



*OCONOMOWOC WATERSHED  
PROTECTION PROGRAM*

MID-MORAINÉ WATER QUALITY COLLECTIVE

DECEMBER 5, 2019

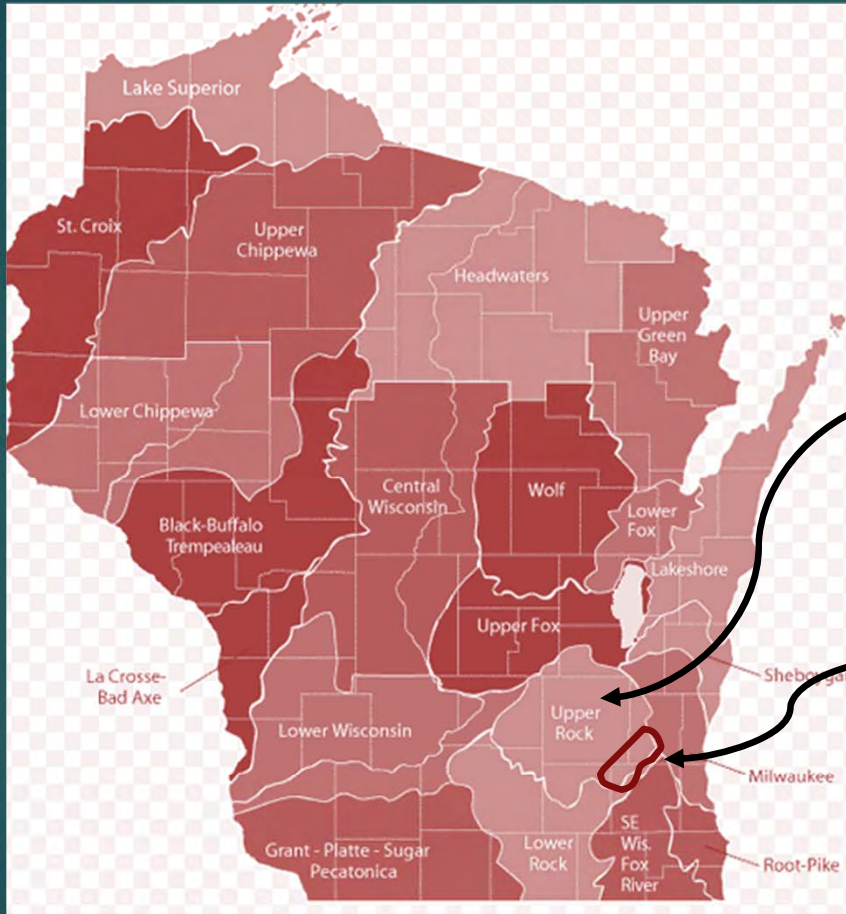


# Presenting:

- ▶ Introduction – The Shed and WHY Adaptive Management
- ▶ Engaging the right people from the start / Structuring for Success
- ▶ Target areas and project work
- ▶ Monitoring – Early and Ongoing
- ▶ Farmers For Lake Country
- ▶ Education and Outreach
- ▶ Regional Conservation Partnership Program
- ▶ Program Partners
- ▶ Overall program progress
- ▶ 2020 Goals



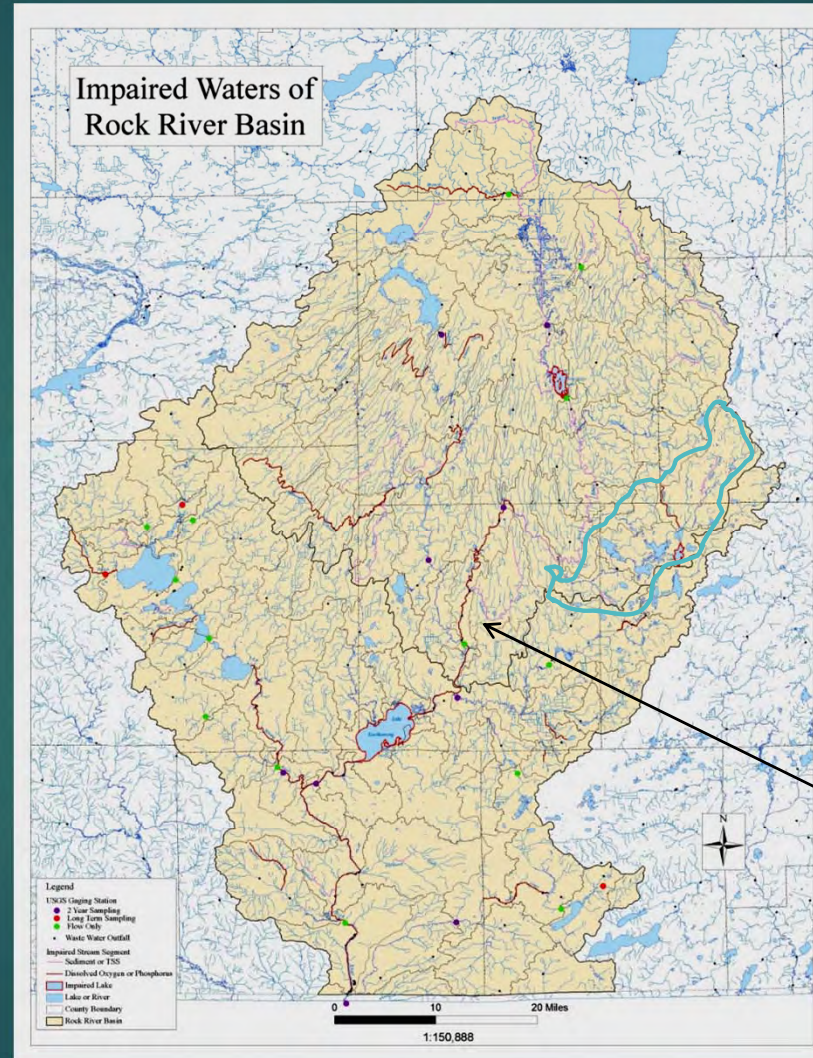




Rock River Watershed

Oconomowoc River Watershed

# Rock River Impaired Waterways



Impaired  
reaches in  
red.



