



# Groundwater Issues Update

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*Fred Clark,  
Executive Director*

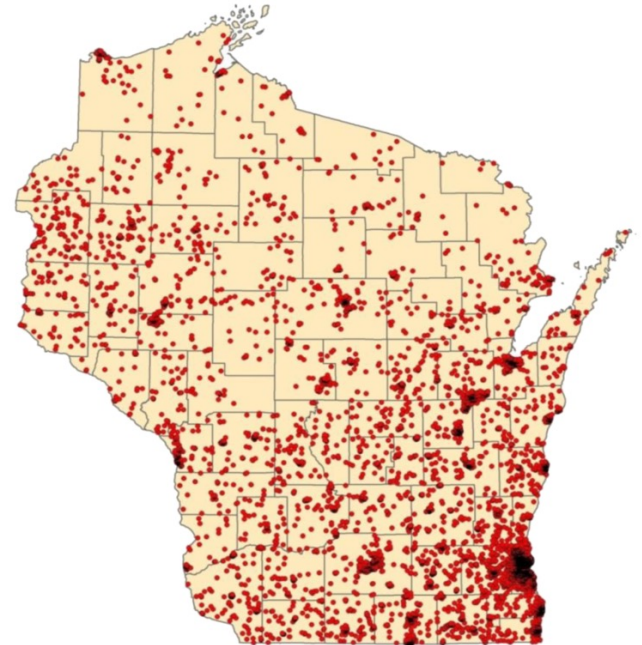


# 2019 – *The Year of Water*



## Lead poisoning in Wisconsin

From 1996-2016 more than 200,000 children have been diagnosed as lead-poisoned.  
Each red dot represents an address associated with a lead-poisoned child.



Source: Wisconsin Department of Health Services, Wisconsin Blood Lead Testing Data





# PFAS



- Marinette, Rhineland, Madison, LaCrosse, Tomah (Fort McCoy)
- Legislation limited to firefighting foam – Admin rule – weakened substantially.
- No current surface water / ground water / drinking water standards
- Administrative Rules?



