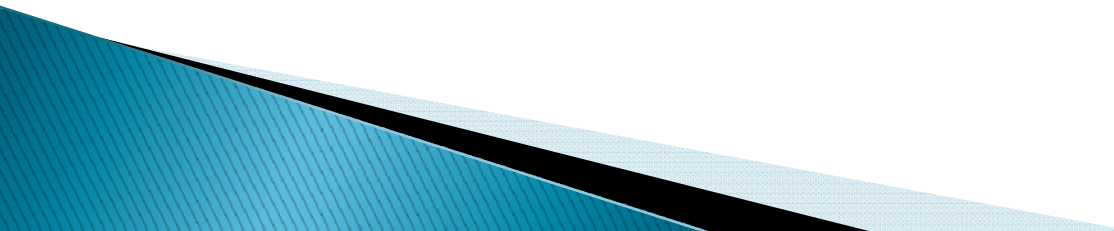


Using Social Information to Guide Outreach Activities in the La Moine River Watershed

Linda Prokopy
Purdue University
October 22, 2009

Social Indicators for NPS Project Overview

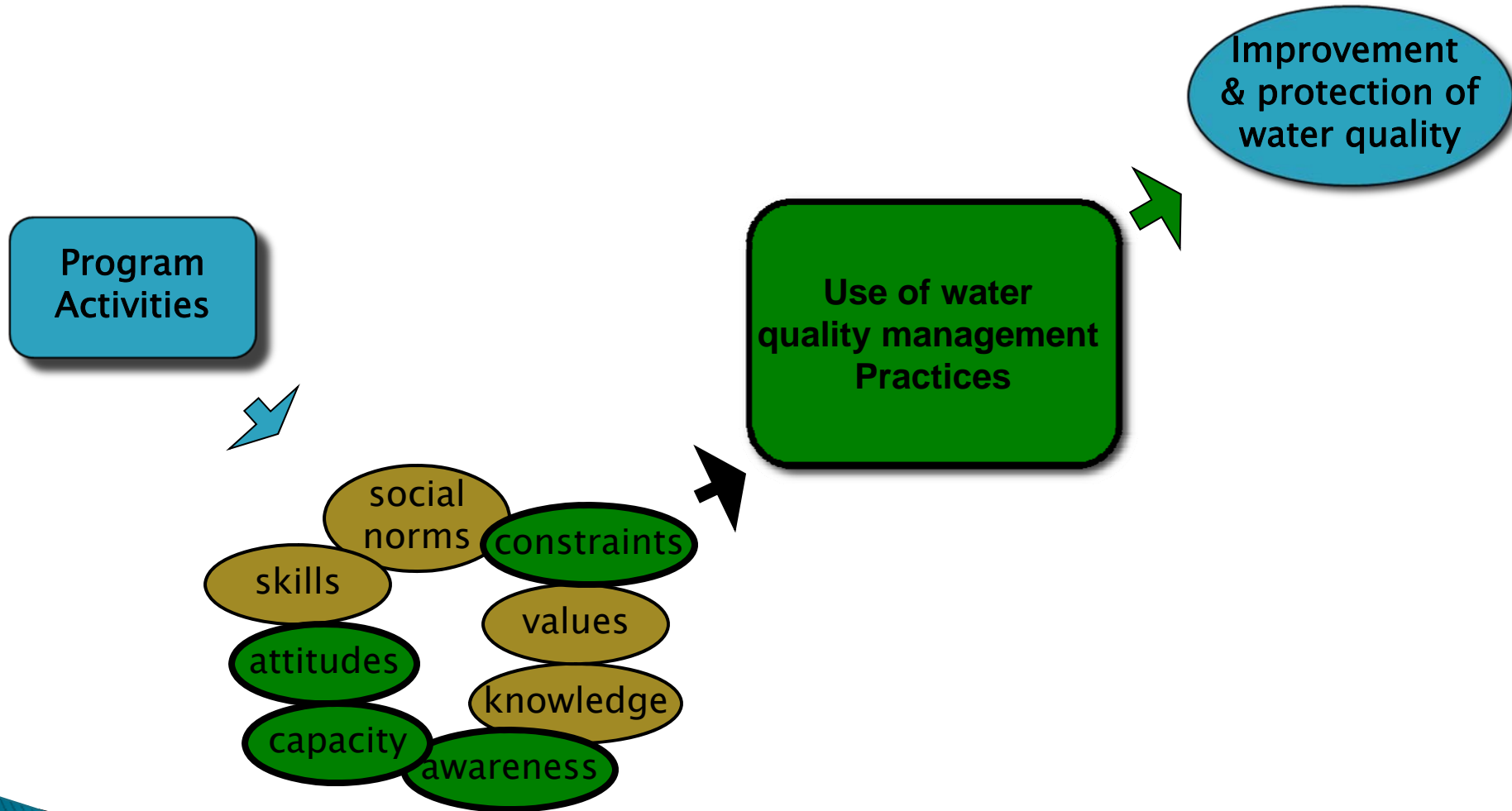
- ▶ Develop a system for collecting and using social data to evaluate NPS management efforts in Great Lakes Region/Region 5
 - ▶ Complement existing “administrative” and “environmental” indicators
 - ▶ Partnership with USEPA, state water quality agencies, and land grant universities
 - ▶ Provide assistance & support to state programs and NPS projects
- 

