



What skills and information do watershed groups require for effective watershed planning and restoration? A summary of recent research.

Brent Ladd, Purdue University

Introduction

Recent research and practical experience has been built by people working to improve watershed health. Results of this research and experience are shown below with lists of skills, information, and barriers in watershed planning and restoration. Understanding the skills and information needed, and the significant barriers watershed groups often face is a good strategy to begin with. Knowing what skills yet need to be gained or improved; the key information required and how to develop, access, and use it; and developing methods to deal with common barriers will all help watershed groups succeed rather than fail. To find out more about the new Indiana Watershed Leadership Program visit our web site <<http://www.ces.purdue.edu/waterquality/IWL.htm>>.

Skills found necessary for successful watershed planning and restoration

Group Process and Organizational Skills

- ✓ Building trust among group members
- ✓ Conflict resolution
- ✓ Ability to build community trust, networking, and reciprocity around local watershed management
- ✓ Setting group goals
- ✓ Ability to work with local power structures (decision makers)
- ✓ Ability to plan long-term projects
- ✓ Working across multi-county or multi-state political boundaries that make up the watershed
- ✓ Coordinating with agencies and organizations to implement necessary land use changes

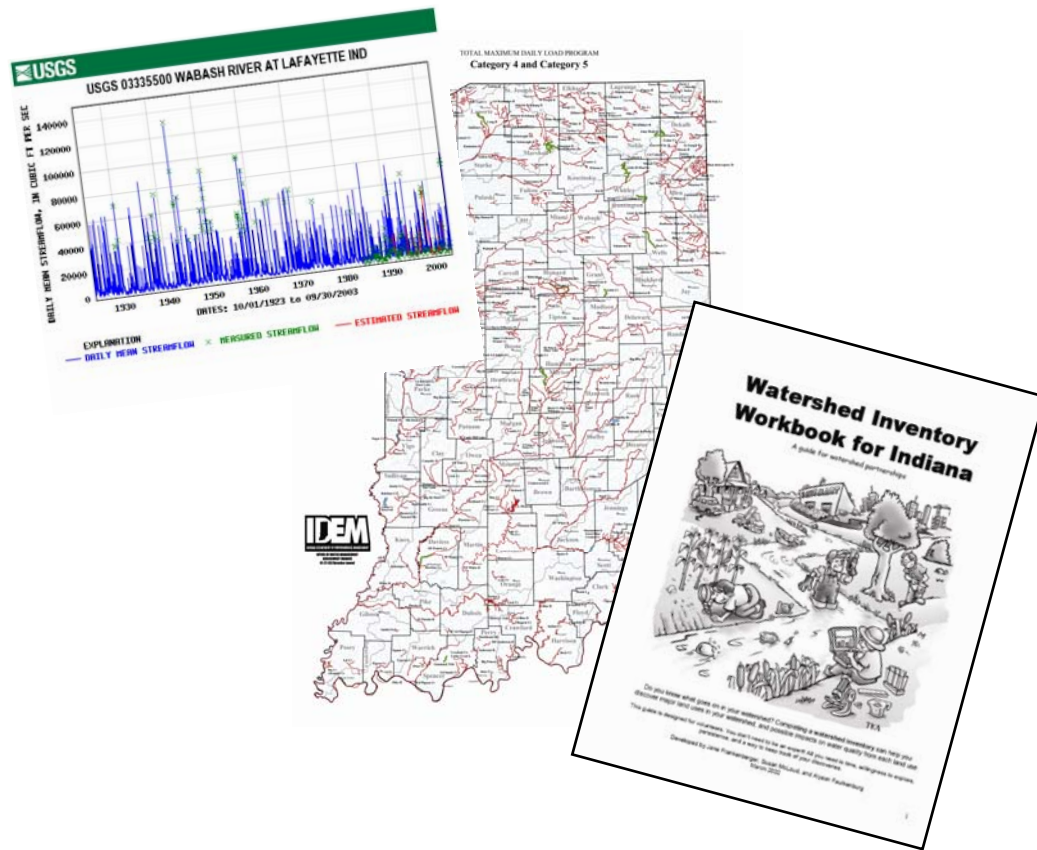
Technical Skills

- ✓ Watershed assessment and inventorying
- ✓ Using GIS to map and analyze your watershed
- ✓ Using watershed models to estimate runoff
- ✓ Evaluation of meetings, project efforts, and impact
- ✓ Understanding and using the Clean Water Act
- ✓ Acquisition of funds
- ✓ Identifying possible restoration/treatment alternatives to address watershed problems
- ✓ Calculating load reductions for possible treatment (BMP) alternatives

Significant barriers that reduce effectiveness of planning and implementation of watershed restoration

- ✓ Lack of coordination or facilitation (no watershed coordinator)
- ✓ Lack of financial resources
- ✓ Lack of human resources
- ✓ Lack of public awareness about watershed problems
- ✓ Lack of diverse stakeholder involvement in planning process
- ✓ Local agency priorities conflict with watershed group goals
- ✓ Federal, state, or local laws
- ✓ Lack of technical resources
- ✓ Opposition from public organizations and/or offices
- ✓ Opposition from citizens
- ✓ Lack of agreed upon goals
- ✓ Value conflicts between group members
- ✓ Lack of ability to interpret data and incorporate it into decision making
- ✓ Conflicting interpretations of data
- ✓ Low homeowner or farmer interest in changing detrimental practices and adopting recommended practices
- ✓ Low interest from public officials in changing detrimental policies, and adopting proactive/preventative policies





Information found to improve watershed planning

- ✓ Water quality data for your watershed
- ✓ Land use information for your watershed
- ✓ Storm water runoff estimates for your watershed
- ✓ Wetland information for your watershed
- ✓ Wildlife habitat information for your watershed
- ✓ Stream habitat information for your watershed
- ✓ Soils information for your watershed
- ✓ Septic system and sewer information for your watershed
- ✓ Endangered and threatened species information for your watershed
- ✓ Census data for your watershed
- ✓ Permitted dischargers information for your watershed
- ✓ Pesticide and fertilizer use information for your watershed
- ✓ Pesticide and fertilizer runoff estimates for your watershed
- ✓ Planning and zoning information for your watershed
- ✓ Recreational needs information for your watershed
- ✓ Landowner attitudes information for your watershed

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Additional Sources:

Indiana Watershed Planning Guide, August 2003, IDEM-Office of Water

EPA Watershed Academy

Ohio Watershed Academy

Completed watershed plans

Brent Ladd
225 S. University
Purdue University
West Lafayette, IN 47907
www.ces.purdue.edu/waterquality/IWL
Email: laddb@purdue.edu
Phone: 765.496.6331