

Appendix F:

Decision-Making Process for Studies and Monitoring Methods

Decision-Making Process for Studies and Monitoring Methods

Draft: July 16, 1996

I. Background

A number of proposed studies and monitoring methods are outlined in the Stage II Rochester Embayment Remedial Action Plan. The studies are described in Chapter 4 "Studies required to complete identification of use impairments and describe pollutant sources". The monitoring methods are described in Chapter 9 "Surveillance and Monitoring Program". It is proposed that a "recommended" list and a "not recommended" list be developed for both studies and monitoring methods. These lists will be developed by using a formal decision-making process. The Water Quality Management Advisory Committee (WQMAC) and the Water Quality Coordinating Committee (WQCC) will advise the Water Quality Management Agency (WQMA) and the New York State Department of Environmental Conservation (NYSDEC) in this effort.

II. Decision-Making Process

Preliminary recommendations regarding studies and monitoring will be made by the Studies and Monitoring (SAM) Task Group. The Task Group will be comprised of scientific and technical experts from industry, local universities, and county and New York State governments. Some of the Task Group members will also be members of the WQMAC and the WQCC.

As part of its work, the Task Group must determine which studies and monitoring methods may be necessary in order to comply with Great Lakes Water Quality Agreement (GLWQA) requirements relating to RAPs. The GLWQA requires the following.

- Identification of beneficial use impairments.
- Identification of causes of use impairments.
- Identification of sources of pollutants.
- Monitoring programs to track the effectiveness of remedial measures.

The Stage I RAP identified beneficial use impairments in the Rochester Embayment Area of Concern (AOC), as well as the causes and sources of pollutants. However, four use impairments were listed in the Stage I RAP as unknown. In addition, issues were raised regarding the causes and sources of pollutants that could not be resolved.

Step 1 - Adopt a decision-making framework. The SAM Task Group must adopt a process to use in preparing "recommended" and "not recommended" lists of studies and monitoring methods. The proposed scoring processes for studies and monitoring methods are outlined as follows. The scores will be used as a guide in making decisions about recommendations.

Studies

Merit

Score	Need for study		
5	The proposed study would define the existence of a use impairment - professional judgment is not sufficient to define the status of a use impairment.	or	The proposed study would provide vital information about sources.
4	Undefined		Undefined
3	Undefined	or	The study would "bracket" sources by type.
2	Undefined		Undefined
1	Professional judgement could be substituted for the proposed study.	or	The study would add somewhat to understanding about sources.

Implementation (The scores for "Quality of Results" and "Cost" will be averaged.)

Score	Quality of Results
5	The study would produce accurate/usable results because the science, technology or strategy is proven.
4	Undefined
3	Undefined
2	Undefined
1	The study would produce an estimate only, or the science, technology or strategy is unproven.

Score	Cost
5	≤\$10,000
4	\$10,001-\$40,000
3	\$40,001-\$70,000
2	\$70,001-\$100,000
1	≥\$100,001

Total Score

Total Score = Merit Score + Implementation Score Implementation Score = (Quality of Results Score + Cost Score)/2
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Monitoring Methods

Merit

Score	Need for monitoring/adequacy of current monitoring
5	There is a great need for monitoring of the use impairment - little or no monitoring of the use impairment is currently conducted. In the case of citizen-based monitoring methods, the monitoring method would have substantial stewardship or community education potential.
4	Undefined
3	There is a need for monitoring of the use impairment - some monitoring is conducted but additional monitoring would be desirable. In the case of citizen-based monitoring methods, the monitoring method would have some stewardship or community education potential.
2	Undefined
1	There is little need for additional monitoring. In the case of citizen-based monitoring methods, the monitoring method would have minimal stewardship or community education potential.

Implementation (The scores for "Quality of monitoring data" and "Five-year monitoring cost" will be averaged.)

Score	Quality of monitoring data
5	The method would produce accurate/usable results.
4	Undefined
3	Undefined
2	Undefined
1	The method is experimental.

Score	Five-year Monitoring Cost
5	≤\$10,000
4	\$10,001-\$30,000
3	\$30,001-\$50,000
2	\$50,001-\$70,000
1	>\$70,001

Total Score

Total Score = Merit Score + Implementation Score Implementation Score = (Data Quality Score + Cost Score)/2
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Step 2 - Scoring. Each task group member will apply the pertinent scoring system to each study and monitoring method and return their scores to Health Department staff no later than Monday, August 5, 1996.

Step 3 - Identify points of consensus. Individual task group members' scores will be analyzed in order to identify the studies and monitoring methods for which there is relative agreement.

Step 4 - Dialogue. Where there is relative disagreement a series of limited discussions will be conducted in order to reach a common understanding of the issues.

Step 5 - Consensus The Task Group will reach consensus regarding which proposed studies and monitoring methods should be recommended as part of the RAP.

Step 6 - Presentation of recommended lists. The Task Group will present its preliminary "recommended" list to the full membership of the WQMAC and the WQCC. The full membership of the WQMAC and the WQCC will review the Task Group's list and make separate recommendations to the WQMA and the NYSDEC. The WQMA and NYSDEC will consider these recommendations and adopt a list of recommended studies and monitoring methods to be incorporated into Chapter 10 "Selected Actions" of the Stage II RAP.

Step 7 - Review of the draft Stage II RAP. The International Joint Commission, the United States Environmental Protection Agency, and the general public will review the draft Stage II RAP and changes may be made based upon their review.

Appendix G: Resources

Resources

Chapter 1. Introduction

New York State Department of Environmental Conservation and the Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Chapter 2. Description of the Area of Concern

Franz Ruttner (1963). Fundamentals of Limnology, University of Toronto Press.

Joseph Gorsuch, Eastman Kodak Company. Letter to Carole Beal, February 1, 1996.

New York State Department of Environmental Conservation and the Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Chapter 3. Use Impairments, Causes and Sources

Section 3.2. Update on International Joint Commission activities regarding environmental impacts on human health

International Joint Commission (1994). Seventh Biennial Report on Great Lakes Water Quality.

Source 3.4. Evidence for Rochester Embayment use impairments

Aqua Tech Environmental Consultants, Inc. (1990). Sediment Analyses: Rochester Harbor, Irondequoit Bay, New York. Buffalo, NY: Buffalo District, Corps of Engineers.

Bode, R.W., NYSDEC (1980). Biological Assessment: Genesee River, Livingston and Monroe Counties, New York.

Bode, R.W., NYSDEC (1991). Unpublished information sent to Margy Peet, May 15, 1991.

Emigh, Mary Jane, Monroe County Department of Health. Memo to Anna Madden, September 17, 1996.

Foley, R.E.; S.J. Jackling; R.J. Sloan; M.K. Brown (1988). "Organochlorine and mercury residues in wild mink and otter: comparison with fish", Environmental Toxicology and Chemistry, 7, pp. 363-374.

International Joint Commission (1987). Revised Great Lakes Water Quality Agreement of 1978, as amended by Protocol signed November 18, 1987.

Monroe County Environmental Health Laboratory. Ontario Beach Closure Statistics.

NYSDEC (May 1992). Rotating Intensive Basin Studies Water Quality Assessment Program, 1989-1990.

NYSDEC (August 1995). Phase II - Final Report: Lower Genesee River Study.

New York State Department of Health (1996). Health Advisories: Chemicals in Sportfish and Game, 1996-1997.

Skinner, Lawrence, NYSDEC. Letter to State Natural Resource Supervisors, Regional Fisheries Managers and others, December 11, 1995.

Section 3.5. Ranking of High Priority Chemical Pollutants

Gasiewicz, Thomas (October 1993). Overhead projections used to present work of Task Group to Water Quality Management Advisory Committee at October, 1993 meeting.

Innes, Al (September 22, 1993). Memorandum to RAP Priority Pollutant Task Group.

Monroe County Water Quality Management Advisory Committee. Minutes, October 13, 1993.

Peet, Margy (December 1, 1992). Letter to Priority Pollutant Task Group members and others regarding materials for review and comment prior to peer review.

Priority Pollutant Task Group. Minutes.

Section 3.6. Air loading data

New York State Department of Environmental Conservation (1996). SARA Title III Form R Submissions.

Ryan, Michael E., SUNY Buffalo (no date). Toxic Releases in New York State: Are We Making Progress?

United States Environmental Protection Agency (no date). Toxic Release Inventory Reporting Form R and Instructions.

Section 3.7. Cyanide loadings to air

Jones, Suzanne, NYSDEC (March 18, 1996). Letter to Carole Beal.

Section 3.8. Monroe County air deposition monitoring

Burton, Richard, Monroe County Environmental Health Laboratory. Personal communication with Carole Beal, October 28, 1996.

Knauf, Charles, Monroe County Environmental Health Laboratory. Fax to Carole Beal, August 30, 1996.

Knauf, Charles, Monroe County Environmental Health Laboratory. Personal communication to Carole Beal, September 10, 1996.

Section 3.9. Ambient air monitoring data

NYSDEC (March 1995). New York State Ambient Toxic Air Monitoring Network 1992/93 Data Addendum for Volatile Organic Compounds.

NYSDEC (1994). New York State Air Quality Report: Ambient Air Monitoring System.

Ruszczyk, Michael, Eastman Kodak Company. Fax to Carole Beal, October 21, 1996.

Ruszczyk, Michael, Eastman Kodak Company. Fax to Carole Beal, July 8, 1996.

Ruszczyk, Michael, Eastman Kodak Company. Fax to Carole Beal, June 28, 1996.

Stulb, Joseph, Xerox Corporation. Personal communication with Carole Beal, July 15, 1996.

Section 3.10. Nonpoint sources

Burton, Richard, Monroe County Department of Health. Meeting with Carole Beal, December 18, 1996.

NYSDEC; Monroe County (August 1993). Rochester Embayment Remedial Action Plan, Stage I:

Pages 5-1 through 5-11
Table 5-12 on page 5-61
Table 5-13 on page 5-62
Table 5-14 on page 5-63

Section 3.11. Inactive hazardous waste sites

New York State Department of Environmental Conservation; New York State Department of Health (April 1996). Inactive Hazardous Waste Disposal Sites in New York State, Vol. 8. Peachey, Mary Jane, NYSDEC, Region 8. Personnel communication with Carole Beal, November 20, 1996.

Phase II investigations and other data for individual waste sites in Monroe County.

Walia, Jasbal, NYSDEC, Region 9. Personal communication with Carole Beal, November 19, 1996

Section 3.13. Point source discharges within the Rochester Embayment watershed

Jackson, Craig, NYSDEC, Avon. Personal communication with Carole Beal, September 9, 1996.

Judd, Daniel, NYSDEC, Region 9. Personal communication with Carole Beal, September 20, 1996.

Judd, Daniel, NYSDEC, Region 9. Personal communication with Carole Beal, September 26, 1996.

Oates, James, Town of Webster. Personal communication with Carole Beal, September 11, 1996.

Townsend, Robert, NYSDEC. Letter to Carole Beal, August 21, 1996.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, September 13, 1996.

Section 3.14. Water loading data from the Toxic Release Inventory

Jackson, Craig, NYSDEC. Personal communication with Carole Beal, November 8, 1996.

Public Interest Research Group; Environmental Working Group (1996). Dishonorable Discharge: Toxic Pollution of New York Waters.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, October 9, 1996.

Townsend, Robert, NYSDEC. Letter to Carole Beal, November 12, 1996.

Section 3.15. Trackdown of Chemical Contaminants to Lake Ontario from New York State Tributaries

Litten, Simon, NYSDEC (April 1996). Trackdown of Chemical Contaminants to Lake Ontario from New York State Tributaries.

Litten, Simon, NYSDEC. Personal communication with Carole Beal, August 29, 1996.

Litten, Simon, NYSDEC. Personal communication with Carole Beal, September 13, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, October 4, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, October 9, 1996.

Section 3.16. Lower Genesee River Study

Bode, Robert, NYSDEC. Personal communication with Carole Beal, April 3, 1995.
Gorsuch, Joseph, Eastman Kodak Company. Meeting with Carole Beal, October 6, 1995.
Haynes, James, SUNY at Brockport. Personal communication with Carole Beal, August 16, 1995.
Knauf, Charles, Monroe County Health Department. Personal communication with Carole Beal, September 14, 1995.
Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, August 29, 1995.
Neuderfer, Gary, NYSDEC. Personal Communication with Carole Beal, September 27, 1995.
NYSDEC (1993). Phase I Status Report: Lower Genesee River Study.
NYSDEC (1995). Summary of Phase I and Phase II [Lower Genesee River] Studies.
NYSDEC (August 1995). Phase II-Final Report: Lower Genesee River Study, Summary of 1992, 1993 and 1994 Results.
Woodfield, Karen, NYSDEC. Personal communication with Carole Beal, April 3, 1995.
Woodfield, Karen, NYSDEC. Personal communication with Carole Beal, April 25, 1995.
Woodfield, Karen, NYSDEC. Personal communication with Carole Beal, October 23, 1995.

Section 3.17. Impact of the Erie Canal on the Genesee River and streams

Burton, Richard; Anna Madden; Monroe County Department of Health. Meeting with Carole Beal and Todd Stevenson, June 21, 1996.
Jackson, Craig, NYSDEC, Region 8. Personal communication with Carole Beal, August 7, 1996.
Jackson, Craig, NYSDEC, Region 8. Letter to Carole Beal, September 30, 1996.
Martin, David, New York State Canal Corporation. Personal communication with Carole Beal, July 15, 1996.
Martin, David, New York State Canal Corporation. Personal communication with Carole Beal, July 22, 1996.

Section 3.18. Contaminant impacts on black tern populations in the Rochester Embayment watershed

Academy of Natural Sciences of Philadelphia, (1995). The Birds of North America.
Carroll, Dan, NYSDEC, Personal Communication with Todd Stevenson, December 28, 1995.
Firstencel, Heidi, (1987). The Black Tern (*Chlidonias niger* Linn.): Breeding Ecology in Upstate New York and Results of Pesticide Residue Analysis.
Miller, Bob, NYSDEC, Personal Communication with Todd Stevenson, December 21, 1995.
Mazzocchi, I. and Muller, S. (NYSDEC), (1995). Black Tern (*Chlidonias niger*) Investigations in New York 1994.
Novak, P. (NYSDEC), (1990). Population Status of the Black Tern (*Chlidonias niger*) in New York State.
Rouse, Charles, The Audubon Society of New York State, Personal Communication with Todd Stevenson, December 12, 1995.
Skelly, Sharon, Personal Communication with Todd Stevenson, January 5, 1996.
Smith, Jerry, The Nature Conservancy, Personal Communication with Todd Stevenson, January

7, 1996.

United States Department of the Interior (1992). Migratory Nongame Birds of Management Concern in the Northeast.

Section 3.19. Effect of zebra mussels on water quality and the food chain

Bruner, K.A.; S.W. Fisher; P.F. Landrum (1994). "The Role of the Zebra Mussel, *Dreissena polymorpha*, in Contaminant Cycling: I. The Effect of Body Size and Lipid Content on the Bioconcentration of PCBs and PAHs," J. Great Lakes Research, Vol. 20, No. 4, pp. 727-734.

Bruner, K.A.; S.W. Fisher; P.F. Landrum (1994). "The Role of the Zebra Mussel, *Dreissena polymorpha*, in Contaminant Cycling: II. Zebra Mussel Contaminant Accumulation from Algae and Suspended Particles, and Transfer to the Benthic Invertebrate, *Gammarus fasciatus*," J. Great Lakes Research, Vol. 20, No. 4, pp. 735-750.

Fahnenstiel, G.L.; G.A. Lang; T.F. Nalepa; T.H. Johengen (1995). "Effects of Zebra Mussel (*Dreissena polymorpha*) Colonization on Water Quality Parameters in Saginaw Bay, Lake Huron," J. Great Lakes Research, Vol. 21, No. 4, pp. 435-448.

Holland, R.E.; T.H. Johengen; A.M. Beeton (1995). "Trends in nutrient concentrations in Hatchery Bay, western Lake Erie, before and after *Dreissena polymorpha*," Can. J. Fish. Aquat. Sci., Vol. 52, pp. 1202-1209.

Johengen, T.H.; T.F. Nalepa; G.L. Fahnenstiel; G. Goudy (1995). "Nutrient Changes in Saginaw Bay, Lake Huron, after the Establishment of the Zebra Mussel (*Dreissena polymorpha*)," J. Great Lakes Research, Vol. 21, No. 4, pp. 449-464.

Johengen, Thomas, University of Michigan. Personal communication with Carole Beal, April 22, 1996.

Lange, Robert, NYSDEC. Personal communication with Carole Beal, April 22, 1996.

Lange, Robert, NYSDEC. Letter to Carole Beal, May 9, 1996.

Mills, Ed, Cornell Biological Field Station. Personal communication with Carole Beal, April 22, 1996.

Chapter 4. Studies Required to Complete Identification of Use Impairments and Describe Pollutant Sources

Section 4.2. Verify whether a fishless segment exists in the lower Genesee River

Abraham, William, NYSDEC. Personal communication with Carole Beal, January 12, 1996.

Abraham, William, NYSDEC. Personal communication with Carole Beal, June 4, 1996.

Abraham, William, NYSDEC. Personal communication with Carole Beal, October 21, 1996.

NYSDEC (August 1995). Phase II - Final Report: Lower Genesee River Study, Summary of 1992, 1993 and 1994 Results.

Section 4.3. Incidence of fish tumors or other deformities in the Rochester Embayment watershed study

Abraham, Bill, NYSDEC. Personal communication with Todd Stevenson, December 6, 1995.

Haynes, Jim, SUNY Brockport. Personal communication with Todd Stevenson, December 19,

1995.

Monroe County Department of Health, 1986. Genesee River Sediment Toxics Survey (205j). Neuderfer, Gary, NYSDEC. Personal communication with Todd Stevenson,

January 8, 1996.

NYSDEC and Monroe County, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Sawyko, Paul, RG&E. Personal communication with Todd Stevenson, February 20, March 13, and August 27, 1996.

Section 4.4. Genesee River erosion study

Young, Richard (August 25, 1994). Proposal to Compare Historic (Postglacial) and Modern Channel Erosion Rates and Their Potential Relation to Recent Downstream Sediment Loading Within the Mt. Morris to Genesee Reach of the Genesee River Flood Plain, Livingston County, NY.

Young, Richard, SUNY Geneseo. Personal communication with Carole Beal, November 29, 1995.

Young, Richard, SUNY Geneseo. Background paragraphs sent to Carole Beal, June 26, 1996.

Section 4.6. Investigate whether contaminants affect the benthic community in the lower Genesee River

Ankley, G.T.; M.K. Schubauer-Berigan; J.R. Dierkes (1991). Sediment Toxicity Identification Evaluation: Phase I (Characterization), Phase II (Identification), Phase III Confirmation) Modifications of Effluent Procedures. National Effluent Toxicity Assessment Center, Technical Report 08-91.

Ankley, G.T.; M.K. Schubauer-Berigan (1995). "Background and overview of current sediment toxicity identification evaluation procedures," J. Aquatic Ecosystem Health, Vol. 4, pp. 133-149.

Burton, Richard; Robin Evans; Monroe County Department of Health (March 1986). Genesee River Toxics Sediment Survey 206(j): Final Report.

Gorsuch, Joseph, Eastman Kodak Company. Personal communication with Carole Beal, March 8, 1996.

Neuderfer, Gary, NYSDEC. Letter to Carole Beal, May 7, 1996.

