascertained, we will develop pollution prevention strategies to reduce the loads.

The LaMP States: "Develop a pollution prevention strategy..." and lists responsible agencies.

Discussion: The Air Division should be involved in developing strategies to address the pollutants of concern. Only Water and Waste Divisions are currently mentioned. Also, while State pollution prevention programs area vital resources in developing these strategies, other media offices in the State need also be involved.

The LaMP States: "Initiate Life Cycle analyses for Critical Pollutants...and Level III pollutants..."

Discussion: Does EPA have resources committed to conducting Life Cycle Analyses for the Critical and Level III Pollutants? If not, this activity should be deleted from the LaMP document. If resources are available for the Life Cycle Analyses, Level IV pollutants should also be considered.

The EPA Response is

The suggested changes have been incorporated into the revised draft LaMP as appropriate.

Pollution prevention is clearly the preferred approach to environmental protection, and prevention activities for both Critical Pollutants and Pollutants of Concern will be identified and implemented. We agree that the Air Division should be involved in developing pollution prevention strategies for LaMP pollutants, both on the Federal and State levels. USEPA does not, at the present time, intend to conduct a full life-cycle analysis for LaMP pollutants, and this item has been deleted in the revised draft LaMP. There is a possibility that life-cycle analyses could be conducted in the future, based on program priorities. We recognize that the Lake Michigan LaMP Pollution Prevention Workgroup is identifying prevention opportunities through a pollutant-specific approach rather than a sector-based approach.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **28 TMDLs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 5, para 3**

The Comments were

p85 Discussion: The action to "Develop pilot Total Maximum Daily Loads (TMDLs)..." should be rewritten to remove the implication that some loadings of Critical Pollutants will be acceptable. The development of TMDLs is inconsistent with the overriding objective of "virtual elimination" of loadings of toxic contaminants to the Great Lakes. We (EPA) cannot condone a LaMP with an action item designed to "generate wasteload (WLA) and load (LA) allocations necessary to achieve the TMDL. Perhaps this action could be changed to reflect a modeling effort to reflect the human health risks and the ecological risks associated with continual reductions in the loadings of each of the Critical contaminants. The focus is then on continual reductions, not on "permissible" discharges.

The EPA Response is

USEPA and the States are required by law to develop TMDLs for waters that are water-quality limited despite applications of best technology. A TMDL determines the quantity of pollutant that a waterbody can assimilate and still meet water quality standards. A well-done TMDL would lead to load reductions from point and nonpoint sources. While we agree in principle that loadings of Critical Pollutants should not be considered acceptable, TMDLs do have some value. The reality is that some waterbodies simply are not meeting standards; TMDLs provide a mechanism to reduce loads and ensure that water quality standards are being met (and, by extension, that beneficial uses are restored and protected). We would prefer to invest in activities that lead to concrete load reductions of LaMP pollutants as opposed to undertaking additional modelling exercises that may not necessarily lead to load reductions.

These comments are from Docket Code Number **LM082** The comments were dated

The commenter was **EPA REG 5 - EPS** Which is a/an **5 Government Agency**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p 3, para 6-7**

The Comments were

p47 The LaMP States: The NWF study concludes:

4) Only zero discharge of PCBs will result in attainment of criterion in a meaningful time frame;

5) The air or sediment compartment is it the limiting medium in the Great Lakes ecosystem;

Discussion: The conclusions reached by the NWF study cited seem a bit incompatible. The Green Bay Mass Balance Study tends to confirm the second statement. While zero discharge is desirable, clearly reducing the load from sediments is more desirable.

The EPA Response is

The Agency concurs that while zero discharge should be an ultimate goal, it is not practical for the immediate future. The goal of the Lake Michigan LaMP, as stated by the Agreement, is to restore and protect beneficial uses in the Lake Michigan watershed. Through the LaMP process, the Agencies can identify the most significant sources of LaMP pollutants and take steps to address these high-priority problems. It is clear that contaminated sediments are a major source of most LaMP pollutants to the water column and biota, and sediment remediation must be a top priority for the LaMP.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **12 Critical Pollu**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P4, PARA.5**

The Comments were

SCIENTIFIC ANALYSIS -- THE CRITICAL FIRST STEP IS MISSING

AFPA does not disagree with the logic sequence of the LaMP development process. However, sufficient consideration is not given to the critical first step of the process --- identification and listing of critical pollutants. The LaMP process should include scientific analysis as a basis before implementing actions.

