

Chapter 10: Selected Actions, Studies and Monitoring Methods

Introduction

In the preceding chapters, there have been many proposals described for projects that will require a commitment of time and money. The projects are described in:

- Chapter 4: Studies Required to Complete Identification of Use Impairments and Describe Pollutant Sources.
- Chapter 7 (Urban): Possible New Remedial Measures for the Urban Area of the Rochester Embayment Watershed.
- Chapter 7 (Rural): Possible New Remedial Measures for the Rural Areas of the Rochester Embayment Watershed.
- Chapter 9: Surveillance and Monitoring Program.

It is recognized that, because of insufficient resources, it will not be feasible to follow through on every proposal. Therefore, it has been necessary to make decisions about priorities by ranking the proposals within each of the four categories. The ranking will determine which projects should be undertaken as a high priority, which projects can wait until an opportunity presents itself, and which projects are not recommended at this time.

Three ranking groups were established to determine these priorities:

- Urban Ranking Task Group for Chapter 7 (Urban) proposals. The activities of this Task Group are reported in Sections 1 and 2.
- Rural Ranking Task Group for Chapter 7 (Rural) proposals. The activities of this Task Group are reported in Sections 3 and 4.
- Studies and Monitoring Task Group for Chapter 4 and Chapter 9 proposals. The activities of this Task Group are reported in Section 5.

Each Task Group established its own ranking procedures. Therefore, the rankings are expressed in different ways (such as percentage, high/medium/low) depending on the Task Group. In all cases:

- The members of the Task Group first evaluated the proposals individually.
- The individual evaluations were used as preparation and basis for discussion.
- A vote was taken and a final ranked list was established.

This chapter reviews the ranking process used by each of the Task Groups and the final ranked list established by each Task Group. At the end of the chapter there is information about the Generic Environmental Impact Statement developed for the Stage II RAP by the New York State Department of Environmental Conservation. (See the Chapter 10 section on "Environmental Review for the Stage II Remedial Action Plan.")

The remedial actions selected by the Ranking Task Groups will contribute significantly toward delisting of use impairments in the Rochester Embayment. However, implementation of programs at the federal and state levels must also play a role. Examples of such programs are the Lake Ontario Lakewide Management Plan, and federal and state regulations.

10.1 Urban County Selected Remedial Actions

10.1.1. Ranking Process for Possible New Remedial Measures by the Urban Ranking Task Group

The Great Lakes Water Quality Agreement requires that each Remedial Action Plan include an evaluation of remedial measures in place and "additional remedial measures to restore beneficial uses..." Chapter 7 describes the possible new remedial measures. The Urban Ranking Task Group (URTG) was formed to make recommendations about which new remedial measures should be given the highest priority for implementation. The URTG was designed to include representatives from a broad cross section of the community including technical (members of the Monroe County Water Quality Coordinating Committee), economic, citizen, government and public interests.

The URTG was formed in May 1996 with the following members:

Mark Ballerstein	Monroe County Department of Engineering, Monroe County Water Quality Coordinating Committee (WQCC) representative
Richard Burton	Monroe County Environmental Health Laboratory; WQCC representative
William Dillon	Supervisor, Town of Irondequoit (government)
Robert Jonas	Citizen representative of the Monroe County Water Quality Management Advisory Committee (WQMAC);
Thomas Klein	Economic interest representative of WQMAC; Xerox Corporation
Jeanne Loberg	Supervisor, Town of Mendon (government)
Michael McNulty	Public interest representative of WQMAC; Trout Unlimited
Ray Nelson	Public interest representative of WQMAC; Sierra Club
Margy Peet	Monroe County Department of Health, Water Quality Planning Bureau, WQCC representative
Michael Ruszczyk	Economic interest representative of WQMAC; Industrial Management Council; Eastman Kodak Company
Max Streibel	Public official representative of WQMAC; Monroe County legislator
Robert Townsend	New York State Department of Environmental Conservation

Several steps during the course of five meetings were necessary to prepare the list of recommendations.

Step #1: Adopt a ranking system

The URTG achieved consensus on a ranking system whereby each member assigned two scores

to each proposed action:

- Benefit score (1 to 5)
- Implementation score (1 to 5), which incorporated cost, feasibility and likelihood of receiving government and public support

The URTG adopted this scoring system in order to strongly weight benefit.

The details of the ranking system are shown in Appendix F.

Step #2: Visual display of benefit and implementation scores

After every member had assigned scores to every action, the scores were displayed on Benefit/Implementation matrices (see sample matrix in Figure 10-1). One matrix was used for each proposed action. The vertical axis represented "Benefit" and the horizontal axis represented "Implementation." As the "dot" representing each pair of scores was positioned on the matrix, it was marked with the name of the URTG member responsible for the scores. These matrices were also distributed and were used in the debate process described below.

Step #3: Calculation of average scores

For each action, the average of all the Task Group members' benefit scores was calculated. The average of the implementation scores was also calculated, as well as the average total scores (benefit score + implementation score = total score).

Step #4: Debates

The URTG used the action matrices and the average scores to plan short debates for every proposed action. A debate was scheduled for every action which received an average benefit score of 3.0 or higher. (Task Group members were given the opportunity to include actions in the debate process that had a benefit score of less than 3.)

Two debaters were selected for every action, one to represent the high perspective (high benefit and implementation scores, in the upper right-hand quadrant of the matrix) and one to represent the low perspective (low benefit and implementation scores, in the lower left-hand quadrant of the matrix). Each debate followed the same schedule:

1 minute	High perspective presentation
1 minute	Low perspective presentation
2 minutes	Comments from other Task Group members

Step #5: Amendments to actions

In five cases, the URTG proposed amendments to the actions and voted upon the actions assuming that the changes would be made:

- a. Action 3a, Promote (New York State) antidegradation policy: It was initially proposed to change the action to "Promote Great Lakes Initiative antidegradation policy". At a later meeting, the URTG achieved consensus on keeping the original wording. (See the Chapter 7 section on "Promote the New York State Water Quality Enhancement and Protection Plan".)
- b. Action 5a, Enact a New York State law that would require environmental audits be submitted to local government agencies, including health departments: The URTG proposed changing the action such that environmental audits would be submitted voluntarily. However, even with the amendment, the URTG did not vote to recommend the action. The original and stronger wording has been maintained in the text for future consideration. (See the Chapter 7 section on "Promote proper closure/remediation of landfills and hazardous waste sites".)
- c. Action 13e, Establish a policy on package treatment plants. (A package treatment plant is a wastewater treatment plant made entirely at a factory and then moved onsite. The plants can be manufactured in a range of capacities up to one million gallons per day.) The URTG proposed prohibiting package plants except where absolutely essential. If a package plant was to be used, dry sewers would be required in the area for connection as soon as possible. The text for Chapter 7 reflects this change.
- d. Action 23, Complete basin water quality plans: The URTG proposed that the basin water quality plans focus, not on the basins as a whole, but on the individual stream watersheds. The text for the Chapter 7 section reflects this change.
- e. Action 24, Continually evaluate proposals for possible new remedial measures: The URTG suggested changing the title to "Continually evaluate *and implement* proposals for possible new remedial measures". The change was made in the text of the Chapter 7 section.

One action that was originally part of Section 7, "Divert the water over the Lower Falls temporarily in order to view the status of seeps at the face", has been deleted from Chapter 7 (Urban), because the identical activity became a monitoring method. (See the Chapter 9 section on "Monitoring for aesthetics - chemical seeps".)

Step #6: Voting

Immediately after each 4-minute debate period, a poll was taken on the action. Each Task Group member voted a high, medium or low priority to each action. The URTG adopted the following meanings for the votes:

- High: I think we must do this action.
- Medium: I can support this action if the rest of the group favors it.
- Low: I don't think this action is important.

A few actions achieved a surprisingly high or low vote, based on its original average benefit score. In these cases, there was enough further discussion to ensure that each Task Group

member had the same understanding about the proposed action. Then there was a revote.

