

# **DNR Drinking Water and Groundwater Study Group**

October 14, 2021

# DHS' role in oral health and drinking water

Sarah Yang and Robbyn Kuester - Department of Health Services

# Member Roundtable

Scott Laeser, Clean Wisconsin – [not present](#)

Chris Groh, Wisconsin Rural Water Association

Sean Scott, Wisconsin State Laboratory of Hygiene

John Steinbrink, American Water Works Association (AWWA) - Wisconsin Chapter

Lawrie Kobza, Municipal Environmental Group

Paul Junio, Northern Lake Service

Jeff Kramer, Wisconsin Water Well Association

Sarah Yang, Department of Health Services

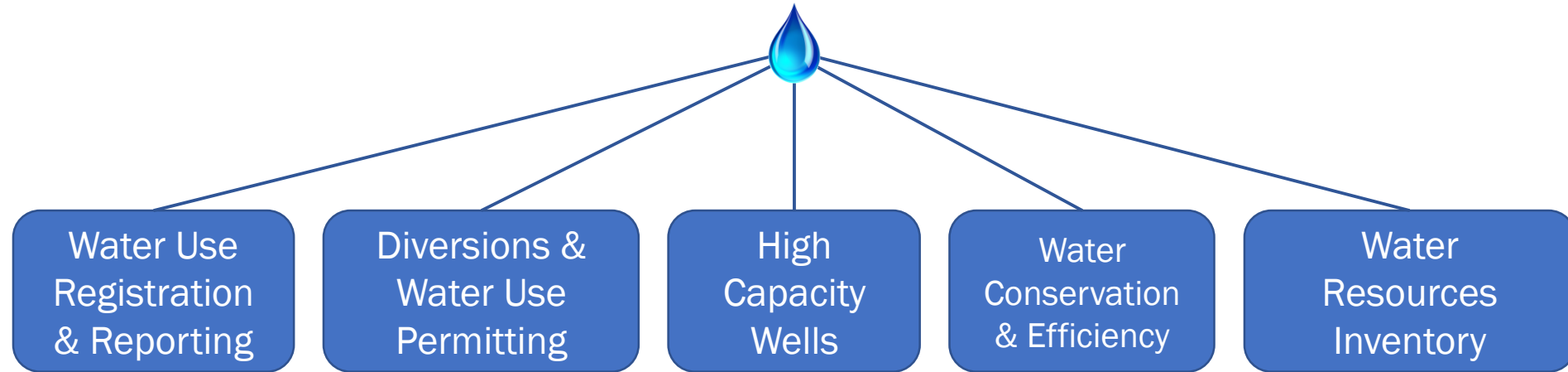
Rick Wietersen, Wisconsin Association of Local Health Departments and Boards

Craig Summerfield, Wisconsin Manufacturers & Commerce – [not present](#)

# Updates from the Drinking Water and Groundwater Water Use Section

Adam Freihoefer – DNR

# Wisconsin DNR's Water Use Section



# Water Supply Service Area Planning

## Purpose of the plan?

To help sustainably manage the state's waters to provide an adequate quantity and quality of water to customers.

- ✓ Required under Wis. Stat. 281.348
- ✓ Plan required for any Wisconsin community that serves population of 10,000 or more
- ✓ Plans must be submitted to DNR for approval by 12/31/2025
- ✓ Plans are for 20-year period

## Key elements of a plan include:

- Basic information about existing sources of water, infrastructure, population projections and future water demands.
- Identification of water supply options to meet future water demands.

Village of Somers (Entire Village) Water Use Forecast Based on 2050 Land Use

Estimate- Acreage Based	Average Daily Use (gpd/acre)	Acres	Average Day Use (mgd)
Business/Industrial Park	600	3,160	1.90
Commercial	600	1,080	0.65
Governmental and Institutional	800	600	0.48
Industrial	800	650	0.52
Mixed Use	120	150	0.02
Office/Professional Services	600	46	0.03
Park and Recreational	100	548	0.05
<b>Subtotal - Acreage Based</b>	-	-	<b>3.64</b>
Estimate - Per-Capita	Average Daily Use (gpd/person)	Persons	Average Day Use (mgd)
Residential	70	49,816	3.45
<b>Average Day Use</b>			<b>7.08</b>
<b>Maximum Day Use</b>			<b>12.0</b>

