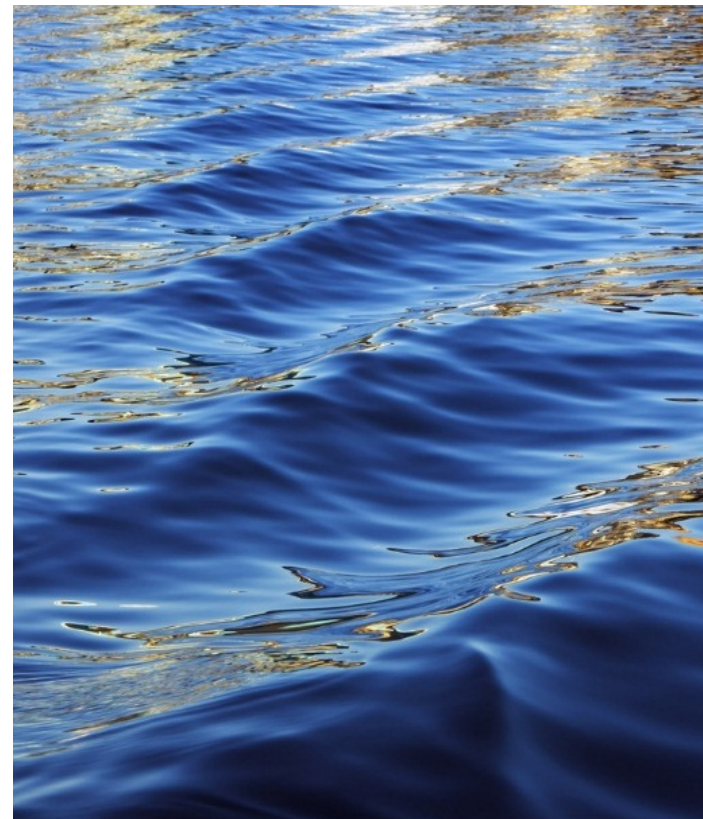




# Wisconsin River TMDL

The Long Term





# WISCONSIN RIVER DISCHARGER GROUP

Wisconsin River Dischargers Group

20 member communities

Representing a population of  
182,300

## Wisconsin River Dischargers Group

Baraboo

Nekoosa

Stevens Point

Elroy

New Lisbon

Tomah

Lakeland Sanitary Plover  
District

Port Edwards

Tomahawk

Marathon City

Portage

Whiting

Marshfield

Rhineland

Wisconsin Dells

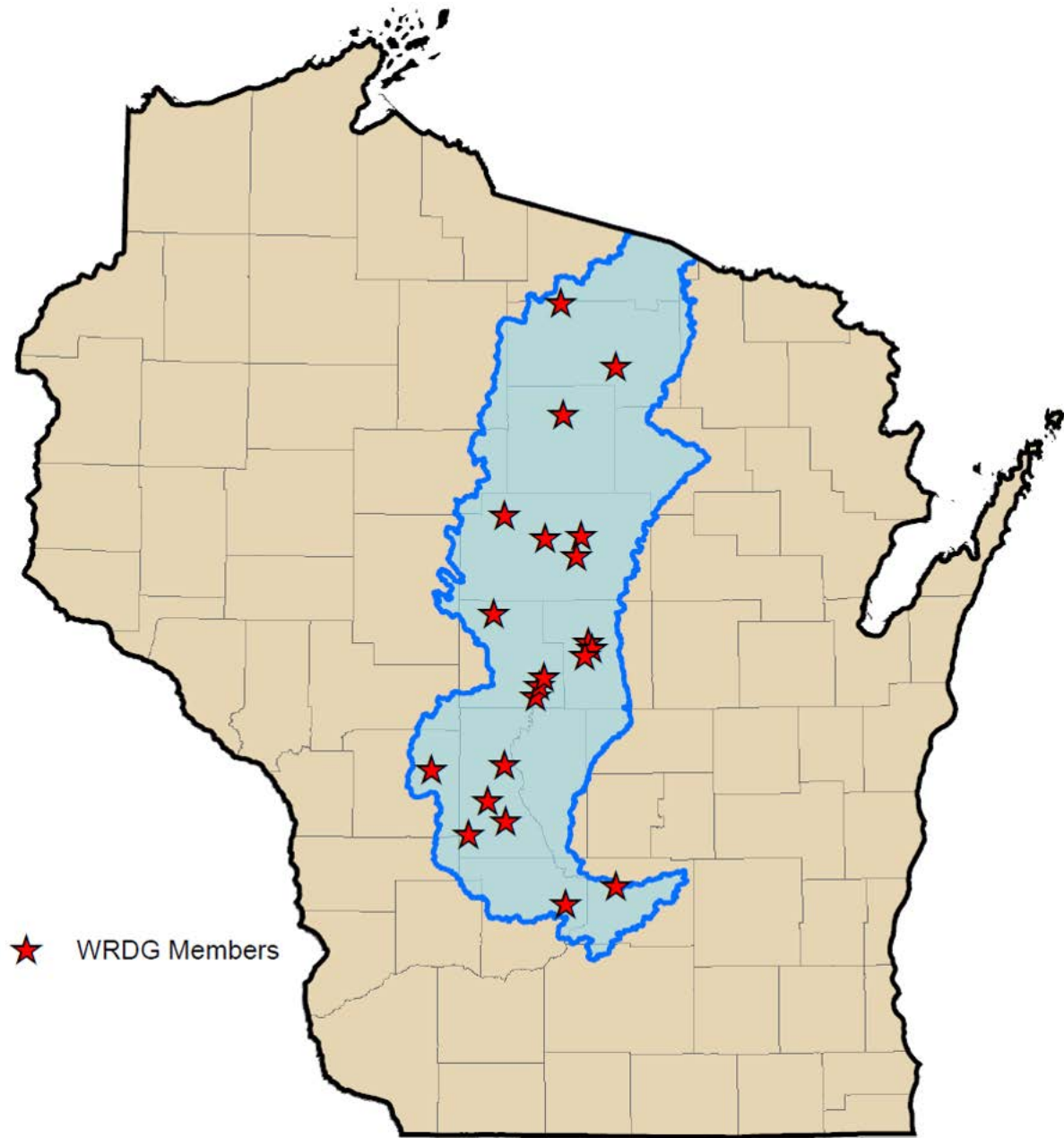
Mauston

Rib Mountain

Lake Delton SC

Necedah

Metro



★ WRDG Members

## Mission

The WRDG evaluates the affects and impacts of water quality study outcomes on its members and works with other stakeholders toward **fair and effective policies.** The group works to ensure fair and effective implementation of the water quality study outcomes **and advocates for effective strategies that improve water quality in the Wisconsin River and its tributaries.** The WRDG partners with DNR and other interested groups and works to **educate and inform** interested parties of the effects that those water quality policies have on the residents of the communities it represents.



# Wisconsin River TMDL

- Wisconsin River Basin (WRB) TMDL study area extends from basin's headwaters in Vilas County to Lake Wisconsin (9,156 mi<sup>2</sup>)

