

# Lakes and Wetlands and the Economy of Vilas County



# Outline

- The economic value of our aquatic habitats
- The aquatic habitats of Vilas County
- Links between water quality and economic value

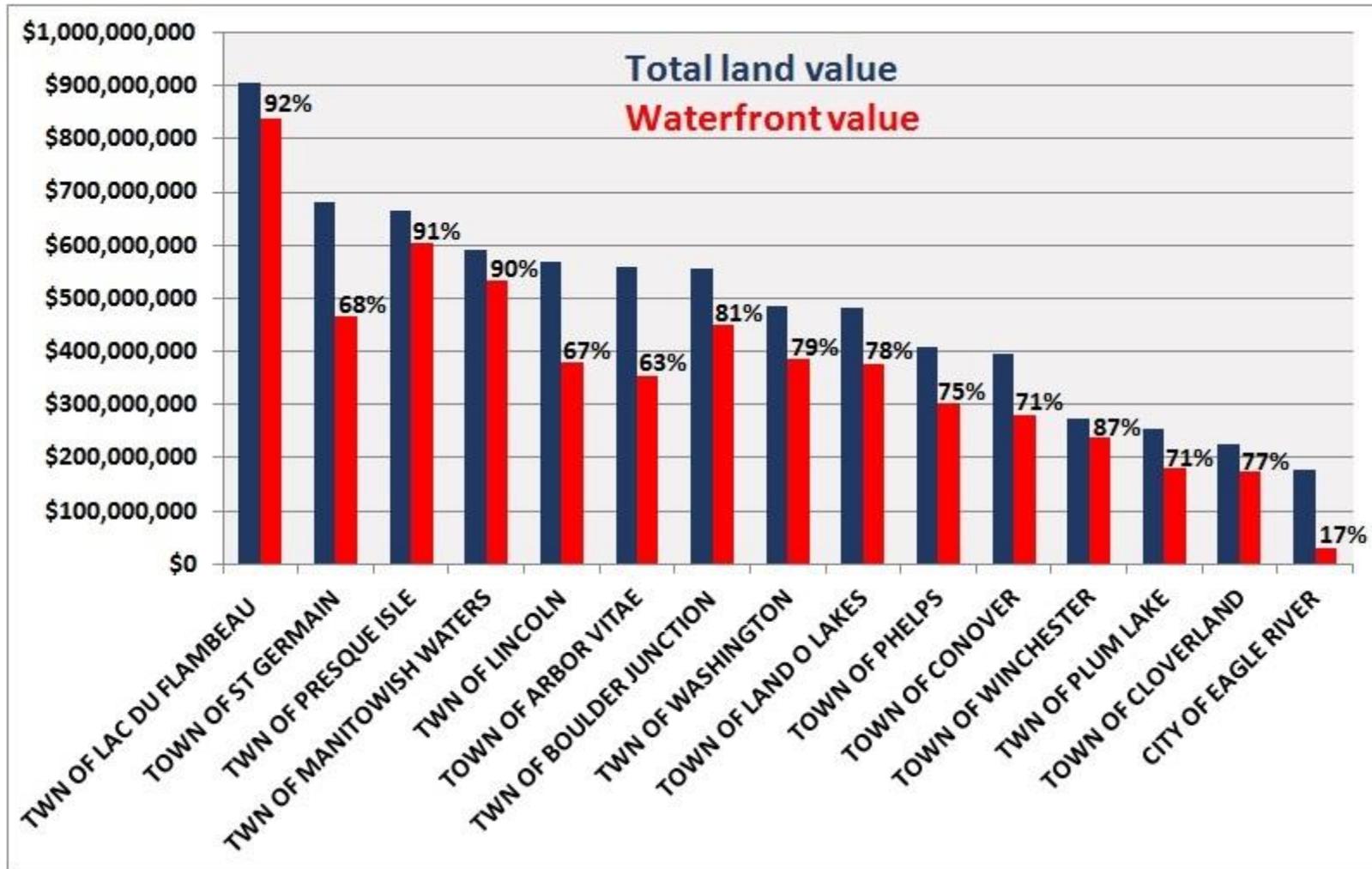


# Assessed Value of waterfront property in Vilas County as a percent of all properties in 2013

	On Water Value	Total Value	%
VILAS COUNTY WHOLE	\$5,595,742,600	\$7,228,815,700	77.41%



