

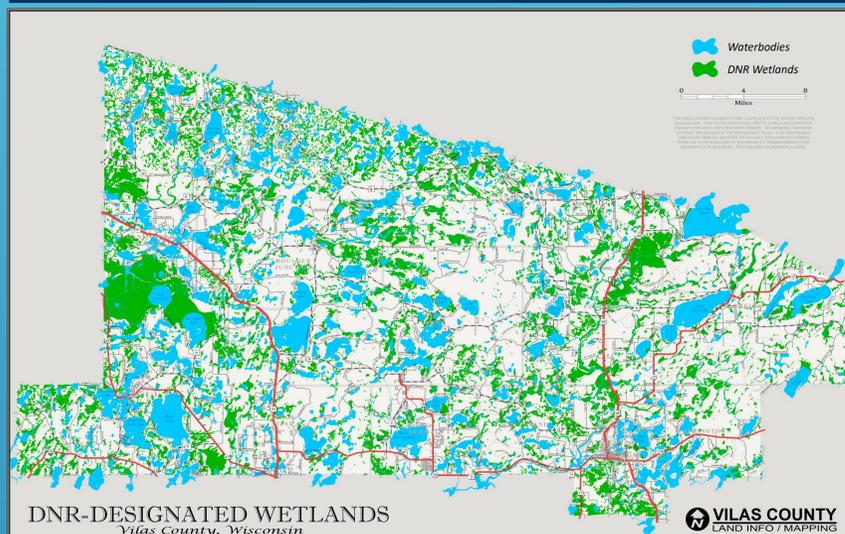
# AQUATIC HABITATS AND ECONOMY OF VILAS COUNTY



Vilas County Land & Water Conservation, Vilas County UW-Extension Community Resource Development, Vilas County Mapping, Vilas County Tourism & Publicity, Vilas County Tax Listing



## Wetlands and Surface Waters



Surface waters

- 1320+ lakes
- Headwaters of 4 River Basins
- Surface waters = 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



Wetlands

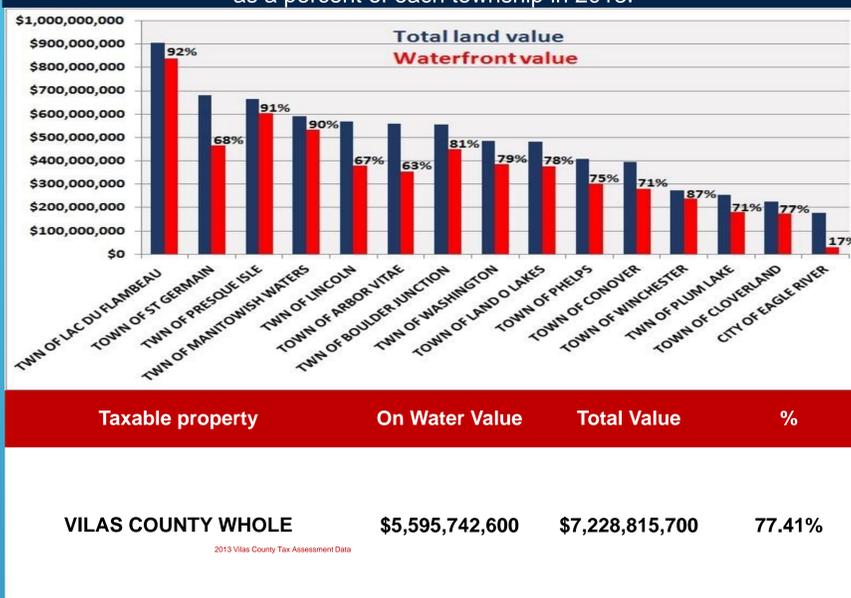
- Mapped wetlands (>2 acres) = 121,258 acres or 18.5% of land area
- Wetlands (<2 acres including ephemeral wetlands = ? Acres, but very important!



Total picture

- 15.6% (surface waters) + 18.5% (mapped wetlands > 2 acres) = **34%** of Vilas County is **WET**

Assessed Value of waterfront property in Vilas County as a percent of each township in 2013.