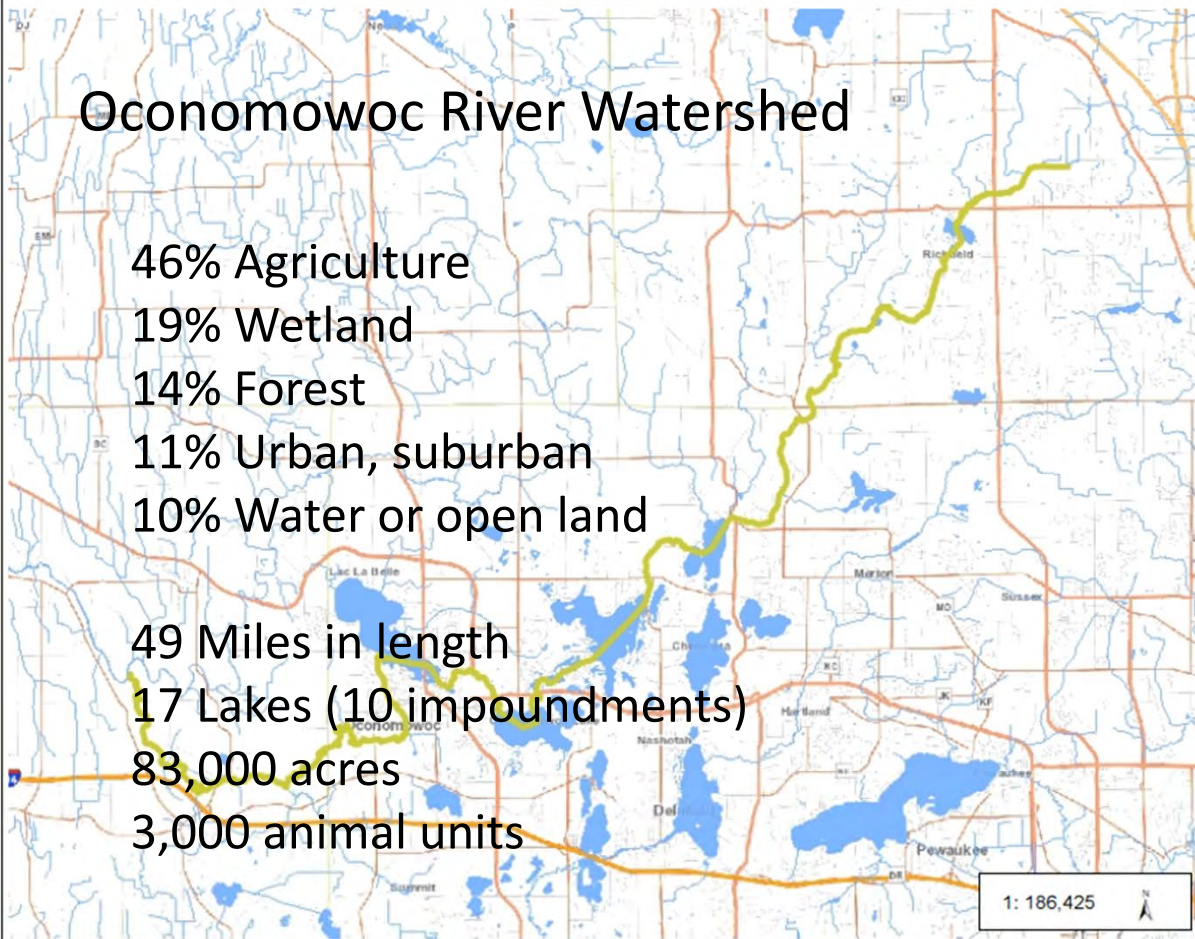


## Surface Water Data Viewer Map

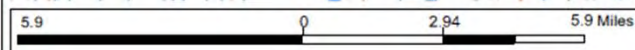
### Oconomowoc River Watershed

46% Agriculture  
19% Wetland  
14% Forest  
11% Urban, suburban  
10% Water or open land

49 Miles in length  
17 Lakes (10 impoundments)  
83,000 acres  
3,000 animal units



1: 186,425



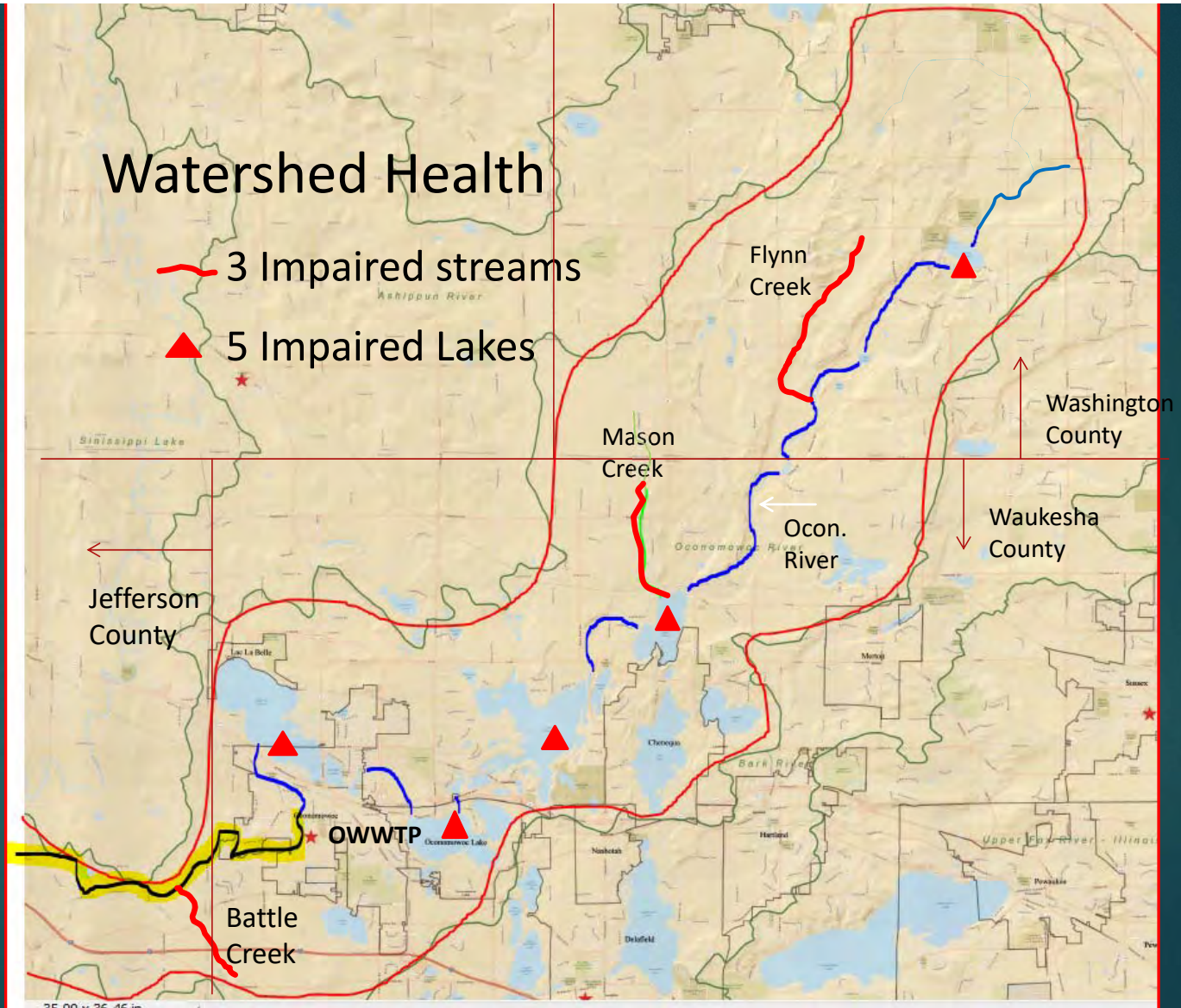
NAD\_1983\_HARN\_Wisconsin\_TM  
© Latitude Geographics Group Ltd.

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# Watershed Health

3 Impaired streams

5 Impaired Lakes





# Mason Creek – June 2015







# Oconomowoc WWTP

The only treatment facility in the watershed



# The City's Options: 2012 – 2014 Evaluation

CAPITAL PROJECTS AT THE PLANT AND IN STORM  
WATER SYSTEM – MEET LIMITS OF 0.17 MG/L

ADAPTIVE MANAGEMENT

EFFLUENT TRADING



# 2014 - ADAPTIVE MANAGEMENT Selected

- \$\$\$
- BUY TIME
- ASSURE WQ OF CITY LAKES
- TMDL ATTAINABILITY – 5,000 LBS  
REMOVAL NEEDED



\$15 Mil

OR



\$5 Mil



Buys time



# Protection of City's Gems, and Quality of Life









# TMDL Attainability:

2015 STATUS - **0.09** MG/L  
TOTAL PHOSPHORUS

CRITERIA FOR  
COMPLIANCE WITH RR  
TMDL - **0.075**



## TMDL Attainability – By the numbers

- ❑ 5,000 LBS REMOVAL NEEDED
- ❑ OVER HALF FROM PLANT REDUCING TO 0.5 MG/L
- ❑ STORM WATER IMPROVEMENTS IN CITY = 1,000 LBS?
- ❑ 2,000 + FROM AG BMPS

