

National Fish Habitat Partnership Meeting
October 26, 2016
Heidi Keuler,
Fishers & Farmers Partnership Coordinator

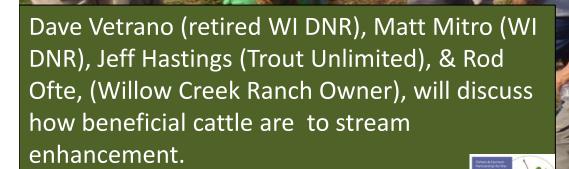




Wednesday June 26, 2013 (2:00-3:30 PM)

Willow Creek Ranch

E5702 Spring Coulee Rd, Coon Valley, WI



Contact Heidi Keuler, Fishers & Farmers Partnership for more

information

608-783-8417



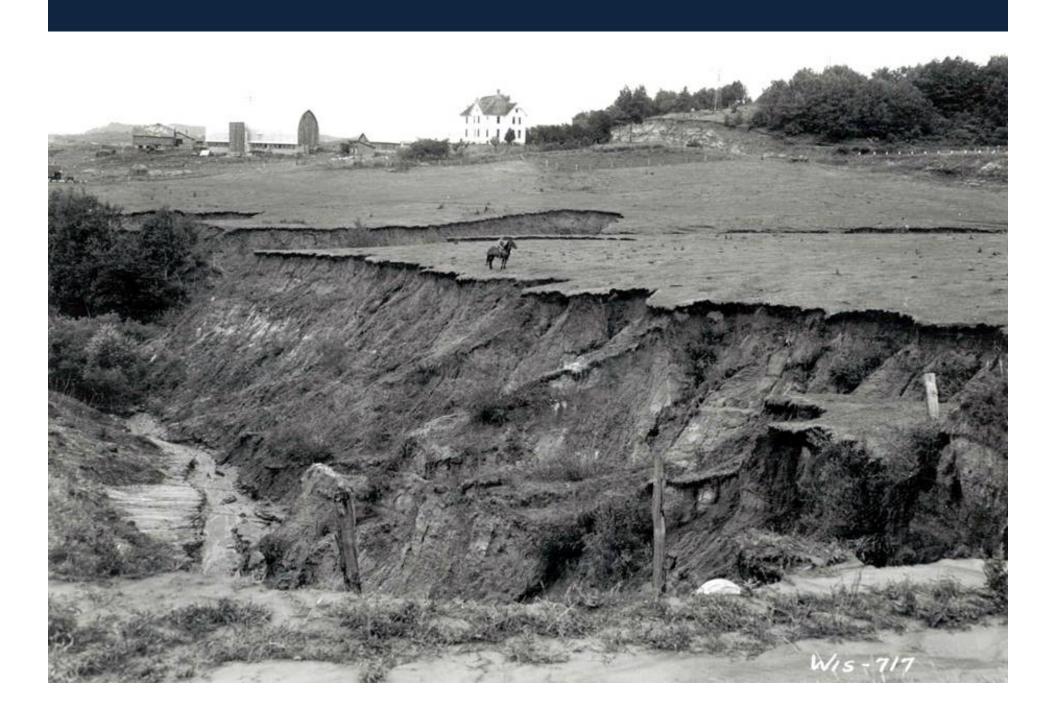




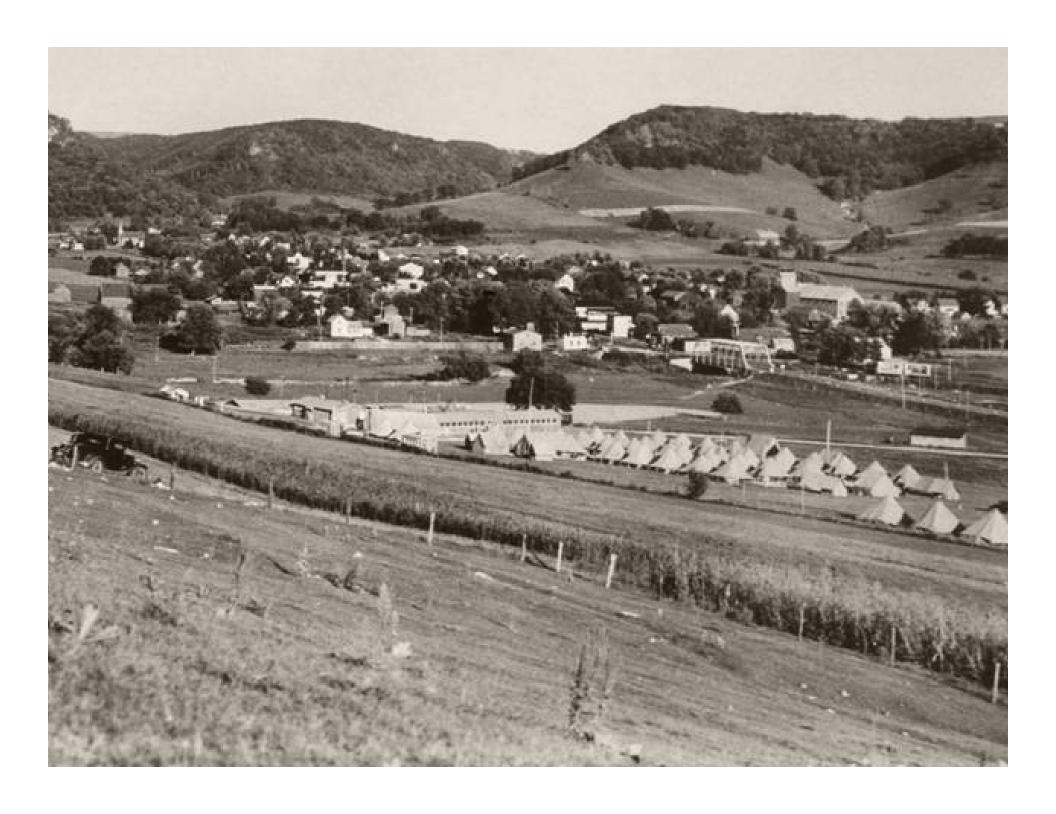


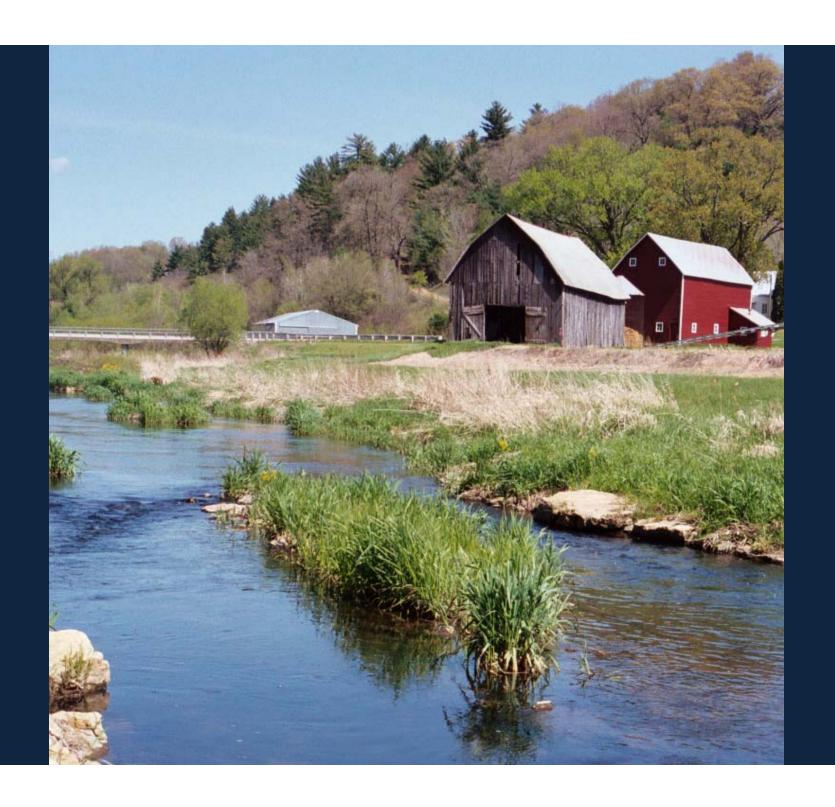
Rod Ofte Willow Creek Ranc











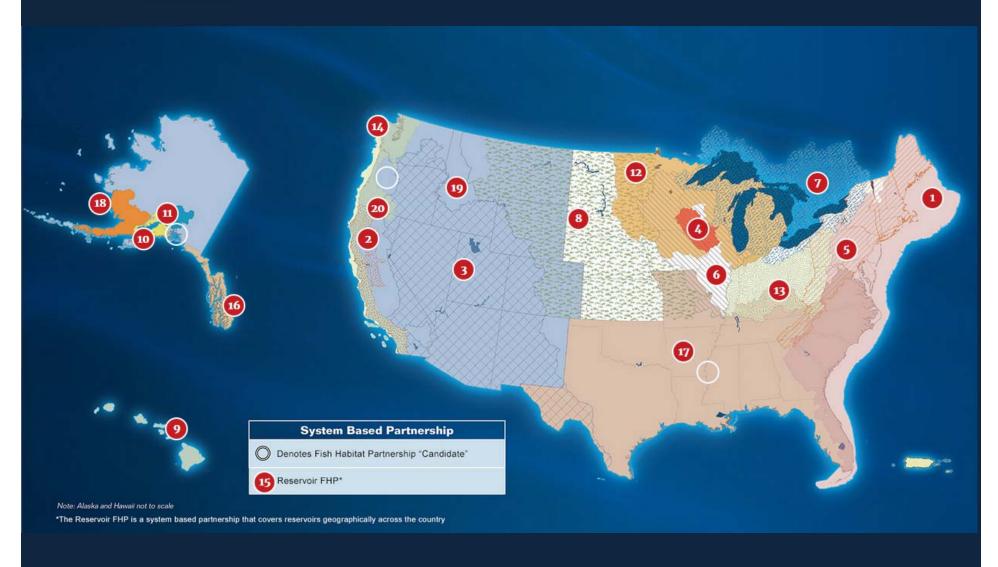


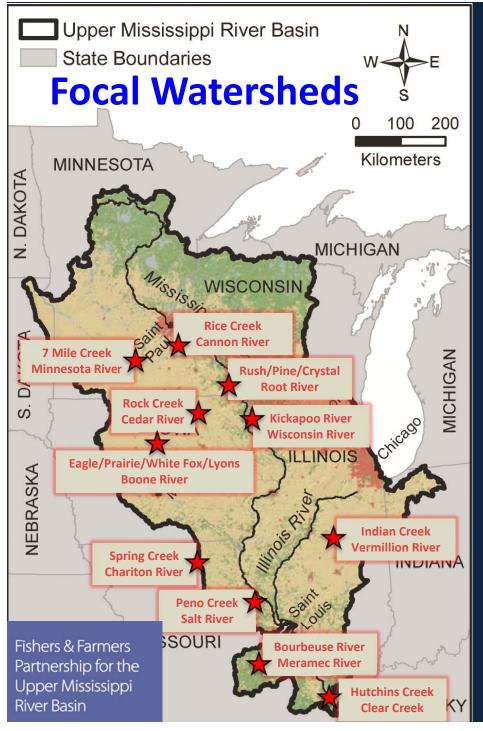


Mission: support locally-led projects that add value to farms while restoring aquatic habitat & native fish populations.

Partners & Farmers Partnership for the Upper Mississippi River Basin







### **National Fish Habitat Partnership**

Strategy 1 – Identify & protect intact, healthy waters

Strategy 2 – Restore natural variability in river and stream flows

Strategy 3 – Reconnect fragmented river, stream habitat to allow access to historic spawning, nursery/rearing grounds

