



Office of Inspector General

Report of Audit

WATER

EPA's Great Lakes Program

Audit Report No. 99P00212

September 1, 1999



Inspector General Division

Conducting the Audit:

**Northern Audit Division
Chicago, Illinois**

Regions Covered:

Region 2, 3 and 5

Office Involved:

Office of Research and Development

Region 2

**Division of Environmental Planning
and Protection**

Region 3

Water Protection Division

Region 5

**Great Lakes National Program Office
Water Division
Regional Lake Teams**

Cover Photograph

**Indiana Dunes National Lakeshore
National Park Service**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF THE INSPECTOR GENERAL
NORTHERN DIVISION
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

September 1, 1999

MEMORANDUM

SUBJECT: OIG Report No. 99P00212
 Improving EPA's Great Lakes Program

FROM: Anthony C. Carollo
 Divisional Inspector General for Audits
 Northern Division

TO: Francis X. Lyons
 Regional Administrator, Region 5
 Great Lakes National Program Manager

Attached is the final report on our evaluation of EPA's Great Lakes Program. The evaluation was done at the request of Region 5 management to provide advice and assistance to (1) improve processes for developing lakewide management plans (LaMPs) and remedial action plans (RAPs), and (2) negotiate and implement a U.S. strategy for the Great Lakes. The report contains recommendations and actions the Agency has taken or plans to take to address both of these areas.

Since the report includes issues in the Great Lakes and Region 5, it is addressed to you as both the Regional Administrator and Great Lakes National Program Manager. However, throughout the report, we only use the title of Regional Administrator.

We appreciate your staffs' efforts in working with us during this evaluation and the prompt action that you are taking to correct the problems.

This audit report contains findings that describe problems the Office of Inspector General (OIG) has identified and corrective actions the OIG recommends. This audit report represents the opinion of the OIG and the findings contained in this audit report do not necessarily represent the final EPA position. Final determinations on matters in this audit report will be made by EPA managers in accordance with established EPA audit resolution procedures.

ACTION REQUIRED

In responding to the draft report, your office provided corrective actions, with milestone dates, for each recommendation. Therefore, no further response is required, and we are closing

this report in our tracking system. Please track all corrective actions in the Management Audit Tracking System.

We have no objections to the further release of this report to the public.

If you or your staff have any questions regarding the report, please contact Audit Manager Kimberly O'Lone at 312-886-3186.

EXECUTIVE SUMMARY

INTRODUCTION AND OBJECTIVES

In March 1998, Region 5 senior management requested advice and assistance on how to (1) improve processes for developing lakewide management plans (LaMPs) and remedial action plans (RAPs), and (2) negotiate and implement a U.S. strategy for the Great Lakes. The Office of Inspector General's (OIG) plan for auditing Environmental Protection Agency (EPA) water programs also called for a evaluation of the Great Lakes program. To meet both of these needs, the OIG performed a evaluation with the objective of determining what the Regional Administrator, Region 5¹ can do to:

- improve the LaMP and RAP processes, and
- develop and implement effective national strategies and agreements.

BACKGROUND

The Great Lakes Water Quality Agreement (Agreement) between the U.S. and Canada, was originally signed in 1972, and amended in 1978 and 1987. The stated purpose in the agreement is to restore and maintain the chemical, physical, and biological integrity of the Great Lakes basin ecosystem. The 1987 amendments established LaMPs and RAPs as systematic and comprehensive ecosystem approaches to address the Great Lakes as a whole and specific areas of concern throughout the lakes, respectively. The LaMP and RAP documents also provide an historical record of the assessment of critical pollutants, proposed remedial actions and their method of implementation, changes in environmental conditions as a result of remedial actions, and significant milestones in restoring beneficial uses of the lakes.

In April 1992, the Great Lakes National Program Office (GLNPO) issued a joint Federal/State 5-year strategy (strategy) for protecting

¹ The Region 5 Regional Administrator also serves as the National Program Manager for the Great Lakes National Program Office. For reporting purposes, we are only using the Regional Administrator title.

the Great Lakes. The strategy represented a commitment by Federal agencies, states and tribes to achieving specific environmental goals through a full range of coordinated activities.

**AREAS FOR
IMPROVEMENT AND
RECOMMENDATIONS**

EPA needs to improve two key processes for protecting and restoring the Great Lakes: LaMPs and RAPs. LaMPs and RAPs are taking longer than expected to complete. For example, while a draft LaMP for Lake Michigan was first published in 1992, the LaMP was never finalized, thereby not meeting the statutory deadline of January 1, 1994. Officials currently plan to issue a LaMP document for Lake Michigan by April 21, 2000. To date, no U.S. RAPs have had all of their beneficial use impairments corrected.

To improve the LaMP process, EPA needs to (1) place a priority on issuing written plans for Lakes Michigan, Erie and Huron during FY 2000; and (2) propose to Great Lakes partners and the International Joint Commission (IJC) revising the LaMP process to address issues that have hindered completing the plans. To improve the RAP process, Region 5 needs to establish a coordinator to better organize the RAP liaisons. Finally, Region 5's work on LaMPs and RAPs would benefit from clarifying the organizational roles and responsibilities of the offices, divisions and teams. These actions are needed to reach the goal of restoring and maintaining the chemical, physical, and biological integrity of the Great Lakes.

GLNPO does not have official agreements with other EPA offices that work in the Great Lakes. These offices include Regions 2, 3, 5, and the Office of Research and Development (ORD). As a result, relationships between Region 5 offices working in the Great Lakes have suffered, and GLNPO and ORD did little coordination on research planning. GLNPO should enter into agreements with all of these entities to identify the roles and responsibilities of each in the Great Lakes.

GLNPO officials can learn from problems they encountered creating and implementing the 1992 strategy. In developing the next strategy, GLNPO should strive to (1) obtain buy-in and

commitment from all parties, (2) focus on goals, (3) include performance measures, and (4) provide accountability for implementation which will result in a meaningful strategy that helps bring together Great Lakes efforts and activities. From this, GLNPO can design a new strategy that will fulfill a new purpose for the Great Lakes and help carry efforts forward to the millennium.

Details on each of these findings and recommendations are contained in Chapters 2 through 4.

**AGENCY COMMENTS
AND ACTIONS**

In response to the draft report, the Regional Administrator, Region 5, agreed with the recommendations or proposed alternative actions to address the findings. Action plans, with milestone dates, were also provided. A summary of the response and action plans is included throughout the report, and a complete copy of the response is included in appendix 1. The response includes details on the resources and other support needed to implement the report's recommendations.

The Regional Administrator outlined plans to accelerate the LaMP and RAP processes. At the April 1999 Region 5 and State Environmental Directors meeting, the states issued a challenge to complete LaMPs for Lakes Michigan, Erie, and Superior by April 21, 2000 (Earth Day). LaMP groups have prepared detailed plans for meeting the challenge. For Lake Huron, a report describing the environmental problems and actions that need to be taken will also be issued by April 2000. To accelerate the RAP process, Region 5 will work with the states on roles, schedules, and grant funds to be devoted to RAPs. The liaison function will be reorganized to devote resources towards those RAPs most in need of EPA assistance.

The Regional Administrator also plans to issue a new Great Lakes Strategy by April 2000. In developing the strategy, the Regional Administrator has agreed to consider how best to implement the recommendations in the report. The issue of roles and

responsibilities of EPA offices working in the Great Lakes will be addressed when developing the Great Lakes strategy.

OIG EVALUATION

The Agency's actions, when completed, will address the findings and recommendations in the report.

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ABBREVIATIONS

| | |
|------------|--|
| Act | Clean Water Act |
| Agreement | Great Lakes Water Quality Agreement |
| EPA | U.S. Environmental Protection Agency |
| GLNPO | Great Lakes National Program Office |
| IJC | International Joint Commission |
| Lake Teams | Region 5 teams for Lake Michigan, Lake Superior, and Lake Erie |
| LaMPs | Lakewide Management Plans |
| OIG | Office of Inspector General |
| ORD | Office of Research and Development |
| RAPs | Remedial Action Plans |
| Strategy | 1992 Joint Federal/State 5-year Strategy |

CHAPTER 1

Introduction

PURPOSE

In March 1998, Region 5 senior management requested advice and assistance on how to (1) improve processes for developing lakewide management plans (LaMPs) and remedial action plans (RAPs), and (2) negotiate and implement a U.S. strategy for the Great Lakes. The Office of Inspector General's (OIG) plan for auditing EPA water programs also called for a evaluation of the Great Lakes program.

We have met with the Deputy Regional Administrator, the Region 5 Senior Leadership Team, the Water Division Director, the Great Lakes National Program Office Director, and the Region 5 Lake Team Managers, to evaluate our preliminary recommendations for improvement. Since there was an acknowledgment of the issues and that corrective action was needed, the report focuses on recommended improvements.

BACKGROUND

The Great Lakes - Superior, Michigan, Huron, Erie, and Ontario - are an important part of the physical and cultural heritage of North America. Spanning more than 750 miles from west to east, they provide water for consumption, transportation, power, recreation, and a host of other uses. Environmental challenges within the Great Lakes include: contaminated sediments, the effects of exotic species, and loss of habitat. Impacts on people include fish advisories and beach closings. The Great Lakes basin is home to more than one-tenth of the U.S. population, and has some of the world's largest concentrations of industrial capacity.

The Great Lakes region has a long tradition of interjurisdictional cooperation on key regional issues. Four of the Great Lakes are directly shared with Canada. The Great Lakes basin includes all land area that is drained by, or drains into, the Great Lakes. This includes all or part of eight states: Michigan, Minnesota, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, and New York; and two Canadian provinces.

The 1987 amendments to the Clean Water Act (Act) established EPA as the lead Agency for working with Federal, state, and local agencies to meet the goals of the Great Lakes Water Quality Agreement (Agreement). Within EPA there are several organizations with an interest in the Great Lakes. Regions 2, 3, and 5 all have at least one state bordering a Great Lake. ORD conducts some research related to the Great Lakes. GLNPO coordinates EPA's efforts in the Great Lakes as the national program office.

For fiscal year 1999, GLNPO had a staff of about 46 and a budget of almost \$15 million. GLNPO sought proposals for \$3.8 million in grants in the areas of ecosystem indicators, contaminated sediments, habitat restoration and protection, pollution prevention, and LaMPs and RAPs. However, it is important to note that GLNPO's Great Lakes spending is only a small portion of the money EPA spends to restore and protect the Great Lakes basin. For example, the entire state of Michigan is part of the Great Lakes basin, and therefore most Federal and state activities in Michigan that affect the water, air and land have an impact on the Great Lakes. (See exhibit 1 for additional background information.)

LaMPs

LaMPs are plans for each of the Great Lakes as a whole. The Agreement required that the U.S. and Canadian Governments, in consultation with appropriate state and provincial governmental organizations, implement LaMPs for each of the Great Lakes, except for Lake Michigan which is the responsibility of the U.S. Government. The Clean Water Act (Act) further required EPA to issue a LaMP for Lake Michigan for public comment by January 1, 1992, submit it to the International Joint Commission (IJC) by January 1, 1993, and publish it in the Federal Register by January 1, 1994. The Act stated that there was nothing to preclude EPA from developing LaMPs for any of the other Great Lakes. It did not include a specific due date for any of the other LaMPs because they required coordination with Canada, and therefore were not totally within EPA's control. (See exhibit 2 for information on the status of each of the LaMPs.)