# Assessed Value of waterfront property in Vilas County as a percent of each town total in 2013.

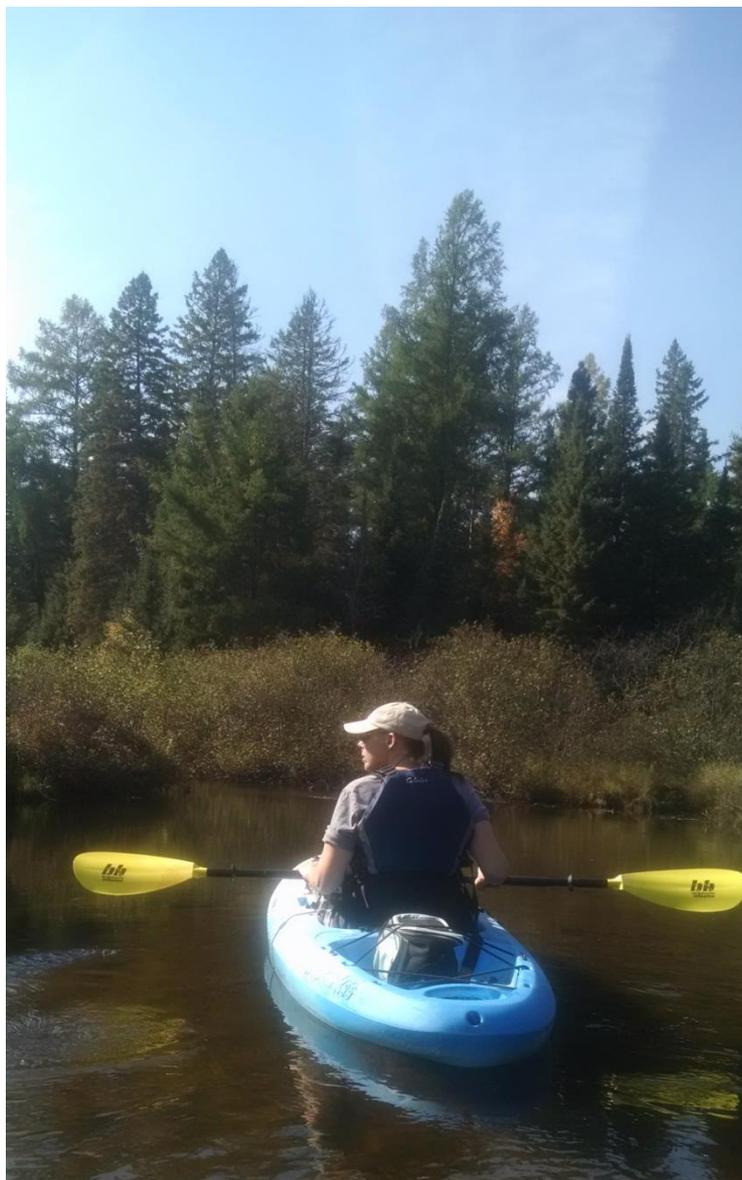


# Visitor spending based on population

County	2013 (Millions)	Population	Per capita direct spending
Sauk County	\$888.5	58,261	\$15,250.34
Door County	\$299.0	28,200	\$10,602.84
Vilas County	\$203.1	22,379	\$9,075.47
Adams County	185.7	20,875	\$8,895.81
Oneida County	\$197.0	36,779	\$5,356.32
Walworth County	\$477.8	101,007	\$4,730.37

# Visitor Spending Regionally

County	2013 (Millions)	Population	Per capita direct spending
Forest County	\$11.8	9,304	\$1,268.27
Iron County	\$18.9	5,916	\$3,194.73
Oneida County	\$197.0	36,779	\$5,356.32
Vilas County	\$203.1	22,379	\$9,075.47



## Visitor Spending – Vilas County

**Vilas County – has the 3<sup>rd</sup> highest tourism intensity in Wisconsin. (Jobs based on tourism - 2011).**

# Water Facts – Vilas County

## Seasonal Homes

The 2010 US Census estimates 61.5% of homes in Vilas County are classified as seasonal – a higher percentage than any other county in Wisconsin.

- How much do seasonal homeowners spend locally?