Strategy 4 – Reduce /maintain sedimentation, phosphorus and nitrogen runoff to river/stream habitats

### Fishers & Farmers Partnership

**Goal 1: Engage farmers & ranchers** 

**Goal 2: Support Fish Habitat Projects** 

Goal 3: Continue development of long-term,

basin-scale strategies

Goal 4: Strengthen the organization for longterm action

# Fishers & Farmers Steering Committee



Iowa Department of Natural Resources
Iowa Soybean Association
Illinois Department of Natural Resources
Minnesota Department of Natural Resources
Minnesota Corn Growers Association
Missouri Department of Conservation
Missouri Agribusiness Association
Wisconsin Department of Natural Resources\*
Wallace Pasture Project –Wisconsin\*

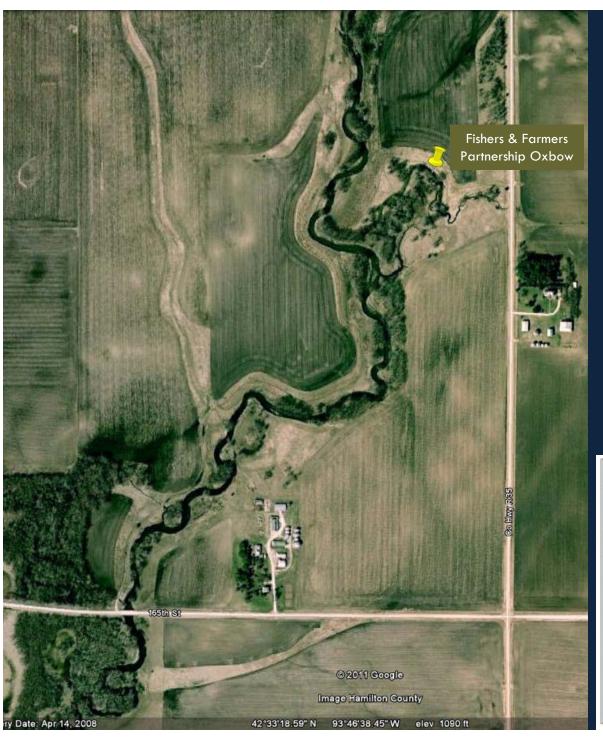
American Rivers
National Mississippi River Museum & Aquarium
Natural Resources Conservation Service
The Nature Conservancy
Trout Unlimited
Upper Mississippi River Conservation Committee
U.S. Geological Survey
U.S. Fish & Wildlife Service
U.S. Forest Service