The Agreement set out a four-stage process for submitting LaMPs to the IJC for review and comment (see table 1).

Table 1
LaMP Document Process

| Stage | Timing of document submission |
|-------|--|
| 1 | When definition and description of the environmental problem and the causes for the use impairments (referred to as the problem definition statement) has been completed |
| 2 | When a schedule of load reductions is determined |
| 3 | When remedial measures are selected |
| 4 | When monitoring indicates that critical pollutants are no longer impairing beneficial uses |

RAPs

RAPs are plans for specific areas of concern along the Great Lakes (see figure 1). The Agreement defines an area of concern as a geographic area where there is an impairment of a beneficial use or the ability of an area to support aquatic life. For example, an area where there are fish advisories, beach closings, or contaminated fish tissue. The Agreement states that the Federal government is to cooperate with state governments in ensuring RAPs are developed. Under the Critical Programs Act, the role of EPA is to ensure that states timely submit RAPs. Also in the Critical Programs Act, states were required to submit RAPs to GLNPO by June 30, 1991, to the IJC by January 1, 1992, and incorporate the RAPs into their water quality plan by January 1, 1993.

There are 43 areas of concern in the Great Lakes. The U.S. contains 31 areas of concern, five of which it shares with Canada. The remaining 12 areas of concern are in Canada. To date, one area of concern in Canada has been delisted, meaning that all beneficial use impairments were addressed.

Toxic sediments is one of the major issues affecting all U.S. and shared areas of concern. While costs of remediating toxic sediments vary widely, it can cost on average \$5.6 million to remediate sediments in one area of concern. In addition, Superfund sites impact about half (22 of 31) of the areas of concern, further complicating the issues being addressed. See exhibit 3 for a detailed table on the status of RAPs.

Figure 1: Forty-Three Areas of Concern



Restoration of the Great Lakes

Since the Agreement was signed in 1972, actions of EPA, other Federal agencies, and states have resulted in restoration of areas of the Great Lakes basin ecosystem.

- Through a combination of pollution prevention and site restoration activities, the release of toxic substances into the environment has been reduced, dramatically improving the health of many species of fish and wildlife.
- Actions to get the lead out of gasoline have reduced the level of atmospheric loadings of lead to the Great Lakes.

- Cancellation of the pesticide DDT increased the breeding populations of bald eagles, peregrine falcons, and osprey in the Great Lakes basin.

**SCOPE AND
METHODOLOGY**

The evaluation was conducted from July 10, 1998, to May 17, 1999. Fieldwork was performed primarily in Region 5, with limited work performed in Regions 2 and 3. Except as noted in exhibit 4, we performed our work in accordance with Government Audit Standards, 1994 Revision, issued by the Comptroller General of the U.S.

For further details on scope and methodology, see exhibit 4.

CHAPTER 2

Key Great Lakes Activities Need Strengthening

EPA needs to improve two key processes for protecting and restoring the Great Lakes: LaMPs and RAPs. LaMPs and RAPs are taking longer than expected to complete. For example, while a draft LaMP for Lake Michigan was first published in 1992, the LaMP was never finalized, thereby not meeting the statutory deadline of January 1, 1994. Officials currently plan to issue a LaMP document for Lake Michigan by April 21, 2000. To date, no U.S. RAPs have had all of their beneficial use impairments corrected.

To improve the LaMP process, EPA needs to (1) emphasize issuing written documents for Lakes Michigan, Erie and Huron during FY 2000; and (2) propose revising the LaMP process to address issues that have hindered the issuance of written plans. To improve the RAP process, Region 5 needs to better organize the RAP liaisons. Finally, Region 5's work on LaMPs and RAPs would benefit from clarifying the organizational roles and responsibilities of the offices, divisions and teams. These actions are needed to reach the goal of restoring and maintaining the chemical, physical, and biological integrity of the Great Lakes.

IMPROVING THE LaMP PROCESS

Progress of LaMPs varied widely, as measured by issuance of documents to the IJC (table 2). The LaMPs for Lakes Ontario and Superior were the furthest along, a stage 1 problem definition document had been issued for both. Federal and state officials have been working on the stage 1 problem definition document for Lakes Michigan and Erie for nine and six years respectively, and expect to take at least another year. The LaMP process for Lake Huron has not been started yet. (Background information on LaMP status is included in exhibit 2.)

**Table 2
Status of Stage 1 LaMPs**

| Lake | Year Started | To IJC | |
|--|--------------|-------------------|----------|
| | | Actual | Estimate |
| Erie | 1993 | | 2000 |
| Huron | | | |
| Michigan | 1990 | | 2000 |
| Ontario | 1996 | 1998 | |
| Superior - Chemical - Non-chemical/ecosystem | 1991 1994 | 1995 ² | 2000 |

Much of the delay in issuing LaMPs was due to the complexity of the LaMP development process, which (1) addressed broad issues such as toxics and the ecosystem; (2) involved many stakeholders at all levels of governments, as well as non-governmental organizations; and (3) often required international coordination. However, EPA can take some actions to improve the LaMP development process.

Issue LaMP Documents and Address Lake Huron

We recommend that by September 2000 the Regional Administrator, Region 5, work with other appropriate Federal, state and Canadian government organizations to:

- **Issue LaMP documents for Lakes Michigan and Erie describing what is known about the extent of the problem and load reductions and remedial measures that are needed (2.1).**
- **Decide what action to take on the Lake Huron LaMP, and when activities will begin (2.2).**

² While a LaMP has not been issued, a discussion paper, *Ecosystem Principles and Objectives, Indicators and Targets for Lake Superior*, was issued in 1995.

Completing plans for each of the Great Lakes is an important part of ensuring that Federal and state activities are adequate to protect and restore the Great Lakes. The Agreement requires written plans describing the problem, the reductions in chemicals that are needed, and the remedial measures that are needed. While activities to restore and maintain the Lakes were ongoing, these activities were taking place without such written plans, except for Lake Ontario and some components of Lake Superior. Without a plan or LaMP, there was no single document that (1) provided a guide for future work, (2) identified who needed to be involved, (3) established lines of accountability, and (4) served as a basis for measuring progress. The lack of plans also raises questions whether EPA was doing the right, and highest priority, activities needed to protect the Great Lakes. Without written plans describing the problems and what needs to be for a Lakes, there is also a question of whether the activities being done are the most cost effective.

Besides the environmental impact, the length of time that it had taken to produce LaMP documents resulted in frustration and skepticism about the LaMP process. Region 5 and state staff who worked on the LaMPs expressed frustration with the process, the amount of time involved, and the lack of progress in completing documents. Also, state officials were hesitant to start the LaMP for Lake Huron because of the problems they saw with the other LaMPs.

Due to the lack of progress on LaMPs and the problems the lack of a plan has created, EPA needs to place renewed emphasis on issuing initial LaMP documents during the remainder of FY 1999 and 2000.

- For Lakes Michigan and Erie, EPA needs to work with its partners to issue a document describing what is known about the extent of the problem, and the needed load reductions and remedial measures. Region 2 successfully used this approach in completing the Lake Ontario LaMP.

In working on the Lake Michigan and Erie LaMPs, Region 5 should consider the methods used for completing the Lake

Ontario and Superior LaMPs. Region 2 used a technical writer and a dedicated staff member, who consulted with other staff, to write the Lake Ontario LaMP. For Lake Superior, members of the LaMP committee, which include EPA, other Federal agencies, states and Canadian representatives, wrote the LaMP. EPA did have a person serving full-time as the LaMP writer, but had also been temporarily serving as the Lake team manager. Region 5's team structure, where staff spend 10 to 30 percent of their time on team activities, had not been effective because the time spent on team activities was taken up in meetings, leaving little time for actually writing the document.

- For Lake Huron, EPA needs to decide how it will restore and maintain the chemical, physical, and biological integrity of the lake. EPA should also let the public know what it plans to do for Lake Huron, and when it plans to start.

**Agency Comments
and Actions**

The Regional Administrator agreed with recommendation 2.1. At the April 1999 Region 5 and State Environmental Directors meeting, a challenge was issued to complete stages 1 through 3 of the LaMPs for Lakes Michigan, Erie, and Superior by April 21, 2000 (Earth Day). Workgroups have developed plans for accelerating completion of the LaMPs, and the state representatives are in general agreement with the proposed schedules. The workgroups will work with the LaMP Management Committees and Canada (for Lakes Erie and Superior) to reach agreement on the schedules.

State and regional commitment is an important part of the Agency's strategy to accelerate LaMP development. For Lakes Michigan and Erie, state commitment is needed to write documents and to expedite the review and approval process. All Region 5 offices and divisions must stand ready to support acceleration of LaMP development. Regional resources have been allocated to the goal. There also needs to be a short-term focusing of existing program staff with needed expertise to assist with the LaMPs.

The Agency's action plan for the Lakes Michigan, Erie, and Superior LaMPs is:

**Table 3
Action Plan For Lakes Michigan, Erie and Superior**

| Action | Date |
|--|------------------------------|
| Detailed schedules through LaMP Management Committees | Summer 1999 |
| US Policy Committee Meeting to ensure progress on meeting schedule deadlines | November 1999 Spring 2000 |
| LaMP documents issued (see appendix 1 for details on what will be included in the documents) | April 2000 |
| Finalized LaMP documents | December 2000/2001 |

The Regional Administrator agreed with recommendation 2.2. Regarding Lake Huron, the state of Michigan developed a draft Lake Huron Initiative report. While the initiative is not currently a LaMP, it contains many elements of a LaMP. The state of Michigan would like to use the initiative as a way to reinvent lakewide management planning.

Completion of the Lake Huron Initiative report will require Canadian approval. Environment Canada has informed EPA that they will not be able to take up the issue of a LaMP for Lake Huron until the year 2000, due to resource constraints. During the year 2000, EPA will work with Michigan and Environment Canada regarding progress and the future of the initiative.

EPA's action plan for Lake Huron is:

**Table 4
Action Plan for Lake Huron**

| Action | Date |
|-----------------------------|------------------------------------|
| Draft Lake Huron Initiative | June 1999 |
| Initiative meetings | June 1999 January/February 2000 |
| Initiative document | April 2000 |
| Lake Huron Symposium | Early 2001 |

Revise the LaMP Process

We recommend that the Regional Administrator, Region 5 work with Canada, other Federal agencies, and states to identify, and implement, ways to make the LaMP process more efficient (2.3).

Attempts to get complete information regarding problem identification hindered EPA's and Canada's issuing of stage 1 LaMPs. In fact, throughout the lifetime of the LaMP new information will likely become available regarding the problems of each specific Great Lake. Also, while the Agreement calls for issuing documents in four distinct stages, EPA found that in practice the stages overlap. For example, all of the problem identification was not completed before load reduction targets were set or remedial actions began.

The Lake Ontario LaMP did not meet the strict definition of a stage 1 LaMP. The LaMP included all information that EPA and the other parties to the agreement had at the time, notwithstanding whether the information related to problem identification, load reduction targets, or remedial actions. Where there was incomplete information, the LaMP included a plan for obtaining the information. EPA has not received any negative feedback about using this approach for a LaMP.

