

“In the Matter of Two Potable Wells”

Contested Case Hearing Moves Wisconsin Toward Managing Cumulative Impacts

AWRA Wisconsin Section

March 5 & 6, 2015

Steve Gaffield, Dave Marshall, George Kraft & Frances Rowe



Underwater Habitat
Investigations, LLC



College of Natural Resources
University of Wisconsin-Stevens Point

Montgomery Associates
Resource Solutions, LLC



A Little History

- Since forever. High cap well approvals are almost automatic.
- 1999. Perrier!!
- 2003. Wisconsin Act 310. Minimal resource protection.

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- 2006. Long Lake dries.





**Plainfield Lake, Waushara
County**



Huron Lake, Waushara County



Pine Lake, Waushara County



Pickerel Lake, Portage County



Wolf Lake – Portage County. Defunct swimming beach.



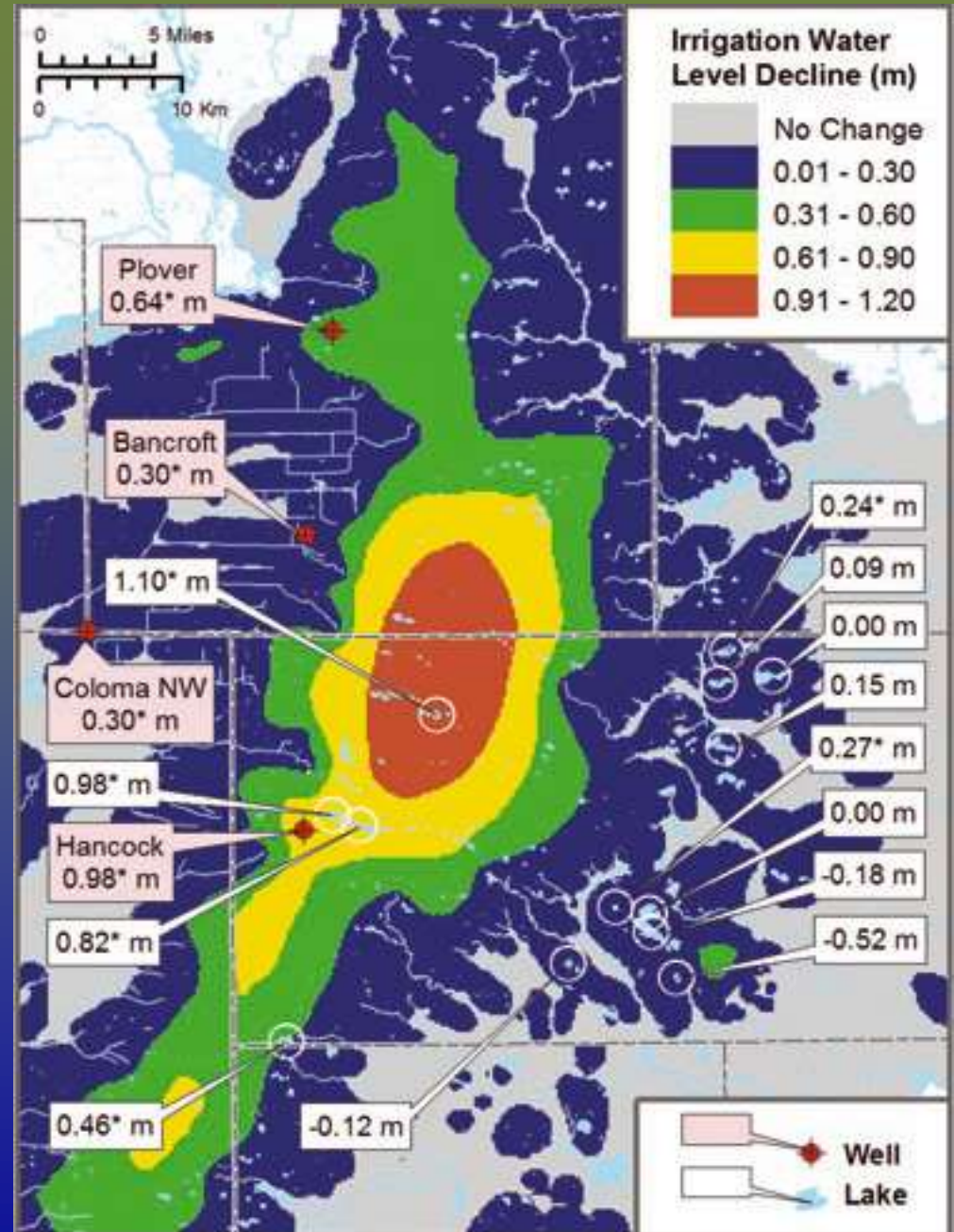
Stoltenberg Cr., Portage Co

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- **2009-12. Studies link dry-ups to pumping**

Central Sands Drawdown

- Groundwater model
- Statistical analysis



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- **2010-13. DNR: “We just don’t know.”**

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- **2011. Lake Beulah decision**

Beulah...

“We conclude that ... the DNR has the authority and a general duty to consider whether **a** proposed high capacity well may harm waters of the state.”

- Wisconsin State Supreme Court



www.lakebeulah.org

2007/09/22

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- 2011. Lake Beulah decision
- **2011. Richfield Dairy - two new HC wells near Pleasant Lake**

Pleasant Lake to DNR:

Help! Our lake is already impacted by pumping!

Beulah says you have to consider our plight!!

DNR to Pleasant Lake...

“ ‘a’ means one well at a time; we cannot look at cumulative impacts.”

(Recall in Beulah:


“We conclude that ... the DNR has the authority and a general duty to consider whether **a** proposed high capacity well may harm waters of the state.”)

A Little History

- (And a contested case is born!)

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7821
Madison WI 53707-0821

Scott Walzer, Governor
Cathy Meyer, Secretary
Telephone 608.298.7031