# WORKING TOGETHER FOR BETTER FARMS & FISH HABITAT



Fishers & Farmers Float the Mississippi near Hannibal, MO





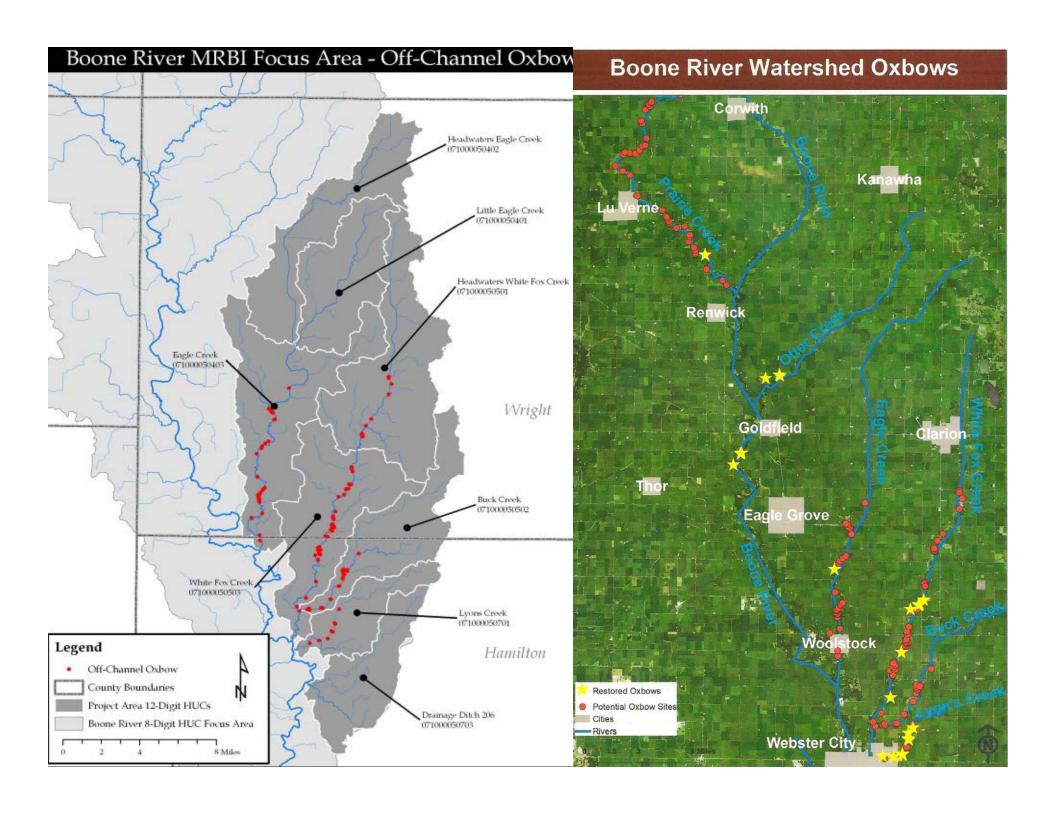
# Oxbow Restoration Boone Watershed



### NFHP Waters to Watch













# Fishers & Farmers GIS/Science Team

### **Under NRCS Funding:**

- ✓ Coordinate/lead 2 Science Team Meetings, 1 organizational outreach meeting, 1 public outreach event
- ✓ Provide data Kickapoo Watershed Rapid Watershed Assessment
- ✓ Collect, analyze, organize, data development -Map books Fishers & Farmers Website
- ✓ Provide Periodic Progress Reports , Annual Accomplishment Report

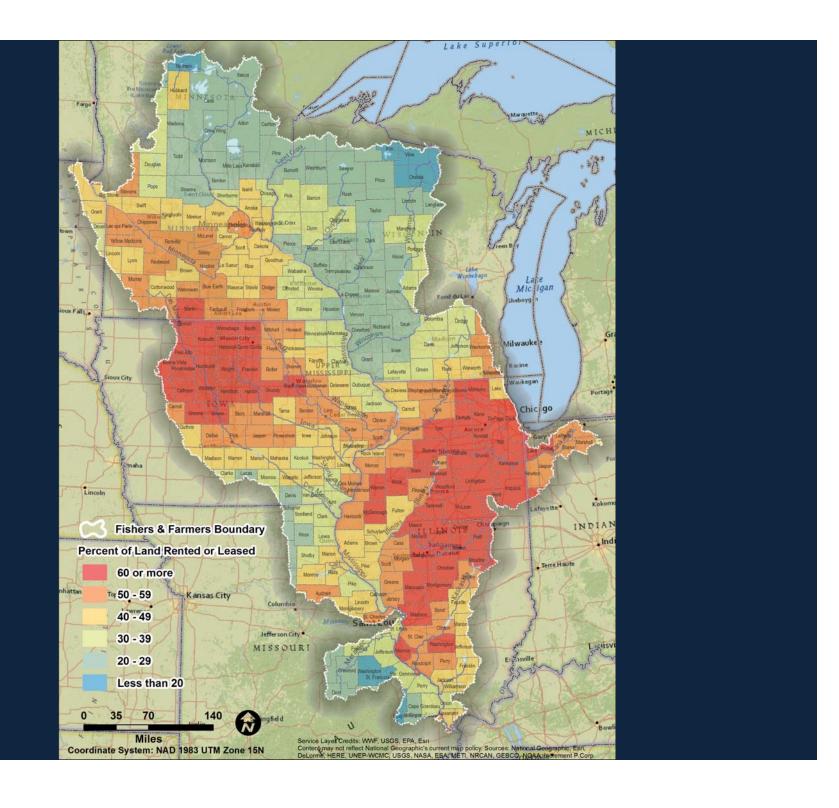




### **Under the Fishers & Farmers Funding:**

- ✓ Perform GIS analysis to help select focal areas using Downstream Strategies Fish Habitat Assessment/new layers (30 feature classes).
- ✓ Work with partners to find engaged landowners in the 5-state area and learn how to engage more.
- ✓ Comparison models created by EPA, MN DNR, D.S., GESHIA, LiDar & others to assist with prioritization.
- √ Facilitate implementation of Fishers & Farmers monitoring plan biological & social.
- ✓ Website maps , data, story map.







## Fishers & Farmers Partnership Funded Projects

Fishers & Farmers Partnership for the Upper Mississippi River Basin

### **Our Mission**

Healthy farms, Healthy fish, Healthy streams.

We strengthen local leadership and action in upper Mississippi river basin agricultural watersheds, so farms and fish thrive together.