Since the concept of issuing LaMPs in “stages” does not appear to be working, EPA should work with Canada, other Federal agencies, and states to identify ways for making the LaMP process more efficient. Some of the options that EPA staff suggested include:

- issuing an initial document based on existing information and a plan for the next several years, and then updating the document every two years, such as what is being done with the Lake Ontario LaMP;
- combining stages 1, 2 and 3 into one document;
- revisiting the definition of LaMP as contained in the Agreement.

**Agency Comments
and Actions**

In responding to recommendation 2.3, the Regional Administrator stated that LaMP development is now being made more efficient through streamlining and acceleration. (See response to recommendations 2.1 and 2.2.) A workgroup has developed a number of key recommendations that will be implemented. EPA will also use the process for development of the Great Lakes Strategy to identify and implement ways to make the LaMP process more efficient. To gain support of Canadian counterparts, the Binational Executive Committee discussed how to improve the LaMP process at their July 1999 meeting.

**IMPROVING EPA
INVOLVEMENT
IN RAPs**

Region 5 RAP liaisons were not as effective as they could be in working with the state and local officials. Region 5 assigned staff to serve as liaisons for each of the RAPs within the Region. However, the liaisons generally did not coordinate with each other and many had not received training recently regarding their responsibilities. As a result, Region 5 was not as effective as it could be in coordinating with RAPs.

According to the Act, states are primarily responsible for completing RAPs, and were to incorporate them into state water quality plans by January 1, 1993. EPA's role was to ensure that states complete RAPs. Regions 2, 3 and 5 approached their

involvement in the RAPs differently.³ For example, in Region 5, one person is assigned to be the RAP liaison for each RAP in the Region. The liaison's goal was to facilitate and coordinate communication regarding the RAPs. In Regions 2 and 3, one person serves as the contact point and provides technical support for all of the RAPs in each region.

**RAP Coordinator
Needed**

We recommend that the Regional Administrator, Region 5 establish a RAP coordinator in Region 5 (2.4).

Region 5 needs to designate someone to be responsible for coordinating RAP liaison activities. The coordinator should be responsible for:

- defining the roles and responsibilities,
- training new liaisons,
- facilitating communication among the RAP liaisons,
- collecting information for management on the status of RAPs, and
- ensuring there is adequate coordination with all RAP organizations.

In Region 5, the responsibility for organizing the RAP liaisons was not clear. The Region 5 Lake Teams, GLNPO and the Water Division could all have been potentially responsible for organizing the RAP liaisons. GLNPO and the Water Division had staff who were considered RAP coordinators, but neither of them performed all of the activities that were needed to make the RAP liaisons more effective. In GLNPO, the RAP coordinator only tracked the status of the RAPs. In the Water Division, the RAP coordinator kept a list of all the RAP liaisons, but the list was not accurate. As for the Region 5 Lake Team managers, while they put together an initial training program for the liaisons, they had other responsibilities that prevented them from devoting the time that was needed to continue organizing the RAP liaisons.

³ Seventy-eight percent of the U.S. and binational RAPs are in Region 5.

EPA was to work with and ensure that states complete RAPs. Liaisons were a way for EPA to provide information and technical resources to RAPs and to monitor their progress. Better organized liaisons will increase their effectiveness, and assist in further the progress of all RAPs.

**Agency Comments
and Actions**

In responding to recommendation 2.4, the Regional Administrator did not believe the establishment of a coordinator was needed for RAPs, but did outline a number of other actions to accelerate RAPs. Rather than assigning a liaison to all RAPs, decisions will be made on a case-by-case basis, and the liaison's level of involvement may differ for each RAP. In general, a liaison will not be assigned for RAPs that have completed stage 2. All Region 5 divisions, offices and teams will be asked to provide some expertise and leadership where the RAP objectives align with program objectives.

The regional lake teams will serve as the forum for RAP coordination. Lake team managers will be given a renewed charge to serve as the umbrella for the RAPs in their lake, and will be responsible for providing orientation to the RAP liaisons. The orientation will define the roles and responsibilities of the liaison. As RAPs progress to different stages of completion, the team managers will work with the liaison to redefine their role.

EPA's action plan for accelerating RAPs is:

Table 5
Action Plan for RAPs

| Action | Timing |
|---|---|
| Initiate RAP challenge with states | July 1999 |
| Discussion with states on roles, schedules, and grant funds | July/August 1999 |
| Renewed charge to team managers | August 1999 |
| RAP orientation by team managers | As liaisons are appointed and RAP stages change |
| RAP challenge discussion at US Policy Committee meeting | November 1999 |
| Progress report at Binational Executive Committee meeting | December 1999 |

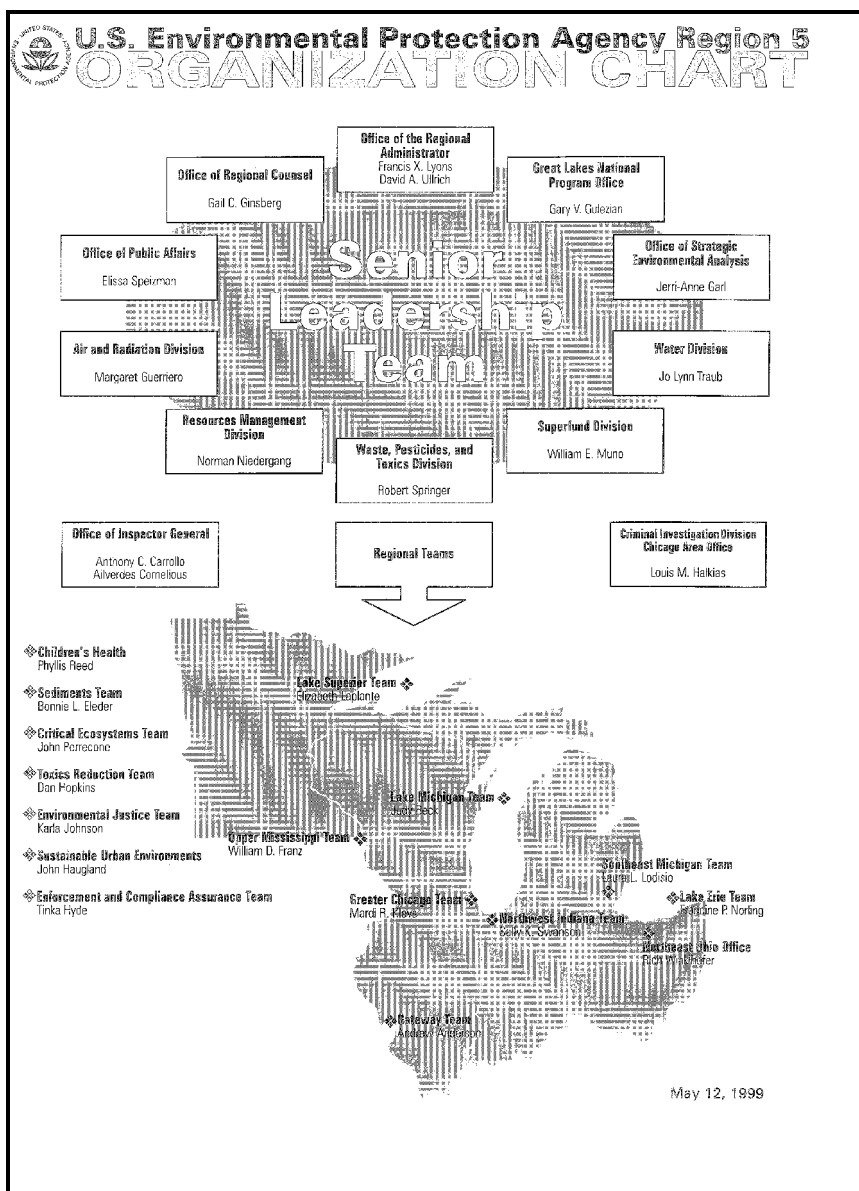
OIG Evaluation

In responding to the draft report, the Regional Administrator proposed actions that were more comprehensive than we originally recommended. The proposed actions, when implemented, will increase the effectiveness of the RAP liaisons and increase state progress in completing RAPs. We support the actions the Region has proposed to take.

**CLARIFYING
ORGANIZATIONAL
ROLES AND
RESPONSIBILITIES**

In 1995, Region 5 reorganized, maintaining a media-based division structure and adding regional teams, including teams for Lakes Michigan, Superior, and Erie (lake teams) (see figure 2). The lake teams generally have one permanent staff member, the team manager. Team members are from Region 5's media divisions and other offices. While some team members may be full time, most team members spend between 10 and 30 percent of their time on team activities. The team managers each report to a division or office director(s).

Figure 2: Region 5 Organization Chart



The lake teams were to:

- improve multimedia coordination;
- be focal points for resources and provide strategies for each of the lakes, including the LaMPs; and
- rely upon programs to find solutions to problems.

The media divisions and offices were to use the teams to focus their efforts in the Great Lakes.

**Clarify LaMP and RAP
Responsibility**

We recommend that the Regional Administrator, Region 5 clarify and communicate the priority and responsibility of LaMPs and RAPs in Region 5 (2.5).

While the Region 5 team structure was to facilitate multimedia coordination of activities, there was some confusion as to the priority and responsibility for LaMPs and RAPs. When LaMP and RAP activities matched the priorities of media programs, the activities generally were completed. However, where activities such as writing a LaMP document and serving as a RAP liaison did not fit with media program priorities, it was less likely that the activities were supported or completed timely. LaMP and RAP activities are both areas where improvements are needed.

Without the support of the Region 5 divisions and offices, teams are unlikely to accomplish specific tasks. Tasks that are the responsibility of the teams are indirectly the responsibility of all divisions and offices in Region 5. Region 5 divisions and offices need to recognize this responsibility and communicate it to their staff. Not doing so will result in continued problems with completing LaMPs and less than effective use of RAP liaison resources.

**Agency Comments
and Actions**

In responding to recommendation 2.5, the Regional Administrator agreed that Great Lakes activities, such as RAPs and LaMPs, that are outside typical media priorities often receive less attention within Region 5 programs than headquarters driven requirements. Attention to these activities can be increased in several ways. One way is the participation of Region 5 programs in the development and implementation of the Great Lakes strategy. A second way is through the Region 5 planning process where LaMPs and RAPs will be highlighted to management and staff. The third way is to align planning, budgeting, and accountability systems to support completion of LaMPs and RAPs.

Region 5's action plan and milestone dates to address the recommendation are:

**Table 6
Action Plan for RAPS**

| Action | Date |
|---|----------------|
| Lake Summit with Region 5 senior managers | June 25, 1999 |
| Summary of agreements from Lake Summit | July 1999 |
| Region 5 lake team resource requests conveyed | July 1999 |
| Resource decisions made by Region 5 | September 1999 |
| Regional results plan | October 1999 |
| Midyear goal reporting | March 2000 |
| Lake Summit with Region 5 senior managers | April 2000 |

GLNPO's Role Needs Definition

We recommend that the Regional Administrator, Region 5 define and communicate the role of GLNPO in LaMPs and RAPS (2.6).

GLNPO's involvement in LaMPs and RAPS was limited. GLNPO activities included:

- tracking the status of LaMPs and RAPS,
- serving on LaMP teams, and
- providing grant funds for projects associated with LaMPs and RAPS.