Three Types of Indicators

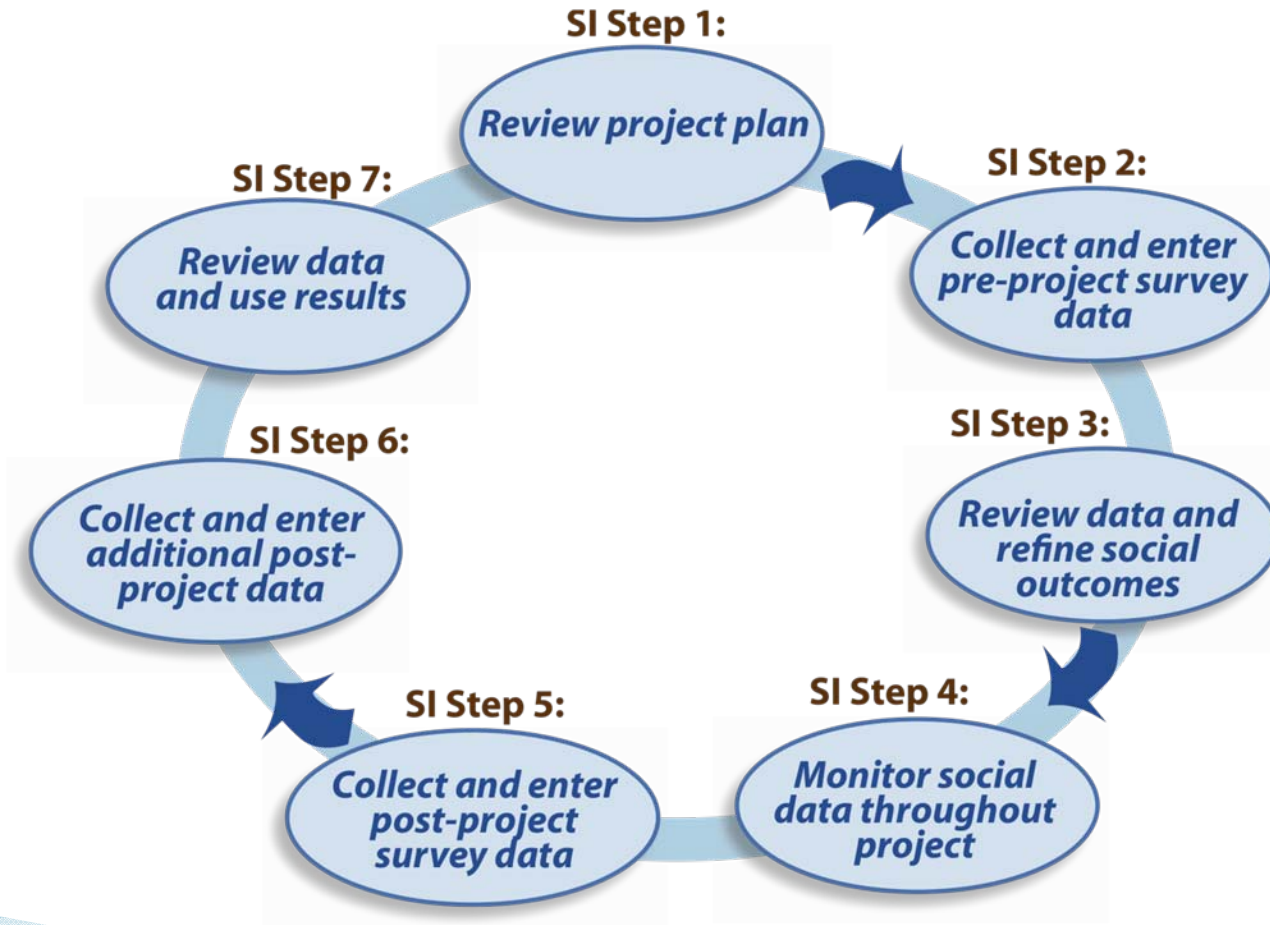
- ▶ Environmental
 - pH, TSS, bacteria, turbidity
- ▶ Administrative
 - Bean counting!
 - Number of plans written, number of newsletters distributed
- ▶ Social



