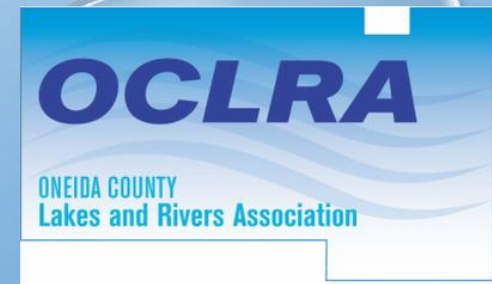
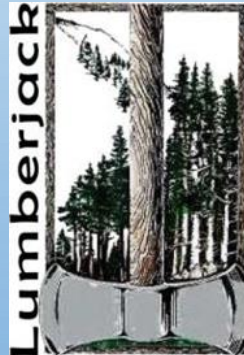
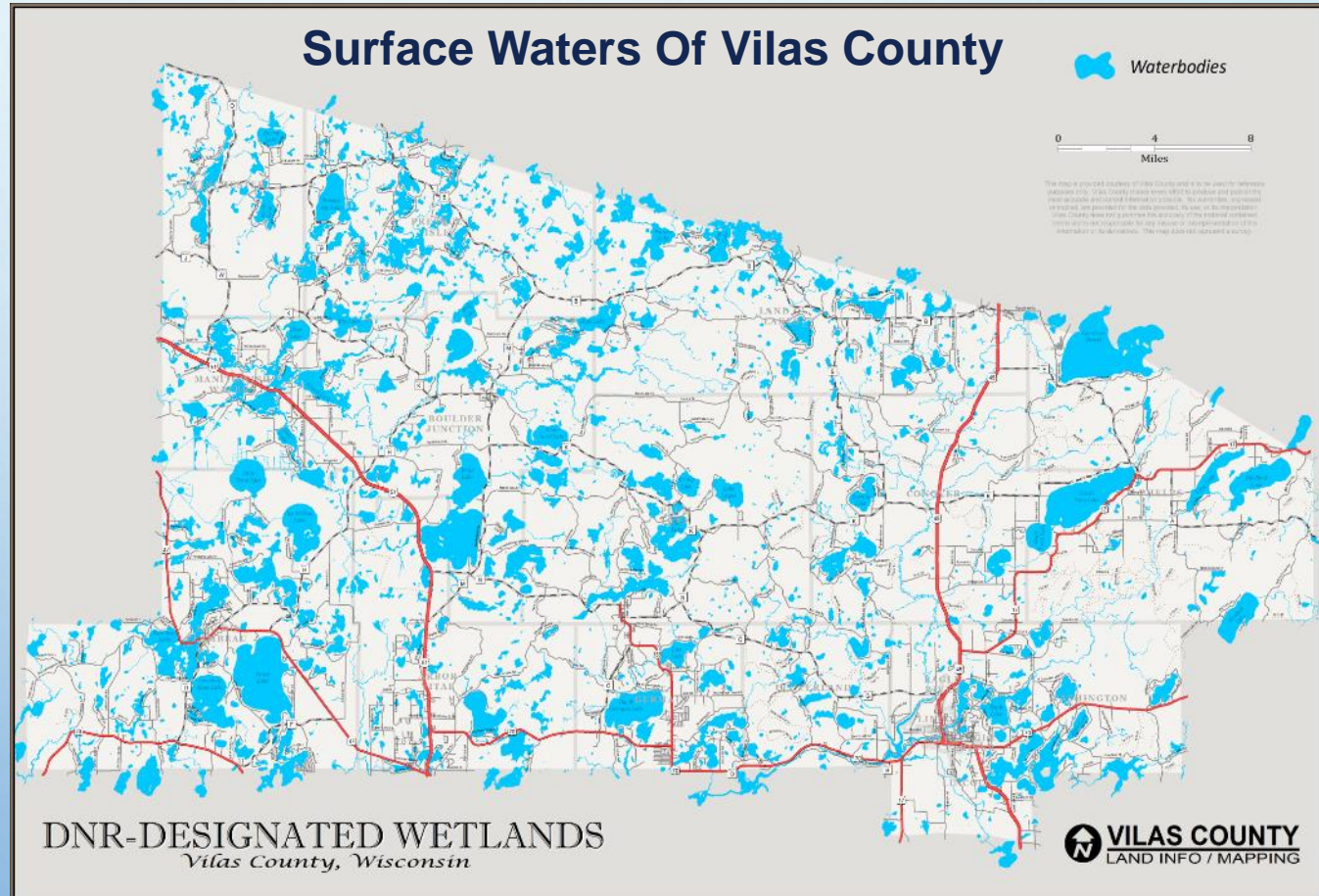


