

PROJECT FINAL REPORT

The Comprehensive Commonwealth Water Education Project

Workplan # 02-07

Grant # C9994861-02

MOA # M-03196805 and PO2 0600000745

Project Period: 7/1/2003 through 6/30/09

Submitted by: David A. Howarth

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Funding for this project (The Comprehensive Commonwealth Water Education Project) was provided in part by a grant from the U.S. Environmental Protection Agency (USEPA) through the Kentucky Division of Water, Nonpoint Source Section, to the University of Louisville as authorized by the Clean Water Act Amendments of 1987, §319(h) Nonpoint Source Implementation Grant # C9994861-02. The contents of this document do not necessarily reflect the views and policies of the USEPA, KDOW or the University of Louisville nor does the mention of trade names or commercial products constitute endorsement. This document was printed on recycled paper.

Acknowledgements

This project was supported in part by a grant through the U.S. Environmental Protection Agency's Nonpoint Source Pollution Control Program, Section 319(h) of the 1987 revision to the Clean Water Act.

The Kentucky Division of Water administered the grant and the University of Louisville acted as fiscal agent for the project.

KET Foundation, Inc.; Western Kentucky University Center for Water Resource Studies; Ky. Division of Water, Watershed Management Branch; Kentucky Waterways Alliance, East Kentucky Science Center; Ky. Department for Fish and Wildlife Resources; The University of Kentucky Tracy Farmer Center; The Kentucky Geographic Alliance; Kentucky Environmental Education Council; Department of Local Government; Kentucky Division of Conservation; The University of Kentucky Cooperative Extension; Morehead State University; Northern Kentucky University College of Education; The University of Louisville Center for EE; Western Kentucky University Center for Math; Science and Environmental Education and Murray State University Center for Environmental Education; The UK Water Resource Institute; Kentucky Association of Counties; Kentucky League of Cities; the Kentucky Transportation Center; Tennessee Valley Authority.

DOW names Debra Day and Paula (Paulette Akers?? Is that who you mean) and....

KET field staff and Lynda Thomas

Kristen

Rosetta

Adam

Sharon

Others??

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Executive Summary

This education project was a five-year, multifaceted, statewide project to provide nonpoint source education to a set of adult Kentuckians, including teachers, local elected officials and others. The goal was to motivate them to address nonpoint source issues in their communities. Through these individuals and the partners, we hoped to influence behavior among the general citizenry of the Commonwealth. The strength of this project grew from the willingness of all partners to collaborate on common goals (although in ways not always outlined in the original proposal) and to assist each other with expertise, information and shared networks as needs arose. An essential part of that collaboration was the participation of the partners listed in the **Acknowledgments** section of this report.

In general, all of the goals and objectives of the initial proposal were met, although the means to the ends were not always as originally proposed. For example, the teacher professional development workshops were originally envisioned to be developed as a single unit that would be held in different drainage basin areas in consecutive years. In actuality, the workshops were developed separately and held simultaneously by the participating university representatives. Nevertheless, all received very positive evaluations in terms of both learning outcomes and quality of materials made available.

The products produced from this grant (see **Methods and Materials** section of this report) are generally of the highest quality and have been disseminated throughout the Commonwealth. KET in particular did a splendid job of research, review and production. These products have been especially well received by people across the Commonwealth. Both the marketing campaign and some of the educational products have either been nominated for or won awards.

Foremost among the lessons learned from this project were problems associated with the large number of partners and participants, the length of the project, and the delays experienced at the outset (e.g., the time between the award of the grant and the signing of multiple subcontracts). These issues resulted in a reduction in enthusiasm for the project's shared goals and a fallback position of "go it alone." The six-year contract period also saw several participants enter or leave the project midstream.

Introduction and Background

The goals of the Kentucky Nonpoint Source (NPS) Pollution Control Program are: 1) to protect the quality of Kentucky's surface and groundwater from nonpoint source pollutants; 2) to abate nonpoint source threats to the waters; and 3) to restore degraded waters to the extent that water quality standards are met and beneficial uses are supported (Kentucky Division of Water, 2008). In support of that mission, the University of Louisville and its numerous partners sought to improve understanding of the cause and effect mechanisms that contribute to water pollution via nonpoint sources.

The Comprehensive Commonwealth Water Education Project (CCWEP) was designed to provide education and educational products that will improve understanding of ground and surface water pollution via nonpoint sources to Kentucky residents. Most residents are aware of single-point source pollution and its impact on water quality. In Kentucky, this often takes the form of effluent from 'straight pipes' directly into streams. This is perceived as a direct threat to water quality in the state as evidenced by a survey that places water quality high on the list of environmental concerns for Kentucky's residents (Eller, 1999). However, the threat of nonpoint sources of water pollution is less well recognized or understood and is not often directly evident to the lay person. A recent study by Chapman and Wagner (2008) suggests significant lack of understanding from urban residents about groundwater and streamflow and their impact upon the two.