Toll Free 1.800.470.1403
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December 20, 2011

Peter McKeever
Anna Berscky
Garvey McNeil & Associates, S.C.
One Odessa Court
Madison, WI 53719

RE: Petition for a Contested Case Hearing under section 227.42, Wis. Stats.

Dear Mr. McKeever and Ms. Berscky:

On December 2, 2011, the Wisconsin Department of Natural Resources ("DNR") received a petition from you on behalf of the Pleasant Lake Management District seeking a contested case hearing under section 227.42, Wis. Stats. The petition was hand delivered and received at the Office of the Secretary of DNR on December 2. The hearing was requested regarding the conditional high capacity well approval for two potable wells to be located in the Town of Richfield, Adams County, issued by DNR to Milk Source Holdings, LLC, on November 5, 2011.

Your petition for hearing is granted with respect to, and the hearing itself will be limited to, the following issues relating to the conditional high capacity well approval:


1. Whether DNR properly considered the environmental impact of the proposed high capacity wells on the waters of Pleasant Lake and other waters of the state, including the groundwater aquifer and nearby private wells, when DNR was presented with scientific evidence of potential harm to waters of the state;
2. Whether DNR correctly exercised its expertise in water resources management, in discretion and its duty as trustee of public trust resources when DNR determined that the proposed high capacity wells would not cause a significant adverse impact on the waters of the state and DNR granted the conditional approval to Milk Source Holdings, LLC;
3. When considering whether to condition or deny a proposed high capacity well approval, does DNR have legal authority to take into account the cumulative impacts caused by existing development of groundwater and surface waters, or is DNR's legal authority limited to considering only the potential adverse environmental impacts of the proposed high capacity well or wells for which an approval is being considered?

Insofar as your petition for hearing seeks to raise any other issues not specifically identified above, it is denied.

