# THE ROCHESTER COMMITTEE FOR SCIENTIFIC INFORMATION

# P.O. Box 29236, River Campus Station Rochester, N.Y. 14627

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# A Short History of the Upland Watershed Advisory Committee, December 1985 - December 1987

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# **Summary**

The Upland Watershed Advisory Committee (UWAC) was formed during a period of intense interest and activity in watershed issues. Notable among these were the questions of whether or not a water filtration plant was needed to ensure safe drinking water for the City of Rochester, and how the watershed could be protected from degradation while allowing recreational and even commercial use. The members of UWAC, representing many diverse (and sometimes conflicting) perspectives on these issues, divided into a set of subcommittees for the purpose of developing recommendations for the City in its search for solutions to these and related problems of watershed management. These recommendations were painstakingly evolved through many hours of fact-finding, negotiation and struggle for consensus in occasionally stormy meetings, and presented to Edward Doherty, Commissioner of Environmental Services for the City of Rochester, in December, 1987. Although the UWAC Final Report evoked no great enthusiasm in City officials, the measure of its quality is in the fact that the City is presently implementing many of its recommendations.

# Origin and Purpose of the Upland Watershed Committee

The Upland Watershed Advisory Committee was formed in December, 1985 by James E. Malone, Commissioner of Environmental Services of the City of Rochester. It was constituted as "a group of interested citizens organized to study the Hemlock/Canadice watershed," with its prime objective "to make recommendations to improve watershed management practices and programs." Its term of

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activity was set at two years. UWAC's first meetings took place at City Hall under the leadership of Edward Watson, Deputy Commissioner of Environmental Services.

# Structure and Functions

The City of Rochester invited a number of organizations representing a wide range of interests and concerns in the towns and City to participate in the UWAC (listed in Table 1).

The City (in consultation with members) outlined UWAC's Subcommittee structure and nominated an Executive Committee, which met separately from the whole UWAC. One member of the Executive Committee was designated to chair each Subcommittee. The various Subcommittees and their Chairs are listed in Table 2. Subcommittees also received staff time and advice from employees of the Rochester Water Bureau.

UWAC procedure required that ideas put in the form of motions should be discussed first at the Subcommittee level, and, if approved, passed on to the Executive Committee and finally the whole UWAC. Initially, there was some thought of extending voting rights to only members of the Executive Committee, but as the process developed, all UWAC members voted on motions at general meetings. Some representatives attended regularly, others infrequently. Some participated more in monthly UWAC meetings while others were more active in Subcommittees. Overall member participation rates were around 50%, with a trend of decreasing attendance over time.

#### **Issues Addressed**

#### Wetlands Enhancement Proposal

One of the first controversies to occupy UWAC was generated by the Recreation Committee and its Chair Elmer Wagner, who brought a proposal to meeting to seek special DEC funding for construction of water impoundment structures to enhance several wetlands peripheral to Hemlock and Canadice Lakes. Mr. Wagner argued that such structures, in delaying peak outflows, would allow for greater deposition of sediment loads and provide better habitat for waterfowl and other wetland wildlife species. After several months of discussion, the proposal was adopted by UWAC by a split vote and recommended to the Commissioner of Environmental Services. During the discussion before UWAC, several problems in the impoundment proposal were noted, including the fact that one of the impoundments was near the City's property line and a Town road, the generation of certain hazardous organic compounds in flooded wetlands, and the haste with which

#### TABLE 1

Organizations Invited to Participate in the Upland Watershed Advisory Committee

Canadice Property Owners Association

Federation of Lakes Associations

Federation of Sportsmen's Clubs

League of Women Voters, Rochester metropolitan area

· Livingston County Environmental Management Council

Livingston County Planning Board

Livingston County Soil and Water Conservation District

Monroe County Board of Health

Monroe County Conservation Council

Monroe County Environmental Management Council

Monroe County Health Department

N.Y.S. Department of Environmental Conservation Region 8 Boards of Fish and Wildlife

Management and

**Forest Practices** 

N.Y.S. Department of Health, Geneva District

N.Y.S. Forest Owners' Association

Ontario County Planning Board

Ontario County Soil and Water Conservation District

Rochester Committee for Scientific Information

Rochester Engineering Society

Sierra Club, Rochester Regional Group

Towns of Canadice, Conesus, Livonia and Springwater

the project was formulated (due to DEC deadlines). After due consideration, the Commissioner declined to act on this proposal.

