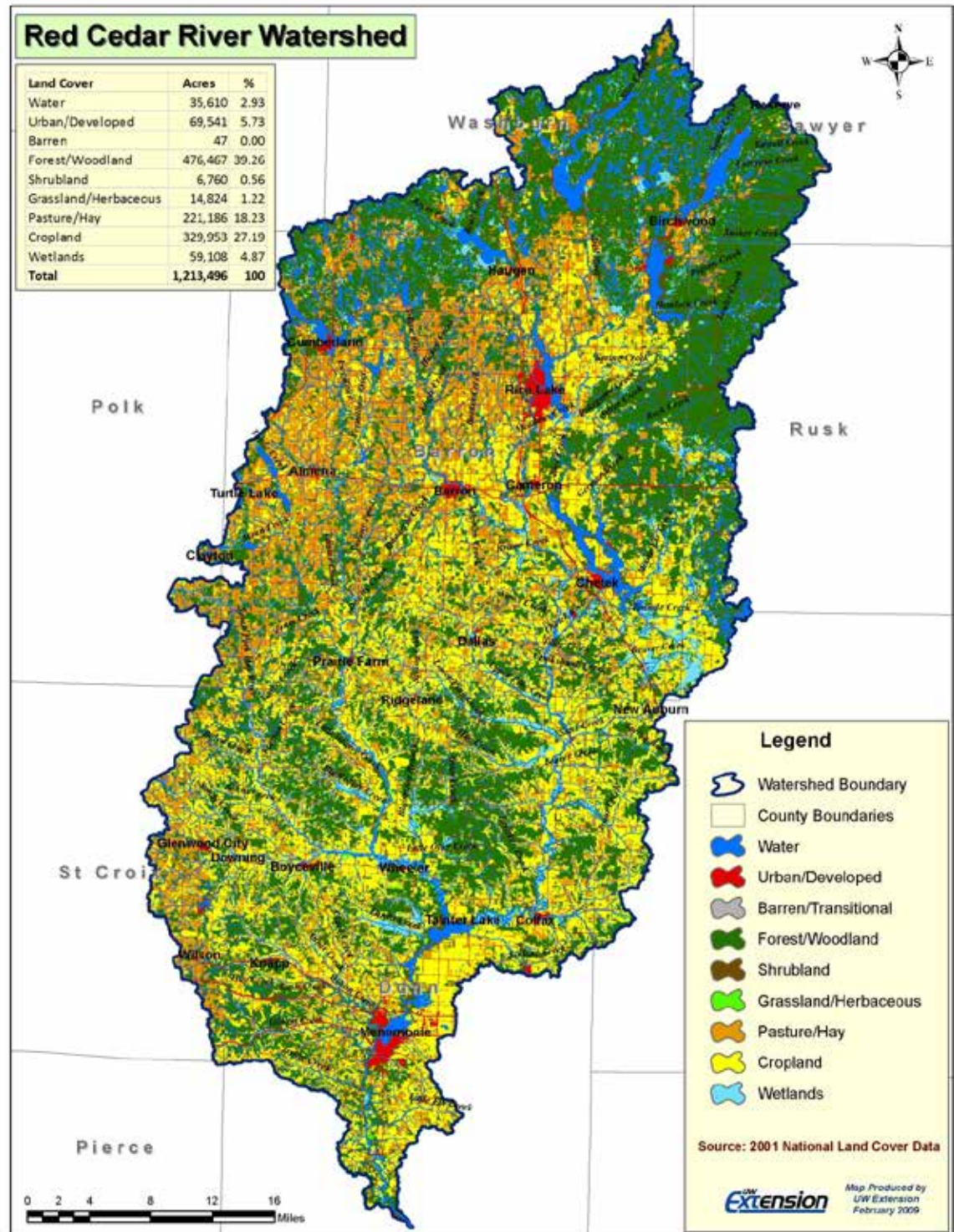




**Amazing Stories from River
Partnerships
(Red Cedar and Eau Claire)**

- The Red Cedar River Watershed covers most of Barron and Dunn Counties, and parts of several others.

- 1,900 square miles



What's All That Green Stuff?

