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## **Extension's Advocacy Role in Wastewater Projects in Low Income Communities**

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### Abstract:

#### Situation

West Virginia's Lincoln County is one of the poorest areas in a poor state. The Left Fork watershed of the Mud River has even higher indices of poverty. Tributary samplings since the late 1990's continually show higher than acceptable levels of total coliforms and e. coli. Based on this research, the Lincoln County Commission was awarded an EPA National Decentralized Wastewater Demonstration grant as part of the 2003 appropriations bill. To date alternative wastewater systems have been installed for 28 homes. However, there have been a number of problems, many of which inevitably fall to homeowners to solve or ignore

#### Objectives

The project's purpose is to install alternative home treatment systems then monitor these to demonstrate the intervention's effectiveness in reducing tributary bacterial contamination. Equally important have been efforts to empower the local community and assure that they are equal decision makers in the total process. Yet, homeowners, especially in low income communities, often have not developed skills to deal with competing interests of state agencies and local systems installers, as well as not having the technical background to hypothesize reasons for system problems. Social factors are as paramount as science and technology to the success of projects like this.

#### Emerging Knowledge

Locally based Extension educators can often bridge gaps between homeowners and agencies, installers, and university researchers. They can also help empower local communities as equal decision makers. The workshop will suggest ways Extension can better serve as community advocates, and look at issues of sharing information and research, dealing with leaking wastewater tanks, high contamination levels from direct discharge systems, long term maintenance, community leadership development, and overcoming the typical mismatch between academia and poor people.

### Impact Statement:

- \* \$1 mill EPA project funding from 2005-2010
- \* \$348,000 in local match
- \* 28 homes with systems
- \* Data collected on Bacterial Source Tracking, tributary sampling, and direct discharge system effluent
- \* Sponsored training for area systems installers
- \* 124 citizens in watershed attended 51 meetings

- \* Sponsored regional conference on wastewater management
- \* Presented series of recommendations to state legislature

Partnerships:

West Virginia University  
West Virginia Water Research Institute  
National Research Center for Coal and Energy  
National Environmental Services Center  
Lincoln County Commission  
Lincoln County Health Department  
WV Department of Environmental Protection  
WV Department of Health and Human Services  
Citizens of Left Fork of Mud River watershed  
Congressman Nick Rahall

Leverage Resources (Major):

\$348,000 in local project match  
\$10,000 Flex-E Project Grant from WV Development Office

Lessons Learned:

- \* Local community needs to be equal decision making partner
- \* Decisions can not be driven solely by research model
- \* Long-term system management is critical for project success
- \* Extension can play crucial role in advocating for low income communities
- \* Though projects like this are even more complex and difficult when based in low income communities, it is critical to find ways to leverage funding for those areas.
- \* Currently there seem to be no NSF-40 wastewater systems low income communities can afford without major financial assistance.

Category: Human Dimensions

Type of Presentation: Oral Presentation