However, the proposal states that "...any pollutant... judged to be "STRONGLY" (emphasis added) associated with beneficial use impairment...will be designated as a Critical Pollutant" --- with no definition of "strongly". Thus the proposal makes a quantum leap from a limited list of clearly identified critical pollutants to a broad, nebulous category of substances that are not necessarily critical pollutants. There are levels at which pollutants may be present in the environment without causing adverse effects...

p.7, para.2:

PROCESS FOR REVIEW AND REVISION OF CRITICAL POLLUTANT LIST

The process for an annual update of the Critical Pollutant List presented in the LaMP document starting on page 31. AGPA believes that the identified process is the appropriate one and would endorse it as long as it is kept scientifically-based and receives appropriate scientific peer review. However, as a note of caution, AFPA urges the Agency to insure that the most recent data available should be used. Much of the data cited in the LaMP is old data, while more current information shows improving trends in Lake Michigan.

NEAR SHORE VS. OPEN LAKE WATERS

According to page 10 (and also later), U.S. EPA believes near shore areas should be included within the definition of open lake waters "because the use impairments most representative of the toxic pollution problem in the Great Lakes...are manifested for the most part in near shore areas..." AFPA believes this inclusion is inappropriate where only a portion of open lake waters are impaired due to one or two site-specific near shore situations.

The EPA Response is

The pollutant classification system has been modified by the LaMP Critical Pollutant Workgroup, and these changes are described in the revised draft LaMP. The distinctions among "strong", "moderate" and "weak" associations have been eliminated, and the distinctions among levels have been tightened. The definition of Critical Pollutant ensures that the LaMP focuses only on those substances that are clearly lakewide problems.

We agree that the most recent data should always be used when evaluating the pollutant list. We have attempted to update the information in the revised draft LaMP and eliminate older studies that may no longer be relevant.

USEPA believes that nearshore areas should be included when assessing beneficial use impairments. We agree with the commentor that an impairment that occurs at only one or two nearshore areas should not be considered as lakewide impairments. For a pollutant to be considered a Critical Pollutant, it has to be associated with use impairments in several nearshore areas, or in open-lake waters. Admittedly, "several" is a subjective term, but there is no completely objective definition of a "lakewide" impairment. Therefore, some best professional judgement is required.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **14 Editorial only**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.8, Par.6, Sen 2**

The Comments were

See: (p.30)

The EPA Response is

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **15 Env Indicators**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.9 sen.4**

The Comments were

9. What is the definition of lakewide impairment?

The EPA Response is

Please see the response to the previous comment (last paragraph).

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **17 Ground Water**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P.8, Par.6, Sen 4**

The Comments were

4. What is the role of groundwater in pollutants loadings Lake Michigan? (p.60)

The EPA Response is

The role of groundwater in pollutant loadings to Lake Michigan has not been well-established. There is limited data available on pollutant concentrations in groundwater at various locations, but estimating how much of this enters Lake Michigan is very difficult. Groundwater loadings can be directly into Lake Michigan, or indirectly through loadings to tributaries which then get transported to the Lake. The Agencies participating in the LaMP process have agreed that groundwater should be investigated as a potential source of LaMP pollutants to tributaries. When a tributary is found to contribute significant loads of a pollutant to Lake Michigan (based on the results of the tributary monitoring program described in Chapter 5 in the revised draft LaMP), we will work upstream to identify potential sources of the pollutant(s). Groundwater is one potential source that will be investigated. If it is found to be a significant source, the remediation activities will be identified and implemented.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**

The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **19 LaMP Plan Proc**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P3,9 PARA 2-5; 3**

The Comments were

INDICATIONS OF COORDINATION BETWEEN LaMPs AND GLI2 LACKING

AFPA concurs with the majority of the principles and objectives as discussed in the draft LaMP and in the Federal Register notice. However, it is not clear how the LaMP Programs will interface with other existing programs that are in the process of creating new programs. While Remedial Action Plans (RAPS) at least are discussed in the draft LaMP, apparently the LaMP will not address problems in RAPs. The text states that the RAP and LaMP processes are to be strongly coordinated but how this will occur remains unclear. In addition, GLI and GLI2 are not referenced anywhere in the proposed LaMP or in the accompanying Federal Register notice.

