

A. GOAL, PURPOSE AND APPROACH OF THE REMEDIAL ACTION PLAN**1. The Rochester Embayment and its Remedial Action Plan :**

- (a) The Rochester Embayment: The Rochester Embayment designation refers to a portion of Lake Ontario and a portion of the Genesee River near Rochester, New York. For a description of the embayment, and a map of the embayment, see page 2-1 and Figure 2-1 in Chapter 2.
- (b) The Remedial Action Plan: The Remedial Action Plan (RAP) will identify water quality problems and specific actions that need to be taken by various parties to address the problems. The Remedial Action Plan effort has been undertaken due to an international agreement to improve the water quality of the Great Lakes water system. The International Agreement, known as the Great Lakes Water Quality Agreement, is described in more detail in other sections of this chapter. The preparation of the RAP is being coordinated by the Monroe County Department of Planning and Development through a contract with the New York State Department of Environmental Conservation (NYSDEC).
- (1) The Stage I RAP: The RAP is being written in two parts. This document, which is referred to as the Stage I Rochester Embayment Remedial Action Plan outlines what is and is not known about Rochester Embayment water quality conditions. It describes the water quality conditions in the context of the total environment. Therefore, information on geography, population, land use and community organization and goals is also included. This Stage I RAP provides the information needed for decision-making to implement actions necessary to: 1. Remediate identified use impairments; 2. Prevent future water quality problems; and 3. Protect human health.
- (2) The Stage II RAP: The Stage II RAP is expected to be complete in mid-1993. Information contained in the Stage I RAP will provide the basis for the Stage II RAP. The Stage II RAP will consist of an analysis of possible remedial measures, including who should conduct the remedial actions and possible sources of funding. In the Rochester Embayment, work has already begun on the Stage II RAP through analysis of several possible actions to achieve the goals outlined in Chapter 3 of this Stage I RAP. The Stage II RAP will also include a schedule for implementation of chosen actions, including monitoring actions, along with any commitments made by governments and private organizations to implement the actions. Upon completion of the Stage II RAP, a reporting mechanism will keep the public informed on progress in implementing the RAP and subsequent plan revisions. The exact

mechanism to inform the public will be developed as part of Stage II efforts.

(3) The Stage III RAP: The Stage III RAP is implementation. Stage III is deemed to be complete when all identified remedial measures to restore all beneficial uses have been implemented and surveillance and monitoring data confirm restoration of beneficial uses.

2. Intended Goal and Use of the Remedial Action Plan: The comprehensive goals of this Remedial Action Plan (RAP) are three-fold: 1. The first is to identify existing use impairments in the Rochester Embayment Area of Concern (AOC) and to identify actions that will be implemented to remediate the impairments. Fourteen possible use impairments have been identified by the International Joint Commission. The list of impairments, and those that are deemed to exist in the Rochester Embayment are explained in detail in Chapter 4 (Page 4-1). (Restricted human consumption of fish and wildlife due to elevated contamination levels is an example of a use impairment.) 2. The second overall goal is prevention of further pollution of our waters. 3. The third goal is protection of human health. A set of detailed goals of this RAP and related efforts are outlined in detail in Chapter 3.

3. Rochester Embayment Remedial Action Plan: The International Perspective: The International Joint Commission was created by the Boundary Waters Treaty in 1909 (Hartig & Zarull 1992). "This independent body, composed equally of United States and Canadian appointees, provides a quasi-judicial and investigative mechanism to cooperatively resolve problems (including water and air pollution, fluctuating lake levels and other issues) along the two countries' common border." (Hartig & Zarull 1992).

(a) The Great Lakes Water Quality Agreement (GLWQA): The United States and Canada initially signed the Great Lakes Water Quality Agreement on November 22, 1978, with a supplement on phosphorus load reduction signed on October 7, 1983. The purpose of the agreement is to "...restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem."

(b) Areas of Concern : The GLWQA established both a Water Quality Board (WQB) and a Science Advisory Board (SAB) of the International Joint Commission. The SAB advises the IJC on scientific knowledge and disputes. The role of the WQB, among other things, is to make recommendations on the development and implementation of programs to achieve the purpose of the Great Lakes Water Quality Agreement. Since 1973, the WQB has annually reported specific areas