Example of Demand Estimates from Village of Somers, September 2021

# Water Supply Service Area Planning



State of Wisconsin  
2021 - 2022 LEGISLATURE

LRB-3101/1  
ZDW:skw

## 2021 SENATE BILL 488

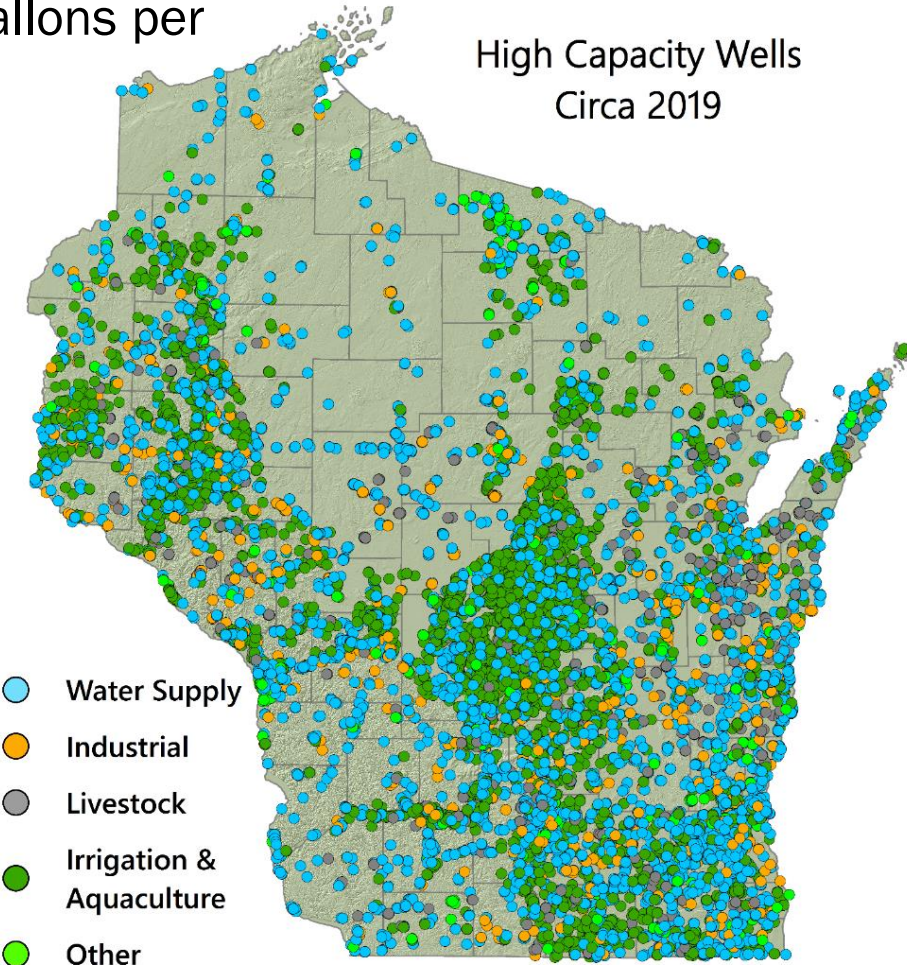
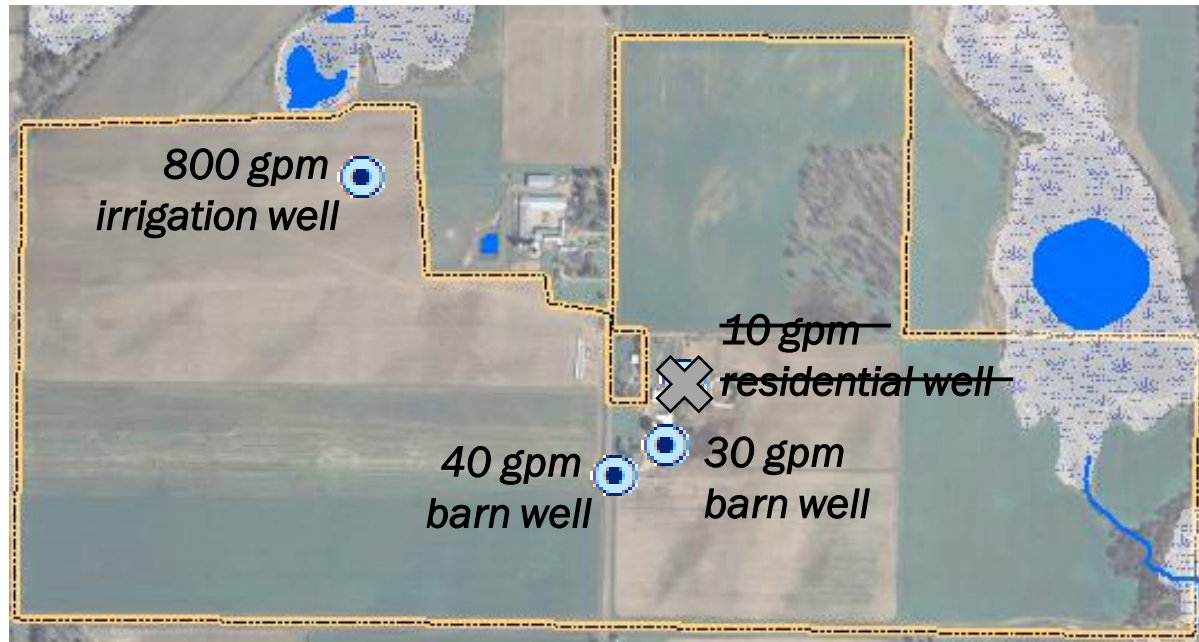
August 5, 2021 - Introduced by Senators COWLES and DARLING, cosponsored by Representatives SPIROS, MURPHY, ROZAR, TUSLER and VANDERMEER. Referred to Committee on Utilities, Technology and Telecommunications.

1 AN ACT to repeal 281.348 (3) (b) 4. and 281.348 (3) (d) 4.; to amend 281.348 (3)  
2 (a) 2., 281.348 (3) (b) 1., 281.348 (3) (b) 2., 281.348 (3) (b) 2m., 281.348 (3) (c) 1.,  
3 281.348 (3) (c) 4., 281.348 (3) (c) 7., 281.348 (3) (c) 8., 281.348 (3) (cm), 281.348  
4 (3) (cr), 281.348 (3) (d) (intro.), 281.348 (3) (d) 3., 281.348 (3) (e), 281.348 (4)  
5 (intro.) and 281.41 (1) (c); and to create 281.348 (3) (a) 3., 281.348 (3) (a) 4.,  
6 281.348 (3) (b) 2e. and 281.348 (5) of the statutes; relating to: water supply  
7 service area plans for public water systems.

