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APPENDIX A

## M E M O R A N D U M

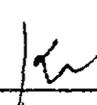
February 18, 1983

TO: Natural Resource Supervisors  
Attention: Regional Fisheries Managers

FROM: Kenneth F. Wich

RE: Policy Memorandum FW 83-1

Several changes were made in the liming policy following field review. The attached document replaces that sent to you on February 2, 1983.

  
\_\_\_\_\_  
Director  
Division of Fish and Wildlife

## Attachments

cc: Herbert E. Doig  
Irwin H. King  
Norman Van Valkenburgh  
Gordin Colvin  
Greg Sovas  
H. Hovey  
T. Ulasewicz  
Regional Directors  
Bureau Chiefs  
William Hollister  
Eric Fried  
Robert Brewer

## M E M O R A N D U M

February 2, 1983

TO: Natural Resource Supervisors, Attention Regional Fisheries Managers

FROM: Kenneth F. Wich

RE: Policy Memorandum FW 83-1

BACKGROUND

Acid ion deposition has exerted a negative impact on many surface waters in the Adirondack region where carbonate-poor geology increases sensitivity to atmospheric pollution. While pond liming has been ongoing in New York State since 1959, early efforts were experimental, mainly concentrating on naturally acidic, bog-type ponds which received hydrated lime (CaOH) treatments to improve survival of stocked trout. More recently, since the recognition of acid ion deposition as a major environmental problem, use has shifted to agricultural limestone (CaCO<sub>3</sub>) to reduce costs, reduce risk of pH shock and to extend time between treatments. These small-scale treatments on very carefully selected waters have been very successful to date. As a result, there is a growing public interest in greatly expanding these mitigative efforts; leading to requests to support large-scale liming either conceptually or through expansion of the Division's liming program.

PURPOSE

The purpose of this document is to state policies and procedures to assist in responding to requests for accelerated acid water mitigation efforts through addition of acid neutralizing products.

POLICY GUIDELINES

- (1) DEC strongly supports the reduction of polluting emissions at their source as the single most effective strategy to overcome the atmospheric acidification problem. Addition of alkaline products alone to neutralize acidified waters caused by atmospheric pollution treats the symptoms and not the cause of the problem, leaving the cause unresolved and continuing.
- (2) Mitigation of air pollution-related acidification impacts by adding acid neutralizing products, such as lime or other materials, will presently be applied only on a limited scale for the following reasons:
  - Many waters have excessively high flushing rates, particularly those in the Adirondack region and positive benefits from treatment may last only a year or less making benefits short-lived and mitigation costs very high.

- The scientific community recognizes potential adverse secondary effects, both chemical and biological, from liming treatments. Deterioration of water quality and/or pH shock can occur with the introduction of alkaline products, possibly stressing all sensitive aquatic organisms. Bioaccumulation of heavy metals may accompany an increase in lake pH.
  - There is still much engineering and development work needed on lime delivery systems, choice of product and application rates before large-scale liming can be employed.
- (3) The Division of Fish and Wildlife will not embark on a large-scale treatment program, but will apply neutralization techniques to carefully selected candidate waters meeting criteria outlined in Appendix I. Treatment of waters will be an integral part of Forest Preserve Unit Management Planning and will be reflected in the management strategies of each plan.
  - (4) Waters receiving an initial application of neutralizing product will become part of an ongoing treatment program. Sufficient resources will be allocated and committed for future retreatments as required. Treated waters will be monitored to document water quality trends and need for retreatment. Retreatment will occur before summer pH drops to or below 5.5.
  - (5) All liming projects will be carried out according to the guidelines of the Adirondack Park State Land Master Plan and any adopted Unit Management Plan.

#### PROCEDURES

To facilitate effective fiscal planning and budgeting, the Division of Fish and Wildlife will prepare a six-year rotational treatment plan for state-financed neutralization projects. This plan will incorporate priorities and criteria appended to this policy. Emphasis will be placed on previously treated waters which have responded positively to past treatments. New candidate waters will be handled on a case by case basis.

Regional Fisheries Managers will annually prepare Liming Project Data forms for each nominated water. Copies of all chemical, biological and physical data associated with pre, during and post-treatments will be submitted to the Bureau of Fisheries Survey and Inventory Unit for incorporation into the Adirondack Data Management System.

Candidate waters for volunteer liming projects will be reviewed according to standard operating procedures previously presented to the Adirondack Conservation Council Volunteer Liming Task Force (see Appendix II).

As results of additional research in the field of acid mitigation is forthcoming, innovative application techniques and new neutralizing products will be tested in selected waters.

Detailed records will be maintained by the Bureau of Fisheries including summary tables of treated waters indicating treatment dates, product used, dosage rates, amounts, chemical parameters, and cost/benefits of both standard and experimental treatments.

#### FUTURE

The mitigation policy proposed in this document may be modified in the future as results of intensified mitigation research become available. If the results of research appear positive, the Division will seek to develop outside sources of funding to help finance an expanded program. In the interim, the major thrust will continue to be promotion of reduction of polluting emissions at their source.

Effective Date: February 2, 1983



Director  
Division of Fish and Wildlife

#### Attachments

cc: Herbert E. Doig  
Irwin H. King  
Norman Van Valkenburgh  
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