ECONOMIC VALUE OF LAKES & RIVERS IN VILAS & ONEIDA COUNTIES



WATER FACTS – VILAS COUNTY

- 1,320+ lakes
- Headwaters of 4 major basins, including:
 - Wisconsin river
 - Chippewa river
- Surface waters
 - 102,276 acres
 - 15.6 % of land area
- All drinking water is from groundwater



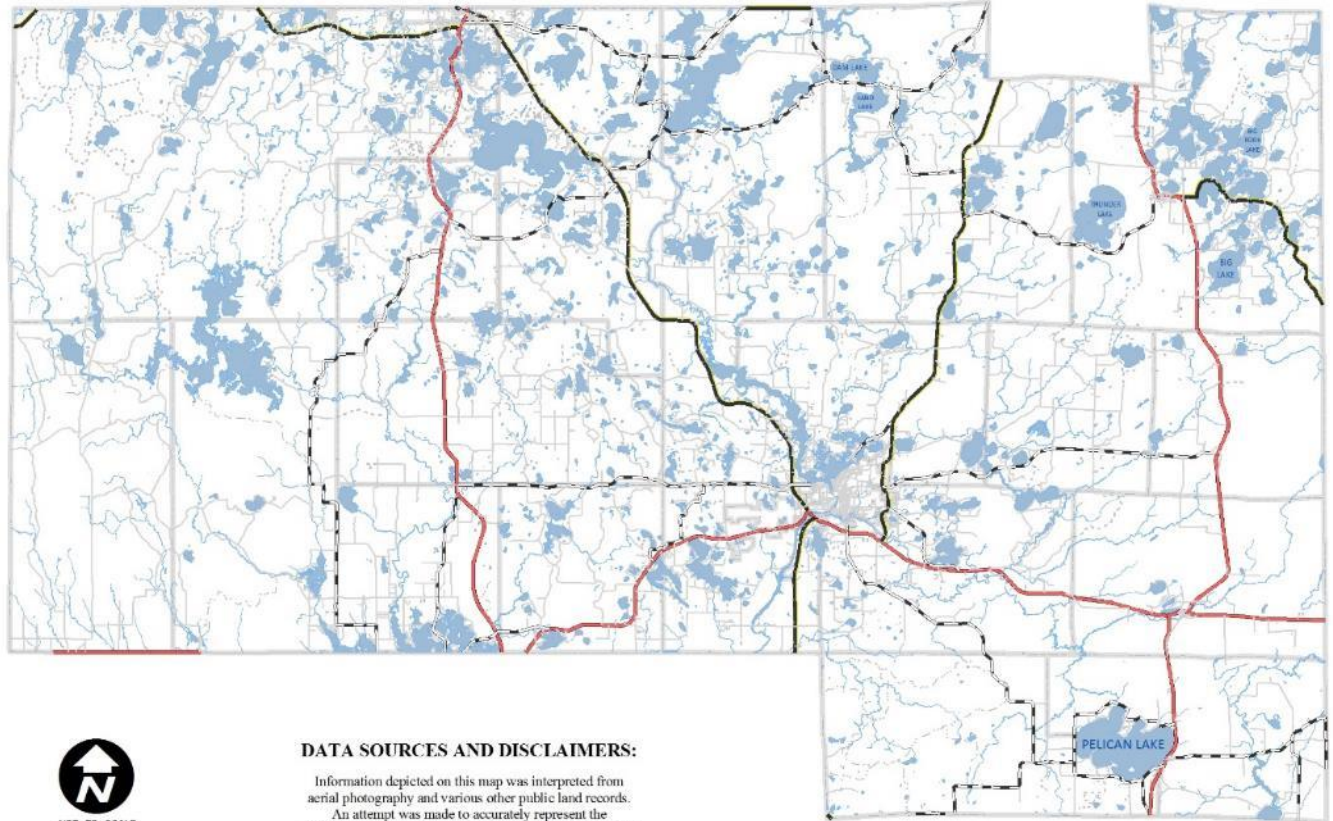
The Northern Highlands ecological landscape has one of the highest concentrations of kettle lakes **in the world.**