- Alters the requirement for when water supply systems need a DNR approved water supply service area plan
- Creates two categories of plans:
  - Those requiring a DNR approved plan (diversion applicants and new/increased withdrawals in the Great Lakes Basin).
  - All other public systems serving a population of 10,000 or more would need to complete a water supply service area plan, but no DNR approval would be required.
- Plans not requiring DNR approval do not require a cost-effectiveness analysis or delineation of a proposed water supply service area
- Does not conflict with Great Lakes Compact

# High Capacity Wells

High capacity means a well, except for a residential well or fire protection well, that, together with all other wells on the same **property**, except for residential wells and fire protection wells, has a capacity of more than 100,000 gallons per day (70 gpm). Wis. Stat. § 281.34(1)(b)





# High Capacity Wells



Denied

Approved with  
Modifications

Approved

High Capacity Well  
Application Submitted to  
DNR

DNR conducts  
review of high  
capacity well  
application

DNR determines  
outcome of high  
capacity well  
application

# High Capacity Wells

WPR



The Wisconsin Supreme Court on Wednesday, June 9, 2021, at the Wisconsin State Capitol in Madison, Wis. Angela Major/WPR

- In July 2021, the Wisconsin Supreme Court issued a 4-2 decision affirming DNR's constitutional duty and statutory authority to consider environmental effects when reviewing of high capacity well permit applications.
- High capacity well applications will be assessed case-by-case
- The analysis will consider both the needs of the property and the environmental effects that the proposed high capacity well, when combined with existing environmental impacts, may have on waters of the state.

## Wisconsin Supreme Court Affirms DNR Authority To Restrict, Deny Farm Permits To Protect Water

The Court Ruled In Favor Of Environmental Groups, Local Residents Calling On The DNR To Act On CAFOs, High Capacity Well Permits

# Central Sands Lakes Study

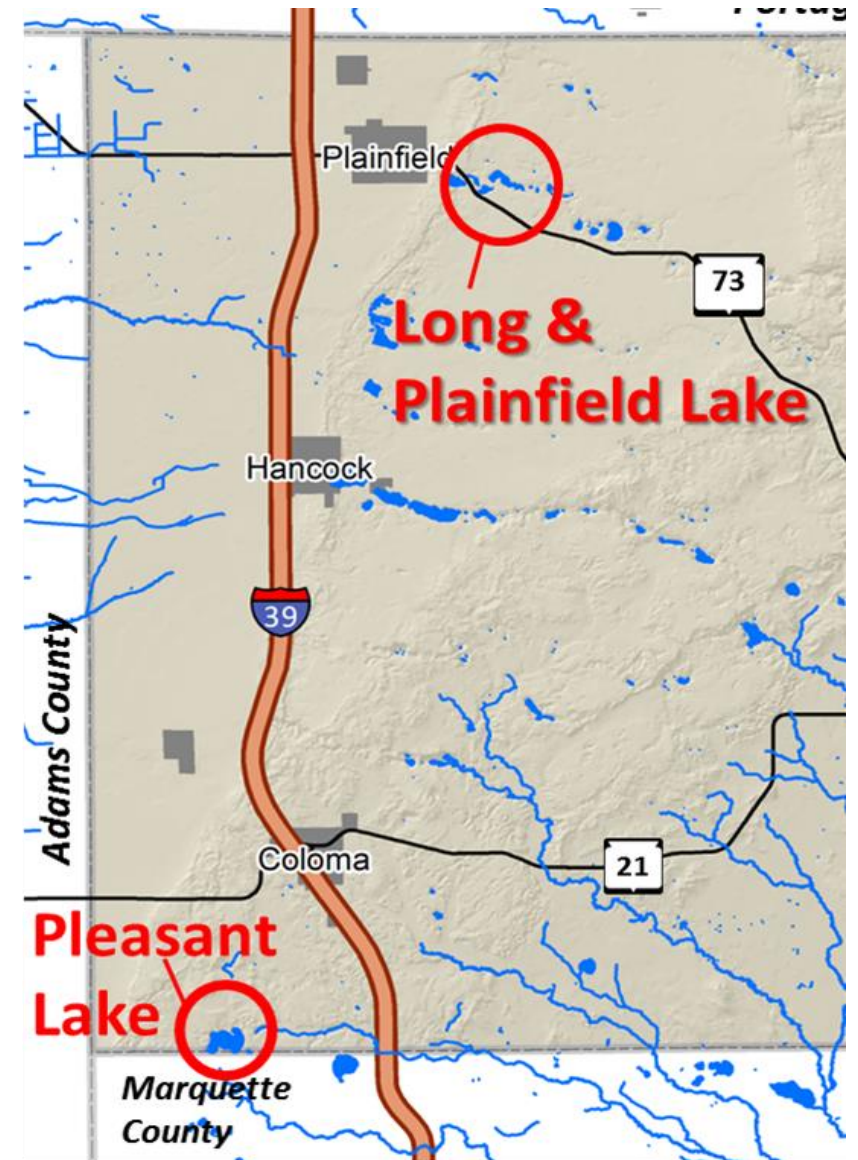
“...determine whether existing and potential groundwater withdrawals are causing or are likely to cause a significant reduction...of the navigable lake’s...water level below its average seasonal levels”