2014 – 2015

RCPP –

Approved - Jan. 2015

ADAPTIVE

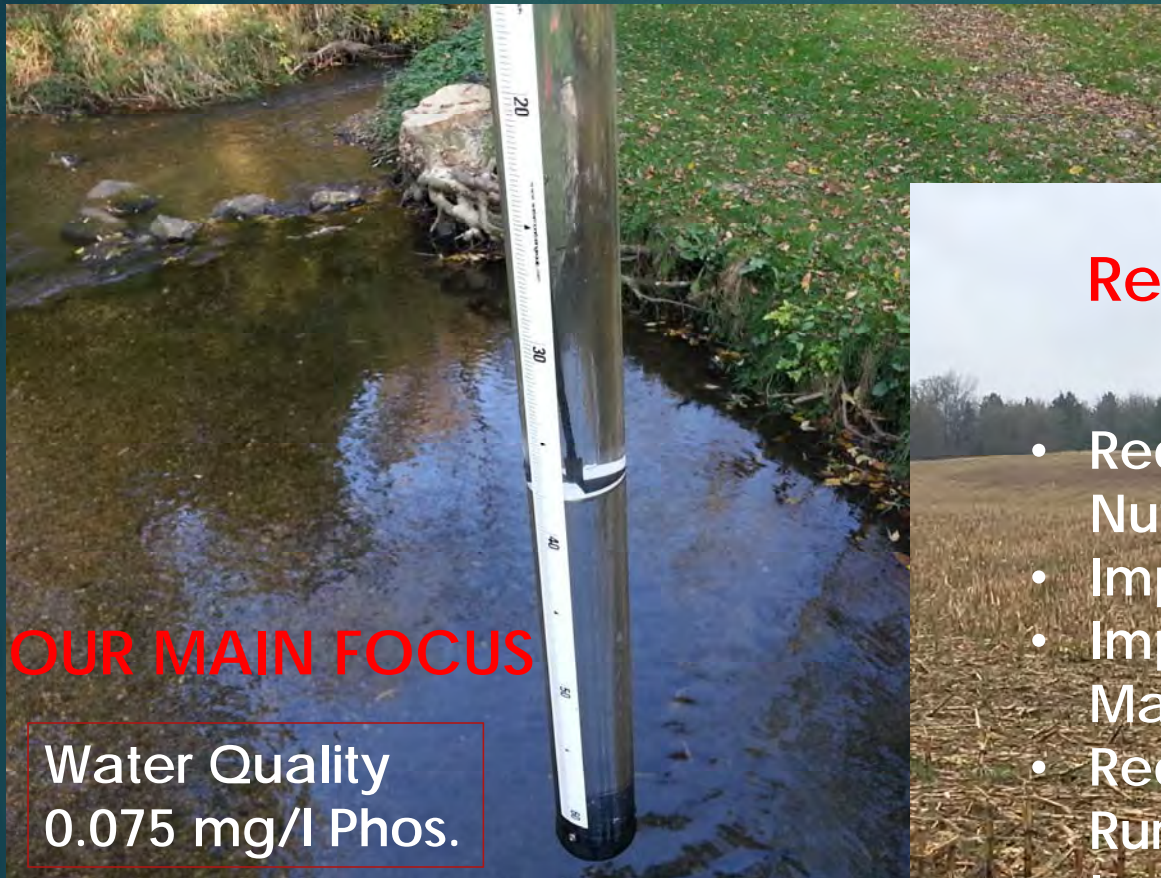
MANAGEMENT –

Approved - Sept. 2015

THE OWPP IS BORN !





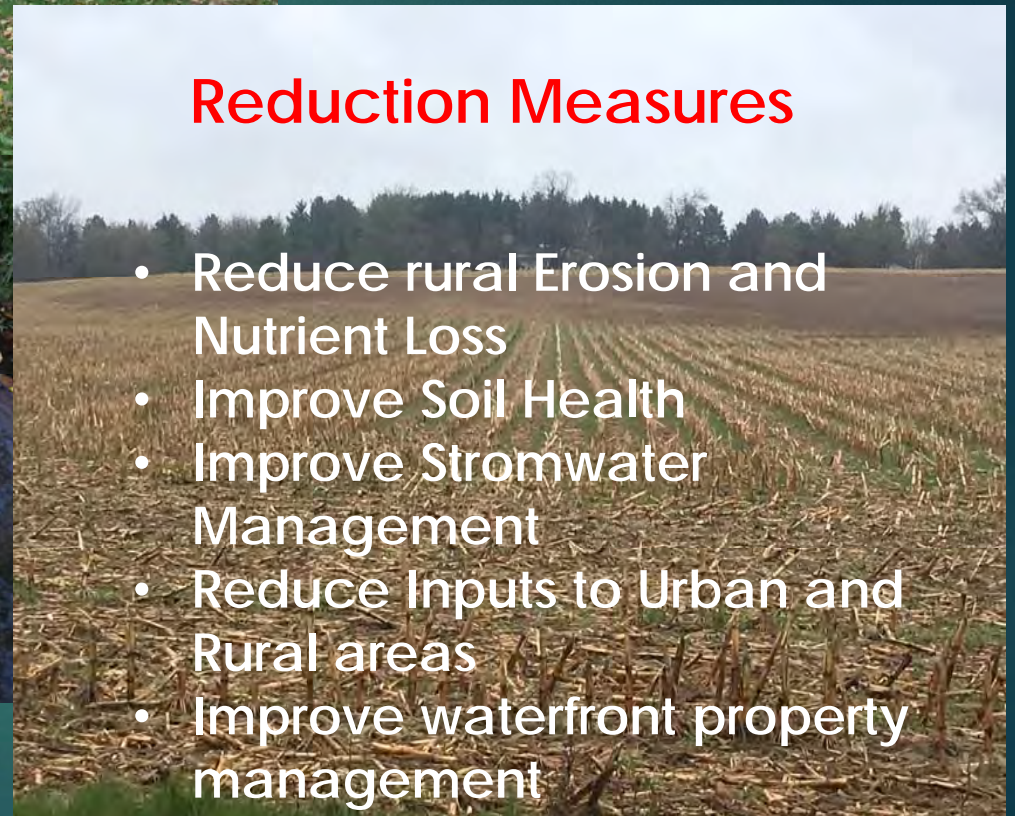


## OUR MAIN FOCUS

Water Quality  
0.075 mg/l Phos.

## Reduction Measures

- Reduce rural Erosion and Nutrient Loss
- Improve Soil Health
- Improve Stormwater Management
- Reduce Inputs to Urban and Rural areas
- Improve waterfront property management

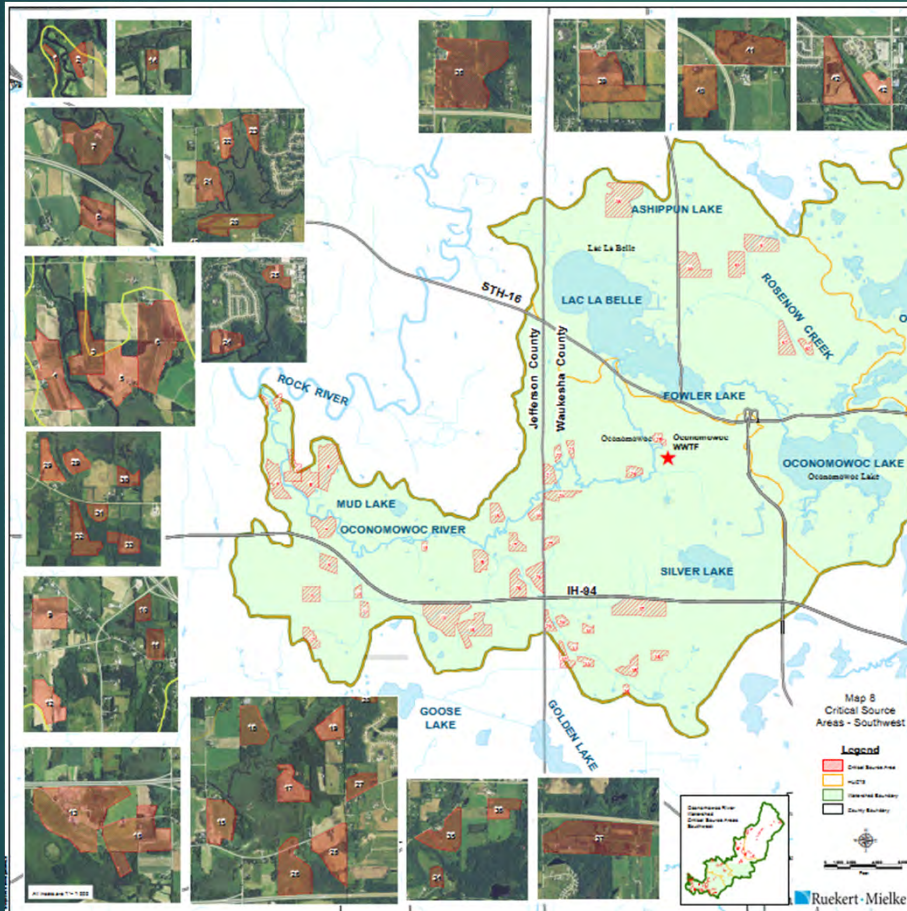


# Engaging the Right People:

- ▶ Field Representative
- ▶ Expert with experience with the geography/farming practices
- ▶ Partners who are already engaged
- ▶ Consultants who have the resources and horsepower to get the 'big stuff' done.
- ▶ A "Legal Eagle"