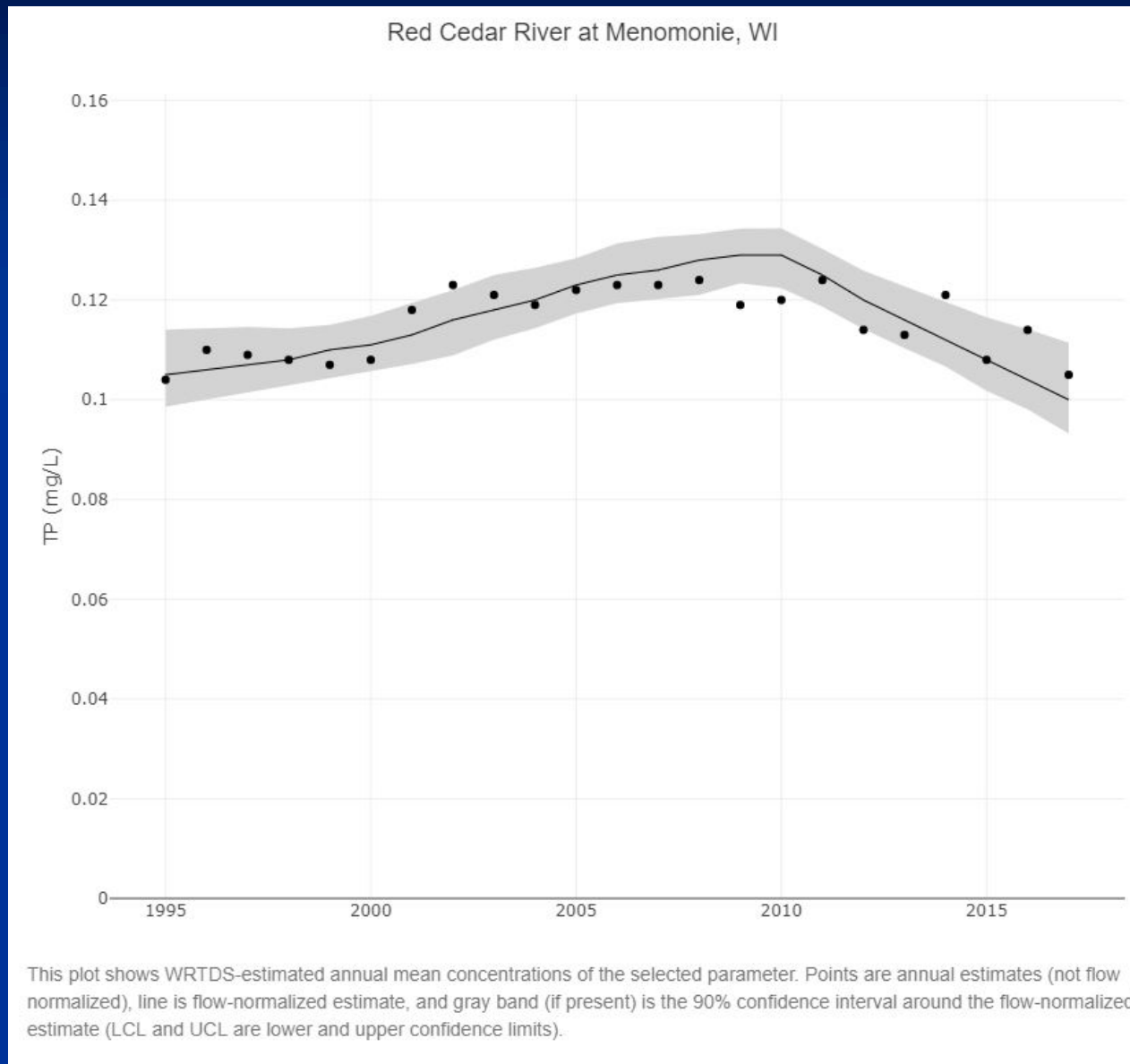


WDNR

Total Maximum Daily Load (TMDL)