When the Great Lakes Critical Programs Act of 1990 was passed, the initial focus was directed almost exclusively on the Great Lakes Initiative (GLI). This industry suggested that the Great Lakes Initiative should have placed more emphasis on implementing the LaMP program first, before launching into such a complex new program specifically focused at a small subset of the Great Lakes system. Unfortunately, the emphasis was already directed to the GLI before work was begun on the Lake Michigan LaMP. There is little evidence that there has been any coordination between the two. We understand that the EPA's Great Lakes Program Office and state water division Directors have begun to consider the framework of a GLI2. No doubt they share the same perplexed view as this industry does in terms of trying to understand how the activities envisioned in the LaMP relate to GLI and GLI2? Our sense is that beginning to develop a GLI2 is in direct contradiction to the holistic approach that the LaMP has attempted to take. How will the two programs relate? How can we try to make better sense out of these programs?

AFPA urges the Agency to carefully consider the relationships of these programs before moving forward with the GLI and GLI2 and before submitting the proposed LaMP to the International Joint Commission for their review. If the plan is to be successful the procedures to insure coordinated implementation expressly must be provided in the LaMP in order to reduce or eliminate the potential for conflicting goals and solutions in various portions of Lake Michigan.

8. Who is on the ad hoc work group (page 31)? What additional groups are participating as part of the process in active way?

The EPA Response is

The Great Lakes Water Quality Guidance proposes uniform water quality criteria for all Great Lakes States, and implementation procedures focus on industrial and municipal NPDES facilities. Phase 2 will develop procedures for reducing toxic pollutant releases from a variety of nonpoint sources. The goal of the LaMP is to reduce loads of toxic pollutants from all sources to Lake Michigan. The Guidance and Phase 2 represent two tools by which the LaMP can achieve this goal, in addition to a number of other tools, including other base programs, pollution prevention, sediment remediation, etc.

The LaMP will coordinate with RAPs to document sources of pollutants and estimate pollutant loads to Lake Michigan from the AOCs. Pollution prevention, reduction, and remediation activities conducted through the RAP process will serve to reduce toxic pollutant inputs into Lake Michigan. The LaMP will not duplicate or interfere with RAP efforts, but rather will serve as an "umbrella" under which RAP activities can be placed into a lakewide context. Any toxic pollutant contributing to an impairment in a Lake Michigan AOC is listed as a LaMP Critical Pollutant or Pollutant of Concern, depending on the extent of its geographical distribution.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **20 LaMP Goals**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P1, PARA 4**

The Comments were

This industry supports the purpose and underlying structure of the Lakewide Management Plans as envisioned by the language included in Annex 2 of the Great Lakes Water Quality Agreement. Developing coordination and prioritizatio mechanisms for ongoing programs should lead to improved efficiency, cost savings and stepped up environmental improvement...

P2, PARA3:

AFPA support these underlying concepts of the LaMP - a system designed to focus priority emphasis on those areas with the most pressing problems, based on a tiered list of critical pollutants and prioritized documented impairments. We strongly recommend using a risk-based planning approach to prioritized critical pollutant reduction activities...

P4, PARA. 1-4:

UNREALISTIC GOALS IGNORE PRACTICAL OBJECTIVES

Grand as the concept may be, after stating that the objective of the program is to build on already existing programs, based on current authorities, the LaMP proceeds to propose unrealistic goals that go both beyond the directives of the International Joint Commission in Annex2 and the Critical Programs Act.

The LaMP goals, (1) to "achieve specific reductions in the release and deposition of Critical Pollutants..." (2) "... to virtually eliminate the release of persistent, toxic and/or bioaccumulative pollutants within the Lake Michigan basin..." go beyond the language of the Great Lakes Water Quality Agreement's Annex2, Subsection 2(B), which states that LaMPs "...are to serve as an important first step toward virtual elimination of persistent toxic substances...".

Other Sections of the Great Lakes Water Quality Agreement provide consistent direction. For example, Article IV, subsection (1)(f) states that "Pending virtual elimination of the persistent toxic substances in the Great Lakes System, th Parties... shall identify and work toward the elimination of ...Critical Pollutants pursuant to Annex 2...", and Annex 2, subsection 6(A) states that "Such plans shall be designed to reduce loadings of critical pollutants in order to restore beneficial uses".

The second goal "to virtually eliminate" and the five proposed ecosystem objectives the verb "shall", implying that the objectives are mandatory. Neither the Articles III or IV (General Objectives and Specific Objectives) nor Annex2 (specifically referring to LaMPs) include a list of "mandatory" objectives. Rather Article III expressly indicates that "these waters should be free from substances..". The use of mandatory terms goes well beyond the Agreement and may prohibit the use of cost-effective approaches to clean up...