WATER FACTS – ONEIDA COUNTY

- 1,129 lakes, 428 named
- 78,509 acres of surface water
- 9.9% of county is surface water
- Major watersheds include:
 - Wisconsin river
 - Flambeau river
 - Wolf river
- All drinking water is from groundwater

The Northern Highlands ecological landscape has one of the highest concentrations of kettle lakes in the world.

Surface Water of Oneida County



NOT TO SCALE

WaterBody

DATA SOURCES AND DISCLAIMERS:

Information depicted on this map was interpreted from aerial photography and various other public land records. An attempt was made to accurately represent the information shown hereon, however, recent changes in the physical and cultural landscape may not be represented. This map is intended for planning and general use only, please refer to original source documents for detailed information. Please contact the Oneida County Land Information Office at (715) 369-6179 if you discover any discrepancies on this map.

Oneida County Land Information Office
Date: 3/15/2016
Document Path: W:\Projects\Economic_Development\OC Economic Value of Lakes.mxd

Sources of Economic Value to Vilas & Oneida Counties from Waterfront Property



- Waterfront Property Values
- Waterfront Property Tax Revenues
- Seasonal Homeowner Spending
- Tourism Revenue

All Assessed Property Values for Vilas County (2018)

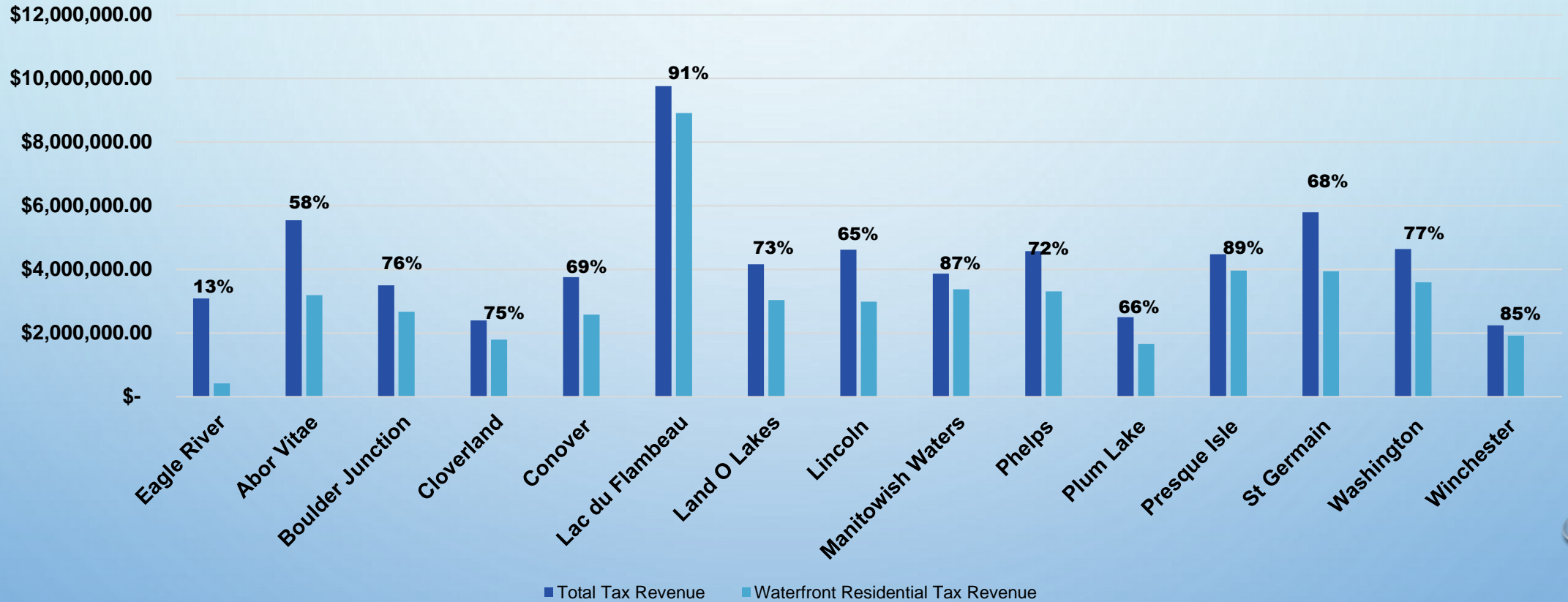
Sector	Property Valuation	% of Vilas County
Agricultural	\$10,828,700	0.15%
Commercial	\$422,918,900	6%
Productive Forest	\$109,062,200	1.5%
Manufacturing	\$10,386,700	0.15%
Undeveloped	\$35,166,500	0.5%
All Residential	\$6,400,777,950	92%
Waterfront Residential	\$5,212,812,600	75%
Total VC Property Value	\$6,989,140,950	100%