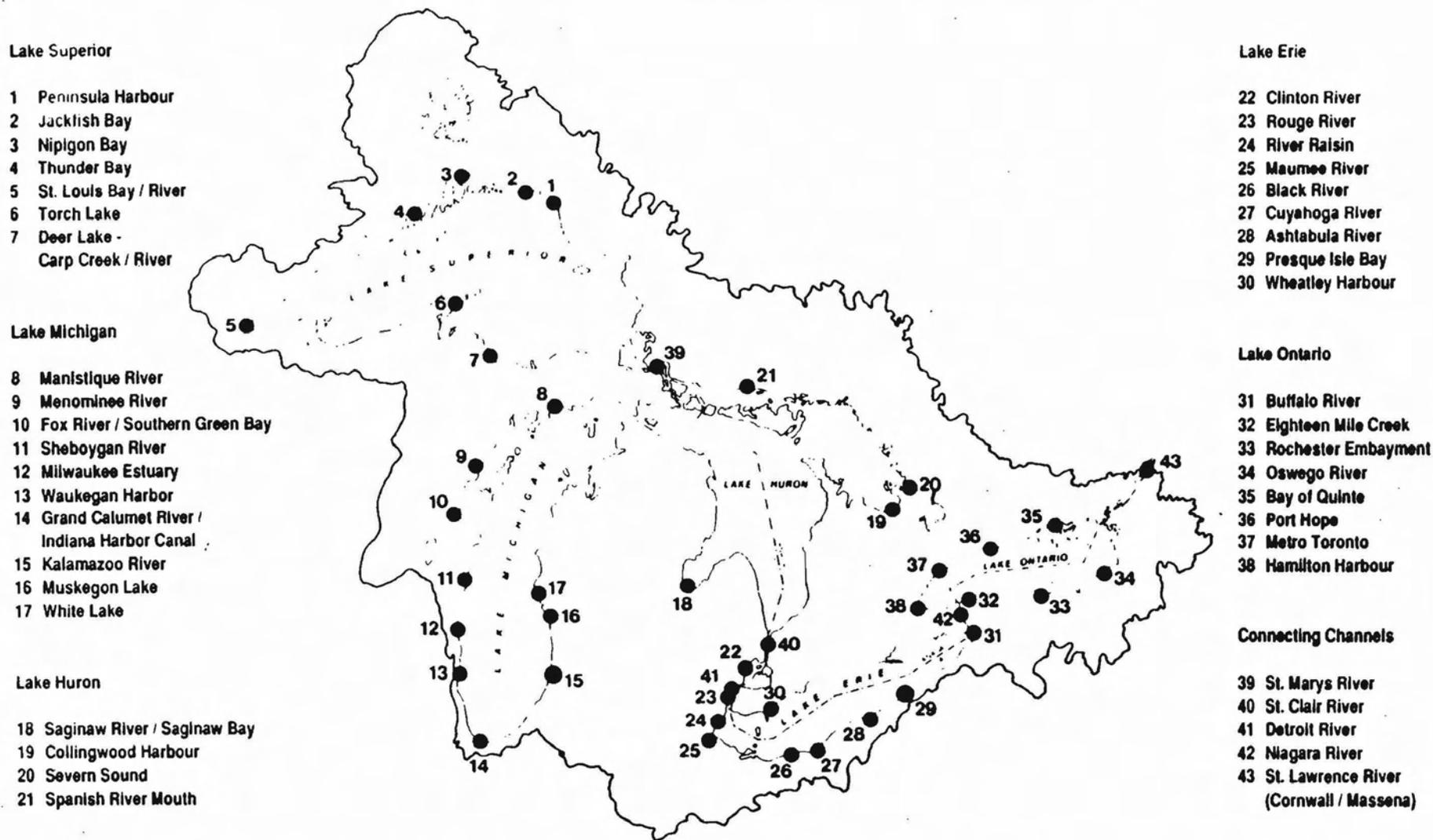
with serious water pollution problems. From a history given in the 1985 WQB report, it appears that each WQB report since 1973 indicated that the Rochester Embayment had pollution problems. In its 1981 Report the WQB summarized their work to initiate a process to establish formal "Areas of Concern" based on environmental quality data and on GLWQA and of the involved government objectives. At that time, the AOC's had two kinds of designations: Class A AOC's exhibited significant environmental degradation where the impairment of beneficial uses was deemed to be severe, and Class B designations where environmental degradation exists and uses may be impaired. In the 1981 document, 39 total AOC's were identified and the Rochester Embayment of Lake Ontario was identified as a Class B AOC with "...moderate violations of water quality objectives and some indications of fish contamination in Rochester Harbor and Irondequoit Bay. Surveys of the harbor from 1967 to 1973 found some of the sediments to be heavily polluted with metals and phosphorus." (GLWQB 1981)

In its 1985 Report, the WQB, with the assistance of the jurisdictional governments, identified 42 areas of concern, and the A/B classification system was dropped in favor of a new categorization scheme to identify the status of the information base, programs under way to fill information gaps, and the status of remedial measures. Using the 1985 categorization procedure, the Rochester Embayment was deemed to be a Category 4 AOC. Category 4 means "Causative factors known, but Remedial Action Plan not developed and remedial measures not fully implemented." That report identified Rochester Embayment problems as being conventional pollutants, heavy metals, toxic organic substances, contaminated sediments and fish consumption advisories. The report also identified pollutant sources as municipal and industrial point sources, combined sewer overflows, and in-place pollutants.

As of January of 1993, there are now 43 Areas of Concern. Figure 1-1 shows the locations of the 43 AOC's.

(c) Remedial Action Plans: In the 1985 report, the WQB explained that the Great Lakes jurisdictions had agreed to prepare Remedial Action Plans for each AOC to "... describe programs and measures which, when implemented, should solve the identified problems" and indicated that the WQB would review and assess the adequacy of each Remedial Action Plan to address the identified problems. The 1985 WQB Report also made a formal recommendation that "The jurisdictions complete and submit Remedial Action Plans for the areas

FIGURE 1-1
 FORTY-THREE AREAS OF CONCERN IDENTIFIED IN THE GREAT LAKES BASIN



1-4

Source: Review and Evaluation of the Great Lakes Remedial Action Plan Program 1991, International Joint Commission. June 1991

of concern. The contents of each RAP would "describe environmental conditions, identify sources, detail what needs to be done to correct the problems, who will carry out the programs, how they will be implemented, the schedule for implementing the needed programs... {and} also describe surveillance and monitoring to be carried out to track the effectiveness of the program." (GLWQB 1985) The WQB also recognized that if it is not feasible to restore all uses, the Plan should identify the quality and uses which can be achieved.