This decision shall become effective unless a written request for judicial review to contest the decision is filed with DNR within thirty (30) days after the date this notice is mailed. All requests shall be filed either by delivery to the Office of the Secretary of DNR at 101 South Webster Street, Madison, Wisconsin, or by certified mail addressed to the Office of the Secretary, DNR, P.O. Box 7821, Madison, Wisconsin 53707. Such a request for judicial review shall name the DNR as the respondent.

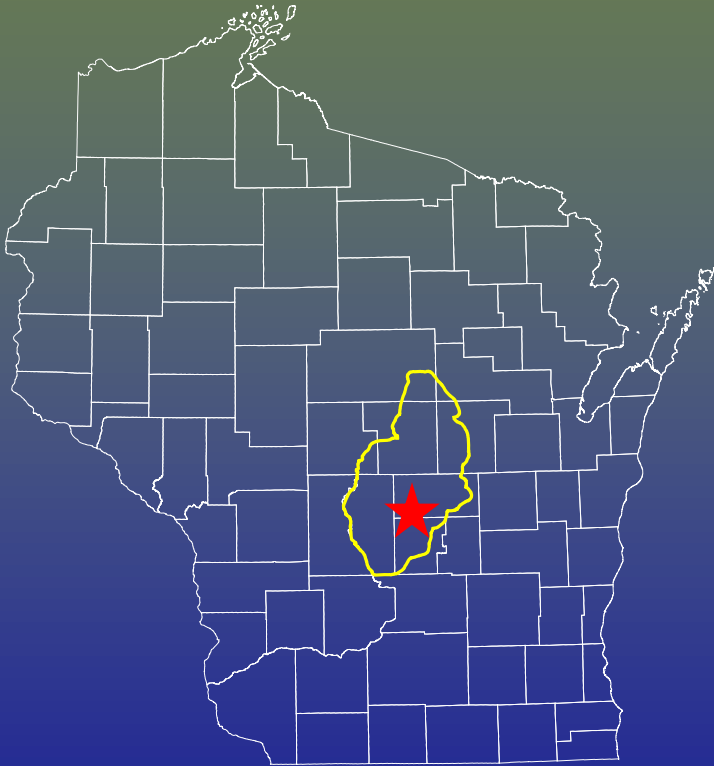
608.wi.gov
www.dnr.wis.gov

Naturally WISCONSIN





Pleasant Lake



Pleasant Lake



August , 1996



September , 2012

Proposed Richfield Dairy



- 2.5 miles from lake
- 6270 animal units
- 2 high capacity wells totaling 72.5 MGD
- DNR approved wells