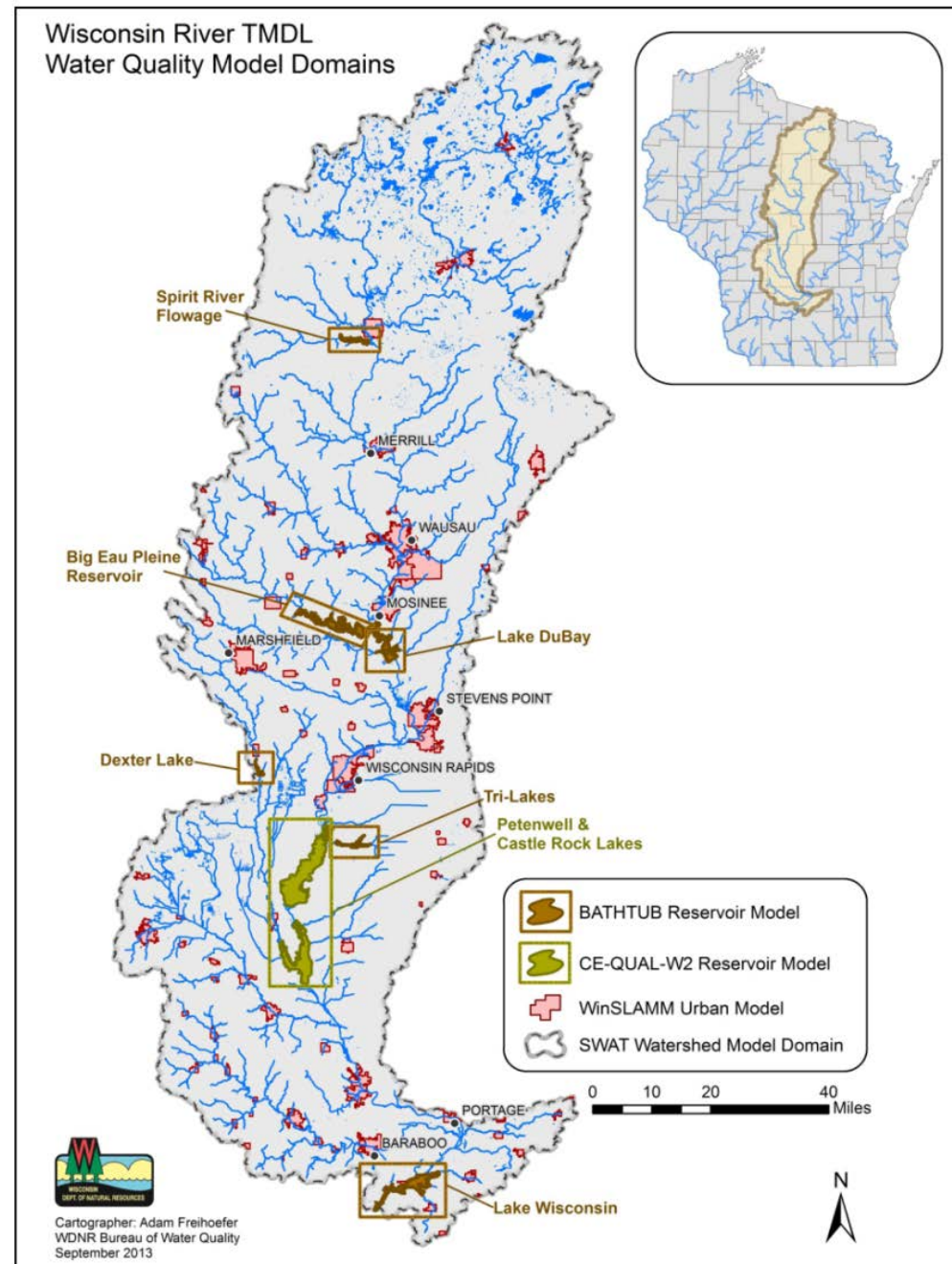


Figure 1 – Wisconsin River TMDL Water Quality Model Domains

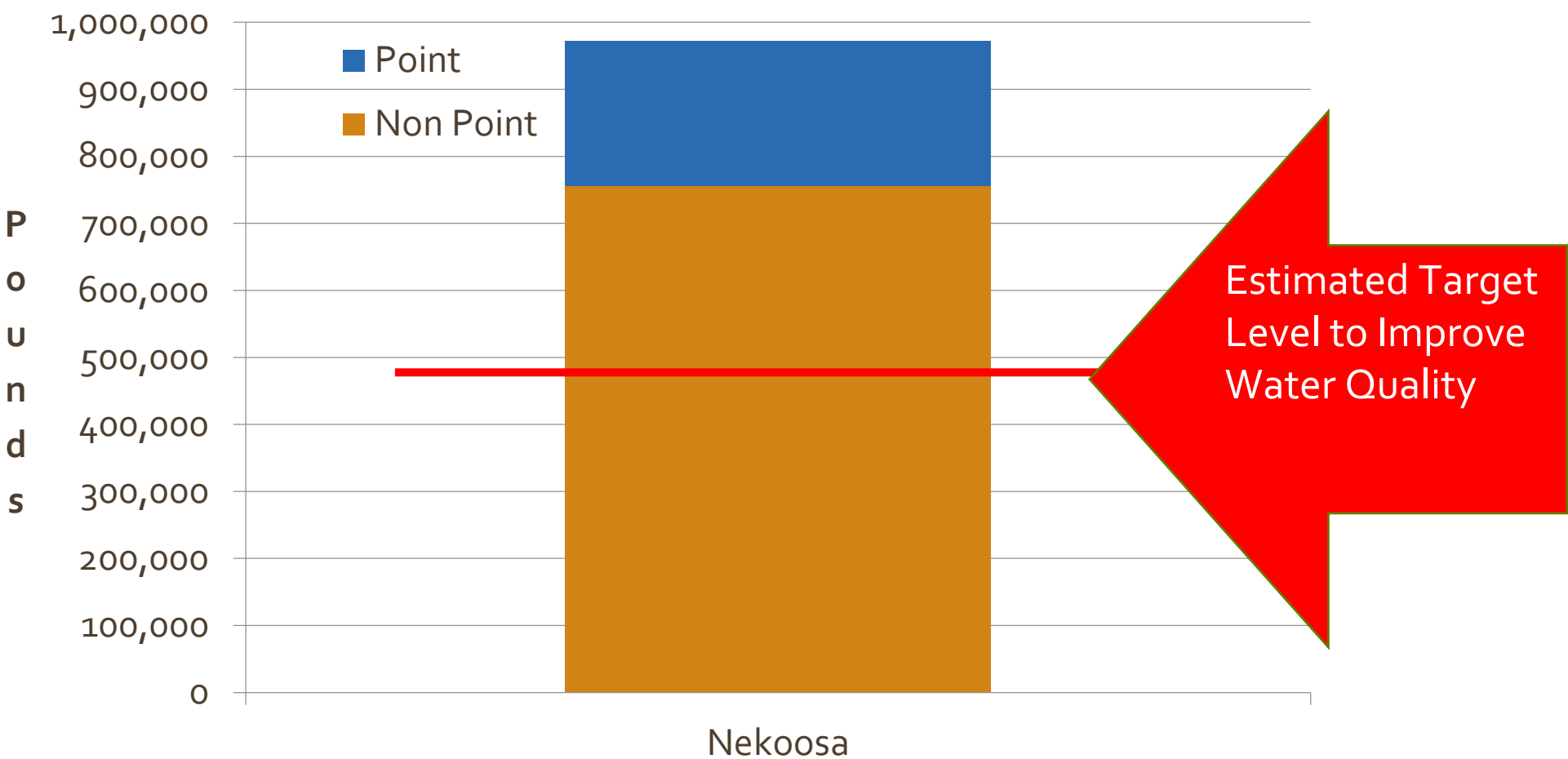
# Watershed is Non Point Dominated

- DNR Presto Model
- 2009-11 Data

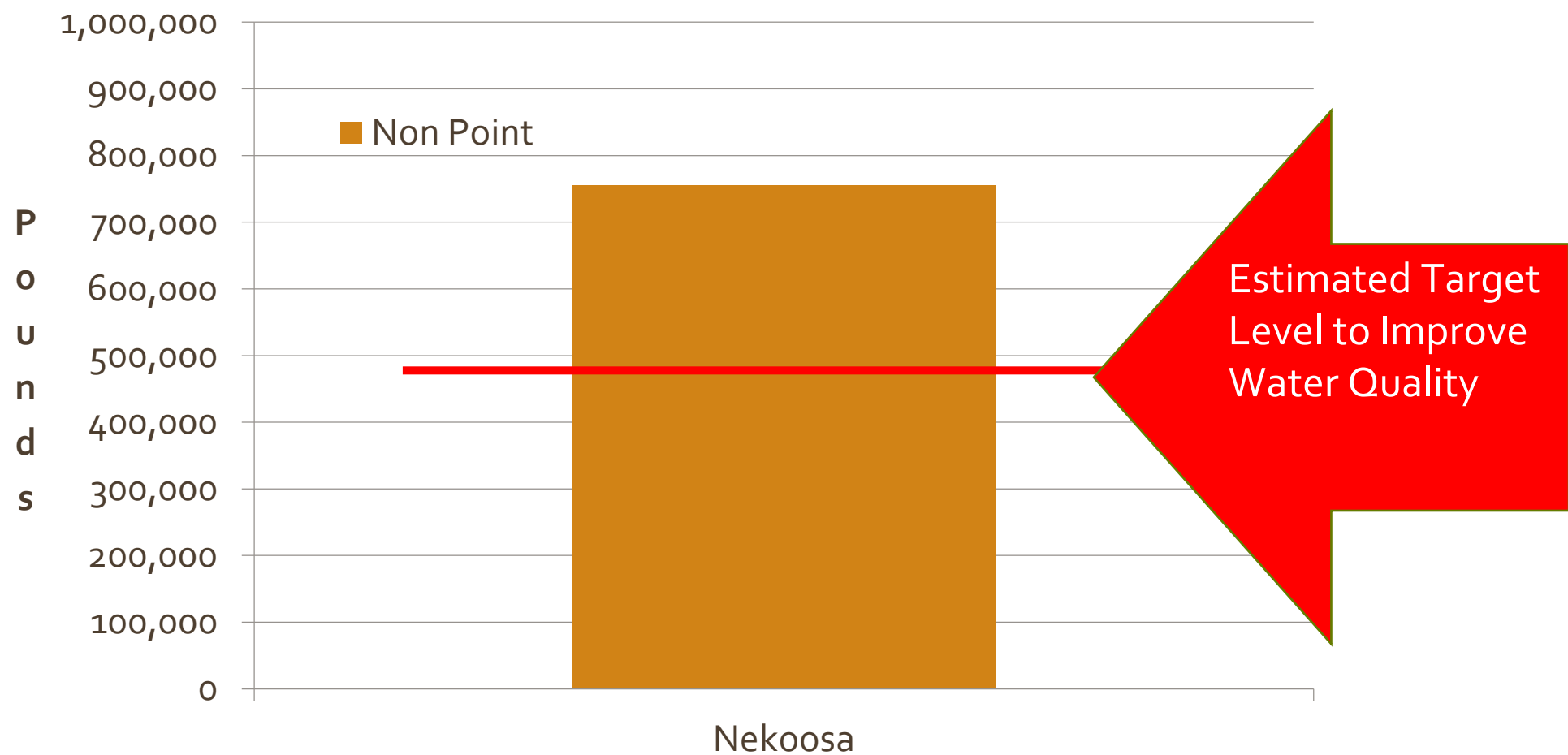
Facility	River	P:NP Ratio
Baraboo	Baraboo	3:97
Elroy	Baraboo	3:97
Marathon City	Big Rib	3:97
Mauston	Lemonweir	2:98
Necedah	Yellow	2:98
Rhineland	Wisconsin	24:76
Wausau	Wisconsin	18:82
Nekoosa	Wisconsin	22:78
Portage	Wisconsin	14:86



# Phosphorus Load Entering Petenwell



# Phosphorus Load Entering Petenwell





United States Government Accountability Office

Report to Congressional Requesters

December 2013

# CLEAN WATER ACT

Changes Needed If  
Key EPA Program Is  
to Help Fulfill the  
Nation's Water Quality  
Goals

## GAO examines TMDL program, specifically:

1. EPA's and states' responsibilities in developing and implementing TMDLs
2. What is known about the status of long-established TMDLs
3. Do TMDLs contain features key to attaining water quality standards?
4. Do TMDLs exhibit factors that facilitate effective implementation?

Nearly 35,000 approved more than 5 years ago, considered long established.

# GAO surveyed State Officials in a representative sample of 191 TMDLs

State officials reported that pollutants had been reduced in many waters, but few impaired water bodies have fully attained water quality standards.

## 25 TMDLs Reviewed by Water Resource Experts

- TMDL's seldom contained all features key to attaining water quality standards.
- 17 of 25 (68%) long-established TMDLs did not show that addressing identified stressors would help attain water quality standards;
- 12 contained vague or no information on actions that need to be taken, or by whom, for implementation;
- 15 did not contain features to help ensure that TMDLs are revised if need be.