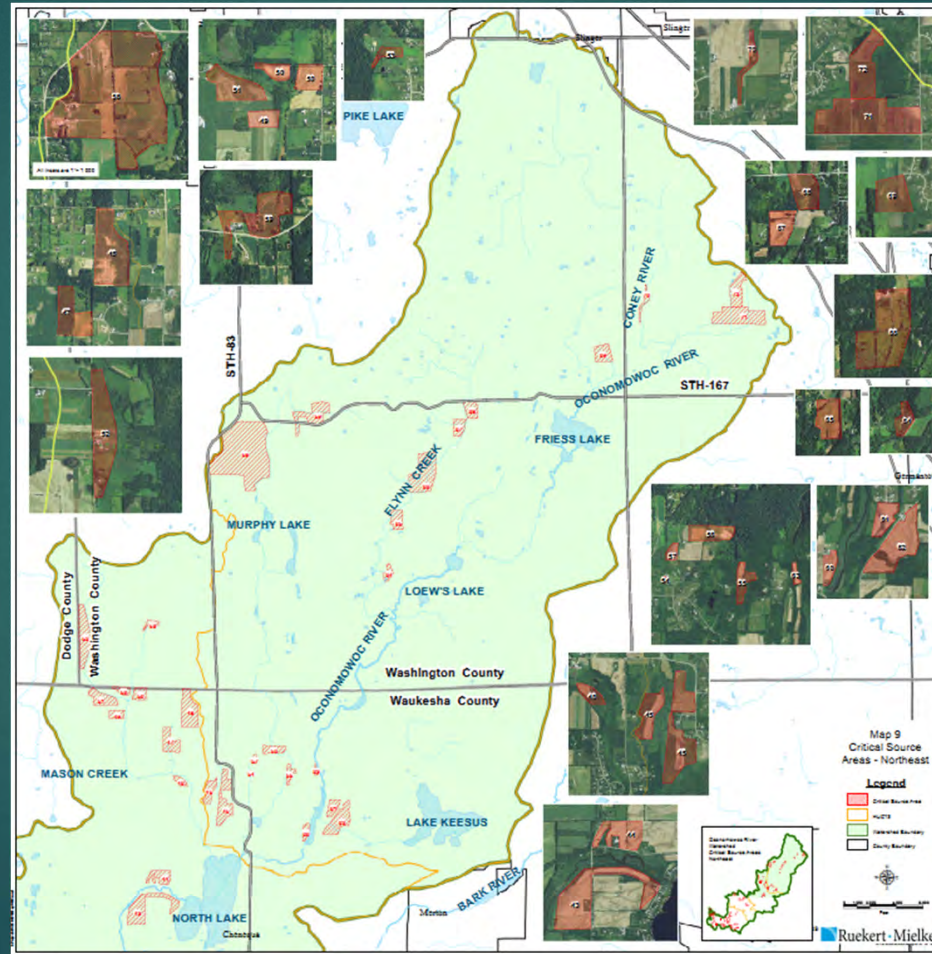


# Critical Source Areas (CSAs) Waukesha and Jefferson County

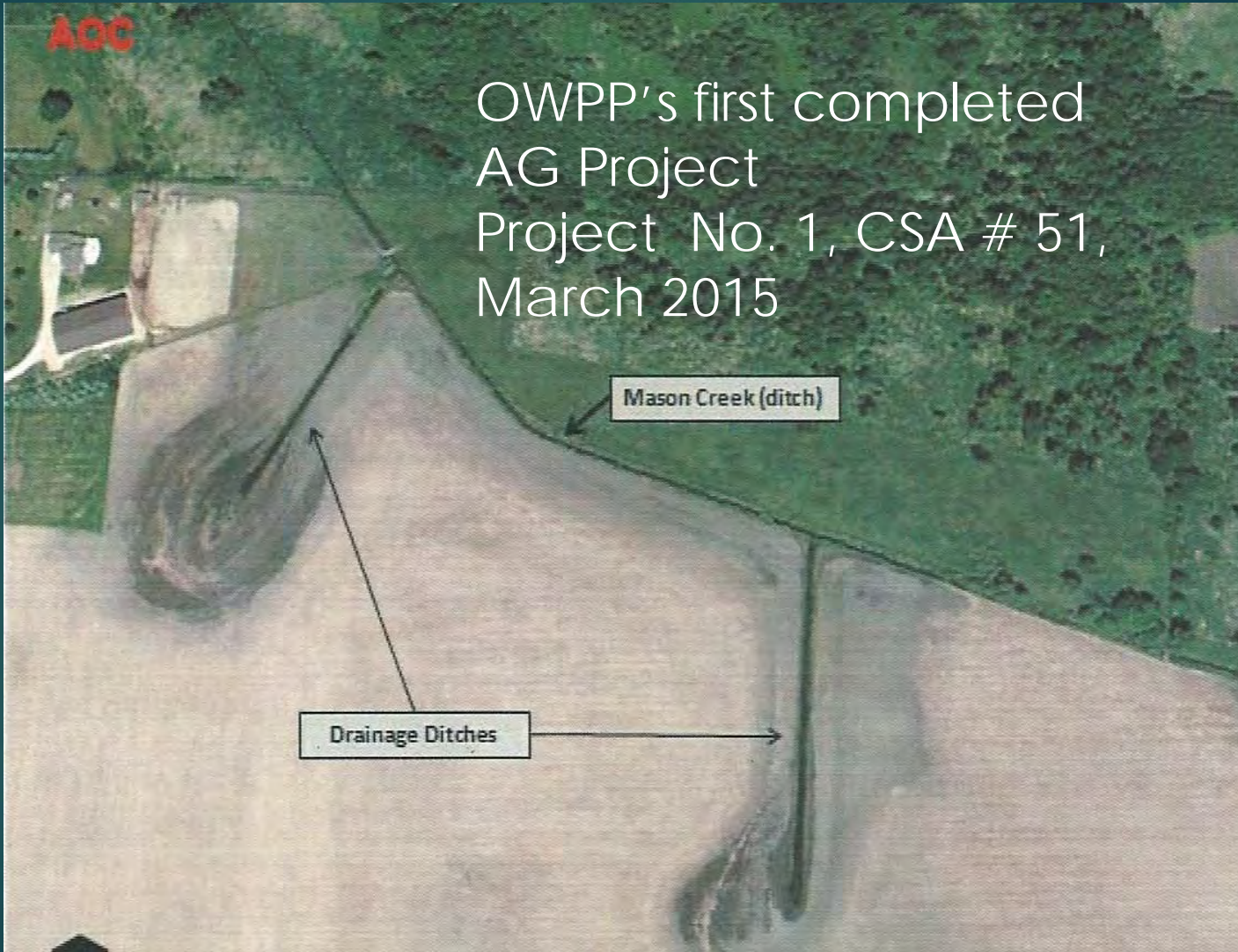


AMP Identified :  
79 Critical Source Areas  
Over 1,700 acres in total.

# Critical Source Areas Washington and Waukesha County







OWPP's first completed  
AG Project  
Project No. 1, CSA # 51,  
March 2015

Mason Creek (ditch)

Drainage Ditches



Funded By:

FSA

OWPP

NRCS

North Lk Man.

District

10.1 acres Buffer  
Strips





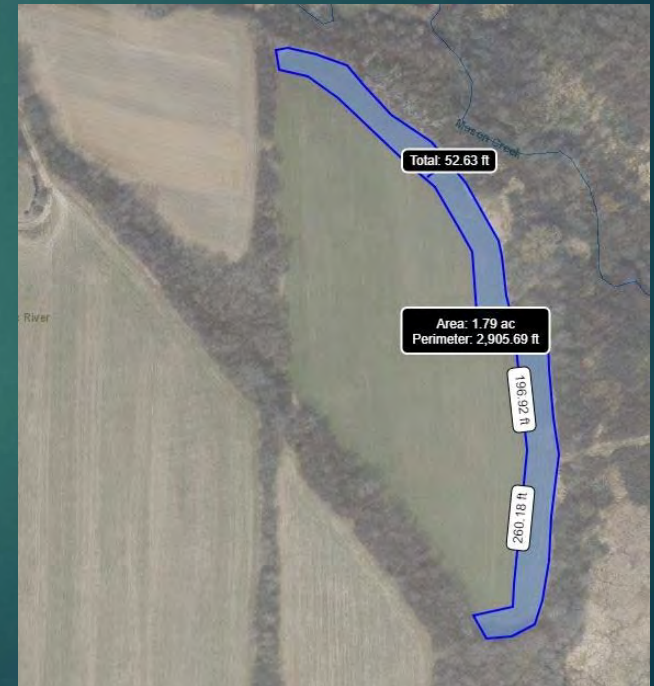
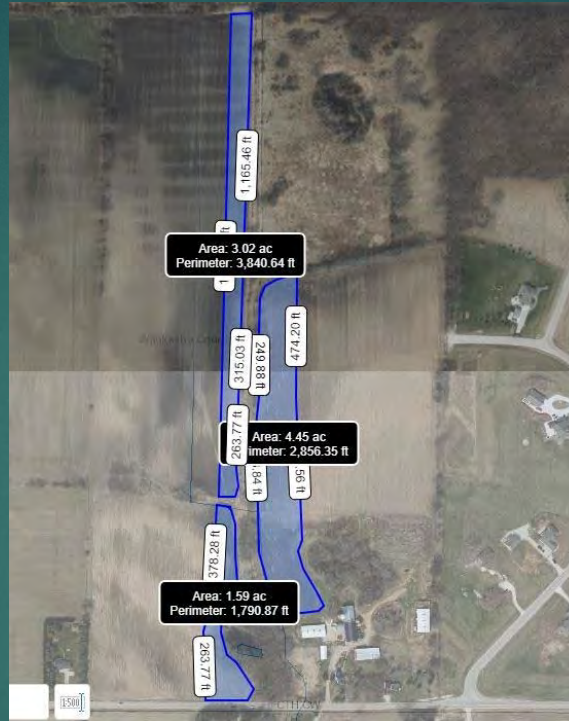


