



WATER RESOURCES RESEARCH GRANT PROPOSAL

Title: Development of Youth Water Conservation Education Materials for Pennsylvania 4-H Programs

Focus Categories: WS, COV

Keywords: Water Demand, Conservation, Education

Duration: 3/01/00 to 2/28/01

Federal Funds Requested: \$28,238

Non-Federal (Matching) Funds Pledged: \$49,798

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

Congressional District: 5

Statement of Critical Regional or State Water Problems

Recent reports from the U.S. Geological Survey indicate that, despite gains in population, overall water use in the United States has declined since 1980. Much of the reduction in water use has been achieved in improved irrigation water efficiency, but, while domestic water use has not decreased it has not increased in proportion to population increases. These developments are quite surprising and may in part be attributable to vigorous water conservation programs begun by many states, river basin commissions and local jurisdictions in the 1970's.

One of the most highly visible programs has been that of the California Water Resources Agency which has for many years committed significant staffing and other resources to its water conservation program. Particularly noteworthy are the tremendous strides made by this agency in improving irrigation efficiencies. This program is continually being improved and expanded to involve more irrigators.

The foregoing is testimony to what can be accomplished by water conservation education and awareness programs. However, projections of future water use still forecast increasing demand and potentially severe regional water shortages. There is still a great need to improve water use efficiency through water conservation educational programs.

Statement of Results or Benefits

The proposed program will adapt existing youth water conservation education materials to be suitable for a 4H-youth audience. Where appropriate and necessary, new materials

will be developed. These materials will be incorporated into Pennsylvania 4-H educational programs for use by 4-H leaders throughout the Commonwealth.

Nature, Scope and Objectives of the Information Dissemination Program

A thorough search of available water conservation information sources will be conducted to identify resources that may be used to develop youth water conservation education materials. Information thus obtained will be used as is, modified or deemed inappropriate for incorporation into the Pennsylvania 4H-youth program. Ultimately, a complete set of materials will be developed that will allow 4H-youth leaders to teach water conservation to youth enrolled in their programs.

The Extension system has offices in every county in the Commonwealth. Many of these offices have staff devoted to organizing and maintaining youth education programs. All counties have Extension-sponsored 4H-youth programs. The water conservation materials developed will be made available and incorporated into this network. In this manner, youth all over the State will become involved in learning about water conservation.

In addition to this focused effort on conservation education, the program will support a continuing information dissemination and technology transfer program via publication of a newsletter highlighting water center results; maintenance of information retrieval systems; publication of special reports on water research projects.

Methods, Procedures, and Facilities

The first step in developing youth water conservation materials will be to assess what is already available. Where possible, available material will be used directly and modified to fit the Pennsylvania program. Gaps will be filled by developing new information. Past water center research will provide background information on water use, water supply and wastewater treatment problems and energy conservation aspects, to the framers of the new program. The rough materials will be put through Extension's publications development process to insure high quality and attractiveness. Once completed, the materials will be disseminated via Extension's established delivery system to local 4H-youth leaders for use in their educational programs.

Related programs and cooperators

There are a number of similar programs underway at various locations and nationally. Project WET (a national program) has a water conservation component. Project WET is primarily aimed at public schools and does not concentrate on water conservation. It is an excellent program that will be helpful to us in developing our program. The American Water Works Association (AWWA) is also a source of the kinds of information that will be used, although AWWA does not have an effective delivery system for this information in place in Pennsylvania. Other states and local jurisdictions have programs that should be helpful in materials development.

Full implementation of this program will involve the cooperation of 4H-youth agents and leaders in the Extension system. If necessary, a phase two of this project will be proposed at a later time. This phase will involve training for 4H-youth agents in use of the water conservation materials produced.

Investigator's Qualifications

The principal investigator has been involved in both water conservation research and education for many years. Results of this research will be utilized as necessary background in the development of the materials to be presented. The principal investigator is also intimately linked to the Extension delivery system and has experience in the development of water conservation education and public awareness information.

Training Potential:

A master's level graduate student will be employed on this project and trained in water conservation and water conservation materials development. This student under the guidance of the principal investigator will develop the 4H-youth water conservation materials.

Literature Cited: None