Step #7: Urban Ranking Task Group recommendations

The URTG chose to create a ranked list based on the "average" of the high/medium/low poll. The average was calculated in the following manner:

High vote = number of votes x 2
Medium vote = number of votes
Low vote = 0

$$\text{Average score} = \frac{\text{high vote} + \text{medium vote}}{\text{number of voters}}$$

The recommendations were reported as follows:

Average from 1.50 to 2.00	Recommended as a high priority (aggressively pursue funding and commitments)
Average from 0.50 up to 1.50	Recommended (pursue as opportunities arise)
Average below 0.50	Not recommended

The URTG ranked list and average scores are shown in Table 10-1. Table 10-3 also shows the the actions in ranked order along with the use impairments addressed, potential responsible entities and potential funding sources.

Step #8: Linkages of recommended actions to the Stage I goals and objectives

A check on the success of the ranking process was the linkage of the high priority and recommended actions to the goals and objectives developed for the Stage I RAP (see Stage I RAP, pages 3-10 through 3-12, or Stage II RAP, Chapter 5). All goals and objectives were addressed by at least one action except:

- Water from the Embayment and its tributary drainage basins which is used for agricultural and industrial purposes can be used with minimum added cost due to exotic species (a goal).

Actions toward this goal were not selected because of the recognition that there is very little that a county can do to remediate a widespread and established ecosystem problem. For the complete list of linkages between remedial actions and goals and objectives see Table 10-2.

Step #9: Review and comment for URTG recommended actions

The recommendations were subsequently given to the Monroe County Water Quality Management Advisory Committee (WQMAC) and the Monroe County Water Quality Coordinating Committee (WQCC) for their review and comment. The WQMAC and WQCC

then gave their recommendations and comments to the Monroe County Water Quality Management Agency (WQMA) and the New York State Department of Environmental Conservation (NYSDEC) for final decisions.

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Figure 10-1
Chapter 7 Actions

Number of action: Section 7.1, Action a

Name of action: Schedule reduction of PCBs in equipment

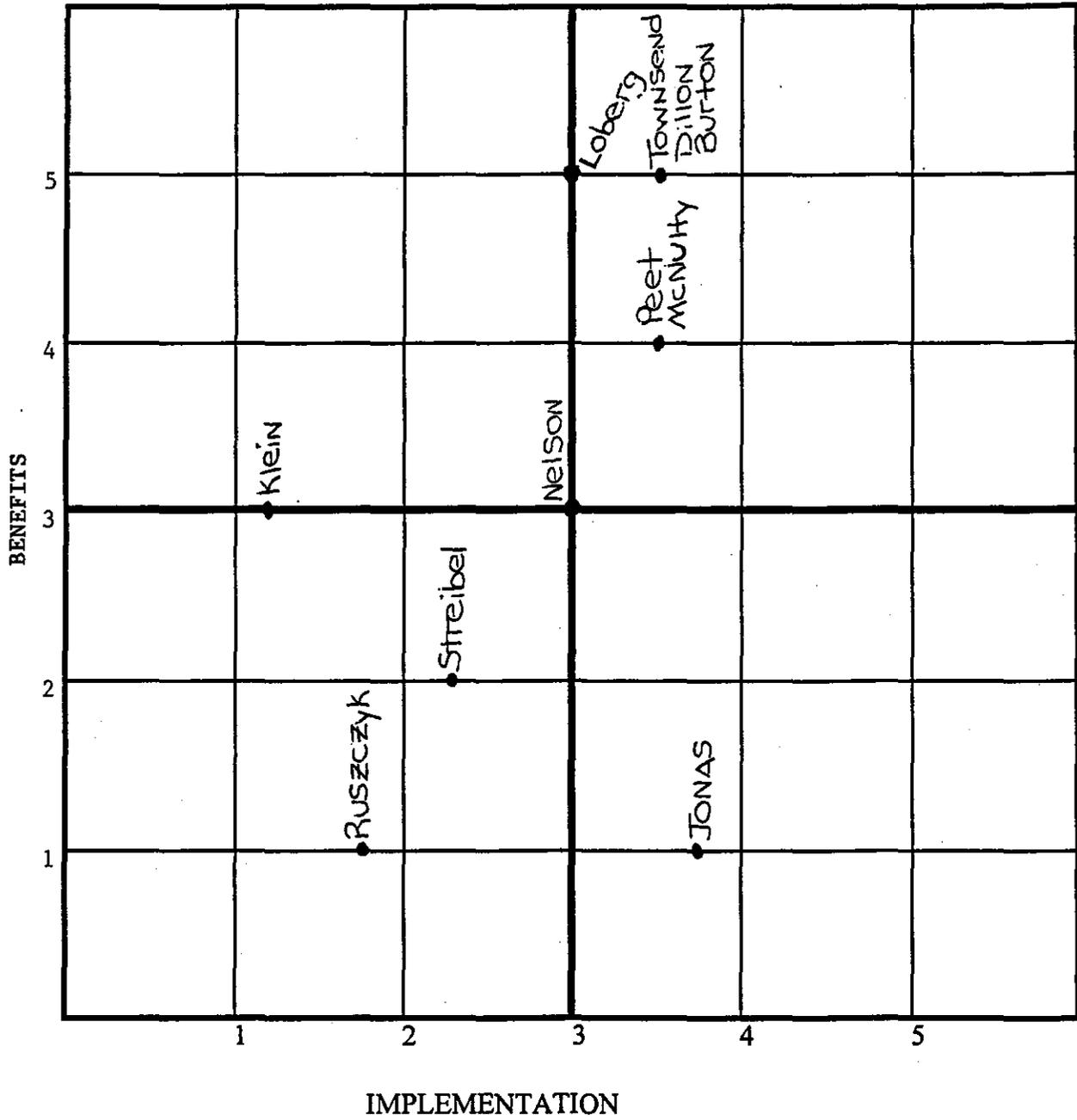


Table 10-1
Rochester Embayment Remedial Action Plan Chapter 7 (Urban)
Final ranked list of proposed actions

H = ranks high L = ranks low

M = ranks medium A = average

(The ranking process is described in the Chapter 10 section on “Ranking Process for Possible New Remedial Measures by the Urban Ranking Task Group.”)

High Priority

<u>Chapter 7 (Urban) section number and action name:</u>	<u>H</u>	<u>M</u>	<u>L</u>	<u>A</u>
23 Complete basin water quality plans	10	0	0	2.00
9 Institute intergovernmental agreements	9	1	0	1.90
10c. Develop stormwater wetlands as part of intergovernmental agreements	8	1	0	1.89
10f. Expand the Highway Projects Task Group effort	8	2	0	1.80
11a. Organize workshop (impervious surfaces)	8	2	0	1.80
10a. Continue dry basin conversions	8	2	0	1.80
10b. Conduct swirl concentrator demonstration project	7	2	0	1.78
10d. Develop stormwater wetlands as part of watershed drainage plans	7	2	0	1.78
4b. Pollution prevention for small businesses	7	2	0	1.78
13b. Maximize phosphorus removal at small wastewater treatment plants	7	3	0	1.70
3b. Substance bans	7	1	1	1.67
13e. Establish package plant policy	6	3	0	1.67
22a. Establish not for profit organization (education)	5	3	0*	1.63
17d. Outreach to school teachers (wetlands)	6	4	0	1.60
8. Intergovernmental agreement with U.S. Army Corps of Engineers	5	4	0	1.56
4a. Initiate pollution prevention efforts	5	4	0	1.56
13a. Establish phosphorus loading goal and appropriate permit limits	6	2	1	1.56
6. Expand storm drain message system	5	5	0	1.50

Recommended

1b. Education and identification (PCBs)	5	3	1	1.44
20b. Use intergovernmental agreements (habitat)	4	6	0	1.40
24. Evaluate proposals for new remedial actions**	4	4	1*	1.33
17a. Workshop for local officials (wetlands)	3	6	0	1.33