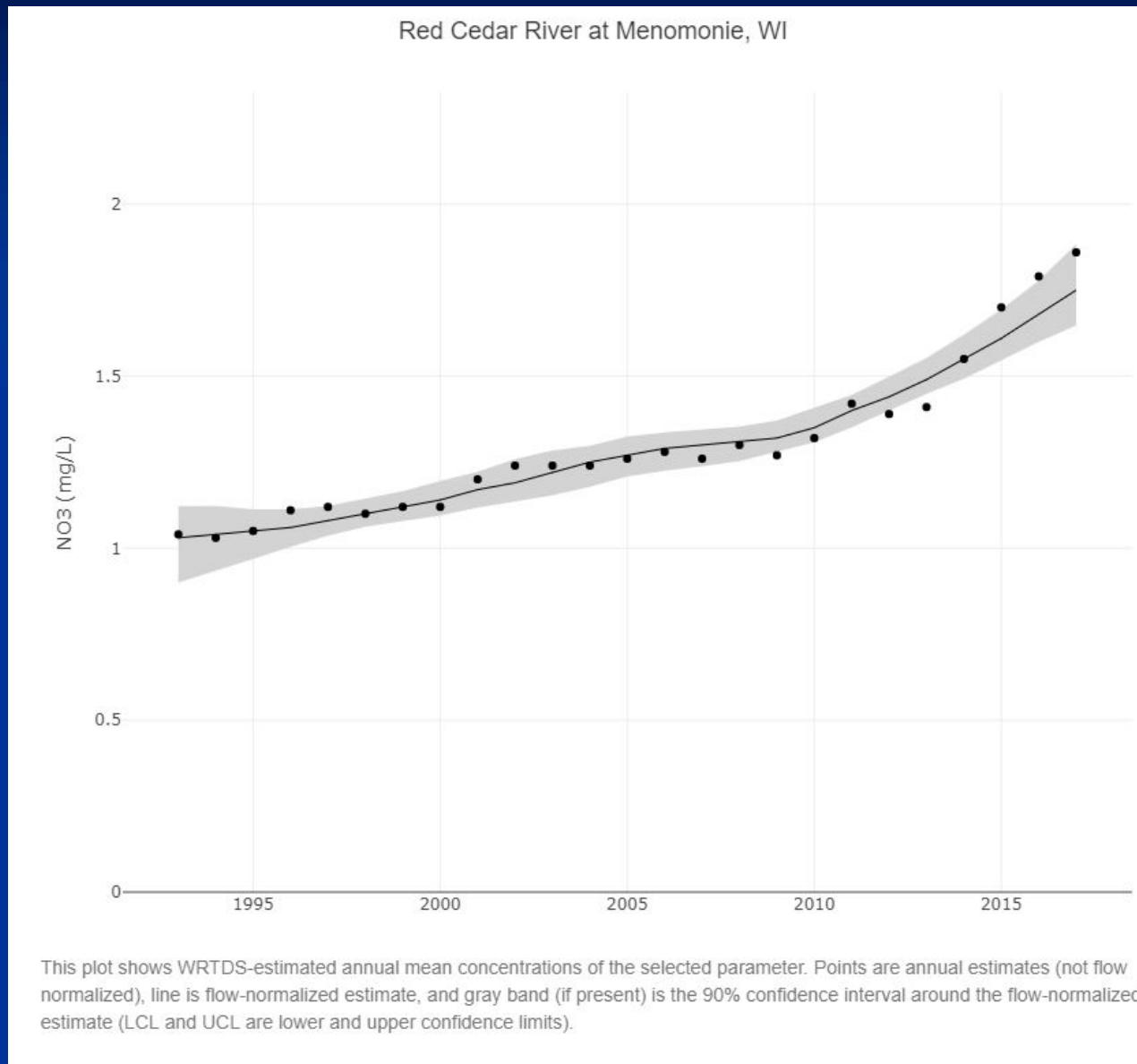
- Lakes Tainter and Menomin and the Red Cedar River listed as “impaired” in 1996
- The TMDL was finally approved in 2012
- Recommends a 65% reduction in phosphorus inputs to the lakes

Phosphorus Monitoring



(data from DNR)

Nitrate Monitoring



(data from DNR)

Red Cedar River Water Quality Partnership

- Began meeting in late 2013
- Statement of Identity and Purpose – *The Red Cedar River Water Quality Partnership is a Civic Organizing entity that works for the common good of water quality within the Red Cedar River Basin through the practice of Civic Governance; whereby the partners develop the civic imagination, and organize the civic infrastructure needed to produce sustainable water quality, while coordinating the implementation of water quality strategies for the Basin.*

Red Cedar River Water Quality Partnership

- **Dunn Co Land Conservation**
- **Barron Co Land Conservation**
- **Dunn Co UW-Extension**
- **Barron Co UW-Extension**
- **WDNR**
- **NRCS**
- **City of Menomonie**
- **3M Corporation**
- **Landmark Conservancy (formerly West Wisconsin Land Trust)**
- **UW – Stout**
- **Tainter/Menomin Lake Improvement Association**
- **Desair Lake Restoration, Inc.**
- **Red Cedar Lakes Association**
- **Big Chetac and Birch Lakes Association**
- **Chetek Lakes Protection Association**
- **Farmers Union**
- **UW-Extension**
- **Andy Bensend**

Red Cedar River Water Quality Implementation Plan

- **Ten Year Plan**
- **Aims for an “interim” goal of 40% reduction of NPS phosphorus inputs (186,000 lbs) to Tainter Lake**
- **Approved plan meets federal and state guidelines for watershed planning (US EPA’s “Nine Key Elements of a Watershed Plan”)**
- **Plan will be modified every 3 years**

Practices and Projected Load Reductions

BMP	Lbs P reduced
No-Till Farming Practices (60,000 – 86,000 acres)	63,000
Manure Storage Structures (50)	34,000
Nutrient Management Plans/Practices (86,000 acres)	31,500
Cover Crops (107,000 acres)	18,000
Traditional Conservation Practices (10% of cropland)	11,000
Treatment of Milk House Waste (50)	6,600
Urban Storm Water Control (non-permitted)	5,700
Stream Buffers on Riparian Frontage (10%)	4,700
Barnyard Upgrades (68)	3,800
Replace Failing, Critically-Located Septic (440)	420
Storm Water Control on Rural Properties (2200 lots)	220
Wetland Restorations (200 acres)	210
Past Barnyard Reductions	27,000
Total	206,150

How?