The EPA Response is

By identifying the most significant sources of LaMP pollutants, the LaMP process ensures that pollution prevention, reduction, and remediation activities be implemented in a coordinated, efficient manner. Resources will be targeted towards those pollutants and sources that pose the greatest risk to the Lake Michigan basin.

The goal of the Lake Michigan LaMP, as defined by the Great Lakes Water Quality Agreement, is to restore and protec the beneficial uses in the Lake Michigan watershed. LaMPs are to be steps toward the goal of virtual elimination. Therefore, the LaMP does not require virtual elimination of pollutants, unless virtual elimination of a specific pollutant is required to restore and protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving us closer to the Agreement goal of virtual elimination. This position is clearly stated in the revised draft LaMP.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **21 Loading Est.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P6,7-8 PARA4&5; 5**

The Comments were

NEED FOR DE MINIMIS LEVELS

Analytical procedures continue to improve so that smaller concentrations can be detected of more and more pollutants in ecological samples. The LaMP process must focus on the levels of pollutants which are important and those sources which are significant contributors to those levels. As the U.S. EPA Science Advisory Board has noted in the past relative to Great Lakes water quality, "...control undesirable loadings (i.e., levels which have a toxic effect)." Otherwise, ultimately everyone could be driven to reduce everything whether environmentally significant or not. This would be a major misallocation of dollars.

One approach to preventing such a wasteful misallocation of dollars would be to define de minimis loading levels (not concentrations but loadings!). AFPA recommends that such de minimis loading levels be set on a scientific basis for all pollutants deemed to be critical pollutants...

P.7-8 PARA 5
SERIOUS LIMITATIONS OF TRI DATA BASE
Reference is made to the TRI Inventory for Critical Pollutants on pages 30 and 44 and in Appendix F. This data base has serious limitations beyond those cited.

These limitations include:
1. Very significant sources of critical pollutants are not included in this data base. Those not included are: government and defense sources, utility sources, municipal sources (such as POTWs and incinerators), gasoline service stations, and mobile sources such as automobiles and motor boats. AFPA believes that the sources not included represent a greater quantity of critical pollutants than do the sources that are included.

2. The data base contains releases and transfers; it does not give any information on fate or impact or risk and such information cannot be accurately derived from the information in the data.

Therefore, the TRI data base is not a valid basis from which to conclude total amounts of releasers, or fate, or impact, or risk of such releases.

P8, PARA 6, #3:
How valid are preliminary loadings model based on fish tissue concentration? (p.43)

The EPA Response is

One of the steps in the LaMP process is to define load reduction targets below which beneficial uses will be fully protected. These targets are likely to be set in conjunction with the development of environmental indicators. Indicators have not yet been developed, but the Agencies recognize this to be a top priority for the LaMP process. Chapter 5 of the revised draft LaMP provides a list of activities and timelines to identify and select quantifiable indicators to track progress towards LaMP goals and objectives.

We recognize the limitations of TRI data, and these are stated in the revised draft LaMP. However, it is appropriate to present this data as one source of information on potential releases of toxics into the environment, as long as the limitations are spelled out.

Loadings models based on fish tissue data should be considered as very preliminary. In the absence of additional data, however, such models can provide useful information as a starting point for load quantification and for tracking changes in pollutant inputs.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **25 Pollution Prev**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **p.8, para.1**

The Comments were
POLLUTION PREVENTION

Pollution prevention may be an appropriate method for reducing certain pollutant levels but the decision on appropriateness of pollution prevention versus other alternatives must be left to the source that is being required to accomplish the reduction. On page 27 a statement implies that pollution prevention may be the required alternative rather than leaving the choice to the source. Neither EPA nor the LaMP process should rule out any alternatives that may be more cost effective and, therefore, preferred to pollution prevention.

The EPA Response is
We agree that the most cost-effective and environmentally effective alternatives for achieving load reductions should be used. These decisions should be made through discussions among the dischargers and the various Agencies involved. USEPA's policy is that pollution prevention is the preferred approach to environmental protection. However, this does not rule out the possiblity of using other load reduction options if more appropriate. We would like to see a balance of pollution prevention, reduction, and remediation activities being implemented through the LaMP process.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **26 Public Partic.**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P8,PARA5**

The Comments were
PUBLIC PARTICIPATION

AFPA understands that the Lake Michigan LaMP Management Committee has established a public participation group -- The Lake Michigan Forum. Unfortunately, the group has met only a few times and has had limited opportunity for meaningful participation in the LaMP process. Therefore, prior to publication of the LaMP, AFPA recommends that the Lake Michigan Forum and Technical Work Groups be combined and reconvened to address and resolve outstanding issues.

