WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: NY1881

Title: Cayuga Lake Watershed Education Program Web-linked Interactive CD-ROM

Focus Categories: Water Quality, None

Keywords: Education, Cayuga Lake, Computer-based training, Water quality modeling

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: $16,500

Non-Federal Matching Funds: $32,283

Congressional District: 26

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Abstract

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Problem: The major contributors of pollutants into the Finger Lakes region in upstate New York are nonpoint sources. A key to effective reduction of nonpoint pollution in local watersheds is educating agricultural and urban landowners to manage their properties in order to reduce this source of watershed contamination. Such community-based environmental management necessitates increased understanding about the positive water quality impacts of alternative land management practices on receiving water bodies. The format for this educational programming must be at a level that is easily comprehended by the general public and allows citizens to visualize the impact of various management strategies. In addition, it should be ongoing and reach beyond agricultural and urban landowners to include such diverse audiences as municipal officials, local government agency personnel and public school students. Because the audiences are so diverse, the methodology we choose for education must be flexible in order to tailor the same tool to many different groups.

Objectives: The Cayuga Lake Watershed CD project will pursue two main objectives: 1) to increase the capacity of stakeholders (e.g., general public, elected officials, students) to make decisions consistent with a watershed management plan currently being drafted for the Cayuga Lake watershed (delivery of and access to comprehensive watershed information is considered to be the main vehicle for the educational component of the Cayuga Lake Watershed Management Plan); and 2) to develop a CD that will serve as a template for organizations in watersheds nationwide who are examining creative ways to increase environmental education on watershed science and management.

Methods: The CD is an outgrowth of Cornell University's river-aquifer simulation program, IRAS, that offers varying scenarios to assist decision-making. The modeling available through IRAS illustrates the value of watershed planning and clearly shows the effect of possible actions. IRAS utilizes geographic

information systems (GIS) information, which will be contained on the CD, to generate "what-if" modeling scenarios. The basic principles of watershed management and decision-making tools are to be contained in the CD as well as access to recent and real-time data.

Instructional workshops will be conducted for various stakeholders to increase the effectiveness of the CD. At the conclusion of each workshop, participants will complete a brief survey designed to evaluate their knowledge of watershed management strategies and assess their decision-making abilities. Workshop participants will receive a follow-up survey approximately six months later to examine changes in behavior or knowledge.

"User-stations" will be established at Soil and Water Conservation District offices throughout the Cayuga Lake watershed. Our audience will include watershed landowners and residents, the general public, students, municipal representatives, and highway maintenance staff.