



The Value of Riparian Property on Michigan's Inland Lakes and the Impact of Water Quality

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Riparian Property Valuation for 8 Lakes in Mecosta Co. in 2007

<u>State Equalization Value</u>	<u>Taxable Value</u>	<u>Percent</u>
\$166,465,000	\$92,614,000	55.6

Market Value ($2 \times \text{SEV}$) = \$332,930,000

Taxes Generated ($\sim 3\%$) = \$2,778,400



Stratified Sampling

Urban Lakes ~ 30%

Rural Lakes ~ 70%

Small, Medium, and Large Lakes

Upper Peninsula Lakes

Lower Peninsula Lakes (upper & lower)

Percent of Michigan Lakes Larger than 50 Acres by Location

Upper Peninsula

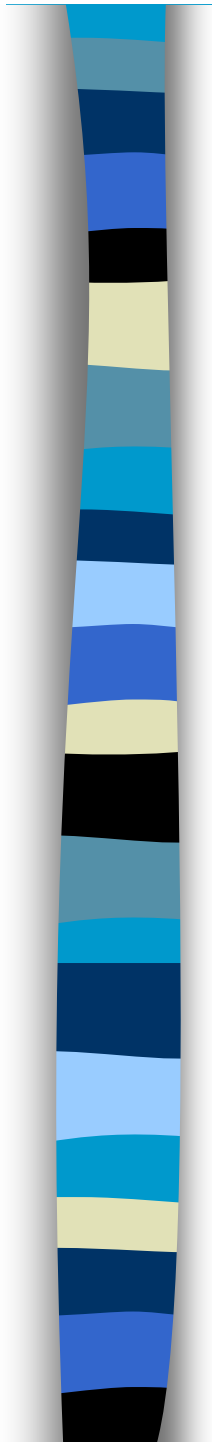
34%

Northern Lower

27%

Southern Lower

39%





Distribution of Michigan Lakes by Size

<u>Acres</u>	<u>UP</u>	<u>Northern Lower</u>	<u>Southern Lower</u>
Under 50	2,270	2,160	3,120
50 – 499	594	471	681
500 – 999	36	29	42
Over 1000	23	71	23



Average Dollar Value in Millions of Michigan Lakes by Size

<u>Acres</u>	<u>UP</u>	<u>Northern Lower</u>	<u>Southern Lower</u>
Under 50	9.2	13.2	17.4
50 – 499	45.7	65.3	98.0
500 – 999	67.8	96.9	145.3
Over 1000	96.0	137.1	205.7



Total Dollar Value in Billions for Michigan Lakes by Location

Upper Peninsula

43.7

Northern Lower

56.8

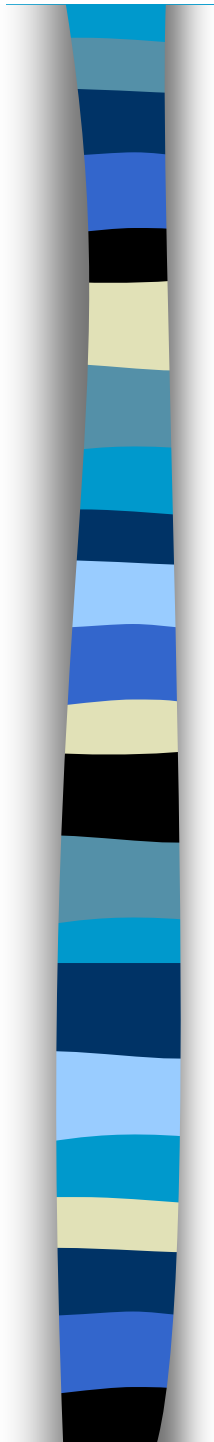
Southern Lower

99.5

Total Value \cong \$200 Billion

Taxable Value \cong \$113 Billion

Annual Taxes Generated \cong \$3.4 Billion



- What about backlot riparian property values?
- Where do backlots end?
- Ballpark estimate for backlots for three lakes in Mecosta County was 27% of the waterfront property.
- Therefore, the total property value for Michigan inland lakes adding the backlot estimate would be $\$200 \text{ billion} \times 1.25\% = \underline{\$250 \text{ billion}}$

Studies in other states by other investigators indicated that
When Water Clarity ↑ by 1 m:

- ↑ Value per frontage foot \$34-81 (2-9% of property's value)
- ↑ Value of property \$1,200-11,000 (1-13% of property's value)
- ↑ Value of lake \$6,500,000 to \$9,400,000

Study by Norton, Cheruvellil, & Kramer

Results: ↑ Water Clarity by 1 m =

↑ Value per frontage foot **\$20 - \$194 (1-6%)**

Higher end of that found previously

↑ Value of property **\$6,383 (2.3%)**

Within the previously identified range

↑ Value per lake >**\$100,000 – \$12,000,000**

Generally higher than previous studies



Implications

- Property values translate into property taxes.
- Results can inform policymakers and property owners...value of natural features (e.g., water clarity) is:
 - ◆ Incentive for policies to protect lakes (e.g., nutrient criteria) and other natural features
 - ◆ Way for public to understand why these policies are important

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