# OPPORTUNITIES NOW

An Analysis of Priority Issues and Actions  
for Wisconsin's Natural Resources



# 2021 2023

**PFAS – Forever  
Chemicals in Wisconsin**



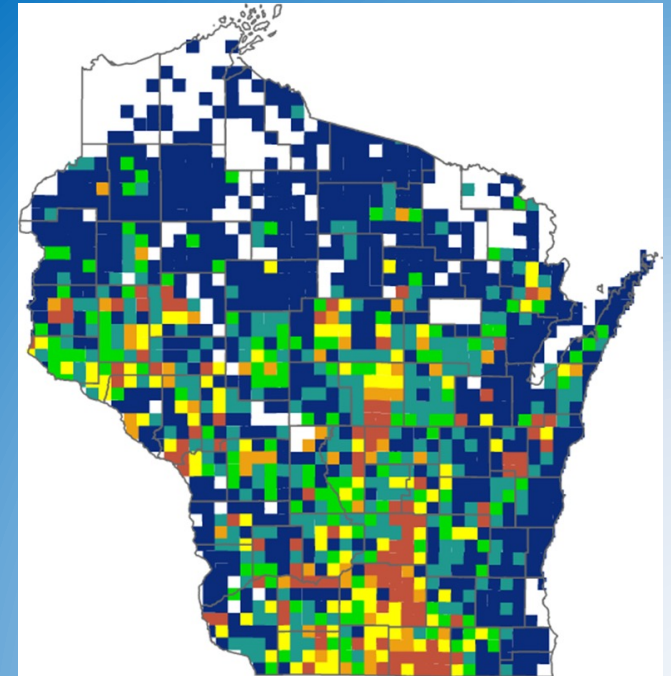
# Nitrates



42,000 + private wells

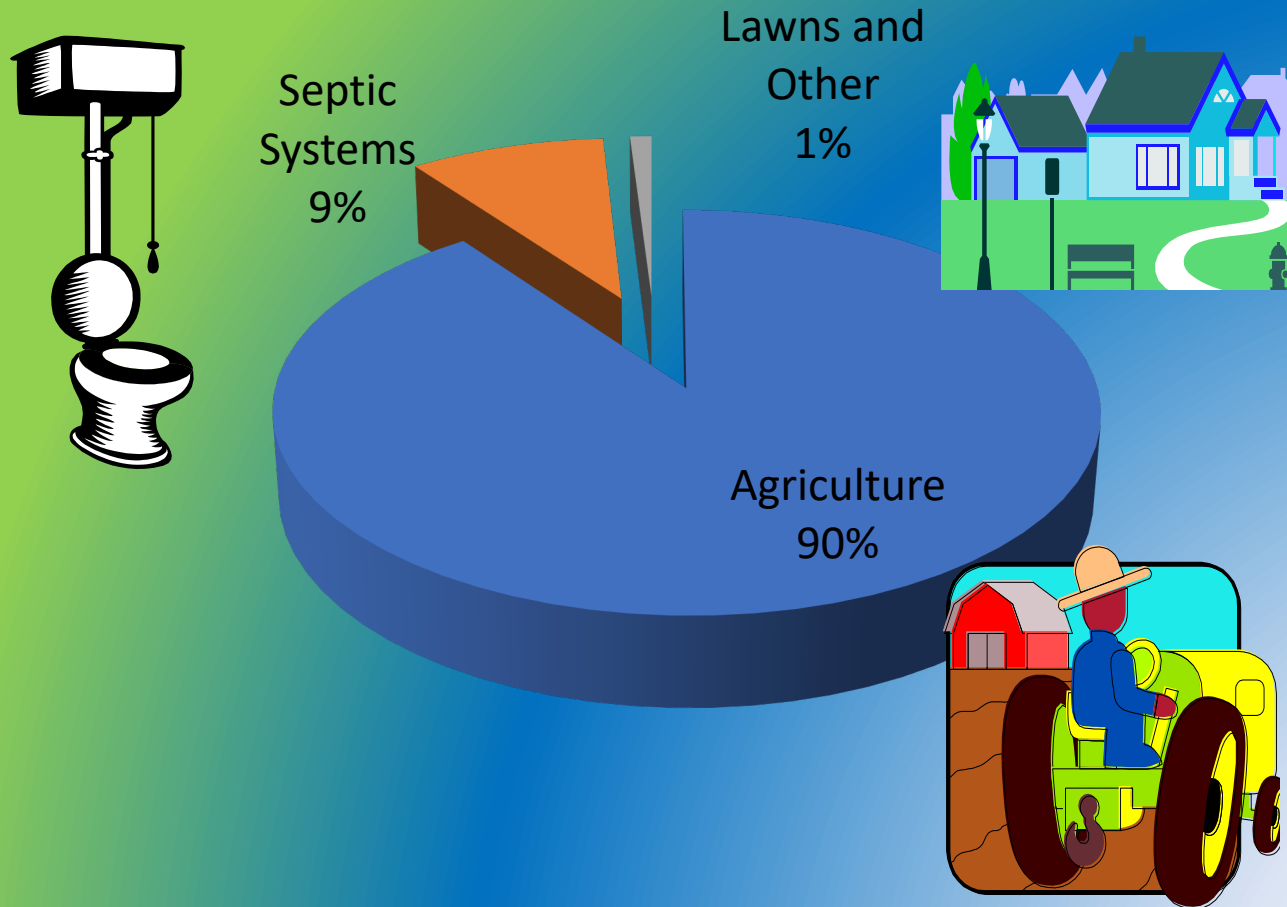
No Legislative funding

Admin Rule in process  
(NR-151)





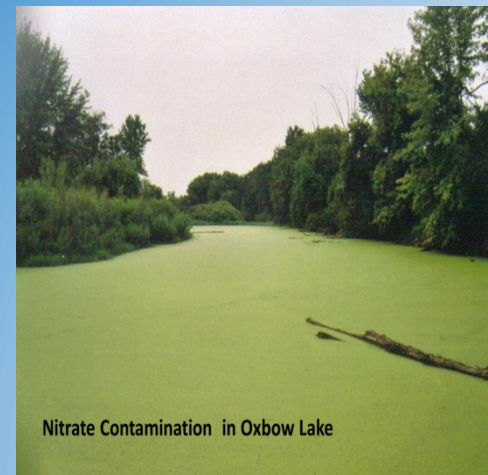
# Sources of Nitrate in Wisconsin Groundwater



Shaw 1994, Wisconsin Groundwater Coordinating Council Report to the Legislature, 2017,

# Nitrate Impacts Lakes, Streams & Wetlands

- Stimulates Growth of Water Plants and Algae, inc. Blue green algae
- Depletes oxygen
- Toxic to Aquatic Animals
- Degrades wetland plant communities and habitat



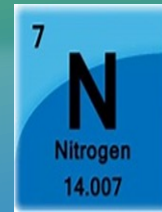


# Costs associated with high Nitrate

- **Private wells**
  - 42,000 (10%) tested wells exceed nitrate drinking water std.
  - 20 to 30% exceed drinking water std. in ag intensive areas
- **Municipal Supply Systems (as of year 2012)**
  - 47 had raw water with nitrate > drinking water std. (vs. 14 in 1999) 74 additional systems have increasing nitrate levels
- **Economic Impact**
  - \$ Cost of filters / bottled water
  - \$150 million+ – replacing contaminated wells
  - Property Values? Health Impacts?