Fishers & Farmers Partnership For the Upper Mississippi River Basin is a self-directed group of nongovernment agricultural and conservation organizations, tribal





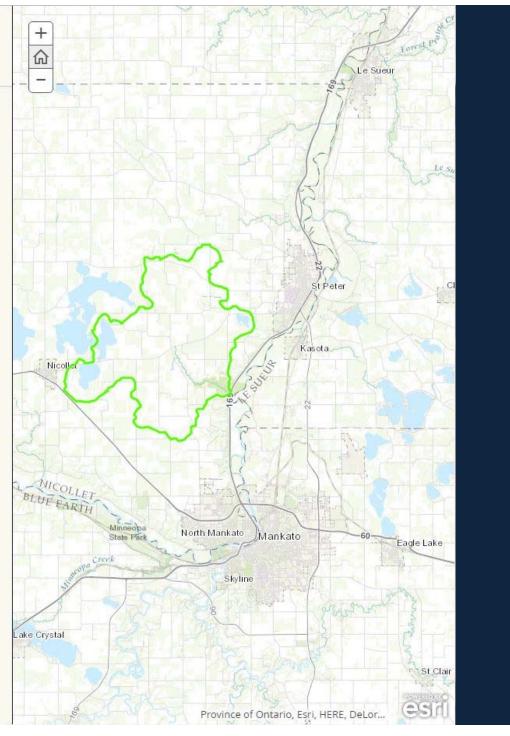
# Fishers & Farmers Partnership Funded Projects

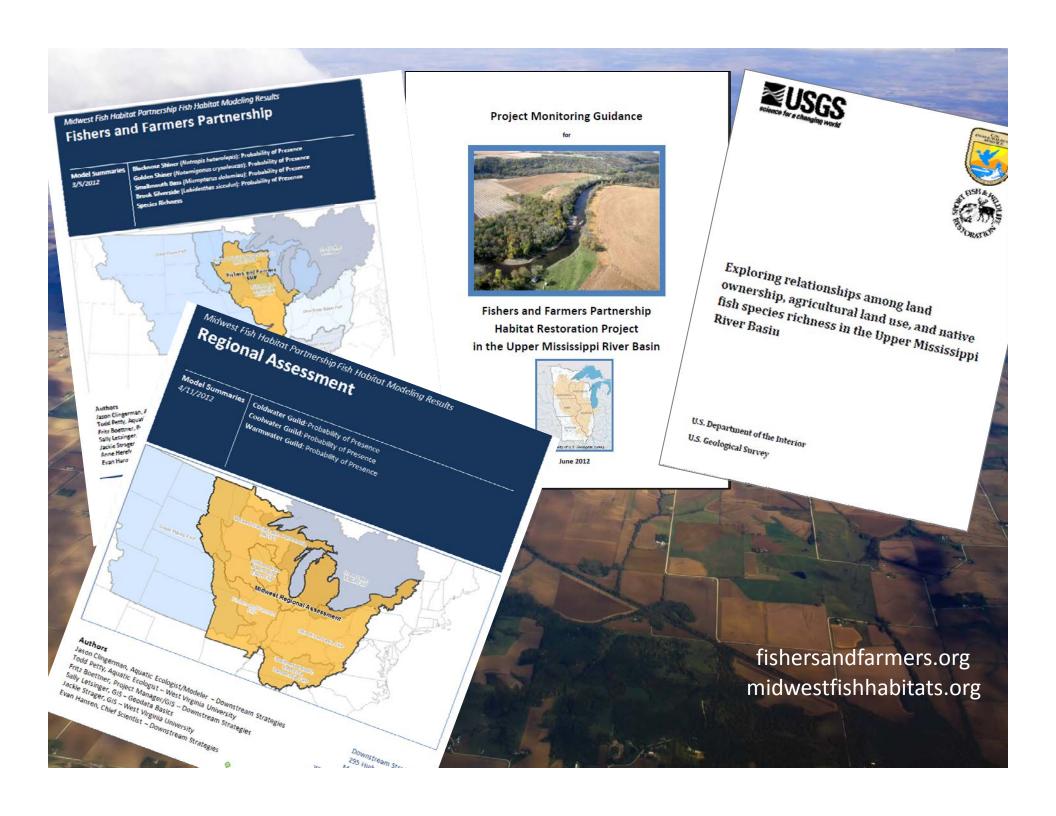
### 2015 | Seven-Mile Creek Watershed | Minnesota

Farmers and Nicollet Soil & Water Conservation District, NRCS, Great River Greening, and Minnesota DNR installing sediment control structures and other practices to reduce ravine erosion, sedimentation, and nutrients to creek.

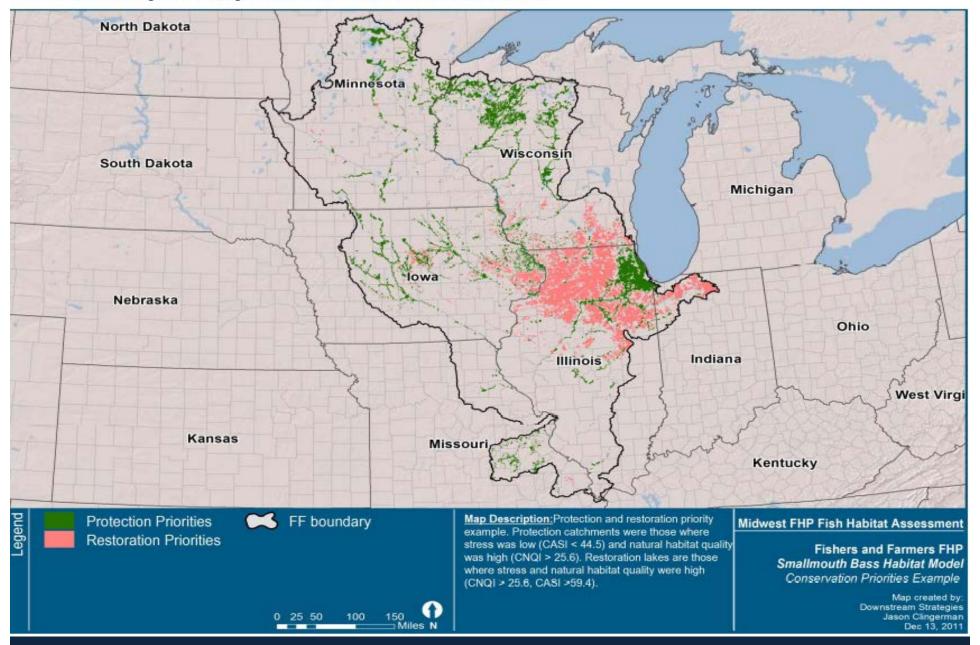


Fishers & Farmers Partnership helped revive watershed restoration work in Nicollet County, Minnesota's Seven-Mile Creek Watershed in 2012, and has funded ravine stabilization work there. On Saturday, October 31 Nicollet County Soil & Water Conservation District and Great River Greening welcomed 40 volunteers to seed buffers and remove brush from ravines on private land near Seven-Mile Creek Park. Farm landowners and operators are building





### Restoration and protection priorities for smallmouth bass in FFFHP.





DRIVEN BY SCIENCE | POWERED BY COMMUNITY

### midwestfishhabitats.org



Babe Winkelman talks about the importance of fish habitat. Watch video below. Learn more



Home » Reports and data » Geodatabase

### Geodatabase

### Great Plains Fish Habitat Partnership Geodatabase



Great Plains Fish Habitat Partnership Geodatabase Read more

### TYPES OF RESOURCES

Map book (33) Geodatabase (11) Report (7)

### INFORMATION BY PARTNERSHIP

Ohio River Basin Fish Habitat
Partnership (11)
Fishers and Farmers Partnership (9)
Great Lakes Basin Fish Habitat
Partnership (9)
Driftless Area Restoration Effort (8)

