

# Nonpoint Source Pollution Programs: Assessing Methods and Behavioral Effectiveness

SUMMER 2000

## Nonpoint Source Pollution

Nonpoint source (NPS) pollution is the result of the day-to-day activities of many different people, animals, or businesses. The combined effects can be significant in a particular body of water or watershed. One approach to prevention and control of NPS pollution is the development of intervention programs that inform participants and create public awareness in communities where the programs operate. A combination of education, technical and financial assistance, and regulatory measures are often used. The expected result is that individuals and groups become aware of how their activities can and do cause NPS pollution problems, and prompt behavior changes to correct those problems.

## Goals of the Research Project

Providing information to the general public using workshops, demonstrations and written materials is a common approach to environmental education. There has been some general research about how information can influence behavior change. Nonetheless, little is known about how various intervention programs can encourage adoption of a variety of behavior changes to accomplish specific water quality objectives. Methods for encouraging appropriate attitudes and behavior change in NPS pollution control are not well understood and are seldom evaluated for effectiveness..

For this project, we are particularly interested in identifying and assessing **programs that target sources of excess nutrients, pesticides and soil erosion** as sources of pollution.

The objectives of this research are to identify and assess a variety of different methods for encouraging behavior change in NPS pollution control. This research will:

- 1) explore through interviews and a survey what programs and methods lead to adoption of attitude and behavior changes;
- 2) assess the relationship between specific methods and various types of NPS pollution and types of target audiences
- 3) explore the connections between NPS policy and on-the-ground programs

## Who Will Participate in the Research?

The success of the project depends on partnerships with two key groups. First, the research team will be screening and identifying NPS outreach and educational programs in the Pacific Northwest region. Program managers and administrators will be interviewed to learn more about the program methods, goals and objectives. Then, a survey will be developed and distributed to program participants. The survey will assess the level of participation, respondents' NPS associated activities and evaluate if program participants have made behavioral changes that impact surface water quality.

## What Will We Learn from the Project?

Interviews with program managers and administrators will help us learn about these topics:

- 1) What is the relationship of program content to local government policy regarding NPS pollution?
- 2) What expectations of outcomes are built into program development?
- 3) What are the most important NPS pollution issues along an urban to rural landscape gradient?

Then, evaluations of program participants in NPS outreach and educational programs have rarely been done. Surveys will help us understand how to maximize the effectiveness of citizen programs and help improve future program design and implementation. We will explore the following topics using the surveys:

- 1) What program elements (or incentives) lead to attitude and behavior change?
- 2) Are different program elements (for instance, field demonstrations vs. workshops) effective for different audiences?
- 3) How is the information provided by programs translated to individual action that benefits water quality?

## How Will This Project Help NPS Programs?

This study seeks to create practical methods to change individual behavior to reduce NPS pollution. We're trying to get a clearer picture of what kinds of incentives and methods are effective in encouraging behavior change. This information may help future programs to be more effective and make the most of program funds.

At the completion of the study information materials will be created to help program managers choose the best mix of regulatory and non-regulatory approaches as they design future programs. Several products will be generated by the this project:

- 1) Sourcebook containing case studies of successful programs and survey results
- 2) Fact sheets that highlight major research findings
- 3) Project report and article(s) in publications

## What is the Project Timeline?

Programs will be identified and screened in summer 2000. Interviews with program managers will be conducted in Fall 2000. Program participant surveys will be sent out in Spring 2001. We expect the study to be completed by December of 2001. Final reports and fact sheets will be available in early 2002.

## Who is Funding the Project?

The USDA Forest Service, Pacific Northwest Research Station, through its Riparian Management Program, is providing research funds. The College of Forest Resources at the University of Washington also provides support for the project.

## Who Do I Contact for More Information?

Dr. Clare Ryan is the project Director and can be reached at the University of Washington, College of Forest Resources, Box 352100, Seattle, WA 98195. Phone: 206-616-3987 Email: cmryan@u.washington.edu

Jennifer Ise, a graduate student in the School of Marine Affairs at the University of Washington, is the project Coordinator and can be reached at 206-579-9328 or ise@u.washington.edu

Dr. Kathy Wolf, with the Center for Urban Horticulture (U of WA) is a co-investigator and can be reached at 206-616-5758 or kwolf@u.washington.edu