[waterscienceutah.com](http://waterscienceutah.com)



Sciennotes.org

# CHALLENGES

- 20 to 30% of private wells in intensive crop areas exceeding the public health std.
- Current NMPs standards are insufficient for groundwater protection in some areas
- Need strategy for determining the compliance of farms with groundwater standards.



# Technical Challenges



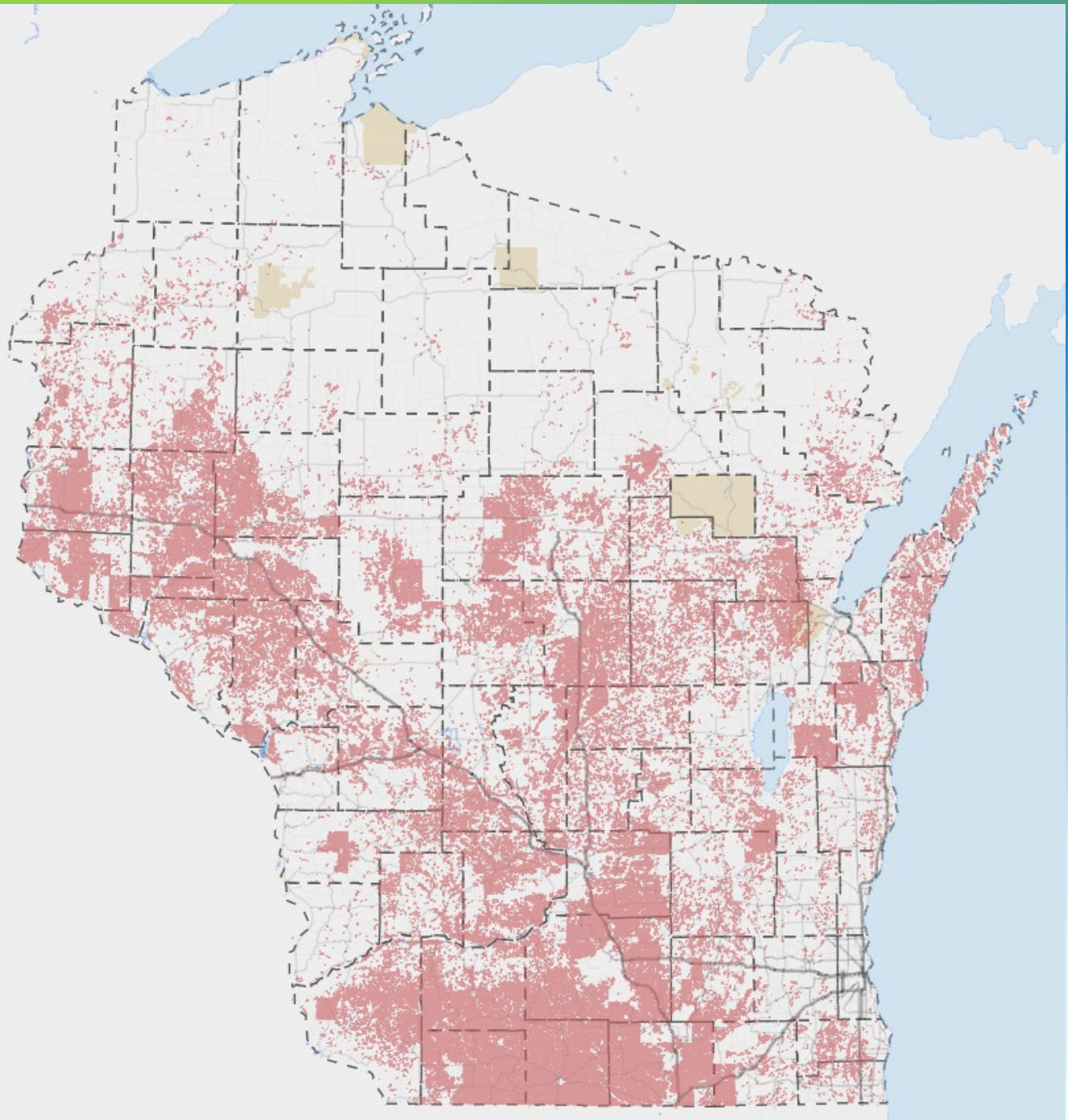
- Nitrogen application guidelines are designed to optimize yield and profitability – not to protect water quality
- Manure applications often not credited properly
- No accepted tool to estimate nitrogen loss to groundwater similar to the P Index
- Compliance with NMP's will help but will not be sufficient to protect water in some areas

# State Level Actions

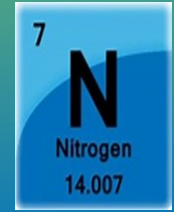
- **NR 151 – ATCP 50 Rules**
  - Define Nitrate Sensitive Areas
  - Targeted performance standards in Sensitive Areas
  - Modify NMP development tools to better address nitrogen.