Buffer Strips greening up by the spring of 2015



# Project No. 45

11 Acres total x 10 years  
Harvestable cover  
Hotspot 4





## Project No. 53, CSA No. 38

10 Acres total x 5  
years  
Harvestable cover  
**Hotspot 5**







## Project 6, CSA 7

6,5 acres  
Animal control fencing  
10 years  
Ditch and river buffers



Project No. 21,  
CSA No. 34  
Jefferson  
County

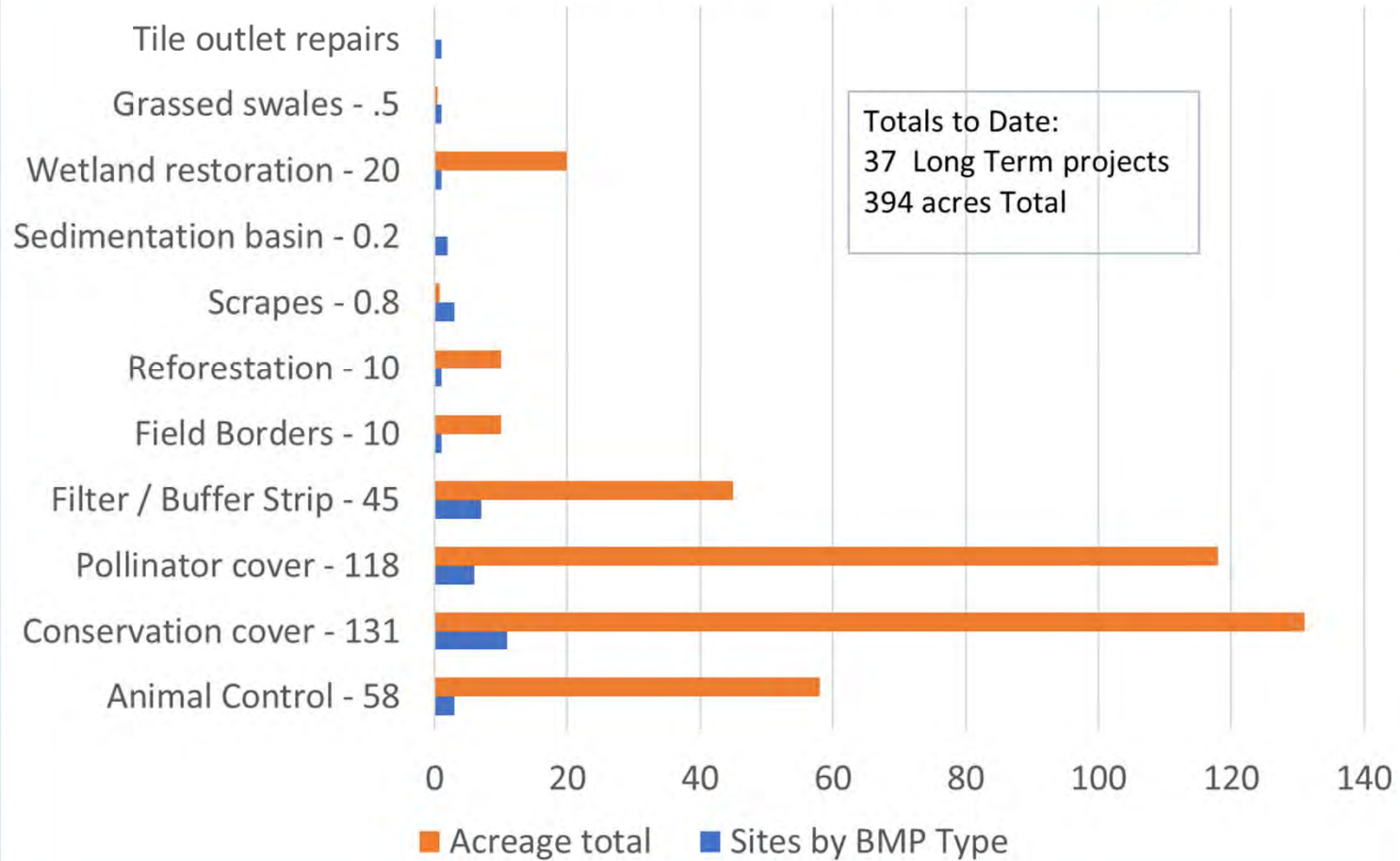
Wetland restoration  
Berm & ditch check  
Pollinator & scrape  
Conservation Cover  
100 + acres,  
10 years







## Long Term Contracts BMP Type, Acreage and Sites



# SEASONAL COVER CROP PROGRAM

2017 – 1,000 acres  
2018 – 2,169 acres  
2019 – 2,645 acres







October 2018

Former soybean  
field

Rye cover, up by  
October 11<sup>th</sup>



Bean field before  
harvesting

Rye is 3 – 6" tall  
growing in  
between soybeans





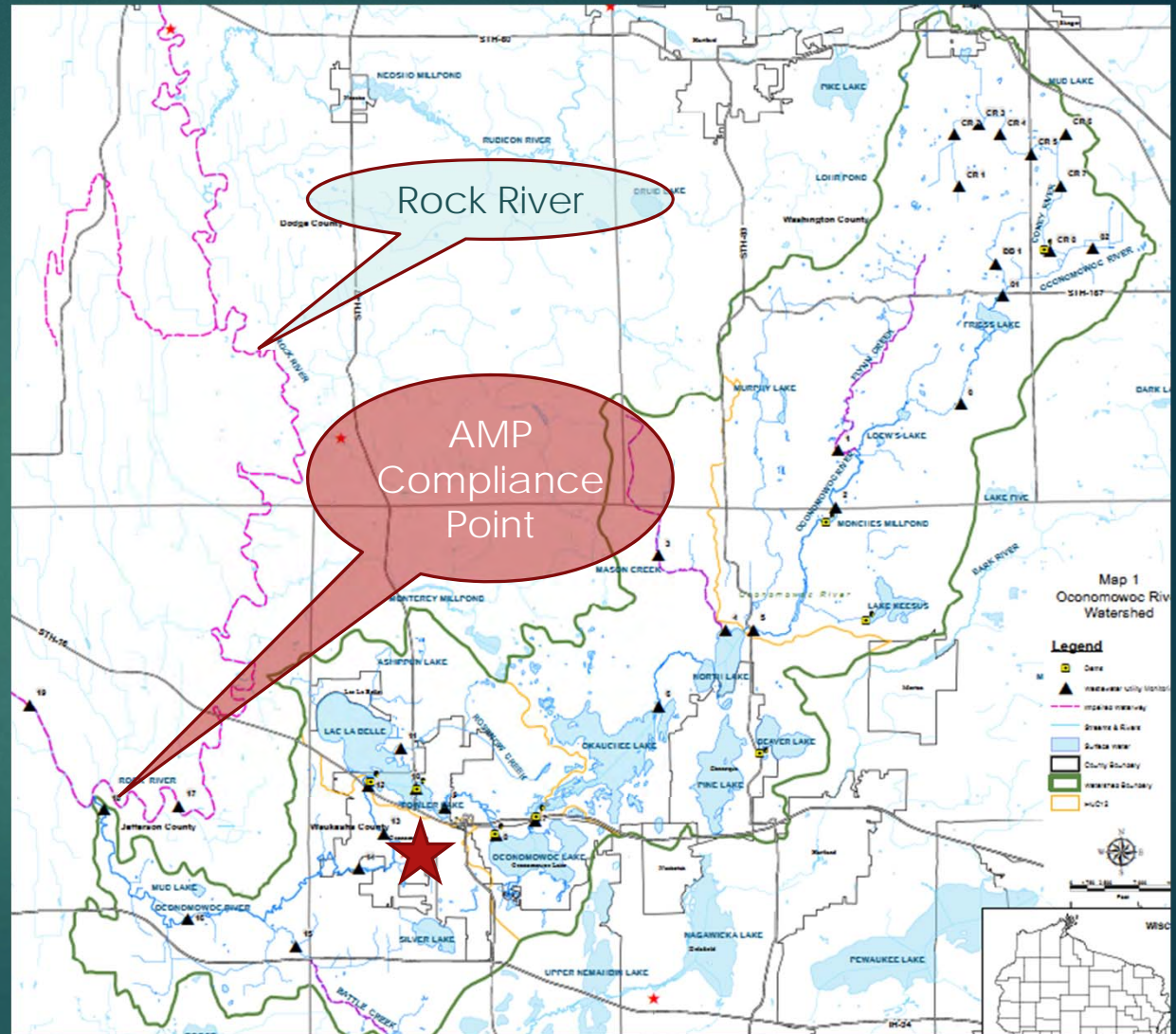
# Fall Cover Crop Seeding Project – 2019 Summary

- 2,645 acres covered
- Over 100 fields
- 77 tons of seed planted
- Rye, wheat, all grown locally
- 10 Farmers involved
- 4 new farmers
- Planted in September in 4.5 days
- Ave. of over 500 acres planted per day.