(d) RAP Stages: The Great Lakes Water Quality Agreement was revised in

1987 to include remedial action plans. RAPs are to be submitted to the IJC for review and comment at three stages: problem definition (Stage I), selection of remedial actions (Stage II), and confirmation of use restoration (Stage III) (Hartig & Zarull 1992). More information on how the different stages of the RAP will be used is included at the end of this chapter.

4. Rochester Embayment Area of Concern--U.S. Government Perspective:

(a) The International Joint Commission: The President of the United States appoints the three U. S. Representatives to the International Joint Commission.

(b) The U. S. Environmental Protection Agency: The U. S. Environmental Protection Agency is the U.S. administrative agency that is most directly involved in the development of Remedial Action Plans. In 1985, an original "Guidance" document for the preparation of RAPs was prepared by a USEPA/Great Lakes National Program Office contractor Science Applications International Corporation (SAIC). In 1987 the guidance document was revised by SAIC as an aid to the Great Lakes states who were charged with the preparation of Remedial Action Plans for the Areas of Concern. The 1987 document, Guidance for Preparing an Area of Concern Remedial Action Plan was used in establishing the initial outline for the Rochester Embayment RAP.

In November of 1987, SAIC, under contract with the USEPA, also submitted an initial draft of a RAP for the Rochester Embayment. This initial draft summarized a great deal of information, and was one of many references used in the development of the Stage I RAP presented herein. The SAIC document was written after conducting research in the Rochester area which included interviews with many people who were active in conducting research and/or remedial actions. The SAIC report, however, did not include an extensive public involvement/stakeholder component.

(c) The Great Lakes Critical Programs Act and the Great Lakes Water

Quality Initiative: In 1990, the U. S. Congress passed the Critical Programs Act as an amendment to the Clean Water Act. Among other things, this Act sets timetables for RAP completion. The part of the Critical Programs Act which affects the Great Lakes is known as the Great Lakes Water Quality Initiative. This initiative describes "...the approach to be followed by EPA and the Great Lakes States for coordinating their activities under the Clean Water Act (CWA) in order to achieve the objectives of the Great Lakes Water Quality Agreement (GLWQA) and to provide a basis for negotiating Great Lakes water quality objectives and programs with Canada." (NYSDEC 1992). The U.S. EPA has made several commitments to achieve the purpose of the initiative.

5. Rochester Embayment Area of Concern--Statewide Perspective:

(a) New York Areas of Concern: There are six AOC's in New York State.

They are the Rochester Embayment, the Buffalo River, the Niagara River, Eighteen Mile Creek, the Oswego River, and the St. Lawrence River at Massena. The New York State Department of Environmental Conservation has completed RAPs for the Buffalo River, the Oswego River, and the St. Lawrence River at Massena. A RAP for the Niagara River will be presented to the public in April 1993, and a RAP effort is expected to begin in 1993 at Eighteen Mile Creek (from R. Draper 12/92). See Figure 1-1 for the locations of these New York State RAPs.

(b) Contract with Monroe County for Development of Rochester

Embayment RAP: In the Rochester Embayment AOC, the New York State Department of Environmental Conservation (NYSDEC) contracted with Monroe County to develop the Rochester Embayment RAP. This arrangement occurred after NYSDEC officials met with Monroe County staff to identify existing conditions, programs and potential stakeholders. As a result of this communication, and the finding that a substantial watershed planning, stakeholder organization, and water quality action effort had already begun, the State contracted with Monroe County to prepare the RAP. The contract was funded by a grant under section 205(j) of the federal Clean Water Act. As part of this effort, Monroe County has contributed 25% of the total cost through in-kind services and some water quality monitoring.

6. Rochester Embayment Area of Concern: Regional Perspective:

(a) Remedial and Preventative Actions Already Taken: Prior to the initiation of the formal Remedial Action Plan in 1988, several actions had already occurred to improve and protect water quality in the Rochester Embayment Area of Concern and its watershed. Soil and Water Conservation Districts in Allegany, Wyoming, Livingston,

Genesee, Ontario, Wayne, Orleans, Steuben, and Monroe Counties had all worked with farmers to develop and implement conservation plans to prevent and/or reduce erosion, sedimentation and nutrient runoff. Agricultural runoff has been of special concern in the large Genesee River basin where farmland is plentiful. About the same time that the RAP was starting, most of these counties had already begun, or were about to embark on an effort to form County Water Quality Coordinating Committees to identify remaining water quality problems and develop actions. Efforts had also been taken in these counties to upgrade wastewater treatment facilities.

In Monroe County several actions had been taken to consolidate and upgrade municipal wastewater treatment facilities. An Industrial Pretreatment Program had also been developed and approved by the federal government for large municipal wastewater treatment systems. Eastman Kodak Company's Kodak Park facility, the largest industrial discharger in Monroe County, had significantly upgraded its wastewater treatment plant and the problem of combined sewer overflows in the City of Rochester was also well on its way to being remediated by means of a system of tunnels to store combined sewage until it could be conveyed to a wastewater treatment plant. Further, a watershed plan had been developed for the Irondequoit Bay watershed and implementation had already started. An outline of this watershed plan is below.