2017 Wisconsin Act 10 (Wis. Statute 281.34 (7m))

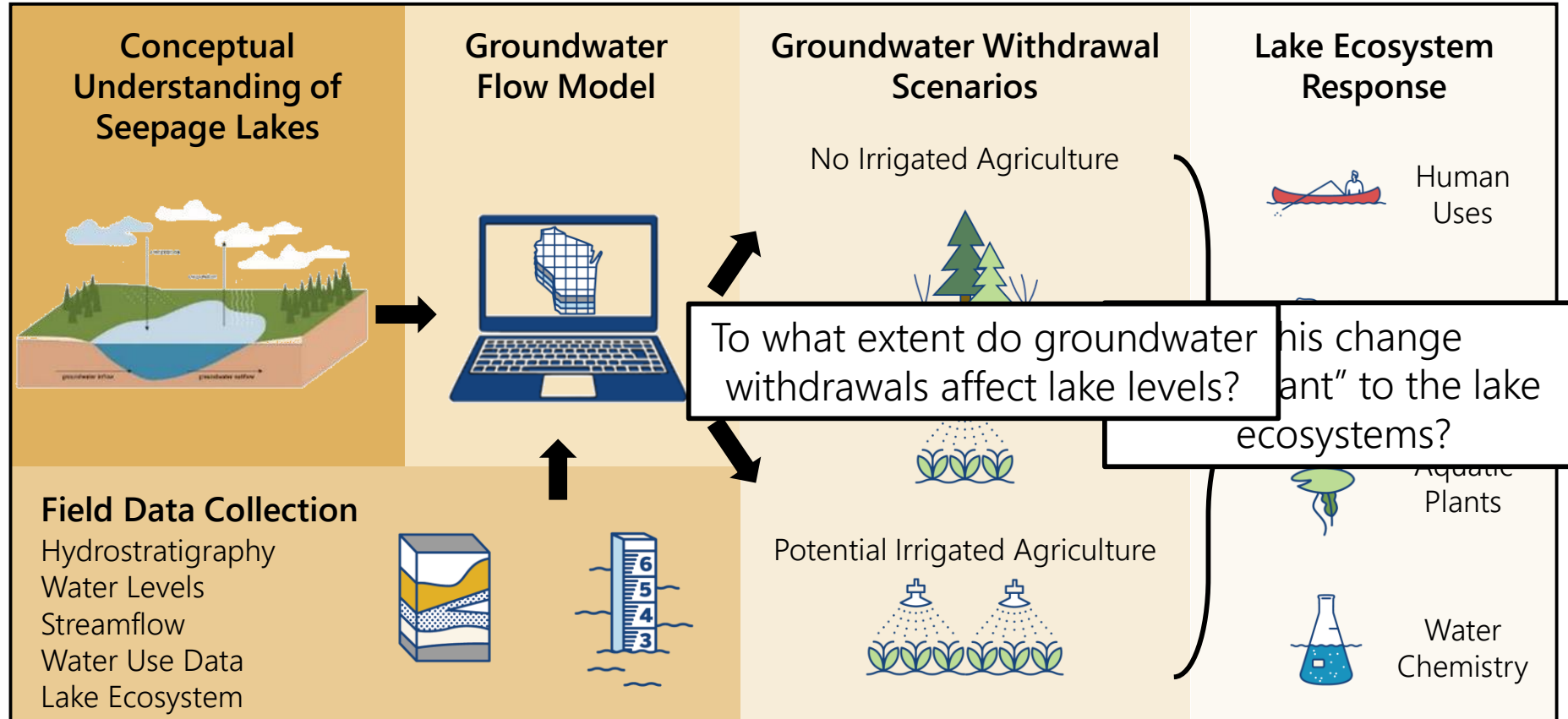


# Central Sands Lakes Study









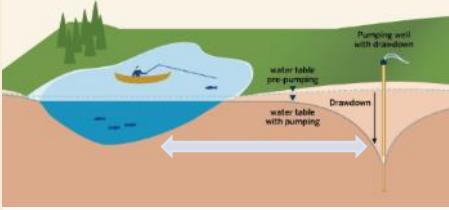
1. To what extent do groundwater withdrawals affect lake levels?
2. Is this change “significant” to the lake ecosystems?