NYSDEC (August 1995). Phase II - Final Report. Lower Genesee River Study, Summary of 1992, 1993 and 1994 Results.

Section 4.7. Are phytoplankton and zooplankton populations in the Lake Ontario portion of the Rochester Embayment impaired?

Brandlova, J.Z., Z. Brandl and C.H. Fernando (1972). "The Cladocera of Ontario with remarks on some species and distribution." Can. J. Zool. 50:1371-1403.

Brooks, J.L. (1957). The Systematics of North American Daphnia. Memoirs of the Connecticut Academy of Arts and Sciences. Yale University Press, New Haven, Connecticut.

Doohan, M. (1973). "An energy budget for adult *Brachionus plicatilis* Muller (Rotatoria)." Oecologia 13: 351-362.

- Downing, J.A. and F.H. Rigler (1984). A Manual on Methods for the Assessment of Secondary Productivity in Fresh Waters. IBP Handbook #17. Blackwell Scientific Publications, Oxford.
- Dumont, H.J., I. Van de Velde and S. Dumont (1975). "The dry weight estimate of biomass in a selection of Cladocera, Copepoda and Rotifera from the plankton, periphyton and benthos of continental waters." Oecologia 19:75-97.
- Edmondson, W.T. (1959). Freshwater Biology. 2nd ed. John Wiley and Sons, New York.
- Gannon, J.E. (1971). "Two counting cells for the enumeration of zooplankton micro-crustacea." Trans. Amer. Micros. Soc. 90:486-490.
- Hawkins, B.E. and M.S. Evans (1979). "Seasonal cycles of zooplankton biomass in southeastern Lake Michigan." J. Great Lakes Res. 5:256-263.
- Makarewicz, J.C. and G.E. Likens (1979). "Structure and function of the zooplankton community of Mirror Lake, N.H." Ecol. Monogr. 49:109-127.
- Makarewicz, J.C. and P. Bertram (1991). "Evidence for the restoration of the Lake Erie ecosystem." Bioscience 41:216-223.
- Makarewicz, J.C., T. Lewis and P. Bertram (1991). "Phytoplankton and zooplankton composition, abundance and distribution and trophic interactions: Offshore region of Lake Erie, Lake Huron and Lake Michigan - 1985." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/3-90-003.
- Makarewicz, J.C. (1987). "Phytoplankton and zooplankton composition, abundance and distribution: Lake Erie, Lake Huron and Lake Michigan - 1983." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/2-87-002.
- Makarewicz, J.C. (1988). "Phytoplankton and zooplankton in Lakes Erie, Huron, and Michigan: 1984." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/3- 88-001.
- Makarewicz, J.C. (1993b). "A lakewide comparison of zooplankton biomass and its species composition in Lake Erie, 1983-87." J. Great Lakes Res. 19:275-290.
- Nauwerck, A. (1963). "The relation between zooplankton and phytoplankton in Lake Erken." Symb. Bot. Ups. 17:1-163.
- Ruttner-Kolisko, A. (1974). Plankton Rotifers: Biology and Taxonomy. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, Germany.
- Stemberger, R.S. (1979). "A Guide to Rotifers of the Laurentian Great Lakes." U.S. EPA, Report # EPA 600/4-79-021, 185 pp.
- Willen, T. (1959). "The phytoplankton of Gorwalm, a bay of Lake Malaren." Oikos, 10:241-274.

Section 4.8. Estimate the loadings of cadmium and lead from vehicle tires

- Agency for Toxic Substances and Disease Registry (March 1989). "Public Health Statement: Cadmium".
- Blumenthal, Michael (202-408-7783), Scrap Tire Management Council . Personal communication with Carole Beal, December 15, 1995.
- Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, October 23, 1995.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, February 28, 1996.

Butcher, Steve (202-682-4800), Rubber Manufacturers Association. Personal communication with Carole Beal, November 1, 1995.

Butcher, Steve (202-682-4800), Rubber Manufacturers Association. Personal communications with Carole Beal, December 14, 1995.

Butcher, Steve (202-682-4800), Rubber Manufacturers Association. Personal communication with Carole Beal, December 21, 1995.

Envirologic, Inc., for the Vermont Department of Environmental Conservation (May 22, 1990). A Report on the Use of Shredded Scrap Tires in On-site Sewage Disposal Systems.

Kell, John (717-249-1000), Rubber Manufacturers Association. Personal communication with Carole Beal, December 14, 1995.

Kirk-Othmer Encyclopedia of Chemical Technology, Volume 4, 1992, John Wiley & Sons.

Knauf, Charles, Monroe County Department of Health. Personal communication with Carole Beal, December 29, 1995.

Louda, Dale (202-682-4839), Rubber Manufacturers Association. Personal communication with Carole Beal, December 14, 1995.

O'Brien & Gere for the Monroe County Department of Engineering (1983). Nationwide Urban Runoff Program: Irondequoit Basin Study Final Report.

Pillsbury, Hope, U.S. EPA (703-308-8414). Personal communication with Carole Beal, December 14, 1995.

Serumgard, John (202-682-4842), Scrap Tire Management Council. Personal communication with Carole Beal, January 18, 1996.

Townsend, Robert, NYSDEC. Letter to Carole Beal, January 23, 1996.

Section 4.9. Quantify cyanide loadings to air

Jones, Suzanne, NYSDEC. Letter to Carole Beal, March 18, 1996, and attached computer printout.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, November 30, 1995.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, June 6, 1995.

Section 4.10. Update the Genesee River and treatment plant pollutant loading calculations to verify previous conclusions

New York State Department of Environmental Conservation; Monroe County Department of Planning and Development (August 1993). Rochester Embayment Remedial Action Plan: Stage I.

Chapter 5. Specific Goals and Objectives for Restoration of Beneficial Uses

Section 5.3. Additional Information

Lane, Gene, NYSDEC. Personal communication with Carole Beal, January 17, 1996.
NYSDEC (Nov. 1994). Watershed Planning Handbook for the Control of Nonpoint Source Pollution.
NYSDEC and Monroe County Department of Planning and Development (1993). Rochester Embayment Remedial Action Plan Stage I.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, January 19, 1996.

Chapter 6. Completed and Ongoing Water Quality Programs

Section 6.1. PCB ban and related activities

Agency for Toxic Substances and Disease Registry, U.S. Public Health Service. Toxicological Profile for Selected PCBs (Aroclor -1260, -1254, -1248, -1242, -1232, -1221, and -1016).
Agency for Toxic Substances and Disease Registry, U.S. Public Health Service (April 1993). Polychlorinated Biphenyls (PCBs) (fact sheet).
Knauf, Charles, Monroe County Environmental Health Laboratory. Personal communication with Carole Beal, September 27, 1995.
Martin, William H., Pollution Engineering (March 1990). "Risk Management of PCB Transformers."
New York State Department of Health (undated). PCBs: Health Concerns, Environmental Effects, Advisories (booklet).
Ross & Assoc. for U.S. EPA Great Lakes National Program Office (1994). Polychlorinated Biphenyls (PCBs): Sources and Regulations.
Sahler, Karen, Rochester Gas and Electric Corporation. Letter of September 4, 1992, to Robert King, Monroe County Executive.
Sawyko, Paul M., RG&E (1992). Scheduled Reduction of RG&E's PCB Equipment (worksheet).
Smith, Daniel W., Environmental Science & Technology, vol. 29, No. 1 (1995). "Are PCBs in the Great Lakes Approaching a "New Equilibrium"?"
Townsend, Robert, NYSDEC. Letter to Carole Beal, April 10, 1995.
U.S. Department of Health and Human Services (1993). Toxicological Profile for Polychlorinated Biphenyls.

Section 6.2. Fish flesh monitoring and annual advisory

Connelly, Nancy A; Diane Kuehn (November 1994). Lake Ontario Fishing and Fish Consumption (Sea Grant fact sheet).
New York State Department of Health (undated). Health Advisory Evaluation Process.
NYSDOH. Health Advisory: Chemicals in Sportfish and Game, 1994-1995. Perspectives (April 1995). "Lake Ontario Fishing and Fish Consumption Study."
Skinner, Larry, NYSDEC. Information conveyed via Robert Townsend's letter of April 10, 1995, to Carole Beal.

Skinner, Larry, NYSDEC. Personal communication with Carole Beal, April 18, 1995.
Townsend, Robert, NYSDEC, Albany. Personal communication with Carole Beal, March 23, 1995.
U.S. EPA; NYSDEC (1994). Lakewide Impacts of Critical Pollutants on United States Boundary Waters of Lake Ontario.

Section 6.4. Great Lakes Water Quality Guidance

Draper, Richard, NYSDEC. Personal communication with Carole Beal, April 25, 1995.
EPA press release (March 13, 1995). EPA, States to Restore Great Lakes.
EPA (March 1995). Great Lakes Water Quality Initiative: A Summary (fact sheet).
EPA (March 1995). Fact Sheet: Great Lakes Water Quality Initiative Case Studies Show Benefits Outweigh Costs.
EPA (April 1995). 40 CFR Parts 9, 122, 123, 131, 132: Final Water Quality Guidance for the Great Lakes System. Summary and Supplemental Information.
Hanson, David A. (Jan. 1995). Pollution Engineering, "Great Lakes Initiative More Than a Local Water Reg."
NYSDEC (1994). Excerpts from Massena RAP.
NYSDEC tables comparing ambient water quality standards under the Great Lakes Water Quality Guidance with values already established by New York State.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, April 21, 1995.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, May 26, 1995.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, October 31, 1995.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, November 13, 1995.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, November 30, 1995.
Townsend, Robert, NYSDEC. Letter to Carole Beal, April 10, 1995.

Section 6.5. Great Lakes Toxic Reduction Effort

Adamkus, Valdas V., U.S. EPA Region V. Letter to Richard J. Guimond, Acting Assistant Administrator for Solid Waste and Emergency Response.
Adamkus, Valdas V., U.S. EPA Great Lakes National Program Office (September 26, 1995). Letter to Great Lakes Colleagues.
Bandemehr, Angela, U.S. EPA Region V. Personal communication with Carole Beal, June 7, 1995.
Bandemehr, Angela, U.S. EPA Region V. Personal communication with Carole Beal, August 1, 1995.
Bandemehr, Angela, U.S. EPA. Personal communication with Carole Beal, October 25, 1995.
Draper, Richard, NYSDEC. Personal communication with Carole Beal, May 24, 1995.
Electric Power Research Institute (April 30, 1995). Information on the Fate of Mercury from Fluorescent Lamps Disposed in Landfills (report summary).
Giattina, James, EPA Region V. Personal communication with Carole Beal, July 10, 1995.
Green, Danielle, EPA Great Lakes National Program Office. Personal communication with Carole Beal, March 30, 1995.
New York State Department of Environmental Conservation (NYSDEC)(1994). Excerpt from

Massena Remedial Action Plan.

- Ruesch, Paul, EPA. Personal communication with Carole Beal, June 8, 1995.
Thomas, Vicki, U.S. EPA. Personal communication with Carole Beal, November 2, 1995.
Townsend, Robert, NYSDEC. Personal communication with Carole Beal, July 20, 1995.
Urban, Chris, U.S. EPA Region V. Personal communication with Carole Beal, June 16, 1995.
Urban, Chris, U.S. EPA Region V. Personal communication with Carole Beal, August 1, 1995.
U.S. EPA (undated). Mercury Study Report to Congress: Draft for External Review (fact sheet).
U.S. EPA (October 1993). Great Lakes Toxic Reduction Efforts (fact sheet).
U.S. EPA (October 1993). Great Lakes Pollution Prevention Action Plan (fact sheet).
U.S. EPA (August 1994). Contaminated Sediment Management Strategy (EPA-823-R-94-001).
U.S. EPA (August 1994). Assessment and Remediation of Contaminated Sediments (ARCS) Program (EPA 905-S-94-001).
U.S. EPA Great Lakes National Program Office, Virtual Elimination Project (June 1995). Draft Options Paper: Virtual Elimination of Mercury.
U.S. EPA Region V (July 25, 1995). Air and Radiation Division Issue Paper on "The Management of Fluorescent Lamps."
Zar, Howard, U.S. EPA Region V. Personal communication with Carole Beal, June 23, 1995.

Section 6.6. Lake Ontario Lakewide Management Plan

- Four Parties. Lake Ontario Lakewide Management Plan Workplan.
Four Parties (1993). The Lake Ontario Lakewide Management Plan (fact sheet).
Four Parties (1995). Progression of Toxics Management Plan to Lakewide Management Plan. Letter of Intent.
Hartig, John, IJC. Personal communication with Carole Beal, June 23, 1995.
Hartig, John, IJC. Personal communication with Carole Beal, July 18, 1995.
International Joint Commission (1987). Revised Great Lakes Water Quality Agreement of 1978 as Amended by Protocol, Signed November 18, 1987.
LaMP Stage I document. Public Involvement - Chapter 4.
Luckey, Fred, NYSDEC. Personal communication with Carole Beal, July 31, 1995.
Mikol, Gerry, NYSDEC. Personal communication with Carole Beal, November 15, 1995.
New York State's LaMP-Light (Oct. 1994). "The Lake Ontario LaMP and New York's RAPs".
U.S. EPA (1993). Lakewide Management Plans (fact sheet).
U.S. EPA (1993). Lake Ontario Lakewide Management Plan (fact sheet).

Section 6.7. Lake Ontario Toxics Management Plan

- Four Parties (1995). Progression of Toxics Management Plan to Lakewide Management Plan. Letter of Intent.
Gadoua, Marna, NYSDEC (May 1995). Issues for Discussion: Lake Ontario Public Workshops (attachment to workshop announcement).
Gadoua, Marna, NYSDEC. Personal communication with Carole Beal, May 19, 1995.
Gadoua, Marna, NYSDEC. Letter to Carole Beal, May 31, 1995.
Lake Ontario Secretariat (1993). Lake Ontario Toxics Management Plan, 1993 Update, Vol. 1.
Lake Ontario Toxics Committee (Feb. 1989). Lake Ontario Toxics Management Plan: Executive

Summary.

Luckey, Fred, NYSDEC. Personal communication with Carole Beal, March 30, 1995.
Luckey, Fred, NYSDEC. Personal communication with Carole Beal, May 4, 1995.
Mikol, Gerry, NYSDEC. Personal communication with Carole Beal, November 15, 1995.
New York State's LaMP-Light (Oct. 1994). "Getting to Know the Lake Ontario LaMP and New York RAPs."
Yeh, Alice, U.S. EPA. Personal communications with Carole Beal, June 14, 1995.
Yeh, Alice, U.S. EPA. Fax to Carole Beal, June 14, 1995.
Yeh, Alice, U.S. EPA. Personal communications with Carole Beal, June 15, 1995.

Section 6.8. Atmospheric deposition programs

Cullen, Thomas, NYSDEC. Personal communication with Carole Beal, July 21, 1995.
Cullen, Thomas, NYSDEC. Personal communication with Carole Beal, via Robert Townsend, August 28, 1995.
Dolan, David, International Joint Commission. Letter to Carole Beal, June 19, 1995.
Galvin, Phil, NYSDEC. Personal communication with Carole Beal, August 30, 1995.
Gentile, Tom, NYSDEC. Personal communication with Carole Beal, July 28, 1995.
Great Lakes Commission Advisor (May-June 1995). "Toxic air emissions in the Great Lakes region."
Great Lakes United (Fall 1994). "U.S. EPA Studies Air Pollution and the Lakes."
Michigan Department of Natural Resources; Ontario Ministry of the Environment and Energy.
Draft Biennial Report: Remedial Action Plan for Detroit River Area of Concern.
Nash, Carlton, EPA Region V. Personal communication with Carole Beal, July 13, 1995.
Nash, Carlton, EPA Region V. Personal communication with Carole Beal, July 24, 1995.
6NYCRR Part 212. General Process Emission Sources.
NYSDEC (1991). Draft New York State Air Guide-1: Guidelines for the Control of Toxic Ambient Air Contaminants.
Painter, David, U.S. EPA. Personal communication with Carole Beal, March 19, 1996.
Sierra Club National News Report (Dec. 3, 1990). "Highlights of the Clean Air Act of 1990."
Strachan, William, Canada Centre for Inland Waters. Personal communication with Carole Beal, August 10, 1995.
Sweet, Robert, Michigan Department of Natural Resources. Personal communication with Carole Beal, July 18, 1995.
U.S. EPA (May 1994). Deposition of Air Pollutants to the Great Waters: First Report to Congress.
Varner, Bruce, U.S. EPA. Personal communication with Carole Beal, March 19, 1996.
Wood, Joseph, U.S. EPA. Personal communication with Carole Beal, March 19, 1996.

Section 6.9. State Pollution Discharge Elimination System

Bode, Robert, NYSDEC. Phone conversation of April 4, 1995, with Carole Beal.
NYSDEC (1990). New York State Water Quality 1990 (Submitted Pursuant to Section 305(b) of the Federal Clean Water Act Amendments of 1977.
NYSDEC (1993). 20 Year Trends in Water Quality of Rivers and Streams in New York State

Based on Macroinvertebrate Data 1972-1992.

NYSDEC (1994). New York State Water Quality 1994 (Submitted Pursuant to Section 305(b) of the Federal Clean Water Act Amendments of 1977.

NYSDEC (August 1995). Trends in Water Quality of Selected Rivers in New York State Based on Long-Term Routine Network Data.

NYSDEC (May 1, 1996). Permit Compliance System Effluent Discharge Mass Loading Report Listing by Storet Parameter Code: Effluent Loadings of Specified Parameters(Statewide).

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, March 11, 1996.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, May 13, 1996.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, January 3, 1997.

Section 6.10. Environmental Benefit Permit Strategy for renewing SPDES permits

Eaton, Angus, NYSDEC. Personal communications with Carole Beal, May 10 and May 15, 1996.

EBPS forms.

Halton, Donald, NYSDEC. Letter of February 23, 1995, to interested citizens of NYS, announcing EBPS workshops.

Hannaford, Robert, NYSDEC. Personal communication with Carole Beal, March 27, 1996.

Hannaford, Robert, NYSDEC. Personal communication with Carole Beal, April 28, 1995.

Lent, Peter, NYSDEC. Personal communication with Carole Beal, March 1, 1995.

NYSDEC public workshop, March 22, 1995, Rochester, New York.

NYSDEC Water Bulletin (Sep. 1992). "DOW Reworks Process for Renewing SPDES Permits".

Sage, Sam, Atlantic States Legal Foundation. Personal communication with Carole Beal, April 3, 1995.

Schifano, Michael, Monroe County Pure Waters. Personal communication with Carole Beal, April 4, 1995.

Schifano, Michael, Monroe County Pure Waters. Personal communication with Carole Beal, July 26, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, March 21, 1995.

Townsend, Robert, NYSDEC. Letter of April 10, 1995, to Carole Beal.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, July 19, 1995.

Section 6.11. Industrial Pretreatment Program

Association of Metropolitan Sewerage Agencies. Performance Measurement and the National Industrial Wastewater Pretreatment Program, bulletin of August 3, 1994.

Friedlander, Walt, McAlpin Industries. Data sent to Harry Reiter, Monroe County Pure Waters, October 1995.

McAlpin Industries (October 12, 1994). Letter to Harry Reiter, Monroe County Pure Waters.

New York State 40 Code of Federal Regulations, Part 136 and Part 403.

New York Water Environment Association (1994). Press release.

Reiter, Harry and Mike Kent. Meeting with Carole Beal, October 31, 1995.