While GLNPO was part of the LaMP teams, several team members told us that they continued to have problems getting information from GLNPO. According to the lake team managers, GLNPO staff generally did not offer information. Instead, they would find out accidentally that GLNPO had information they needed. On the other

hand, GLNPO managers stated that the lake team managers did not frequently ask for information.

Early in the history of the LaMP process, GLNPO and the Region 5 Water Division management decided that the Water Division would be primarily responsible for LaMPs and RAPs. This was a controversial decision at the time, and continues to be a sensitive issue. As a result, GLNPO and the Water Division had limited communication regarding LaMPs and RAPs. In 1995, responsibility for LaMPs and RAPs was transferred to the Region 5 lake teams. While coordination between GLNPO and the lake teams increased, coordination and communication problems continued. As a first step, officials need to define the role GLNPO has with LaMPs and RAPs. Once defined, GLNPO needs to devote the resources necessary to fulfill that role.

**Agency Comments
and Actions**

The Regional Administrator agreed with recommendation 2.6 and stated that it is important that the role of all EPA programs in LaMPs and RAPs be better defined and communicated. LaMP and RAP roles and responsibilities will be addressed during the development and implementation of the Great Lakes strategy, which is discussed in Chapter 4.

CONCLUSION

While LaMPs and RAPs are complex, EPA can take actions to further the progress of both. Most important, officials need to clearly communicate the priority and responsibility of LaMPs and RAPs to all Region 5 staff. Without this, other actions directed toward issuing LaMP documents and organizing RAP liaisons will not be as effective as they could be. LaMPs and RAPs are the primary processes called for in the Agreement to coordinate Federal and state activities directed toward restoring beneficial uses to the Great Lakes. The less effective these processes are, the less likely it is that the goal of restoring and maintaining the chemical, physical, and biological integrity of the Great Lakes will be met.

CHAPTER 3

Responsibilities of EPA Offices in the Great Lakes Need Definition

GLNPO does not have official agreements with other EPA offices that work in the Great Lakes, as required by the Clean Water Act⁴. These offices include Regions 2, 3, 5, and ORD. As a result, relationships of Region 5 offices working in the Great Lakes have suffered, and GLNPO and ORD did little coordination on research planning. GLNPO should enter into one, or multiple, agreements with these entities to identify the roles and responsibilities of each in the Great Lakes.

We recommend that the Regional Administrator, Region 5 prepare an agreement(s) that outlines the roles and responsibilities of GLNPO, ORD, Regions 2, 3, and 5 in the Great Lakes (3.1).

According to the Act, one of the functions of GLNPO is to coordinate actions of the Agency, both headquarters and regions, aimed at improving Great Lakes water quality. The legislative history of this section of the Act appears to indicate that Congress intended these agreements to ensure that intergovernmental coordination occurred, as well as coordination within EPA.

GLNPO's relationships with Region 5 and ORD were adversely affected because the agreements were not in place, while relationships with Region 2 and 3 were not. In Region 5, GLNPO's working relationship with other divisions and teams suffered from a lack of clear definition of roles and responsibilities,

⁴ Section 118 (c) (8) of the Act requires that GLNPO enter into agreements with the various organizational elements of the Agency working in the Great Lakes.

as described earlier. GLNPO and ORD also did little coordination to plan research projects in the Great Lakes.

CONCLUSION

A clear description of roles and responsibilities of GLNPO, ORD, Regions 2, 3, and 5, would help improve adversely affected relationships and maintain good working relationships. Working together to identify roles and responsibilities would also help coordinate and clarify activities each was responsible for in the Great Lakes. This would help improve working relationships and efficiency of work in the Great Lakes to the benefit of the environment. Finally, taking a step to maintain good working relationships now would help prevent deterioration of those relationships in the future, and help prevent any negative impact on the Great Lakes.

**AGENCY COMMENTS
AND ACTIONS**

The Regional Administrator agreed with the recommendation. Roles and responsibilities of GLNPO, ORD, and Regions 2, 3 and 5 will be updated and articulated as part of the Great Lakes Strategy planning process. The action plan and milestone dates for the Great Lakes Strategy are described in Chapter 4.

CHAPTER 4

Great Lakes Strategy Needs Improvement

GLNPO officials can learn from problems they encountered creating and implementing the 1992 Joint Federal/State 5-year Strategy (strategy). In creating the next strategy, GLNPO should strive to: (1) obtain buy-in and commitment from all parties, (2) focus on goals, (3) include performance measures, and (4) provide accountability for implementation which will result in a meaningful strategy that helps bring together Great Lakes efforts and activities. From this, GLNPO can design a new strategy that will fulfill a new purpose for the Great Lakes and help carry efforts forward to the millennium.

GLNPO developed the 1992 strategy to help coordinate activities with other Federal agencies and states working in the Great Lakes. Parties to the Great Lakes strategy included six Federal agencies, the eight Great Lakes states and one tribal representative.

Table 7
Parties to the Great Lakes Strategy

| <u>Federal Agencies</u> | <u>States</u> | <u>Tribal Representative</u> |
|---|---------------|------------------------------|
| EPA | Illinois | Chippewa/Ottawa Fishery |
| Army Corps of Engineers | Indiana | Management |
| National Oceanographic and Atmospheric Administration | Michigan | |
| Coast Guard | Minnesota | |
| Department of Agriculture | New York | |
| Fish and Wildlife Service | Ohio | |
| | Pennsylvania | |
| | Wisconsin | |

The purpose of the strategy was to shift away from doing business as independent agencies and to begin working as a team. The strategy was a voluntary effort to help focus Federal, state and tribal efforts on the Great Lakes. It established three goals: (1) to reduce toxic pollution, (2) to protect and restore habitat, and (3) to protect human health and the health of the ecosystem's species.

The strategy further identified specific activities and a framework for implementing the strategy.

GLNPO management plans to issue a new Federal, state and tribal strategy for the Great Lakes, by April 2000. Officials are taking this opportunity to reconsider the strategy format, purpose, and time frame.

**BUY-IN AND
COMMITMENT
NEEDED**

We recommend that the Regional Administrator, Region 5 ensure the Great Lakes strategy has input from all (former and new) parties during its development (4.1).

Getting parties to buy-in to the strategy and participate in its development will help ensure they will support the strategy and try to implement it. According to several representatives of other Federal agencies, states, and tribes, EPA primarily wrote the strategy and presented it to the parties rather than working with the parties to put together a strategy that everyone could support. As a result, the original strategy was developed without the complete buy-in from all parties. At the time, working in partnership was a relatively new concept.

Several groups that were not involved in development of the strategy deserve renewed or new attention:

- Federal Research Community

The Federal research community should be included in the development of the strategy to improve coordination on research planning. GLNPO, as program manager for the Great Lakes, and the Federal Great Lakes research community did not effectively coordinate regarding research planning. The lack of coordination may have resulted in needed research not being undertaken or research completed that was not needed or used.

- Regions 2, 3, and 5

Including Regions 2, 3, and 5 would also help give them a sense of ownership of the strategy. Likewise, the Region 5 lake teams and media divisions could also benefit from participation by developing a sense of ownership to the strategy.

- Great Lakes Tribes

GLNPO should make a special effort to ensure that all Great Lakes tribes are aware of the opportunity to participate in the development of the new strategy. The tribal representative on the 1992 strategy spoke for only a small number of tribes. After the 1992 strategy was developed, several other tribes expressed concern at not being included.

Agency Comments

GLNPO has begun implementing recommendation 4.1 to get input from all parties. Preliminary discussions have been held with staff from Regions 2, 3 and 5, Office of Research and Development, states, tribes, and other Federal agencies. Many additional Great Lakes stakeholders, including the Federal research community and tribes will be brought into the process once the Agency enters the development phase. The action plan and milestone dates for the development of the strategy, which will address the recommendations in this chapter, are included at the end of the chapter.

Commitment Needed

We recommend that the Regional Administrator, Region 5 get agreement from all parties to implement the strategy (4.2).

GLNPO officials need to identify a new way to ensure they have obtained agreement to implement the strategy. For the 1992 strategy, managers at some Federal agencies indicated they were committed to it, but did not follow through by dedicating resources to achieving those commitments. Similarly, some state officials

could not sign the strategy because of their political climate, even though they may have agreed with the strategy in principle.

Agency Comments

In responding to recommendation 4.2, the Regional Administrator stated that GLNPO plans on implementing the recommendation through closer communication with key management officials during the consensus building phase of the strategy, as well as devising an improved formal mechanism to gain support for the strategy.

FOCUS ON GOALS

We recommend that the Regional Administrator, Region 5 focus the strategy on overall goals, as opposed to activities (4.3).

The new strategy should serve as an umbrella document, bringing together all Great Lakes efforts and initiatives in one place. The 1992 strategy emphasized detailed activities rather than achievement of goals and performance measures. Parties to the strategy had difficulty planning several years ahead which activities would be useful to meeting the goals and priorities of the strategy. Other processes exist that outline specific Great Lakes activities, such as: LaMPs, RAPs, and the Binational Toxics Strategy. Including detailed activities to the Great Lakes strategy can be seen as another layer of reporting on the same activities.

Agency Comments

Region 5 agreed with recommendation 4.3. The focus of the strategy will be on (1) protecting and restoring the chemical, physical, and biological integrity of the Great Lakes basin ecosystem, (2) the removal of beneficial use impairments, and (3) the virtual elimination of persistent toxic substances. At the same time, discussions with some stakeholders have encouraged greater specificity in the strategy so that a wide variety of Agency managers, as well as the public, can understand what is intended to be accomplished. During the development of the strategy, GLNPO will attempt to address both of these somewhat contradictory objectives.

**INCLUDE
PERFORMANCE
MEASURES**

We recommend that the Regional Administrator, Region 5 include performance measures and report progress against the measures (4.4).

The new strategy should include performance measures to report on progress in restoring and maintaining the Great Lakes. The 1992 strategy did not include performance measures to evaluate progress toward achieving the goals of the strategy. Performance measures have become increasingly important to EPA as the Agency moves toward adopting the Government Performance and Results Act of 1994.

Agency Comments

Region 5 agreed with the recommendation 4.4. For Federal agencies, the Government Performance and Results Act is one potential source of measures. For state agencies, Environmental Performance Partnership Agreements include performance measures and reports. During the development of the strategy, GLNPO will also explore other possibilities for measurement and progress reports, including subsequent development of an implementation plan, annual meetings or conference calls, and agreed delineation of Great Lakes activities in work plans.

**ENSURE
IMPLEMENTATION**

We recommend that the Regional Administrator, Region 5 designate GLNPO as responsible for working with the parties to the new strategy to ensure it is implemented (4.5).

GLNPO, in its role of coordinator of U.S. actions in the Great Lakes, needs to ensure that the new strategy will be better implemented than the 1992 strategy. GLNPO needs to ensure parties to the strategy meet periodically to assess their collective progress and that there is adequate coordination of activities.

The implementation of the 1992 strategy suffered from a lack of accountability. No entity monitored the strategy to ensure that commitments were met. As a result, some elements of the framework of the strategy were not completely implemented.

- The U.S. Policy Committee was intended to facilitate discussion and coordination of activities among Federal and state agencies. According to the strategy, the committee was to help set overall priorities and coordinate the development of individual agency action plans to achieve the goals of the strategy. The U.S. Policy Committee met a couple of times, but has not met for several years.⁵
- When GLNPO officials prepared reports, they focused on summarizing activities without assessing progress toward achieving the goals. Without assessing progress, there was no determination of how well parties to the Great Lakes strategy were doing in achieving the strategy's goals.