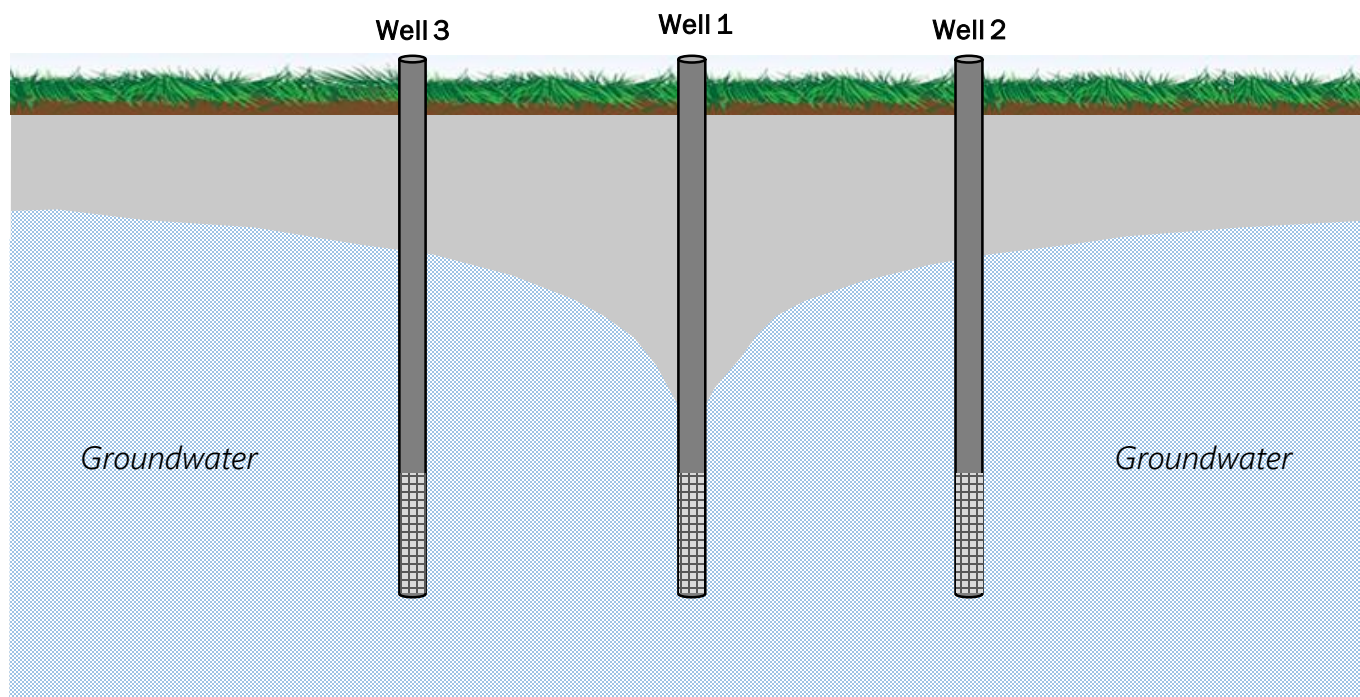
# Central Sands Lakes Study: Approach



# Central Sands Lakes Study: Findings

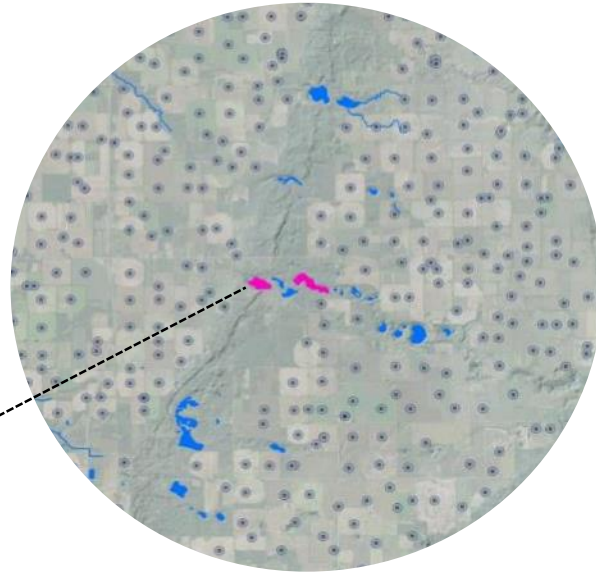
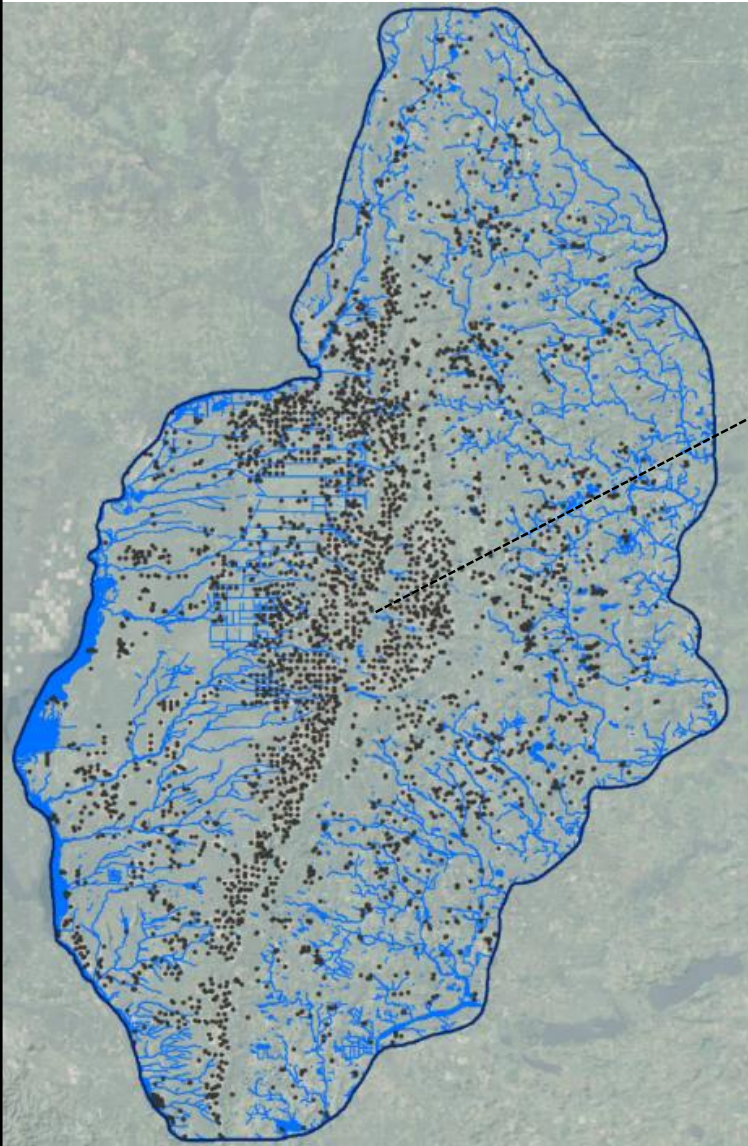
<p>The study lakes are <b>well connected</b> to groundwater</p>  <p>Lake levels <b>naturally rise and fall</b> due to weather and their geographical location</p>  <p><b>"Average seasonal water levels"</b> = the pattern of high, median and low lake levels</p> 	<p><b>Agricultural irrigation</b> accounts for &gt;95% of groundwater withdrawals in the lake model area</p>  <p><b>Recharge</b> is the key to understanding the groundwater system—precipitation and ET are the biggest drivers, but land use &amp; irrigation have a small, important impact</p>	<p><b>Pleasant Lake</b> not significantly impacted</p>  <p><b>Long Lake</b> significantly impacted</p>   <p><b>Plainfield Lake</b> significantly impacted</p> 	<p>Distance and pumping are the major factors that affects how high-capacity wells <b>cumulatively drawdown levels</b> on all three study lakes</p> 
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# Central Sands Lakes Study: Findings