Townsend, Robert, NYSDEC. Letter to Carole Beal, May 16, 1995.

Section 6.12. Federal stormwater regulations

- Barnes, Julie, Monroe County Department of Engineering. Personal communication with Carole Beal, August 1, 1995.
- Hannaford, Robert, NYSDEC. Personal communication with Carole Beal, August 16, 1995.
- NYSDEC (undated). The General Permit for Storm Water Discharges Associated with a Construction Activity (pamphlet).
- NYSDEC (undated). The SPDES General Permit for Storm Water Discharges Associated with Industrial Activity (pamphlet).
- NYSDEC (1995). SPDES General Permits for Storm Water (draft).
- NYSDEC (August 1, 1993). Information, Guidance and List of Reference Documents, SPDES General Permit for Storm Water Discharges Associated with Industrial Activity (pamphlet).
- NYSDEC (August 1, 1993). SPDES General Permit for Storm Water Discharges Associated with Industrial Activity (booklet).
- Reiter, Harry, Monroe County Pure Waters. Personal communication with Carole Beal, July 31, 1995.
- Schifano, Michael, Monroe County Pure Waters. Personal communication with Carole Beal, July 26, 1995.
- Smith, Paula, Monroe County SWCD. Personal communication with Carole Beal, July 27, 1995.

Section 6.13. EPA pollution prevention programs

- Anson, Sue, NYSDEC. Personal communication with Carole Beal, May 26, 1995.
- Giattina, James, EPA Region V. Personal communication with Carole Beal, July 10, 1995.
- Green, Danielle, EPA Great Lakes National Program Office. Personal communication with Carole Beal, March 30, 1995.
- Meline, Jed, U.S. EPA. Personal communication with Carole Beal, April 11, 1995.
- Meline, Jed, U.S. EPA. Personal communication with Carole Beal, December 4, 1995.
- NYSDEC (1994). Pollution prevention discussion paper written for the Massena RAP.
- NYSDEC (Spring 1994). Pollution Prevention Bulletin, Vol. 3, No. 1, "EPA's DfE Program".
- NYSDEC (Nov. 1993). Pollution Prevention Guidance for Local Governments.
- Rehder, Sharon, NYSDEC. Personal communication with Carole Beal.
- Ryan, Mike, University of Buffalo. Personal communication with Carole Beal, April 20, 1995.
- Shea, Linda, NYSDEC Pollution Prevention Unit. Personal communication with Carole Beal, April 18, 1995.
- U.S. EPA (March 1995). Design for the Environment: Screen Printing Project (fact sheet).
- U.S. EPA (Feb. 1995). Design for the Environment: Printed Wiring Board Project (fact sheet).
- U.S. EPA, Printing Trade Associations Nationwide (Dec. 1994). Work Practice Alternatives for Screen Reclamation (draft 4-page fact sheet).
- U.S. EPA, Printing Trade Associations Nationwide (Dec. 1994). Chemical Alternatives for Screen Reclamation (draft 4-page fact sheet).
- U.S. EPA (November 1994). EPA's 33/50 Program Company Profile: Eastman Kodak Company.
- U.S. EPA (June 1994). Summary of a Report on Multiprocess Wet Cleaning (booklet).

U.S. EPA (Feb. 1994). EPA's Design for the Environment Program (pamphlet).
 U.S. EPA Oct (1993). Great Lakes Pollution Prevention Action Plan (fact sheet).
 U.S. EPA, Printing Trade Associations Nationwide (1993). Reducing the Use of Reclamation Chemicals in Screen Cleaning (4-page fact sheet).
 U.S. EPA (April 1991). U.S. Environmental Protection Agency Great Lakes Pollution Prevention Action Plan.
 U.S. EPA (undated). Highlights: U.S. Environmental Protection Agency Great Lakes Pollution Prevention Action Plan (fact sheet).
 U.S. General Accounting Office (Sept. 1994). Toxic Substances: Status of EPA's Efforts to Reduce Toxic Releases.

Section 6.14. New York State pollution prevention

Corbett, Tom, NYSDEC. Personal communication with Carole Beal, September 20, 1995.
 Corbett, Tom, NYSDEC Region 9. Personal communication with Carole Beal, July 25, 1995.
 Eberle, William, NYSDEC Albany. Personal communication with Carole Beal, March 7, 1995.
 Eberle, William, NYSDEC Albany. Personal communication with Carole Beal, March 29, 1995.
 Eberle, William, NYSDEC Albany. Personal communication with Carole Beal, April 20, 1995.
 Jorling, Thomas C. (March 1992). Organization and Delegation Memorandum #92-13. Policy: Pollution Reduction and Integrated Facility Management.
 Jorling, Thomas C. Organization and Delegation Memorandum #92-24. Organization: Pollution Prevention Initiative.
 Kieda, Edward D. Memorandum to Frank T. Ricotta, March 1995.
 6NYCRR Part 378 Toxic Chemical Reduction Plans (draft, 1993). Summary.
 NYSDEC (January 1995). 1993-94 Annual Report: Multi-Media Pollution Prevention in New York State.
 NYSDEC (Sept. 1994). Directory: Pollution Prevention Unit.
 NYSDEC (Spring 1994). Pollution Prevention Bulletin, Vol 3, No. 1, "Weber-Knapp, an M2P2 Success Story".
 NYSDEC (July 1994). Information Fact Sheet: Diaz Chemical Corporation, Site #8-37-009, Multi-Media Pollution Prevention Program (M2P2).
 NYSDEC (1994). Discussion paper for the Massena RAP.
 Rollins, Dixon, NYSDEC. Personal communication with Carole Beal, October 3, 1995.
 Rollins, Dixon, NYSDEC. Personal communication with Carole Beal, October 13, 1995.
 Rollins, Dixon, NYSDEC Region 8. Personal communication with Carole Beal, July 26, 1995.

Section 6.15. Xerox Corporation pollution prevention

NYSDEC Success Story Fact Sheet (Sept. 1990). "Hazardous Waste Reduction: Xerox Corporation."
Pollution Prevention Bulletin (Summer 1994). "Six NEW YORK STATE Companies Honored."
 Stulb, Joseph, Xerox Corporation. Personal communication with Carole Beal, June 22, 1995.
 Xerox Corporation (1994). Environment, Health and Safety Progress Report.

Section 6.17. Mercury pollution prevention project

DelConte, M.J., Nixon, Hargrave, Devans and Doyle. Personal communication with Carole Beal, July 28, 1995.

Doniger, Andrew, Monroe County Department of Health. Letter to Carol Scott, University of Rochester, January 31, 1995.

Litten, Simon, NYSDEC. Letter to Richard S. Burton, Monroe County Environmental Health Laboratory, December 13, 1994.

Mercury Pollution Prevention Task Group minutes of September 8, 1994.

Monroe County Department of Health. Introduction and Summary: Mercury Pollution Prevention Pilot Study at the University of Rochester and Eastman Dental Center (fact sheet).

Monroe County Department of Health (June 14, 1995). A Grant Proposal to Great Lakes National Program Office of the U.S. Environmental Protection Agency, Chicago, Illinois.

Peet, Margy, Monroe County Department of Health. Letter to M.J. DelConte, May 11, 1995.

Section 6.18. Monroe County Waste Site Advisory Committee and proper closure of waste sites

Albert, Joseph, Senior Public Health Sanitarian. Letter to Andrew Doniger, Director of Health, March 23, 1990.

Monroe County Department of Health Waste Site Advisory Committee, Technical Review Subcommittee.

Monroe County Department of Health et al. (1993). Development Review Guidelines for Properties within 2000 Feet of Waste Disposal Sites.

Nelson, Ann, EMC Director. Letter to County Executive Lucien Morin, July 23, 1986.

6 NYCRR Part 74. Approval of Realty Subdivisions.

NYSDEC (Oct. 1994). Quarterly Status Report of Inactive Hazardous Waste Disposal Sites.

NYSDEC and Monroe County. Letter of Agreement for the New York State Superfund Program (Jan. 1, 1994 - Dec. 31, 1995).

NYSDEC (1991). Hazardous Waste Site Remedial Plan.

Peachy, Mary Jane, NYSDEC. Personal communication with Carole Beal, February 7, 1995.

Peachy, Mary Jane, NYSDEC. Personal communication with Carole Beal, June 19, 1995.

Remedial Action Worksheet (Insure proper closing of landfill sites and continue to oversee remediation of hazardous waste sites).

Section 6.19. Rapid response to spills

Battes, Lee, New York State Emergency Management Office. Personal communication with Carole Beal.

Elliott, Richard, Monroe County DOH (1992). Rapid response containment and remediation for petroleum and hazardous waste spills occurring in basins (worksheet).

Jones, W., Monroe County DOH. Meeting with Carole Beal, February 27, 1995.

Jones, W., Monroe County DOH. Personal communication with Carole Beal, February 28, 1995.

Jones, W., Monroe County DOH. Personal communication with Carole Beal, March 2, 1995.

Jones, W., Monroe County DOH. Personal communication with Carole Beal, March 20, 1995.

Meisenzahl, M.L., Monroe County Office of Emergency Preparedness. Personal communication with Carole Beal, March 27, 1995.

Monroe County pamphlet (1995). Introducing the Local Emergency Planning Committee of Monroe County, NY.

Monroe County narratives 40-2.170 and 40-2.220.

Monroe County (1995). Hazardous Materials Response Plan.

Riley, Ed, Monroe County Fire Coordinator. Personal communication with Carole Beal, March 20, 1995.

Section 6.20. Rapid response to spills on Lake Ontario

Durand, Ron, Monroe County Airport. Personal communication with Carole Beal, April 28, 1995.

Evanish, Lt. JG Mike, U.S. Coast Guard. Personal communication with Carole Beal, April 18, 1995.

Meisenzahl, M.L., Monroe County Office of Emergency Preparedness. Personal communication with Carole Beal, April 17, 1995.

Parkin, William P. (1992). The Complete Guide to Environmental Liability and Enforcement in New York (fact sheets).

U.S. Coast Guard (June 1994). Letter of Promulgation for Eastern Great Lakes Area Oil Pollution Contingency Plan.

U.S. Coast Guard:

Annex I, Appendix III, Rochester/Oswego Subarea.

Annex E, Appendix V, Sensitive Areas.

Annex B, Appendix I, Planning Organization.

Annex B, Appendix II, Response Organization.

Section 6.24. Greater Rochester International Airport Deicing Fluid Management

Aviation Week & Space Technology (May 1, 1995). "FAA Tests Infrared Deicers."

Caputo, Michael, Rochester Democrat and Chronicle (February 29, 1996). "Airport to test infrared de-icer".

Designer (#57, 1995). "O'Hare Chooses On-Site Solution: Airport Biological Treatment Facility Planned for Deicing Fluid Runoff."

Durand, Ron, Monroe County Airport (GRIA). Personal communication with Carole Beal, May 24, 1995.

Gaskin, Gary, Monroe County Department of Engineering. Meeting with Carole Beal, November 2, 1995.

Gaskin, Gary, Monroe County Department of Engineering. Meeting with Carole Beal, May 24, 1995.

Gaskin, Gary, Monroe County Department of Engineering. Meeting with Carole Beal, April 25, 1995.

Orr, Steve, Rochester Times Union (March 13, 1996). "De-icing test a partial success".

Process Technologies, Inc., news release of April 12, 1995. "Buffalo Firm Introduces Breakthrough in Aircraft Deicing: Tests on New Infrared System in Cooperation with

FAA Deemed Successful.”

Schifano, Michael, Monroe County Pure Waters. Meeting with Carole Beal and Todd Stevenson, January 31, 1996.

Smallwood, Richard, Zenon Airport Environmental. Personal communication with Carole Beal, May 24, 1995.

Smallwood, Richard, Zenon Airport Environmental. Personal communication with Carole Beal, May 17, 1995.

Smallwood, Richard, Zenon Airport Environmental. Personal communication with Carole Beal, May 2, 1995.

STV/Seelye Stevenson Value & Knecht (1992). Greater Rochester International Airport Alternatives Evaluation - Deicing Control Technical Memorandum:

No. 1 Needs Assessment

No. 2 Alternatives Development

No. 4 Recommendation

STV/Seelye Stevenson Value & Knecht (1993). Greater Rochester International Airport Alternatives Evaluation - Deicing Control Addendum No. 1

Zenon Airport Environmental promotional material.

Section 6.25. Inspection/monitoring of dredging

Pieczynski, Thomas, USACOE, Letter to Todd Stevenson, September 12, 1995.

Pickard, Scott, USACOE, Personal Communication with Todd Stevenson, July 26, 1995 and August 10, 1995.

Section 6.26. Phosphate detergent ban

Bondy, Douglas, International Joint Commission. Personal communication with Carole Beal, July 11, 1995.

Cornell Cooperative Extension Information Bulletin 127. "Lakes and Phosphorus Inputs: A Focus on Management."

Draper, Richard NYSDEC. Personal communication with Carole Beal, July 11, 1995.

Forest, H.S., Rochester Committee for Scientific Information (May 1971). Water Pollution Abatement Through Regulation of Content and Use of Detergents.

Harbison, Kenneth, Rochester Committee for Scientific Information (May 1974). Changes in Water Quality of Streams Since the Phosphate Content of Laundry Detergents was Lowered.

NYSDEC (June 1, 1973). Press release on the ban on phosphate-containing detergents.

Report to the Great Lakes Advisory Board (November 1983). Ecological Effects of Non-Phosphate Detergent Builders: Final Report on Inorganic Builders.

Section 6.28. Irondequoit basin stormwater research, demonstration and implementation

Burton, Richard, Monroe County Environmental Health Laboratory (no date). Monroe County Nonpoint Source Implementation Project: Conversion of Dry Basins to Created Wetlands for Mitigation of Stormwater Runoff.

Burton, Richard, Irondequoit Creek Wetlands Water Quality Project: Summary of the 23 August 1994 Public Information Meeting.

Irondequoit Basin Project Technical Team, (January 1986). Policy Report: A Proposed Approach for Water Quality Management in the Irondequoit Basin.

Johnston, William and Kappel, William. Effects of Stormwater Detention in Wetlands of the Lower Irondequoit Creek Basin Near Rochester, New York.

Monroe County Environmental Health Laboratory. Irondequoit Bay: Improvements in Trophic State, 1971 - 1992.

Monroe County Environmental Health Laboratory. Irondequoit Creek Ellison Park Wetlands Project: Status December 1994.

Peet, Margy, Monroe County Department of Health (March 9, 1995). Memo to Todd Stevenson.
Ringler, Neil and Miller, Daniel (March 1991). Effects of Storm Water Retention on the Animal Community of the Upper and Lower Wetlands of Irondequoit Creek, Rochester, New York.

Author Unknown. Irondequoit Creek Wetlands - A BMP for Urban Stormwater Renovation.

Section 6.30. Irondequoit Bay oxygen supplementation project

Burton, Richard, Monroe County Environmental Health Laboratory. Project Overview: 30 June 1993.

Monroe County Environmental Health Laboratory. Hypolimnetic Oxygen Supplementation Project Quarterly Progress Reports #1 - #7".

New York State Department of Environmental Conservation/Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Section 6.34. Dry basin conversions

Metropolitan Washington Council of Governments (1992). Design of Stormwater Wetland Systems.

Monroe County Environmental Health Laboratory (February 2, 1995). 604(b) Water Quality Management Program Progress Report.

Monroe County Environmental Health Laboratory (December 2, 1992). New York Nonpoint Source Implementation Program: 1993 Monroe County Scope of Services.

Monroe County Environmental Health Laboratory (October 1995). 604(b) Water Quality Management Program Progress Report.

Section 6.36. Erosion and sediment control

Civilier, Craig, Monroe County Department of Transportation. Meeting with Carole Beal, September 5, 1995.

Felsen, John, Monroe County Department of Health, personal communication with Carole Beal, October 27, 1995.

Shuman, Jerry, NEW YORK STATE Department of Transportation. Personal communication with Carole Beal, September 11, 1995.

Section 6.37. Promotion of agricultural BMPs

Brazda, Margit, (1990). Internship Paper: Soil Conservation Service.

Monroe County Soil & Water Conservation District, (1994). MCSWCD Newsletter - Annual Report.

New York State Department of Environmental Conservation/Monroe County Department of Planning and Development, (1993). Rochester Embayment Remedial Action Plan Stage I.

New York State Department of Environmental Conservation, (1992). Agricultural Management Practices Catalogue for Nonpoint Source Pollution Prevention and Water Quality Protection in New York State.

United States Department of Agriculture, (1989). Fact Sheet: Agricultural Nonpoint Source Pollution.

Winkler, Frank, Natural Resources Conservation Service, Personal communication with Todd Stevenson, April 7, 1995.

Winkler, Frank, Personal communication with Todd Stevenson, April 19, 1995.

Section 6.38. Identification, remediation and prevention of onsite sewage disposal system problems

Allegany County Health District, Sanitary Code.

Guerin, Tom, Genesee County Department of Health. Personal communication with Carole Beal, April 3, 1995.

Hart, Warren, Ontario County Water Resources Council. Letter to Carole Beal, May 17, 1995.

Hyde, Dawn D, Monroe County Department of Health. Letter to residents of the Hamlet of Mendon, Feb. 27, 1995.

Koral, Michael, Monroe County Department of Health. Meeting with Carole Beal, March 14, 1995.

Koral, Michael, Monroe County Department of Health. Letter to Supervisor Walker of the Town of Mendon, Feb. 10, 1995.

Landre, Peter, Cornell Cooperative Extension, Yates County. Personal communication with Carole Beal, March 30, 1995.

Livingston County Department of Health, Sanitary Code.

Monroe County Sanitary Code, Article IIA: Private Sewage Disposal.

Robbins, Chris; Richard Elliott (1992). Upgrade or replace failing septic systems (worksheet).

Sturniolo, Jim, Allegany County Department of Health. Personal communication with Carole Beal, April 5, 1995.

Van Houten, Ralph, Livingston County Department of Health. Personal communication with Carole Beal, March 30, 1995.

Wyoming County Department of Health Representative. Personal communication with Carole Beal, March 30, 1995.

Section 6.40. The New York State Coastal Nonpoint Pollution Control Program

Herring, John, New York State DOS. Personal communications with Carole Beal, March 9, 1995, and January 8, 1996.

NYSDEC (July 1995). New York State Coastal Nonpoint Pollution Control Program

(summary).

NYSDEC. Executive Summary: New York State Coastal Nonpoint Pollution Control Program (fact sheet).

Stafford, George, New York State DOS; Phillip DeGaetano, NYSDEC. Letter to citizens of New York, July 19, 1995.

U.S. EPA (April 1995). "Section 6217 Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance" in National Conference on Urban Runoff Management: Enhancing Urban Watershed Management at the Local, County, and State Levels.

Section 6.41. Efforts to minimize taste and odor

Clark, Thomas, Village of Brockport, Personal Communication with Todd Stevenson, August 28, 1995.

Monroe County Water Authority, (no date). Treatment of Raw Water to Eliminate Zebra Mussel Infestation and Subsequent Impacts on Water Quality.

Nugent, Jim, Monroe County Water Authority, Personal Communication with Todd Stevenson, May 24, 1995; August 4, 1995; August 8, 1995; September 26, 1995; October 20, 1995.

Section 6.42. Beach monitoring/modeling program

Monroe County Environmental Health Laboratory, Ontario Beach Closure Statistics (worksheet).

Monroe County Environmental Health Laboratory, Ontario Beach: 1995 Operating Criteria (worksheet).