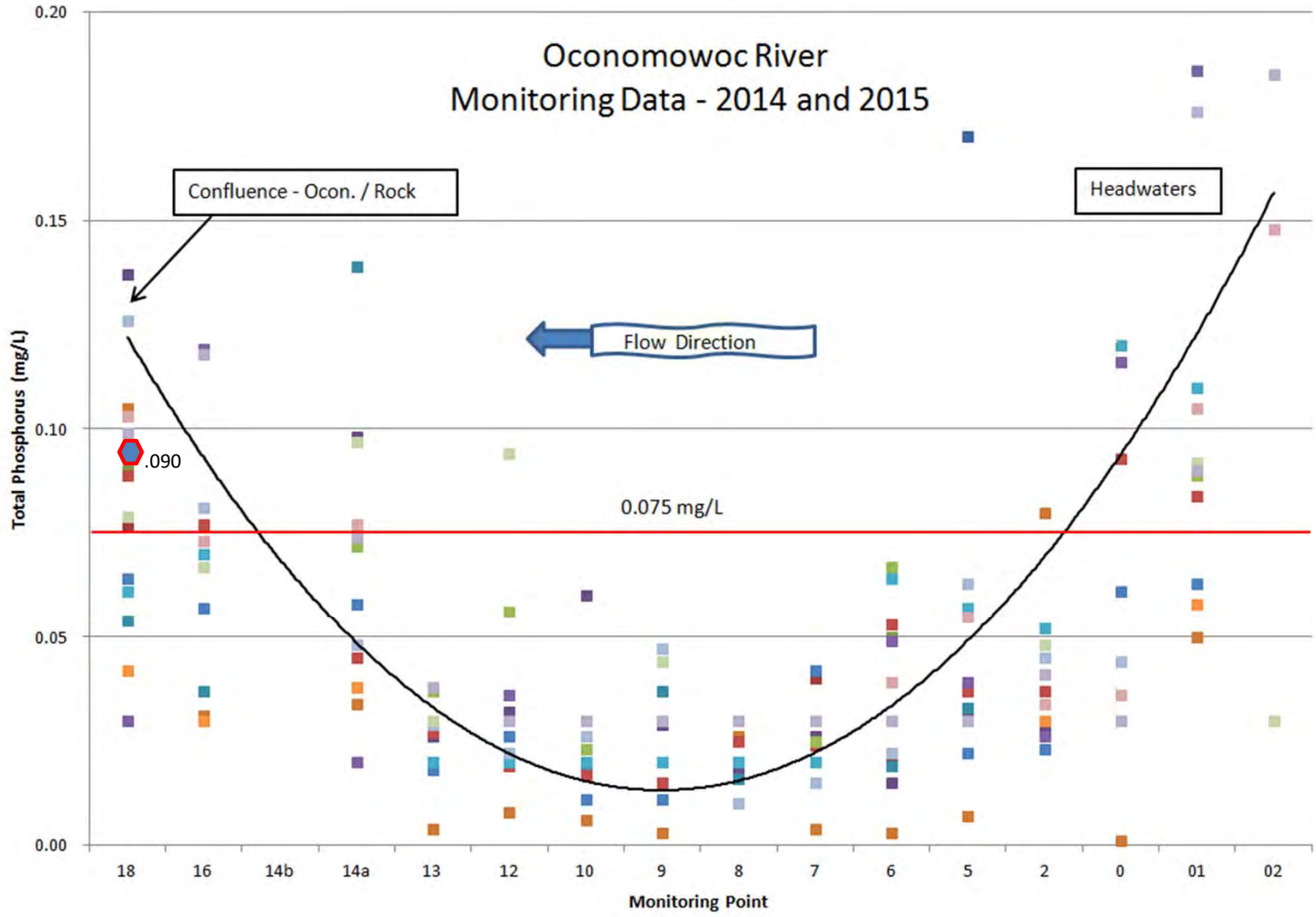
# Monitoring Programs:

- ▶ Baseline
- ▶ Mud Chasers
- ▶ Mason Creek Specific
- ▶ Chlorides





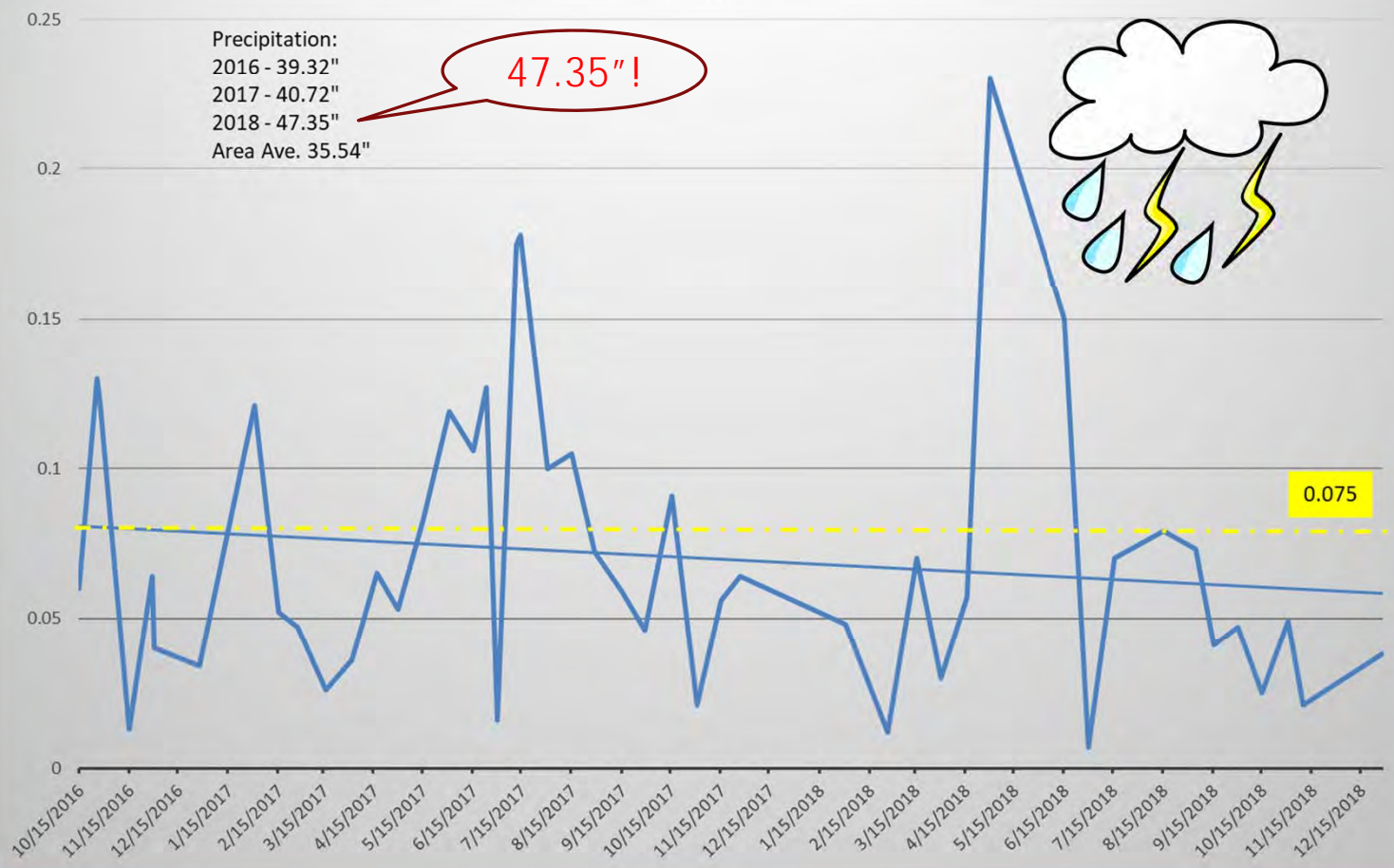
# Oconomowoc River Monitoring Data - 2014 and 2015