- **Building Community Capacity**
- **Outreach and Education**
- **Civic Engagement/Governance**

Community Capacity

- **The Partnership itself**
- **Dunn County added a staff person for water quality with funding assistance from the City of Menomonie**
- **Dunn County applied for and received a Lake Protection Grant (DNR) that is funding a soil health specialist to help start demo farms in the County**
- **City of Menomonie and Dunn County cooperating on many projects: Red Cedar Demo Farm**

Outreach and Education

- **Red Cedar River Conference**
- **Presentations at various events**
- **Recognition of participants/partners**
- **Workshops and field days conducted by Counties, by FLCs, by NRCS, by Conference speakers, by Extension, etc.**



Civic Governance

- **Farmer-led council in Hay River watershed in northern Dunn Co**
- **Project collaboration between the County LCDs, UW-Extension, DNR and Farmers Union**
- **FLCs developing incentive payments (with money from a McKnight Foundation grant) that pay for certain practices the FLC decides are relevant**
- **Test plots on farms funded by grants**
- **New FLC in Town of Grant area**

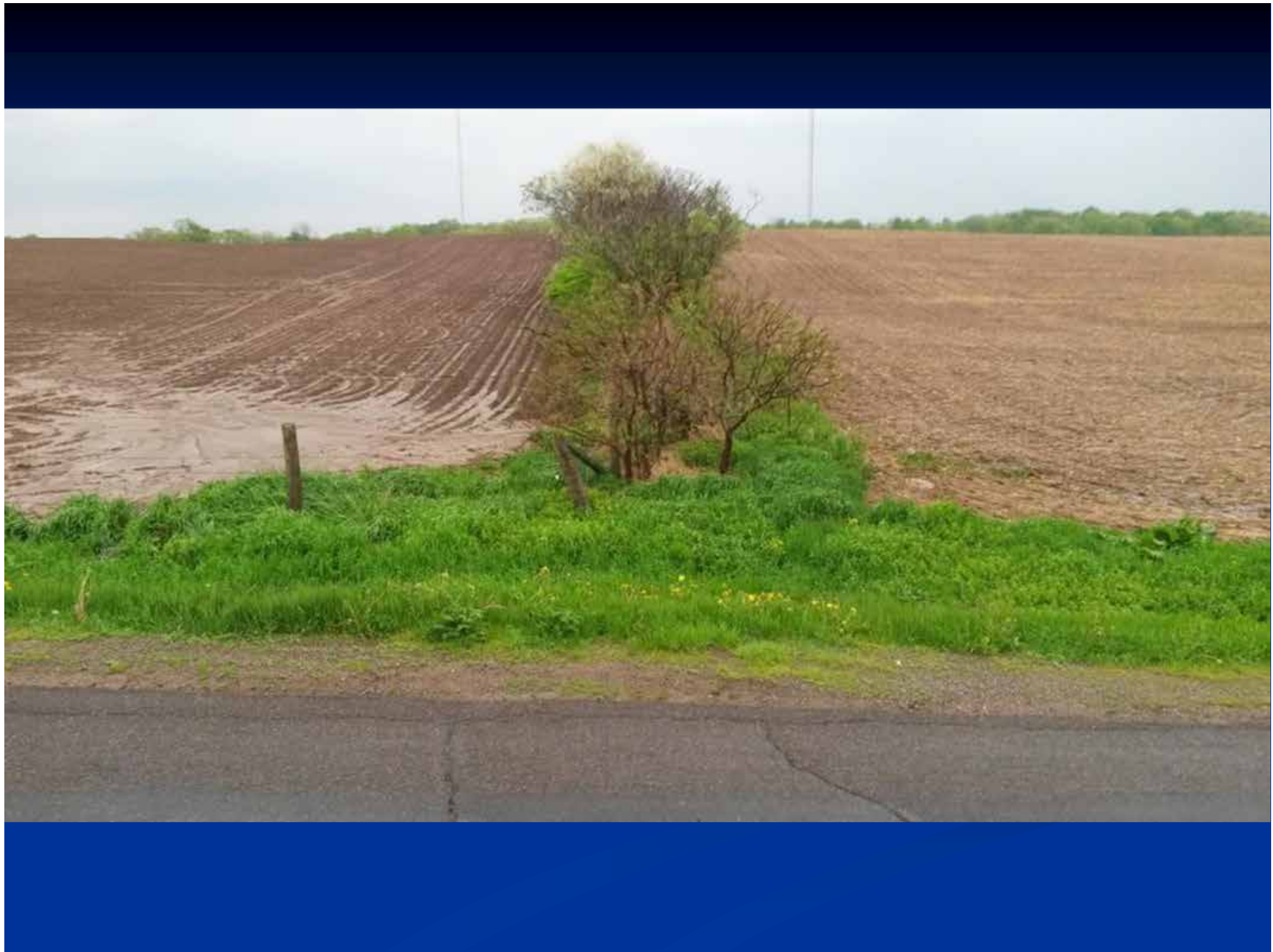
Civic Governance

- **The Red Cedar Partnership saved my job!**

Measuring Progress

- **Social science measures – Assessments of current opinions and knowledge**
- **Participation measures – How many people are participating; how many acres; how many BMPs**
- **Water quality measures – Are levels of phosphorus in the river system and lakes changing?**