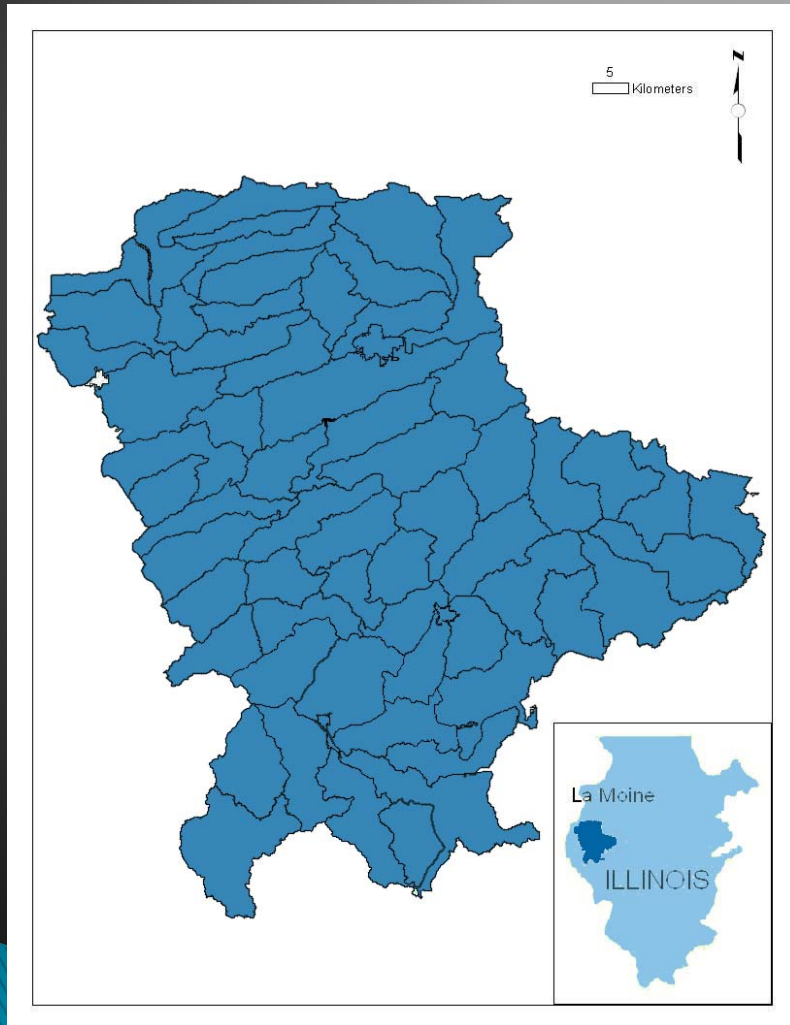
Conceptual model



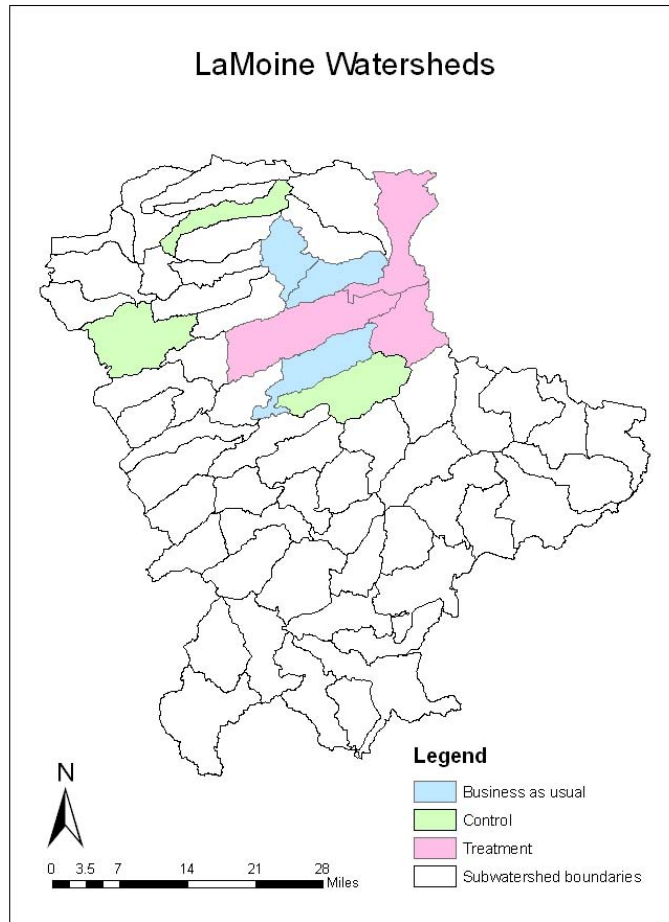
SI Planning and Evaluation Process



La Moine River Watershed



Study Design




- ▶ Treatment
 - Targeted education
- ▶ Business as usual
 - Typical education
- ▶ Control
 - No interventions

Surveying agricultural producers

▶ To gather information on

- Awareness
- Attitudes
- Behavior
- Constraints

Your Views on the LaMoine River Watershed



Your local watershed project is conducting this survey in coordination with Purdue University. The purpose of this survey is to identify the needs and concerns in your community regarding water quality.

We ask that this survey be completed by the person in your household that makes most of the farming decisions and is at least 18 years old. Your participation in this survey is completely voluntary and if you choose to respond, you do not need to answer all of the questions. Your answers will be kept confidential and will be released only as summaries where individual answers cannot be identified.

Unless otherwise instructed, please check the box that corresponds to the answer category that best describes you and your situation or opinion. The survey should take approximately 20-30 minutes to complete. Please read each question carefully.

LaMoine River Watershed

PLEASE READ BEFORE BEGINNING THIS SURVEY:

The survey must be completed by an adult member of your household 18 years of age or older. Please mark all answers clearly, in pen or pencil, as indicated below.

Example "A" Example "B"

Overall, how would you rate the quality of water in the LaMoine River Watershed?

	Poor	Good	Very Good
a. For drinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. For eating fish caught in the water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For swimming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. For boating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For fish habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. For scenic beauty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Of the following, which best fits your definition of what a watershed is? Check the box that corresponds to your answer.