# Estimated Spending by Northwoods Seasonal Home Owners

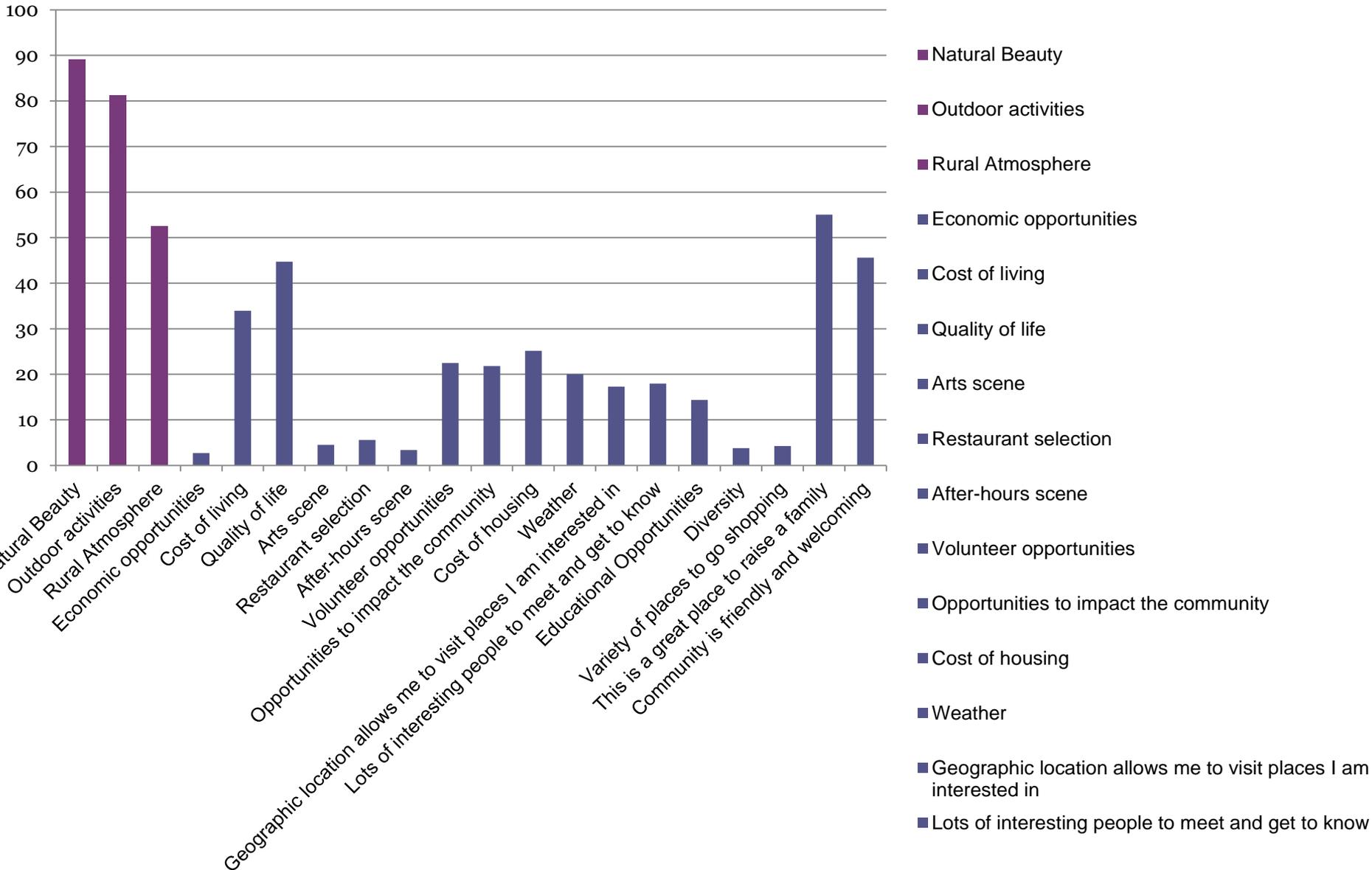
Category	Daily Expenses
Construction	\$12.48
Fishing/Boating	\$4.57
Medical Care	\$4.24
Dining	\$8.33
Groceries/Liquor	\$13.25
Gas	\$6.15
Shopping	\$5.20
License	\$1.02
Other (Cleaning, Maintenance, Communication)	\$16.06
Total	\$74.18

Source: University of Wisconsin-Whitewater, Economic Impact Study, "Broadband and Vacation Properties", Wisconsin" August 2014

# Estimated Spending by Northwoods Seasonal Home Owners

- 15,458 Seasonal Homes in Vilas (2010 Census) that spend an estimated \$74.18 per day when occupied.
- $15,458 \times \$74.18 = \mathbf{\$1,146,674 \text{ per day}}$
- If Seasonal Home Owners spend 60 days a year here;  $\$1,146,674 \times 60 = \mathbf{\$68,800,440 \text{ to Vilas County Economy}}$