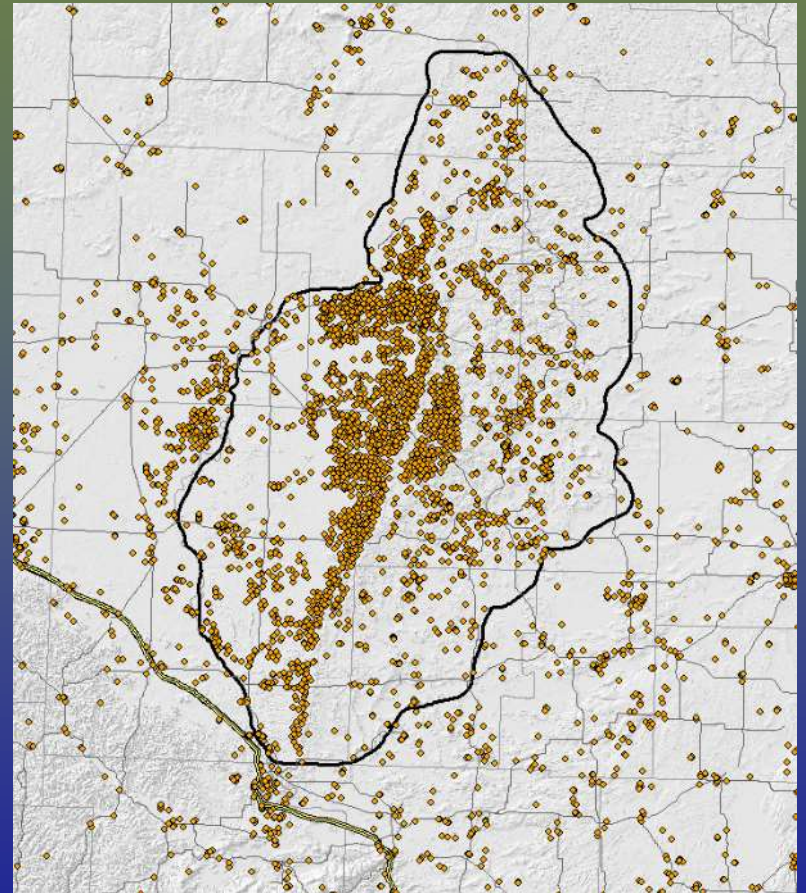
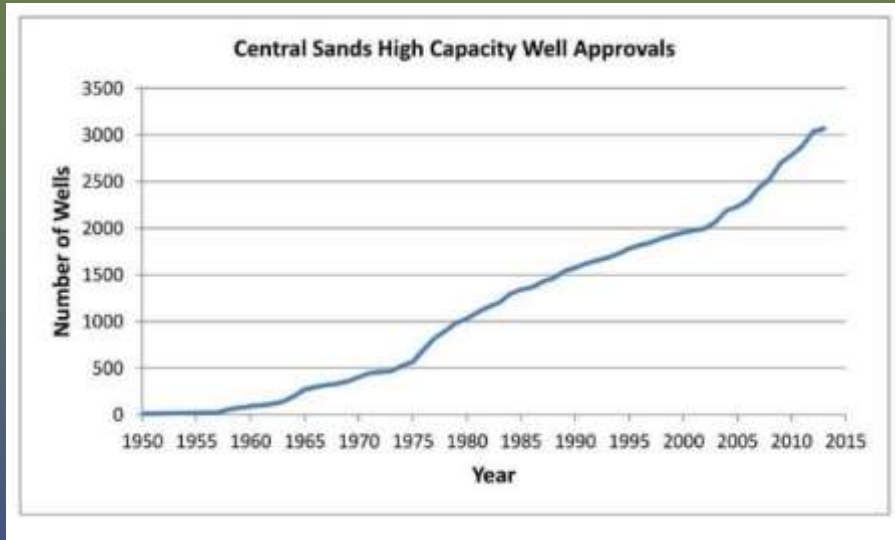
Contested Case Hearing

- Did DNR
 - Properly consider environmental impact of proposed wells?
 - Exercise its expertise water resource management and its duty as trustee of public trust resources?
 - Have legal authority to consider cumulative potential environmental impacts?