## State officials reported

- Long-established TMDLs generally do not exhibit factors most helpful for attaining water quality standards, particularly for nonpoint source pollution (e.g., farms and storm water runoff).
- Landowner participation and adequate funding —factors viewed as among the most helpful in implementing TMDLs—were not present in the implementation activities of at least two-thirds of long-established TMDLs, particularly those of nonpoint source TMDLs.



## State officials reported

**“...that 83 percent of TMDLs have achieved their targets for point source pollution (e.g., factories) through permits, but only 20 percent achieved their targets for nonpoint source pollution.”**

# GAO's Findings

**EPA's existing regulations do not explicitly require TMDLs to include key features.**

**Without such features in TMDLs, impaired water bodies are unlikely to attain standards.**

## Report Summary

“More than 40 years after Congress passed the Clean Water Act, EPA reported that many of the nation’s waters are still impaired, and the goals of the act are not being met. **Without changes to the act’s approach to nonpoint source pollution, the act’s goals are likely to remain unfulfilled.**”

## GAO Report Recommendations

- EPA issue new regulations for TMDL development, adding key features
- Congress should consider revising the Clean Water Act's voluntary approach to addressing nonpoint source pollution

# New Regulations

Politicians legislating non point controls.

## Scorecard

- ✓ Wisconsin River dominated by Non Point Sources
- ✓ TMDL's ineffective at controlling non point sources
- ✓ New regulations & legislative action required to control non point

Now for something  
completely different



## World Food Trends

- By 2050 the world's population will reach 9.1 billion, 34 percent higher than today
- It is estimated that by 2050 developing countries' net imports of cereals will more than double
- Food production (less food used for biofuels) must increase by 70 percent (Some estimates range up to 200%)

## World Food Trends

- Increased use of food crops for biofuel production could have serious implications for food availability
- In developing countries, 80 percent of the necessary production increases would come from **increases in yields and cropping intensity** and only 20 percent from expansion of arable land
- Actions to intensify ecosystem services, such as the ecosystem service ‘food production’, often cause the degradation of others ecosystems

## JSOnline September 13, 2014

- Alfalfa hay is considered an environmentally friendly crop because it acts as an anchor to prevent manure and soil from washing downstream.
- The amount of hay production in Brown County has dropped from 86,000 acres in the 1960s to 33,600 in the past decade.
- The amount of acreage for growing corn - a highly erosive crop - has gone from 49,000 acres in the 1970s to 67,700 acres in recent years.

## Scorecard

- ✓ Wisconsin River Dominated by Non Point Sources
- ✓ TMDLS ineffective at controlling non point sources
- ✓ New regulations & legislative action required to control non point
- ✓ Economic and political forces will drive increased food production.

# Point Sources



# Water Quality



Is there any

HOPE

## Key players in the Watershed Game

Agriculture

Citizens Groups

Local Government

Points Sources

Regulators



# Wisconsin Potato and Vegetable Growers Association 2013 Survey

81% use crop rotations

70% use cover crops

97% sample soils for nutrients

82% split nitrogen applications

94% attend annual education meetings

## CAFO's

- Manage nutrients
- Rotate crops
- Implement conservation practices
- Template for farm management