# Permanent Residents



# Sources of Economic Value

- Property Values
- Visitor Spending
- Recreation/Use Values

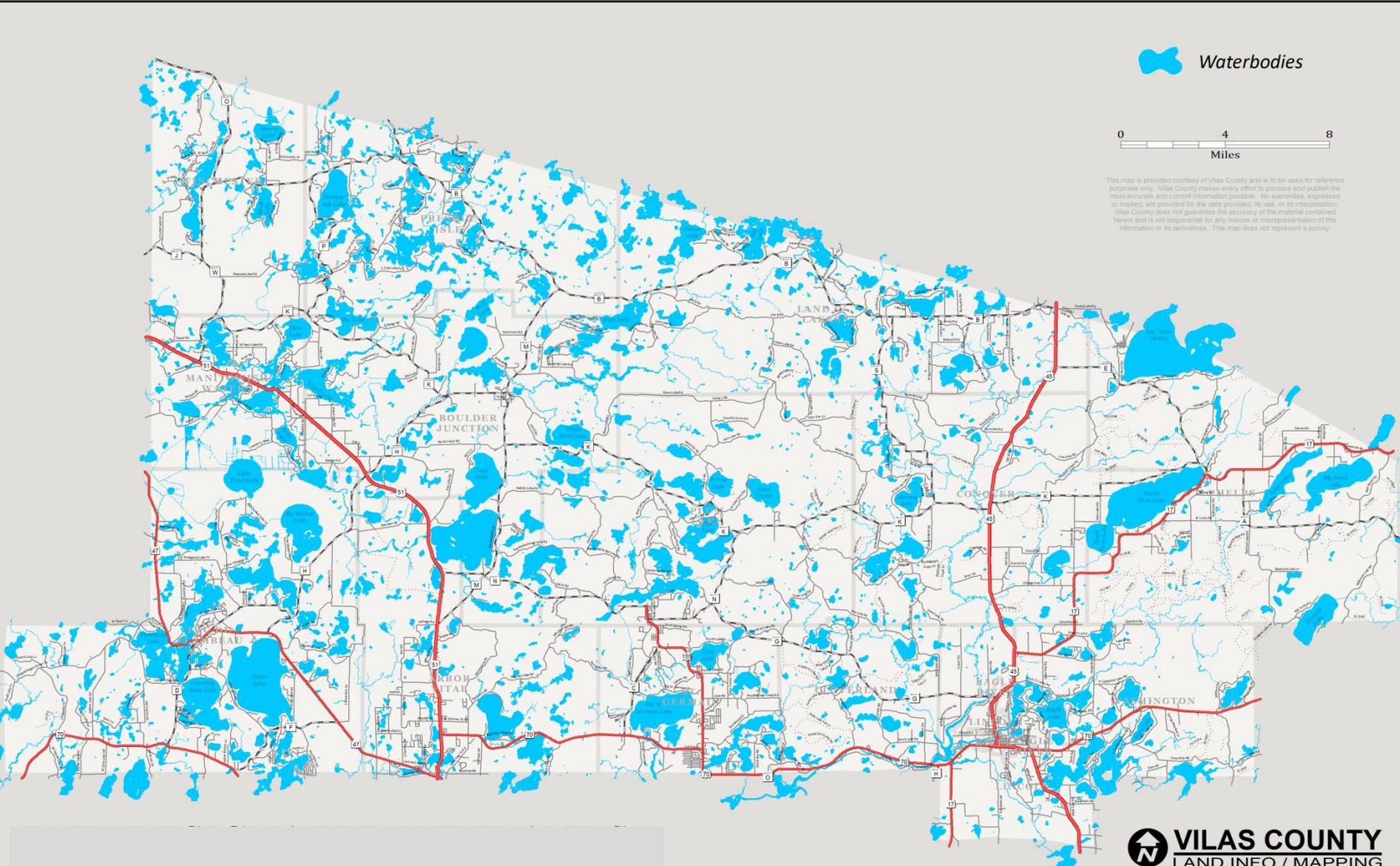


# Water Facts – Vilas County

## Lakes and Streams

- 1320+ Lakes
- Headwaters of 4 Big Rivers including the Wisconsin and Chippewa Rivers
- Surface waters (lakes & streams) = 102,276 acres, or **15.6%** of land area
- The Northern Highlands Ecological Landscape has one of the highest concentrations of naturally formed lakes **IN THE WORLD**

# The surface waters of Vilas County



 Waterbodies



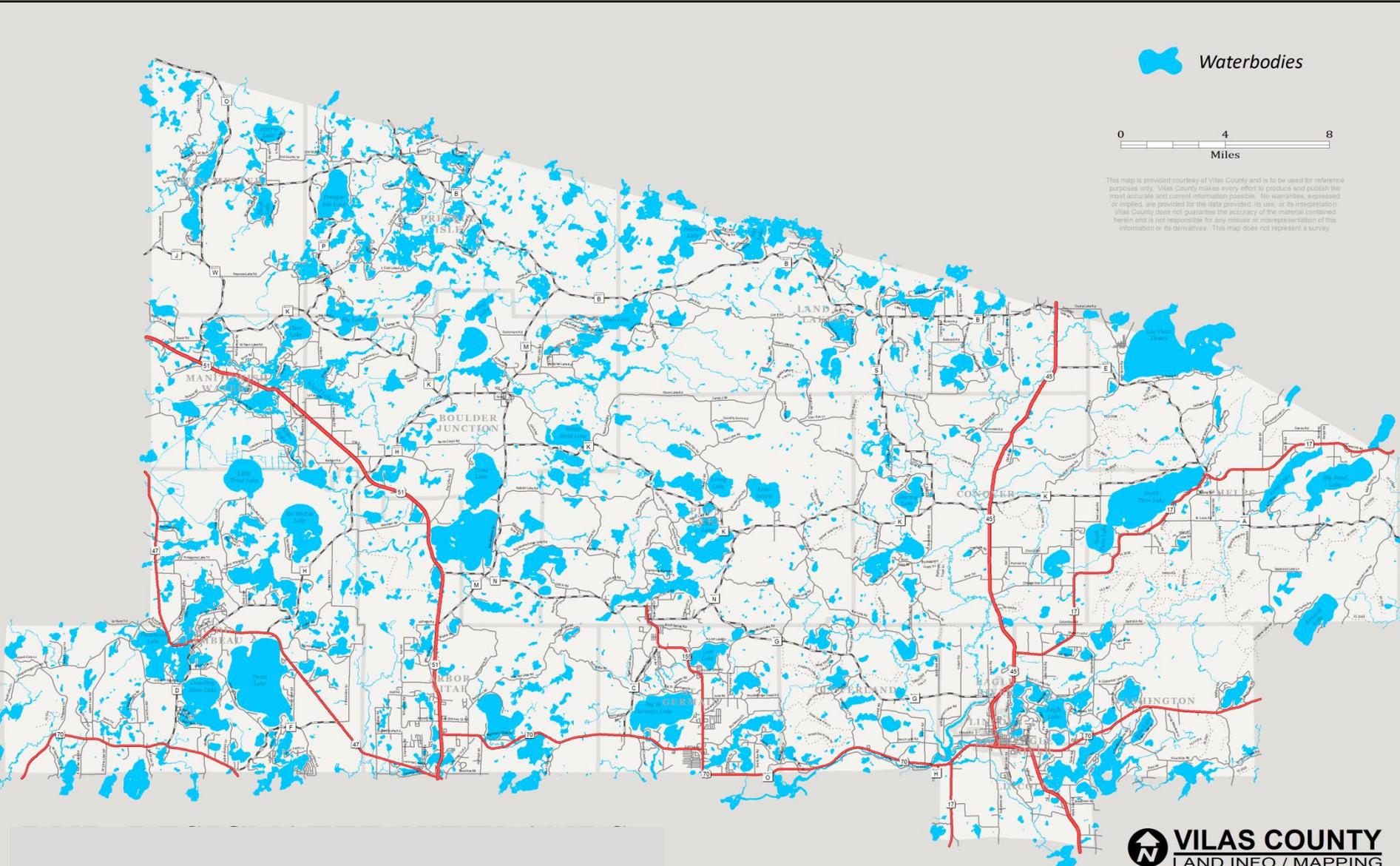
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# Water Facts – Vilas County Wetlands