Testimony: Incremental Drawdown

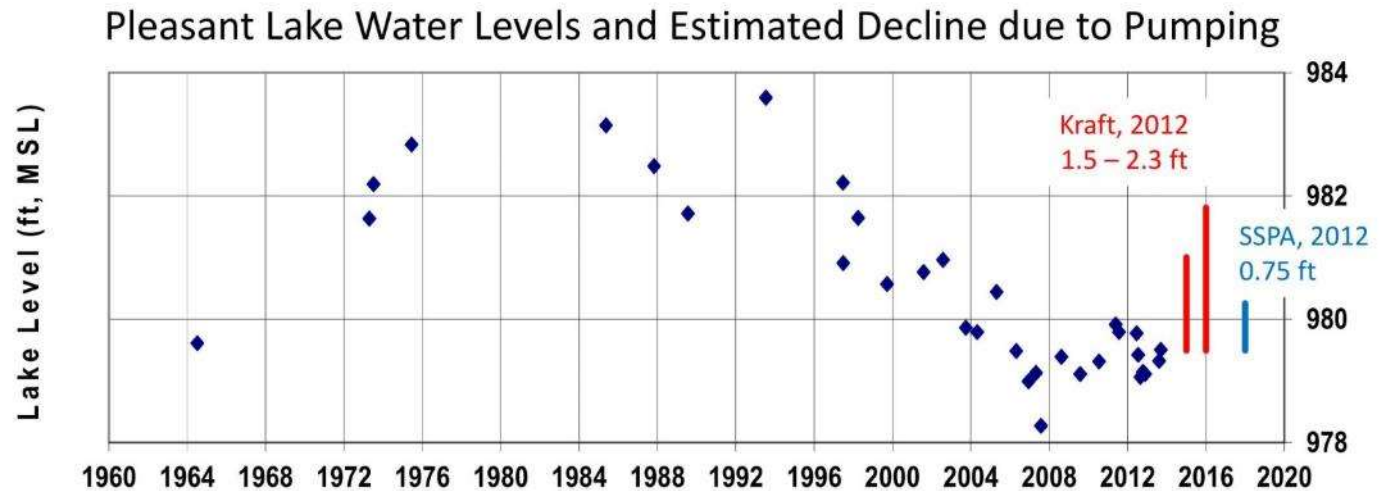
- Incremental drawdown of Pleasant Lake of 1 – 5 inches predicted by models.
- Small but ecologically significant
- Especially in context of cumulative impacts

Cumulative Impacts

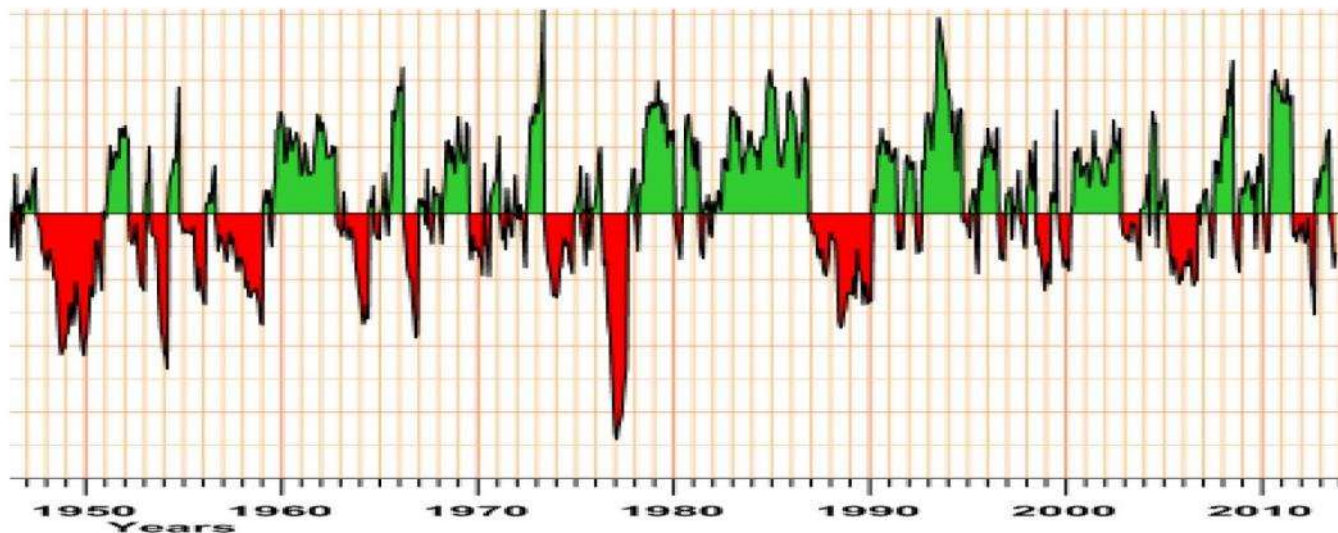


- 184 wells in model domain near Pleasant Lake
- 26 more approved / requested since modeling
- 14% increase in a few years