# Ohio River Basin and Southeast Aquatic Resources Partnership Geodatabase



Ohio River Basin and Southeast Aquatic Resources Partnership Geodatabase Read more

### Midwest Glacial Lakes Partnership Geodatabase



Midwest Glacial Lakes Partnership Geodatabase Read more



### FISH HABITAT DECISION SUPPORT TOOL

VISUALIZATION

FUTURING

RANKING

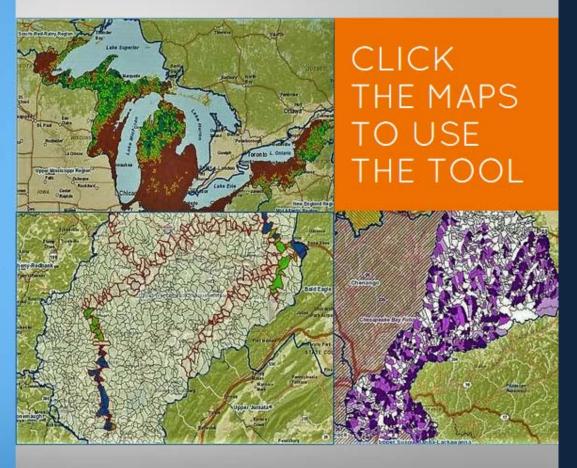
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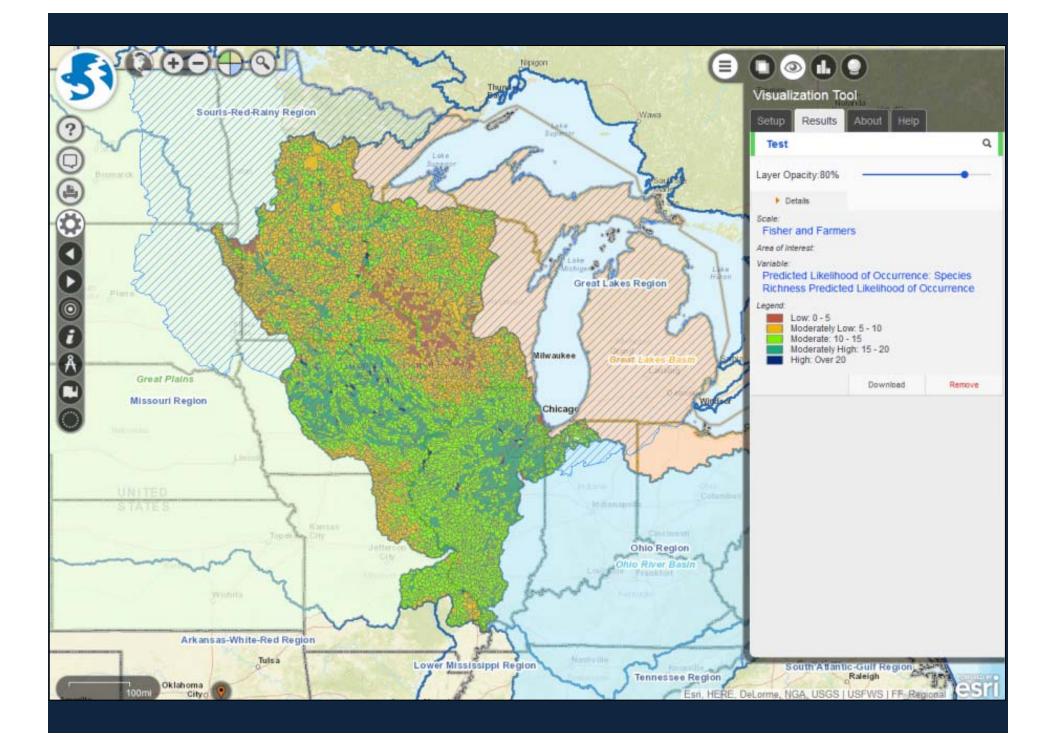
### ABOUT THE TOOL

This tool was created with funding from the United States
Fish and Wildlife Service to provide resource managers
and the general public with access to the extensive spatial
data and results produced from multiple fish habitat
assessments

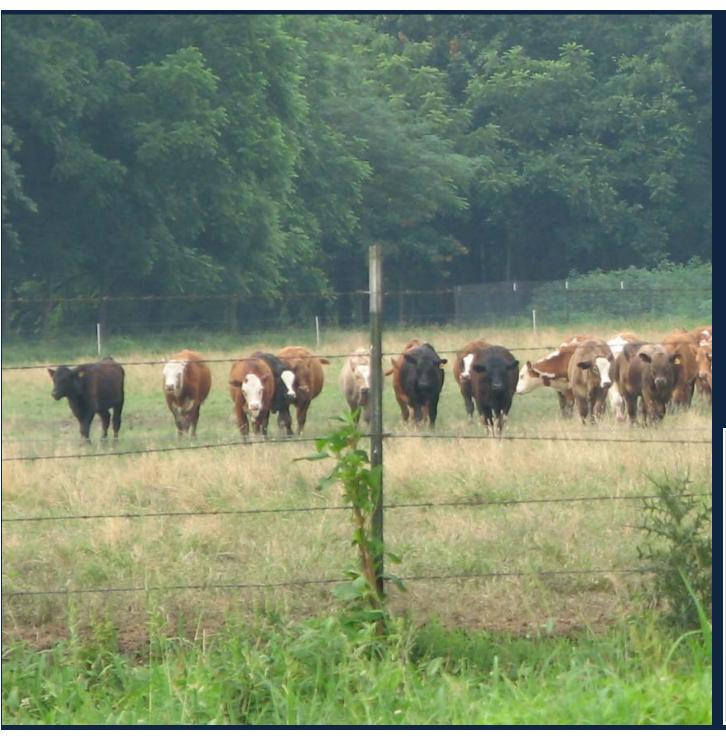
Additional assessments performed under funding and guidance from the North Atlantic Landscape Conservation Cooperative and the Atlantic Coastal Fish Habitat Partnership are also included within the same web mapping application.

Three main analytical tools (visualization, ranking, and futuring) are combined with intuitive basemaps and mapping features to allow users to explore the details of the assessments and perform subsequent analyses.