Assessed values of waterfront property in Vilas County as a percent of residential property by Township (2018)

Municipality	Assessed Value of Residential Properties	Assessed Value of Waterfront Residential Properties	% of Residential Property Assessed Value that is Waterfront
City of Eagle River	\$77,538,900.00	\$24,894,800.00	32%
Arbor Vitae	\$461,310,900.00	\$305,135,600.00	66%
Boulder Junction	\$437,634,300.00	\$367,906,800.00	84%
Cloverland	\$233,378,800.00	\$180,629,400.00	77%
Conover	\$370,262,900.00	\$273,044,300.00	74%
Lac du Flambeau	\$887,241,000.00	\$835,690,100.00	94%
Lincoln	\$388,583,900.00	\$328,696,600.00	85%
Land O Lakes	\$478,988,800.00	\$346,590,200.00	72%
Manitowish Waters	\$509,401,300.00	\$477,710,800.00	94%
Phelps	\$387,758,700.00	\$300,604,100.00	78%
Plum Lake	\$226,877,750.00	\$170,893,800.00	75%
Presque Isle	\$568,131,600.00	\$521,108,700.00	92%
St. Germain	\$635,027,300.00	\$456,837,000.00	72%
Washington	\$475,546,000.00	\$385,109,200.00	81%
Winchester	\$263,095,800.00	\$237,961,200.00	90%
Vilas County	\$6,400,777,950.00	\$5,212,812,600.00	81%

Source: VC Tax Listing

Vilas County Tax Revenues and % that are Waterfront Residences (2018)



Source: VC Tax Listing

Assessed Property Values for Oneida County (2018)

Sector	Property Valuation	% of Oneida County
Agricultural	\$ 1,891,080	0.03%
Commercial	\$ 700,551,200	10%
Forestry	\$ 233,373,200	3.45%
Manufacturing	\$ 57,709,500	0.85%
All Residential	\$ 5,733,333,400	85%
Waterfront Residential	\$ 4,175,139,500	59% of OC Total
Total OC Property Value	\$ 7,116,922,400	100%

Source: OC Land Information Office

Assessed Values of Waterfront Property in Oneida County as a percent of residential property by Township (2018)

Town	Total Valuation, \$	Waterfront Valuation, \$	% of Total
Cassian	220,628,900	168,319,000	76%
Crescent	230,730,800	163,805,400	71%
Enterprise	80,949,400	58,575,800	72%
Hazelhurst	306,800,200	250,045,400	82%
Lake Tomahawk	208,666,300	151,527,500	73%
Little Rice	62,138,800	40,263,600	65%
Lynne	26,765,000	15,468,000	58%
Minocqua	1,235,836,200	996,738,500	81%
Monico	19,854,600	8,670,400	44%
Newbold	485,267,000	333,319,000	69%
Nokomis	207,080,200	144,088,500	70%

Source: OC Land Information Office

Assessed Values of Waterfront Property in Oneida County as a Percent of Residential Property By Township (2018)