4c.	Municipalities set pollution prevention example	3	6	0	1.33
2.	Critical pollutants outside of the Rochester Embayment	4	3	2	1.22
13c.	Literature search on phosphorus emissions from incinerators	2	7	0	1.22
14.	Promote agricultural best management practices	3	6	1	1.20
17b.	Distribution and presentation of information on wetlands	2	8	0	1.20
10e.	Promote the use of biofilters where appropriate	2	8	0	1.20
1a.	Schedule reduction of PCBs in equipment	3	4	2	1.11
20a.	Develop nontraditional partnerships (habitat)	2	6	1	1.11
22b.	Establish water quality education coordinator position	4	2	3	1.11
7a.	Investigate feasibility of remediating material at Brewer St. site	3	4	2	1.11
19.	Critical habitat along waterways	2	6	1	1.11
11c.	Utilize intergovernmental agreements (impervious surfaces)	3	5	2	1.10
15b.	Targeted public education (lawn care)	2	5	2	1.00
15c.	Implement Homescape program (lawn care)	1	6	2	0.89
18.	Lake levels management plan	2	4	4	0.80
15a.	Conduct demonstration project (lawn care)	2	3	4	0.78
5b.	Utilize Hazardous Substance Waste Disposal Site Study to promote remediation of local sites	1	5	3	0.78
16a.	Develop streambank erosion control programs	1	4	4	0.67
1c	Removal and disposal (PCBs)	0	6	3	0.67
7b.	Educate developers regarding contamination	3	0	6	0.67
3a.	Antidegradation	0	5	3*	0.63

* One abstaining

** For a list of possible new remedial measures that were proposed during the review of the Stage II Remedial Action Plan, see the Appendix.

Low Priority (in order of appearance in Chapter 7 Urban)

- 5a Promote environmental audit submission to local government agencies
- 5c Finalize state guidelines for soil testing
- 5d Prioritize hazardous substance waste disposal sites
- 5e Conduct field investigations at County waste sites
- 7c Seek agreement regarding cleanup at the Brewer Street site
- 11b Use a not-for-profit to assist municipalities in reducing impervious surfaces
- 12a Conduct septic systems surveys
- 12b Require scheduled pumpouts of septic systems

- 12c Establish septic tank maintenance districts
- 12d Require periodic inspections and permits for septic systems
- 12e Establish a septic system inspection program on a watershed basis
- 12f Promote water conservation to extend the lives of septic systems
- 12g Educate homeowners about septic systems maintenance and repair
- 13d Promote the use of nonphosphate-based detergents
- 16b Use a not-for-profit to develop streambank erosion control programs
- 17c Conduct a photography/art contest/display about local wetlands
- 17e Facilitate community wetland tours
- 17f Prepare a pamphlet that summarizes the New York State Freshwater Wetlands Act
- 21a Encourage funding for the New York State Nonindigenous Aquatic Species Management Plan
- 21b Develop exotic species curricula
- 21c Encourage the NYSDEC to implement a ban on the sale of purple loosestrife

Table 10-2
Actions Selected by the Urban Ranking Task Group
with the RAP Goals and Objectives

Remedial actions are listed according to their priority, as determined by the Urban Ranking Task Group, with the highest ranking actions being listed first. (See the Chapter 10 section on “Ranking process for possible new remedial measures by the Urban Ranking Task Group,” Step #8.)

Four actions are applicable to all of the objectives and are not listed below:

- Complete basin water quality plans
- Establish not-for-profit organization (education)
- Evaluate proposals for new remedial actions
- Establish water quality education coordinator position

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
Virtual elimination of toxic substances causing fish consumption advisories.	#1: Scheduled elimination of the releases and runoff of persistent toxic substances that necessitate health advisories for the Rochester Embayment.	-Education and identification (PCBs)-R -Scheduled reduction of PCBs in equipment-R -Removal and disposal (PCBs)-R
	#2: Continued monitoring of persistent toxic chemicals which are concentrated in the fish populations within the Rochester Embayment.	See Chapter 9 section on “Monitoring for toxics”.
	#3: A formal system is in place which mandates coordination with other RAP jurisdictions in order to develop a schedule for eliminating the discharge of persistent toxic substances.	-Address critical pollutants outside of the Rochester Embayment-R
Public beaches in the Rochester Embayment are open for swimming, based upon best available health and safety standards.	#1: Targeted reduction of beach closures due to human waste contamination of water.	-Establish package plant policy-HP

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
Public beaches in the Rochester Embayment are open for swimming. (Continued)	#2: Targeted reduction of beach closures due to stormwater runoff.	<ul style="list-style-type: none"> -Institute intergovernmental agreement-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Expand the highway projects task group-HP -Organize workshop (impervious surfaces)-HP Continue dry basin conversions-HP -Conduct swirl concentrator demonstration project-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Utilize intergovernmental agreements (impervious surfaces)-R -Targeted education (lawn care)-R -Implement homescape program-R -Conduct demonstration project (lawn care)-R -Develop streambank erosion control programs-R
Shorelines and waterways are free of aesthetically objectionable materials.	#1: Reduction of Cladophora algae and zebra mussels within the Rochester Embayment to below nuisance levels.	<ul style="list-style-type: none"> -Institute intergovernmental agreements-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Continue dry basin conversions-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Maximize phosphorus removal at small wastewater treatment plants-HP -Establish package plant policy-HP -Establish phosphorus loading goal and appropriate permit limits-HP -Literature search on phosphorus emissions from incinerators-R -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Targeted education (lawn care)-R -Implement homescape program-R -Conduct demonstration project (lawn care)-R
	#2: Continuous improvement of water clarity throughout the Embayment, including the lower Genesee River.	<ul style="list-style-type: none"> -Institute intergovernmental agreements-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Expand the highway projects task group-HP -Organize workshop (impervious surfaces)-HP -Continue dry basin conversions-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Utilize intergovernmental agreements (impervious surfaces)-R -Develop streambank erosion control programs-R

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
Shorelines and waterways are free of aesthetically objectionable materials. (Continued)	#3: Virtual elimination of raw or untreated sewage discharges into the Embayment.	-Establish package plant policy-HP
	#4: Maintenance of fisheries' trophic relationships to minimize fish die-offs and fouled beaches.	<ul style="list-style-type: none"> -Institute intergovernmental agreements-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Continue dry basin conversions-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Maximize phosphorus removal at small wastewater treatment plants-HP -Establish package plant policy-HP -Establish phosphorus loading goal and appropriate permit limits-HP -Literature search on phosphorus emissions from incinerators-R -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Targeted education (lawn care)-R -Implement homescape program-R -Conduct demonstration project (lawn care)-R
	#5: Waterways free of debris, trash, oil and other visible pollutants.	<ul style="list-style-type: none"> -Expand the storm message system-HP -Investigate feasibility of remediating material at Brewer St. site-R
Contaminated sediments in the lower Genesee River have no negative impact upon the water quality and biota in the Rochester Embayment; sediment quality is suitable for open lake disposal.	#1: Dredging in the lower Genesee River is restricted to maintenance of established commercial and recreational channels.	-Intergovernmental agreements with US Army Corps of Engineers-HP
	#2: Scheduled elimination of discharges of chemicals that contaminate sediments and harm aquatic life.	<ul style="list-style-type: none"> -Pollution prevention for small businesses-HP -Substance bans-HP -Initiate pollution prevention efforts-HP -Education and identification (PCBs)-R -Municipalities set pollution prevention example-R -Scheduled reduction of PCBs in equipment-R -Investigate feasibility of remediating material at Brewer St. site-R -Utilize Hazardous Substance Waste Disposal Site Study to promote remediation of local sites-R -Removal and disposal (PCBs)-R -Educate developers regarding contamination in the gorge-R -Antidegradation-R
Water and shore habitats within the Rochester Embayment support thriving fish and wildlife populations.	#1: Maintenance of all present water and shore habitats which are critical to aquatic and terrestrial organisms.	<ul style="list-style-type: none"> -Outreach to school teachers (wetlands)-HP -Use intergovernmental agreements (habitat)-R -Distribution and presentation of information on wetlands-R -Develop nontraditional partnerships (habitat)-R -Critical habitat along waterways-R -Lake Levels Management Plan-R