- Wetlands (> 2 acres) = 121,258 acres, or 18.5% of land area
- Wetlands (< 2 acres) = ? acres, but very important!



# The surface waters of Vilas County

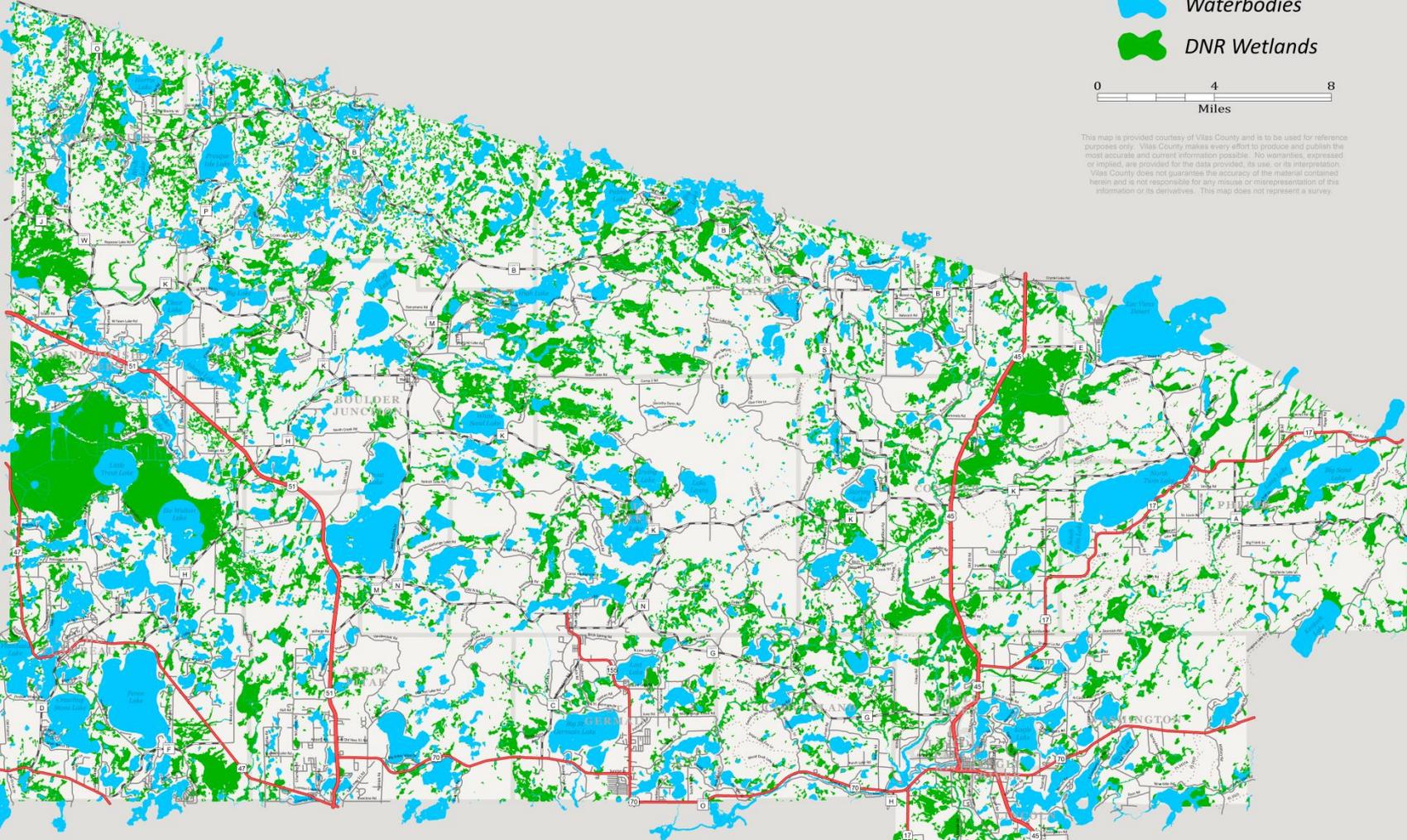


 Waterbodies



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# The surface waters + wetlands of Vilas County



 Waterbodies  
 DNR Wetlands

0 4 8  
Miles

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**DNR-DESIGNATED WETLANDS**  
*Vilas County, Wisconsin*