Other Accomplishments Thus Far

- **The last three years, approximately 20,000 acres of cover crops planted in both Barron and Dunn Counties (after only about 500 acres three years ago)**
- **US Army COE/WDNR Lake Protection Grant Project – Intense collection of water quality data to be used to create new CEQUAL model of the watershed, and some more detailed analysis of a few subwatersheds**
- **Many field days, workshops, soil health classes, and other outreach and education events**
- **Large scale stream bank stabilization project on Red Cedar River north of Colfax**

Other Accomplishments Thus Far

- **The Red Cedar River Conference (March) – average near 400 attendees the last three years**
- **Rain garden/detention area at Lakeside Park in Menomonie**
- **3M changed their lease agreement for about 250 acres of land around their Menomonie plant, to be farmed using cover crops, no-till, and more forage crops in the rotation**
- **In-depth sociological survey of farmers and others in the watershed, will help with targeting and outreach efforts (LAKES REU)**
- **Other targeted research on economics, geology, stream chemistry, etc., through the UW-Stout LAKES REU program**

The Plan in Perpetuity

- **Plan is in effect for ten years**
- **Plan will be reevaluated periodically during that time**
- **Changes made as necessary**
- **When ten years expires, it will be time to address the remainder of the problem with more sustainable watershed planning and management**
- **Cleaner rivers and lakes!**

THE EAU CLAIRE RIVER WATERSHED



Legend

- Interstates
- Highways
- Ramps
- County Boundaries (ESRI)
- Hydro Poly
 - Open Water
- Hydro Line
 - Intermittent
 - Perennial
- HUC10 (USGS)
- HUC8 (USGS)
- DNR Parcels (DNR)
- County Forests (DNR)