Agency Comment

The Regional Administrator agreed with recommendation 4.5. GLNPO will be working over the next year to ensure the completion and implementation of the strategy.

CONCLUSION

Without full implementation of and buy-in to the Great Lakes strategy Federal agencies and states were not able to achieve the intended benefits of the strategy. Each Federal agency, state, and the tribal organization that was party to the strategy was doing work in the Great Lakes, and without coordination these activities may not completely solve the problems in the Great Lakes. Working together, parties can learn from the experience of others and make the best use of limited resources.

AGENCY ACTIONS

In responding to the draft report, the Regional Administrator proposed the following action plan for implementing the strategy:

**Table 8
Action Plan for the Great Lakes Strategy**

⁵ With the acceleration of LaMPs and RAPs, the Agency is reconvening the U.S. Policy Committee, with the initial meeting scheduled for November 1999.

Improving EPA's Great Lakes Program

| Action | Date |
|--|--------------------------------|
| Hold initial consultations on scope and nature of strategy | Completed |
| Develop a draft plan for strategy process | Completed |
| Request participation from lead Agencies | August 1999 |
| Hold initial conference call | September 1999 |
| Hold first kick-off meeting | October 1999 |
| Brief US Policy Committee | November 1999 |
| Draft strategy | December 1999/ January 2000 |
| Public consultation | February 2000 |
| Final document issued | April 2000 |

Background

Great Lakes Water Quality Agreement

The overall purpose of the Great Lakes Water Quality Agreement (Agreement) was to restore and maintain the chemical, physical, and biological integrity of the Great Lakes. The general objective of the Agreement was that the waters be free from:

- substances that may form into sludge or will adversely affect aquatic life or waterfowl;
- floating materials such as debris, oil, and scum in amounts that are unsightly;
- materials that produce color, odor, taste, or other conditions in such a degree as to interfere with beneficial uses;
- materials that are toxic or harmful to humans, animal or aquatic life; and
- nutrients that create growths in aquatic life as to interfere with beneficial uses.

To restore and protect the Great Lakes, the Agreement identified 14 beneficial uses impairments that needed to be addressed, as shown in table 9.

| Table 9 Beneficial Use Impairments |
|--|
| Restrictions on fish and wildlife consumption |
| Tainting of fish and wildlife flavor |
| Degradation of fish wildlife populations |
| Fish tumors or other deformities |
| Bird or animal deformities or reproduction problems |
| Degradation of benthos (organisms living at the bottom of the lake) |
| Restrictions on dredging activities |
| Eutrophication or undesirable algae |
| Restrictions on drinking water consumption, or taste and odor problems |
| Beach closings |
| Degradation of aesthetics |
| Added costs to agriculture or industry |
| Degradation of phytoplankton and zooplankton populations |
| Loss of fish and wildlife habitat |

Importance of Coordination

The U.S. has numerous Federal agencies and states with an interest in the Great Lakes. For example, several Federal agencies are responsible for habitat: EPA, Army Corps of Engineers, Fish and Wildlife Service, and Department of Agriculture. EPA and the Army Corps of Engineers both work with sediments. The EPA and the Coast Guard are both concerned with exotic species. Besides Federal agencies, there are eight states with various state agencies that have an interest in the Great Lakes. The overlapping responsibilities make coordination among Federal and state agencies very important.

Role of GLNPO

The Act formally established the Great Lakes National Program Office (GLNPO) and identified its functions as:

- development and implementation of specific action plans to carry out responsibilities of the Agreement,
- establishment of a Great Lakes system-wide surveillance network to monitor water quality,
- serving as liaison with Canada,
- coordinating actions of the Agency directed at improving the Great Lakes, and
- coordinating actions with other Federal agencies and states.

Status of LaMPs

LAKE ERIE

In Spring 1993, the U.S. and Canada began the initial phase of developing a Lake Erie LaMP. Ohio is serving as the lead state, with participation from Michigan, Pennsylvania, and New York. In 1995, a concept paper was issued identifying the LaMP's goal, to restore and protect the beneficial uses of Lake Erie, with a focus on the 14 beneficial use impairments. Ecosystem objectives will be used to guide LaMP efforts toward defined endpoints and serve as a basis for establishing commitments for reducing, eliminating, or preventing sources of beneficial use impairments.

The LaMP is being produced as a series of technical reports describing the current and desired states of environmental conditions in Lake Erie. The reports on critical pollutants and beneficial use impairments, when completed, will represent the stage 1 LaMP for Lake Erie. The LaMP will also include ecosystem objectives, and is expected to be issued by June 2000. Table 10 identifies the report topics, current status, and the dates the reports are expected to be completed.

Table 10
Lake Erie LaMP

| Report Topic | Status as of April 1999 | Expected Final Report |
|---|--|--|
| Ecosystem objectives and indicators | Draft report was sent to the LaMP's technical workgroup on December 8, 1998. | June 1999 |
| Critical pollutants and other pollutants of concern | Draft report is being prepared. | August 1999 |
| Beneficial use impairments | Use impairment assessments had been issued for 6 of 14 beneficial uses. | Two additional assessments will be completed by April 1999. The subcommittee is working on a strategy for completing the six remaining use impairment assessments. |

LAKE HURON

In 1999, EPA, the state of Michigan, Canada and other Federal agencies began working on a Lake Huron Initiative, which has similar goals to a LaMP. Prior to this, the State of Michigan held a conference on June 10, 1998, in Saginaw, Michigan which addressed the current status of the Lake Huron watershed. The conference was attended by stakeholders from U.S. and Canadian government and non-government agencies. Representatives of the Michigan Departments of Natural Resources, Environmental Quality, and Agriculture voiced their opinions that a LaMP was not the preferred management option for the basin because of the difficulties that other organizations were having with LaMPs for the other Great Lakes. In January 1999, officials met again to establish the Lake Huron Initiative and set out a schedule for beginning work on Lake Huron.

LAKE MICHIGAN

The Great Lakes Critical Programs Act required EPA to publish in the Federal Register a draft LaMP for Lake Michigan by January 1, 1992, and a final LaMP by January 1, 1994. EPA published the draft in August 1992. Based on public comments, EPA revised the draft and issued it for public comment again in May 1995. This draft focused primarily on toxic pollutants. However, governmental agencies and stakeholders recognized the draft was too limited, and that other stressors contribute to impairments in Lake Michigan. Comments confirmed that the LaMP should include an ecosystem approach to protecting Lake Michigan. EPA is working with other governmental agencies and stakeholders to revise the LaMP to address habitat, biodiversity, and exotic species issues. The final draft stage 1 LaMP will be circulated for public comment in the fall of 1999, and submitted to the IJC in early 2000.

LAKE ONTARIO

In 1996, Region 2, the New York State Department of Environmental Conservation, Environment Canada, and Ontario Ministry of the Environment officially started working on the Lake Ontario LaMP. The LaMP built on work the organizations had been doing since 1987 under the Lake Ontario Toxics Management Plan. The stage 1 LaMP was issued in 1998. While the focus of the stage 1 LaMP was on problem definition, it also included elements of stages 2 through 4, which address load reductions and remedial measures that need to be taken to achieve the load reductions.

The LaMP included a work plan for completing a draft stage 2 LaMP by the fall of 2000. Activities include:

- evaluating the effectiveness of existing programs,
- enhancing mass balance models,
- facilitating cooperative lakewide monitoring,
- executing habitat protection and restoration activities,
- developing ecosystem objectives and indicators, and
- establishing basin teams and partnerships.

LAKE SUPERIOR

The Lake Superior LaMP is being done in segments: critical pollutants, non-chemical stressors, and ecosystem principles and objectives. Much of the focus, and written documents to date, had been on critical pollutants and ecosystem principles. The stage 1 LaMP for critical pollutants was issued in September 1995, and the stage 2 document is expected to be completed in April 1999. The *Ecosystem Principles and Objectives, Indicators, and Targets for Lake Superior* document was completed in September 1995 and has been updated periodically. EPA also expects to complete a document combining the stage 1 and 2 LaMPs for non-chemical stressors.

The Lake Superior LaMP covers more than the Agreement anticipated because the IJC also recommended that Lake Superior be a demonstration zone for zero discharge. The zero discharge program (Broader Program) and emphasis on a partnership approach to achieving goals, make up what is known as the Lake Superior Binational Program. The LaMP also incorporates the "Broader Program," that focuses on management and coordination needed to ensure beneficial uses are protected and restored. The LaMP serves as an update for the Binational Program.

Status of RAPs

**Table 11
Status of 31 U.S. and Binational RAPs**

| Areas-of-Concern | State | Report to IJC | | Latest Update | No. of Use Impairments | Impact from SF Site | Toxic Sediments |
|---------------------------|-------|---------------|---------|---------------|------------------------|---------------------|-----------------|
| | | Stage 1 | Stage 2 | | | | |
| Ashtabula River | OH | 1991 | | | 6 | Y | Y |
| Black River | OH | 1994 | | 1997 | 10 | Y | Y |
| Buffalo River | NY | 1989 | 1989 | 1999 | 5 | N | Y |
| Clinton River | MI | 1988 | 1995 | 1998 | 8 | Y | Y |
| Cuyahoga River | OH | 1992 | | 1996 | 10 | N | Y |
| Deer Lake ⁶ | MI | 1987 | | | | N | Y |
| Eighteenmile Creek | NY | 1997 | 1997 | | 3 | N | Y |
| Fox River | WI | 1988 | | | 10 | N | Y |
| Grand Calumet River | IN | 1991 | | | 14 | Y | Y |
| Kalamazoo River | MI | | 1998 | | 7 | Y | Y |
| Lower Menominee River | MI/WI | 1991 | 1996 | 1996 | 6 | Y | Y |
| Manistique River | MI | 1987 | 1997 | 1997 | 5 | Y | Y |
| Maumee River | IN/OH | 1992 | | 1997 | 10 | N | Y |
| Milwaukee Estuary | WI | 1994 | | | 10 | N | Y |
| Muskegon Lake | MI | 1987 | 1994 | 1994 | 10 | Y | Y |
| Oswego | NY | 1990 | 1991 | 1999 | 4 | Y | Y |
| Presque Isle Bay | PA | 1993 | | 1995 | 2 | N | Y |
| River Raisin ⁶ | MI | 1987 | | | | Y | Y |
| Rochester Embayment | NY | 1993 | 1997 | | 12 | Y | Y |
| Rouge River | MI | 1989 | 1994 | 1998 | 13 | Y | Y |
| Saginaw River/Bay | WI | 1988 | | | 12 | Y | Y |
| Sheboygan River | WI | 1989 | | 1995 | 8 | Y | Y |
| St. Louis Bay / River | MN/WI | 1992 | | 1995 | 9 | Y | Y |
| Torch Lake ⁶ | MI | 1987 | | | | Y | Y |
| Waukegan Harbor | IL | 1993 | 1995 | | 5 | Y | Y |
| White Lake | MI | 1987 | 1995 | 1995 | 10 | Y | Y |

⁶ The RAPs will be updated during 1999, and will include an identification of the number of use impairments.

| Areas-of-Concern | State | Report to IJC | | Latest Update | No. of Use Impairments | Impact from SF Site | Toxic Sediments |
|------------------------------------|-------|---------------|---------|---------------|------------------------|---------------------|-----------------|
| | | Stage 1 | Stage 2 | | | | |
| Binational Areas of Concern | | | | | | | |
| St. Marys River | MI | 1992 | | | 10 | Y | Y |
| St. Clair River | MI | 1991 | 1995 | 1997 | 9 | N | Y |
| Detroit River | MI | 1991 | 1996 | 1996 | 9 | Y | Y |
| Niagra River, NY | NY | 1994 | 1994 | | 5 | Y | Y |
| St. Lawrence River, Massena | NY | 1990 | 1991 | 1996 | 3 | Y | Y |
| Total | | | | | | 22 | 31 |

Scope, Methodology, and Prior Audit Coverage

SCOPE AND METHODOLOGY

The evaluation was conducted from July 10, 1998, to May 17, 1999. The fieldwork was performed primarily in Region 5, with limited work performed in Regions 2 and 3. Except as noted below, we performed our work in accordance with Government Audit Standards, 1994 Revision, issued by the Comptroller General of the U. S. We deviated from standards only in the reporting of results. The standards require that findings be presented persuasively, and include sufficient, competent, and relevant information in order to provide convincing evidence of the need for corrective action. Since the evaluation was performed at Region 5 management's request, with an acknowledgment that improvements were needed, we limited the amount of detail in the report relating to the conditions. The focus of the report was on the cause of the problems and the recommended corrective actions.