#### Filtration Plant

A number of UWAC members assumed that discussion of the need for a water filtration plant for the City's water would be an important part of the group's deliberations. Several participants, notably Drs. Herman Forest and George Berg, had contended that sound watershed management would obviate a filtration plant. They further argued that diversion of City funds for the construction of a filtration plant would cripple City programs for the renovation of the water supply systems. Early discussion of these matters centered on lake turbidity, the occurrence of the *Giardia* organism in the

watershed and details of and changes to U.S. Environmental Protection Agency drinking water standards. Heated debates arose on these and other issues, with neither side in possession of definitive data to support its position.

TABLE 2	
Subcommittee Structure of the Upland Watershed Advisory Committee	
Subcommittee	Chair
Watershed Land Use and Development	John Hopkins, Supervisor from the Town of Canadice
Forest Management/Forest Management and Conservation Easement	Dr. Olga Berg of the Rochester Committee for Scientific Information
Erosion Control	Ruth Benin, Livingston County Environmental Management Council
Lake Levels	Dr. George Berg, Monroe County Board of Health
Lake Water Quality	Dr. Herman Forest, Environmental Resource Center of S.U.N.Y. Geneseo and Dr. Harrison Sine, Monroe County Environmental Management Council
Recreation Management	Elmer Wagner, Monroe County Conservation Council
Watershed Regulations and Enforcement	Dewayne Day for the Rochester Commissioner of Environmental Services

In June of 1986, as the UWAC continued to discuss the need for a filtration plant and/or better watershed management, the RCSI obtained (through the Freedom of Information Act) Mayor Thomas Ryan's letter of February 21, 1986 to N.Y.S. Health Commissioner Axelrod. This letter revealed, to everyone's surprise, the Mayor's agreement to support State Department of Health (DOH) requirements for a filtration plant for Rochester's water in return for the Commissioner's assistance in obtaining tax relief for the plant and an increase in the amount of water the City could withdraw. After stormy debate, Lake Water Quality Subcommittee co-chair Dr. Herman Forest resigned from the UWAC, stating that Mayor Ryan had undercut its primary responsibility.

Other members felt that many important issues remained for UWAC's consideration, and therefore met to reassess its position. Mayor Ryan attended this meeting and urged the UWAC to continue its activities. He assured UWAC members that the City would give serious consideration to their

recommendations regarding watershed management. When asked if the City would consider transfer of development rights to a nonprofit or governmental agency, the Mayor answered he would be interested in any procedure that would reduce the City's taxes. UWAC members generally accepted the Mayor's explanation of his actions and his assurances of the City's serious consideration of their recommendations. General meetings and Executive Committee meetings alternated monthly for the remainder of UWAC's term.

#### Forest Management Plan

The Forest Management Subcommittee was renamed Forest Management and Conservation Easement Subcommittee in July of 1986 to reflect its mission to study options by which the City could reduce its tax burden while preserving the watershed property in a natural state, and to produce recommendations bearing directly on forest management. After a meeting with the City's forestry consultants, the Subcommittee recommended a revision of the existing forest management plan with improved water quality as a prime goal. It suggested creation of a dedicated fund to guarantee that water sales revenues would be used for watershed management, especially in forestry. After lengthy deliberations, information gathering and consultations, the Subcommittee recommended that the City offer a conservation easement on its upland watershed property to the Department of Environmental Conservation (DEC) in return for tax relief for the City and payments-in-lieu-of-taxes (PILOTs) for the towns, counties and school districts. This proposal was duly discussed and moved for acceptance as UWAC's position in both the Subcommittee and Executive Committee, and was unanimously ratified at a general UWAC meeting on April 16, 1987.