(b) Watershed/Ecosystem Approach to the Remedial Action Plan:

- (1) **Irondequoit Bay Watershed Plan:** At the time that the need for the RAP was brought to the attention of Monroe County staff, the Irondequoit Bay watershed plan had recently been completed and implementation was under way. This was done after a great deal of research on the significance of non-point sources of pollution, primarily that which comes with stormwater runoff. In the Irondequoit Bay watershed, tributary to the Rochester Embayment, it was found that non-point sources of pollution, particularly from urban stormwater runoff, were the greatest remaining pollutant sources. The nature of non-point source pollution requires that the problem be addressed on a watershed basis.
- (2) **Ecosystem Approach:** As part of the development of the Irondequoit Bay Watershed Plan, research conducted as part of the Nationwide Urban Runoff Program (NURP) indicated that atmospheric deposition (deposition of pollutants from the air onto the ground) plays a significant part in the amount of pollutants which are washed off of urban areas into waterways. This finding led local officials to recognize the need to manage its resources using

using an ecosystem approach. The ecosystem approach recognizes that all of our systems (air, water, land) are connected, and calls for consideration of all possible pollutant sources and transport methods in any plans to protect and/or improve water resources.

- (3) **The Four-Plan Approach:** Because of the pollutant source knowledge gained from the NURP program and the watershed approach taken in the Irondequoit Bay watershed, Monroe County proposed that the Remedial Action Plan be developed with a watershed and ecosystem approach. The ecosystem approach and the watershed approach are both consistent with IJC, USEPA, and State ideals for water quality management. The specific method selected to achieve a watershed and ecosystem approach is to write a Remedial Action Plan for the Area of Concern and, in addition, write three Basin Plans—one for each of the three basins that flow to the Rochester Embayment. The key portions of the three basin plans that affect the embayment are incorporated into the RAP. The three basins that flow to the embayment are the Genesee River Basin, portions of the Lake Ontario West Basin (LOWB), and portions of the Lake Ontario Central Basin (LOCB). The Irondequoit Bay Watershed is part of the Lake Ontario Central Basin. For a map of the three basins, see Figure 2-1 in the next chapter.

B. THE ROCHESTER EMBAYMENT RAP PROCESS:

1. RAP and Basin Plan Writing:

- (a) **RAP Technical Group:** A Technical Group was established in 1988 to guide the writing of the Rochester Embayment RAP. The Technical Group comprised of individuals with interest and knowledge in water quality issues, and included representatives of the advisory (stakeholder) groups. It was chaired by the RAP Project Manager, Ms. Margy Peet, in the Monroe County Planning Department. For a list of the people and agencies represented in the Technical Group, see Table 1-1. The Technical Group has met throughout the Stage I RAP preparation to guide the writing of the RAP and manage all technical issues. From time to time, short term task groups within the technical group have been formed to deal with specific subjects. These task groups are referenced in more detail in Chapter 5. Members of the RAP Technical Group worked extensively on three chapters of the RAP. Chapter 1 was written by RAP Technical Group members from the Monroe County Department of Planning and Development. The final version of RAP Chapter 4 was written primarily by the Monroe County Environmental Health Laboratory staff. Health Lab staff and Planning & Development Department staff also worked on

Table 1-1
 Individuals Serving at one time or throughout on the
 Remedial Action Plan Technical Group 1989 through 1992

Margy Peet	Monroe Co. Dept. of Planning & Development, Chair
Joe Albert	Monroe Co. Dept. of Health
Robert Barrows	City of Rochester Planning Department
Margit Brazda	Monroe Co. Dept. of Planning & Development
Betty Lou Brett, Ph.D.	Chair, Genesee Basin Subcommittee
Richard Burton	Monroe Co. Environmental Health Lab
Bruce Butler, P.E.	N.Y.S. Dept. of Env. Conservation, Avon
Cara Campbell	Monroe Co. Dept. of Planning
Tom Cullen, P.E.	N.Y.S. Dept. of Env. Conservation, Albany
Robert Collin	N.Y.S. Dept. of Env. Conservation, Albany
Richard Draper, P.E.	N.Y.S. Dept. of Env. Conservation, Albany
Richard Elliott, P.E.	Monroe Co. Dept. of Health
Michael Flanigan	Monroe Co. Environmental Management Council
Robert Gallucci, P.E.	Environmental Design & Research
Doug Gillette	N.Y.S. Dept. of Env. Conservation, Avon
Tom Goodwin	Monroe Co. Dept. of Planning & Development
Ken Gordon	Larsen Engineers
John Graham, P.E.	Monroe Co. Dept. of Env. Services, Pure Waters
Mark Gregor	City of Rochester Dept. of Environmental Services
Robert Hartrick	Soil Conservation Service
James Haynes, Ph.D.	Chairman, Water Quality Management Advisory Comm.
John Hecklau	Environmental Design & Research, Inc.
Robert Jonas	Chairman, Lake Ontario Central Basin/Irondequoit Basin Subcommittee
Tom Kipp	Monroe Co. Dept. of Parks
Scott Leathersich	Monroe Co. Dept. of Engineering
Ted McKay	Agricultural Stabilization and Conservation Service
Joseph Makarewicz, Ph.D.	State University of New York at Brockport, Biology Dept.
Patrick McGee	Monroe Co. Environmental Management Council
Gerald Mikol	N.Y.S. Dept. of Env. Conservation, Albany
Martin Minchella	Lake Ontario West Basin Subcommittee, Town of Greece
Tom Nally	Monroe County Cornell Cooperative Extension
Jane Naylon	Monroe Co. Dept. of Planning
Jim Nugent	Monroe County Water Authority
Ed Olinger	N.Y.S. Dept. of Transportation
Charles O'Neill	N.Y.S. Sea Grant Extension
David Rinaldo	Monroe Co. Dept. of Parks
Christine Robbins	Center for Governmental Research
Robin Salisbury	N.Y.S. Dept. of Transportation
Mike Schifano	Monroe County Environmental Services, Pure Waters
Paul Schmied, P.E.	N.Y. S. Dept. of Env. Conservation, Avon
Don Sherwood	U.S. Geological Survey, Ithaca
Scott Sherwood	Center for Governmental Research
Gary Skoog	Chair, Lake Ontario West Basin Subcommittee
Lisa Spittal	Monroe Co. Environmental Health Lab.
Phil Steinfeldt, P.E.	Monroe Co. Dept. of Engineering
Larry Stid	City of Rochester Planning Department
Andy Wheatcraft	Monroe Co. Dept. of Planning
John Wildeman	N.Y.S. Soil and Water Conservation Committee
Frank Winkler	Soil Conservation Service