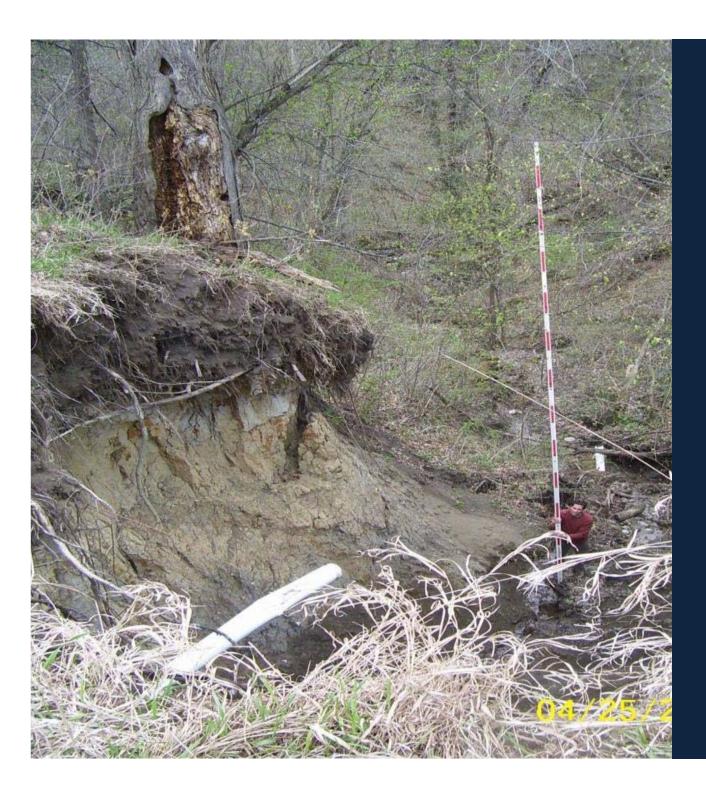
# Meramec/ Bourbeuse Stream Protection

NFHP Waters to Watch







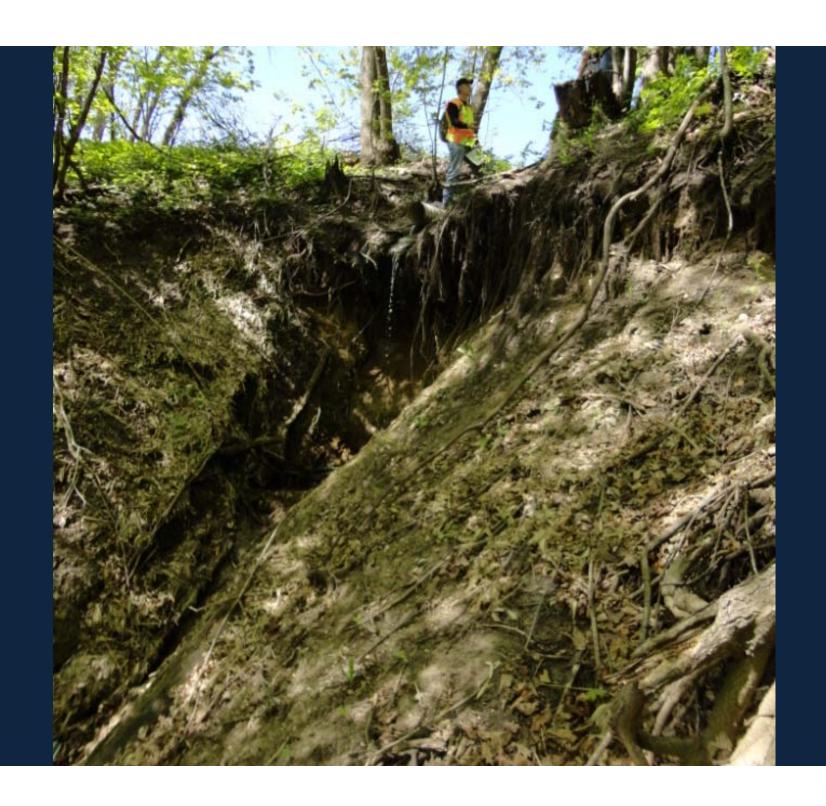


# Ravine Stabilization













### Sign up today

### Everyone is welcome

Free Admission & Lunch To Register: mnravines.org Call: 507-389-2704

Coordinated by:

WRC

or 507-389-5307

Event fills with first 150 registrants.
This workshop is intended primarily for landowners and local staff.

Sponsored by



### Draft Agenda

9-9:30 AM Networking & Coffee

9:30-10:15 Ravine Research - Patrick Belmont

10:15-11 Restoration Practices - Marty Melchior, Inter fluve

11-12 Regional Case Studies

12-1 PM Lunch

1 - 3 PM Workshop Sessions & Information Stations

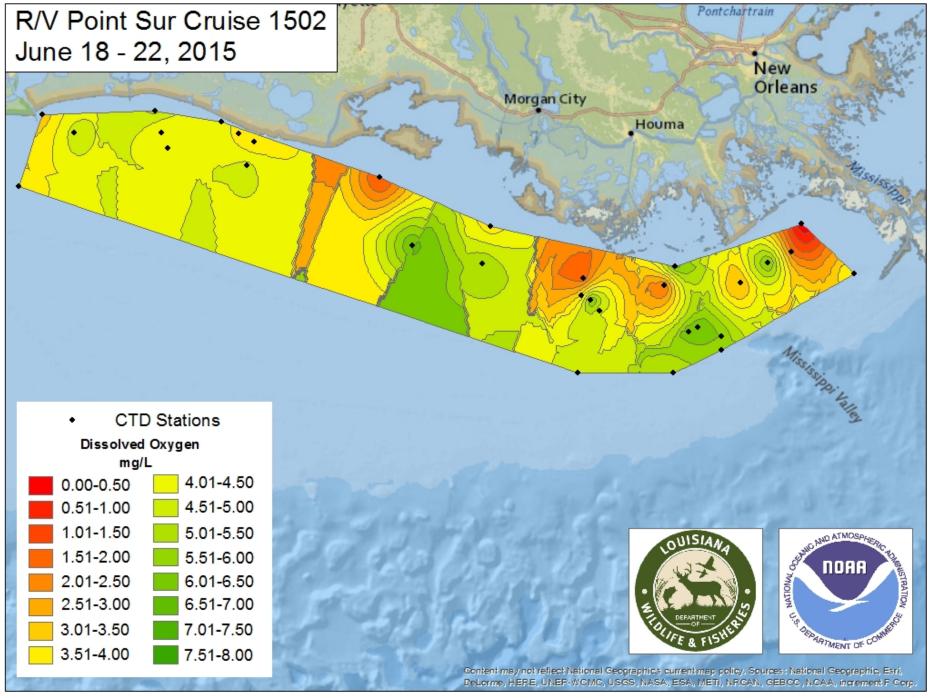
(Learn more about grass waterway, surface inlet & berm structures, wood-chip bioreactor and others)

Workshop Planning Committee:

MAWRC, Minnesota Department of Natural Resources, Inter-fluve Inc.,
Blue Earth County SWCD, Scott County SWCD, United Ag Tech, Nettlewyynnt Fam

For more information: mnravines.org





# Nutrient Contribution to the Gulf of Mexico

# Nitrogen

# **Phosphorus**

State	Percentage of Total Contribution				
Illinois	16.8				
Iowa	11.3				
Indiana	10.1				
Missouri	9.6				

State	Percentage of Total Contribution			
Illinois	12.9			
Missouri	12.1			
lowa	9.8			
Arkansas	9.6			

U.S. Geological Survey, 2008. Differences in Phosphorus and Nitrogen Delivery to the Gulf of Mexico from the Mississippi River. Environmental Science & Technology, Vol. 32 No. 3.



"We don't have a runoff problem, we have an infiltration problem. Tillage is not our friend."
- Ray Archuletta



Using no-till, cover crops, & diverse rotations, more farmers are increasing soil organic matter & improving microbial activity. As a result, farmers are sequestering more carbon, increasing water infiltration, improving wildlife & pollinator habitat.