During the 1988 legislative session, PILOT legislation was introduced by Senator Volker and passed in the New York State Senate. In the 1989 session, PILOT legislation combined with a bill sponsored by Senator Volker and Assemblyman Robach ratifying tax agreements reached between the City of Rochester and Livingston County watershed towns was passed by the State Assembly and Senate. As of this writing, this legislation had not been signed by Governor Cuomo.

# Watershed Rules and Regulations

A number of new issues arose as UWAC was preparing its final report, some provoking spirited discussion. The Watershed Enforcement and Regulations Committee proposed a new set of watershed rules and regulations to replace the old ones (last updated in 1930). They worked to adapt model regulations developed by Dr. Hennigan, chair of the faculty of Environmental Studies at the College of Environmental Sciences, Syracuse University, to local conditions. The proposed rules and regulations were reviewed by all Subcommittees, although not all suggestions were

discussed or acted on. A letter from the watershed Town Supervisors expressed reservations about some of the new provisions, and several of the Supervisors appeared at the time of UWAC's vote on the proposed rules to reiterate their concerns. The Supervisors felt that they had not been properly consulted and involved in the process of formulating these regulations; they interpreted the City's action in promulgating a new set of regulations as "writing rules for others to follow." The Rules and Regulations were nonetheless ratified, with opposition noted, and recommended to the Commissioner of Environmental Services.

# Recreational Uses of the Watershed

Another controversy attended the submission of the Recreation Management Subcommittee's final report. Questionnaires regarding recreational uses of the watershed area had been distributed only to applicants for hunting, fishing and trapping permits on the watershed property. Some members of the Recreation Subcommittee felt that the survey should have included other forms of recreation. Others in UWAC felt that the final report was weighted in favor of hunting and fishing uses of the watershed property, and objected to its endorsement of a logging program. Subcommittee member Leland Brun broke with Chair Elmer Wagner and submitted "Recreation in the Watershed — An Alternative Viewpoint with Critique of the Recreation Committee Report" in December, 1987. He was joined in this critique by other members of UWAC. However, with opposition and abstentions noted, the UWAC accepted the original Subcommittee final report as its own.

#### Other Issues

A proposal by the Erosion Control Subcommittee to establish a shared seed fund for Town Highway Superintendents to use for critical seedings within the watershed, was rejected by the Commissioner of Environmental Services. The contention by this Subcommittee that heavy withdrawals of water from the lakes might lead to unstable shores and banks and heightened turbidity after storm events aroused much discussion in several Subcommittees, but did survive to appear in its final report and UWAC's Report to the Commissioner. Final reports from Erosion Control, Lake Water Quality and Lake Level Subcommittees were accepted without substantial comment.

#### The City's Responses to UWAC Recommendations

The UWAC and its subcommittees made recommendations periodically to the City administration, as noted above. In a letter to UWAC dated June 17, 1987, Commissioner Edward Doherty responded to five recommendations made by two Subcommittees and UWAC as a whole. He announced the

City's willingness to move forward with some tree planting and to establish an annual meeting with Town Highway Superintendents to discuss the status of roads in the watershed. He also promised to discuss with the Town of Livonia the Erosion Control Subcommittee's suggestion that the Hemlock East Lake Road (and boat launch) be closed during spring thaw. Erosion Control's recommendation for a "matching fund" for critical area seedings on watershed town properties was rejected, however. In response to the Forest Management and Conservation Easement Subcommittee's recommendation that the City negotiate with the DEC for transfer of a conservation easement and appropriate PILOTs, the Commissioner expressed the City's willingness to consider sale.

