

Social Acceptability of BMPs: Results from the Eagle Creek CEAP Project

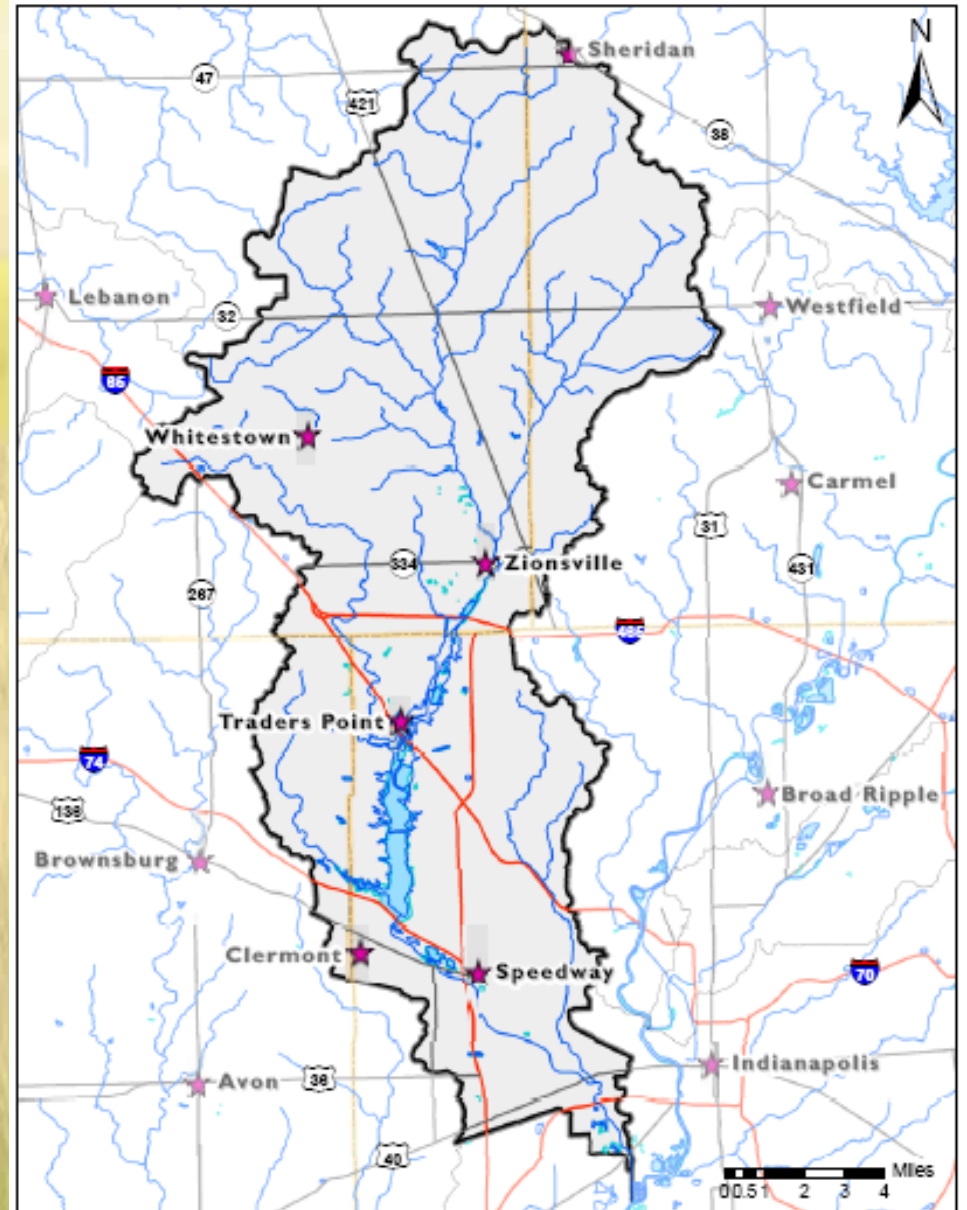
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Conservation Effects Assessment Project