sections of the final version of RAP Chapter 5.

(b) RAP Consultant Selection & Role: By February of 1989, the RAP Technical Group had prepared a Request for Proposals (RFP) to solicit proposals for the writing of the RAP and the three Basin Plans. After interviews and deliberation, a consulting team consisting of the Center for Governmental Research (CGR) and Environmental Design and Research (EDR), and Larsen Engineers was chosen. The primary responsibility for the Stage I RAP resided with CGR. A workplan for the consultant team was drafted by June of 1989.

The RAP consultant team prepared draft and final or near final chapters of the RAP chapters 2, 3, 5, and 6. The consultant team also prepared draft Chapters 4 and 7. Chapter 7, which deals with remedial measure analysis, will be included in the Stage II RAP. The RAP consultant team also prepared comparable chapters for the three Basin Plans.

Throughout the development of the Stage I RAP and Basin Plan, quarterly reports were prepared for the NYSDEC to document the progress of the RAP. Periodic project management meetings between County, consultant, and/or NYSDEC staff were also held.

(c) Stakeholders Group Involvement in Writing: While the bulk of the writing of the Stage I RAP and Basin Plans was done by the consultant team and the RAP Technical Group, the Water Quality Management Advisory Committee and its basin subcommittees (the stakeholders groups) played a major role in developing two portions of the Stage I RAP. In order to determine what use impairments existed, the WQMAC sponsored several workshop/educational sessions to insure a full understanding of the 14 use impairments listed by the IJC. Members of the basin subcommittees (described in more detail in the next section) also conducted volunteer stream surveys to identify water quality problems. Volunteers from the Lake Ontario West and Lake Ontario Central basins conducted stream surveys during the summer and fall of 1990 to identify water quality problems. Stream surveys were conducted in the Genesee Basin during the summer and fall of 1991. The educational effort conducted by the WQMAC and the information obtained through the stream surveys conducted by the basin subcommittees resulted in the stakeholder groups determining which of the 14 use impairments existed in the AOC and its three basins. The impairments, as determined by the stakeholders' groups, are outlined in Chapter 4.

The other area in which the stakeholders' groups played a major role was in the development of goals for the AOC and the basins. These goals were developed by the committees after lengthy deliberations that considered use impairments and other problems. The goals as developed by the committees can be seen in Chapter 3.

The stakeholders groups also reviewed and commented on all of the chapters written by the consultant and RAP Technical groups.