As part of the work, we evaluated the internal control assessment of the Great Lakes National Program Office for FY 1996 and 1997. We also assessed the Agency's compliance with laws and regulations that were specific to the Great Lakes.

To gain an understanding of the LaMPs and RAPs, we discussed the processes with management and staff at EPA, other Federal agencies, states, and non-governmental organizations who were involved with the processes. Due to the large number of organizations involved with RAPs, we also sent surveys to EPA, state and local officials requesting input on what can be done to improve the RAP process. We also evaluated completed LaMP and RAP documents and reports that have been written about the processes.

In order to make recommendations for improving the next Great Lakes strategy, we evaluated the previous strategy and EPA's implementation of the strategy. We discussed with staff at EPA, other Federal agencies, and states what can be done to improve the next strategy. We also evaluated other planning processes to determine the extent to which they can be used in coordinating Federal and state activities in the Great Lakes.

As part of the second objective on effective national agreements, we also evaluated the Agency's implementation of the Binational Toxics Strategy. However, our limited review did not identify any potential areas of concern that warranted expanding the evaluation or recommending improvements.

The Regional Administrator, Region 5, responded to the draft report on July 27, 1999. Region 5 staff provided clarification of some sections of the response through telephone discussions and electronic mail. The response was incorporated into the text of the report and attached as appendix 1.

**PRIOR AUDIT
COVERAGE**

There was no prior audit coverage that related to our objectives.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
GREAT LAKES NATIONAL PROGRAM OFFICE/REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 27 1999

MEMORANDUM

SUBJECT: Response to IG Draft Report No. 98-000360
Improving EPA's Great Lakes Program

FROM: Francis X. Lyons
Regional Administrator, Region 5
Great Lakes National Program Manager

TO: Anthony C. Carollo
Divisional Inspector General for Audits
Northern Division

Thank you for the opportunity to respond to the Draft Report on Improving EPA's Great Lakes Program. Pursuant to your request, the attached response includes comments on the findings and recommendations and action plans for implementing the recommendations. An electronic version of the response will be sent to Janet Kasper. Input to this response was provided from GLNPO; the Region 5 Water Division; Regional Team Managers for Lakes Michigan and Erie; the Regional Team Managers for Northwest Indiana, Southeast Michigan, and Northeast Ohio, and Sediments; and the Office of Research and Development. Others, including Regions 2 and 3, were also provided an opportunity to comment.

If you have any questions about this response, please contact Gary Gulezian at 312-886-4040. The staff contact for this report is Michael Russ, who can be reached at 312-886-4013.

Francis X. Lyons

cc: Jo Lynn Traub
Gary Gulezian
Steve Bradbury
Howard Levin

Note: The original response was signed by Francis X. Lyons.

**RESPONSE TO RECOMMENDATIONS
IG DRAFT REPORT NO. 98-000360
IMPROVING THE GREAT LAKES PROGRAM**

Recommendation 2.1. Issue LaMP Documents. We recommend that by September 2000 the Regional Administrator, Region 5, work with other appropriate Federal, state, and Canadian governmental organizations to issue LaMP documents for Lakes Michigan and Erie describing what is known about the extent of the problem and load reductions and remedial measures that are needed.

We concur with the recommendation and have begun to implement it.

The US and Canada have been successful in developing and issuing the critical pollutant component of the Lake Superior Stage 2 Lakewide Management Plan (LaMP). The critical pollutant component of the Stage 3 LaMP for Lake Superior will be completed by April 2000. In formulating our strategy for accelerating the Lake Michigan and Lake Erie LaMPs, we evaluated what has contributed to the success of the Lake Superior effort. Two factors are noteworthy. First, the Lake Superior Binational Program has had active stakeholder involvement; the States and other partners have written major portions of the LaMP and have played a leadership role throughout the process. The Public Forum developed the load reduction schedules for the Lake. Second, the EPA Lake Superior Team had dedicated technical and administrative support resources, including a full time LaMP author position, funded by the Water Division.

An important part of our strategy for accelerating the Lake Michigan and Lake Erie LaMPs will therefore be to obtain State commitment to write documents and to expedite the review and approval process. We will utilize the development of the next Great Lakes Strategy, the Continuous Planning Process under the Clean Water Act, and negotiation of State grants for Great Lakes CEM (Coastal Environmental Management) funds to achieve this goal. We will also better utilize State Water Director meetings as a means of integrating LaMP and Remedial Action Plan (RAP) work with base program requirements under the Clean Water Action Plan.

We will also allocate Regional resources to meet the accelerated schedules. Both GLNPO and Water traditionally provide substantial support to the LaMPs.

- The GLNPO has focused on basin-wide issues, particularly in science support for the open lakes and in working with Canada. GLNPO also has provided specific support to the LaMPs and RAPs, including: the Lake Michigan Mass Balance Study, assisting with the critical pollutant portion of the Lake Michigan LaMP; funding a habitat coordinator in Minnesota (4 years), Michigan (2 years) and Wisconsin (2 years) to assist with the habitat portions of the Lake Superior LaMP; writing the original background paper on habitat for the Lake Erie LaMP; identification (with Superfund staff) of important biodiversity investment areas to be incorporated into the Lake Michigan LaMP; providing

- atmospheric deposition information (already incorporated into the Lake Ontario LaMP); assisting RAP implementation via sediment assessment (sites in 24 AOCs) and remediation (sites in 3 AOCs); and development of an ecosystem indicator framework which can be used by the LaMPs. Most of this work will continue. To further LaMP acceleration, GLNPO proposes additional assistance with indicator development, with connections on Binational Toxics Strategy (BNS) long-range transfer work, and with the ecosystem component of the LaMPs.
- Prior to the 1995 Region 5 reorganization, the Water Division had the lead for developing LaMPs and RAPs per an agreement between the GLNPO and Water Division Directors. In Fiscal Year (FY) 1999, the Region 5 Water Division received 7.3 FTE and about \$3.49 million from the Office of Water to support its efforts for Lakes Superior, Michigan, and Erie and the 24 Areas of Concern (AOCs) in Region 5. However, the resource needs far exceed the FTE allocated. In addition to FTE for the Regional Team Manager positions and above mentioned dedicated Lake Superior Team members, the Division has posted LaMP author positions for Lake Michigan and Lake Erie; has funded a full time Detroit RAP manager located in Michigan and a full time outreach position for Lake Superior, located in Duluth; has provided two positions for grants management; three positions for community outreach; three FTE for RAPs; and two FTE for GIS work and monitoring support. The Water Division also has generally awarded approximately half of its Great Lakes Coastal Environmental Management funding for State FTE in support of RAPs and LaMPs. For FY98-99 the Division redirected funds from base program activities, especially NPDES, to support LaMPs and RAPs. However, resource accounting under GPRA, and concerns by the Assistant Administrator for Office of Water on base program priorities, will not allow the Water Division to continue this level of reprogramming.

It is important to note that the Great Lakes and Regional Teams are multi-media, cross-cutting Regional priorities. Dedicated resources, particularly Team members who spend a significant amount of time and effort on the LaMPs, have helped progress for the Lakes where the LaMPs are most advanced. To accelerate LaMP progress, all applicable Divisions and Offices, not just the Great Lakes National Program Office (GLNPO) and the Water Division, must stand ready to support the Regional Teams. This support does not mean moving resources to the Lake Teams or asking for additional taps, but will require a short-term focusing of existing program staff with needed expertise or experience which aligns with both the program and the LaMP need. For example, staff with expertise in sources and loadings or habitat will be needed to assist the Regional Teams with the accelerated schedules. A commitment by the Resources Management Division to the timely processing of the LaMP author positions will be needed.

A number of discussions and activities have taken place that will result in issuance of LaMP documents describing what is known about the extent of the problem and load reductions and remedial measures that are needed:

- A Region 5 LaMP Workgroup was established to look at this and other issues in response to the direction of Region 5 and State Water Directors at their February 1999 meeting.

- In the April 1999 Region 5/State Environmental Directors meeting, a challenge was issued for the LaMP technical work groups and management committees to complete Stages 1-3 of the LaMPs by April 21, 2000 (Earth Day).
- Workgroups responsible for producing the LaMPs have responded to the challenge. The LaMPs will be accelerated by 1 year (Lake Superior) to 2 years (Lakes Erie and Michigan). Approval of this acceleration is still required by the LaMP Management Committees and, for the Binational LaMPs, Canada.
- LaMP acceleration was discussed during the June 1999 Region 5 Lake Summit. Region 5's Senior Leadership generally agreed to acceleration of the planning stage of the LaMPs and the development of schedules for those parts of the LaMPs that could not be completed by April 2000.
- There was general agreement to the proposed schedules during a July 7 call between the National Program Manager and representatives of the States.
- Binational discussions regarding LaMPs will occur at the July Binational Executive Committee meeting. We will work closely with our Canadian counterparts to secure their agreement to accelerated LaMP schedules.