- Environmental benefits of conservation practices
- Four Components
 - Conservation effectiveness
 - Cost-effectiveness
 - **Social acceptability**
 - Inform outreach strategies





Project Hypothesis & Objectives

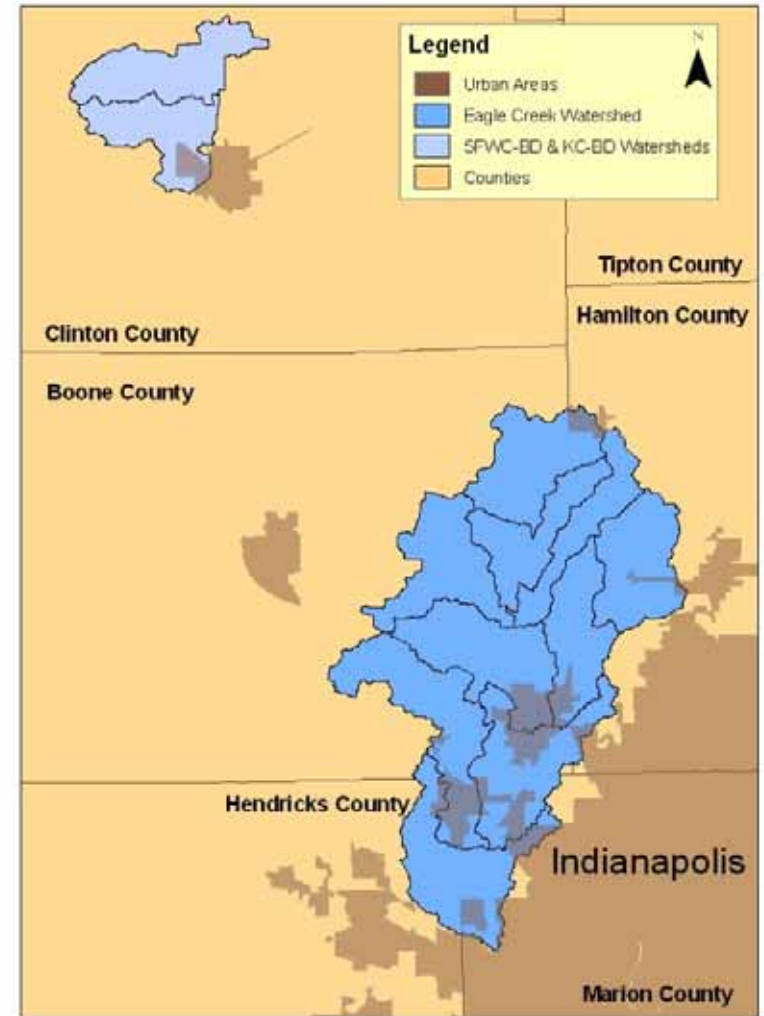
- *Hypothesis:* Some conservation practices are more acceptable to land managers than others.
- *Objective:* Determine the social acceptability of potential conservation practices.



Research Project Justification

- Lockeretz (1990)
 - “Most attempts to relate farmers’ conservation attitudes and behavior to personal, institutional, or farm structure variables have largely failed.”
- Prokopy et al. (2008) found most variables to be insignificant a majority of the time
- Napier (2001)
 - Go talk to landowners
 - Build new theoretical perspective

Methods – Research Locations



Methods – Research Locations



- Boone, Hamilton, Hendricks, and Marion County. Very close to Indianapolis
- In 2002, 52% agriculture, declining each year
- Topographically uniform, mostly flat land



- Clinton County Indiana
- 71% agriculture (corn and soybeans)
- Small amount of urban
- Topography varies, some rolling, a lot of flat land