**Additive impact** from many wells is what leads to significant impacts to the Long and Plainfield Lakes.

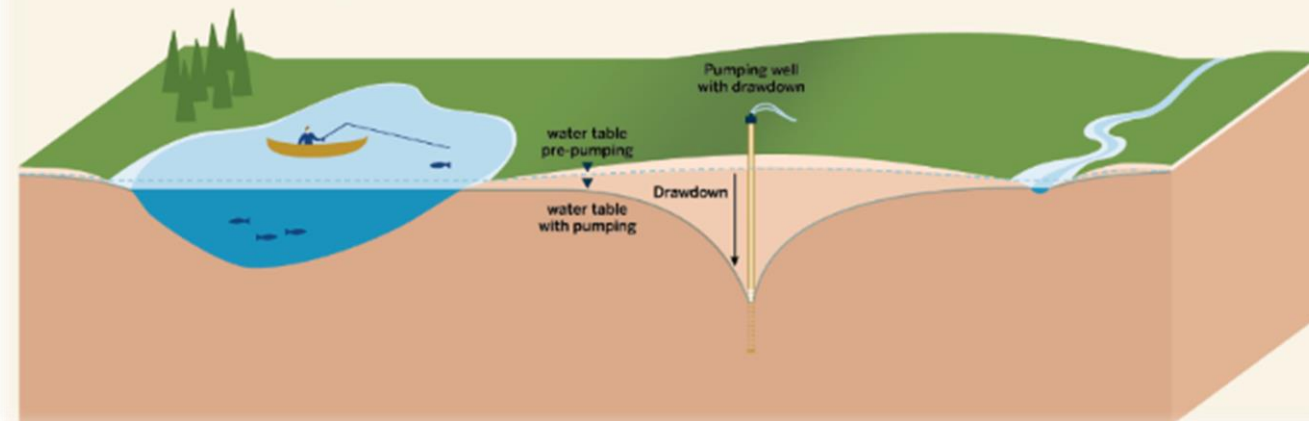
# Central Sands Lakes Study: Findings



Within Long / Plainfield Lake Study Area:

- 19 lakes and 3 stream reaches within vicinity of study lakes
- Streams in the study area exhibited depletion of 20% or greater.