## Agricultural Trends

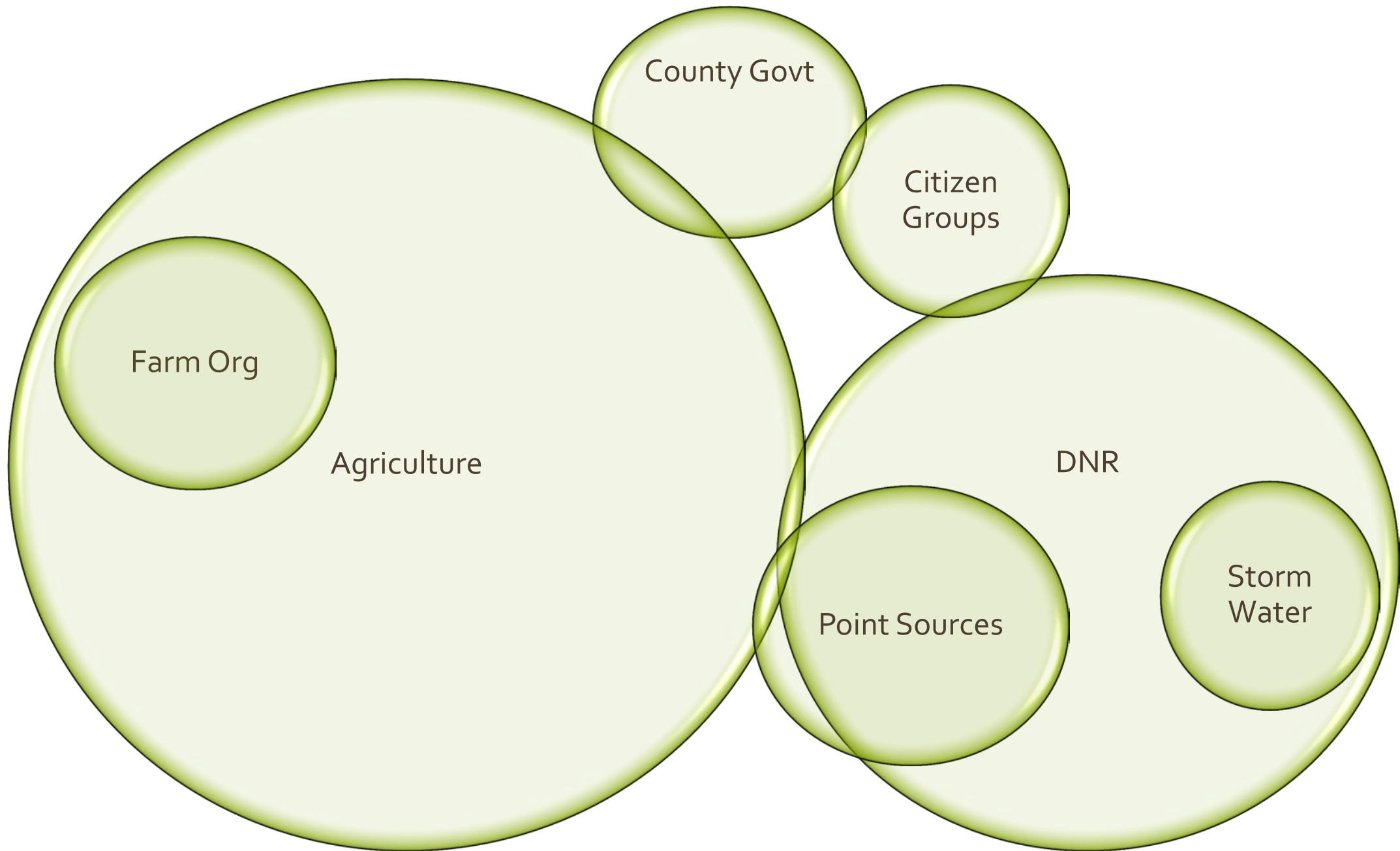
- Agriculture must move towards long term sustainable cropping and conservation practices in order to maintain and increase production and profitability.
- Change will take place through education, generational change, and consolidation for small and medium size operations.