The UWAC and its subcommittees submitted their Final Report (summarized in Appendix 1) to Commissioner Doherty on December 10, 1987. At that time, members were thanked for their participation and assured that action would be forthcoming in a letter from the Commissioner which they received together with copies of the printed Final Report. This response contrasted with that given the Final Report of the City Council Water Advisory Committee (submitted June 10, 1988), which was heralded by news releases detailing the study for the media.

On May 31, 1988, Mr. Doherty responded to the UWAC report with a letter reporting the following "tangible actions . . . which reflect the recommendations of the Advisory Committee":

- (1) Forty-year agreements signed with the Towns of Livonia and Conesus to
  - (a) Prohibit development of City-owned property in those towns
  - (b) Require that the City improve the park at Hemlock
  - (c) Require that both parties pursue and support the establishment of conservation easements
- (2) Two meetings between the Mayor and DEC Deputy Commissioner Marsh to establish groundwork for conservation easements
- (3) An expenditure in the City budget to revise the forest management plan in line with UWAC recommendations
- (4) A meeting of Commissioner Doherty and Town Highway Superintendents to discuss road maintenance and erosion control
- (5) Retaining an engineer to plan the rehabilitation of Rush Reservoir
- (6) An increased rate of maintenance and rehabilitation of the water supply system
- (7) Maintenance of the existing watershed access permit system with more restrictions in certain critical areas.

UWAC members received a letter from former UWAC Chair Edward Watson on June 29, 1988, detailing points of agreement among the UWAC Final Report, the City Council Water Advisory

Committee's Final Report and the Mayor's recommendations to City Council when they voted on June 27, 1988 to approve preliminary engineering and environmental work for the filtration plant. The City Council Water Advisory Committee's report, which recommended construction of a filtration plant on Hemlock Lake, pointed several times to the watershed protection program outlined by UWAC and added their strong support for this plan.

The Mayor's message was more guarded, stating only the "some suggestions will be implemented." As this Bulletin went to press, DEC and the City administration apparently concluded a broad agreement calculated to implement at least some UWAC recommendations while disregarding or deferring others.

# Conclusion

The reception of citizen advisory committee reports by politicians and political bodies is notoriously uneven. Some such reports become blueprints for future programs, while other are met with indifference, skepticism or hostility. The warmth of the reception is probably a good measure of the distance between official intentions (and preconceptions in seating citizens' committees) and the conclusions reached by the appointees. UWAC's report received neither warm praise nor the cold shoulder. Unlike the Final Report of the City Council Water Advisory Committee, this fruit of two years' labor was denied media exposure, the reaction to it coming solely from the City administration. Most UWAC members would have liked some public feedback. On the other hand, they can take some well-deserved satisfaction in the fact that the City administration seems to be (slowly) following through on their recommendations.

# **Bibliography**

- Adams, A.J., Jr., Berg, O. and Berg, G. Filtration of Hemlock Lake Water: Are We Getting It Without Proper Environmental Analysis? RCSI Bulletin # 290, June 1986.
- Annual Report of the Department of Environmental Services, Rochester Waterworks, City of Rochester, N.Y. for fiscal year July 1-June 30, 1985.
- Berg, G.G. and Brun, L. Commercial Logging in Rochester's Upland Forest. RCSI Bulletin # 285, September 1985.
- Fisher, Edwin A. (City Engineer, Rochester, N.Y.) 1932. History and Engineering of Rochester's Water Supply in Its First Century. *Proceedings of the Rochester Academy of Science* 7:59-95.
- Forest, H.S. Safe Drinking Water for Rochester: Critical Decisions for Hemlock Lake. RCSI Bulletin #236, December 1979.
- Ibid. Managing Hemlock and Canadice Lake and Their Watersheds: Is Now the Time for an Environmental Impact Statement? RCSI Bulletin # 278, September 1984.
- Ibid. Developing the Data Base for Effective Lake and Watershed Management for Hemlock and Canadice Lakes. RCSI Bulletin # 281, July 1985.
- Jones, R.H. Turbidity in Hemlock Lake: Where Does It Come From? What Can Be Done About It? RCSI Bulletin # 280, January 1985.
- Ibid. Harvesting Trees Near Hemlock and Canadice Lakes: Should It Continue? RCSI Bulletin # 284, September 1985.
- Kohl, Lewis E. (Superintendent of Water and Consulting Engineer) 1940. The Watershed and Municipal Forests of Rochester, N.Y.
- Stewart, K. and Martin, P. 1982. Turbidity and Its Causes in a Narrow Glacial Lake with Winter Ice Cover. Journal of Limnology and Oceanography 27:510-517.
- Wever, G.H., Melnyk, K. and Saxe, J.R. June 10, 1988. Final Report of the City Council Water Advisory Committee.