New York State Department of Environmental Conservation/Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Section 6.43. Aquatic harvester to remove algae from Ontario Beach

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, July 5, 1995.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, July 27, 1995.

Burton, Richard, Monroe County Department of Health. Meeting with Carole Beal, August 3, 1995.

Ireland, Corydon, Democrat and Chronicle (July 4, 1995). "Bacteria buildup shuts beach."

Ireland, Corydon, Democrat and Chronicle (July 21, 1995). "'Pureed' algae coats lake shore with muck."

Monroe County Department of Health (March 27, 1995). Technical specifications: aquatic harvester.

Peet, Margy, Monroe County Department of Health. Letter to Jay Bloomfield, March 29, 1995.

Vercolen, Dennis (March 10, 1995). RAP worksheet.

Section 6.44. Van Lare stormwater management effort

Ballerstein, Mark, Monroe County Department of Engineering, (July 13, 1995). Memo to Mike

Kent.

Monroe County Department of Engineering, (June 30, 1995). Van Lare WWTF Site Drainage Improvements Monthly Report.

New York State Department of Environmental Conservation/Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Section 6.45. Elimination of overflow dredging

Aqua Tech Consultants (1986) Monitoring Project at Rochester Harbor.

Burton, Richard, Monroe County Environmental Health Laboratory, (March 10, 1983). Memo to J. Nitzkin, M.D.

Burton, R., (March 10, 1983). Memo to G. R. Sutherland.

Monroe County Environmental Management Council, (December 1983). Information Report: Genesee River Harbor Maintenance Dredging.

New York State Department of Environmental Conservation/Monroe County Department of Planning and Development, (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Pickard, Scott, United States Army Corps of Engineers, Personal Communication with Todd Stevenson, March 20, 1995.

Section 6.47. Zebra mussel control systems

Clark, Thomas, Monroe County Water Authority. Personal communication with Carole Beal, June 30, 1995.

Monroe County Water Authority. Treatment of Raw Water to Eliminate Zebra Mussel Infestation and Subsequent Impacts on Water Quality.

Nugent, James, Monroe County Water Authority. Personal communication with Carole Beal, May 8, 1995.

O'Neill, Jr., Charles R, New York State Sea Grant (March 30, 1995). Summary of current zebra mussel control alternative technologies.

O'Neill, Jr., Charles R, New York State Sea Grant. Personal communication with Carole Beal, May 11, 1995.

Sawyrko, Paul, RG&E. Personal communication with Carole Beal, June 16, 1995.

Section 6.48. Establishment and operation of the Braddock Bay Fish and Wildlife Management Area

Dodge, Jeff, Braddock Bay Fish and Wildlife Management Area Review Committee, Personal Communication with Todd Stevenson, August 30, 1995.

Monroe County Health Department (1991). Draft Lake Ontario Western Sub-basin Plan.

NYSDEC and the Town of Greece (Revised 1987). Braddock Bay Fish and Wildlife Management Area Management Plan.

Section 6.49. Non-governmental organizations habitat protection and acquisition

Drake, Barbara, Bergen Swamp Preservation Society, Personal communication with Todd

Stevenson, 4-5-95.

Edwards, Rachel, Genesee Land Trust, Personal communication with Todd Stevenson, 3-30-95.
Genesee Land Trust, (Spring 1995). The Newsletter of the Genesee Land Trust.

Klein, David, The Nature Conservancy, Personal communication with Todd Stevenson, 3-13-95.
Long Point Bird Observatory, (May 1994). Baseline Assessment and Monitoring of Marsh Bird
and Amphibian Populations in Great Lakes Areas of Concern.

The Nature Conservancy, (various dates). The Newsletter of the Central & Western New York
Chapter.

The Nature Conservancy, (no date). The Thousand Acre Swamp Sanctuary.

Section 6.51. Educate public on the value of wetlands

Russo, Mary Anna. Personal communication with Marie Lewis, March 4, 1994.

Winkler, Frank. Personal communication with Marie Lewis, March 7, 1994.

Chapter 7. Possible New Remedial Measures Urban

Section 7.1. Accelerate PCB removal

Monroe County Department of Environmental Services. Personal communication with Carole
Beal, December 21, 1995.

Section 7.2. Promote interaction with the Lake Ontario Lakewide Management Plan pollutant and other Lake Ontario Remedial Action Plans regarding critical sources located outside the Rochester Embayment watershed

Luckey, Frederick, NYSDEC. Letter to Carole Beal, June 29, 1995.

Luckey, Frederick, NYSDEC. Personal communication with Carole Beal, September 5, 1995.

Peet, Margy (1992). Recommend establishment of a lakewide coordinating group to monitor
reductions in toxics and ensure Rochester RAP Advisory Group involvement
(worksheet).

Section 7.3. Promote the New York State Water Quality Enhancement and Protection Plan Amendments to 6NYCRR Part 701 Concerning Discharge Restriction Categories. 6NYCRR Part 326, Restricted Pesticides.

Parkin, William P. (1992). The Complete Guide to Environmental Liability and Enforcement in
New York, STP Specialty Technical Publishers, Inc., pages IV A.2 1, IV A.2 2, and IV B
7.

Townsend, Robert, NYSDEC (1994). Draft summary of NYSDEC Water Quality Enhancement
and Protection Policy (for Massena RAP).

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, March 21, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, April 5, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, August 28, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, November 30, 1995.

Townsend, Robert, NYSDEC. Letter to Carole Beal, January 23, 1996.

Section 7.4. Promote pollution prevention in the Rochester Embayment watershed

Chemical Manufacturers Association (1991), CMA Pollution Prevention Resource Manual.
County of Erie Department of Environment and Planning (April 1993). Creating Pollution Prevention Incentives for Small Businesses: The Erie County Program.

DeMicco, Dan, NYSDEC. Personal communication with Carole Beal, November 28, 1995.

DeMicco, Dan, NYSDEC. Personal communication with Carole Beal, November 28, 1995.

Klumpp, Anne Spaulding, City of Rochester. Presentation at the NYSDEC Pollution Prevention Seminar, November 15, 1995.

Klumpp, Anne Spaulding, City of Rochester. Personal communication with Carole Beal, January 24, 1996.

Malcolm Pirnie, Inc. (April 1993). Erie County Pollution Prevention Program Evaluation.

Monroe County Department of Environmental Services meeting of April 19, 1995.

National Pollution Prevention Roundtable. Fact sheets and newsletters.

Weinstein, Warren, National Pollution Prevention Roundtable. Personal communication with Carole Beal, May 23, 1995.

Section 7.5. Promote proper closure/remediation of landfills and hazardous waste sites

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, November 29, 1995.

Monroe County DOH (1994). Draft Protocol for Characterizing Potential Chemical Contamination in Proposed Realty Subdivisions.

New York State Realty Subdivision Law, Part 74: Approval of Realty Subdivisions.

NYSDEC (1994). Report on Hazardous Substance Waste Disposal Site Study.

NYSDOH (1990). Procedure draft for Realty Subdivisions: Soil Testing on Property Proposed for Subdivision.

Technical Review Subcommittee of the Monroe County Waste Site Advisory Committee.

Meeting with Carole Beal, January 30, 1995.

Section 7.6. Expand the storm drain message system

Akers, Carol, Pave-Mark Corporation. Letter to Margit Brazda, November 17, 1995.

Cass, Ronald, Town of Perinton. Personal communication with Carole Beal, February 23, 1996.

Civalier, Craig, Monroe County Department of Transportation. Personal communication with Carole Beal, February 27, 1996.

Gottlieb, Sean, Environmental Awareness. Letter to Margy Peet, September 27, 1995.

Minuteman Press. Personal communication with Carole Beal, March 7, 1996.

Snyder, Eugene, Decal Techniques. Personal communication with Carole Beal, March 6, 1996.

Section 7.7. Investigate contamination and opportunities for remediation in the Genesee River gorge

Ad hoc discussion group. Meeting of September 7, 1995.

Atlantic Environmental Services, Inc., for Rochester Gas & Electric Corporation (June 1992).
Site Investigation Report for West Station MGP [Manufactured Gas Plant] Site.

Blasland, Bouck & Lee, Inc., for Monroe County Department of Engineering (April 1994). Draft Site Characterization Report: Brewer Street Site.

City of Rochester (June 1986). Supplemental Report to the Phase I Investigation of the Lower Falls Hazardous Waste Disposal Site, Rochester, Monroe County, New York, NYS Registry No. 828044.

City of Rochester; Rochester Gas & Electric Corp. (October 1989). Draft Request for Proposals: Phased Remedial Investigation of the Upper to Lower Falls Superfund Site.

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, December 12, 1995.

Gregor, Mark, City of Rochester Department of Environmental Services. Meeting with Carole Beal, March 15, 1995.

Hartshorn, Louise, Monroe County Environmental Management Council. Personal communication with Carole Beal, February 6, 1996.

Holzbach, James, Monroe County Department of Engineering. Letter to Carole Beal, September 22, 1995.

Holzbach, James, Monroe County Department of Engineering. Personal communication with Carole Beal, September 27, 1995.

Hylton, Kevin, RG&E. Personal communication with Carole Beal, April 26, 1995.

Monroe County Landfill Review Committee (1979). The Lower Falls of the Genesee River.

Morrison-Knudsen Engineers, Inc., for Rochester Gas & Electric Corporation (June 1986). Preliminary Site Review: NYS Superfund Site No. 828044.

NYSDEC (April 10, 1991). Position Paper: Coal Tar Sites.

NYSDEC; Monroe County Department of Planning & Development (1993). Rochester Embayment Remedial Action Plan Stage I.

Recra Environmental, Inc., for NYSDEC (January 1988). Final Expanded Phase I Investigation: Genesee River Gorge (Lower Falls) Site I.D. #828044.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, March 27, 1996.

Sawyko, Paul, RG&E. Fax to Carole Beal, June 27, 1996.

Section 7.8. Enact an Intergovernmental Agreement with the Army Corps of Engineers

Burton, Richard, Monroe County Department of Health (1992). Minimize impacts of dredging to protect beach use and water quality, including continued exclusion of overflow dredging (worksheet).

Burton, Richard, Monroe County Department of Health. Meeting with Carole Beal, August 3, 1995.

Pieczynski, Thomas J., Buffalo District, Army Corps of Engineers. Letter to Carole Beal and Todd Stevenson, received September 13, 1995.

Section 7.9. Institute intergovernmental agreements

Special District Task Force, (1995). Preliminary Proposal Regarding Stormwater Management Implementation.

Irondequoit Watershed Collaborative. meeting minutes.

Section 7.10. Manage stormwater quality in existing and newly developing urban areas
Galli, F.J., (1992). Analysis of the Performance and Longevity of Urban BMPs installed in Prince George County, Maryland.

H.I.L. Technology Inc., (1991). Storm King: Keeping Water In Its Place Without Costing the Earth.

Metropolitan Washington Council of Governments, (1992). A Current Assessment of Urban Best Management Practices: Techniques for Reducing Non-point Source Pollution in the Coastal Zone.

Metropolitan Washington Council of Governments, (1992). Design of Stormwater Wetland Systems: Guidelines for Creating Diverse and Effective Stormwater Wetland Systems in the Mid-Atlantic Region.

Metropolitan Washington Council of Governments, (1990). Thermal Impacts Associated with Urbanization and Stormwater Best Management Practices.

Monroe County Department of Environmental Services, (1994). Project Nomination Form-1994 Nonpoint Source Implementation Grants Program: East Rochester Swirl Concentrator.

NYSDEC, (1994). Urban Stormwater/Runoff Management Practices Catalogue.

Pittsford, Town of, (1994). Allen's Creek Stormwater Management Facility: Final Environmental Impact Statement.

Section 7.11. Reduce and mitigate impervious surfaces

Olympia, City of and Washington State Department of Ecology, (1994). Impervious Surface Reduction Study: Draft Report.

Author Unknown, Watershed Protection Techniques"volume 1, number 3, Fall 1994. "The Importance of Imperviousness".

Section 7.12. Identify and solve onsite sewage disposal system problems

Abbott, Rich, City of Syracuse. Personal communication with Carole Beal, April 6, 1995.

Cayuga County (Sept. 20, 1994). Summary of New Cayuga County Sanitary Code.

Chapter 388, Laws of New York. Town, village and county law on creation of wastewater disposal districts.

City of Syracuse and Onondaga County Health Department. The Watershed Septic System Inspection Program (fact sheet).

Elliott, Richard, Monroe County Department of Health (1992). Target septic system surveys where problems exist (worksheet).

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, June 7, 1995.

Felsen, John Monroe County Department of Health. Personal communication with Carole Beal, May 12, 1995.

Hyde, Dawn, Monroe County Department of Health. Personal communication with Carole Beal, January 2, 1995.

Hyde, Dawn, Monroe County Department of Health. Personal communication with Carole Beal, January 24, 1996.

Koral, Michael, Monroe County Department of Health. Personal communication with Carole Beal, April 20, 1995.

Koral, Michael, Monroe County Department of Health. Personal communication with Carole Beal, June 7, 1995.

Koral, Michael, Monroe County Department of Health. Personal communication with Carole Beal, April 11, 1996.

Landre, Peter, Yates County Cornell Cooperative Extension. Keuka Lake Watershed Project (fact sheet).

Landre, Peter, Yates County Cornell Cooperative Extension. Personal communication with Carole Beal, March 30, 1995.

Landre, Peter, Yates County Cornell Cooperative Extension. Phone conversation of May 22, 1995, with Carole Beal.

O'Connor, Eileen, Cayuga County Department of Health. Personal communications with Carole Beal, April 6, 1995, and January 2, 1996.

Robbins, Chris; Richard Elliott (1992). Upgrade or replace failing septic systems (worksheet).

Tomion, Mary Geo. "Historic Document Protects Keuka Lake," (news clipping).

Section 7.13. Implement a phosphorus point source management strategy

Cornell Cooperative Extension Information

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, August 16, 1996.

Ireland, Corydon, Rochester Times-Union (September 7, 1995). "County is hiring engineering firm to study sewage plan".

Kent, Mike, Monroe County Pure Waters. Meeting with Carole Beal, August 31, 1995.

Kent, Mike, Monroe County Department of Environmental Services, (September 1995). Updating Pure Waters Master Plan.

Koral, Michael, Monroe County Department of Health. Personal communication with Carole Beal, January 8, 1996.

Monroe County Pure Waters Agency (1969). Pure Waters Master Plan.

Morton, William, NYSDEC. Personal communication with Carole Beal, March 18, 1996.

Morton, William, NYSDEC. Personal communication with Carole Beal, March 21, 1996.

NYSDEC press release, June 1, 1973.

NYSDEC Memorandum: SPDES Permit Development for POTWs.

NYSDEC (December 8, 1988). Technical and Operational Guidance Series (1.3.6): Phosphorus removal requirements for wastewater discharges to lakes and lake watersheds.

NYSDEC; NYS Soil and Water Conservation Committee (November 1994). Predicting Pollutant Loading Through the Use of Models: A Supplement to the Watershed Planning Handbook for the Control of Nonpoint Source Pollution.

NYSDEC (February 1996). Watershed Planning Handbook for the Control of Nonpoint Source Pollution, Revised and Reprinted.

NYSDEC. Assessment of Phosphorus Contributions from Sources Within a Tributary Watershed of the Lake Champlain Basin.

Oates, Jim, Town of Webster. Fax to Michael Schifano, January 31, 1996.

Pearson, Tom, NYSDEC. Personal communication with Carole Beal, January 8, 1996.

Robbins, Chris, Center for Governmental Research, (1992). RAP Worksheet: Conduct Regular Updates of the Pure Waters Master Plan.

Schifano, Michael, Monroe County Pure Waters (1992). Manage phosphorus loadings from point sources to meet Lake Ontario objectives (worksheet).

Schifano, Michael, Monroe County Pure Waters. Meeting with Carole Beal, September 13, 1995.

Schifano, Michael; Michael Kent; Phil Steinfeldt. Meeting with Todd Stevenson and Margy Peet, November 14, 1995.

Schifano, Michael; Michael Kent, Monroe County Department of Environmental Services. Meeting with Carole Beal and Todd Stevenson, January 5, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, January 8, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Meeting with Carole Beal and Todd Stevenson, January 31, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Meeting with Carole Beal, February 1, 1996.

Tozer, Bud, NYSDEC (September 12, 1995). Limit/measurement/violations report for phosphorus (computer printout).

Section 7.14. Promote agricultural Best Management Practices

New York State Department of Agriculture and Markets, (1995). Responsible Environmental and Agricultural Planning (REAP), (proposal).

New York State Department of Agriculture and Markets, (1995). AG Nonpoint Source Abatement & Control Grant Program: High Priority Project Profile.

Public Technology Incorporated (1996). Winning Solutions 95 Public Technology, Inc.

United States Department of Agriculture, (1995). Great Lakes Basin Comprehensive Farm Planning Network: 1995 - 1997 (proposal).

Warrender, Robin, Steuben County SWCD, Personal Communication with Todd Stevenson, June 15, 1995.

Wildeman, John, Personal Communication with Todd Stevenson, June 16, 1995.

Winkler, Frank, NRCS, Personal Communication with Todd Stevenson, April 1995, June 7, 1995, and February 6, 1996.

World Wildlife Fund, (1996). Reducing Reliance on Pesticides in Great Lakes Basin Agriculture.

Section 7.15. Intensify and focus public education effort regarding the proper use of lawn care fertilizers and pesticides

Berkley, Liz, Monroe County Cornell Cooperative Extension, Personal Communication with Todd Stevenson, May 12, 1995.

Nally, Thomas, Monroe County Cornell Cooperative Extension (May 4, 1994). Grant Proposal to Demonstrate the Impact of Yard Maintenance Practices on Water Quality.

Pultz, Jennifer, New York Sea Grant Program, Personal Communications with Todd Stevenson, December 12, 1995 and January 5, 1996.

Section 7.16. Develop streambank erosion control program

Town of Brighton, (1993). Comprehensive Development Regulations, Article XIV Environmental Protection Overlay Districts.

Loberg, Jeanne, Town of Mendon. Personal communication with Todd Stevenson, May 2, 1996.
New York State Department of Environmental Conservation, (1986). Stream Corridor Management: A Basic Reference Manual.

Winkler, Frank, Natural Resources Conservation Service. Personal communication with Todd Stevenson, June 7, 1995.

Winkler, Frank, (March 1995). Draft: Develop Streambank Erosion Control Program.

Section 7.18. Reform lake levels management plan in order to mitigate impact on shoreline wetlands

Brown, Thomas, New York State Department of Environmental Conservation, Personal communication with Todd Stevenson, March 10, 1995

Levels Reference Study Board, (1993). Levels Reference Study: Great Lakes - St. Lawrence River Basin.

Levels Reference Study Board, (1993). Levels Reference Study: Great Lakes - St. Lawrence River Basin Annex 2 Land Use and Management.

O'Neill, Chuck, Sea Grant Extension - SUNY Brockport, (no date). Lake Ontario Water Levels Questions & Answers.

Section 7.19. Identify and restore/enhance/protect critical habitat along waterways

Dodge, Doug, Ontario Ministry of Natural Resources, Kavetsky, Robert, United States Fish and Wildlife Service, (1994). Aquatic Habitat and Wetlands of the Great Lakes.

Hartig, J.H., Great Lakes Fishery Commission, (1993). Toward Integrating Remedial Action and Fishery Management Planning in Great Lakes Areas of Concern.