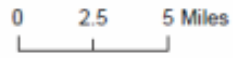
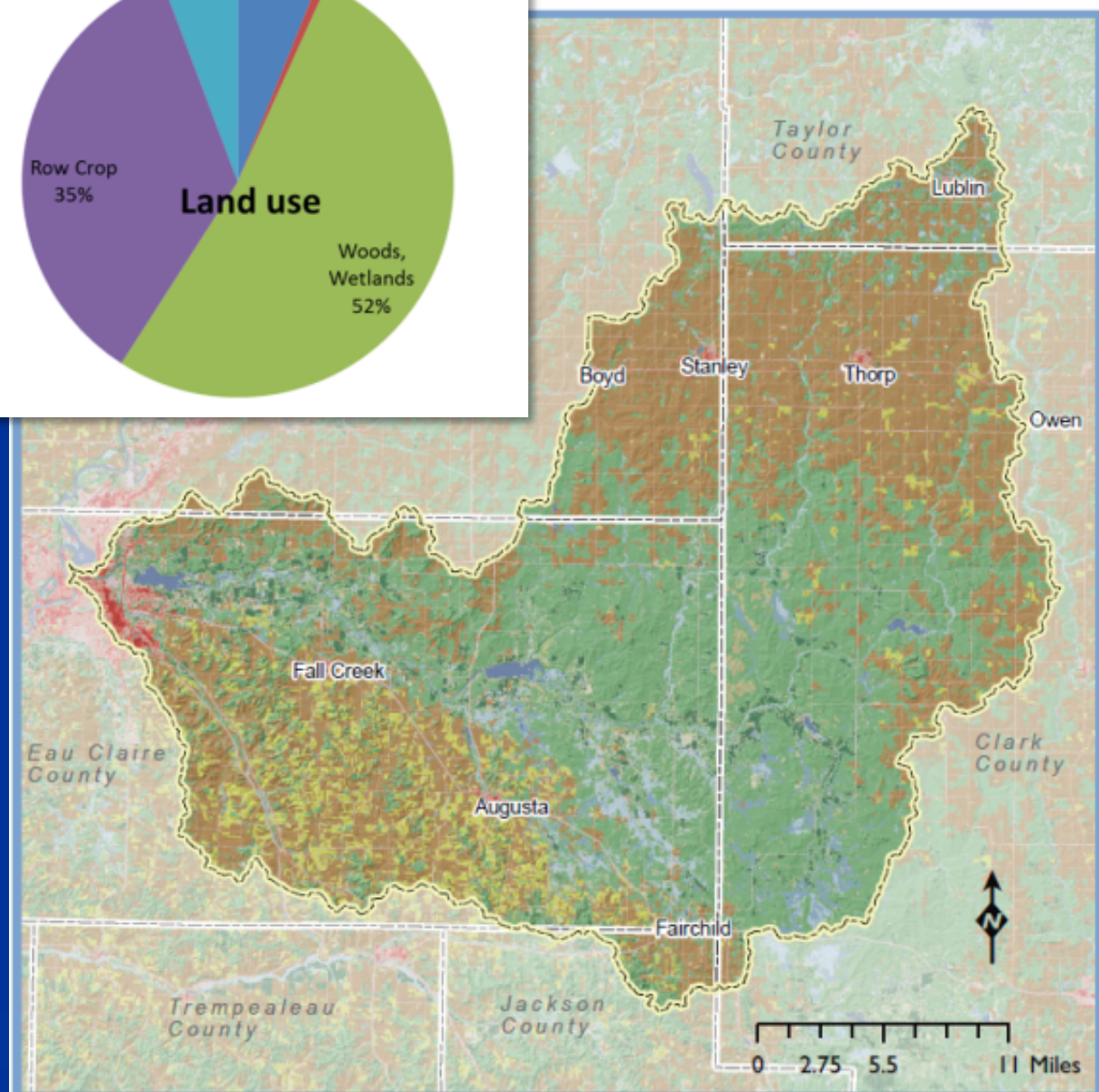
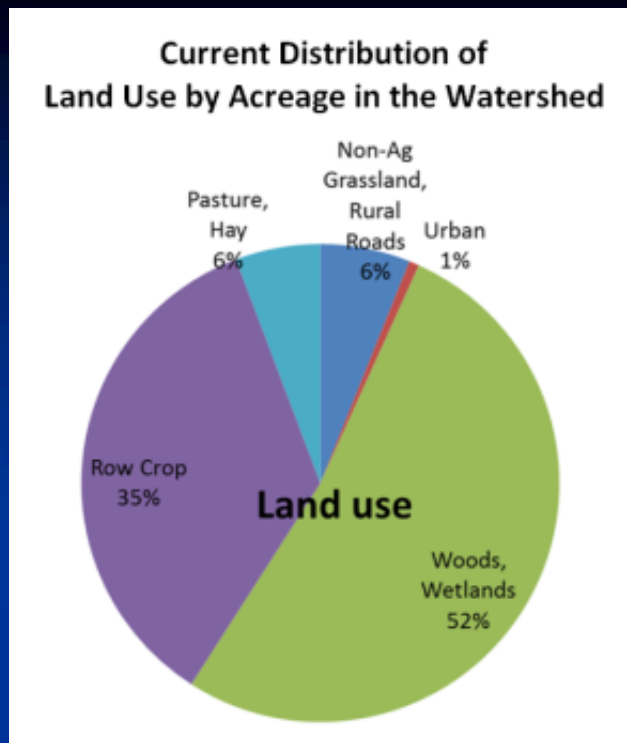


Figure 4: Full context map of the Eau Claire River Watershed.

- 882 square miles, which drains to the Chippewa River
- 49,997 population
- About 43% of the population is in 1% of the area
- SWAT model calls for 54% reduction in P
- Plan interim goal is a 24% reduction



Eau Claire River Watershed Coalition

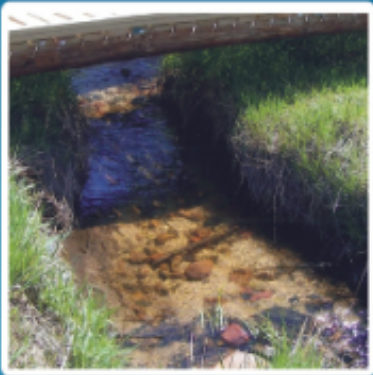
- Began meeting in late 2016
- Sprung from a planning effort from the two years previous, that produced a 9-Element Plan (approved summer 2017)
- Statement of Identity and Purpose – *The Eau Claire River Watershed Coalition is a diverse partnership committed to protecting and improving soil and water quality. Such improvements will be achieved through data collection, education, cooperation, and civic engagement of watershed stakeholders.*

Eau Claire River Watershed Coalition

- Eau Claire, Clark, Taylor, Chippewa and Jackson County LCDs
- Lake Altoona District
- Lake Eau Claire District/Association
- Mead Lake District
- WDNR
- NRCS
- WCWRPC
- Wisconsin Dragonfly Society
- UW Extension
- Many citizens and landowners

HEALTHY SOILS & HEALTHY WATERS

A Community Strategy for the Eau Claire River Watershed



July 13, 2016

Eau Claire River Watershed Strategy

- Watershed-wide plan which focuses on actions to address waters impaired by surface runoff
- The reduction in phosphorus loading is our measurable, target objective. Most of the same actions that address P will also reduce sedimentation and improve fisheries.
- *Bottom-up, community-driven approach*
 - 9 Coalition meetings, 3 community discussion meetings, and ad hoc work groups
 - integrating existing plans/lake group activities,
 - farmer sociological survey,
 - various other presentations to lake organizations, grazers groups, etc.



