



WATER RESOURCES RESEARCH GRANT PROPOSAL

Title: An Updated Assessment of Acidic Deposition in Pennsylvania

Duration: 1 September 1997 - 31 August 1999

Federal funds requested: 18,729

Non-federal (matching) funds pledged: 37,639

Principal investigator: William E. Sharpe, The Pennsylvania State University

Congressional district: 5th of Pennsylvania

Statement of critical regional or state water problems:

Acidic deposition is a major environmental problem in Pennsylvania and elsewhere in the Northeast. Acidic deposition has resulted in impaired water quality, extirpation of fish and other aquatic biota, and decline of commercially important tree species. Despite enactment of the Clear Air Act Amendments of 1990, deposition of sulfates and nitrates, the main precursors of acidic deposition, continues. Additionally, although the NAPAP research program essentially ended in 1990, a great deal of research on the acidic deposition problem is still underway as evidenced by the more than 400 scientific papers presented at the "Acid Reign" Conference in Sweden in 1995. Dissemination of this new information to resource managers, policy makers and the general public is essential to an improved understanding- of the effects of acidic deposition.

The last conference devoted to presenting the state of knowledge of acidic deposition in Pennsylvania was held in 1989. The proceedings of this meeting have been widely used to inform policy-makers, educators, resource managers and the general public about acidic deposition in Pennsylvania. A popularized pamphlet was produced summarizing the results of this conference in non-technical terms for secondary school students. This pamphlet has been used extensively by these students in the conduct of science projects and the preparation of reports on the subject of acidic deposition. In fact, a second printing of this publication is nearly exhausted. Both of these publications must be updated to reflect recent gains in knowledge, particularly in the area of forest effects and the potential for nitrogen export to critical water resources such as the Chesapeake Bay.

The aim of this project is to provide current acid deposition information via a technical conference proceedings and a popularized pamphlet. The conference will summarize in technical terms current knowledge about the effects of acid deposition for policy makers and resource managers. This summary will be used to prepare a revised version of the pamphlet "Acid Rain: The Pennsylvania Connection" for use by secondary school students interested in learning more about this subject. The Water Resources Research Institute has received hundreds of requests for information about acidic deposition from

secondary school students. A large number of requests have also been received from secondary school teachers. In response to these inquiries, more than 2000 copies of the pamphlet "Acid Rain: The Pennsylvania Connection" have been distributed over the past 5 years. A revised edition of this publication is needed to meet this continuing demand.