Pleasant Lake Decline

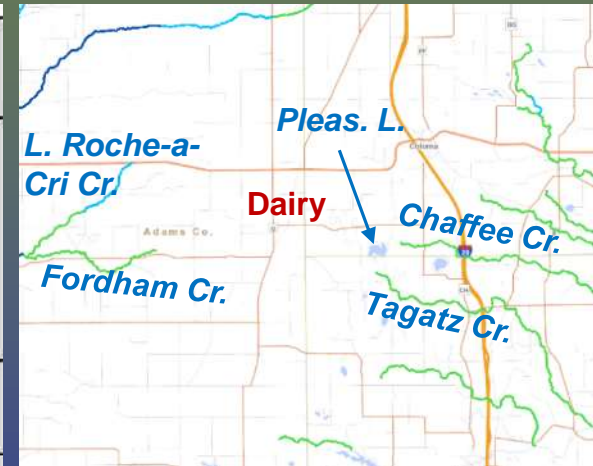


Palmer Drought Severity Index for Central Wisconsin



Incremental vs. Cumulative Baseflow Reductions

Headwater Stream	Headwater Flow (cfs) calculated by SSPA model		
	No Irrigation Pumping	Pumping From Existing High Capacity Wells	Pumping From Existing High Capacity Wells & Proposed Dairy Wells
Little Roche-a-Cri (tributary)	0.91	0.84	0.83
Little Roche-a-Cri (headwater ditches)	5.74	4.98	4.93
Fordham Creek	1.83	1.43	1.41
Chaffee Creek	1.71	1.38	1.33
Tagatz Creek	5.04	4.76	4.71



Incremental vs. Cumulative Baseflow Reductions

Headwater Stream	Headwater Flow (cfs) calculated by SSPA model			Percent Change in Flow From No Irrigation Pumping	
	No Irrigation Pumping	Pumping From Existing High Capacity Wells	Pumping From Existing High Capacity Wells & Proposed Dairy Wells	Pumping From Existing High Capacity Wells	Pumping From Existing High Capacity Wells & Proposed Dairy Wells
Little Roche-a-Cri (tributary)	0.91	0.84	0.83	-8%	-9%
Little Roche-a-Cri (headwater ditches)	5.74	4.98	4.93	-13%	-14%
Fordham Creek	1.83	1.43	1.41	-22%	-23%
Chaffee Creek	1.71	1.38	1.33	-19%	-22%
Tagatz Creek	5.04	4.76	4.71	-6%	-7%