Kelso, J.R.M., Canadian Department of Fisheries and Oceans, Hartig, J.H., International Joint Commission, (1995). Methods of Modifying Habitat to Benefit the Great Lakes Ecosystem.

New York State Department of Environmental Conservation, (no date). The New York Natural Heritage Program.

Section 7.20. Promote the use of local government land use powers to protect fish and wildlife habitat

Brewster, Marty, Town of Pittsford, Personal Communication with Todd Stevenson, May 12, 1995.

Brighton, Town of, (no date). Article XIV Environmental Protection Overlay Districts.

Costello, Jim, Town of Penfield, Personal Communication with Todd Stevenson, May 10, 1995.
Conservation Foundation, (1985). The Off-site Costs of Soil Erosion.

Environment Canada, United States Environmental Protection Agency, (1994). State of the

Lakes Ecosystem Conference: Aquatic Habitat and Wetlands of the Great Lakes.
 Fredette, Christine and Stinson, Douglas, (1990). ", Rochester Committee for Scientific Information, Bulletin #306, "Methods of Open Space Preservation".
 Fredette, Chris, Town of Perinton Conservation Board, Personal Communication with Todd Stevenson, May 8, 1995.
 Genesee/Finger Lakes Regional Planning Council, (no date). Regional Planning Council Teams Up with Land Trusts for Sustainable Development.
 Genesee Land Trust, (no date). What is a Conservation Easement?.
 Genesee Land Trust, (1995). The Newsletter of the Genesee Land Trust.
 Luce, Jane, Town of Victor, Personal Communication with Todd Stevenson, May 5, 1995.
 Penfield, Town of, (no date). Article III - Zoning Districts.
 Perinton, Town of, (1990). Natural Resources Inventory.
 Perinton, Town of, (1994). Article VIII Limited Development District.
 Pittsford, Town of, (no date). Article IV. Residential Districts.
 Pittsford, Town of, (no date). Article VII. Wetlands Protection.
 Victor, Town of, (no date). Proposal to Protect Small Wetlands.
 Whillans, T.H., Journal of Great Lakes Research, 8 (3): 570 - 577, 1982, "Changes in Marsh Area Along the Canadian Shore of Lake Ontario".
 Zorn, David, Genesee/Finger Lakes Regional Planning Council, Personal Communication with Todd Stevenson, May 5, 1995 and February 12, 1996.

Section 7.21. Educate about exotic species introduction

Coastal Educators News (Jan./Feb. 1995). "Exotic Aquatics."
Democrat and Chronicle (June 1, 1986). "Creeping Weed is the Monster of Lake George."
 Glassner-Shwayder, Kathe, Great Lakes Commission. Personal communication with Carole Beal, May 17, 1995.
 Goettel, Robin, Illinois-Indiana Sea Grant. Personal communication with Carole Beal, May 18, 1995.
 Illinois/Indiana Sea Grant. Teachers: Have You Heard About Zebra Mussel Mania? (fact sheet about Zebra Mussel Traveling Trunk)
 Lake Champlain newsletter (Oct. 1982). "Nuisance Aquatic Harvesting."
 MacNeill, David, Sea Grant. Personal communication with Carole Beal, February 1, 1996.
 National Sea Grant Program (March 1995). Aquatic Exotic: Sea Grant Resources on Zebra Mussels.
 Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, February 23, 1996.
 New York Sea Grant. Educational packet, including Aquatic Exotic (catalog).
 NYSDEC (November 1993). Nonindigenous Aquatic Species Comprehensive Management Plan (three-year plan proposal).
 NYSDEC (April 1995). Implementation of the New York State Nonindigenous Aquatic Species Comprehensive Management Plan (one-year plan summary sheet).
 Sinnott, Timothy, NYSDEC. Personal communication with Carole Beal, May 19, 1995.
Twine Line, Ohio Sea Grant (April 1994). "Exotic Species Update."

Section 7.22. Develop public education structure

Collingwood Harbour RAP Team, (1992). Collingwood Harbour Remedial Action Plan Stage 2 Report.

Hamilton Region Conservation Authority, (1995). Hamilton Harbour Watershed Stewardship Project Final Report.

Peet, Margy, Monroe County Health Department, (1995). "Notes from the Wingspread Conference in Racine, Wisconsin on July 25 - 27, 1995".

Section 7.23. Complete basin water quality plans

New York State Department of Environmental Conservation, Monroe County Department of Planning and Development (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Urban Ranking Task Group for the Rochester Embayment Remedial Action Plan. Meeting minutes of June 17, 1996.

Chapter 7. Possible New Remedial Measures Rural

Section 7.25. Investigate the extent of PCB sources and identify and remove PCB-containing equipment

Costanzo, Bob, Genesee County Planning. Response to questionnaire mailed out on April 17, 1996.

Harding, Edward, Monroe County Division of Solid Waste (April 1995). Permanent Household Hazardous Waste Facility Case Study: Rochester, New York.

Sawyko, Paul, Rochester Gas and Electric Corporation. Section written for Rochester Embayment Remedial Action Plan, February 14, 1996.

Squires, George, Genesee County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Weaver, Melissa, Wyoming County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Section 7.26. Promote the New York State Water Quality Enhancement and Protection Plan

Amendments to 6NYCRR Part 701 Concerning Discharge Restriction Categories.

6NYCRR Part 326, Restricted Pesticides.

Parkin, William P. (1992). The Complete Guide to Environmental Liability and Enforcement in New York, STP Specialty Technical Publishers, Inc., pages IV A.2 1, IV A.2 2, and IV B 7.

Townsend, Robert, NYSDEC (1994). Draft summary of NYSDEC Water Quality Enhancement and Protection Policy (for Massena RAP).

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, March 21, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, April 5, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, August 28, 1995.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, November 30, 1995.
Townsend, Robert, NYSDEC. Letter to Carole Beal, January 23, 1996.

Section 7.27. Promote pollution prevention

Costanzo, Bob, Genesee County Planning. Response to questionnaire mailed out on April 17, 1996.

County of Erie Department of Environment and Planning (April 1993). Creating Pollution Prevention Incentives for Small Businesses: The Erie County Program.

DeMicco, Dan, NYSDEC. Personal communication with Carole Beal, November 28, 1995.

Klumpp, Anne Spaulding, City of Rochester. Presentation at the NYSDEC Pollution Prevention Seminar, November 15, 1995.

Klumpp, Anne Spaulding, City of Rochester. Personal communication with Carole Beal, January 24, 1996.

Malcolm Pirnie, Inc. (April 1993). Erie County Pollution Prevention Program Evaluation.

Squires, George, Genesee County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Weaver, Melissa, Wyoming County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Section 7.28. Identify hazardous waste sites

Costanzo, Bob, Genesee County Planning Department. Response to questionnaire mailed out on April 17, 1996.

Squires, George, Genesee County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Weaver, Melissa, Wyoming County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Section 7.29. Expand the storm drain message system

Akers, Carol, Pave-Mark Corporation. Letter to Margit Brazda, November 17, 1995.

Cass, Ronald, Town of Perinton. Personal communication with Carole Beal, February 23, 1996.

Civalier, Craig, Monroe County Department of Transportation. Personal communication with Carole Beal, February 27, 1996.

Gottlieb, Sean, Environmental Awareness. Letter to Margy Peet, September 27, 1995.

Minuteman Press. Personal communication with Carole Beal, March 7, 1996.

Snyder, Eugene, Decal Techniques, Inc. Personal communication with Carole Beal, March 6, 1996.

Section 7.31. Identify and solve onsite sewage disposal system problems

Costanzo, Bob, Genesee County Planning Department. Response to questionnaire mailed out on April 17, 1996.

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, May 10, 1996.

Squires, George, Genesee County Soil and Water Conservation District. Response to

questionnaire mailed out on April 17, 1996.
Weaver, Melissa, Wyoming County Soil and Water Conservation District. Response to questionnaire mailed out on April 17, 1996.

Section 7.32. Implement a phosphorus point source management strategy

Cornell Cooperative Extension Information Bulletin 127. "Lakes and Phosphorus Rochester Embayment of Lake Ontario and Monroe County water bodies Inputs: A Focus on Management."

Ireland, Corydon, Rochester Times-Union (September 7, 1995). "County is hiring engineering firm to study sewage plan".

Kent, Mike, Monroe County Pure Waters. Meeting with Carole Beal, August 31, 1995.

Kent, Mike, Monroe County Pure Waters (September 1995). Updating Pure Waters Master Plan.

NYSDEC press release, June 1, 1973.

NYSDEC Memorandum: SPDES Permit Development for POTWs.

NYSDEC (December 8, 1988). Technical and Operational Guidance Series (1.3.6): Phosphorus removal requirements for wastewater discharges to lakes and lake watersheds.

Oates, Jim, Town of Webster. Fax to Michael Schifano, January 31, 1996.

Pearson, Tom, NYSDEC. Personal communication with Carole Beal, January 8, 1996.

Robbins, Chris, Center for Governmental Research, (1992). RAP Worksheet: Conduct Regular Updates of the Pure Waters Master Plan.

Rural Ranking Task Group. Meeting of May 14, 1996.

Schifano, Michael, Monroe County Pure Waters (1992). Manage phosphorus loadings from point sources to meet Lake Ontario objectives (worksheet).

Schifano, Michael, Monroe County Pure Waters. Meeting with Carole Beal, September 13, 1995.

Schifano, Michael; Michael Kent; Phil Steinfeldt. Meeting with Todd Stevenson and Margy Peet, November 14, 1995.

Schifano, Michael and Michael Kent, Monroe County Department of Environmental Services. Meeting with Carole Beal and Todd Stevenson, January 5, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Personal communication with Carole Beal, January 8, 1996.

Schifano, Michael, Monroe County Department of Environmental Services. Meeting with Carole Beal and Todd Stevenson, January 31, 1996.

Tozer, Bud, NYSDEC (September 12, 1995). Limit/measurement/violations report for phosphorus (computer printout).

Section 7.33.Promote agricultural Best Management Practices

New York State Department of Agriculture and Markets, (1995). Responsible Environmental and Agricultural Planning (REAP), (proposal).

New York State Department of Agriculture and Markets, (1995). AG Nonpoint Source Abatement & Control Grant Program: High Priority Project Profile.

Public Technology Incorporated (1996). Winning Solutions 95 Public Technology, Inc.

United States Department of Agriculture, (1995). Great Lakes Basin Comprehensive Farm

Planning Network: 1995 - 1997 (proposal).

Warrender, Robin, Steuben County SWCD, Personal Communication with Todd Stevenson, June 15, 1995.

Wildeman, John, Personal Communication with Todd Stevenson, June 16, 1995.

Winkler, Frank, NRCS, Personal Communication with Todd Stevenson, April 1995, June 7, 1995, and February 6, 1996.

World Wildlife Fund, (1996). Reducing Reliance on Pesticides in Great Lakes Basin Agriculture.

Section 7.34. Educate the public regarding lawn care Best Management Practices that protect water quality

Berkley, Liz, Monroe County Cornell Cooperative Extension, Personal Communication with Todd Stevenson, May 12, 1995.

Nally, Thomas, Monroe County Cornell Cooperative Extension (May 4, 1994). Grant Proposal to Demonstrate the Impact of Yard Maintenance Practices on Water Quality.

Pultz, Jennifer, New York Sea Grant Program, Personal Communications with Todd Stevenson, December 12, 1995 and January 5, 1996.

Rural Ranking Task Group meeting, May 14, 1996.

Section 7.35. Implement a comprehensive streambank erosion control program in the rural counties of the Rochester Embayment watershed

Town of Brighton, (1993). Comprehensive Development Regulations, Article XIV Environmental Protection Overlay Districts.

Loberg, Jeanne, Town of Mendon. Personal communication with Todd Stevenson, May 2, 1996.

New York State Department of Environmental Conservation, (1986). Stream Corridor Management: A Basic Reference Manual.

Rural Ranking Task Group meeting, May 14, 1996.

Winkler, Frank, Natural Resources Conservation Service. Personal communication with Todd Stevenson, June 7, 1995.

Winkler, Frank, (March 1995). Draft: Develop Streambank Erosion Control Program.

Section 7.36. Educate local officials and the public on the value of wetlands

Rural Ranking Task Group. Meeting of May 14, 1996.

Section 7.37. Identify and rank critical habitat in and along waterways in the rural counties in the Rochester Embayment watershed

Dodge, Doug, Ontario Ministry of Natural Resources, Kavetsky, Robert, United States Fish and Wildlife Service, (1994). Aquatic Habitat and Wetlands of the Great Lakes.

Hartig, J.H., Great Lakes Fishery Commission, (1993). Toward Integrating Remedial Action and Fishery Management Planning in Great Lakes Areas of Concern.

Kelso, J.R.M., Canadian Department of Fisheries and Oceans, Hartig, J.H., International Joint Commission, (1995). Methods of Modifying Habitat to Benefit the Great Lakes Ecosystem.

New York State Department of Environmental Conservation, (no date). The New York Natural Heritage Program.

Rural Ranking Task Group meeting, May 14, 1996.

Section 7.38. Develop public education structure

Rural Ranking Task Group meeting, May 14, 1996.

Section 7.39. Gather data in preparation for watershed plans and a Genesee River basin plan

New York State Department of Environmental Conservation, Monroe County Department of Planning and Development (August 1993). Rochester Embayment Remedial Action Plan Stage I.

Rural Ranking Task Group. Meeting of May 14, 1996

Chapter 8. Evaluation/Overview of Financing Mechanisms

Section 8.3. Accessing Funds from Existing Sources

Paul Bringewatt, Monroe County Water Authority. Personal communication with Margy Peet, March 30, 1995.

W. Dieter N. Busch, United States Fish and Wildlife Service. Personal communication with Todd Stevenson, September 3, 1996.

Tom Goodwin, Monroe County Department of Planning and Development (no date). Ontario Lake Plains Resource Conservation and Development Council.

Governor's Blue Ribbon Panel (1995). Financing Alternatives for Maryland's Tributary Strategies: Innovative Financing Ideas for Restoring the Chesapeake Bay.

Indiana Department of Environmental Management (April 18, 1996). Grand Calumet River Partnership/ Corridor Planning.

International Joint Commission (September 1996). Summary of the Creative Funding Strategies for Restoration of Areas of Concern Conference, Racine, Wisconsin, July 23 - 26, 1996.

Todd Stevenson (March 1995). Special District Task Group Preliminary Proposal Regarding Stormwater Management Implementation.

United States Army Corps of Engineers (no date). Environmental Support Authorities.

United States General Accounting Office (June 1996). Water Quality: A Catalog of Related Federal Programs.

United States Environmental Protection Agency (date). Watershed Protection: Catalog of Federal Programs.

United States Environmental Protection Agency Region II (May 1996). Summary of Community Grant Programs.

Kevin Wheeler, Intern - Monroe County Health Department (June 1994). Creation of a Special District.

Wildlife Habitat Council (Spring 1996). Waterways for Wildlife (pamphlet).

Winkler, Frank, Natural Resources Conservation Service. Personal communication with Todd Stevenson, July 22, 1996.

World Wildlife Fund (date). Statewide Wetlands Strategies: A Guide to Protecting and Managing the Resource.

Chapter 9. Surveillance and Monitoring Program

Section 9.1. Monitoring for toxics

- Bode, R.W., M.A. Novak, L.E. Abele (1990). Biological impairment criteria for flowing waters in New York State. NYSDEC, Albany, NY, 110 pp.
- Bode, R.W., M.A. Novak, L.E. Abele (1991). Methods for rapid biological assessment of streams. NYSDEC, Albany, NY, 57 pp.
- Dickman, M.; I. Brindle; M. Benson (1992). "Evidence of Teratogens in Sediments of the Niagara River Watershed as Reflected by Chironomid (Diptera: Chironomidae) Deformities," Journal of Great Lakes Research, Vol 18, No. 3, pp. 467-480.
- Fry, Barry, Galson Laboratories. Personal communications with Carole Beal, July 25, 1996.
- Gorsuch, Joseph, Eastman Kodak Company. Letter to Carole Beal, February 2, 1996.
- Gorsuch, Joseph; Gary Neuderfer. Meeting with Carole Beal, February 29, 1996.
- Haynes, James, SUNY Brockport. Letter to Carole Beal, December 19, 1995.
- Haynes, James, SUNY Brockport. Letter to Carole Beal, March 16, 1996.
- Haynes, James, SUNY Brockport. Personal communication with Carole Beal, July 25, 1996.
- Neuderfer, Gary, NYSDEC. Letter to Carole Beal, February 7, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, February 29, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, March 1, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, March 7, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, March 21, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, March 26, 1996.
- Neuderfer, Gary, NYSDEC. Personal communication with Carole Beal, May 22, 1996.
- NYSDEC (May 1992). Biennial Report: Rotating Intensive Basin Studies Water Quality Assessment Program 1989-1990.
- NYSDEC (1994). New York State Air Quality Report Ambient Air Monitoring System.
- NYSDEC (March 1995). New York State Ambient Toxic Air Monitoring Network: 1992/93 Data Addendum for Volatile Organic Compounds.
- NYSDOH (1994). Health Advisory: Chemicals in Sportfish and Game, 1994-1995.
- Rockhill, Rebecca, SUNY Brockport. "Studies required to complete identification of use impairments, causes, qualifications of sources. Caddisfly/Mayfly as Biomonitors; Chironomid as Biomonitor".
- Ruszczyk, Michael, Eastman Kodak Company. Personal communication with Carole Beal, June 7, 1996.
- Steele, David, NYSDEC. Personal communication with Carole Beal, June 1996.
- Update (Eastman Kodak Company newsletter), Issue 2, April 1996.
- Warwick, W.F. (1990). "The Use of Morphological Deformities in Chironomid Larvae for Biological Effects Monitoring" National Hydrology Research Institute, Environment Canada, Paper No. 43, Inland Waters Directorate Scientific Series No. 173.
- Warwick, W.F. (1991). Indexing Deformities in Ligulae and Antennae of *Procladius* Larvae

(Diptera: Chironomidae): Application to Contaminant-Stressed Environments," Can. J. Fish. Aquat. Sci., Vol. 48, pp. 1151-1166.

Section 9.2. Monitoring of contaminated sediments

Burton, Richard, Monroe County Department of Health. Meeting with Carole Beal, August 3, 1995.

Burton, Richard, Monroe County Department of Health. Phone conversation with Carole Beal, November 2, 1995.

Fry, Barry, Galson Laboratories. Personal communication with Carole Beal, July 25, 1996.

Pickard, Scott, U.S. Army Corps of Engineers. Personal communication with Carole Beal, November 29, 1995.

Pickard, Scott, U.S. Army Corps of Engineers. Personal communication with Carole Beal, January 29, 1996.

Section 9.3. Monitoring for eutrophication and *Cladophora*

Bannister, Thomas; Peet, Margy; Smith, Paula; Winkler, Frank. Meeting with Carole Beal and Anna Madden, November 17, 1995.

Barnaba, Jean, CLEARs. Personal communication with Carole Beal, January 31, 1996.

Brazda, Margit, Monroe County Health Department. Meeting with Carole Beal, February 26, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, December 11, 1995.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, March 19, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, March 26, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, May 23, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, June 6, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, June 18, 1996.

Hartshorn, Louise, Monroe County Environmental Management Council. Personal communication with Carole Beal, February 1, 1996.

Hurd, Zeke, Pegasus Environmental Ltd. Personal communication with Carole Beal, February 6, 1996.