An area that retains water like a swamp or a marsh
 The land area that drains into a specific water body
 Water intake area that feeds a water treatment plant
 A small building where water is stored
 None of the above
 I don't know

Do you know the name of your watershed?

Yes, I know the name of my watershed.
The name of my watershed is: _____

No, I don't know the name of my watershed.

How to work through survey data

▶ Part 1: Review Demographic and Adoption Data

- Does anything stand out about the demographic data from the survey that would influence an outreach and education plan?
- How many people are willing to adopt particular practices?
- What level of awareness is there about each practice?

a. Which of the following best describes where you live? (check only one)

In a town, village, or city

In a rural non-farm residence

On a farm

b. Which of the following best describe your position as a farm operator? (Check all that apply)

Farm owned acreage

Farm cash-rented acreage

Farm share-tenancy acreage (e.g. 50/50)

Lease owned acreage

Lease share-tenancy acreage

Other _____ (specify)

Working through survey data

- ▶ Part 2: Review Awareness, Attitudes, and Constraints Data
 - What interesting patterns do you see?
 - What constraints and awareness issues might need to be addressed for behavior to change?
 - What attitudes can you take advantage of in crafting your outreach message?

When you make decisions about new management practices for your farm operations, <i>how important is each of the following?</i>		Not at all important	Somewhat important	Undecided	Important	Very important
a.	Personal out-of-pocket expense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	My own views about effective farming or land management methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	How easily a new practice fits with my current farming methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	The need to learn new skills or methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Working through survey data