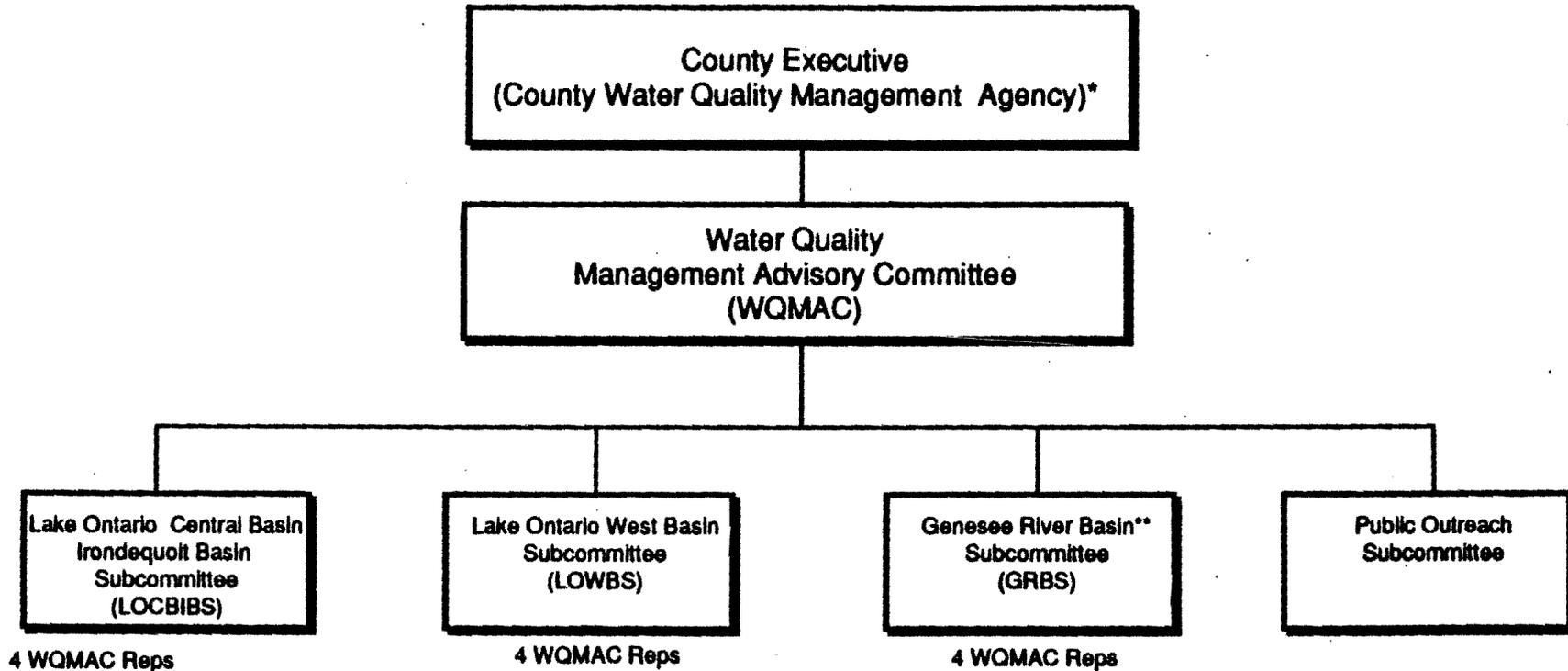
2. **Advisory (Stakeholder) Group Structure:** A total of six stakeholder groups were initially formed to advise and participate in the development of the RAP and the three Basin Plans. A chart showing the five groups is shown as Figure 1-2. The sixth group is the Government Policy Group. Each of the groups are described in this section.

(a) Water Quality Management Advisory Committee (WQMAC): The primary advisory group is the Water Quality Management Advisory Committee (WQMAC). Monroe County has had such a committee in place for many years prior to the beginning of the RAP (at least since 1979). The committee was reorganized in 1989 for purposes of the RAP to consist of 27 voting members. The Committee was chaired from 1989 through 1992 by Dr. James Haynes, Professor of Biology at the State University of New York at Brockport. The 27 voting members changed somewhat during that time period due to resignations, but the voting members consisted of equal numbers of representatives from economic interests, elected officials, citizens, and public interest groups from the 3 basins. In order to insure coordination between the Basin Plans and the RAP, the basin subcommittees have representatives on the WQMAC. Several ex-officio non-voting members also serve on the WQMAC to provide expertise in special areas. A list of groups represented and individuals serving as voting members on the WQMAC during the development of the Stage I RAP are included in Table 1-2. The committee has met nearly every month since its reorganization in 1989.

(b) Lake Ontario Central / Irondequoit Basin Subcommittee: This subcommittee was reorganized out of the original Irondequoit Basin Subcommittee which had existed since 1980 when work on Irondequoit Bay watershed research began in earnest. This subcommittee reorganized to help develop the Lake Ontario Central Basin Plan in May of 1989. Mr. Robert Jonas, a retired Soil

Figure 1 - 2

MONROE COUNTY WATER QUALITY MANAGEMENT ORGANIZATION



1-12

* For purposes of the Remedial Action Plan (RAP), the WQMAC will also advise the N.Y.S. Dept. of Environmental Conservation

**Reorganized in late 1992 into 2 subcommittees: The Monroe County Genesee Basin Subcommittee and the Genesee Basin Coordinating Committee

Table 1-2
 Voting Members of the Water Quality Management Advisory Committee
 during the time period 1989 through 1992*

CITIZENS:

James Haynes, Ph.D., chair	Citizen
Betty Lou Brett, Ph.D.	Citizen
John Ernst	Citizen
Mike Mosehauer	Citizen
Robert Jonas	Citizen
Cassandra Jackson	Citizen
Bess Marino	Citizen
Janet Moffett	Citizen
Roy Hedman	Citizen
Matthew Perry	Citizen
John Colgan, M.D.	Citizen
Kenneth Goode	Citizen
Gerald Wahl, Esq.	Citizen

PUBLIC OFFICIALS:

Irene Gossin	Monroe County Legislature
William Richardsen	Town Supervisors Association
Roger Boily	Town Supervisors Association
Don Mack	Town Supervisors Association
Martin Minchella	Town of Greece
Margaret Freeman	Town of Pittsford
Edward Watson	City of Rochester
David Woods	Genesee Finger Lakes Regional Planning Council
Ellen Schnurr	City of Rochester Parks Department

ECONOMIC INTERESTS:

Carl Ayers	Monroe Co. Charter Boat Association
Dan Miller	Marine Operators & Dealers
Charles Colby	Monroe County Farm Bureau
Bruce Boncke, P.E.	Rochester Homebuilders Association
Charles Costich, P.E.	Rochester Homebuilders Association
Dewayne Day, P.E.	Rochester Engineering Society
Paul Sawyko	Rochester Gas & Electric Corp.
Christopher Rau	Industrial Management Council
Grace Wever, Ph.D.	Industrial Management Council
Robert Brown	Laborers International Union of North America
David Stockmeister	Plumbers Union

PUBLIC INTERESTS:

Carole Beal	Center for Environmental Information
John Ferraro	Charlotte Community Association
Christine Fredette	Rochester Committee for Scientific Information
Ray Nelson	Sierra Club
Mary Merner	Sierra Club
Ernest Mohr	Ad Hoc Odor Committee
Elmer Wagner	Monroe Co. Conservation Council
Ian Wellers	Monroe Co. League of Women Voters

*There were never more than 27 voting members at one time on the WQMAC.