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
Water and shore habitats support thriving fish and wildlife populations. (Continued)	#2: Prohibition of discharges into the Rochester Embayment which adversely affect aquatic habitats.	<ul style="list-style-type: none"> -Pollution prevention for small businesses-HP -Substance bans-HP -Initiate pollution prevention efforts-HP -Education and identification (PCBs)-R -Municipalities set pollution prevention example-R -Scheduled reduction of PCBs in equipment-R -Utilize Hazardous Substance Waste Disposal Site Study to promote remediation of local sites-R -Removal and disposal (PCBs)-R -Educate developers regarding contamination in the gorge-R -Antidegradation-R
	#3: Public education programs which focus upon the importance of wetlands and other habitats necessary to support fish and wildlife populations.	<ul style="list-style-type: none"> -Establish not-for-profit organization (education)-HP -Outreach to school teachers (wetlands)-HP -Workshop for local officials (wetlands)-R -Distribution and presentation of information on wetlands-R
Diversity of plant and animal communities within the Rochester Embayment.	#1: Continuing maintenance and enhancement of animal and plant populations. and #2: Self-sustaining populations of walleye, lake trout, mayfly larvae and fish-eating birds and mammals.	<ul style="list-style-type: none"> -Pollution prevention for small businesses-HP -Maximize phosphorus removal at small wastewater treatment plants-HP -Substance bans-HP -Outreach to school teachers (wetlands)-HP -Initiate pollution prevention efforts-HP -Establish phosphorus loading goal and appropriate permit limits-HP -Education and identification (PCBs)-R -Use intergovernmental agreements (habitat)-R -Workshop for local officials (wetland)-R -Municipalities set pollution prevention example-R -Distribution and presentation of information on wetlands-R -Scheduled reduction of PCBs in equipment-R -Develop nontraditional partnerships (habitat)-R -Critical habitat along waterways-R -Targeted education (lawn care)-R -Lake Levels Management Plan-R -Conduct demonstration project (lawn care)-R -Utilize Hazardous Substance Waste Disposal Site Study to promote remediation of local sites-R -Removal and disposal (PCBs)-R -Antidegradation-R
	#3: Protective legislation, policies, and enabling powers for appropriate agencies in order to assure maintenance and enhancement of diverse and self-sustaining fish and wildlife populations.	<ul style="list-style-type: none"> -Substance bans-HP -Antidegradation-R

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
Drinking water produced from Lake Ontario has no unusual or unpleasant taste.	Minimal algae blooms in the Embayment.	<ul style="list-style-type: none"> -Institute intergovernmental agreements-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Continue dry basin conversions-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Maximize phosphorus removal at small wastewater treatment plants-HP -Establish package plant policy-HP -Establish phosphorus loading goal and appropriate permit limits-HP -Literature search on phosphorus emissions from incinerators-R -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Targeted education (lawn care)-R -Implement homescape program-R -Conduct demonstration project (lawn care)-R
The benthic macroinvertebrate community in the lower Genesee River is not degraded by pollution.	Scheduled elimination of sources of sediment-associated toxic contaminants and other pollutants, including sediments, that impede the survival of a healthy and diverse benthic macroinvertebrate community.	<ul style="list-style-type: none"> -Pollution prevention for small businesses-HP -Substance bans-HP -Initiate pollution prevention efforts-HP -Education and identification (PCBs)-R -Municipalities set pollution prevention example-R -Scheduled reduction of PCBs in equipment-R -Investigate feasibility of remediating material at Brewer St. site-R -Utilize Hazardous Substance Waste Disposal Site Study to promote remediation of local sites-R -Removal and disposal (PCBs)-R -Educate developers regarding contamination in the gorge-R -Antidegradation-R
The littoral zone of the Rochester Embayment is mesotrophic rather than eutrophic.	#1: The biological community of the Embayment is mesotrophic, as indicated by USEPA lists of phytoplankton indicator species.	<ul style="list-style-type: none"> -Institute intergovernmental agreements-HP -Develop stormwater wetlands as part of intergovernmental agreements-HP -Continue dry basin conversions-HP -Conduct swirl concentrator demonstration project-HP -Develop stormwater wetlands as part of watershed drainage plans-HP -Maximize phosphorus removal at small wastewater treatment plants-HP -Establish package plant policy-HP -Establish phosphorus goal and appropriate permit limits-HP -Literature search on phosphorus emissions from incinerators-R -Promote agricultural best management practices-R -Promote the use of biofilters where appropriate-R -Targeted education (lawn care)-R -Implement homescape program-R -Conduct demonstration project (lawn care)-R

Goal	Objective	Section Numbers and Names of Actions Selected (HP=High Priority, R-Recommended as indicated in Table 10-1)
The littoral zone of the Rochester Embayment is mesotrophic rather than eutrophic. (Continued)	#2: Scheduled elimination of point and nonpoint discharges that impede survival of a healthy and diverse planktonic community.	-Maximize phosphorus removal at small wastewater treatment plants-HP -Establish phosphorus loading goal and appropriate permit limits-HP
Water from the Embayment and its tributary drainage basins which is used for agricultural and industrial purposes can be used with minimum added cost due to exotic species.	None	None

10.1.2. Monroe County Selected New Remedial Measures: Based on Chapter 7, Possible New Remedial Measures (Urban County)

Table 10-3

EMC (County) Environmental Management Council
 GFLRPC Genesee/Finger Lakes Regional Planning Council
 NRCS (Federal) Natural Resources Conservation Service
 NYSDEC New York State Department of Environmental Conservation
 SWCD (County) Soil and Water Conservation District(s)
 U.S. EPA U.S. Environmental Protection Agency
 WQCC (County) Water Quality Coordinating Committee(s)
 WQMAC (Monroe County) Water Quality Management Advisory Committee

The highest ranking projects are at the top of the table and descend in ranked order.
 (Key for use impairments is shown at the end of the table. Both major and minor impacts of actions are listed.)

Chapter 7 (Urban) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible Entity	Funding Sources
23. Complete basin water quality plans	1,3,5,6,7, 8,9,10,11, 12,13,14	High priority	Health Dept, WQMAC, WQCC	NYSDEC, County
9. Institute IGAs	1,3,5,6,7, 8,10,11,14	High priority	County, municipalities	County, municipalities, Aid to Localities
10c. Develop stormwater wetlands as part of IGAs	3,6,7,8,9,10, 11,12,13,14	High priority	County, municipalities	NYSDEC, County, municipalities
10f. Expand Highway Projects Task Group effort	3,6,7,8,9,10, 11,12,13,14	High priority	NYS Dept of Transportation, County, municipalities	Not applicable
11a. Organize impervious surfaces workshop	1,3,5,6,7, 8,9,10,11, 13,14	High priority	Health Dept, County Planning & Development, EMC, private consultants, Planning Council	Registration fees
10a. Continue dry basin conversions	3,6,7,8,9,10, 11,12,13,14	High priority	County, municipalities	U.S. EPA, NYSDEC, County, municipalities

Chapter 7 (Urban) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible Entity	Funding Sources
10b. Conduct swirl concentrator demonstration project	3,6,7,8,9,10,11,12,13,14	High priority	County	NYSDEC, County
10d. Develop stormwater wetlands as part of watershed drainage plans	3,6,7,8,9,10,11,12,13,14	High priority	County, municipalities	NYSDEC, County, municipalities
4b. Promote pollution prevention among small businesses	1,3,5,6,7,13,14	High priority	County Planning & Development, County Env. Services, Industrial Management Council, small business assns, Chamber of Commerce, professional societies, WQCC	County, NYSDEC, trade & professional assns, small business assns
13b. Maximize phosphorus removal at small WWTPs	3,8,9,10,11,13,14	High priority	County, municipalities	County, municipalities
3b. Promote substance ban policy	1,3,5,6,7,13,14	High priority	WQMAC, County, NYSDEC	County, NYSDEC, U.S. EPA
13e. Establish a policy on package treatment plants	3,8,9,10,11,13,14	High priority	Health Dept, NYSDEC	County, NYSDEC
22a. Establish a not-for-profit organization for education	1,3,5,6,7,8,9,10,11,12,13,14	High priority	County, WQCC, WQMAC	County, grants, memberships, private donations
17d. Make teachers aware of wetlands curriculum	3,8,14	High priority	Colleges, Sea Grant, Cooperative Extension, NYSDEC, teachers assns, school board assns	Colleges, Sea Grant, Cooperative Extension, grants, NYSDEC, teachers assns, school board assns
8. Enact an IGA with the Army Corps of Engineers	1,3,5,6,7,10,11,13	High priority	County, U.S. Army Corps of Engineers, NYSDEC	County, U.S. Army Corps of Engineers, NYSDEC
4a. Initiate comprehensive pollution prevention efforts	1,3,5,6,7,13,14	High priority	WQCC, Health Dept, EMC, County Env. Services, Off of Emergency Preparedness, SWCD, WQMAC, industry, academia, NYSDEC	County, NYSDEC, U.S. EPA, businesses, trade assns, foundations

