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# Impact

*An Evaluation of Agricultural Extension Service Programs*

## **Groundwater: Extension and Public Policy**

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*The key to successful programming is evaluation. What are the costs and benefits? Should programs be supported, changed, or terminated? To answer these questions, the University of Minnesota Agricultural Extension Service regularly evaluates its programs. This paper reports the findings of one such study.*

## Summary

Since the 1960s extension has been involved in dealing with southeastern Minnesota's uniquely challenging groundwater pollution problems. An evaluation of the program using focus group methodology indicates that extension's participation has been invaluable. It helped bridge the gap between state and local concerns, played a critical part in networking, and helped local people begin to take the initiative in the issue.

Focus group participants noted a few problems with the educational materials used; however, the consensus was that extension's role in the issue was critical and should be expanded.

Extension's educational function is often viewed in terms of the transfer of facts and information. But in many situations where public policy is at stake, it provides not only technical facts, but also methods to address issues before they become crises. One example of this "public policy education" is extension Community and Natural Resource Development (CNRD) program area efforts to help address groundwater pollution in southeastern Minnesota.

## A Fragile Resource

Groundwater in southeastern Minnesota is unusually susceptible to pollution because of the region's shallow topsoil and permeable bedrock. For decades this resource has been the primary supply of water for local residents. In recent years reports of pollution from agricultural chemicals, home septic systems, landfills, and other sources in the area have sparked efforts to protect this valuable and vulnerable resource.

Extension's involvement with the issue goes back many years. In the 1960s, then-Fillmore County agent Milt Hoberg began working with residents to identify the ex-

tent of the pollution and potential solutions. As awareness of the problem grew, the Minnesota legislature funded studies of the health implications. 4-H projects developed around abandoned-well studies and water sampling projects, and in the 1970s, Goodhue County agent Dick Walter got CETA funding to test wells. Extension's efforts would eventually reach all eight counties in the affected area.<sup>1</sup>

In 1980, a state agency task force was formed to study the problem. Alarmed citizens urged local officials to do something about the problem. Coordination of effort and overall education were needed to help pinpoint the problem and work toward solutions.

## Educating for Public Policy

It was here that extension took the role of public policy educator. As a state-level organization with a strong county-level presence, it was able to work well with both state agency staff and local officials. Much of extension's efforts involved educating people. But in addition, extension served as the common denominator for the various interest groups.

"The presence of a public policy educator is critical in a potentially controversial, multifaceted issue like this, and extension was uniquely qualified to meet that need," says extension director Patrick Borich. "Our role is not to advocate, but to supply the information needed by citizens to best make difficult decisions, and to serve as a forum for the dialog that must take place if good decisions and resultant compromises are to be made. As public policy decisions become more and more complex and multi-level, this will be an increasingly important job for extension throughout the state."

## Networking: Many Pieces Make the Whole

Specific extension efforts to deal with the groundwater issue have included teaching, developing a low-cost improved well-testing program, and designing computer software. Through these programs, key people met and began to work together on the problem.

<sup>1</sup>Dodge, Fillmore, Goodhue, Houston, Mower, Olmstead, Wabasha, and Winona

## THE FOCUS GROUP

In order to obtain perceptions about extension's groundwater efforts, researchers used a method of program evaluation called the focus group interview. In this process, selected persons are asked to focus their discussion on a particular theme. Participants are guided by questions, but are instructed to openly discuss their feelings, perceptions, and attitudes.

A typical focus group evaluation consists of a series of three or more group interviews, each with a small group of participants. A moderator introduces the topic and presents a predetermined set of questions. The group discusses the questions and shares insights and ideas; the moderator carefully probes for clarification of responses. Emphasis is not on consensus but on the diversity and range of opinions of individuals within the group.

Focus group procedures allow individuals to share their perceptions and interact with others having similar background and experiences. The group discussion environment of focus group interviews closely resembles the real-life situation of decisionmaking.

Although the focus group has been used in business and industry since the early 1950s, public sector groups are just beginning to adopt the approach. It is a relatively low-cost evaluation procedure and can be used successfully even with volunteer staff with limited group interviewing skills. Extension can provide a valuable service to any group or organization by helping them use focus groups or other decisionmaking tools to develop and refine their own programs.