# Healthy Soil Increases Water-Retention Capacity

- 2% OM will hold 32,000 gallons of water or
   21% of a 10 year storm (5.5 inches)
- 5% OM will hold 80,000 gallons of water or
   53% of a 10 year storm (5.5 inches)
- 8% OM will hold 128,000 gallons of water or
   85% of a 10 year storm (5.5 inches)









# Multistate Conservation Grant FY13 Stakeholder Engagement Training





Appendix 9: Social Monitoring Plan: Landowner and Producer Engagement fo f. Background

FEATURE

# So you need a social monitoring plan: Now what? Tricia G. Knoot, G.L. Drake Larsen, and Lisa A. Schulte

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ological realm (Stem et

The mission of the Fishers & Farmers FHP is add value to farms while restoring aquatic the FHP envisions the development of coll with conservationists and scientists to adstreams, and fishes throughout the regio gain experience, knowledge, and skills n habitat on their farms. Learning is also shared with neighbors, participating on participation and restoration of aquatiby project managers and partners is a evaluation techniques. Timely and pr and adjust to the needs and values o stakeholders' expectations, as well a impetus for social monitoring and e monitoring and evaluation, and pro participants), which can be adapte projects.

## II. Monitoring for Adaptation

The FHP's support for collaborat approach to natural resource or The adaptive co-management social and ecological issues; pa resource stakeholders (e.g., p this approach is enhancing th government agencies) to ref expectations, which necessi Armitage 2007, Armitage e farms and improving aqual social and environmental (e.g., learning, knowledge particular, the social mor leaders timely and relev outcomes-based evalua which can be used to at

-Mc-led conservation projects that

oil and water comercation percollaborating and learning directly som the constituencies with whom they collaborative, cooperative, and parrements between agencies, wholders have been

sis of weather, water quality, soil quality, on and whom connervations here. The population, and wildlife population data. However, in sinuations where ecological and social indicators are intricately related, such as farmer maintenance of conservation practices and water quality, assessing social conditions through a monwely address itoring approach is crucial (Wagner 2005, Gentkow and Prokopy 2011). The informution gained through such an approach

alo to assess the perspectives of parelated to the current program's actions (e.g., staff and particiationships), and various activities corkshops and technical assistance). example, it can inform how to most stively manage relationships between ogram participants and managers, alert ) and show adaptation to minor probsems, identify new opportunities for maintaining program participation, and detect incremental changes (or the lack thereof) in identified outcomes of intesest (e.g., participant awareness, knowledge, and behaviors) (Genskow and Prokopy 2010). In other words, developing a social monitoring plan provides program managers and leaders timely and relevant information to best address constituents sitates concerns and enhance learning by particle pants, program managers, and partners. ge 2007: can offer

A social monitoring evaluation plan that focuses on outcomes and actively involves the users of the data can also help managers and partners look to the future by (1) gaining an understanding of current modulators or constraints to participation, which can be used to improve fature program design that attracts new participants and impacts ecological outcomes at broader spanish scales, (2) evaluating, comparing, and contrasting current achievements and preferred by the partners to improve partners deciation making regarding future projects, and A uter-based approach, termed "utilioutcomes, with the potential to generate information to justify allocation of future program support.

Once convinced a social monitoring plan is needed, where is the best place to start? There are a variety of approaches to evaluation, including assessing program goals, processes, outputs, and/or outcomes (Taylor-Powell et al. 1996; Smillebeam 2001; Patton 2002). The field of (social) program evaluation provides a rich foundation of theory and social science methods that, when focusing on a particular program (also termed an "intervention") of interest, helps address the question of whether the program is effective at achieving the target goals. The techniques for collecting data to address this question can take many forms (e.g., mailed surveys, qualitative interviews, and group events) and can occur at various points throughout a program (Phimmer et al. 2007; Dillman et al. 2008). The specific approach described below is introductory and provides elements of an adaptive approach to learn about a program. For detailed and comprehensive descripdon of a monitoring process designed to address nonpoint source pollution management, see The Social Indicators Florening and Embation System (Genskow and Prokopy 2011). Regardless of the evaluation approach or method used, 500 emande steps are needed to provide the most rehable and useful information (Taylor-Powell et al. 1996; Patton 2000).

The following is a simple guide that can be used to initiate a basic social monitoring plan. This approach is designed to encourage active involvement from those who will use its findings. Farmers are used in the example of the Fishers and Farmers Parmership below, but graziers, landowners, or visitors could be substituted for farmers based on the target audience.

STEP 1: IDENTIFY THE INTENDED USE OF THE EVALUATION

zation-focused evaluation," provides an opportunity to gain information that the applied of a biolect to acptions intended as most needed ph managers and bard findings will be both relevant and app

A Social Evaluation of the Rock Creek Watershed Planning Process

A report prepared for the lowa Soybean Association, Fishers and Farmers Partnership, and Rock Creek watershed stakeholders by Stephanie Enloe

the collection and analy-

Fishersandfarmers.org

SCHERNAL DE SCHE AND WATER CONSERVA

MAY/JUNE 2014-VOL 69, NO. 3

\*\*PROOF NOT FOR DISTRIBUTION

Partnership for the Upper Mississippi River Basin

# Watershed Leaders Network

Skills and connection for farming neighbors, ag landowners, and local coordinators who want to do and lead for healthy watersheds

Across the Upper Mississippi River Basin farmers and farm landowners are finding ways to evolve practices for long-term productivity and healthier fish and streams. Among those are local collaborators who've connected to identify erosion and nutrient sources, choose and implement solutions on their own farms, and share what they're doing with neighbors.

In 2016 and 2017 Fishers & Farmers Partnership will engage 15 people from five Iowa, Illinois, Minnesota, Missouri, and Wisconsin watersheds in two two-day workshops. Participants will:

- Learn from each other through relaxed, facilitated conversation;
- · Meet local watershed leaders;
- · Participate in watershed project site visits;
- Participate in communications and organizational skill building activities;
- · Learn from technical experts.

#### Project goals are

- Strong personal and regional connections;
- Effective implementation of best management practices by participants;
- Confident farmer/landowner leaders and successful local groups;
- · New norms on the landscape.

Participants also provide feedback so Watershed Leaders Network activities are relevant and helpful to future participants.

A pre-formatted website news page is provided to each participating group for local outreach. Pages are hosted on the Fishers and Farmers' website. Direction and support are provided to local site managers.

#### WHAT & WHEN

- Two 2-day workshops
- 2016 & 2017
- Scheduled during farming off-seasons

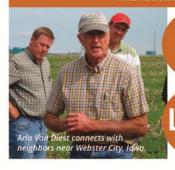
#### COMMITMENT

- 2 workshops | 3 days each including travel
- Fully participate, including post-event feedback for program development
- Local group provides photos and start-up content for its page at fishersandfarmers.org
- Local group posts photos, stories, or activity information occasionally, with Partnership support

#### COST

- Program, food, housing and travel paid by Fishers & Farmers Partnership
- \$100 refundable commitment fee per person

#### FIND NATURAL WAYS TO ACT FOR HEALTHY STREAMS, FISH, AND FARMS.



Arlo and Claudia Van Diest and business partner Jim Larson use strip-till practices on all farmed acres, host field tours, and help neighbors try strip-till. As a result, several neighbors now strip-till with their own equipment on 100% of their land. When Van Diest Farms purchased a new 16-row strip-till unit, the old 1992 DMI 5310 16-row unit became a loaner to encourage more neighbors to experience

"Selling's never been my bag," says Arlo, "but I'm over 70 and I guess if we're going to make a difference it's time to speak up. I'm enthused about what's happening in our little corner of the world. East of town there's a stream, a tributary of the Boone River that's impaired. It's small enough that if we can get enough people to adapt practices, we can make a difference. There's less runoff than there used to be. Our goal is to have testing show that our actions make a difference."