Chapter 7 (Urban) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible Entity	Funding Sources
13a. Establish a phosphorus loading goal and WWTP loading limits	3,8,9,10,11,13,14	High priority	County, WQCC, NYSDEC, municipality	Municipalities, user fees, NYSDEC
6. Expand storm drain message system	1,3,5,6,11,13,14	High priority	Health Dept, Dept of Transportation, Cooperative Extension, towns	Grants; contribution of staff time, donations from citizen groups & private corporations
1b. Education and identification of PCB-containing equipment	1,3,5,6,7,14	Recommended	Industrial, commercial & municipal entities; public environmental interest groups	County
20b. Use IGAs to protect fish and wildlife habitat	3,6,8,11,14	Recommended	County, municipalities	County, Aid to Localities
24. Evaluate proposals for possible new remedial measures	1,3,5,6,7,8,9,10,11,12,13,14	Recommended	Health Dept, WQMAC, WQCC, nonprofit organization	NYSDEC, County
17a. Workshop for local officials on wetlands	3,8,14	Recommended	EMC, Nature Conservancy, Health Dept, County Planning & Development, NYSDEC, SWCD, Fisheries Advisory Board, Planning Council, Town Supervisors Assn.	Grants, contribution of staff time, workshop fees
4c. Municipalities set pollution prevention example	1,3,5,6,7,13,14	Recommended	County, towns, villages	County, towns, villages
2. Promote interaction with the LaMP and other RAPs	1,3,5,6,14	Recommended	WQMAC	County, NYSDEC, U.S. EPA
13c. Literature search on phosphorus emissions from incinerators	3,8,9,10,11,13,14	Recommended	Health Dept, County Env. Services	Health Dept, County Env. Services
14. Promote agricultural BMPs	1,3,5,6,7,8,9,10,11,13,14	Recommended	WQCC, SWCD, Cooperative Extension, NRCS	County, Aid to Localities, foundations, NYS Ag Non-Point Source Grant Program

Chapter 7 (Urban) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible Entity	Funding Sources
17b. Distribute and present wetlands information	3,8,14	Recommended	EMC, Nature Conservancy, NYSDEC	NYSDEC, County, corporate donations
10e. Promote the use of biofilters where appropriate	3,6,7,8,9,10,11,12,13,14	Recommended	County, municipalities	County, municipalities
1a. Schedule reduction of PCBs in equipment	1,3,5,6,7,14	Recommended; ongoing	Electric utility	Electric utility
20a. Develop nontraditional partnerships to protect habitat	3,6,8,11,14	Recommended	GFLRPC, County, NYSDEC, municipalities, nonprofit organizations	County, municipalities, GFLRPC, grants
22b. Create a water quality education coordinator position	1,3,5,6,7,8,9,10,11,12,13,14	Recommended	County, Cooperative Extension, SWCD	County, grants
7a. Investigate feasibility of remediating material at Brewer St. site	1,3,5,6,7,13,14	Recommended	RG&E, Rochester Pure Waters, County Env. Services	Subject to negotiation
19. Identify and protect critical habitat along waterways	3,8,14	Recommended	WQMAC, EMC, NYSDEC, nonprofit organizations, SWCD, WQCC, Health Dept, County Planning & Development	Aid to Localities, Great Lakes Protection Fund, private donations
11c. Use IGAs to mitigate impacts of impervious surfaces	1,3,5,6,7,8,9,10,11,13,14	Recommended	County, municipalities	County
15b. Targeted public education effort on lawn care	1,3,5,6,7,8,9,10,11,13,14	Recommended	Cooperative Extension, Health Dept	County, NYSDEC
15c. Implement Homescape program on lawn care	1,3,5,6,7,8,9,10,11,13,14	Recommended	Cooperative Extension, Sea Grant, SWCD, County	County, NYSDEC, Great Lakes Protection Fund

Chapter 7 (Urban) Action Name and Number	Use Impairments (#) Addressed	Priority/Timing	Responsible Entity	Funding Sources
18. Lake levels management plan	3,14	Recommended	WQCC	Not needed
15a. Conduct demonstration project on lawn care	1,3,5,6,7,8,9,10,11,13,14	Recommended	Cooperative Extension	County, NYSDEC
5b. Utilize the NYSDEC hazardous substance waste disposal site study	1,3,5,6,7,11,13,14	Recommended	NYSDEC, Waste Site Advisory Comm.	NYSDEC
16a. Develop streambank erosion control programs in watershed drainage plans	3,6,8,10,11,13,14	Recommended	County, municipalities	NYSDEC, County, municipalities
1c. Removal and disposal of PCB-containing equipment	1,3,5,6,7,14	Recommended	Industrial, commercial & municipal entities; Monroe Co. Hazardous Waste Collection Facility	Industrial, commercial & municipal entities; local governments
7b. Educate developers about gorge contamination	1,3,5,6,7,13,14	Recommended	Health Dept, EMC, City of Rochester	Developer, responsible party
3a. Promote antidegradation policy	1,3,5,6,7,13,14	Recommended	Monroe County; WQCC, NYSDEC	County, NYSDEC

Use Impairments:

- | | |
|--|--|
| 1. Restrictions on fish and wildlife consumption | 9. Drinking water taste and odor problems |
| 3. Degradation of fish and wildlife populations | 10. Beach closings |
| 5. Bird or animal deformities or reproductive problems | 11. Degradation of aesthetics |
| 6. Degradation of benthos | 12. Added costs to agriculture or industry |
| 7. Restrictions on dredging activities | 13. Degradation of plankton populations |
| 8. Eutrophication or undesirable algae | 14. Loss of fish and wildlife habitat |

10.2. Rural Counties Selected Remedial Actions

Ranking Process for Possible New Remedial Measures by the Rural Ranking Task Group

Background

Before the Stage I Remedial Action Plan (RAP) was prepared for the Rochester Embayment Area of Concern (AOC), it was decided to take an ecosystem approach and a watershed approach to address the use impairments identified for the Embayment. An ecosystem approach recognizes that air, water and land systems are connected, and that consideration of all possible pollutant sources and transport methods is necessary in order to improve and protect water resources. A watershed approach recognizes that the entire Rochester Embayment watershed must be considered in water quality planning in order to improve and protect the Embayment.

The Rochester Embayment watershed incorporates all or part of nine New York counties: Allegany, Cattaraugus, Genesee, Livingston, Monroe, Ontario, Orleans, Steuben and Wyoming. Monroe County is primarily an urban county. The other counties are rural in character. Pollutant sources in rural counties can be very different from those in an urban county.

In January 1996, members of the Planning Coordination Committee of the Genesee/Finger Lakes Regional Planning Council (GFLRPC) recommended that the rural and urban counties should conduct separate processes for recommending additional remedial measures to address use impairments. The separate processes would result in separate lists of recommended actions. The GFLRPC offered to coordinate the rural ranking process, even though its jurisdiction does not correspond exactly to the eight rural counties.

Rural Ranking Task Group

The Rural Ranking Task Group (RRTG) was formed in March 1996 with the following members:

Robert Costanzo	Genesee County Planning Department
Kier Dirlam	Allegany County; Southern Tier West Regional Planning and Development Board
Warren Hart	Ontario County Planning Department
James Kanouse	Livingston County Health Department
Peter Kanouse	Livingston County Soil and Water Conservation District
Gregory McKurth	Wyoming County Soil and Water Conservation District
Barbara Shilling	Wyoming County Economic Planning and Development
George Squires	Genesee County Soil and Water Conservation District
Ralph Van Houten	Livingston County Health Department
Melissa Weaver	Wyoming County Soil and Water Conservation District
David Woods	Livingston County Planning Department
David Zorn	Genesee/Finger Lakes Regional Planning Council

Cattaraugus, Orleans and Steuben Counties have relatively small areas in the Rochester

Embayment watershed and did not participate.