Town	Total Valuation, \$	Waterfront Valuation, \$	% of Total
Pelican	261,433,300	145,626,600	56%
Piehl	10,217,100	6,059,000	59%
Pine Lake	274,287,100	178,647,100	65%
Schoepke	106,523,900	98,408,400	92%
Stella	58,923,900	37,247,200	63%
Sugar Camp	351,587,600	261,013,800	74%
Three Lakes	896,637,500	759,000,500	85%
Woodboro	159,670,500	119,388,700	75%
Woodruff	296,162,700	189,093,400	64%
Rhineland	233,172,400	49,833,700	21%
TOTAL	5,733,333,400	4,175,139,500	73%

Source: OC Land Information Office

The Impact Of Water Clarity on Home Prices in Vilas and Oneida Counties

Study

- 60 Area Lakes
- Home Sales Data from Zillow.Com
- Secchi Data in SWIMs
- Funded in part by a Lumberjack Resource Conservation & Development Grant, and the UWEC Office of Research and Sponsored Programs

Results

- Depending on the lake, an improvement in water clarity by about 3' would increase average home sales prices by \$8,000 to \$32,000 dollars.
- Conversely, a decrease in water clarity of 3' could decrease average home sales values by up to \$45,000.

Effect of Water Clarity on Lake Home Prices in Vilas & Oneida Counties

(Representative Lakes)

Lake	County	Area (acres)	Avg Water Clarity (ft)	Value Increase + 3 ft Clarity	Value Decrease - 3 ft Clarity
McCormick	Oneida	113	2	\$32,171	-\$31,144
Otter Lake	Vilas	174	3	\$28,020	-\$42,531
Planting Ground	Oneida	1010	4	\$23,922	-\$37,806
Little St Germain	Vilas	972	5	\$22,839	-\$35,134
Island	Vilas	305	7	\$18,737	-\$26,221
Scattering Rice	Vilas	263	8	\$17,084	-\$23,080
Buckskin	Oneida	642	9	\$15,852	-\$20,878
Snipe Lake	Vilas	216	9	\$15,444	-\$20,173
South Twin	Vilas	628	10	\$14,399	-\$18,422
Kawaguesaga	Oneida	700	11	\$13,351	-\$16,737
Anvil Lake	Vilas	377	12	\$13,035	-\$16,243
Two Sisters	Oneida	719	15	\$11,210	-\$13,501
Squash	Oneida	398	16	\$10,457	-\$12,422
Blue	Oneida	441	19	\$9,283	-\$10,798

Estimated spending by Northwoods Seasonal Home Owners



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

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

Estimated spending by Vilas County seasonal home owners

- 15,458 seasonal homes in Vilas County (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:
 $\$1,146,674 \times 60 \text{ days} = \mathbf{\$69 \text{ million to the Vilas County economy}}$

Estimated spending by Oneida County seasonal home owners

- 10,226 seasonal homes in Oneida County (2018 lottery credit) that spend an estimated \$74.18 per day when occupied.
- $10,226 \times \$74.18 = \text{\$758,565 per day}$
- If seasonal home owners spend 60 days a year here:
 $\text{\$758,565} \times 60 \text{ days} = \text{\$46 million to the Oneida County economy}$

Impact of poor water quality on **Seasonal Resident Spending**

- FERC studies indicate that a waterfront homeowner would expect to spend less time at their cabin if the water quality became degraded.
- Delavan lake residents indicated that they would spend an average of a week less at the lake if the water quality became degraded.