## The 2010 US Census estimates 61.5% of homes in Vilas County are seasonal

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

## Visitor Spending – Vilas County

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
<b>Vilas County</b>	<b>\$203.1</b>	<b>22,379</b>	<b>\$9,075.47</b>
Oneida County	\$197.0	36,779	\$5,356.32
Walworth County	\$477.8	101,007	\$4,730.37
Forest County	\$11.8	9,304	\$1,268.27
Iron County	\$18.9	5,916	\$3,194.73
Adams County	\$185.7	20,875	\$8,895.81

## Economic Value of Water Quality

"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, millifil) 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)

The relationship between water clarity and property prices is positive, that is, all else being equal, property prices paid are higher on lakes having higher water clarity. In other words, buyers of lakeshore properties prefer and will pay more for properties on lakes with better water quality. Therefore, sustaining and/or improving lake water quality will protect and/or improve lakeshore property values. On the other hand, if water quality is degraded, lower property values will result, which in turn will increase demand and development pressures on remaining lakes with the better water quality and ultimately lowering their water quality as well. *Lakeshore Property Values and Water Quality: Evidence from Property Sales in the Mississippi Headwaters Region.* Charles Krysel, Elizabeth Marsh Boyer, Charles Parson, Patrick Welle. May 14, 2003. Mississippi Headwaters Board and Bemidji State University. [http://www.friendscvst.org/bsu\\_study.pdf](http://www.friendscvst.org/bsu_study.pdf)

More recent research on 36 lakes in 4 regional groups in Maine took another look at how water clarity changes property values. It was found that properties on lakes with one meter greater clarity have higher property values in the range of 2.6% (\$2,563) to 6.5% (\$9,271) depending on the market. Likewise, a one meter decrease in minimum transparencies cause property values to decrease anywhere in the range of 3.1% (\$3,084) to 8.5% (\$12,050). *Water Quality Effects on Property Prices in Northern New England.* Kevin Boyle and Roy Bouchard. 2003. *LakeLine* Vol 23(3), pp. 24-27. <http://www.maine.gov/dep/water/lakes/research.html>

"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, Kerl L. Pessagnob, Robert W. Pauc. 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)

"More than two-thirds (69%) responded they would decrease the number of intended visits they make to a particular site if they perceived a change in water clarity and purity; 56% would decrease visits if natural beauty and scenery declined; 46% would decrease visits if crowding became an issue; and 43% would decrease visits if water levels or flows became less than adequate. 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. Overall, perceived degradation to water clarity and purity will result in the greatest economic loss to New Hampshire. 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)

"This new study is a partial estimate of user's economic value and satisfaction because methods constrained estimates to only the most popular Maine lakes and could not include out-of-state users. Well over 200,000 Maine adults are access users on lakes annually. About 78% swim, 64% recreate near the shore, 49% fish from a boat and roughly equal numbers (ca. 40%) use powerboats and canoes. Maine resident access users spend as much as \$153 million annually on their recreation, 59% of which is spent in the communities nearest those lakes. This use supports as many as 3,000 jobs and generates in excess of \$30 million income for Maine residents." *The Effects of Water Clarity on Economic Values and Economic Impacts on Recreational Uses of Maine's Great Ponds.* Jennifer Schertz, Kevin Boyle, and Roy Bouchard. Jan 2001. Maine Agricultural and Forest Experiment Station Misc. Report 421, Univ. of Maine. <http://www.maine.gov/dep/water/lakes/research.html>

## Conclusion

- ▶ Water quality affects property values and recreational use of lakes.
- ▶ Vilas County is wetland and lake rich.
- ▶ Surface water quality is affected by wetland health.
- ▶ The economy of Vilas County is dependent on people desiring to live and recreate on our healthy lakes.
- ▶ Protecting the wetlands and surface waters of Vilas County is a wise economic investment.

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## Groundwater is the source of all drinking water in Vilas County