Summary of Interviews

- “Kilmore Creek” Watersheds
 - 17 interviews completed out of a 27 person sample (62.9%) (All males)
 - Refusal Rate 14.8%
 - Interviewed 14 producers, 2 non-operating landowners, and 1 person with small livestock operation, share renting land for crop production
- Eagle Creek Watershed
 - 39 interviews out of 61 person sample (63.9%) (One female landlord)
 - Refusal Rate 16.4%
 - Interviewed 32 producers and 7 non-operating landowners

Acceptability Characteristics

- Perceived characteristics of the innovation that affect adoption are (Rogers 2003):
 - Relative Advantage
 - Compatibility
 - Complexity
 - Trialability
 - Observability
- Cary et al. (2001) add the attribute of risk and deem all these the “forgotten focus” in adoption of sustainable practices.





Results – Comparison of Adoption Rates

– Grassed Waterways

- 100% Kilmore
- 53% ECW

– Filter Strips

- 61% Kilmore
- 38% ECW

– Conservation Tillage

- 31% Kilmore
- 44% ECW

-- Cover Crops

- 0% Kilmore
- 19% ECW



Data Analysis and Presentation

- Grounded theory used to identify themes in transcribed interview data
- Practices grouped:
 - Conversion of productive land
 - Related to soil cover in non-growing season
 - Practices that manage inputs
- Common motivations and limitations for adoption of these practices are presented

Grassed Waterways and Filter Strips: Motivations

- Relative advantages
 - Soil benefits
 - Economic advantages (filter strips = payments; grassed waterways = ease of farming, protection of equipment, increased land values)
 - Environmental advantages (more frequent with filter strips)
- Compatability
- Observability



Image: NRCS

Grassed Waterways and Filter Strips: Limitations

- Relative disadvantage
- Incompatibility; issues with topography and land ownership

“I feel that would be up to the landland to decide if he wanted the filter strips. They’re charging me rent for specific area of land. If they’re gonna put filter strips in, they need to reduce that rent.”



- Complexity for grassed waterways
- Observability for filter strips

Conservation Tillage and Cover Crops: Motivations

- Relative advantage
 - Soil benefits
 - Economic advantages
 - Environmental benefits secondary to economic
- Compatability
- Trialability
- Observability (conservation tillage)



Conservation Tillage and Cover Crops: Limitations

- Relative disadvantage
 - Additional equipment costs
 - Immediacy of benefits
- Limitations for conservation tillage:
 - Risk (riskiest of all practices)
 - Complexity
- Limitations for cover crops:
 - Observability



Image: NRCS



Nutrient Management and Pest Management: Motivations

- Relative advantages
 - Cost savings
 - Improved fertility
- Nutrient management:
 - Economic advantages, soil benefits
- Pest management:
 - Economic and environmental advantages



Nutrient Management and Pest Management: Limitations

- Relative disadvantages
 - High cost
 - Immediacy of benefits
- Incompatability
- Many unaware of practices
- Complexity
- Risk (pest management)
 - GMOs and food crops



Summary and Conclusions

- Market conservation practices for their on-farm benefits instead of diffuse environmental benefits
- Don't assume all benefits are known
- Address perceived incompatibility or lack of need
- Important to consider characteristics of conservation practices in promoting them



Summary and Conclusions

- Address limitations associated with government programs
 - Program participation and developing areas
 - Simplicity - *“If you could bring those programs out to a farmer and lay it down in one page in simple terms what happens, you know –one, two, these steps, you go through these steps right here, you get paid this amount of dollars, you’re responsible for this, just if it was simply laid out.”*
- Increase observability
 - Use producer connections, meetings, demonstrations



Ongoing Work

- Interviewing horse and stable owners (see poster CP4)
- Categorizing producers along a participation spectrum:
 - Active adopters - environmental
 - Active adopters - environmental and financial
 - Passive adopters - financial reasons with little inconvenience
 - Conditional non-adopters - consider adoption under different circumstances
 - Resistant non-adopters - not using most conservation practices for multiple reasons and probably will not in the future

Questions?