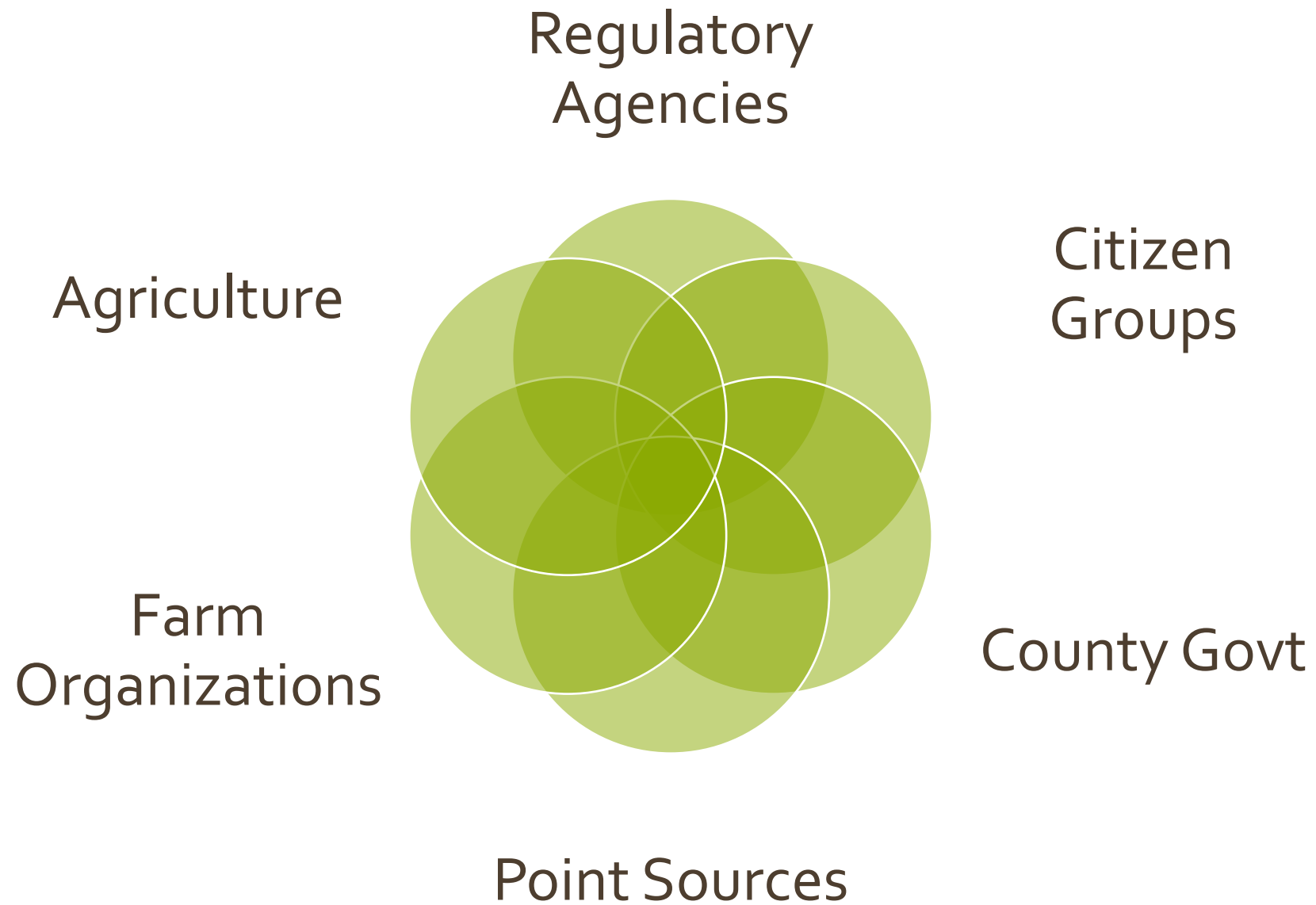
## Citizen Groups

- Directly impacted by impairments
- Willing to be politically active
- Have the time and motivation to act

## County Governments

- Conservation front line
- Know where and what to address to affect change
- Have limited authority and resources to compel change
- Live and work in a challenging political environment







## Conclusions

- DNR WI River TMDL staff has done been very responsive, and done a good job of communication and outreach
- The TMDL process, in its present form, is not adequate to achieve water quality goals
- The TMDL imposes an unfair burden on point sources
- The Wisconsin River watershed can eventually meet water meet water quality criteria
- The only way to meet water quality goals is to get all the players working together
- It will take longer than twenty years

## Keys to Water Quality improvement

- Networking
- Changing attitudes
- Education
- Bringing small to medium size Ag operations in compliance with ag standards and sustainable practices
- Giving local and state regulators more tools in their tool belt to address agricultural conservation



# Wisconsin River TMDL

The Long Term