Hurd, Zeke, Pegasus Environmental Ltd. Personal communication with Carole Beal, March 21, 1996.

Hurd, Zeke, Pegasus Environmental Ltd. Personal communication with Carole Beal, March 26, 1996.

Hurd, Zeke, Pegasus Environmental Ltd. Personal communication with Carole Beal, June 7, 1996.

Madden, Anna, Monroe County Department of Health. Personal communication with Carole

Beal, February 26, 1996.

Madden, Anna, Monroe County Department of Health. Personal communication with Carole Beal, February 28, 1996.

Madden, Anna, Monroe County Department of Health. Personal communication with Carole Beal, May 28, 1996.

Makarewicz, Joseph, SUNY Brockport. Personal communication with Carole Beal, January 5, 1996.

Makarewicz, Joseph, SUNY Brockport. Personal communication with Carole Beal, February 28, 1996.

Mills, Ed, Cornell Biological Field Station. Personal communication with Carole Beal, May 30, 1996.

Monroe County Health Department (December 1995). Water Quality/Use Findings Document for Long Pond, Cranberry Pond, Round Pond, Buck Pond, Appendix B.

Murdock, Darryl, University of Syracuse. Personal communication with Carole Beal, April 10, 1996.

NYSDEC (August 1995). Trends in Water Quality of Selected Rivers in New York State Based on Long-Term Routine Network Data.

Schott, John, Department of Imaging Science, Rochester Institute of Technology. Personal communication with Carole Beal, March 7, 1996.

Stringham, Al, Landcare Aviation, Inc. Personal communication with Carole Beal, May 24, 1996.

Stringham, Al, Landcare Aviation, Inc. Fax to Carole Beal, June 18, 1996.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, February 28, 1996.

Young, Richard, SUNY Geneseo. Personal communication with Carole Beal, February 1, 1996.

Section 9.4. Local atmospheric deposition monitoring

Bigelow, David S.; Scotty R. Dossett (1988). Instruction Manual, NADP/NTN Site Operation. National Atmospheric Deposition Program. Fort Collins, Colorado.

Johnston, William H.; Donald A. Sherwood (1993). Water Resources of Monroe County, New York, Water Years 1984-88, with Emphasis on Water Quality in the Irondequoit Creek Basin. Part 1. Water Resources Data, USGS Open File Report 93-370. Ithaca, New York.

Kappel, William M.; Richard M. Yager; Phillip J. Zarriello (1986). Quantity and Quality of Urban Storm Runoff in the Irondequoit Creek Basin near Rochester, New York, Part 2. Quality of Storm Runoff and Atmospheric Deposition, Rainfall-Runoff Quality Modeling, and Potential of Wetlands for Sediment and Nutrient Retention, USGS Investigations Report 85-4113. Ithaca, New York.

Zarriello, Phillip J.; William E. Harding; Richard M. Yager; William M. Kappel (1985). Quantity and Quality of Urban Storm Runoff in the Irondequoit Creek Basin near Rochester, New York. Part 1. Data Collection Network and Description of Available Data, USGS Open File Report 84-610. Ithaca, New York.

Section 9.6. Monitoring for beach closings

Madden, Anna, Monroe County Health Department. Personal communication with Carole Beal,

March 8, 1996.

Section 9.7. Monitoring for aesthetics - algae

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, December 11, 1995.

Section 9.8. Monitoring for aesthetics - chemical seeps

Elliott, Richard, Monroe County Department of Health. Personal communication with Carole Beal, June 11, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, January 9, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, February 28, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, March 27, 1996.

Sawyko, Paul, RG&E. Fax to Carole Beal, June 17, 1996.

Section 9.9. Monitoring for aesthetics - litter (including fish carcasses)

Farr, Jim, City of Rochester Parks Department, Personal Communication with Todd Stevenson, January 16, 1996.

Nelson, Ray, Sierra Club, Personal Communication with Todd Stevenson
January 16, 1996.

Summers, June, Audubon Society, Personal Communication with Todd Stevenson,
January 24, 1996.

Section 9.10. Monitoring for turbidity

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, March 19, 1996.

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, March 26, 1996.

Madden, Anna, Monroe County Department of Health. Fax to Carole Beal, June 11, 1996.

Nugent, James, Monroe County Water Authority. Personal communication with Carole Beal,
March 18, 1996.

Ruszczuk, Michael, Eastman Kodak Co. Personal communication with Carole Beal, January 29, 1996.

Ruszczuk, Michael, Eastman Kodak Co. Personal communication with Carole Beal, March 18, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, February 12, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, February 28, 1996.

Sawyko, Paul, RG&E. Personal communication with Carole Beal, March 18, 1996.

Section 9.11. Monitoring for added costs to agriculture and industry - zebra mussel

Burton, Richard, Monroe County Department of Health. Personal communication with Carole Beal, March 19, 1996.

Clark, Thomas, Village of Brockport. Personal communication with Carole Beal, March 20, 1996.

- Mills, E.L.; R.M. Dermott et al. (1993). "Colonization, ecology, and population structure of the "quagga" mussel (*Bivalvia: Dreissenidae*) in the lower Great Lakes", Canadian Journal of Fisheries and Aquatic Sciences, Vol. 50, No. 11, pp 2305-2314.
- Mills, Edward, Cornell University Biological Field Station. Personal communication with Carole Beal, March 21, 1996.
- Mills, Edward, Cornell University Biological Field Station. Personal communication with Carole Beal, April 4, 1996.
- Nugent, James, Monroe County Water Authority. Personal communication with Carole Beal, December 15, 1995.
- Nugent, James, Monroe County Water Authority. Personal communication with Carole Beal, March 18, 1996.
- O'Neill, Jr., Charles, Sea Grant. Personal communication with Carole Beal, December 15, 1995.
- O'Neill, Jr., Charles, Sea Grant. Personal communication with Carole Beal, May 11, 1995.
- Ruszczyk, Michael; Paul Sawyko; Michael Schifano. Meeting with Carole Beal, December 4, 1995.
- Ruszczyk, Michael, Eastman Kodak Company. Personal communication with Carole Beal, January 25, 1996.
- Ruszczyk, Michael, Eastman Kodak Company. Personal communication with Carole Beal, March 18, 1996.
- Ruszczyk, Michael, Eastman Kodak Company. Personal communication with Carole Beal, March 22, 1996.
- Sawyko, Paul, RG&E. Personal communication with Carole Beal, December 15, 1995.
- Sawyko, Paul, RG&#E. Personal communication with Carole Beal, February 12 and March 18, 1996.

Section 9.12. Status of phytoplankton and zooplankton populations in the lower Genesee River portion of the Rochester Embayment

- Brandlova, J.Z., Z. Brandl and C.H. Fernando (1972). "The Cladocera of Ontario with remarks on some species and distribution." Can. J. Zool. 50:1371-1403.
- Brooks, J.L. (1957). The Systematics of North American *Daphnia*. Memoirs of the Connecticut Academy of Arts and Sciences. Yale University Press, New Haven, Connecticut.
- Dooan, M. (1973). "An energy budget for adult *Brachionus plicatilis* Muller (Rotatoria)." Oecologia 13: 351-362.
- Downing, J.A. and F.H. Rigler (1984). A Manual on Methods for the Assessment of Secondary Productivity in Fresh Waters. IBP Handbook #17. Blackwell Scientific Publications, Oxford.
- Dumont, H.J., I. Van de Velde and S. Dumont (1975). "The dry weight estimate of biomass in a selection of Cladocera, Copepoda and Rotifera from the plankton, periphyton and benthos of continental waters." Oecologia 19:75-97.
- Edmondson, W.T. (1959). Freshwater Biology. 2nd ed. John Wiley and Sons, New York.
- Gannon, J.E. (1971). "Two counting cells for the enumeration of zooplankton micro-crustacea." Trans. Amer. Micros. Soc. 90:486-490.
- Hawkins, B.E. and M.S. Evans (1979). "Seasonal cycles of zooplankton biomass in southeastern

- Lake Michigan." J. Great Lakes Res. 5:256-263.
- Makarewicz, J.C. and G.E. Likens (1979). "Structure and function of the zooplankton community of Mirror Lake, N.H." Ecol. Monogr. 49:109-127.
- Makarewicz, J.C. and P. Bertram (1991). "Evidence for the restoration of the Lake Erie ecosystem." Bioscience 41:216-223.
- Makarewicz, J.C., T. Lewis and P. Bertram (1991). "Phytoplankton and zooplankton composition, abundance and distribution and trophic interactions: Offshore region of Lake Erie, Lake Huron and Lake Michigan - 1985." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/3-90-003.
- Makarewicz, J.C. (1987). "Phytoplankton and zooplankton composition, abundance and distribution: Lake Erie, Lake Huron and Lake Michigan - 1983." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/2-87-002.
- Makarewicz, J.C. (1988). "Phytoplankton and zooplankton in Lakes Erie, Huron, and Michigan: 1984." U.S. EPA Great Lakes National Program Office, Chicago, Illinois, Report # EPA-905/3-88-001.
- Makarewicz, J.C. (1993b). "A lakewide comparison of zooplankton biomass and its species composition in Lake Erie, 1983-87." J. Great Lakes Res. 19:275-290.
- Nauwerck, A. (1963). "The relation between zooplankton and phytoplankton in Lake Erken." Symb. Bot. Ups. 17:1-163.
- Ruttner-Kolisko, A. (1974). Plankton Rotifers: Biology and Taxonomy. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, Germany.
- Stemberger, R.S. (1979). "A Guide to Rotifers of the Laurentian Great Lakes." U.S. EPA, Report # EPA 600/4-79-021, 185 pp.
- Willen, T. (1959). "The phytoplankton of Gorwalm, a bay of Lake Malaren." Oikos. 10:241-274.

Section 9.13. Monitoring fish and wildlife habitat

- Agard, Kris, The Nature Conservancy, Personal Communication with Todd Stevenson, January 8, 1996.
- Bagdon Environmental Associates, (1992). Wildlife Habitat Management Plan Mill Seat Landfill.
- Carroll, Dan, NYSDEC, Personal Communication with Todd Stevenson, December 28, 1995.
- Lane, Gene, NYSDEC, Personal Communication with Todd Stevenson, December 28, 1995.
- Long Point Bird Observatory and Environment Canada, (1995). Marsh Monitoring Program: Training Kit and Instructions for Surveying Marsh Birds, Amphibians, and their Habitats.
- Maine, Neal, (1992). Volunteers and Natural Resource Monitoring. In: Kentula, M.E., R.P. Brooks, S.E. Gwin, C.C. Holland, A.D. Sherman, and J.C. Sifenos. An Approach to Decision Making in Wetland Restoration and Creation. Edited by A.J. Hairston. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR.
- Miller, Michael, Wisconsin Department of Natural Resources, Personal Communication with Todd Stevenson, December 28, 1995.
- Monroe County Environmental Health Laboratory, (1994). Irondequoit Creek Wetlands Water Quality Project 23 August 1994 Public Information Meeting Summary.

New York State Department of Environmental Conservation, (1989). Biological Stream Testing: Methods for Use In Schools.

New York State Department of Environmental Conservation, (no date). Wetlands Status and Trend Analysis of New York State mid-1970's to mid-1980's.

Rasmussen, Jerry, NYSDEC, Personal Communication with Todd Stevenson, January 3, 1995.

Reixinger, Patricia, NYSDEC, Personal Communication with Todd Stevenson, January 5, 1996.

Reixinger, Patricia and Brown, Stephen, (1994). Habitat Characterization of Reference Wetlands for Western New York.

Ringler, N. And Miller, D. (1991). Effects of Storm Water Retention on the Animal Community of the Upper and Lower Wetlands of Irondequoit Creek, Rochester, New York.

Texas Natural Resource Conservation Commission (Volume 7, No. 2 Fall 1995). The Volunteer Monitor.

United States Environmental Protection Agency, (1993). Research Plan and Methods Manual for the Oregon Wetlands Study.

United States Environmental Protection Agency, (1995). Field and Laboratory Operations Report for the Oregon Wetlands Study.

Washington State Department of Ecology and the Puget Sound Water Quality Authority, (1991). A Citizen's Guide to Understanding and Monitoring Lakes and Streams.

Section 9.15. Public attitudes and knowledge

Monroe County Department of Planning, (1983). Monroe County Water Quality Attitude Survey Findings and Recommendations.

Section 9.16. Monitoring of events at the Akzo Nobel Salt Mine

AKZO Nobel Salt Inc. (January 24, 1996). Methane and Hydrogen Sulfide Gas Report and Protocol.

Ellison, Joan, Livingston County Health Department. Personal communication with Carole Beal, May 24, 1996.

Livingston County Health Department; New York State Department of Health (December 1994). Fact Sheet: AKZO -Nobel Salt, Inc. Update 1.

Livingston County/Retsof Mine Task Force Journal:

(September 16, 1994). "Technical Assistance Group forming to aid in public understanding, oversight".

(September 29, 1995). "Officials continue to watch water closely".

(August 26, 1994). "Agreement reached".

Monroe County Water Quality Management Advisory Committee, January 25, 1996.

Mussetter Engineering, Inc. (March 7, 1996). Evaluation of Potential Effects of Subsidence on the Genesee River and Tributaries.

NYSDEC Region 8 News Release (July 15, 1994). "AKZO discharge monitoring shows no adverse impact on Genesee".

NYSDEC; Akzo Nobel Salt, Inc.; County of Livingston (November 1994). Memorandum of Understanding.

NYS Departments of Law and Environmental Conservation; Akzo Nobel Salt, Inc.; County of

Livingston (August 1994). Memorandum of Understanding and Agreement.
NYS Departments of Law and Environmental Conservation; Akzo Nobel Salt, Inc.; County of
Livingston (May 1996). Memorandum of Understanding and Agreement II.
Pearson, Tom, NYSDEC. Personal communication with Carole Beal, May 13, 1996.
Pearson, Tom, NYSDEC. Personal communication with Carole Beal, May 28, 1996.
RE/SPEC, Inc. For AKZO Nobel Salt, Inc. (August 1994). Overview of the Predicted
Ground Settlement at the AKZO Nobel Retsof Mine.
Rochester Committee for Scientific Information News Note (April 1996). "Update on Akzo
Nobel Salt, Inc. Retsof Mine Collapse".
Woods, David, Livingston County Planning Department. Personal communication with Carole
Beal, March 19, 1996.
Young, Richard, SUNY Geneseo. Letter to Peter Skinner, NYS Attorney General's Office, April
10, 1996.
Young, Richard, SUNY Geneseo. Letter to Richard Elliott, Monroe County Department of
Health, May 21, 1996.

Section 9.17. Monitor the impact of road salt on fish and wildlife habitat

Bernard, John and Seischab, Franz (1991). Flora and Vegetation of the Irondequoit Creek and
Buttonwood Creek Wetlands.
Knauf, Charlie, Monroe County Environmental Health Laboratory. Personal Communication
with Todd Stevenson, January 17, 1996.
Knauf, Charlie, Monroe County Environmental Health Laboratory. Personal Communication
with Todd Stevenson, July 11, 1996.
Irondequoit Bay Pure Waters District/Department of Engineering (1985). Irondequoit Basin
Framework Plan.
Monroe County Environmental Management Council Salt Task Force (1987). The Use of Road
Deicing Salt on State Roads in Monroe County.
Monroe County Environmental Management Council Salt Task Force (1995). Draft Report -
The Use of Road Deicing Salt on State Roads in Monroe County: An Update.
Neuderfer, Gary, New York State Department of Environmental Conservation. Personal
communication with Todd Stevenson, January 16, March 11, and March 20, 1996.
Seischab, Franz, Rochester Institute of Technology. Personal Communication with Todd
Stevenson, March 13, 1996.
United States Geological Survey, Water Resources of Monroe County New York, Water Years
1984-1988.

Section 9.18. Data management

Bugliosi, Ed; Don Sherwood; Bill Kappel; Phil Zarriello; USGS. Meeting with Anna
Madden, Charles Knauf and Carole Beal, April 24, 1996.
Burton, Richard, Monroe County Department of Health. Meeting with Charles Knauf, Anna
Madden and Carole Beal, May 7, 1996.
Madden, Anna, Monroe County Department of Health. Personal communication with Carole
Beal, August 19, 1996.

Chapter 10. Selected Actions, Studies and Monitoring Methods

Section 10.1. Urban County Selected Remedial Actions

Urban Ranking Task Group. Meeting minutes of April 1, May 6, May 22, June 17 and June 27, 1996, and attachments.

Section 10.2. Rural Counties Selected Remedial Actions

Rural Ranking Task Group. Meeting minutes of March 12, April 8, and May 14, 1996, and attachments.

Section 10.4. Environmental Review for the Stage II Remedial Action Plan

NYSDEC Environmental Notice Bulletin (August 23, 1995). SEQR Notices.

Townsend, Robert, NYSDEC (August 16, 1996). Letter to Todd Stevenson.

Townsend, Robert, NYSDEC. Personal communication with Carole Beal, September 25, 1996.

Chapter 11. Management of RAP Implementation

Section 11.7. Public participation during RAP implementation

Richard Burton, Monroe County Health Department. David Zorn, Genesee/Finger Lakes Regional Planning Council. Meeting with Carole Beal, Margy Peet, and Todd Stevenson, September 3, 1996.

WQMAC Executive Committee meeting (September 4, 1996).

Water Resources Board (Summer 1996). The Information Exchange.

Water Resources Board (February 1995). Protecting the Lake Ontario Drainage Basin in New York State: A Proposal to Develop a Finger Lakes - Lake Ontario Watershed Protection Alliance.

Water Resources Board (December 1995). Water Resources Board of the Finger Lakes Association By-Laws.

Water Resources Board (October 1994). Water Resources Board Five-Year Conference Matrix.

Water Resources Board (July 1995). Finger Lakes Aquatic Vegetation Control Program: 1995 Program Narrative.

Appendix H: New York State Environmental Quality Review

PROJECT I.D. NUMBER

Appendix C

State Environmental Quality Review

SHORT ENVIRONMENTAL ASSESSMENT FORM

For UNLISTED ACTIONS Only

PART I—PROJECT INFORMATION (To be completed by Applicant or Project sponsor)

1. APPLICANT /SPONSOR Monroe County	2. PROJECT NAME Rochester Embayment Remedial Action Plan (RAP) Stage II
3. PROJECT LOCATION: Municipality <u>See attachment</u> County _____	
4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map) See attachment	
5. IS PROPOSED ACTION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Expansion <input type="checkbox"/> Modification/alteration	
6. DESCRIBE PROJECT BRIEFLY: See attachment.	
7. AMOUNT OF LAND AFFECTED: <u>Not applicable</u> Initially _____ acres Ultimately _____ acres	
8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe briefly Not applicable.	
9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Park/Forest/Open space <input type="checkbox"/> Other Describe: Not applicable	
10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, list agency(s) and permit/approvals See attachment	
11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, list agency name and permit/approval	
12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION? <input type="checkbox"/> Yes <input type="checkbox"/> No <u>Not applicable</u>	
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE	
Applicant/sponsor name: <u>Monroe County</u>	Date: <u>May 23, 1997</u>
Signature: <u>Margaret Peck</u>	

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment

PART II—ENVIRONMENTAL ASSESSMENT (To be completed by Agency)

<p>A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4? If yes, coordinate the review process and use the FULL EAF.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No See attachment</p>	
<p>B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency.</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>C. COULD ACTION RESULT IN ANY ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)</p> <p>C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic patterns, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly:</p> <p>No. See attachment.</p> <p>C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:</p> <p>No. See attachment.</p> <p>C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:</p> <p>No. See attachment.</p> <p>C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly:</p> <p>No. See attachment.</p> <p>C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly:</p> <p>No. See attachment.</p> <p>C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly:</p> <p>No. See attachment.</p> <p>C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly:</p> <p>No. See attachment.</p>	
<p>D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CEA?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, explain briefly</p> <p>See attachment.</p>	

PART III—DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question D of Part II was checked yes, the determination and significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

- ☐ Check this box if you have identified one or more potentially large or significant adverse impacts which MAY occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.
- ☒ Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action WILL NOT result in any significant adverse environmental impacts AND provide on attachments as necessary, the reasons supporting this determination:

Monroe County

John D. Doyle

Name of Lead Agency

County Executive

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (If different from responsible officer)

April 16, 1997

Date

**Short Environmental Assessment Form for the Rochester Embayment
Remedial Action Plan Stage II
Attachment**

Part I

3-4. The Rochester Embayment is the approximately 35 square mile broad bay in Lake Ontario at the mouth of the Genesee River. It is bounded by Nine Mile Point in the Town of Webster to the east and Bogus Point in the Town of Parma to the west. The Rochester Embayment watershed includes the watersheds of the Genesee River and its tributaries, the watersheds of streams that discharge directly into Lake Ontario within Monroe County, Irondequoit Bay, the Greece Ponds and numerous wetlands. The Embayment watershed incorporates all or a significant part of six counties: Allegany, Genesee, Livingston, Monroe, Ontario, and Wyoming.