"It was these other groups, the local and state officials and public interest organizations, that have really made things happen," says area CNRD agent Roger Steinberg, who coordinated the extension effort. "Extension has served largely as a catalyst, helping the various actors become aware of each other and the diverse contributions they each can make to the overall solution."

## Measuring Impact

But how useful have these efforts been? And what should be the future course of extension's involvement? Steinberg sought answers to these questions by conducting a formal evaluation using a process called focus group interviews (see sidebar). Four focus group sessions were conducted involving 21 people representing both public and private sectors. All had worked with extension and with some segment of the public or a specific interest group.

Focus group questions were of three main types. First, participants were asked about their perception of the problem. A second group of questions asked participants to evaluate specific extension educational efforts. Third, participants were asked to suggest future directions for extension's involvement in the issue.

## Results

The focus group interviews indicate that extension has had a positive role in dealing with groundwater contamination problems in southeastern Minnesota. Participants saw extension's role as multi-fold: answering specific questions, suggesting alternative courses of action, and getting people to ask more and better-informed questions.

Extension was viewed as being uniquely able to work with local decisionmakers since county agents, who were already members of the local community, were able to gain the public trust in this controversial issue. Respondents also noted that extension got involved early in the issue—an important aspect of public policy education.

Networking was singled out by many participants as perhaps extension's most useful function. Thanks largely to extension, one participant said, "everybody working with the groundwater problem in southeastern Minnesota now knows everyone else."

Focus group participants also commended Extension's direct educational efforts. "Extension people are very effective at translating technical jargon into terms people can understand," one participant noted.

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***Participants unequivocally supported ongoing extension involvement as a fundamental part of the solution to groundwater problems in southeastern Minnesota.***

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Perhaps the most significant outcome, some participants noted, was the "internalization" of the problem by local residents and policymakers. Extension essentially served as a catalyst, helping to increase awareness of and concern about groundwater pollution problems. Local people now recognize it as *their* problem. Participants did mention a few problems, however. One fact sheet was apparently inaccurate, and at times needed written materials were unavailable or too costly. But perhaps the most frequent "criticism" was simply that extension should be doing more.

The focus group process itself turned out to be an educational experience: several participants expressed interest in incorporating it into their own community decisionmaking processes.

"Extension's role in aiding the policy development process extended right through the evaluation," Steinberg comments. "A large part of our effort centered on the three basic tenets of education: increasing awareness, encouraging cooperation, and helping to identify solutions. But beyond that, we've helped introduce a tool for use in policy development generally."

#### **Future Directions**

According to the focus groups, emphasis must now turn from education about the problem to addressing the problem itself. Participants suggested a number of future activities for extension, including holding more local meetings, increasing youth involvement through 4-H, and working to identify and encourage proper use of agricultural chemicals in the sensitive areas. Extension was also urged to do more with the general public and mass media. A need was also expressed for more emphasis on the health aspects of the issue for humans and livestock.

Extension, then, is a critical component of future efforts to tackle the groundwater issue. Its efforts are seen as a fundamental part of the solution to groundwater contamination problems in southeastern Minnesota.

#### **A Continued Commitment**

And that, Steinberg says, is not a minor task. "The toughest problems are still ahead of us," he notes. "In the case of groundwater no single solution exists; thus, there is a need to maintain interest and concern over a long period of time. As difficult as this will be, the alternative of a severely polluted and unusable water supply makes it necessary that we continue these efforts."

#### **About the Researcher**

Roger Steinberg's involvement in natural resources and public policy education goes back to his years with the South Dakota Cooperative Extension Service, where he helped lakeshore owners, farmers, and local governments deal with water quality issues.

Perhaps the most controversial of these was a proposed large-scale irrigation and water transfer project from the Missouri River into eastern South Dakota. The South Dakota land grant and research/extension system struggled to meet the demand of all of those involved.

Prior to joining extension Steinberg taught high school biology, physics, and photography. He has also taught at the community college and university level and at a federal prison in Washington state. His B.S. and M.S. degrees are both from South Dakota State University in education and natural resources.

Additional information on the details of the evaluation research methods and results are available in an unpublished study. Contact Roger Steinberg, Southeast Area Extension Office, 135 Friedell Bldg., 1200 S. Broadway, Rochester, MN 55904, for more information.

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