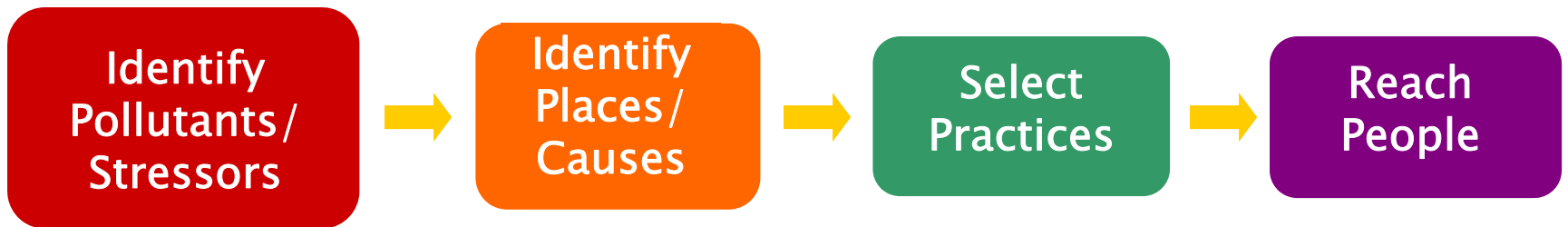
- ▶ Part 3: Developing a Message
 - Outcomes– start with destination in mind!
 - Think about outcomes in terms of changes in awareness, attitudes, constraints, behaviors
 - Messages
 - What messages will be effective at reaching members of the target audience?
 - Message delivery
 - Who should deliver the message?
 - How should it be delivered?

Observations from La Moine data

- ▶ Lack of understanding of problems
- ▶ Need for money to implement BMPs
- ▶ They have a better relationship with local government than state/national, i.e. like SWCD don't trust EPA
- ▶ People are concerned about high drinking water treatment costs
- ▶ Farmers seem to really care about environment
- ▶ Need a “we all live downstream” message

Using Social Indicators

- ▶ Clearly define environmental problems and the decision-makers ultimately responsible for solving them
- ▶ Clearly define linkages between environmental and social outcomes



The 4 P's for La Moine

▶ Pollutants to focus on

- Sediment
- Nutrients
- Fecal Coliform or E.coli

▶ People

- Mix of owning and renting
- Lots of smaller operators
- Older people are making most of the decisions right now

▶ Practices

- Managing tile drainage
- Keeping livestock out of waterways
- Cover crops
- Nutrient Management

▶ Places

- The subwatersheds selected for this study

Example– Keeping livestock out of the streams

Outcomes:

- Keep livestock out of stream
- Change attitudes (people don't want to change what they've been doing for years)
- Increase awareness of benefits:
 - aesthetics
 - soil erosion
 - water quality

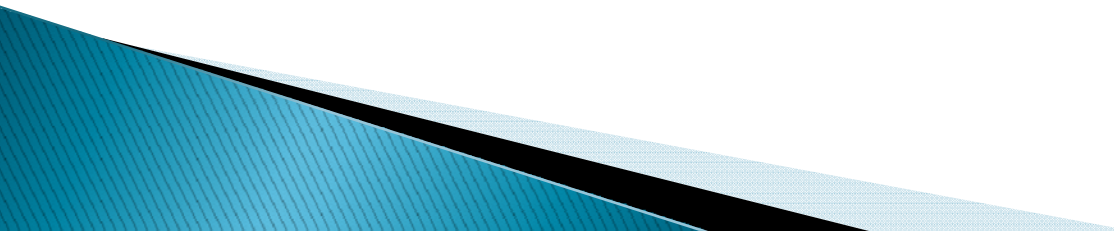


Conclusions for messaging

- ▶ Try 5 different types of messages:
 - This is the traditional way
 - This is easy
 - Be a good steward
 - Herd health
 - Use humor and exaggerate their concerns



Message Delivery

- ▶ **One-on-one conversations**
 - “tell me what your fears are”
 - ▶ **Pasture walk**
 - to appeal to aesthetics
 - ▶ **Newsletters/factsheets**
- 

Outreach Materials

LA MOINE RIVER ECOSYSTEM PARTNERSHIP

Cover Crops

Protecting the Soil, Protecting your Investment

Spring 2009

What is a Cover Crop?
Grasses, legumes, and other broadleaf plants established for seasonal cover and other conservation purposes.
Page 1

Benefits of Practice
There are many benefits to planting cover crops. See if cover crops could fit into your farm.
Page 2

Financial Benefits
Cover crops can provide a source of additional income to your farm.
Page 2

Facts about cover crops
There may be some concerns about what cover crops really are. Let us dispel some common myths.
Page 2

Types of Cover Crops
Farmers choose to grow specific cover crops and to manage them in different ways based on their own needs and goals. There is a wide range of cover crops to choose from, and this section will highlight a few different types.
Page 2

Locally Relevant Cover Crops
Some cover crops are used more frequently than others in Illinois. Read further to find out more about the most commonly planted cover crops in this area.
Page 3



What are Cover Crops?

Cover Crops are grasses, legumes and other broadleaf plants established for seasonal cover and other conservation purposes.