SOURCE: FERC LAKE STUDIES DOCUMENTED ON THE REFERENCE PAGE

Sources of Economic Value from Visitor & Tourist Spending

Visitor & Tourist Spending in the Northwoods (2017)

- Vilas County: \$219 million
- Oneida County: \$230 million



Resulting State and Local Sales Taxes

- Vilas County: \$22.3 million
- Oneida County: \$22.4 million

Impact of poor water quality on **Visitor Days**

The link between Visitor Perceptions and Spending

In a New Hampshire study, half to two-thirds of visitors would decrease or cease their visits if they:

- **perceived** declines in water clarity and purity
- **perceived** declines natural views and scenery
- **perceived** declines water levels and flows
- **perceived** increases in crowding

EQUIVALENT REVENUE LOSS IN ONEIDA OR VILAS COUNTIES COULD BE AS MUCH AS

\$100 MILLION PER YEAR

How to Protect the Water Clarity of our Lakes

- Prevent pollutants and eroding soil from entering lakes and streams by protecting and restoring **shoreland and streambank buffers**
- Protect **wetlands** from being filled in or altered
- Prevent non-native species from **invading**
- Limit **impervious** surfaces near waterbodies and wetlands
- Protect the natural **movement of water** from being impeded by poorly placed property development and roads

DISSEMINATION PROGRAM

- Power Point Presentations
- Brochures
- News Releases
- Target audiences: local governments, lake organizations, local business and civic groups, Realtors, lake homebuyers.

SO HOW DO YOU DO THIS?

Township	PARCN	PARCA	SCHCOD	SCHCD2	TACRES	DESC1	Land use	ACRE1
2	1		6720	3647	22	GOVT LOT EXC 8 PLTS 26	0	0
2	2		6720	3647	0	PRT GOVT LOT 2	1	0
2	2	02	6720	3647	4.5	PRT GOVT LOT 2	1	4.5
2	3		6720	3647	0	PRT GOVT LOT 2	1	0
2	4		6720	3647	0	PRT GOVT LOT 2	1	0
2	5		6720	3647	0	PRT GOVT LOT 2	1	0

HOW WERE THE DATA ACQUIRED?

- COUNTY TAX RECORDS
- LAND INFORMATION SYSTEM (GIS)
- CENSUS DATA
- DEPT OF TOURISM
- WATER CLARITY STUDY

WATERFRONT PROPERTY DATA COLLECTION & ANALYSIS OBJECTIVES:

1. DETERMINE ASSESSED VALUE OF ALL WATERFRONT PROPERTIES IN COUNTY
2. DETERMINE ECONOMIC CONTRIBUTION OF WATERFRONT PROPERTIES
3. DETERMINE SEASONAL HOMEOWNER'S ECONOMIC CONTRIBUTION
4. DETERMINE IMPACT OF POOR WATER QUALITY (CLARITY) ON HOME VALUES
5. DETERMINE IMPACT OF POOR WATER QUALITY ON SPENDING BY SEASONAL & VISITORS

METHODOLOGY OF WATERFRONT PROPERTY DATA COLLECTION & ANALYSIS:

1. REQUEST PROPERTY TAX RECORDS OF WATERFRONT PROPERTIES FROM LAND OFFICE

REQUIRED DATA ITEMS:

- PARCEL ID
- MUNICIPALITY OR TOWN
- WATERBODY - NAME, TYPE, & SIZE
- PROPERTY VALUE - LAND & IMPROVEMENTS
- PROPERTY TAXES
- LOTTERY CREDIT

METHODOLOGY OF WATERFRONT PROPERTY DATA COLLECTION & ANALYSIS:(CONTINUED)

2. REMOVE DUPS
3. SORT BY WATERBODY TYPE & KEEP ONLY THOSE ON THE FOLLOWING TYPES:
 - LAKES
 - RIVERS
 - FLOWAGES
 - CANALS
 - THOROUGHFARES

METHODOLOGY OF WATERFRONT PROPERTY DATA COLLECTION & ANALYSIS:(CONTINUED)

4. ADD-UP DESIRED PROPERTY VALUES, BY TOWN
 - TOTAL ASSESSED VALUE OF PROPERTIES (LAND + IMPROVEMENTS)
 - PROPERTY TAXES
5. OBTAIN TOTAL COUNTY RESIDENTIAL PROPERTY VALUE VALUES FROM LAND INFORMATION OFFICE – CALCULATE % OF TOTAL THAT ARE WATERFRONT
6. DETERMINE NUMBER & VALUE OF SEASONAL HOMES USING LOTTERY CREDIT DATA