Relative Impact of a Pumping Well on a Lake and a Stream

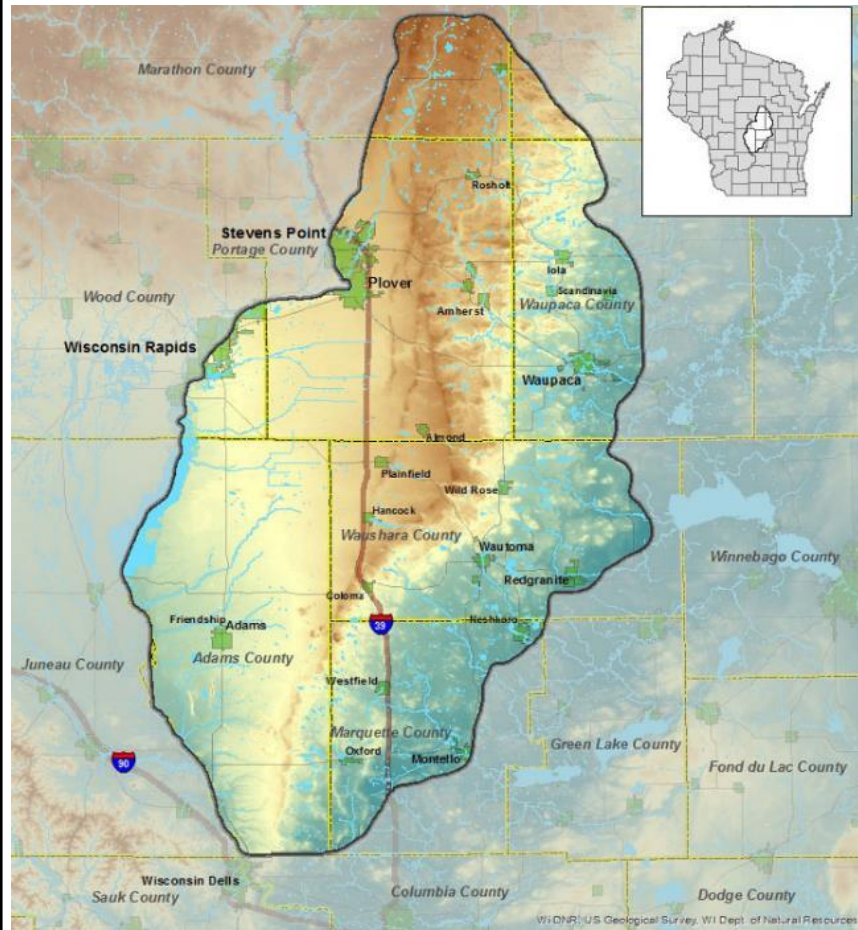




# Central Sands Lakes Study: Recommendations

## Regional water use management (water use district)

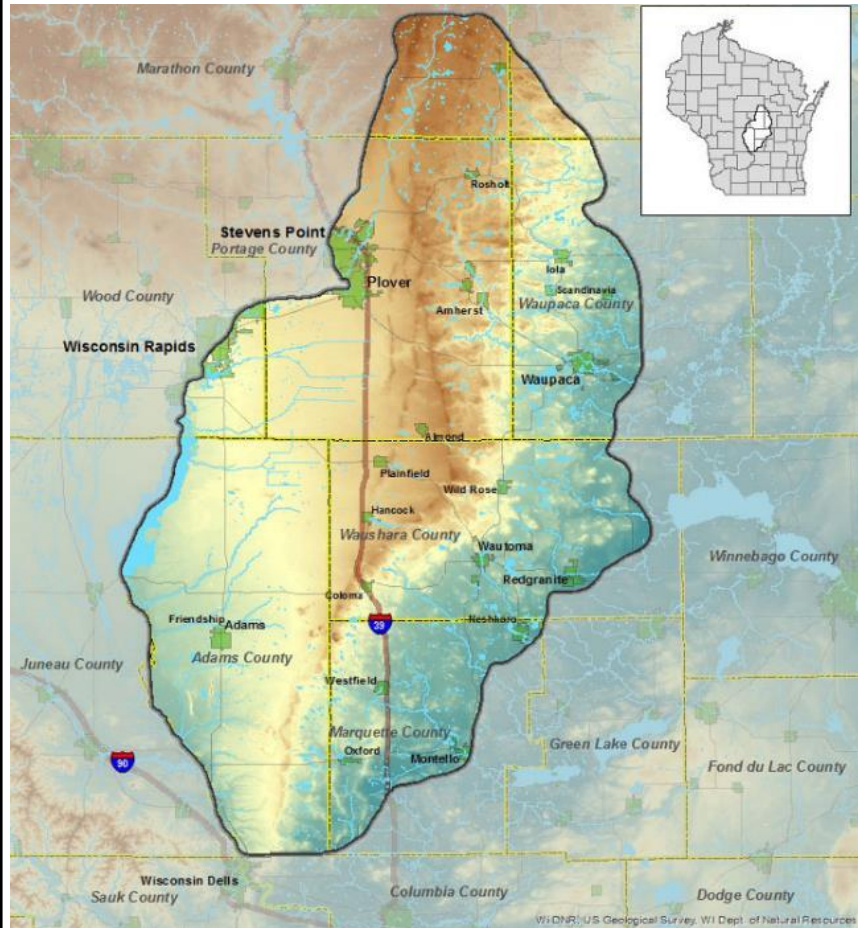
- District = Stakeholders, working with DNR to balance conservation and economic concerns
  - High-capacity well owners
  - Landowners
  - County land and water representatives
  - Natural resource groups
- DNR would identify impacted lakes and streams, set impact thresholds, offer technical support
- Landowners who affect impacted waters could plan and implement strategies for efficient water use and impact reduction
- District would provide oversight and coordination
- Regular planning & implementation cycle (e.g. 5-year)



# Central Sands Lakes Study: Recommendations

## Potential management mechanisms

- Installing totalizing flow meters for more accurate water use reporting
- Voluntary water use reductions
- Withdrawal allocations with water or irrigated-land banking or water trading
- Reductions based on zones or distance from impacted resources
- Incentivize structures for implementing water conservation and efficiency measures, such as irrigation scheduling
- Land retirement
- Per-property withdrawal limits



# Water Use Updates & Information

Visit [dnr.wisconsin.gov](http://dnr.wisconsin.gov), Search “Water Use”