# Confluence Data -Total Phosphorus 2016 - 2018

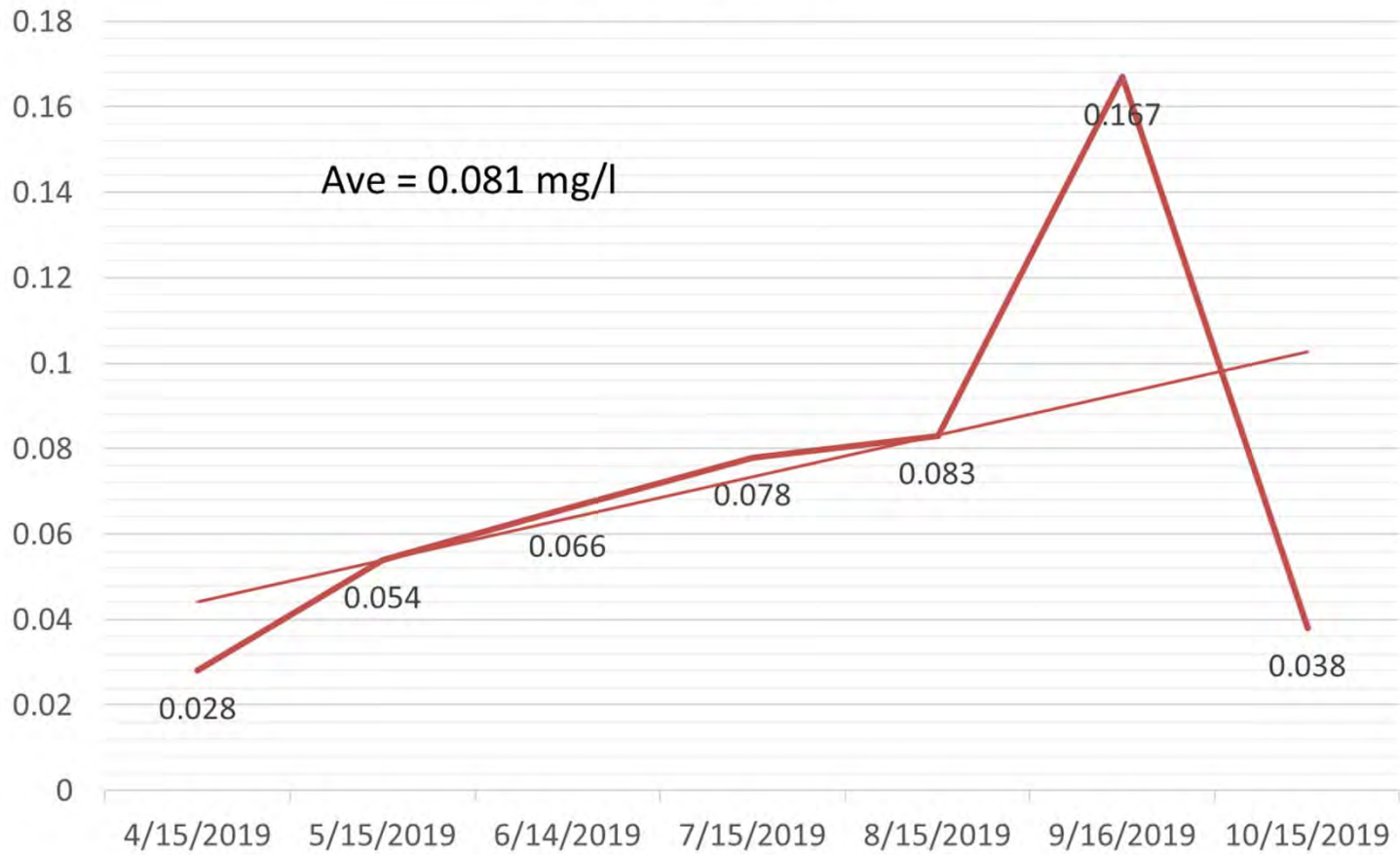
Precipitation:  
 2016 - 39.32"  
 2017 - 40.72"  
 2018 - 47.35"  
 Area Ave. 35.54"

47.35"!