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REVIEWED STUDIES

- TANTER LAKE AND LAKE MENOMIN: THE IMPACT OF DIMINISHING WATER QUALITY ON VALUE
- LAKE DELAVAN: WHAT IS THE VALUE OF A CLEAN AND HEALTHY LAKE TO A LOCAL COMMUNITY
- NEW HAMPSHIRE LAKE VISITOR STUDY IN REPORT ON THE ECONOMIC VALUE OF NEW HAMPSHIRE'S SURFACE WATERS
- THE IMPACT OF WATER CLARITY ON HOME PRICES IN NORTHWEST WISCONSIN
- THE IMPACT OF WATER CLARITY ON HOME PRICES IN VILAS AND ONEIDA COUNTIES, WISCONSIN

REFERENCES

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- [HTTP://WWW.UWW.EDU/DOCUMENTS/COLLEGES/COBE/FERC/DELAVAN_FINAL_RE
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SONEIDA%202.5TAB.PDF](https://vilascountywi.gov/uploads/landwaterconservation/lwcc/vilasoneida%202.5tab.pdf)
- [HTTP://DES.NH.GOV/ORGANIZATION/DIVISIONS/WATER/WMB/LAKES/ECONOMIC_V
ALUES.HTM](http://des.nh.gov/organization/divisions/water/wmb/lakes/economic_values.htm)



QUESTIONS?

AND THANK YOU FOR YOUR ATTENTION

Visitor spending – Vilas & Oneida Counties Compared to Other Recreation & Neighboring Counties

County	2016 (Millions)	Population	Per capita direct spending
Sauk County	\$1,047.9	58,261	\$17,986.30
Door County	\$347.8	28,200	\$12,333.33
Adams County	\$208.7	20,875	\$9,997.61
Vilas County	\$212.5	22,379	\$9,495.51
Oneida County	\$221.8	36,779	\$6,030.61
Walworth County	\$528.9	101,007	\$5,236.27
Iron County	\$19.6	5,916	\$3,313.05
Forest County	\$13.8	9,304	\$1,483.23

SOURCES OF ECONOMIC VALUE FROM ONEIDA COUNTY **SEASONAL RESIDENTS**

HOW MANY WATERFRONT RESIDENTS ARE SEASONAL ?

- **DETERMINING SEASONAL WATERFRONT RESIDENTS**
 - IDENTIFIED ALL WATERFRONT HOMES WITH VALUE > \$10K
 - IDENTIFIED ALL WATERFRONT HOUSEHOLDS THAT APPLIED FOR *RESIDENT LOTTERY CREDIT*, IMPLYING THAT THEY ARE RESIDENTS

- **THE RESULTS**
 - 10,226 SEASONAL HOMEOWNERS
 - **75% OF WATERFRONT HOMEOWNERS ARE SEASONAL**
 - \$2.8 BILLION = TOTAL VALUE OF SEASONAL WATERFRONT PROPERTIES
 - 48% OF OC TOTAL RESIDENTIAL VALUE IS SEASONAL HOMES
 - 67% OF TOTAL WATERFRONT PROPERTY VALUE IS SEASONAL HOMES

SEE TOWNSHIP SEASONAL HOMEOWNER COMPILATION DETAIL AT END OF REPORT.

CONCLUSION: TOTAL MONETIZED VALUE OF ONEIDA COUNTY LAKES & RIVERS

ASSESSED WATERFRONT PROPERTY VALUE: \$4.2 BILLION

ANNUAL REVENUE:

- WATERFRONT PROPERTY TAX REVENUE: \$47 MILLION
- SEASONAL RESIDENT SPENDING: \$52 MILLION
- FULL-TIME WATERFRONT RESIDENT SPENDING: \$168 MILLION
- VISITOR & TOURIST SPENDING: \$229 MILLION
- **TOTAL: \$496 MILLION**

ANNUAL LOSS DUE TO POOR WATER QUALITY

- WATERFRONT PROPERTY TAX REVENUE: \$2.5 MILLION
- SEASONAL RESIDENT SPENDING: \$4 MILLION
- FULL-TIME RESIDENT SPENDING: NOT YET STUDIED
- VISITOR & TOURIST SPENDING: \$100 MILLION
- **TOTAL: \$106.5 MILLION**