The EPA Response is
The Lake Michigan Forum has been meeting quarterly since February 1993 to discuss their role in the LaMP process, and to identify specific issues on which the Forum can provide specific recommendations to the Management Committee. The Forum will address outstanding issues concerning the revised LaMP at their August meeting. The Technical Coordinating Committee (TCC) has also started to meet regularly to consider technical issues and provide recommendations to the Management Committee. The TCC and Forum should be kept informed of the other's activities, and representatives of each are invited to sit in on the other's meetings. However, because their functions are different, it is inappropriate to combine these two committees entirely.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**

The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **28 TMDLs**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.8, Par. 6, Sen.5**

The Comments were

5. What is the role of TMDLs in light of the GLI's use of water quality criteria as end-of-pipe limits? (p.85)

The EPA Response is

TMDLs are still required by law for those waters that are water-quality limited despite the past application of best technology. TMDLs allocate pollutant releases among point and nonpoint sources, with a sufficient safety margin, whereas the GLI only applies to NPDES facilities. A TMDL could use the GLI criteria to allocate pollutant releases from point sources, and allocate the remaining allowable releases to nonpoint sources, while maintaining the margin of safety.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**

The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **29 Tributaries**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P.8, Par.6, Sen.1**

The Comments were

1. LaMP only considers open waters of the lake. Is this appropriate? Should it consider tributaries as sources of pollutants for open waters? (p.9)

The EPA Response is

The LaMP does consider tributaries as sources of toxic pollutants to Lake Michigan. Use impairments found in a number of tributaries also would be included in and addressed by the Lake Michigan LaMP.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**

The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **30 Zero Discharge**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **P5, Para3-6**

The Comments were

LAKE MICHIGAN LaMP VIRTUAL ELIMINATION CANNOT MEAN "ZERO DISCHARGE"

The stated primary objective of the LaMP is "to serve as an important step toward virtual elimination of persistent toxic substances" as outlined in Annex 2 of the Great Lakes Water Quality Agreement. When pursuing this objective, EPA must recognize and incorporate into any virtual elimination implementation plan the following principles:

Virtual elimination cannot mean "zero discharge". Zero discharge is a flawed concept which does not recognize the scientific reality that the only materials which could not conceivably be present, in a regulated discharge at some extremely small but finite level, is a material which has yet to be produced by man or nature.

Natural background, historical releases and depositions as well as transport of materials from distant regions can, and probably will, result in continued release of finite quantities of targeted "persistent toxics" from regulated discharges. Releases will occur as a result of the presence of materials in intake water and other raw materials.

As detection limits for analytical methods become lower, future tests may reveal the presence of materials not currently measurable. This occurrence alone should not cause regulatory agencies to conclude that violation of "virtual elimination" policies (and discharge limits) have occurred. Such events would merely reflect the realities described above.

A range of tools can be used to achieve "virtual elimination". These include chemical management practices, process alterations which use the same raw materials in different ways, application of advanced effluent treatment technologies and, for sediments, natural or in-place capping to render "toxics" of concern unavailable to the environment. Sunsetting, banning or removal through unproven remediation schemes should not be automatically required in the pursuit of "virtual elimination".

In summary, practical and scientific constraints dictate that "virtual elimination" strategies include recognition that release or discharge reductions can only be made to some finite de minimis level. The purpose of the virtual eliminatio effort will have been served if receiving water concentrations are maintained below significant environmental or human health impact levels. This will remain true even if the presence of the "toxic" of concern is measurable, either now or in the future.

The EPA Response is

The goal of the Lake Michigan LaMP, as defined in the Great Lakes Water Quality Agreement, is to restore and protect beneficial uses in the Lake Michigan watershed. LaMPs are to be steps toward the goal of virtual elimination. Therefore, the LaMP does not require virtual elimination or zero discharge, unless virtual elimination of a specific pollutant is necessary to restore or protect a beneficial use. The LaMP process will take steps to reduce loads of LaMP pollutants, thereby moving us towards the Agreement goal of virtual elimination and zero discharge.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**

The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**

The main subject addressed in these comments was **33 Mass Bal Model**

with the following subarea (if any) **None**

These comments were found at the following locations in the comment letter: **p.7, para.3**