# **APPENDIX 1**

# Summary of Upland Watershed Advisory Committee's Final Report to Commissioner Doherty, December 10, 1987

#### **General Recommendations**

Hemlock and Canadice Lakes are sources of potable water for the City of Rochester and other communities.

The shores of these lakes are wooded and undeveloped. The two lakes should be kept clean, wild, available and beautiful. To perpetuate this state, the Committee recommends that the following measures be implemented regardless of whether or not a water filtration plant is built:

- (1) Keep current City property undeveloped;
- (2) Enact revised rules and regulations to protect the watershed form environmental hazards;
- (3) Maintain recreational activities compatible with conservation and water quality;
- (4) Plan forest management to enhance forest quality and to control erosion;
- (5) Manage water levels, wetlands, fish stocking and the use of the Town road along Hemlock lake to improve water clarity and maintain biological diversity.
- (6) Support an investment sufficient to practice good husbandry.

We recommend that the *status quo* be maintained; that there be no private development of City property; and that the title to the land be transferred to the DEC or the Nature Conservancy if the City disposes of the property.

#### Subcommittee Recommendations

# Forest Management and Conservation Easement

- (1) That the City offer a conservation easement on its upland watershed property to the Department of Environmental Conservation with tax relief for the city and payments in lieu of taxes for the towns, counties and school districts.
- (2) That the Forest Management Plan for the upland watershed be revised, with public input in the scoping and development. The major objectives of the plan should be:
  - (a) Improved water quality for Hemlock and Canadice Lakes
  - (b) A healthy and varied forest that preserves aesthetic values
  - (c) Wise development of land for low impact recreation consistent with the watershed of a public water supply

(3) That a dedicated fund for management of the watershed be created.

#### **Erosion Control**

To minimize erosion, efforts should be made to keep all land in the watershed and particularly that along the banks of the two lakes well covered with natural vegetation. If this growth is disturbed due to construction, it should be replaced as quickly as possible with a crop sufficient to hold the soil in place, or with rip-rap, gabions, netting, or woven fabric under stone cover if the bank is too steep to stay in growth.

Towns in the zoning and planning practices should be encouraged to stress measures which will minimize or prevent erosion.

All forest logging in the watershed should be done in accordance with a Forest Management Plan approve by the New York State Forest Practices Board. No logging should be done in wet weather or during spring thaws.

The City should examine its water system for flexibility of withdrawal to avoid extreme fluctuations in lake level to avoid possible resulting turbidity.