**Groundwater  
Nitrogen  
Targeted Areas  
Proposed in  
NR-151**



# Other Possible State Level Actions



- Well Compensation / Filters
- Wellhead protection initiatives
- County conservation program \$\$
- Monitor alternative practices on groundwater
- Health studies on nitrate in groundwater.



**We know enough about the causes of nitrate pollution to create intelligent solutions.**

**Wisconsin farm producers, conservationists, and community leaders can lead this effort.**

**State government needs to provide the policies and resources to allow them to meet that challenge.**





# WI Supreme Court 2021

## Pleasant Lake Management District

- Reaffirms earlier Lake Beulah decision that WDNR has a duty to consider cumulative impacts of water withdrawals in high-capacity wells.
- Interprets Act 21 to provide broad but *explicit* authority to consider the environmental effects of high-capacity wells.

# WI Supreme Court 2021 – Kinnard Farms

- Kinnard Farms, Inc. must conduct groundwater monitoring at the production area and around at least two landspreading fields.
- Kinnard must cap the number of animals to ensure the facility does not grow beyond its capacity to store and dispose of manure held on site.

## 2011 Act 21

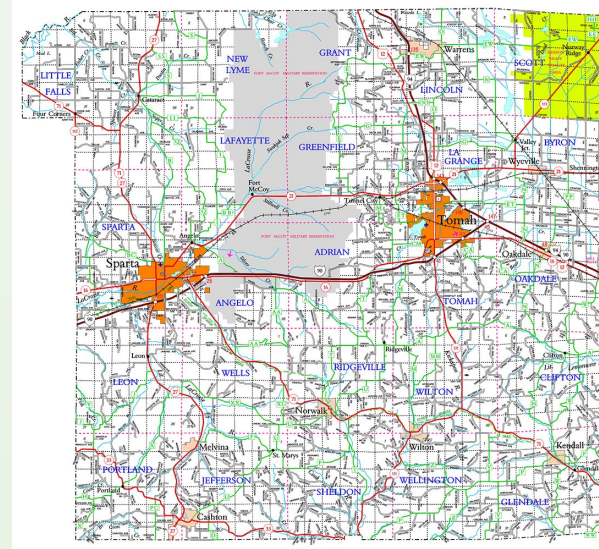
A statutory provision describing the agency's general powers or duties does not confer rulemaking authority on the agency or augment the agency's rule-making authority beyond the rulemaking authority that is **explicitly** conferred on the agency by the Legislature.



# 2017 Reins Act

“Regulations from the Executive in Need of Scrutiny Act”

- More public input during rule writing
- Legislation for any rule costing > \$10MM
- Allows Joint Committee for the Review of Administrative Rules (JCRAR) to indefinitely suspend a proposed rule



# *Monroe County Climate Readiness and Rural Economic Opportunity Assessment Project Update*

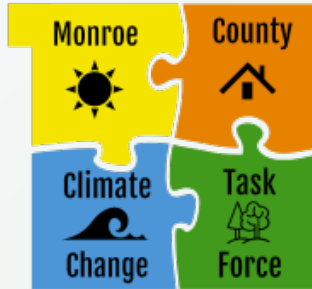
Fred Clark, [fclark@wigreenfire.org](mailto:fclark@wigreenfire.org)

# *Project Goals*

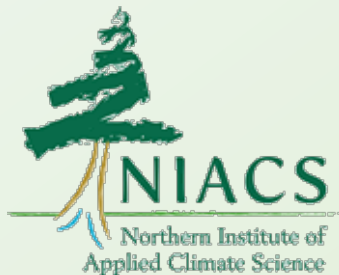
- Identify and Project **Future Climate Risks**
- Strategies and Practices to **Reduce Risks to Infrastructure and Watersheds**
- Identify **Climate Vulnerabilities in Farms, Forests, and Conservation Lands**
- Recommend Strategies and Practices to **Increase Climate Resiliency**
- Assess **income opportunities** for carbon offsets and other ecosystem services



# *Project Partners*



**U.S. Army, Fort McCoy**



# Questions??



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