- High Capacity Well Application Map Viewer and Query Tool
- Water Use Query Tool
- Central Sands Lakes Study
- Water Use and Groundwater Story Maps
- Groundwater Levels & Flooding

» TOPIC



Wisconsin is water-rich and DNR is committed to ensuring that our water use is sustainable. The DNR's Water Use Program implements the Great Lakes–St. Lawrence River Basin Water Resources Compact and focuses on statewide water quantity



# Internal Updates

Steve Elmore - DNR  
Kyle Burton - DNR

# Rules Updates

- NR 809 – Cycle 10
  - Proposes MCL for PFOA + PFOS
    - The Cycle 10 proposed PFAS MCLs for PFOA and PFOS are begin routed up to NRB
    - The final EIA is part of this rule package
    - The Public Hearing for this will be December 1<sup>st</sup>, 10 to noon
      - Link to the Public Hearing:  
Join Zoom Meeting  
<https://us02web.zoom.us/j/89978864201>

<https://dnr.wisconsin.gov/topic/DrinkingWater/nr809.html>

# Rules Updates

- NR 809 – Cycle 11
  - Proposes MCL for 16 additional PFAS Compounds
    - The NRB approved the final Scope on 6/23/21 after the public comment period closed on 6/10/21
    - Next steps are the EIA and rule drafting
    - The EIA will go out for comment next summer

<https://dnr.wisconsin.gov/topic/DrinkingWater/nr809.html>

# Rules Updates

- NR 140 – Cycle 10
  - Proposes Groundwater Standards for PFOS+PFOA (with review of 11 existing and 14 other new standards)
    - Final EIA and Draft Order nearly ready
    - Public Hearing in December

<https://dnr.wisconsin.gov/topic/Groundwater/NR140.html>

# Rules Updates

- NR 140 – Cycle 11
  - Proposes Groundwater Standards for 16 additional PFAS Compounds (as well as 6 pesticides)
    - The NRB approved the final Scope on 6/23/21 after the public comment period closed on 6/10/21
  - Next steps are the EIA and rule drafting
  - The EIA will go out for comment next spring/summer

<https://dnr.wisconsin.gov/topic/Groundwater/NR140.html>



# Rules Updates

- NR 114 and 146 – Operator Certification Exams
  - The comment period is open for proposed rules affecting operator exams, including well driller and pump installer and drinking water system operator exams .
  - Comments will be accepted from 9/1/2021 to 10/15/2021  
<https://dnr.wisconsin.gov/news/input/ProposedPermanent.html>
  - Online renewal of well driller and pump installer licensing should go live on October 15

# Rule Updates – NR 812

- Proposes revisions concerning the use of PVC casing in bedrock formations
  - Hearing to solicit feedback on the proposed revisions was held in September 2021
    - Comment period closes today
    - Will process comments and consider changes to the proposed language before taking final rule package to NRB in December 2021

# Rules Updates

- NR 811
  - Updates to Community Water System operation and design criteria
  - Stakeholder meeting November 10 (Subchapter IV & V)

**Summer - Winter 2021**

- Scope Statement approved by Governor
- Natural Resources Board (NRB) authorizes preliminary public hearing
- Public hearing on scope statement
- NRB meeting to approve scope
- Advisory groups meet
- Rule drafting begins

← We are here

<https://dnr.wisconsin.gov/topic/DrinkingWater/nr811.html>

# PFAS Municipal Sampling Project Update

- Sampling of select municipal drinking water systems around state for PFAS compounds
  - Selected based on proximity to known or potential PFAS uses
  - Approximately 90 systems will be sampled over six months
- Website with information coming
- EPA approved plan
- Initial communications and implementation pushed back to winter 2021-2022

# Lead and Copper Updates

- Small and medium community systems 2020 WQP data review
  - Worked with Systems to take voluntary actions like sequential sampling
  - Starting to receive some results
  
- CCT Study Determinations.....
  - Letters to systems with ALEs in 2017
  - Some letters may assign a treatment for optimization
  - Questions can be referred to DNR Field Engineers or Brendon Peppard  
[Brendon.Peppard@wisconsin.gov](mailto:Brendon.Peppard@wisconsin.gov)

# Consecutive Systems – Update

- Watermain extensions sometimes create “consecutive systems” when jurisdictional boundaries are crossed, and the distribution system and billing process is conducted by a different entity.
- DNR is sometimes unaware of these situations and has not consistently implemented regulatory requirements in these areas.
- This primarily affects municipal systems in urban areas
- **What have we done so far?** Water main extension form has been updated to flag these in the future.
- **Update** - We plan to explore the topic through a focus group with 8-12 municipal systems. If there are suggestions about participants, we welcome that input.

# Staffing Update

- Cathy Wunderlich has taken a new position outside the agency
- We will have a series of Acting Public Water Engineering Section Chiefs until we can hire the position
  - Could have a new permanent Section Chief in roughly three months
- Bridget Kelly is currently the acting Chief
  - Cell Phone: 608-440-0448  
[bridgetb.kelly@wisconsin.gov](mailto:bridgetb.kelly@wisconsin.gov)

# CONNECT WITH US

**Next Meeting: February 10, 2022**

The meeting recording will be posted on the  
Drinking Water and Groundwater Study Group  
website



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"WILD WISCONSIN:  
OFF THE RECORD"