The Comments were

FATE OF POLLUTANTS

Several places in the LaMP document describe natural mechanisms that do affect the fate of pollutants in the ecosystem (e.g.,page 43, paragraph 2). Missing from these lists is any reference to degradation which is a very important mechanism and must be included in any mass balance model. The U.S. Advisory Board has commented on the Great Lakes Water Quality Initiative, stating that there need to be elements which predict the persistence of chemicals which would include consideration of "rates degradation, hydrolysis, volatilization, sorption, and all of the environmental transport and fate pathways."

p.9, sen.1

6. What is a "Level 1 Mass Balance" as stated on page 83?

The EPA Response is

The reason that the LaMP pollutants represent such threats to the Lake Michigan system is that, in addition to being toxic, they are extremely persistent. They degrade at very slow rates, and therefore remain in the system for a very long time. The half-life (time required for a substance to degrade to one-half its original concentration) of the LaMP pollutants are listed in Chapter 3 in the revised draft LaMP.

A Level 1 mass balance model is one based on existing information, and has not been calibrated or validated by extensive collection of loading, fate, and transport data for specific substances. A Level 2 mass balance model is being planned for Lake Michigan, and will involve collection of tributary and atmospheric deposition loadings data, open-lake water and fish data, and sediment data. Obviously, a Level 2 mass balance is more accurate that a Level 1 mass balance.

These comments are from Docket Code Number **LM083** The comments were dated **1-28-1993**
The commenter was **AM. FOREST&PAPER ASN** Which is a/an **6 Trade Organization**
The main subject addressed in these comments was **34 Cost/Ben Analy**
with the following subarea (if any) **None**
These comments were found at the following locations in the comment letter: **P2, PARA 6**

The Comments were

Identifying and quantifying loadings of critical pollutants are essential first steps. The LaMP fails, however, to provide a mechanism for prioritizing pollutant reduction activities in a cost effective manner. In a time of limited public and private resources, it is essential that every dollar spent on reducing loadings of critical pollutants be spent in a cost effective manner to ensure the maximum cost benefit. It must be recognized that significant public and private funds have already been spent to reduce loadings from many categories. Clearly, further reductions should be done by using a risk-based planning approach. As detailed in the draft "Great Lakes Basin Risk Characterization Study", prepared by the Great National Program Office, future clean-up and management activities "should be based on targeting the most critical problems, first from a risk perspective, while remaining aware of financial and institutional flexibility" (p.I-27)...

P6, PARA 5:

TARGETING FIRST ON MOST SIGNIFICANT COST-EFFECTIVE SOURCES WILL RESULT IN GREATEST ENVIRONMENTAL BENEFIT

Several places in the LaMP document describe the implementation of load reductions to be required. For example, page 27 in Table 1-3 pertaining to Level 1 pollutants: Load reductions through all appropriate available means..." (emphasis added). On page 73, the skeleton strategy for reducing loads is shown to consist of three basic steps: (1) "identifying all possible sources of pollutants", (2) "quantifying the relative loadings for each source", and (3) "targeting load reduction activities on the most significant sources and where the potential for success in reducing loads is the greatest." It would be most appropriate, in AFPA's opinion, that step three then should be the first step in the process to determine cost effectiveness of alternative load reduction options and that those deemed to be both significant and the most cost effective would be the ones to be subjected to "targeting load reduction activities..."

Approaching the sequence in this manner would make the most effective use of available resources and result increased environmental benefit.

The EPA Response is

The Agency agrees that we must maximize available resources by focusing on the most pressing problems and pollutant sources in the Lake Michigan watershed. The LaMP process provides a mechanism to do this, by assessing which pollutants are contributing to beneficial use impairments and identifying the most significant sources of these substances. Various Agency programs can be coordinated to ensure that the problems posing the greatest risks are addressed, and that load reduction efforts are targeted towards those sources contributing the greatest amounts of LaMP pollutants. This process improves the efficiency of program operations, and ensures that we get the most benefit for our resources.

In defining the LaMP process, the Agency did not envision that there would be any specific costs that would be directly attributable to the LaMP itself. The LaMP seeks to coordinate a wide variety of existing programs that have already been subject to specific cost-benefit analyses. The Agency believes that these analyses fulfill the need for an assessment of costs and benefits associated with the LaMP. In fact, the LaMP should add to individual program benefits by increasing their efficiency and coordination with other programs. However, USEPA does not feel that there is any merit in trying to define the benefits that result from better planning and coordination.