 **VILAS COUNTY**  
LAND INFO / MAPPING

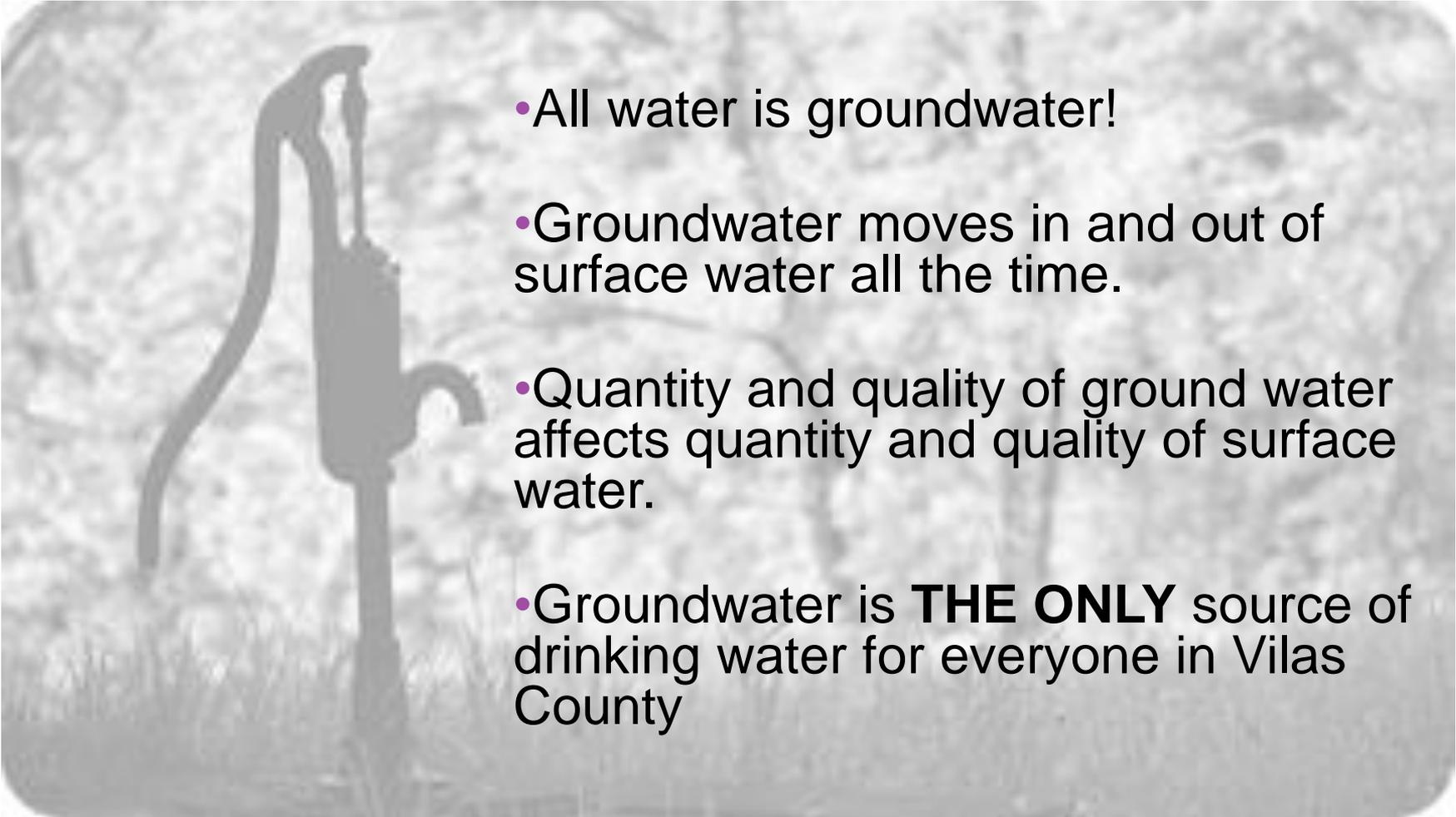
# Water Facts – Vilas County

15.6% (surface waters) + 18.5% (mapped wetlands)