Ecological Impacts: Littoral Wetland Connectivity



Turtle Bay Pond



Banded Killifish

Chaffee Calcareous Fen and Spring Pond



Least darter

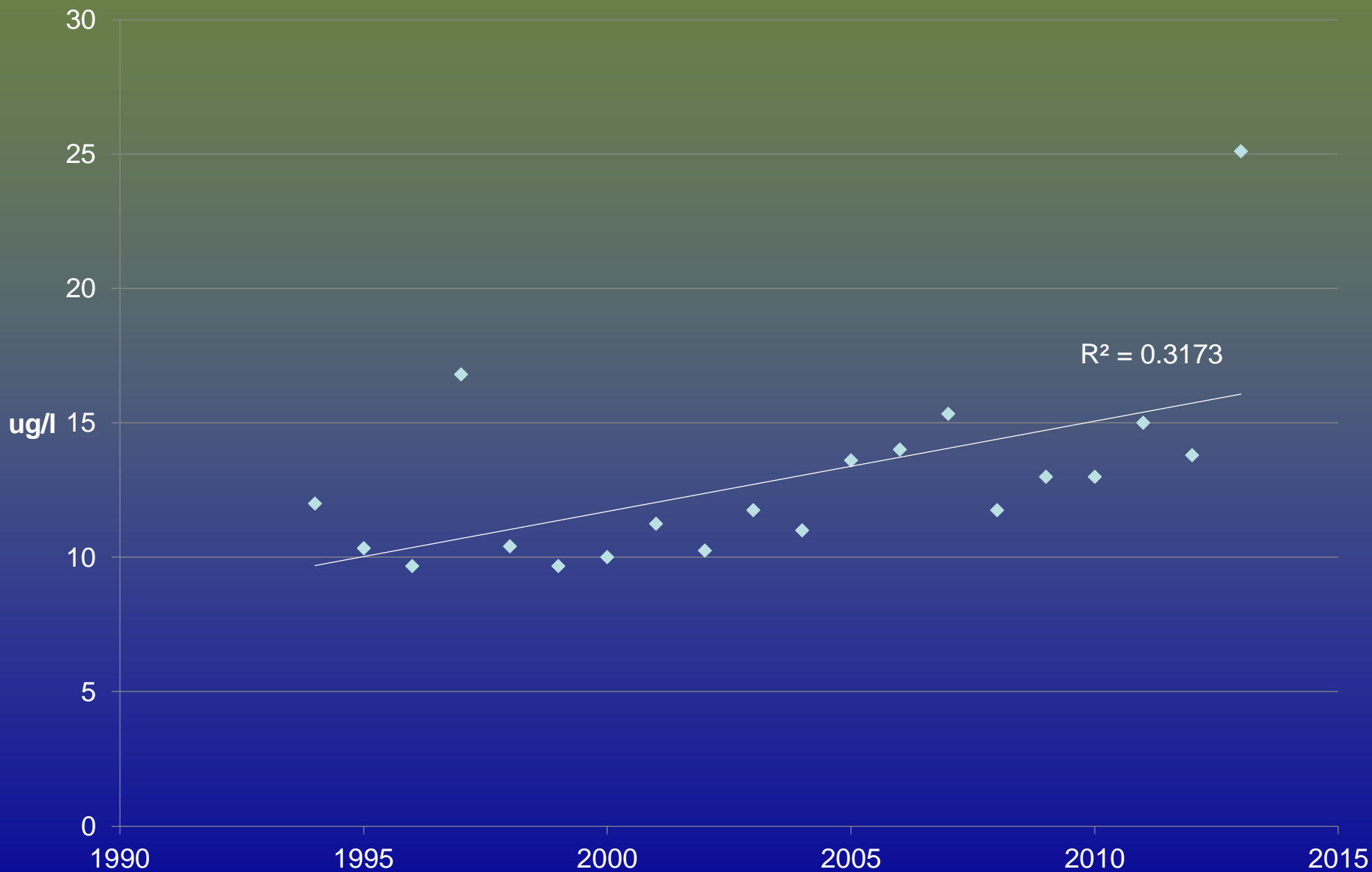
Northern Redbelly dace



Pirate perch (*Aphredoderus
sayanus*)
State Special concern



Pleasant Lake Annual Mean Phosphorus Concentrations





Before The
State Of Wisconsin
DIVISION OF HEARINGS AND APPEALS

- “The potential for detrimental cumulative impacts is clear.”
- “The DNR possesses the authority to consider cumulative impacts to waters of the State caused by high capacity well pumping, climate, and other factors...”
- “...it is impossible to adequately consider ... harm to the waters of the State without considering the direct and secondary detrimental impacts to said waters by known and reasonable expected cumulative impacts.”
- “... reduction of the total annual pumping maximum by approximately 27.1 percent...represents an appropriate balance between the rights of private parties...and the rights of the public...”
- “None of the parties are likely to be completely satisfied with this outcome.”

Future Groundwater Policy?

- High capacity well review process?
- Future legislation?
- Future litigation?
- Research contributions to balancing uses?

Acknowledgements

- Pleasant Lake Management District
- Family Farm Defenders
- Friends of Central Sands
- Individual petitioners
- Wisconsin DNR
- Wisconsin DHA
- Axley Law
- McGillivray Westerberg & Bender
- Other experts