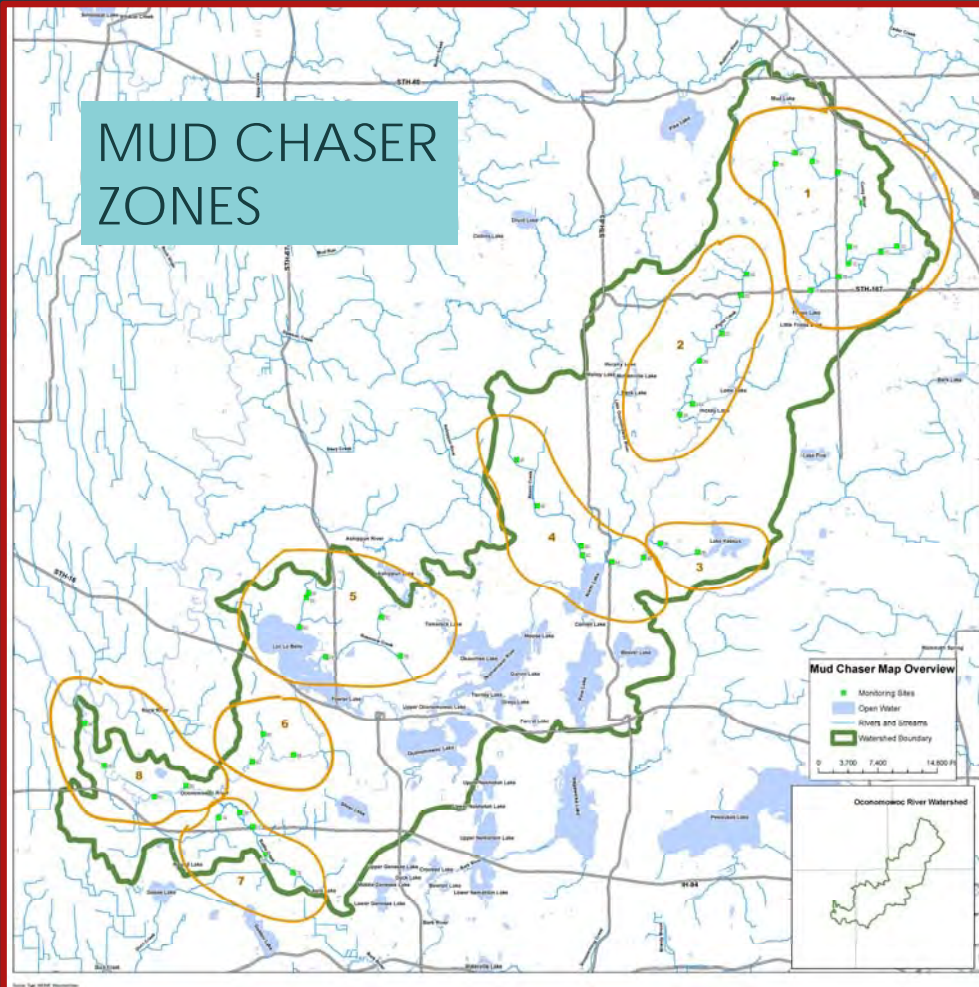




### 2019 Confluence Data Total Phos. Mg/l

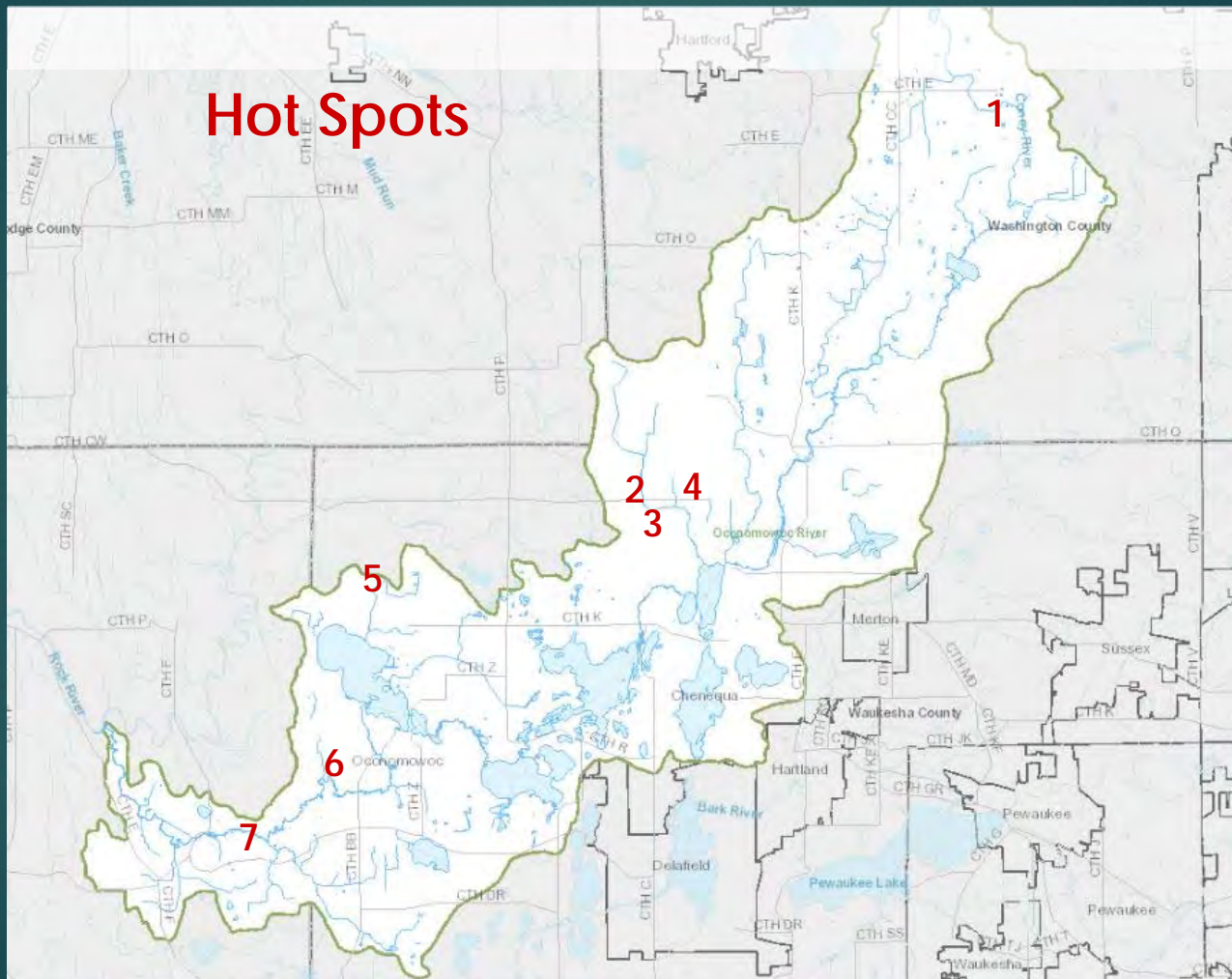


# MUD CHASER ZONES





# Hot Spots







# FARMERS FOR LAKE COUNTRY

[HOME](#)   [NUTRIENT MANAGEMENT PLAN](#)   [AERIAL COVER CROP SEEDING](#)   [FARMER EDUCATION EVENTS](#)  
[WATER FRIENDLY FARM PROGRAM](#)   [LAND CONSERVATION OPTIONS](#)   [GET INVOLVED!](#)



Programs Driven By Farmers,  
For Farmers

**Farmers for Lake Country** is a farmer-led group managed by the Oconomowoc Watershed Protection Program to assist with farmer education and engagement in conservation cost-share programs. The





# FARMERS FOR LAKE COUNTRY

- ▶ John Koepke
- ▶ Bill Ingersoll
- ▶ Dick Morris
- ▶ Don Gallo
- ▶ Kyle Zwieg
- ▶ Dennis Stuetngen
- ▶ John Simon
- ▶ Darrell Smith – OWPP Ag Coordinator
- ▶ Pat Murphy – former NRCS Official
- ▶ Dean Ebert – Agronomist – Helena Agri
- ▶ Susan Buchanan - TPC
- ▶ Kevin Freber - OWWTP
- ▶ Tom Steinbach – TPC/OWPP



# Educational workshops

- ▶ Healthy Lakes Conference
- ▶ Farmer Appreciation Pig Roast
- ▶ Paddle Event
- ▶ DNR/DATCP Regulations Review - winter manure management
- ▶ Town Hall Updates





# The Feisty Few





## Experimentation:

- ❖ No-Till practices
- ❖ Planting green
- ❖ Early season cover planting





# Education and Outreach







## Soil Health Field Day



# Farmer Appreciation Pig Roast











# OWPP NEWSLETTER

## Debut Edition – October 2019

Volume 1, Issue 1

FROM THE WATERSHED  
**streamings**  
Oconomowoc Watershed Protection Program Newsletter





**WELCOME TO THE FIRST ISSUE  
OF THE OCONOMOWOC WATERSHED  
PROTECTION PROGRAM (OWPP) NEWSLETTER**

Look for this publication to arrive at your mailbox or in your e-mail two to three times per year starting in 2020. Packed with great information, this newsletter will serve as your connection to important updates and information on program progress, new practices and technology, upcoming training events, and educational opportunities.

**The History of the OWPP**  
In 2014, the City of Oconomowoc was facing new, more stringent requirements on reducing phosphorus in the Oconomowoc River due to increasing algae blooms and surface water quality degradation across Wisconsin and the US. The options to meet the new requirements were to install new equipment with a very high price tag at the wastewater treatment plant and in the storm water system or work throughout the entire 49 mile watershed. The City recognized the clear benefits of working in the watershed and in September of 2015 the OWPP was born. The program was approved by the Wisconsin Department of Natural Resources (WDNR) under the rules of a new program called Adaptive Management. Through the Adaptive Management program, the City has partnered with many entities across Washington, Waubesa, and Jefferson counties through which the river flows. The partners in this program include government agencies, municipalities, non-profit organizations, environmental groups, agricultural groups and co-ops, private landowners, and federal and county land and water agencies. The overall goal

*(continued on page 2)*

**UPCOMING EVENTS**


**FRI / DEC 13 / 2019**  
9a-2:30p  
**Nutrient Management Training**  
Hands on training for YOUR plan.


**THURS / JAN 9 / 2020**  
9a-2:30p  
**Manure Application**  
Making sense of the regulations.

**THURS / FEB 20 / 2020**  
6p-8p  
**Water Quality & Your Watershed**  
Oconomowoc Community Center

**FRI / JUNE 5 / 2020**  
9th Annual  
**Healthy Lakes Conference**

**SAT / AUG 15 / 2020**  
12th Annual Ride to the Barns  
Camp/Quad



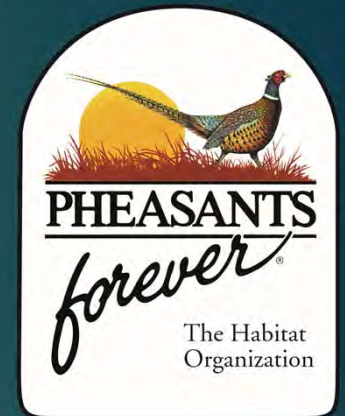




# Regional Conservation Partnership Program



- Applied for in 2014. Award in 2015. 1 of 3 in WIS. & of 100 in the country.
- NRCS Program, USDA
- Part of Farm bill
- Conservation measures for soil, water, wildlife and natural resources
- Build partnerships, leverage resources on watershed scale
- Awarded 2<sup>nd</sup> 5 year cycle in November 2019.



*oconomowocwatershed.com*





# OWPP Progress Update 2019

- ▶ Over 135 fields touched in some way.
- ▶ 2,238 acres covercropped via helicopter.
- ▶ Two Hot Spots addressed.
- ▶ 39 producers active in program.
- ▶ One stormwater management project completed.
- ▶ Four educational events held.
- ▶ 2,625 lbs P reduced. (conservative estimate)
- ▶ 1.3 Million Pounds of Algae eliminated
- ▶ Long term soil health benefits – Priceless! 😊

# OWPP – 2020 Goals

- ▶ Add Critical Source Area Projects – several in progress.
- ▶ Continue to address Hot Spots.
- ▶ Increase seasonal covercrop acreage to 2,800.
- ▶ Reach out to the “seldom seen”.
- ▶ Completion of large stormwater project within the City.



*Thanks for your attention !*

*Questions ??*

*Visit us at:  
<http://oconomowocwatershed.com>*