= 34% of  
Vilas County  
is WET

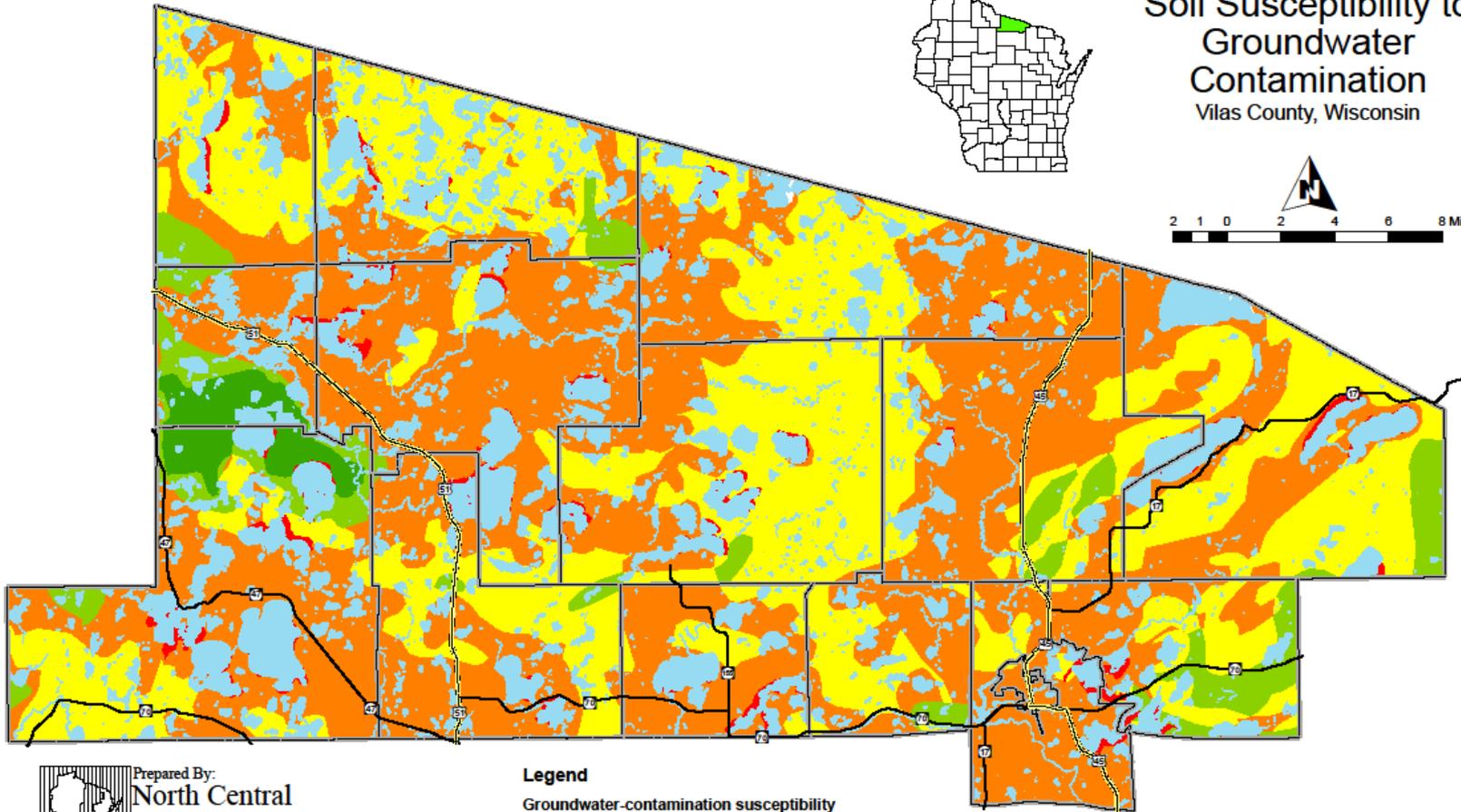
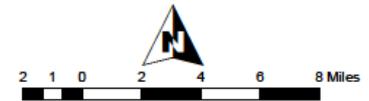


# Water Facts – Vilas County Groundwater

- 
- All water is groundwater!
  - Groundwater moves in and out of surface water all the time.
  - Quantity and quality of ground water affects quantity and quality of surface water.
  - Groundwater is **THE ONLY** source of drinking water for everyone in Vilas County

# Susceptibility to Contamination

Map 6  
Soil Susceptibility to  
Groundwater  
Contamination  
Vilas County, Wisconsin

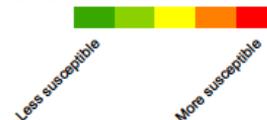


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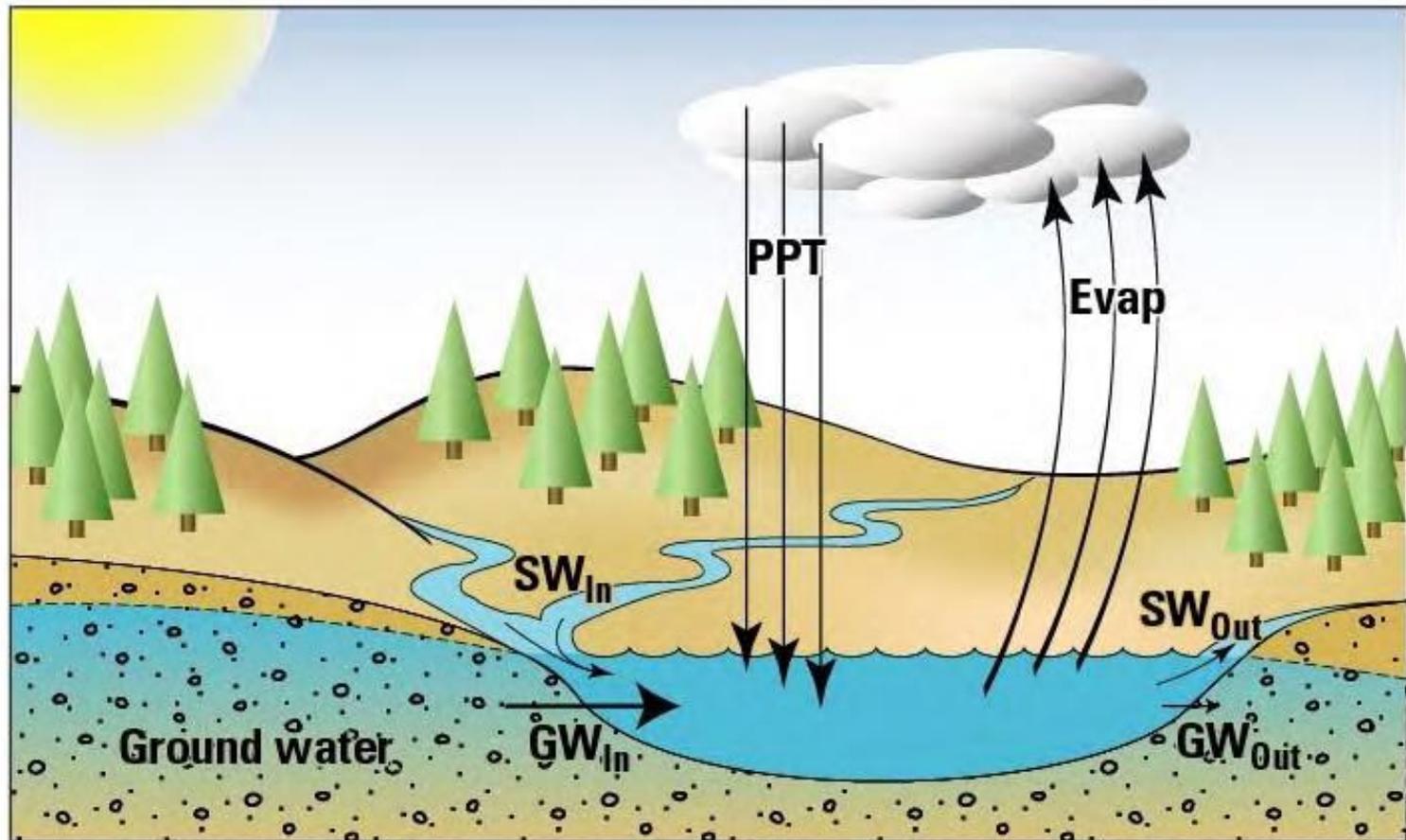
## Legend