Given the vulnerability of Kentucky's ground and surface waters to both agricultural and urban sources of nonpoint source pollution and the high cost of mitigating polluted streams and aquifers, it seems appropriate and cost-effective to attempt to better educate Kentucky's citizenry about preventative measure that all individuals can take to minimize impacts on streams, lakes and aquifers. Indeed, as jobs in regulatory agencies and consulting firms become harder to fill and the demand for groundwater hydrologists increases (Stephens, 2009), it becomes imperative to better educate the general public about what individuals can do to limit nonpoint source pollution.

Purpose and Goals

As stated in the original proposal, the primary purpose of this work was to combine the talents, resources and experience of numerous state partners in a project designed to improve not only the nonpoint source knowledge base of all our citizens but also their ability and willingness to take personal and collective action to improve the quality of our streams and rivers. Specifically, we proposed to:

Use the resources of all partners to disseminate project materials and programs equitably and extensively statewide. Hire a full time project director and assign specific partners to be responsible for project coordination in their watersheds.

Do extensive research to gather information on existing materials, trainers, and programs. Place this information in a database for public use. Eliminate duplication and fill in gaps in both materials and training personnel.

Break down turf barriers and share information and materials across organizational lines. Create a Steering Committee of project partners to facilitate this.

Create a unified multimedia message that will raise awareness of nonpoint source water pollution and create a “demand” for more information.

Produce a media kit and a series of public service announcements directed to TV, radio, and print media.

Produce a Kentucky-specific documentary to be shown on Kentucky’s public television station and in other venues across the state.

Create a set of professional development tools that will be used to improve the ability of teachers across the state to teach about issues related to nonpoint source pollution.

Offer a series of professional development institutes for teachers and Cooperative Extension agents to improve both content knowledge and instruction on nonpoint sources issues. These programs will be rigorous and content based and will help teachers plan and achieve long term professional development goals.

Provide professional development resources on Kentucky Educational Television.

Develop an electronic field trip to a watershed(s) which teachers (and others) can use to help people visually understand the many issues related to watersheds and human impact.

Create a 'Living Streams' exhibit at the Department for Fish and Wildlife education center and units of study that can either stand-alone or be used in conjunction with a classroom visits to the exhibit.

Develop or adapt existing presentations, workshops and short courses to help both the general public and local elected officials understand nonpoint source pollution in Kentucky. Train people across Kentucky to present these workshops.

Use Kentucky's new law, which encourages local officials to get continuing education credits, as incentive to get them to attend nonpoint source programs.

Use these same workshops and other tools developed for media and teachers as part of the "arsenal" of educational materials to reach other adults through such venues as church and civic groups.

Materials and Methods

The following products were developed during the course of this project:

- a KET-produced documentary on nonpoint source pollution and water quality entitled “Common Ground, Cleaner Water”
- six 30-second public service announcements and one 15-second public service announcement for television and radio broadcast
- six printable public service announcements
- an electronic field trip through a watershed
- curricular and professional development materials consistent with science standards and Kentucky’s core content
- an extensive training resource entitled Kentucky Growth Readiness: Leadership Training for Planning and Public Works Officials
- a manual entitled Kentucky Wet Growth Tools for Sustainable Development: A Handbook on Land Use and Water
- a web page (www.inyourwater.org) that will provide additional materials and an ongoing site for nonpoint source pollution information and discussion

(I can fill in some more about each of these asap)

The public service announcements were nominated for an Emmy award.

<http://www.wku.edu/news/releases07/may/emmy.html>

http://ohiovalleyemmy.org/assets/documents/pdf/2007_Nominees.pdf

The electronic field trip titled, Rain Drops to Rivers, developed by Kentucky Educational Television, is being promoted nationally by the Public Broadcasting System

<http://www.raindropstorivers.org/>

In addition, the Commonwealth of Kentucky and CWEP steering committee members and project partners participated in a week long kick-off that coincided with the airing of the documentary on KET and three teacher workshops held by six universities. The Kentucky Education Cabinet provide one staff member work with CWEP partners to promote the media events. This assistance included the preparation of press releases, the coordination of interviews, and follow-up activities. The campaign surrounding the week long event won an award. On Thursday, April 6, 2006 Commonwealth NewsCall distributed an audio news release for the Kentucky Education Cabinet. The ANR featured comments from Kentucky Education Secretary Virginia Fox taken from a news conference announcing the Commonwealth Water Education Project. During this segment, Secretary Fox discussed the initiative and a KET documentary on the issue set to debut the following evening. The ANR was distributed to radio stations throughout Kentucky. The following table represents the project summary.

Results and Discussion

tbd

Conclusions

Tbd

Appendices

Appendix A. Financial and Administrative Closeout

Awaiting reconciliation

Literature Cited

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