6. Monroe County, as subcontractor to the New York State Department of Environmental Conservation (NYSDEC), is preparing the Stage II RAP. The RAP is required by the International Joint Commission and its required content is described in the Great Lakes Water Quality Agreement, as amended in 1987. The Stage I RAP (1993) identified water quality problems in the watershed of the Rochester Embayment. The Stage II RAP proposes and recommends water quality remedial measures for the identified problems. It also proposes studies to further define causes and sources of pollution, and monitoring methods to track the success of remedial measures.

10. The RAP involves no permit approval. Funding has been provided by Monroe County and the NYSDEC. RAPs have no direct action-forcing component. When the RAP is implemented, each selected action will undergo a separate SEQR review.

Part II

A. No official action is being taken as a result of the Stage II RAP. Therefore it does not cross a threshold for a Type I action. Each selected remedial measure will be subject to further SEQR review before implementation.

C1. Impacts:

Air quality: Pollution prevention and erosion control actions proposed in the RAP, if implemented, will have a slight beneficial impact on air quality.

Surface or groundwater quality or quantity: All of the proposed actions described in the RAP, if implemented, will improve surface water quality, and will indirectly improve groundwater quality.

Potential for erosion, drainage or flooding problems: The following proposed actions described in the RAP, if implemented, will reduce these problems:

- Streambank erosion control programs
- Development of stormwater wetlands
- Preservation of wetlands and critical habitat along waterways
- Consideration of water quality by transportation engineers
- Practices that manage stormwater runoff quantity and quality

There will be no impact on noise levels, existing traffic patterns, solid waste production or disposal.

C2. Impacts:

Aesthetic resources: The following proposed actions, if implemented, will improve aesthetic water resources:

- Actions which reduce the discharge of nutrients and, therefore, reduce the growth of algae at Charlotte Beach and other locations.
- Actions which preserve open space, such as preservation of wetlands and critical habitat along waterways.
- Actions which reduce erosion and, therefore, reduce the turbidity of the Genesee River and streams.

Agricultural resources: The proposed promotion of agricultural best management practices, if implemented, will improve the quality of stormwater runoff from agricultural lands.

Community or neighborhood character: Proposed actions that improve water quality and related aesthetic resources (see above), if implemented, will have a beneficial impact on neighborhoods near water resources and on recreational opportunities for the entire community.

There will be no impact on archaeological or historic resources.

C3. Impacts:

Plants and wildlife, significant habitats and threatened or endangered species will benefit from the following proposed actions, if implemented:

- Creation and preservation of wetlands
- Preservation of critical habitat along waterways and other habitat
- Reduction of toxic bioaccumulative chemicals in the water
- Reduced amount of siltation in waterways

C4. Impacts:

A municipality's existing plans or goals may undergo a change as a result of the RAP due to the proposed institution of intergovernmental agreements (IGAs) between a municipality and Monroe County or among municipalities. The IGAs, if implemented, will improve the quality of stormwater runoff, and help to protect fish and wildlife habitat.

Change in use or intensity of use of land or other natural resources: Changes will result from the proposed actions that, if implemented, will create and preserve wetlands and other habitat.

C5. Growth, subsequent development or related activities are not likely to be induced by the RAP actions if they are implemented.

C6 and C7. Other impacts

Public health will benefit from the proposed impacts in the RAP that, if implemented, will:

- Improve the water quality of the beach
- Gradually reduce the bioaccumulative toxic substances that cause fish consumption advisories

E. Controversy related to potential adverse environmental impacts.

The Stage II RAP was developed with considerable input from the public. The entire RAP was reviewed by:

- The Monroe County Water Quality Coordinating Committee, composed of representatives of Monroe County and New York State governments and agencies involved in water quality.
- The Monroe County Water Quality Management Advisory Committee, composed of representatives of citizens, public interests, economic interests and public officials.

In addition, each proposed urban remedial action was reviewed by a team composed of persons knowledgeable in the appropriate field.

When the final draft of the Stage II RAP was completed, there was a one-month public comment period during which verbal and written comments were requested. To facilitate the comment process, a public meeting was held which was widely publicized. Copies of the final draft of the Stage II RAP were available at many public and university libraries throughout Monroe County. Executive Summaries were available to all who requested them.

There was also input to the Stage II RAP from the five other counties that make up the major portion of the Rochester Embayment watershed: Allegany, Genesee, Livingston, Ontario and Wyoming. Proposed actions for rural counties were selected and reviewed by county representatives from agencies involved in water quality. The final draft of the rural proposed actions was presented within each county at Water Quality Coordinating Committee or

Environmental Management Council meetings. Copies of the final draft of the Stage II RAP were given to the chair of each Water Quality Coordinating Committee. Executive Summaries were available to all who requested them.

A responsiveness summary was prepared to record comments that were received at public meetings or in writing and to respond to them. The responsiveness summary is part of the Stage II RAP (see Appendices). Where appropriate, changes or additions were made to the text of the Stage II RAP as a result of the comments.

Appendix F

State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance

Project Number _____

Date April 16, 1997

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The Monroe County as lead agency, has determined that the proposed action described below will not have a significant effect on the environment and a Draft Environmental Impact Statement will not be prepared.

Name of Action: Rochester Embayment Remedial Action Plan Stage II

SEQR Status: Type I ☐
Unlisted ☒

(Signature)

Conditioned Negative Declaration: ☐ Yes
☒ No

Description of Action:

Monroe County, as subcontractor to the New York State Department of Environmental Conservation (NYSDEC), is preparing the Stage II RAP. The RAP is required by the International Joint Commission and its required content is described in the Great Lakes Water Quality Agreement, as amended in 1987. The Stage I RAP (1993) identified water quality problems in the watershed of the Rochester Embayment. The Stage II RAP proposes and recommends water quality remedial measures for the identified problems. It also proposes studies to further define causes and sources of pollution, and monitoring methods to track the success of remedial measures.

Location: (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

Lead Agency: Room 110, Monroe County Office Building, 39 West Main Street, Rochester, New York 14614-1476

Project: The Rochester Embayment is the 35 square mile broad bay at the mouth of the Genesee River. Its watershed incorporates all or parts of the following counties: Allegany, Genesee, Livingston, Monroe, Ontario, Wyoming.

Reasons Supporting This Determination:

(See 617.6(g) for requirements of this determination; see 617.6(h) for Conditioned Negative Declaration)

The Stage II Rochester Embayment Remedial Action Plan (RAP) proposes and recommends water quality remedial measures for problems identified in the Rochester Embayment and its watershed. It also proposes studies to further define causes and sources of pollution, and monitoring methods to track the success of remedial measures. When the Stage II RAP is implemented, each selected action will undergo a separate SEQR review.

Actions that are proposed in the Stage II RAP, if implemented, will:

- Improve surface water quality and indirectly improve groundwater quality.
- Reduce toxic bioaccumulative chemicals in waterways.
- Reduce the potential for erosion, drainage or flooding problems.
- Reduce the discharge of nutrients and, therefore, reduce the growth of algae at Charlotte Beach and other locations.
- Improve the quality of stormwater runoff from urban and agricultural lands.
- Help to preserve wetlands and habitat along waterways.
- Improve water recreation opportunities for the community.

Public participation was an important part of the development of the Stage II RAP.

If Conditioned Negative Declaration, provide on attachment the specific mitigation measures imposed.

For Further Information:

Contact Person:

Address:

Telephone Number:

For Type I Actions and Conditioned Negative Declarations, a Copy of this Notice Sent to:

Commissioner, Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-0001

Appropriate Regional Office of the Department of Environmental Conservation

Office of the Chief Executive Officer of the political subdivision in which the action will be principally located.

Applicant (if any)

Other involved agencies (if any)

Appendix I:
NYSDEC Letter of December 19, 1996,
and Response

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York, 12233-3508



Michael D. Zagata
Commissioner

December 19, 1996

Mr. Todd Stevenson and Ms. Carole Beal
Water Quality Planning
Monroe County Department of Health
350 East Henrietta Road, Bldg. #5
Rochester, NY 14620

Re: Rochester Embayment RAP - Preliminary Stage II Draft Comments

Todd + Carole
Dear Mr. Stevenson and Ms. Beal:

Enclosed is a draft of the comments for the Rochester Stage II RAP document. Although significant changes are not anticipated, we need to allow for late replies and discussion of the content with supervision. Also enclosed is the cover page for the 18 Mile Creek RAP to use as an example for spacing and logo locations.

I hope these comments/suggestions are useful. I look forward to and plan to attend the public information meetings on the final draft tentatively scheduled for February 24 and 25, 1996. As you noted, one day will be an implementation workshop and one evening will be an overview presentation and comment period for the general public. I informed Linda Vera in Region 8 DEC of these dates for attendance.

In regard to the public participation procedures needed for the public meeting: there are no formal requirements; however, repeating the protocol used to announce the Stage 1 public meeting would be appropriate. Our Region 9 Office is taking the following steps to prepare for the public comment of their draft RAP for 18 Mile Creek: Announce the intent to conduct RAP informational workshop(s) and RAP public comment meeting at local committee meetings (e.g. WQMAC) and request their assistance. Have local persons suggest and participate in announcing meeting dates. Post notices in malls, libraries, etc. Put advertisements in main area newspaper(s) and local newspaper(s). Allow about three weeks lead time for notices prior to meetings. Conduct workshop(s) to explain the RAP (18 Mile Creek plans two workshops, one on Feb 5 and one on Feb 18 at two different locations). Announce and conduct public comment meeting two weeks thereafter. All are evening meetings.

Please call me at 518-457-9603 with any questions.

Sincerely,

Robert E. Townsend, P.E.
Great Lakes and Estuaries Section
Bureau of Watershed Management

Enclosures
cc: Dick Draper

DRAFT
COMMENTS ON STAGE II
ROCHESTER EMBAYMENT RAP

Re: Comments on the Draft Stage II - Rochester Embayment Remedial Action Plan (RAP)

Dear Ms. Peet:

In late October, NYSDEC Division of Water distributed twenty-two copies of the draft documents for comments requested by December 11, 1996. Some substantive comments have been received, (e.g. DEC Region 8 has concerns with recommending dry basin conversions and the use of swirl concentrators). Other suggestions center on format. The Stage II document is very comprehensive, and as such, may have discouraged some through review. In the interest of expediting and improving the report the following suggestions are offered:

1. The outline used in Chapter 6 applies the headings "date project initiated" and "project description" to a number of activities that are more appropriately described as programs, policies, or regulations. For example, SPDES is a program, as is pretreatment, stormwater, and pollution prevention. The Great Lakes Water Quality Guidance is federal regulation. The difference is that these measures do not have an end point that one would associate with a project.
2. The SPDES "effectiveness" discussion on page VI-66 is inappropriate. The Division of Water feels strongly that there is no question that SPDES has been effective. Other factors listed here have contributed but this does not diminish the fact that SPDES is the regulatory program to control point source discharges. The RAP should clearly state SPDES success and effectiveness; to describe SPDES otherwise is not accurate.
3. Some organization changes may be needed. A common challenge to RAP reporting is the ability to combine program/activity descriptions so that a major topic is focused on in one section of the report instead of piecemeal throughout. Item one on the attached list of comments lists nine major topics under which RAP activities can be described.
4. The lengthy remedial action sections (chapters 6 and 7 urban/rural; approx. 600 pages), repeat use impairment descriptions upfront in each chapter and list resources at the end. Some streamlining may be needed: address each use impairment only once to achieve a focus and reference resources at the end as contained in the appendix or a separate reference document.

5. The appendices could be used to reduce the size of some chapters/sections (e.g. strategies, priority schemes) in the body of the report. Attention could then be focused on the conclusions of these sections rather than the background and technique descriptions. In fact, the appendices could be a separate document.

6. Attached is a more detailed list of suggestions and comments for improving the presentation of descriptions in the Stage II report. This information is provided in the following order:

- * 28 comments on the Stage II document on the first two pages
- * Six comments on the Executive Summary starting at comment 29
- * Eight comments by our Bureau of Assessment and Research
- * Three comments by our Division of Environmental Remediation
- * A copy of a memo by the Pollution Prevention Unit
- * Five pages of Public Involvement narrative
- * Copy of the Lake Ontario "Letter of Intent" (Re: LaMP)

If you have any questions please call me at 518-457-9603.

Sincerely,

Robert E. Townsend, P.E.
Great Lakes Section
Bureau of Watershed Management

cc: Dick Draper
Tom Pearson, Region 8

Draft Rochester Embayment Stage II RAP - Comments

Page

1. To avoid the repetition of discussion on many topics, a group of nine major topics is provided under which progress and remedial measures can be addressed. If not applied here, keep in mind for update document:
 - * Hazardous Waste Site Remediation
 - * Contaminated River Sediments
 - * Fish and Wildlife Assessments/Actions
 - * Health/Environmental Assessments/Actions
 - * Nonpoint Source Poll. Control
 - * Point Source Pollution Control
 - * Air Pollution Control
 - * Public Participation and Outreach
 - * Investigations and Monitoring

2. Suggest moving the Glossary to the back of the report. ix
3. Update 12/95 date of WQMAC member list. I-5
4. The existence of specific fish and wildlife restrictions to the Lower Genesee River has been questioned. III-4
5. The details of the Lower Genesee River Study may be more appropriately presented in Chapter VI as a completed remedial action. III-44
6. Update EPA rule status from 10/95 for mercury lamps. VI-29
7. See attached additional information for the Lake Ontario LaMP (Re: four stages). VI-37
8. See attached additional information for the LaMP public participation. VI-38
9. As noted in Table 6-1 activities address multiple use impairments. Repeating use impairments at top of page is unnecessary in Chapter 6.
10. Table 6-2 is not a good copy; also pages 62 and 63 are not good copies. VI-58

11. As noted in the cover letter in items #1 and #2, SPDES is an effective point source control program; reference to it as a "project" with some difficulty in stating its effectiveness is inappropriate. VI-66
12. As with SPDES, this same problem exists when discussing EBPS, Industrial Pretreatment, stormwater regulations, pollution prevention, and the Great Lakes Water Quality Guidance: these "programs, policies, regulations" are or will be effective (items 10, 11, 12, and 13 starting on page 65, and item 4 on page 20). VI-65
13. The "20 Year Trends" report is part of the Rotating Intensive Basin Survey (RIBS) reporting, which is worthy of its own section (perhaps in monitoring). VI-67
14. Suggest removing the term "voluntary" in the Pollution Prevention title. VI-89
15. MACT standards and impact should be discussed under an Air Pollution section. VI-91
16. Nonpoint pollution control program should be discussed under a Nonpoint section. VI-94

17. By using "A,B,C,etc." to divide chapter 6, the description of the Kodak Wastewater Treatment Plant is "lost" under the "Benthos" heading. This is an example of the need for some division as suggested in item one above. VI-123
18. CSO abatement would seem to be more appropriately discussed under "SPDES" or as suggested previously, the larger topic of Point Source Pollution Control. VI-128

19. As with CSOs, sections D.2, D.3, D.4, and D.12 could come under a larger heading of Nonpoint Source Pollution Control and Best Management Practices. VI-146
20. Our Region 8 Office does not fully support the concept of "Dry Basin Conversions" to address toxic removal. There is a concern for increase in water temperature and BOD and the effect on the cold water fishery. VI-170
21. The "NYS Coastal Program" comes under the Coastal Zone Management Act and deals with nonpoint pollution; however "nonpoint" is not in the title. VI-192
22. Suggest grouping pollution prevention cases at Xerox and Kodak (K.1, K.2) under a larger section addressing all Pollution Prevention discussion. VI-240
23. Tables 6-1 and 7-1 should stand alone; the "A,B,C.." grouping is difficult; suggest just listing the remedial measures or organizing as grouped in #1 above. VII-3
24. Some measures in Chapter VII repeat in the Urban and Rural sections: suggest groupings under one topic and discussion in a single section (e.g. pollution prevention, WQEPP, BMPs and nonpoint pollution control measures) VII-153
25. The outlines (#1,2,3..) used to describe each remedial measure in chapters 6 and 7 are different and somewhat difficult to follow. Certain topics (e.g. funding sources, costs, public education) may more appropriately be discussed in a single section or table in the RAP document.
26. The target dates for publishing the interpretive water data report every three years, while USGS does one every five years are unclear. The planned newsletter and Six-Year RAP Progress Report in 2003 are encouraging. A compilation of the newsletter will serve as RAP progress documentation in working towards Stage III. XI-14
27. As suggested above, additional use of the Appendices is recommended to assist in focusing on chapter descriptions and discussions.
28. The Pollution Prevention Unit (no longer a Bureau) has provided the attached comments which include this name change and the need to update status statements to be current.
28. Our Bureau of Watershed Assessment and Research provided a list of comments; please see attachment.
29. The following comments are suggested concerning the Draft Executive Summary:
 - * 1.1 - Delete the parenthetical after the title; add the following bullet to the Stage I RAP "identified use impairments".
 - * 1.1 - Need to address the Stage II upfront in this Stage II Exc. Summary; deliver Stage I background and RAP Process in a shorter version or on subsequent pages. [e.g. start with use impairments and deliver the Stage II summary to include: priority studies, key progress/successes, priority remedial actions, local emphasis with reference to Table 3.1, and implementation points. Then provide the background and goals describing the partnership(s) supporting the mission (goals) and any add'l Stage II detail.].

Note: the existing summary flows well, but needs a shortened summary or abstract initially to capture the reader and make one want to look for more detail. This may be accomplished by renaming this document the "Stage II Summary" and then providing an Executive Summary at the beginning. (Ref: the Niagara Falls RAP Summary).