#### **SELECTED WATERSHEDS AND LEADERS**

Boone River Watershed Project, Des Moines River Basin, Iowa
Farmers Of Mill Creek Watershed, Wisconsin River Basin, Wisconsin
Hewitt Creek Watershed Project, Maquoketa River Basin, Iowa
Indian Creek Watershed Project, Illinois River Basin, Illinois
Jo Daviess County Water Partnership, Galena River Basin, Illinois
Kickapoo River Watershed Initiative, Kickapoo River Basin, Wisconsin
Le Sueur River Watershed, Minnesota River Basin, Minnesota
Lime Creek Watershed Project, Cedar River Basin, Iowa
North Fork Salt River, Salt River Basin, Missouri
Peno Creek Watershed, Salt River Basin, Missouri
Root River Field To Stream Partnership, Root River Basin, Minnesota
Seven Mile Creek Watershed Project, Minnesota River Basin, Minnesota
Yahara Pride Farms, Yahara River Basin, Wisconsin













## **ACTION RESOURCES**

## **Surf Your Watershed**

U.S. EPA | Enter zip code for water assessments, data, and groups at work in your watershed

Ag Site Assessment Tool | Generate a report on your land and its surroundings

# **Agricultural Practices**

Best Management Practices | Clean Water Iowa
Iowa Learning Farms | Iowa State University Extension
Best Management Practices | Illinois Council On Best Management Practices
Agricultural Best Management Practices Handbook For Minnesota | Minnesota Department Of Ag
Nitrogen Fertilizer Best Management Practices | Minnesota Department Of Agriculture
Private Landowner Network | Encyclopedic resource for conservation of private lands
Soil & Water Conservation Districts (SWCD) | Illinois
Soil & Water Conservation Districts (SWCD) | Iowa
Soil & Water Conservation Districts (SWCD) | Minnesota
Soil & Water Conservation Districts (SWCD) | Missouri
Soil & Water Conservation Districts (SWCD) | Wisconsin

## Grazing

Grassworks
Wallace Pasture Project
Iowa Forage & Grassland Council
Minnesota Grazing Lands Conservation Association
Missouri Forage & Grassland Council
Illinois Grazing Lands Conservation Initiative
Practical Farmers Of Iowa
Dairy Grazing Apprenticeship
School For Beginning Dairy & Livestock Farmers | University Of Wisconsin
Illinois Grazing Manual | NRCS Illinois

http://fishersandfarmers.org/

<b>PPP L</b> More	CC**	\$150,000 (Midwest 7 FHP Asse \$38,500 (Absentee Landowne \$115,700 (FFP Science Team M \$10,000 (Website, strategic p \$10,000 (FFP Communication	er report) Ionitoring) Ian)	<u>2014</u>	AFWA MN DNR <u>MDC</u> <b>Total</b>	\$40,000 (Engage Landowners) \$10,000 (FFP Coordinator) \$8,000 (FFP Coordinator) \$58,000
USGS MN D IA DN MDC UMRO ISA Total	NR IR	\$4,140 (FFP Communication \$10,000 (FFP Coordinator) \$10,000 (FFP Coordinator) \$8,000 (FFP Coordinator) \$2,000 (FFP Coordinator) \$5,000 (FFP Coordinator) \$373,340		<u>2015</u>	AFWA NRCS MN DNR IA DNR MDC Total	\$40,000 (Landowner Guide) \$28,000 (GIS/Science Data) \$10,000 (FFP Coordinator) \$5,000 (FFP Coordinator) \$8,000 (FFP Coordinator) \$91,000
2012	MN DNR IA DNR MDC ISA Total	\$10,000 (FFP Coordinator) \$8,000 (FFP Coordinator) \$5,000 (FFP Coordinator) \$33,000	canacity)	2016		\$ 5,000 (FFP Coordinator) \$ 8,000 (FFP Coordinator) ht \$ 80,000 (WLN Workshops) t FF \$ 10,000 (Outreach)
<u>2013</u>	AFWA MN DNR IA DNR MDC Total	\$50,000 (Workshops-Help build 10,000 (FFP Coordinator) \$10,000 (FFP Coordinator) \$8,000 (FFP Coordinator) \$78,000	NFHP Fu We've bo FY14 fun	een as ided 6	high as a projects	ed from \$90,000 - \$150. a Level II. at \$142,000. ase funding.

# Science-based Trials of Rowcrops Integrated with Prairie Strips

- Planting just 10% of a rowcropped watershed in native prairie, strategically located on the contours and foot slope, reduces sediment transport by 95% compared to cropland without prairie strips.
- Prairie strips protect water quality, reducing overland flow by 60% and nitrogen and phosphorus transport by 90%.

Funding Opportunities: Pollinator Projects, Private Lands

## A Landowner's Guide to Prairie Conservation Strips



#### What are prairie conservation strips

Prairie conservation strips are a tool for improving the function and integrity of row-cropped farms. Researchers at STRI (Science-based Trials of Rowcrops Integrated with Prairie Strips) have found that strategically planting small patches and strips of native prairie in farmland provides multifunctional benefits disproportional to the amount of land converted. In other words, small patches make a big difference.



#### LEARN MORE about the STRIPS project: www.prairiestrips.org

Prairie strips keep vital soil resources in crop fields. Planting just 10% of a row-cropped watershed in native prairie, strategically located on the contours and foot slope, reduces sediment transport by 95% compared to cropland without prairie strips. Deep-rooted prairie plants increase soil organic matter and improve infiltration, while their stiff, upright stems slow surface runoff and help hold soil in place during rain events. Prairie strips protect water quality, reducing overland flow by 60% and nitrogen and phosphorus transport by 90%. They have no impact on crop yield other than the land taken out of production. Healthy soil and clean water provide environmental benefits that protect the future of Iowa agriculture



READ A Targeted Conservation Approach for Improving Environmental Quality for more about protecting environmental benefits: www.extension.iastate.edu/Publications/PMR1002.pdf





Small prairie strips increase the diversity of plants, insects, songbirds and wildlife in the watershed. Researchers documented a 380% increase in native plant species in cropland planted with prairie strips compared to entirely cropped watersheds. Prairie plants provide year-round habitat and food for beneficial insects, which provide pollination services and prev upon crop pests. Insect diversity in cropland with prairie strips equals that of nearby prairie restorations. Prairie strips also offer habitat to songbirds and wildlife, increasing the land's economic potential as a site for hunting and birdwatching. Greater numbers and species of birds are consistently found in agricultural fields with small patches of prairie, including some species of statewide conservation concern, such as the field sparrow, dickcissel and eastern meadowlark. Studies have found that even small patches of grassland habitat within row-cropped landscapes. especially if several patches are present, can play a big role in maintaining