Groundwater-contamination susceptibility



Source: WI DNR, NCWRPC, Vilas Co  
This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

# Rain & Snow are the source of water in Vilas County



# How it ties together

- All water is ground water = all the water in Vilas County comes from the same source
- Wetlands are the kidneys of the water system. They percolate water into the ground, as well as filter out pollutants
- Wetlands are the banks that store and slowly release clean water
- People desire clean water to swim and fish in, play and live on

*The Economic Impact of Potential Decline in New Hampshire Water Quality: The Link Between Visitor Perceptions, Usage, and Spending. (New Hampshire 2012)*

- **Half to two-thirds** of visitors would decrease or cease their visiting days to a particular site if they perceived a decline in water clarity and purity, natural views and scenery, crowding levels and water levels and flows.
- Perceived declines in water clarity and purity would result in about **\$51 million of lost sales, \$18 million in lost income and more than 800 lost jobs statewide.**”
- *The Economic Impact of Potential Decline in New Hampshire Water Quality: The Link Between Visitor Perceptions, Usage, and Spending.* Anne Nordstrom. May 2012  
The New Hampshire Lakes, Rivers, Streams and Ponds Partnership.  
[http://des.nh.gov/organization/divisions/water/wmb/lakes/economic\\_values.htm](http://des.nh.gov/organization/divisions/water/wmb/lakes/economic_values.htm)

# *Exploring the hedonic value of ambient water quality: A Local Watershed-based Study (Southern Maryland 2007)*

- “We have shown that **ambient water quality within a small local watershed can significantly influence residential property values regardless of whether they are waterfront properties.**
- As residential and commercial development continues to intensify in many areas, local land use planning as it relates to the monitoring of ambient water quality should be considered and incorporated into policy decision making.”
- *Exploring the hedonic value of ambient water quality: A Local Watershed-based Study.* P. Joan Poora, Keri L. Pessagnob, Robert W. Paulc. *Ecological Economics*, 60(2007), pp797–806.  
[http://www.uwsp.edu/cnr-ap/UWEXLakes/Documents/people/economics/25\\_ambientWaterQuality\\_poor\\_paper.pdf](http://www.uwsp.edu/cnr-ap/UWEXLakes/Documents/people/economics/25_ambientWaterQuality_poor_paper.pdf)

# *What is the Value of a Clean and Healthy Lake to a Local Community? (2005)*

- "Delavan Lake is a crucial component to the financial, physical and social fabric of the region. Delavan Lake affects not only the quality of life for local residents, but also has regional economic implications.
- **Deterioration of lake water quality** (water clarity, milfoil) could be expected to lead to reductions in time spent in Delavan by property owners and visitors, which in turn would have **economic implications for the local economy.**"
- *What is the Value of a Clean and Healthy Lake to a Local Community?* Mark Eiswerth, Russ Kashian, Mark Skidmore. February 2005. Delavan Lake Improvement Association. [http://www.delavan-lake.org/lake\\_study.pdf](http://www.delavan-lake.org/lake_study.pdf)

# Healthy Waters are Critical to the Northwoods Economy

- Waterfront property owners and lake and river users contribute **significantly** to the local economy.
- The **economy** of the Northwoods is dependent on people wanting to live and recreate in the most lake rich area in the United States!
- If lake and stream water quality deteriorates, waterfront property values will also erode, resulting in the tax base shifting to off water properties.

# Conclusion...

- The water is a primary reason that:
  - Tourists visit here
  - Families purchase second homes here
  - Locals stay here
  - People retire here
  - Businesses locate here

**Healthy Waters = a Healthy Economy!**

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# LWCC and LWCD: Protecting the water resources in Vilas County