The proposed schedules for Lakes Michigan and Erie are:

Lake Michigan

April 2000 Deliverables

- ! Lake Michigan LaMP Stages 1-3 merger that includes:
- ! Vision, goals and sub-goals of the LaMP
- ! Status of the ecosystem described in detail, including impairments and human health implications
- ! Environmental indicators based on the State of the Lakes Conference template
- ! Chemical, physical and biological causes and sources of impairments and stressors as we know them to date (loadings)
- ! An initial set of remedial action to achieve initial percentage reduction targets in order to meet LaMP goals

After April 2000

- ! Finalize TMDL/LaMP Framework (June 2000)
- ! State-by-State and Sector meetings to incorporate LMMB model results into LaMP (Summer 2000)
- ! Finalize Lake Michigan Coordinated Monitoring and Reporting Plan (Fall 2000, following SOLEC session)

Lake Erie

April 2000 Deliverables

- ! Recommendations for new actions on PCBs and mercury
- ! Recommendations for habitat projects
- ! Use impairment conclusions:
 - " Four additional assessments completed
 - " Five presented in draft form
- ! Draft ecosystem objectives
- ! Status report on pollutant source identification work for 30 pollutants of concern

After April 2000

Stage 1

- ! Draft Stage 1 Report Completed (July 2000)
- ! Final Stage 1 Report Completed (September 2000)

Stage 2

- ! Draft combined Stage 2/3 Report completed (April 2001)
- ! Final combined Stage 2/3 Report completed (September 2001)

Stage 3

- ! Draft supplemental Stage 3 Report completed (September 2001)
- ! Final supplemental Stage 3 Report completed (December 2001)

Action Plan/Milestones. Milestones for each Lake will differ; however, the milestones could be grouped as follows:

- Establishment of Detailed, Accelerated LaMP Schedules through LaMP Management Committees Summer 1999
- U.S. Policy Committee Meeting to Ensure Progress on Meeting Schedule Deadlines November 1999
- U.S. Policy Committee Meeting to Ensure Progress on Meeting Schedule Deadlines Spring 2000
- LaMP documents (critical pollutant portions, but see schedules above) April 2000
- Finalized/Completed LaMP documents December 2000 - 2001

Recommendation 2.2. We recommend that by September 2000 the Regional Administrator, Region 5, work with other appropriate Federal, state and Canadian government organizations to decide what action to take on the Lake Huron LaMP, and when activities will begin.

We concur with the recommendation and have started a Lake Huron Initiative under a cooperative agreement with the Great Lakes Office of the Michigan Department of Environmental Quality (MDEQ). Like the existing LaMPs, the purpose of the Lake Huron effort (derived from the Great Lakes Water Quality Agreement) is to restore and maintain the chemical, physical, and biological integrity of the the Lake Huron Ecosystem. The effort will focus on

identification of data needs, identification of actions (on-going and future), funding resources, and stakeholder and public involvement.

Much progress has already been made toward development of a management plan for the Lake Huron watershed. Following up on recommendations from the 1996 State of the Lakes Ecosystem Conference, GLNPO supported, via an assistance agreement, MDEQ's Great Lakes Office in putting together a June 1998 Lake Huron Conference and a January 1999 Lake Huron workshop. The Lake Huron Conference brought together bi-national governmental representatives and the public to initiate efforts to identify priority issues and future efforts needed to ensure a sustainable Lake Huron Watershed. Participants attended the Lake Huron Workshop from both Michigan and Ontario, including representatives of Federal, State, and Provincial governments and the public. Workshop participants developed an action agenda for addressing Lake Huron and to help identify priority issues and necessary future efforts. In May 1999, MDEQ developed a draft "Lake Huron Initiative" report.

Pending Binational approval, by April 2000, the Lake Huron Initiative report will assess beneficial use impairments and critical pollutants, address habitat/biodiversity issues, identify potential cooperative monitoring proposals, and include any products (such as fish-related environmental objectives) developed in conjunction with the Lake Huron Technical Committee of the Great Lakes Fishery Commission. An action plan will also be prepared to identify key actions and priorities for Lake Huron regarding beneficial use impairments/critical pollutants and habitat/biodiversity. Plans for after April 2000 include implementing key actions identified in the April 2000 action plan, strengthening binational cooperation and participation, additional work strengthening elements of critical pollutants and ecosystem management activities, and a Lake Huron Symposium in 2001.

The Lake Huron Initiative is not currently a Lakewide Management Plan, although it has many of the elements and attributes of a LaMP. Management has been discussing the LaMP process with the States, and the State of Michigan would like to use the Lake Huron Initiative to serve as a reinvention approach to lakewide management planning. Lake Huron will be an ideal place to initiate this because only Michigan, Environment Canada, and the Province of Ontario would be involved in such an effort, so the complexities of a multi-State perspective and participation should be able to be substantially streamlined. Therefore, we believe the approach to Lake Huron can be streamlined and completed in a substantially faster time frame than some of the other lakewide efforts. The Lake Huron initiative will serve as an excellent base for future efforts and will be carefully managed so in the future, it can serve as the LaMP. It is worthwhile to note that the Lake Ontario LaMP began as a Toxic Management Plan and was successfully reformulated into a LaMP.

Discussions with our Canadian counterparts on Lake Huron have not produced an agreement to begin a LaMP. Environment Canada has informed us that they will not be able to take up the issue of a LaMP for Lake Huron until the year 2000, as they do not have additional resources to apply to this effort. To meet the intent of the Great Lakes Water Quality Agreement (GLWQA)

and to be lakewide in nature, a LaMP must be binational in its approach.

These are issues that will continue to be addressed as the Lake Huron effort progresses. In the year 2000 time frame, the Agency will initiate discussions with both Environment Canada, as well as MDEQ regarding the progress and future of the initiative. Currently, a management representative from the GLNPO sits on the Lake Huron Executive Steering Committee and is actively participating in this process. A GLNPO staff member is currently the project officer for the Cooperative Agreement and is also participating and providing technical support and coordination to the initiative.

Action Plan/Milestones.

- Draft Lake Huron Initiative June 1999
- Initiative Meeting in Rogers City, MI June 1999
- Initiative Meeting/Public Meeting January/February 2000
- Initiative Document/Action Plan Final April 2000
- Lake Huron Symposium early 2001

Recommendation 2.3. We recommend that the Regional Administrator, Region 5 work with Canada, other Federal agencies, and states to identify, and implement, ways to make the LaMP process more efficient.

We agree with this recommendation and have begun to implement it.

The Lakewide Management Committees for Lakes Michigan, Erie and Superior have met and discussed the proposed acceleration and are excited about this opportunity. Deadlines and specific schedules often energize groups, and the enthusiasm of each group of partners is apparent. The LaMP Technical Workgroups are taking ownership of schedules and are prepared to work together to meet the challenge. As discussed in the response to Recommendations 2.1 and 2.2, LaMP development is now being made more efficient through streamlining and acceleration. A workgroup has developed a number of key recommendations that will be implemented. Through the steps being taken to accelerate the LaMPs, by April 2000, documentation should be available for each of the Great Lakes which describes, at least for critical pollutants, what is known about the extent of the problem and load reductions and remedial measures that are needed. These documents, even if they are not technically "completed" LaMPs will sufficiently lay out the information available to all parties at the time they are issued. Where there is incomplete information, a plan will be included for obtaining the information. This process will be used for the existing LaMPs. The process will be focused on implementation and gaining the on-the-ground improvements needed to protect and restore the Lake ecosystem.

EPA will use the process for development of the Great Lakes Strategy to identify, and implement ways to make the LaMP process more efficient. Improving LaMP efficiency will also be a part

of Great Lakes Strategy implementation.

The Binational Executive Committee will also discuss how to improve the LaMP process at their July meeting. This will help develop support from our Canadian counterparts.

Action Plan/Milestones. See Recommendations 2.1 and 2.2.

Recommendation 2.4. We recommend that the Regional Administrator, Region 5 establish a RAP coordinator in Region 5.

Establishing a RAP coordinator in Region 5 is not the answer to the issues raised in the Inspector General's Report. We do appreciate the need to focus more attention on the RAP process and bring it to closure. We do not see "coordination" as being the real issue. Historically, the States have had the lead for RAPs with Region 5 playing a minor role. For several years the Water Division had a full time RAP coordinator, but the position was eliminated because it was not needed. Issues will need to be addressed State-by-State for each RAP. If there is a role for an EPA RAP liaison to play, we would seek to have a RAP liaison appointed. There may not be a need for an EPA RAP liaison for each RAP.

We believe that the best strategy for accelerating the RAPs is to issue a "challenge" to the States such as they issued to us for the LaMPs. Roughly half of the RAPs are in the implementation phase (see Figure 2.5); for the remaining RAPs, we need to agree on roles, establish aggressive schedules and milestones, and allocate funds accordingly. EPA's role will differ from RAP to RAP. For example, during FY98 Region 5 led efforts to develop a Four Party Letter of Commitment for the three binational RAPs: the Detroit, St. Mary and St. Clair Rivers. A full time position was established by the Water Division for the Detroit RAP and is housed in the Detroit area. In other instances, the RAP has an active Public Advisory Committee, full State involvement, and EPA's participation is not needed.

Figure 2.5.
The 22 Region 5 RAP liaisons come from:

| Office | Stage 1 | Stage 2 | Total |
|-----------|---------|---------|-------|
| ARD | | 1 | 1 |
| GLNPO | | 2 | 2 |
| OSEA | 1 | | 1 |
| RMD | 3 | | 3 |
| Superfund | 4 | 3 | 7 |
| Water | 4 | 3 | 7 |

Where an active EPA role is required, the Water Division and GLNPO cannot provide all of the resource support. All Divisions, Offices, and Regional Teams will be asked to provide some expertise and leadership where the RAP objectives align with program objectives. This is already occurring in many instances, such as the Superfund program's involvement in AOCs.

The extramural dollars received by the Region 5 Water Division for LaMP and RAP support have already been significantly reduced, with a cut of close to \$1 million in FY99 an additional cut of close to \$1 million expected for FY2000. Further, the Region 5 RAP/LaMP funding of \$3.6 million contained in the President's budget for FY 2000 may be cut even more during budget negotiations. The first priority for use of these funds will be completion of the LaMPs. The remaining limited funds should be strategically allocated for those RAPs that need the most work and/or EPA support. In general, we will not continue funding State RAP positions where a Stage 2 RAP has been developed. The CEM grant process will be the vehicle to make these decisions. However, additional support, particularly for implementation, is needed from other places, including Water, GLNPO (even though the President's budget identifies a cut of \$1.2 million to its budget), Superfund, and other programs.

We believe that the best forum for RAP coordination is the Regional Team for each Lake. RAPs are viewed in the GLWQA as "point sources" to the Lakes and we need to ensure that actions to address contaminated sediments in particular are consistent with Stage 3 LaMPs. The Region 5 Lake Team Managers will be given a renewed charge to serve as the umbrella for the RAPs in their Lake, and to coordinate the planning and funding process. Toward this end, the Lake Team Managers and the Regional Team Managers for the respective geographic teams (NW Indiana, SE Michigan and NE Ohio) will coordinate more closely together.

Also, and in keeping with Section 118 of the Clean Water Act, the Region 5 Water Division, in consultation with GLNPO and other program offices involved in RAP actions, will, as workplans/Environmental Performance Partnership Agreements are revised or renewed, negotiate specific commitments with States for water quality management plan updates, and will review the updates to ensure they define appropriate RAP actions. This is in keeping with Section 118 which assigns primary responsibility for completing the U.S. RAPs to the States and anticipates that RAPs will be included in the States' water quality management plans.

Finally, we note the resource constraints, issues of roles and responsibilities, and other problems that are inherent in addressing RAP issues may require additional work before they are resolved. Some of these issues will be addressed during the process of developing a new Great Lakes Strategy.

Action Plan/Milestones.

- Initiate RAP "Challenge" with States/stakeholders July 1999
 - Discussions with States on lead roles/accelerated schedules and CEM grant dollars July/August 1999
 - Renewed charge to RTMs August 1999
 - RAP "challenge" discussion at US Policy Committee Meeting and agreement on how to implement November 1999
 - Progress report at BEC Meeting December 1999
- (See also the Recommendation 4.1 response with respect to the Great Lakes Strategy schedule.)