- * 1.2.- Add these descriptive details: 43 RAPs are "under development and or implementation..."; AOCs are characterized by serious pollution problems (not just water pollution) and are the focal points of Great Lakes remedial activities; The GLWQA ensures RAP development and implementation...so that beneficial uses are restored and protected.
- * 1.6 - Shorten the detail on goals and objectives (this is a summary)
- * 3.1 - Shorten the list of actions; again, this is a summary - suggest leaving out the big-picture items from the summary and focusing on actionable items: (e.g. a shortened list of actionable items for the summary would include items #3, 14, 15, 16, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 33, 35, 37, 39, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, and 52).
- * 3.1 - On Tables 3.1 and 3.3, only include high priority items in the summary document; leave out Table 3.2 from the summary.

**Comments from Bureau of Assessment and Research
NYSDEC - Division of Water**

page:

p.IV-7 Tumor Surveys are interesting, but unless they address the cause of the tumor one questions their value. Experimental work using sediment extracts to induce tumors may have more value.

p. IV-2 Fishless Segment - This fishless segment does not appear to be due to toxic effects. We had caged fish downstream of the Kodak discharge and did not see significant mortality (recollection from field work - EJK)

p.IV-15 Comment on study: site LO-2 may be influenced by Irondequoit Cr. and the Genesee River. Also both sides may be not influenced by "fine grained sediment from the Genesee River since this material will be further out in the lake. The Phase 1 and 2 costs seem high.

p.IX-3 Comment on Monitoring for toxics: These sites were monitored 1989-90. In 1995-96 sampling was conducted at five sites in the Genesee Basin plus Johnson Creek (Orleans Co.) and Irondequoit Creek.

Comments from Bureau of Assessment and Research - continued
NYSDEC - Division of Water

page:

p. III-52 (Reviewer comment #4): although it is true that midge larvae and oligochaete worms are common inhabitants of these types of sediments, indices measuring abundance, diversity, and tolerance reveal definite impact. The midstream substrate at many of these sites may be bedrock, but the samples were taken in depositional areas of heterogeneous sediments, and diverse benthic communities should be expected. A "control" site community at Station 1 in 1993 provided reference conditions for comparison. Particle-size analysis was performed at all sites to ensure comparability of habitat.

p. IV-14 The measurement of deformities in chironomid mouthparts is a compelling tool, but one that is subject to availability of mature specimens of a given genus. The genus Chironomus is the midge shown to be most susceptible to deformities, and sufficient numbers often cannot be obtained, such as in the lower Genesee River. Many genera apparently do not display deformities, and it would be misleading to measure deformity rates in these.

p. IV-15 The estimated costs for Phase I and Phase II seem high. 24 benthic samples could be farmed out to a consulting firm for \$3000 total. It seems that many more sites could be sampled for the estimates given.

p. IX-7 As noted above, the availability of the proper genus of midge is critical for a deformity study to be conducted. Such a study would be valuable, but its difficulty/feasibility should be recognized.

Comments from Division of Environmental Remediation - NYSDEC

Note: The Inactive Hazardous Waste Site Regulations make a distinction between hazardous waste and hazardous substances or "chemicals". Site cleanup is targeted at remediating inactive hazardous waste sites as defined by a specific list of hazardous wastes. A site could be delisted even though there is still a hazardous substance concern without a known problem and cause relationship. Therefore, one must be careful with site descriptions and classifications. Division of Environmental Remediation comments follow:

I reviewed sections of the document that are directly related to the NYS Inactive Hazardous Waste Program. Below are a few comments, the first one with some import, the remainder being primarily minor presentation items. I did not comment on the many individual actions proposed for future watershed work, nor on the level of effort or costs estimated for these activities.

- Comment 1.) Page III-95, Second Paragraph - In referring to 12 sites delisted from the NYS Registry, the report concludes "Investigations have shown that hazardous chemicals are *not* leaching from the sites." This is a clear over statement of what delisting from the Registry says about a site. Delisting is no guarantee that hazardous chemicals are not leaching from the site. In fact, many of the sites delisted across the state are well known to contain hazardous chemicals (but perhaps not "hazardous waste") with some delisted sites shown to have contaminants migrating from the site. Unless the stated conclusion has been specifically verified for each of the 12 sites, it should be eliminated or revised to avoid over statement.
- Comment 2.) Tables 3-2 through 3-8 (except 3-5) alternately refer to 2,3,7,8 TCDD as dioxin or dioxins, and it takes the reader a while to sort out what compounds or compound is being referenced. The tables should be consistent. I suggest using the 2,3,7,8 parenthetical listed in Table 3-5 for the rest of the tables as well. The same suggestion also applies for use of the 2,3,7,8 TCDF parenthetical instead of alternately referring to furans and furan.
- Comment 3.) In Table 3-23, numerous compounds are listed under the heading of AOC Compounds of Concern, including relatively innocuous compounds such as Iron, Aluminum, et.al.. The RAP doesn't list the AOC Compounds of Concern, though elsewhere in the document it refers the reader to previous a RAP document for this information. Not having the earlier RAP document available, I was unable to confirm that some of the listed chemicals were actually "compounds of concern" rather than simply detections at a site. I would suggest that the full list of AOC compounds of concern be included within the Stage II RAP for easy reference. And by the way, are Iron, Aluminum, Manganese and Silver on the list?

**Comments on LaMP and Public Participation Activities
NYSDEC - Division of Water**

In Chapter 6 measures 6 and 7 require some updating:

- * The LaMP Management Structure text needs to be updated by using information from the Public Involvement Chapter 4 of the proposed draft LaMP Stage I document. A copy of the five pages of Chapter 4 are attached.
- * The LaMP Public Involvement text needs to be updated by using this same draft Chapter 4.
- * The relationship of the LaMP and LOTMP text needs to be corrected using the attached Lake Ontario Letter of Intent that describes the Four Parties plans for these two programs.

Other comments with page references include:

- p. VI-37 In the first row of the table on Stage I change "are" in pollutants are responsible to "may be" because conclusive information on many causes probable doesn't exist.
- p. VI-37 In the second row of the table on Stage II, the second row needs to be defined better to agree with item 6.c.ii on page 28 of the 1987 amended GLWQA on page 28. Suggest something like "strategy development for load reductions". Most importantly need to mention the "loading" concept.
- p. VI-37 The first sentence after the table should be updated to read "Currently, a draft Stage I document is being developed. This serves as the problem definition document; however, additional information concerning subsequent Stages has been included wherever possible.
- p. VI-38 Specifically, the third bullet under (a) LaMP Structure and the entire section (b) Public Participation, need to be updated using the attached draft LaMP Chapter 4 narrative.
- p. VI-39 The first paragraph under section (d) needs to be updated using the attached Letter of Intent.

New York State Department of Environmental Conservation

Pollution Prevention Unit

50 Wolf Road, Room 298

Albany, New York 12233-8010

Telephone: 518-457-7267 or 7-2553

FAX: 518-457-2570



Michael D. Zagata
Commissioner

MEMORANDUM

TO: Robert Townsend, Division of Water

FROM: John E. Iannotti, Director, Pollution Prevention Unit

SUBJECT: Draft Rochester Embayment Remedial Action Plan (RAP)

DATE: DEC 09 1996

Per a request from N.G. Kaul, staff from the Pollution Prevention Unit have reviewed the Draft Rochester Embayment RAP (dated September 30, 1996). In particular, staff reviewed Chapter 6 from the RAP which includes a description of pollution prevention programs and have the following comments:

1. There are several sections which indicate the submittal of studies and/or other information prior to the date of the Draft RAP; however, the current status is not indicated. For example, page V1-32 indicates that EPA will publish final Sediment Quality Criteria in January 1996. Was this criteria published? Another example is on page V1-49 which states that EPA was to list categories of sources of seven HAPs by November 15, 1995. Was this accomplished? It is understood that for a document of this size and complexity, it is very difficult to always include the most up-to-date information; however, every attempt should be made to include such information especially where the information could substantially change the conclusions of the report.
2. Section VI (A)(14) discusses New York State Pollution Prevention and the NYSDEC's M2P2 Program and refers in several instances to the NYSDEC's Bureau of Pollution Prevention (BPP). Those references to the BPP in this section and any other section of the RAP should be revised to indicate the BPP's reorganized name: The Pollution Prevention Unit.

If you have any questions on the above, please call Joseph Iannotti of my staff at 457-7267.

cc: N.G. Kaul
Joseph Iannotti

**Draft Stage II Rochester Embayment Remedial Action Plan
Responsiveness Summary to Issues Raised by NYSDEC
January 30, 1997**

Responses to general suggestions in letter (beginning on page 1 of the NYSDEC comments):

1. The word "project" has been replaced by "program" in all the headings in Chapter 6.
2. In Chapter 6, SPDES, the beginning of the effectiveness section and the loading data sub-section within it have been changed. The macroinvertebrate data and water chemistry data sub-sections have been left unchanged. The changes are:

Several NYSDEC programs, collectively, have been effective in reducing point source discharges. The SPDES program is the core program for the NYSDEC Division of Water. SPDES is New York State's implementation of the National Pollution Discharge Elimination System under the federal Clean Water Act. The upgrading of wastewater treatment plants from primary to secondary and tertiary treatment technology, mandated by the Clean Water Act, has contributed very significantly to point source discharge reductions in New York. Other NYSDEC programs that contribute to reductions are:

- *Industrial pretreatment program (see Chapter 6 section on "Industrial Pretreatment Program")*
- *Environmental Benefit Permit Strategy (see Chapter 6 section on "Environmental Benefit Permit Strategy for renewing SPDES permits")*
- *Pollution prevention (see Chapter 6 section on "New York State pollution prevention")*

Loading data

Phosphorus, lead, cadmium, silver, cyanide and methylene chloride are chemicals of concern in the Rochester Embayment that have shown significant reductions in point source discharge loadings within the last six years. Mercury and bis (2-ethylhexyl) phthalate are examples of chemicals of concern in the Embayment that have shown increased loadings within the last six years. Increases may have one or more of the following causes:

- *New companies and new products.*
- *Increased use of chemicals due to increased production or use of new chemicals.*
- *Increased use of municipal systems by industrial dischargers.*
- *Population growth resulting in increased discharge to wastewater treatment plants.*
- *Improved capture and treatment of stormwater and reduction of combined sewer overflows.*

Parameters, as reported to the NYSDEC, may show increases due to:

- *Increased numbers of parameters in permits required to be analyzed and reported.*
- *Improved reporting.*
- *Improved analytical methods and lower detection limits.*

- *Difficulties in computing loadings.*

Because of the many variables affecting the reporting of point source discharge loadings, it is important to look at long-term (periods of 10-20 years) rather than short-term trends.

3. When work on the RAP was begun, it was recommended to us that we organize it according to use impairments. Our RAP outline, as organized by use impairments, was approved by both NYSDEC and our RAP advisory groups.

4. We will shorten the Stage II document in the following ways:

- Replace the use impairments lists at the beginnings of Chapters 6 and 7 sections with the phrase “Use impairments addressed: See Table 6-1” (or Table 7-1).
- Move the Resources lists from the sections in the document to the Appendices, which will be a separate volume.

The suggestions about addressing each use impairment only once will be considered when we prepare updates and analyze progress toward delisting each use impairment.

5. In addition to moving the resources, we will move the two ranking scheme documents in Chapter 10 to the Appendices. (A third ranking scheme document in that chapter has been deleted.)

Response to list of comments (beginning on page 3 of the NYSDEC comments):

1. When work on the RAP was begun, it was recommended to us that we organize it according to use impairments. Our RAP outline, as organized by use impairments, was approved by both NYSDEC and our RAP advisory groups.

2. The Glossary and Acronym list have been moved to the back of the document (but not to the Appendices).

3. Chapter 1 contains two WQMAC membership lists. Both the 1993-1995 membership list and the current membership list were included because both committees worked on the Stage II RAP.

4. Information has been added to the introduction to Table 3-1: “The Area of Concern includes the approximately six miles of the Genesee River that are influenced by lake levels, from the River’s mouth to the Lower Falls.”

A footnote has been added to Table 3-1, Restrictions on fish and wildlife consumption in the Lower Genesee River: “There is no specific fish consumption advisory for the Genesee River. However, most fish species found in the Lower Genesee River spend part of their lifetimes in Lake Ontario and are subject to Lake Ontario contaminants.”

5. The Lower Genesee River Study was once part of Chapter 6. The Monroe County Water Quality Management Advisory Committee (WQMAC) recommended moving it to Chapter 3

because it is not a remedial action and it includes new information about use impairments, causes and sources.

6. Updated information is now included.

7-8. See “Response to comments on the LaMP and public participation activities from the NYSDEC Division of Water.”

9. The lists of use impairments in Chapters 6 and 7 will be deleted.

10. We have tried to improve the quality of the tables by removing extraneous lines and words and by lightening the copy.

11. See “Responses to general suggestions in letter,” #2.

12. Comments on DEC-related effectiveness sections in Chapter 6 follow:

- Environmental Benefit Permit Strategy: All references to “criticisms” have been changed to “comments.”
- Industrial Pretreatment Program: After discussion with Robert Townsend, it was decided that this section needed no revisions. Townsend is satisfied with the wording of the Effectiveness section.
- Stormwater regulations: The text has been revised, as suggested by Robert Townsend.
- New York State pollution prevention: After discussion with Robert Townsend, it was decided that this section needs no revisions. Townsend is satisfied with the wording of the Effectiveness section.
- Great Lakes Water Quality Guidance: There have been 2 revisions:
 - (1) “Disagreement involves” has been changed to “issues involve.”
 - (2) Economics bullet now says: “EPA concludes that economic impact will be small because municipalities and industry can meet the objectives partly through pollution prevention. Municipalities and industry, on the other hand, say that the economic impact will be high for a small reduction in pollutants.”

13. Mention of 20 Year Trends has been added to the discussion of the RIBS existing macroinvertebrate monitoring program in the “Monitoring for Toxics” section in Chapter 9. Results from the Report are also used in the SPDES section of Chapter 6.

14. The word “voluntary” has been removed from the title “EPA voluntary pollution prevention programs.”

15. There will not be time to research and write about MACT standards and their impact in the Chapter 6 Air Pollution section. We would be pleased to add any text provided by NYSDEC.

16. The information about EPA’s Urban Nonpoint Pollution Pilot Program has been deleted from

the EPA Pollution Prevention section because it is the only program described that is not aimed at point sources, and because the program was temporary and limited.

17. The A,B,C headings in Chapters 6 and 7 have been discontinued.

18-19. We cannot reorganize the CSO sections, as suggested. The CSO program and SPDES are independent from each other. One of the reasons for beginning the CSO program was to protect the Ontario Beach at the mouth of the Genesee River.

20. The primary focus of the dry basin conversion program, as described in Chapter 6, is nutrient removal (not toxics removal). The use impairments that this program is planned to address (as identified in Table 6-1) all relate to nutrients/eutrophication. The Chapter 7 section "Manage Stormwater in Existing and Newly Developing Urban Areas" includes a discussion of NYSDEC's concerns regarding possible thermal impacts associated with dry basin conversions. A reference to this discussion has been added to the Chapter 6 section. In addition, several wording changes have been made to the Chapter 6 and 7 sections to clarify that the intent is to convert dry basins into wetlands only where appropriate.

21. The word "Nonpoint" is in the title. The title was derived directly from New York State Department of State documents.

22. In Chapter 6, the Kodak and Xerox pollution prevention sections have been moved adjacent to the other pollution prevention sections.

23. The "A, B, C" groupings have been discontinued. Tables 6-1 and 7-1 "stand alone" in that they are the first items in their chapters and not part of any section about remedial measures.

24. We do not want to delete the Chapter 7 (Rural) sections that may appear to be "repetitive":

- Even though similar, there are small but important differences (funding, implementor) between the sections in the urban and rural parts of Chapter 7.
- The rural counties should have their own intact chapter.

25. We cannot change the headings in either Chapter 6 or 7.

- Each is appropriate for the type of chapter.
- The headings are consistent within each chapter.
- The change to enumeration may make the headings easier to follow.

We do not want to move additional items to a chapter or table elsewhere.

- The WQMAC prefers to have all information about each section in the section without having to hunt for it somewhere else.
- Chapter 8 focuses on funding sources.
- Possible funding sources and implementors appear in tables in Chapter 10 and in the Chapter 11 narrative.

26. As currently written, Chapter 11 states that “The Monroe County Health Department will develop a Six-Year RAP Progress Report in coordination with the USGS Water-Data Interpretive Report. Currently, the Interpretive Report is published every five years. In the future, it is the goal of the USGS and the Monroe County Environmental Health Laboratory to publish the Interpretive Report every three years in accordance with the schedule on page XI-14.”

Additional wording has been added to the narrative to clarify this issue.

27. The resources and two ranking scheme documents have been moved to the Appendices.

28. See responses below to letters from the Pollution Prevention Unit and the Bureau of Assessment and Research.

29. Executive Summary: Note that we will also produce a 2-4 page fact sheet in addition to the Executive Summary.

- 1.1 - In developing the Executive Summary, we tried to avoid the use of bureaucratic jargon. Therefore, in section 1.1 the phrase “water quality conditions/problems” was substituted for the term “use impairments”. Despite what the cover of the Executive Summary document may have indicated, it is intended as a summary of both the Stage I and Stage II Rochester Embayment RAP. That is why the Executive Summary begins with a discussion of the RAP process.
- 1.2 - The suggested changes to section 1.2 have been incorporated into the narrative.
- 1.6 - The objectives have been deleted.
- 3.1 - We will make a generic statement about ongoing actions and refer to the Stage II document. We have deleted Table 3-2.

Response to comments from Bureau of Assessment and Research, NYSDEC Division of Water (pages 5 - 6 of the NYSDEC comments):

Page IV-7: The purpose of Chapter 4 is to outline studies that will complete identification of use impairments or describe pollutant sources. In the case of fish tumors, this use impairment was listed as unknown in the Stage I Rochester Embayment RAP. The purpose of the survey, as described in Chapter 4, is to determine whether fish tumors are a use impairment in the AOC, not to address any possible causes of tumors (if in fact they are determined to be a use impairment). In regards to using sediment extracts to induce tumors, a number of issues associated with this type of study are addressed in the Chapter 4 section “Investigate whether contaminants affect the benthic community in the lower Genesee River”.

Page IV-2: Information has been added.

Page IV-15: Information has been added as a “NYSDEC reviewer comment.”

Page IX-3: Information has been added.

Page III-52: Information has been added as a NYSDEC response to a reviewer comment.

Pages IV-14, IV-15 and IX-7: Information has been added as “NYSDEC reviewer comments.”

Response to comments from the NYSDEC Division of Environmental Remediation (page 7 of the NYSDEC comments):

1. This paragraph has been changed.
2. References to dioxin and furan have been changed as suggested.
3. The complete list of compounds of concern for the Rochester Embayment are shown in another table, and a reference to find the compound list has been added to the table heading in the inactive hazardous waste sites section. Iron, aluminum, manganese and silver are on the compound list.

Response to comments on the LaMP and public participation activities from the NYSDEC Division of Water (page 8 of the NYSDEC comments):

1. The text has been updated.
2. The public participation sub-section now briefly describes Partnerships (Basin Teams), the Information Network, and Lake Ontario Forums.
3. The relationship between the LaMP and LOTMP has been updated in both the LaMP sections and the LOTMP section.
- 4-6. Suggested changes have been made.
7. The text has been updated.
8. The suggested change has been made.

Response to comments from the NYSDEC Pollution Prevention Unit (page 9 of the NYSDEC comments):

1. We do not have time for the research required to update all RAP information. We will add any updated information that is submitted to us.
2. “Bureau of Pollution Prevention” has been changed to “Pollution Prevention Unit.”