There is a wide range of plants that many people use as cover crops, but some common cover crops include annual ryegrass, cereal rye, hairy vetch, winter wheat and various clovers.

Cover crops can help to protect the soil from erosion and to improve the soil quality by adding organic matter. Most fields can benefit from the use of various cover crops during the time when it is not



Overlooking rows of young cover crops.

planted with other crops.

In general, all cover crops can be divided into two groups: legumes and non-legumes. Within each group of cover crops, there are "warm-season" and "cold-season" crops that will each grow better at different times of the year.

Cover crops provide many benefits to both the quality and stability of the soil, many of which will be discussed further in this fact sheet. You can receive cost-share assistance for planting cover crops.

Keep reading to determine if cover crops would work for your farm and in your fields.

Cover Crops Fact Sheet • La Moine River Ecosystem Partnership

LA MOINE RIVER ECOSYSTEM PARTNERSHIP

Improved Livestock Management Practices

Helping You and Your Operation

Spring 2009

Livestock are a vital part of Illinois agriculture. However, without effective management, livestock can have harmful impacts on water quality. There are effective ways to deal with these problems, and there is assistance available to help you implement them!

Remember: There's Always Someone Downstream

Many livestock operations care for their animals and their local waterways. They understand that the impact of their actions is felt by people downstream. Sometimes livestock use of pasture along a river or stream can cause damage. For example:

- Livestock can contribute nitrogen, phosphorus, and harmful bacteria, making waterways unsightly and unsafe.
- Because of stream bed build up, livestock can negatively impact farmland drainage and irrigation, which causes more money to be spent on maintenance.
- Livestock trample stream bank grasses, trees and shrubs; this can cause water temperature to rise and ruin aquatic habitats
- Livestock also ruin vegetation around stream banks, causing erosion of the banks and sedimentation in the streams.

If any of these problems sound familiar to you, the La Moine River Ecosystem Partnership can help you find a solution that works for your farm.



La Moine River
Ecosystem
Partnership



For more information please contact:

Jeff Boeckler
Phone: (217) 725-3181
Website: www.lamoineiriver.org

Improved Livestock Management Practices Fact Sheet • La Moine River Ecosystem Partnership • (P17) 725-3181

LA MOINE RIVER ECOSYSTEM PARTNERSHIP

Managing Tile Drainage

Putting you in charge of your fields' drainage

Spring 2009

What does it mean to manage tile drainage?
Managing tile drainage puts the farmer in control of how much water stays in the soil at any given time.
Page 1

How does managing tile drainage work?
During different seasons, a control structure is used to allow for the right amount of water on your fields.
Page 2

Who can manage tile drainage?
This practice applies to many farms with tile drainage systems. Your local NRCS office can provide technical assistance to let you know if your fields would work for this practice.
Page 2

How do control structures work?
The control structures are adjustable barriers that force the water upwards. They need to be maintained.
Page 2

Assistance is available
Cost share and technical assistance for subsurface drainage management is available through EQIP, administered by NRCS.
Page 2

Benefits of managing tile drainage
There are many farm and environmental benefits that come with managing tile drainage. This section will highlight many of these benefits, and will let you decide if managing tile drainage is right for your farm.
Page 3

What does it mean to Manage Tile Drainage?

Many farm fields in the Midwest have subsurface tile drains installed. The tile lines have fixed outlets. While these drains can be very effective at removing water from fields, farmers have no control over the water leaving their fields. Simply by installing a control structure near drain outlets, producers can vary the outlet level depending on the season and rainfall conditions. Managing tile drainage puts the farmer in control of how much water stays in the soil at any given time.



By managing tile drainage, you can drain water during wet times, and conserve water during dry periods in the summer growing season. Assistance with this practice is also available, including cost share money through the Environmental Quality Incentives Program (EQIP).

This fact sheet will explain more about this practice, how it might help you and the environment, and how you can get a control structure to manage tile drainage.

Managing Tile Drainage Fact Sheet • La Moine River Ecosystem Partnership

Field Days

- ▶ Collaborated on a crop field day
- ▶ Held an 'Improved livestock management practices' field day



Next Steps

- ▶ We will be resurveying in January 2010 to analyze the effectiveness of the tools that were developed for the targeted education.
 - Was there an increase of awareness?
 - Have barriers to adoption been lowered?
 - ▶ We will also be conducting interviews with key informants in the watershed to gather additional information that the survey instrument was not able to capture.
- 