Several steps during the course of three meetings were necessary to prepare the list of recommendations.

Step #1: Choose the proposed remedial measures in Chapter 7 that are pertinent to the rural counties

Some of the possible new remedial measures listed in Chapter 7 were considered to be not pertinent to the rural counties either because of their geographic location or because the measure is more appropriate for an urban area. The RRTG identified the following Chapter 7 sections as being pertinent for the rural ranking process:

Chapter 7 (*Urban*) Section Name and Number

1. Accelerate PCB removal
2. Promote the New York State Water Quality Enhancement and Protection Policy
4. Promote pollution prevention in the Rochester Embayment watershed
5. Promote proper closure/remediation of landfills and hazardous waste sites
6. Expand the storm drain message system
9. Institute intergovernmental agreements
10. Manage stormwater quality in existing and newly developing urban areas (with the exception of Action B, Conduct swirl concentrator demonstration project and Action F, Expand Highway Projects Task Group effort)
11. Reduce and mitigate impervious surfaces
12. Identify and solve onsite sewage disposal system problems
13. Implement a phosphorus point source management strategy
14. Promote agricultural best management practices
15. Intensify and focus public education effort regarding the proper use of lawn care fertilizers and pesticides
16. Develop streambank erosion control program
17. Educate local officials and public on value of wetlands
19. Identify and restore/enhance/protect critical habitat along waterways
20. Promote the use of local government land use powers to protect fish and wildlife habitat
21. Educate about exotic species introduction
22. Develop public education structure (with the exception of Action A, Establish a local water quality not-for-profit, and Action B, create a water quality education coordinator position; instead substitute a new action)
23. Complete basin water quality plans
24. Continually evaluate proposals for possible new remedial measures

All other Chapter 7 sections were eliminated from the ranking process.

Step #2: Choice of a ranking method

A formal ranking system, similar to that used by the Urban Ranking Task Group, was considered and rejected. The RRTG decided to use a discussion and consensus method instead.

Step #3: Revisions for Chapter 7 (Rural) sections

During discussion, RRTG members discovered that it was often difficult to discuss the actions described in Chapter 7 (Urban) because the actions were written from an urban perspective, or for some other reason did not fit the needs of rural counties. In many cases, the Task Group requested specific revisions that would reflect the rural perspective and include rural solutions.

Discussion revealed the need for revisions to the contents of the following sections:

Chapter 7 (Urban) Section Title	New Title for Rural Counties
Accelerate PCB removal	Investigate the extent of PCB sources and identify and remove PCB-containing equipment
Promote pollution prevention in the Rochester Embayment watershed	Promote pollution prevention
Promote proper closure/remediation of landfills and hazardous waste sites	Identify hazardous waste sites
Institute intergovernmental agreements	Title unchanged (Ranked low both before and after revisions)
Identify and solve onsite sewage disposal system problems	Title unchanged
Implement a phosphorus point source management strategy	Title unchanged
Intensity and focus public education effort regarding the proper use of lawn care fertilizers and pesticides	Educate the public regarding lawn care best management practices that protect water quality
Develop a streambank erosion control program	Implement a comprehensive streambank erosion control program in the rural counties of the Rochester Embayment watershed
Educate local officials and the public on the value of wetlands	Title unchanged
Identify and restore/enhance/protect critical habitat along waterways	Identify and rank critical habitat in and along waterways in the rural counties in the Rochester Embayment watershed
Develop public education structure	Title unchanged
Complete basin water quality plans	Gather data in preparation for watershed plans and a Genesee River basin plan

The other pertinent sections did not need revisions. All the revised sections were subsequently compiled into Chapter 7 (Rural).

Step #4: Consensus on high, medium and low priorities

Immediately following discussion on each action, the RRTG reached a verbal consensus on a high, medium or low priority for the action. The RRTG rankings are shown in Table 10-4. Table 10-5 also shows the the actions in ranked order along with the use impairments addressed, potential responsible entities and potential funding sources.

Step #5: Follow-up activities

The RRTG members stated that follow-up activities would be to:

- Present background information on the RAP ranking process and the ranked list to their county Water Quality Coordinating Committees (WQCCs) and their County legislatures.
- Consider the ranked list in updating county water quality strategy.

The Genesee/Finger Lakes Regional Planning Council may also consider the ranked list in its regional water quality strategy.

Author: Carole Beal

Table 10-4
Preliminary Ranked list of water quality remedial actions associated with the Rochester Embayment Remedial Action Plan (RAP) for the Counties of Allegany, Genesee, Livingston, Ontario and Wyoming

High Priority Actions

Promote antidegradation policy
Expand the storm drain message system
Investigate phosphorus discharge from small wastewater treatment plants
Promote agricultural best management practices
Public education on the proper use of lawn care fertilizers and pesticides by means of targeted public education
Public education on the proper use of lawn care fertilizers and pesticides by means of trained master gardeners
Develop streambank erosion control program
Collect information to initiate a basin water quality plan
Continually evaluate proposals for possible new remedial measures

High or Medium Priority Actions

Investigate the extent of PCB sources
Identify hazardous waste sites
Conduct septic system surveys
Seek funding for septic system repair and replacement and for sewers
Establish a county health department and sanitation code
Conduct septic system educational programs
Develop or maintain a public education structure

Medium Priority Actions

Educate about and identify equipment containing PCBs at commercial, municipal, educational and residential locations
Promote substance ban policy
Promote pollution prevention
Promote the voluntary use of nonphosphate-based alternatives for commercial and residential dishwasher use
Educate local officials and public on value of wetlands

Medium or Low Priority Actions

Identify and rank critical habitats along waterways

Low Priority Sections or Actions

Remove and dispose of equipment containing PCBs within commercial, municipal, educational and residential locations
Conduct demonstration project for proper use of lawn care fertilizers and pesticides.
Institute Intergovernmental Agreements
Manage stormwater quality in existing and newly developing urban areas (see Chapter 7 Urban)
Reduce and mitigate impervious surfaces (see Chapter 7 Urban)
Promote the use of local government land use powers to protect fish and wildlife habitat (see Chapter 7 Urban)
Educate about exotic introduction (see Chapter 7 Urban)

10.2.2. Rural County Selected New Remedial Measures: Based on Chapter 7, Possible New Remedial Measures (Rural Counties)

Table 10-5

EMC (County) Environmental Management Council(s)
 G/FLRPC Genesee/Finger Lakes Regional Planning Council
 NRCS (Federal) Natural Resources Conservation Service
 NYSDEC New York State Department of Environmental Conservation
 SWCD (County) Soil and Water Conservation District(s)
 U.S. EPA U.S. Environmental Protection Agency
 WQCC (County) Water Quality Coordinating Committee(s)
 (Key for use impairments is shown at the end of the table. Both major and minor impacts of actions are listed.)