Recommendation 2.5. We recommend that the Regional Administrator, Region 5 clarify and communicate the priority and responsibility of LaMPs and RAPS in Region 5.

We agree with this recommendation and will explore means to implement it. Special Great Lakes activities outside of typical media priorities often receive less attention within Region 5 programs than do headquarters-driven requirements. Accelerated progress in Region 5 on LaMPs and RAPS will require special attention by the Regional Administrator in his role as Great Lakes National Program Manager. The Region 5 Deputy Regional Administrator also has a crucial role in establishing the roles for Regional programs in accomplishing the priorities for LaMPs and RAPS.

One vehicle for heightening participation of Region 5 programs will be their participation in the development and implementation of the next Great Lakes Strategy. While not signatories to the Strategy itself, EPA programs will be vital participants in its development. Objectives for the programs can be articulated in supplemental annual plans, or agreements, which will implement the Strategy.

There are also a number of important points (see Action Plan/Milestones below) in the Region 5 Planning Process where LaMPs and RAPS can be highlighted to management and staff. The GLNPO Director and Water Division Director, as Goal Leads, will ensure that LaMPs and RAPS are emphasized at these times to all of the Region 5 Senior Leadership Team.

Actions speak louder than words, and one of the best ways to send a message that the LaMPs and RAPS are a high Regional priority is to align systems to support them. Planning, budgeting, accountability and awards systems should all support completion of LaMPs and RAPS.

Action Plan/Milestones.

- Lake Summit June 25 1999
- Summary of Agreements from Lake Summit July 1999
- Region 5 Lake Team Resource Requests conveyed July 1999
- Resource Decisions by USEPA Region 5 September 1999
- Regional Results Plan October 1999
- Mid-year Goal Reporting March 2000
- Lake Summit April 2000

(See also the Recommendation 4.1 response with respect to the Great Lakes Strategy schedule.)

Recommendation 2.6. We recommend that the Regional Administrator, Region 5 define and communicate the role of GLNPO in LaMPs and RAPS.

We agree with this recommendation and will explore means to implement it. It is important that the role of all EPA programs in LaMPs and RAPS be better defined and communicated.

The LaMPs and RAPS are multi-media efforts and will require full Regional support to succeed. This is especially true for the implementation phase, which will require that base programs be focused on Stage III activities. As described earlier in the response, the lead for LaMPs and RAPS historically rested with the Water Division as a result of an agreement between the GLNPO and WD Directors. The GLNPO focused on basin-wide issues, particularly in science support for the open lakes and in working with Canada. The Water Division Co-Chaired the LaMP Management Committees with no GLNPO participation.

The FY95 Regional reorganization recognized the multi-media nature of the Lakes and shifted the lead for LaMPs/RAPs to Regional Teams. Early in this process each of the Lakes had an individual SLT sponsor. Later, the Directors of GLNPO and Water Division recognized the benefits of "joint" sponsorship for all three Lakes. Communication and collaboration between Water Division and GLNPO has significantly improved, as well as base program support for LaMPs and RAPS. The Directors meet frequently with the Lake RTMs, and are fully committed to the accelerated schedules for the LaMPs. The two Directors now Co-Chair the Lake Michigan Management Committee. A GLNPO Manager attends the Lake Superior and Lake Erie Management Committees. Funding processes are being coordinated to ensure the best use of both CEM and GLNPO dollars.

RAP and LaMP roles and responsibilities will also be addressed during the development and implementation of the Great Lakes Strategy. Regional programs and RAP and LaMP teams will be key participants in its formulation and implementation.

Action Plan/Milestones

See milestones for development of Great Lakes Strategy (Recommendation 4.1).

Recommendation 3.1. We recommend that the Regional Administrator, Region 5 prepare an agreement(s) that outlines the roles and responsibilities of GLNPO, ORD, Regions 2, 3, and 5 in the Great Lakes.

We agree with this recommendation and will implement it as part of the new Great Lakes Strategy being developed under the leadership of the Great Lakes National Program Manager. Roles and responsibilities of GLNPO, ORD, and Regions 2, 3, and 5 will be updated and articulated as a part of the Strategic planning process. In that process, care will be taken to obtain agreement by those organizations to the descriptions of those roles and responsibilities.

Even in the absence of a formal agreement among GLNPO, Region 5, and ORD, there has been significant research coordination among these organizations. Examples include:

- The integration of Great Lakes and Great Waters research activities responsive to Section 112 (m) of the Clean Air Act Amendments of 1990 pertaining to multimedia loadings. In response, the Administrator's Office, Region 5, GLNPO, and the Offices of Air, Water and Research and Development developed and implemented research to enable research-grade measurements of persistent, bioaccumulative toxic (PBT) deposition from the atmosphere to the Great Lakes; long-term research investigating the potential for local and distant sources to contribute atmospheric loadings of PBTs to Lake Michigan and Chesapeake Bay; long-term mercury research on measurement methods and species availability; and a procedure for integrating scientific knowledge into the Great Waters Report to Congress.
- ORD participates on the steering committee for the State of the Lakes Ecosystem Conferences.
- GLNPO, Regional, and ORD coordination for the Lake Michigan Mass Balance Study, the first-ever intensive monitoring of Lake Michigan air, water, sediments, and biota.
- GLNPO has consistently participated in ORD's Regional Science Council, providing annual recommendations to ORD about high priority research needs.
- As a result of a transfer from the Region 5 Administrator's Office, GLNPO has, beginning in 1999, begun to participate in the Research Coordination Teams which provide annual recommendations to ORD about high priority research needs. This participation is bearing fruit this year with the inclusion of Great Lakes indicators in the current draft STAR Request for Applications for coastal indicators. In recognition of previous work done with ORD, the GLNPO participant in this effort is being given a bronze award by ORD in the Agency's August 1999 award ceremony.
- Since 1996, ORD, GLNPO, and Region 2 have been cooperating and coordinating in assessing changes in the biological community of Lake Ontario.
- From 1992-1994, ORD and GLNPO cooperated and coordinated in implementing Great Lakes EMAP monitoring.

GLNPO and ORD propose to encourage development of a broader GLNPO/ORD program, using as a prototype the Lake Michigan Mass Balance collaboration for planning and research among the National Health and Environmental Effects Research Laboratory, the National Exposure Research Laboratory and GLNPO. It is important to note, however, that increased research coordination will require increased staff resources. Participation in activities, such as strategic planning, Congressional reporting, or the formulation of risk management options requires an organizational structure providing for senior scientists to accomplish these objectives. Neither GLNPO, nor ORD, nor the Regions are currently slated for staffing increases which would allow for increased coordination.

Action Plan/Milestones.

See Action Plan/Milestone for Recommendation 4.1.

Recommendation 4.1. We recommend that the Regional Administrator, Region 5 ensure the Great Lakes strategy has input from all (former and new) parties during its development.

We agree with the recommendation and have begun to implement it.

During early 1999, GLNPO, under the leadership of the Great Lakes National Program Manager, led a number of discussions with a variety of key parties regarding Great Lakes Strategy renewal:

- During the October Great Lakes Planning Meeting, GLNPO's management discussed the Strategy with representatives of State and Tribal natural resource agencies and environmental agencies, other EPA offices, including Regions 2 and 3 and ORD, and with other Federal agencies.
- At the November Midwest National Resource Managers Environmental Roundtable, a Great Lakes group comprised of representatives from USEPA and other Federal agencies met and discussed the renewal of the Strategy. The group generally supported renewal of the Strategy.
- In the Spring of 1999, we discussed our plans to renew the strategy with the Regional Tribal Operations Committee. Participants, including the Tribal Co-Chair, strongly supported a new Strategy.
- A series of meetings were held in December, February, March, and April to discuss a number of Great Lakes strategic issues with the State environmental directors and State water directors. The State environmental directors and water directors clearly supported renewal of the Great Lakes Strategy.
- Regional Team Managers and other key Region 5 managers have participated in a number of the above-mentioned meetings and will fully be a part of the effort. In addition, Region 2 and Region 3 were invited to the Great Lakes portion of the State directors' meetings (December and April) and participated in the December meeting via conference call. This coordination and communication will continue throughout the process.

Discussions thus far have been preliminary. Many additional important Great Lakes stakeholders, including the Federal Research Community and interested Great Lakes Tribes, will be brought into the process once we enter the development phase.

Action Plan/Milestones for Development of Great Lakes Strategy.

- | | |
|--|----------------------|
| - Hold initial consultations on scope and nature of strategy | Completed |
| - Develop draft plan for strategy process | Completed |
| - Request participation from lead Agencies | August '99 |
| - Hold initial conference call | September '99 |
| - Hold first kick-off meeting | October '99 |
| - Brief US Policy Committee | November '99 |
| - Draft Strategy | December/January '99 |
| - Public Consultation | February 2000 |
| - Final Issues Resolved/Final Document Issued | April 2000 |

Recommendation 4.2. We recommend that the Regional Administrator, Region 5 get agreement from all parties to implement the strategy.

We agree with this recommendation and will develop methods to obtain the support and agreement of key partners to the strategy.

We plan on doing this by closer communication with key management officials during the crucial consensus building phase of the process, as well as devising an improved formal mechanism to gain support for the strategy. We plan on discussing this more fully as we enter the strategy development period.

Action Plan/Milestones.

See Action Plan/Milestone for Recommendation 4.1.

Recommendation 4.3. We recommend that the Regional Administrator, Region 5 focus the strategy on overall goals, as opposed to activities.

We agree with this recommendation and will explore ways of implementing it.

We plan on continuing to focus our Great Lakes goals on protecting and restoring the chemical, physical, and biological integrity of the Great Lakes basin ecosystem, the removal of beneficial use impairments, and the virtual elimination of persistent toxic substances.

We have also received comments, though, that encourage greater specificity in the Strategy. The Strategy must clearly articulate what will actually be carried out. It needs to be specific enough for a wide variety of Agencies and managers, as well as the public, to understand what is intended to be accomplished.

During the development of the Strategy, we will attempt to address both of these somewhat contradictory objectives.

Action Plan/Milestones.

See Action Plan/Milestone for Recommendation 4.1.

Recommendation 4.4. We recommend that the Regional Administrator, Region 5 include performance measures and report progress against the measures.

We agree with this recommendation and will explore ways of implementing it.

There are a number of ways this could be done. The Government Performance and Results Act calls for just such accountability and is applicable to the proposed parties to the Great Lakes Strategy. Many of the State and Federal environmental programs develop and implement Environmental Performance Partnership Agreements which already include performance measures and progress reports. Some even have sections devoted to the Great Lakes. During the development of the Strategy, we will explore these, and other, possibilities for measurement and progress reports with respect to the Strategy, including subsequent development of an implementation plan, annual meetings and/or conference calls, agreed delineation of Great Lakes activities in work plans, etc.

Action Plan/Milestones.

See Action Plan/Milestone for Recommendation 4.1

Recommendation 4.5. We recommend that the Regional Administrator, Region 5 designate GLNPO as responsible for working with the parties to the new strategy to ensure it is implemented.

We agree with the recommendation and are already implementing it. GLNPO has been designated as the lead, and has taken the lead, in developing a plan and approach for the new Strategy. GLNPO will be working over the next year to ensure its completion and implementation.

Action Plan/Milestones.

See Action Plan/Milestone for Recommendation 4.1.

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