EAU CLAIRE RIVER WATERSHED

Percent of Phosphorus Reduction Required by HUC-12 Subshed to Meet the Watershed-Wide Target Objective

Legend

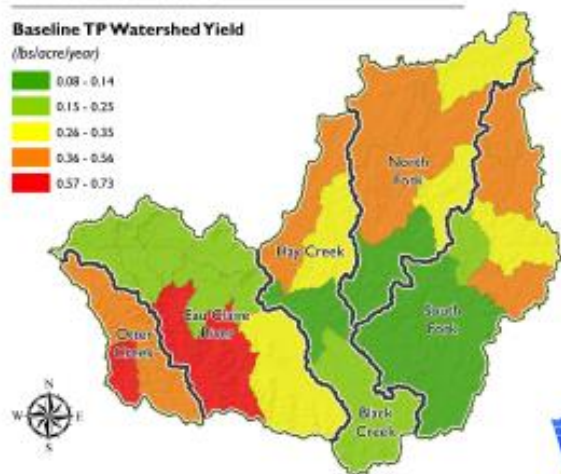


SWAT Estimated Annual Phosphorus Yields

Eau Claire River Watershed

Baseline TP Watershed Yield

(lbs/acre/year)

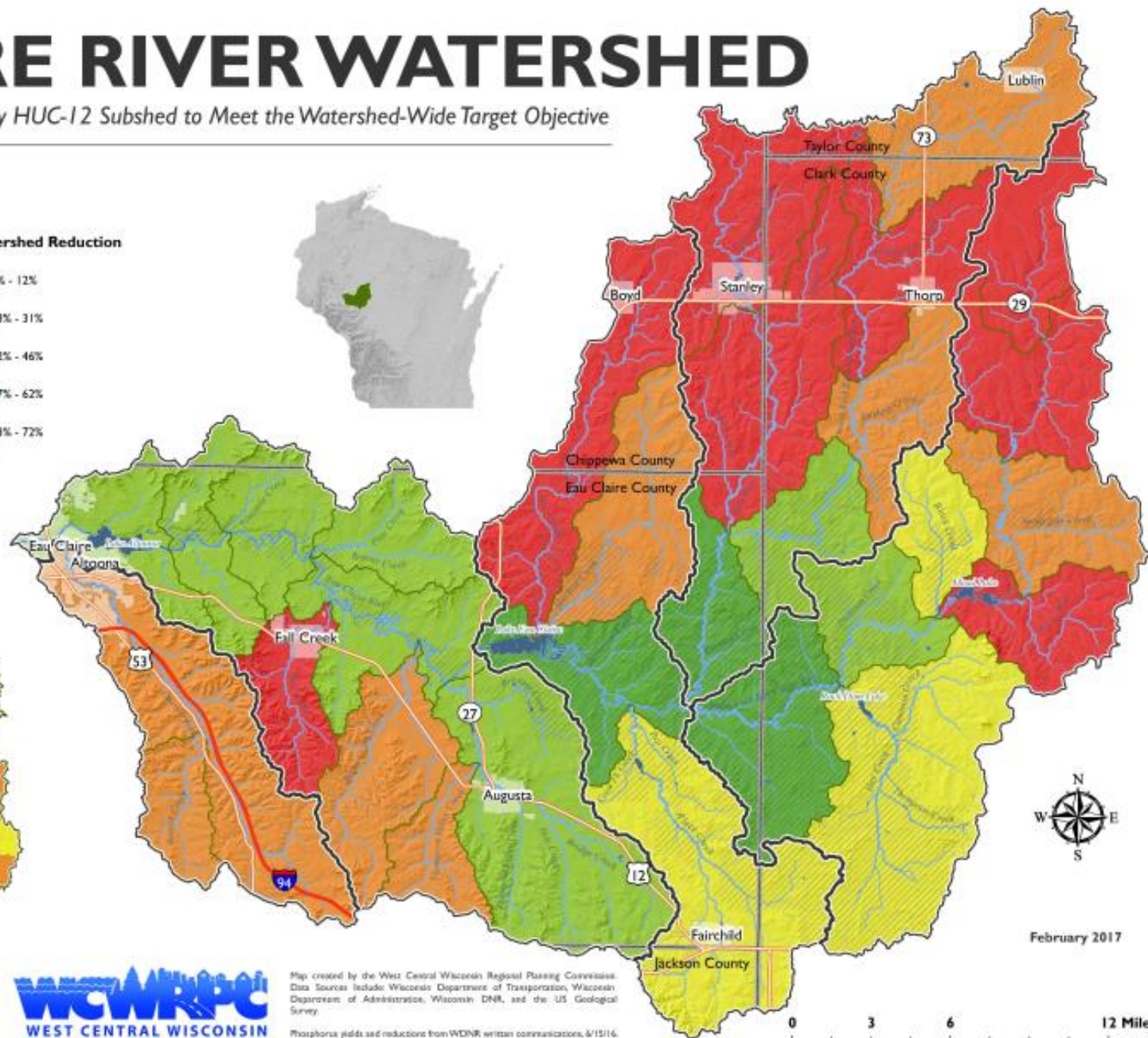


0 3 6 12 Miles



Map created by the West Central Wisconsin Regional Planning Commission. Data Sources include Wisconsin Department of Transportation, Wisconsin Department of Administration, Wisconsin DNR, and the US Geological Survey.

Phosphorus yields and reductions from WDNF written communications, 8/15/16. Based on 2009 SWAT Analysis, with Otter Creek Watershed added.

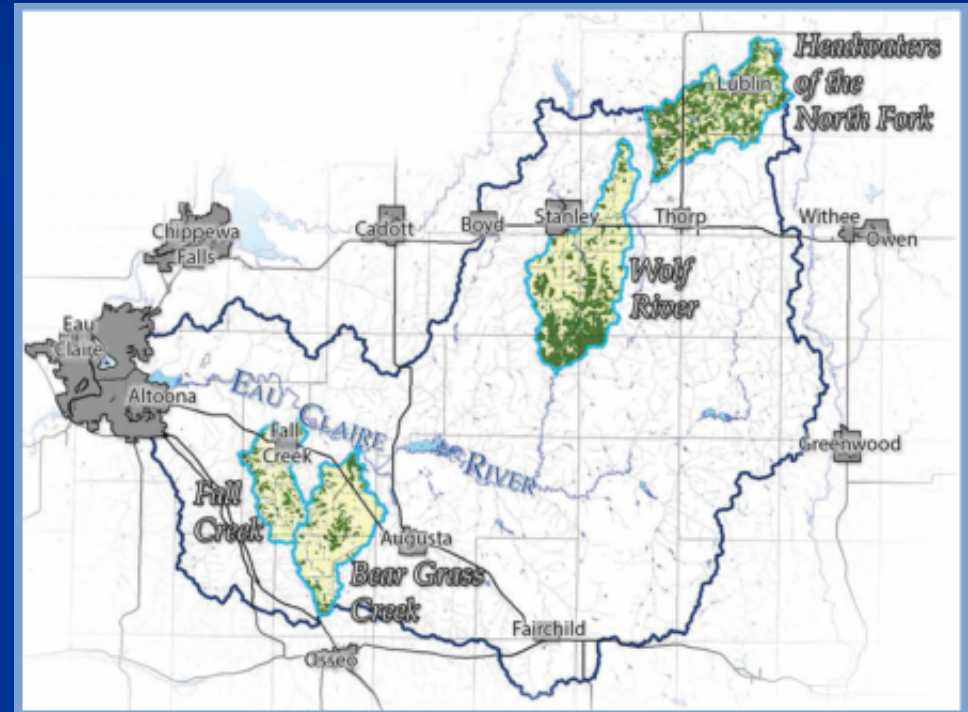


February 2017

0 3 6 12 Miles

Farmer Social Science Assessment

- C.L.U.E. at UW-SP surveyed 310 farmers and cropland renters (60+ acres) in four HUC-12s
- Respect differences in attitude groups
 - 1) Farm is a Business (24.1%): business goals more important than stewardship
 - 2) Balancing Competing Demands (45.5%): agriculture and natural are equally important
 - 3) Conservation Partners (30.4%): strong environmental stewardship; 77.5% of conservation acreage



Other Early Accomplishments

- Received a small grant from Xcel Energy to conduct soil health classes for farmers and professionals in the watershed in 2018
- Have established some more intense and regular water quality monitoring/gauging stations at two points on the EC River using a DNR grant through EC County, and the help of volunteer stakeholders
- In-lake efforts have included aeration in Lake Eau Claire, dredging in both Lake Eau Claire and Lake Altoona, dredging on tributary streams

Other Early Accomplishments

- Large-scale TRM grants just awarded to both Eau Claire and Clark Counties for the development of demo farms
- Lake groups have been doing work on habitat (fish cribs, tree drops) and dredging issues, and also setting aside District funds for possible projects
- UW-Eau Claire Service Learning project, where students designed an educational placemat
- Outreach meeting with Mennonite farmers in northern Clark County

A Citizen's Guide to Watershed Planning

in WISCONSIN



The Framework for Protecting or Restoring Local Water Resources

<https://fyi.uwex.edu/watershedplanning/>

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