Chapter 7 (Rural) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible entity	Funding Sources
26a. Promote antidegradation policy	1,3,5,6,7, 13,14	High priority	NYSDEC, Counties, WQCCs	NYSDEC, Counties
29. Expand the storm drain message system	1,3,5,6,11,13,14	High priority	County health depts, county depts of transportation, Cooperative Extension, towns, nonprofit organizations, community civic groups	Grants, contributions of staff time, donations from citizen groups & private corporations, corporate sponsorship
32a. Investigate phosphorus discharge from small WWTPs	3,8,9,10, 11,13,14	High priority	NYSDEC, counties, regional planning councils, municipalities	NYSDEC, counties, municipalities
33. Promote agricultural best management practices	1,3,5,6,7, 8,9,10,11, 13,14	High priority	SWCDs, NRCS, Cooperative Extension, WQCCs	Counties, Aid to Localities, foundations, NYS Ag Non-point Source Grant Program
34b. Targeted lawn care public education effort	1,3,5,6,7, 8,9,10,11, 13,14	High priority	Cooperative Extension, SWCDs, Counties	Counties, NYSDEC
34c. Implement lawn care Homescape program	1,3,5,6,7, 8,9,10,11, 13,14	High priority	Cooperative Extension, Sea Grant, SWCDs, Counties	Counties, NYSDEC, Great Lakes Protection Fund

Chapter 7 (Rural) Action Name and Number	Use Impairments (#) Addressed	Priority/ Timing	Responsible entity	Funding Sources
35. Implement streambank erosion control program	3,6,8,10,11,13,14	High priority	NYSDEC, counties, WQCCs, SWCDs, NRCS, municipalities	NYSDEC, counties, municipalities
39. Gather data for watershed plans & Genesee basin plan	1,3,5,6,7,8,9,10,11,12,13,14	High priority	Regional planning councils, WQCCs, Water Resources Board, NYSDEC	NYSDEC, regional planning councils, Water Resources Board, counties
40. Evaluate proposals for new remedial measures	1,3,5,6,7,8,9,10,11,12,13,14	High priority	County WQCC, G/FLRPC	County WQCC, G/FLRPC
25a. Investigate the extent of PCB sources	1,3,5,6,7,14	High/medium priority	Electric utility, EMC, health depts, planning dept, regional planning councils, NYS Dept of Health	Electric utility, NYSDEC, U.S. EPA
28. Identify hazardous waste sites	1,3,5,6,7,11,13,14	High/medium priority	Hired investigator, regional planning councils, EMCs, health depts, planning depts, WQCCs	U.S. EPA, NYSDEC, Senator Initiatives, Aid to Localities
31a. Conduct septic system surveys	6,8,11,14	High/medium priority	Health depts, NYS Dept of Health, SWCDs, WQCCs	Counties, NYS Dept of Health, NYSDEC, user fees, inspection fees
31b. Seek funding for septic systems and sewers	6,8,11,14	High/medium priority	County health depts, WQCCs, planning depts	Counties, NYS Dept of Health
31c. Establish county health dept and sanitation code	6,8,11,14	High/medium priority	County executive, legislature, board of supervisors	Counties, NYS Dept of Health
31d. Septic system education	6,8,11,14	High/medium priority	County health depts, EMCs, Cooperative Extension	Counties, NYS Dept of Health, Cooperative Extension

Chapter 7 (Rural) Action Name and Number	Use Impairments (#) Addressed	Priority/Timing	Responsible entity	Funding Sources
38. Develop public education structure	1,3,5,6,7,8,9,10,11,12,13,14	High/medium priority	Counties, WQCCs	Counties, grants
25b. Educate about and identify PCB-containing equipment	1,3,5,6,7,14	Medium	Investigator, commercial & municipal entities, public interest groups, EMCs, Cooperative Extension	Electric utilities, counties, NYSDEC, U.S. EPA
26b. Promote substance ban	1,3,5,6,7,13,14	Medium	Counties, NYSDEC	Counties, NYSDEC, U.S. EPA
27. Promote pollution prevention	1,3,5,6,7,13,14	Medium	Regional or county pollution prevention team	Counties, NYSDEC, U.S. EPA, NRCS
32b. Promote the use of nonphosphate-based detergents for dishwashers	3,8,9,10,11,13,14	Medium	NYSDEC, NYS Dept of Health, regional planning councils, Cooperative Extension, counties, restaurant or food processing industry, professional organizations	NYSDEC, NYS Dept of Health, detergent manufacturer, restaurant or food processing professional organization
36. Educate local officials and the public on the value of wetlands	3,8,14	Medium	NYSDEC, environmental organizations, regional planning councils, EMCs, real estate assns, counties, municipalities, education assns, SWCDs, colleges	NYSDEC, environmental organizations, regional planning councils, EMCs, real estate assns, grants, counties, fees, corporate donations, U.S. EPA, colleges, education assns
37. Identify and rank critical habitat along waterways	3,8,14	Medium/low	Counties, NYSDEC, nonprofit organizations	Counties, NYSDEC, Aid to Localities, Great Lakes Protection Fund, private foundations

Use Impairments:

- | | |
|--|--|
| 1. Restrictions on fish and wildlife consumption | 9. Drinking water taste and odor problems |
| 3. Degradation of fish and wildlife populations | 10. Beach closings |
| 5. Bird or animal deformities or reproductive problems | 11. Degradation of aesthetics |
| 6. Degradation of benthos | 12. Added costs to agriculture or industry |
| 7. Restrictions on dredging activities | 13. Degradation of plankton populations |
| 8. Eutrophication or undesirable algae | 14. Loss of fish and wildlife habitat |

10.3. Ranking Process for Studies and Monitoring Methods by the Studies and Monitoring Task Group

The Great Lakes Water Quality Agreement, as amended in 1987, requires:

- “A definition and detailed description of the environmental problem in the Area of Concern.”
- “A description of surveillance and monitoring processes to track the effectiveness of remedial measures and the eventual confirmation of the restoration of uses.”

Chapter 4 of the Stage II RAP describes the studies that have been proposed to further our understanding about the existence or cause of an environmental problem (use impairment). Chapter 9 describes the monitoring methods that have been proposed to track the effectiveness of the remedial measures that have been chosen (see the Chapter 10 section on “Ranking Process for Possible New Remedial Measures”).

The Studies and Monitoring (SAM) Task Group was formed to evaluate and make recommendations about which studies and which monitoring methods should be given the highest priority for implementation. The Task Group was designed to include people with a broad range of technical and scientific expertise.

The SAM Task Group was formed in July 1996 with the following members:

Margit Brazda	Monroe County Department of Health, Environmental Health Division; Monroe County Water Quality Management Advisory Committee (WQMAC); Monroe County Water Quality Coordinating Committee (WQCC)
Betty Lou Brett	Nazareth College; WQMAC
Richard Burton	Monroe County Department of Health, Environmental Health Laboratory; WQCC
Richard Elliott	Monroe County Department of Health, Environmental Health Division; WQCC
Chris Fredette	WQMAC; Monroe County Environmental Management Council; Rochester Committee for Scientific Information
James Haynes	State University of New York (SUNY) College at Brockport
Thomas Klein	Xerox Corporation; WQMAC; Council of Great Lakes Industries
Joseph Makarewicz	SUNY College at Brockport
Gary Neuderfer	New York State Department of Environmental Conservation (NYSDEC)
James Nugent	Monroe County Water Authority; WQCC
Jerrold Poslusny	Eastman Kodak Company; WQMAC
Michael Ruszczyc	Eastman Kodak Company; WQMAC; Industrial Management Council
Paul Sawyko	Rochester Gas and Electric Corporation; WQMAC
Michael Schifano	Monroe County Department of Environmental Services; WQCC
William Smith	Bergmann Associates; WQMAC; New York Water Environment Association
David Zorn	Genesee/Finger Lakes Regional Planning Council; WQMAC; WQCC

Several steps during the course of three meetings were necessary to prepare two lists of recommendations, one for studies and one for monitoring methods.

Step #1: Adoption of ranking systems

The SAM Task Group achieved consensus on a ranking process for the studies and monitoring methods (see Appendix G). Each member of the Task Group was to give the studies numerical scores for merit, quality of results and cost. It was also agreed to give the monitoring methods numerical scores for merit, quality of monitoring data and five-year cost.

Step #2: Data management

A total score for each Task Group member for every study and monitoring method was calculated according to the pertinent formula (studies or monitoring) shown in Appendix G. The Task Group decided that the average total score for the Group should be calculated for each study and monitoring method, as well as the standard deviation. The full range of individual total scores, average total scores and standard deviations were displayed at subsequent meetings on wall sheets.

Step #3: Debates discussion

The Task Group decided to schedule short debates on each study and monitoring method. The debaters for each topic were the persons who gave the highest and lowest total score for the topic. Both the assigned debaters and possible alternate debaters were named in advance of the debate meetings so that they would have preparation time. The order of the debates was determined by the standard deviations. The debates for the studies were conducted first, followed by the debates for the monitoring methods. The debates began with the study or monitoring method that had the highest standard deviation (and therefore the greatest difference of opinion) and continued down to the study or monitoring method that had the lowest standard deviation. This was done so that, if the Task Group ran out of time, the debates could be discontinued leaving undebated only the studies or monitoring methods for which there was the greatest agreement. Each debate followed the same schedule:

1 minute	High perspective presentation
1 minute	Low perspective presentation
2 minutes	Comments from other Task Group members

Step #4: Voting

At the end of each debate, the Task Group members voted for either a “high” or “low” priority for the study or monitoring method that had just been presented. The percentage of the number of members voting “high” was recorded. Abstentions were not included in the percentage. The percentage voting “high” for the studies is shown in Table 10-6. The percentage voting “high” for the monitoring methods is shown in Table 10-7.