Conservation Service employee has served as chairman of this subcommittee and as a member of the WQMAC throughout the development of the Stage I RAP. Membership on this committee is not limited. Anyone who has shown an interest in participating has been welcomed.

(c) Lake Ontario West Basin Subcommittee: This subcommittee was established in November of 1989 and has been chaired since its inception by a citizen member, Mr. Gary Skoog. Membership on this subcommittee is not limited. Anyone who has shown an interest in participating has been welcomed.

(d) Genesee Basin Subcommittees: The Genesee Basin Subcommittee was initially established in September of 1990 with citizen co-chairs, Dr. Betty Lou Brett, and Ronald Pretzer, who lives in Genesee, Livingston County. This subcommittee covered a large geographic area (major portions of five counties) and was open to anyone who showed an interest in participating. Meetings were held in Avon, Livingston County. The attendance at this subcommittee was sparse with most regular attendance from representatives of the County Soil and Water Conservation Districts outside of Monroe County who were also involved in the development of County Water Quality Strategies. This group met regularly from September 1990 to May 1992 at which time it was reorganized. The reorganization resulted in the establishment of two committees, the Monroe County Genesee Basin Subcommittee chaired by Dr. Brett, and a Genesee Basin Coordinating Committee convened by Margit Brazda of the Monroe County Department of Planning & Development. The Monroe County Genesee Basin Subcommittee reactivated interested members, recruited some new members from within Monroe County, and began meeting in September 1992.

The Genesee Basin Coordinating Committee membership consists of one person from each county in the Genesee Basin. The size is small because each of these counties has its own Water Quality Coordinating Committee, each of which is preparing its own water quality strategy. Because County Water Quality Coordinating Committees developed at the same time that the RAP effort was under way, and because of the multi-county make-up of the Genesee River Basin, coordination was critically needed for efficient operation. The first meeting of the Coordinating Committee will be early in 1993. There has, however, been communication with the members of this group on the progress of the RAP during the Stage I RAP.

(e) Government Policy Group: The purpose of the Government Policy Group (GPG) is to provide information to policy makers, and to provide the RAP writers with local government feedback. From prior experience with water quality advisory groups, RAP staff had learned that public officials want to be involved in policy making but do not have time for frequent meetings where technical issues are discussed in detail. The WQMAC and its subcommittees included elected officials as representatives, but an additional forum was needed to meet on an ad hoc basis, which could include more elected officials who are likely to be affected by the RAP. This is important because the remaining significant water quality problems in the AOC are likely from non-point sources, and will require involvement of local governments and their land use decision making powers. The first meeting of the GPG was held in November 1988, at which time elected officials were asked to describe the water quality problems that exist in their jurisdictions. That information was used by the RAP Technical Group and the WQMAC to identify use impairments. The second meeting of the GPG was held in June 1992. At that meeting, the GPG learned about the use impairments, goals, and objectives as developed by the advisory groups. A list of the municipalities represented on the Government Policy Group are listed on Table 1-3.

(f) The Public Outreach Subcommittee of the WOMAC was formed in January of 1990 and has been chaired from its inception by Ms. Mary Merner. This Subcommittee was established to fulfill three roles: the first is to identify appropriate mechanisms to inform and involve county and regional residents of the RAP and basin plans; the second role is to develop, advise on, and implement ideas for general water quality education; the third role is to advise the WQMAC regarding appropriate long-term educational mechanisms that should be included in the RAP and Basin Plans. A list of the individuals who have served on this subcommittee since its inception is included in Table 1-4.

This subcommittee chose as its major project during the Stage I efforts development of a pamphlet about the New York State Department of Health (NYSDOH) fish consumption advisory. It was decided to focus the pamphlet on those socio-economic groups which eat locally caught fish for sustenance. The need for such information came from the concerns of Mr. Kenneth Goode, a member of the WQMAC in 1990. After some unsuccessful attempts to get funding from the Great Lakes Protection Fund for

Table 1-3
Government Representation on Government Policy Group

COUNTY REPRESENTATIVES

Allegany County Board of Legislators .
Genesee County Legislature
Livingston County Board of Supervisors
Monroe County Legislature
Ontario County Board of Supervisors
Steuben County Legislature
Wyoming County Board of Supervisors

MONROE COUNTY TOWN REPRESENTATIVES

Town of Brighton Supervisor
Town of Chili Supervisor
Town of Clarkson Supervisor
Town of Gates Supervisor
Town of Greece Supervisor
Town of Hamlin Supervisor
Town of Henrietta Supervisor
Town of Irondequoit Supervisor
Town of Mendon Supervisor
Town of Ogden Supervisor
Town of Parma Supervisor
Town of Penfield Supervisor
Town of Perinton Supervisor
Town of Pittsford Supervisor
Town of Riga Supervisor
Town of Rush Supervisor
Town of Sweden Supervisor
Town of Webster Supervisor
Town of Wheatland Supervisor

MONROE COUNTY VILLAGE REPRESENTATIVES:

Village of Brockport Mayor
Village of Churchville Mayor
Village of East Rochester Mayor
Village of Fairport Mayor
Village of Hilton Mayor
Village of Honeoye Falls Mayor
Village of Pittsford Mayor
Village of Scottsville Mayor
Village of Spencerport Mayor
Village of Webster Mayor

CITY REPRESENTATIVE

City of Rochester

Table 1-4

Members of the Public Outreach Subcommittee of the Monroe County WaterQuality
Management Advisory committee
during the period 1990 through 1992*

Mary Merner, Chair	Sierra Club
Carole Beal	Center for Environmental Information
Tom Bouchard	Citizen
Margit Brazda	Monroe County Dept. of Planning & Development
Betty Lou Brett, Ph.D.	Nazareth College, Biology Dept.
Cara Campbell	Monroe County Dept. of Planning
Tony Capella	Citizen
Patricia DeJoy	Citizen
Chris Fredette	Environmental Management Council
Kenneth Goode	Citizen
James Haynes, Ph.D.	State Univ. of New York at Brockport, Biology
Roy Hedman	Monroe County Dept. of Planning & Development
Wayne Howard	Citizen
Meg Keefe	Monroe County Cornell Cooperative Extension
Dan Miller	Fishery Advisory Board
Janet Moffett	Citizen
Jane Naylor	Monroe County Dept. of Planning
Jim Nugent	Monroe County Water Authority
Cam Owens	Citizen
Margy Peet	Monroe County Dept. of Planning & Development
Susan Peterson	Citizen
Jan Wellers	League of Women Voters

Some of the people on this list were active on this subcommittee for a relatively short period of time.

development of the pamphlet, writing began by volunteers. A draft was distributed for review to local and New York State level groups and individuals in early 1991. In July 1991, the draft pamphlet was reviewed by the Monroe County Fishery Advisory Board which voiced strong objections to the development and distribution of such a pamphlet. Their concerns were echoed by some other fishery interests. As a result, a major effort was undertaken to modify the pamphlet to meet the variety of concerns raised. This effort culminated in a meeting in December 1991 with Dr. Andrew Doniger, the Monroe County Director of Health, and representatives of fishing interests and the Public Outreach subcommittee. Dr. Doniger heard the concerns of all parties and he took responsibility for choosing the final language of the pamphlet. A responsiveness summary which reflected all of the concerns raised and changes made in the draft was sent to all interested parties in April 1992. From April through December 1992, efforts have been under way, as staff time allows, to complete the pamphlet lay-out, and to test it in a sample of the target population. Publication is planned in 1993.

3. Public Outreach Activities:

(a) RAP Workshops: The Rochester Embayment RAP was first announced to the public at a meeting in November of 1988. Ideas were solicited from those in attendance about their perceptions of local water pollution problems. During the development of the Stage I RAP, several forums were held for stakeholder groups and for the public on subjects related to the RAP. The most widely attended meeting occurred on the issue of toxics in February of 1990 when 170 people from throughout the community attended a Saturday forum to hear experts from throughout New York State. Other special workshops have covered zebra mussels, atmospheric deposition, and work done at other AOCs in the Basin. Another workshop was held for all stakeholders to learn about the effects of various pollutants on aquatic systems.

(b) RAP Handouts and Displays: A RAP fact sheet was prepared and distributed to interested citizens and at public places. A separate written document which describes the RAP and the various groups involved in the RAP was prepared and made available to those who showed interest in learning more about the RAP. A RAP display board was developed and shown at many public events over the course of the Stage I RAP development, including an Environmental Summit in 1990, at environmental fairs, malls, boat shows, and other public events.

- (c) Speaking/Educational Opportunities:** Throughout the development of the Stage I RAP, staff members spoke with adults and children about the RAP and about water quality. School children learned about the RAP at annual environmental days sponsored by the Preserving the Earth Through Education (PETE) program, Conservation Field Days sponsored by the Cooperative Extension and Soil and Water Conservation District, and visits by the EPA research ship. Many classroom invitations were also accepted. Adult groups learned about the RAP at meetings where RAP staff were invited to speak including the Monroe County and New York State Environmental Management Council, the Monroe County Planning Board, a Coastal Erosion Conference, the American Society of Civil Engineers, Fishery Advisory Board, Sea Grant Extension Conference, International Association of Great Lakes Researchers, University of Rochester, Water Pollution Control Federation, conference of the Upstate Chapter of the American Planning Association.
- (d) Articles:** The Rochester Embayment RAP also was publicized in writing. Two newsletters were published and widely distributed at the beginning of the RAP. Since then, articles about the RAP have been published in local newspapers including the Times Union and Democrat and Chronicle, in newsletters of the Monroe County Department of Planning, the Center for Environmental Information, the International Joint Commission, and the New York Water Pollution Control Association. Local RAP staff also wrote a chapter on the Rochester Embayment RAP for inclusion in a book edited by John Hartig and Mike Zarull entitled "Under RAPs". The title of the chapter is "Rochester Embayment's Water Quality Management Process and Progress, 1887-1990."
- (e) Public Meetings:** Four public meetings were held during the week of January 25, 1993 to inform and get feedback on the Draft Stage I RAP which was published in early January. Over 100 people attended the meetings. A responsiveness summary has been prepared to address all of the comments that were made by individuals at the public meetings, or subsequent to the public meetings. The responsiveness summary is included in this Final Stage I RAP as Appendix A.

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