#### Lake Levels

Three guidelines ought to be followed to the extent practicable in managing the withdrawal of water from Hemlock and Canadice Lakes:

- (1) The level of water in Hemlock Lake should not drop more than 0.8 feet in the period from May 5 through June 25.
- (2) The level of water in Canadice Lake should not drop below the level recorded on November 1 through the subsequent fall and winter seasons and until the spring thaw.
- (3) The basin of Hemlock Lake has steep shores verging on a shelving beach. When water rises high on the beach, waves undermine the shores. The critical level should be determined and lake water should be kept below it. A tentative determination is that the critical level will be close to 902' elevation

#### Lake Water Quality

(1) Planning for water quality. Federal and State funds for a watershed use plan and wetlands improvement project should be pursued jointly by Livingston County, Ontario County and the City of Rochester. The objectives of the project should include reducing sediment transport

- into the lakes, preventing pollution, preserving wetlands, protecting wildlife resources such as nesting eagles and spawning fish, and offering scenic values to visitors.
- (2) <u>Wetlands and Springwater Creek.</u> Plans for environmental management should give priority to the wetland at the outlet of Springwater Creek into Hemlock Lake, and seek to stabilize the wetland against disturbances by rising and falling water levels.
- (3) Control of turbidity at the intake. The Upland Water Supply policy of shutting off the intake to keep turbid water out of the system should be maintained and strengthened. Recommended improvements include correcting the short circuit between the water inflow and outflow in the Rush Reservoir, and bolstering the availability of an alternate supply of water from the Water Authority. Contracts to supply City water to other communities should include an option to close the Hemlock lake water supply for three days. Residents of the hamlet of Hemlock directly north of the lake may require help from the City to prepare for such a contingency, because they have a prior claim on City water.
- (4) Protection of lake water from pollution. Excellent surveillance of the sanitary quality of water is maintained by the Water Quality Laboratory at Hemlock and the Environmental Health Laboratory of the Monroe County Health Department. The Committee recommends maintaining a staff position at the City's Water Quality Laboratory to investigate the sources of turbidity in Hemlock Lake.
- (5) <u>Pollution from natural sources.</u> If beaver colonies are found in the watershed, they should be moved out (DEC permit required). The Committee supports the controlled use of *Bacillus thurigensis* spray to abort major outbreaks of gypsy moths in City-owned woods and in the rest of the watershed.
- (6) Contamination of the distribution system. As currently managed by the Upland Water Supply, the water is reliably safe to drink. Water quality could be improved by renovating the aging distribution system at a faster rate, and by filtering the water at the intake. This is not a trade-off: the sanitary condition of the water system may become worse, not better, if funds are diverted from renovation to filtration.

#### Recreation Management

The unique forests, wetlands, and lakes of the watershed, while managed primarily as a supply of pure water, are increasingly attractive and valuable to recreational users, as evidenced by the more than 10,000 annual use permits issued by the City in 1986, primarily for fishing and hunting, but also for more passive uses such as bird-watching and hiking. This Subcommittee endorses a policy and practice of the City in issuing such permits, in establishing and maintaining minimum access and sanitation facilities, in defining clearly the regulations necessary to minimize any adverse

effect on water purity of such use, and in providing effective education, control and enforcement of these regulations.

# Watershed Regulations and Enforcement

The Subcommittee of the Watershed Regulations and Enforcement concludes that watershed protection is a key element in the protection of the City of Rochester's water supply. The establishment of watershed rules and regulations is a critical element in a watershed protection program. Since the adoption of such regulations are a benefit not only to the City of Rochester but also to the resident living in the watershed, the Subcommittee makes the following recommendations:

- (1) That the draft of the recommended revision of "Rules and Regulations for Protection from Contamination of the Public Water Supply of the City of Rochester, Monroe County," enacted by the New York State Commissioner of Health on September 30, 1930, be sent to Rochester's Commissioner of Environmental Services for consideration.
- (2) That the Commissioner of Environmental Services provide technical and legal review of the draft by Rochester City staff.
- (3) That upon approval by the Rochester City administration, the draft be sent through designated channels to the New York State Department of Health for approval.
- (4) That upon enactment of the final version of the rules and regulations by the New York State Commissioner of Health that a procedural manual be developed for the implementation of the regulations. The manual to list all regulatory agencies, their jurisdiction, staff and phone numbers and with emphasis on local enforcement and voluntary compliance after proper notification of a violation.