Step #5: Meaning of results

The Task Group achieved consensus on the meaning of the “high” and “low” votes. Every study and monitoring method was considered worthy of implementation, and none was to be removed from the final list of recommendations. At the “high” end of the lists, funding and commitment

for the study or monitoring method is intended to be pursued aggressively. At the “low” end of the list, the study or monitoring method will be pursued if and when an opportunity for funding and commitment occurs. The Task Group did not attempt to draw a line between “high” and “low”.

The “0” votes on four of the monitoring methods should not be interpreted as “no recommendations.” The “0” votes were qualified in the following ways:

- a. Establish sediment quality goals for the Rochester harbor at the mouth of the Genesee River and sample sediments to monitor progress toward the goals (2a): This monitoring method should *not* be performed as a separate method, but should be incorporated into monitoring method 1c, Benthic and water-column chironomid larvae deformities.
- b. Measure phosphorus at defined sampling sites in the littoral zone of the Rochester Embayment (3a): This monitoring method needs alteration in its design, i.e. more sampling, which will increase the costs. The additional sampling sites will be defined at a later date.
- c. Local atmospheric deposition monitoring (4): The parameters of this monitoring method should be expanded to include bioaccumulative chemicals of concern and other parameters. The parameters will be defined at a later date.
- d. Monitoring of events at the Akzo Nobel Salt Mine (16): It was the opinion of the Task Group that this activity is already being done by the NYSDEC. (The NYSDEC monitors permit-related activities, but not water quality effects downstream of the Mine.)

It was agreed that more detail needed to be added to the monitoring methods. This detail will be added during the implementation phase. (See the Chapter 11 section on “Strategy for obtaining additional funding and commitments to actions”.)

Table 10-6
Studies and Monitoring Task Group
Ranking of Studies (see Chapter 4)

(Percentage indicates the percentage of the Task group members that voted “high priority” for a study or monitoring method. Abstentions are not included in the percentage. Number denotes Chapter 4 section number.)

<u>%</u>	
100	Does the Lake Ontario portion of the Rochester Embayment suffer from degradation of benthos? (#5)
85	Are phytoplankton and zooplankton populations in the Lake Ontario portion of the Rochester Embayment impaired? (#7)
69	Genesee River erosion study(#4)
67	Verify whether or not fish in the Area of Concern have a chemical flavor or odor (#1)
67	Incidence of fish tumors or other deformities in the Rochester Embayment watershed (#3)
33	Estimate the loadings of cadmium and lead from tires (#8)
11	Investigate whether contaminants affect the benthic community in the lower Genesee River (#6)
8	Verify whether a fishless segment exists in the lower Genesee River (#2)
7	Update pollutant loadings of the Genesee River and treatment plants (#10)
0	Quantify cyanide loadings to air (#9)

Two additional studies were originally proposed:

- Effect of zebra mussels on water quality and the food chain.
- Contaminant impacts on black tern populations in the Rochester Embayment watershed.

It was determined by the WQMAC and confirmed by the SAM Task Group that studies on these two topics were not appropriate. See the Chapter 3 sections by the same names.

Table 10-7
Studies and Monitoring Task Group
Ranking of Monitoring Methods (see Chapter 9)

(Percentage indicates the percentage of the Task group members that voted “high priority” for a study or monitoring method. Abstentions are not included in the percentage. Number denotes Chapter 9 section number.)

<u>%</u>	
100	Levels of bioaccumulative chemicals of concern (BCCs) in resident biota (#1a)
100	Species diversity and abundance of benthic and water-column macroinvertebrates (#1b)
100	Benthic and water-column chironomid larvae deformities (#1c)
100	Measure phosphorus loading trends from the Genesee River at an agricultural and an urban location to learn their relative contributions (#3b)
100	Determine the status of seeps on the face of the Lower Falls (#8a)
100	Use volunteers to collect and monitor litter in and along waterways (#9)
100	Status of phytoplankton and zooplankton populations in the lower Genesee River portion of the Rochester Embayment (#12)
100	Implement citizen monitoring of stream habitat (#13b)
100	Monitor road salt usage (#17b)
91	Monitor enforcement efforts for NYSDEC SPDES permits for stormwater discharges (#14c)
90	Continue Monroe County Water Authority monitoring of turbidity for the Lake portion of the Rochester Embayment (#10a)
90	Build upon the existing Marsh Monitoring Program and the proposed Reference Wetlands System to monitor wetland habitat quality and quantity in the Rochester Embayment watershed (#13a)
90	Utilize intern to develop and conduct water quality survey (#15a)
88	Coordinate with professional pollster to conduct water quality survey (#15b)
83	Obtain data from U.S. Army Corps of Engineers on results of required sediment sampling in the Rochester harbor (#2b)
80	Monitor other seeps in the Genesee River gorge (#8b)
80	Compile and interpret data from existing habitat monitoring programs (#13c)
73	Beach closings (#6)
73	Continue monitoring zebra mussel population trends as part of inspection of water intakes (#11b)
70	Continue monitoring of turbidity in the lower Genesee River portion of the Embayment (#10b)

- 70 Create a centralized and easily accessible database for all high-quality water quality data produced within Monroe County (#18)
- 66 Establish volunteer environmental watchdogs (#14b)
- 58 Prepare periodic status reports on *Cladophora* in Lake Ontario (#3c)
- 56 Monitor chloride concentrations in the Salmon Creek/Braddock Bay system (#17a)
- 45 Establish volunteer *Cladophora* watches (#7)
- 38 Document changes in permit limits for chemicals on the list of High Priority Pollutants when permits of Rochester Embayment watershed facilities are renewed (#14a)
- 33 Use aerial photography to monitor *Cladophora* beds (#3d)
- 23 Conduct a survey of Monroe County businesses on the impacts of raw water turbidity on the cost of doing business (#10c)
- 18 Conduct a survey of county or regional industries, agriculture and golf courses on the impact of zebra mussel on the cost of doing business (#11a)
- 0 Establish sediment quality goals for the Rochester harbor at the mouth of the Genesee River and sample sediments to monitor progress toward the goals (#2a):Merge with #1c
- 0 Measure phosphorus at defined sampling sites in the littoral zone of the Rochester Embayment (#3a):Additional sampling is suggested
- 0 Local atmospheric deposition monitoring (#4): Expand the parameters
- 0 Monitoring of events at the Akzo Nobel Salt Mine(#16): Being conducted by the NYSDEC

(No new programs are proposed for monitoring drinking water taste and odor problems. See #5.)

10.4. Environmental Review for the Stage II Remedial Action Plan

The New York State Department of Environmental Conservation (NYSDEC), as lead agency for the State Environmental Quality Review (SEQR) of the Rochester Embayment Remedial Action Plan (RAP), determined that the Stage I RAP will not have a significant adverse environmental impact. The NYSDEC also certified to the U.S. Environmental Protection Agency (EPA) that the Stage I RAP is part of the State's Water Quality Plan.

Monroe County and the NYSDEC have completed separate environmental assessments for the preparation of the Stage II RAP. This action is considered "unlisted" pursuant to SEQR. An unlisted action is one that does not fit into either the Type I or Type II list contained within SEQR.

The Monroe County Department of Health, as preparer of the RAP, conducted a generic assessment that focused on the broad issues contained in the Stage II RAP. As implementation occurs, additional environmental review may be necessary to comply with SEQR. Monroe County has issued a negative declaration on the final Stage II RAP, meaning that it will *not* have a significant adverse effect on the environment. The NYSDEC has also issued a negative declaration for the Stage II RAP, and has certified to the U.S. EPA that the Stage II RAP is part of the State's Water Quality Plan.

(See Appendix H for Monroe County SEQR documents.)

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