

The vast majority of Wisconsin's nearly two hundred thousand piers are at or under the dimensions set by state law in 2004, based on a recent study by the Department of Natural Resources.

The Results

Table 1 shows that 85 percent of piers on Wisconsin lakes met the length, width and boat density limits in state law. The study showed that piers which exceed the standard dimensions fit into several categories. The two most common categories of existing piers that are not exempt were 1) multiple boat-slip marina-type facilities, and 2) piers with very large platforms or decks. Many existing marinas already have DNR permits, so they are unaffected by the new law. Other observations from the study include:



Typical exempt pier

Table 1. Wisconsin Lakes in Pier Study

Lake Name	County	Acres	# Piers	%Exempt	%Permit
Bass	Marathon	84	5	100.00%	0.00%
Bass	Barron	23	5	100.00%	0.00%
Big (Three Lakes)	Oneida	865	116	84.48%	15.52%
Big Hills	Waushara	133	107	93.46%	6.54%
Black Oak	Langlade	59	48	91.67%	8.33%
Bladder (Kransz)	Bayfield	81	0	N/A	N/A
Bullhead	Manitowoc	67	13	92.31%	7.69%
Cable	Washburn	185	56	80.36%	19.64%
Camp Six	Forest	52	0	N/A	N/A
Clam Falls Flowage	Polk	127	5	100.00%	0.00%
Ellerson Lake East	Vilas	136	0	N/A	N/A
Fourth Lake (Moen)	Oneida	258	57	84.21%	15.79%
Franklin	Oneida	161	39	89.74%	10.26%
Goose	Burnett	68	0	N/A	N/A
Keesus	Waukesha	237	253	71.54%	28.46%
Kekegama	Washburn	110	34	100.00%	0.00%
Kirby	Barron	92	25	96.00%	4.00%
Knuteson	Sawyer	70	0	N/A	N/A
Lac du Lune	Vilas	426	12	83.33%	16.67%
Loon	Douglas	109	3	100.00%	0.00%
Lulu	Walworth	84	0	N/A	N/A
Lyman	Douglas	403	58	100.00%	0.00%
Minocqua	Oneida	1360	544	93.20%	6.80%
Monona	Dane	3274	345	48.99%	51.01%
Moon	Barron	84	13	100.00%	0.00%
Pickerel Lake	Forest	1299	322	87.27%	12.73%
Pine (Springwater)	Waushara	143	112	83.04%	16.96%
Pleasant	Waushara	127	132	93.18%	6.82%
Skawanaw	Lincoln	69	0	N/A	N/A
Twin Bear	Bayfield	172	78	98.72%	1.28%
Ward	Polk	91	65	87.69%	12.31%
Washburn	Oneida	80	21	95.24%	4.76%
Windfall Lake	Forest	55	19	84.21%	15.79%
Wingra	Dane	345	4	75.00%	25.00%
Winneshiek	Crawford	5250	0	N/A	N/A
Statewide:			186,984	85.16%	14.64%

- *Small percentage of piers are much wider than legal limit*

The study showed that 85% of all piers met the 6-foot width limit, while another 9% had decks or platforms up to 120 square feet in size. Fewer than 5% of all piers surveyed had a deck larger than 120 square feet, and less than 2% were substantially over the standard size with decks larger than 200 square feet in size. See Table 2.

Table 2. Frequency of platform size on piers.

Platform Size (square feet)	Percent of Piers
none	85.91%
up to 80	5.29%
81-120	4.09%
121-160	2.03%
161-200	1.49%
over 200	1.19%

- *Most piers are proper length*

Very few piers in the study extended out beyond the three-foot water depth. In the few cases piers were longer to accommodate the water-depth requirements needed for the boat or boats docked there.

• *Larger piers clustered*

Seven lakes in the study had 100% of their piers meeting the statutory dimensions. Only 49% of existing piers on Lake Monona in the City of Madison meet the statutory size. By contrast, more than 93% of the existing piers on Lake Minocqua in Oneida County, another highly developed lake, are at or under the standard size. See Figure 1. Survey data for Lake Monona showed that most piers had larger platforms, and that these larger piers tended to be clustered at neighboring properties along specific areas of the shoreline.

The Study Design

Study lakes were randomly selected from the Wisconsin Lakes Book, a long-standing reference list of 15,081 documented lakes, using commercially-available software. This analysis sought a list of lakes with approximately two-thirds greater than 100 acres in size and one-third less than 100 acres, and required that all selected lakes have public access to allow Department staff to conduct the survey. Piers were evaluated on 35 lakes in August and September 2005. Department staff noted all piers on each lake. For each pier, water depth at the end, number of boats docked, and maximum width were recorded. For any pier greater

than 6-feet wide, dimensions were measured to document overall pier shape and size. Surveys of lake were done by boat from the water or air photo interpretation (for lakes with less than five piers). Knowing the shoreline length for the study lakes, the number of piers per mile was calculated. These averages were projected on a statewide basis using data for shoreline length of the states' lakes to estimate the total number of piers and the proportion of piers of certain sizes statewide. Averages were projected separately for lakes over 100 acres and under 100 acres and then combined. The study method somewhat overestimates the total number of piers statewide because more than three-fourths of all Wisconsin lakes are under 25 acres and have fewer piers, but rarely have public access, and so are underrepresented in the sample.

Why is this an issue today?

In 2004, state lawmakers passed Act 118, which established the sizes for piers to be exempt from state permitting. Under this law, piers do not need a permit if:

- The pier is no more than 6 feet wide
- The pier extends into the water only as long as needed to adequately moor the owner's boat or a depth of three feet, whichever is greater, and
- The pier has a maximum of two boats for up to 50 feet of frontage and 1 for every 50 feet after that

These dimensions are the same as guidelines recommended by DNR since the early 1990's, in the "Pier Planner" brochure. Other piers can also be exempt if they do not harm habitat, neighbors or navigation patterns. After the 2004 law went into effect, many pier owners wanted to know how the changes would affect them, especially if they had an existing pier that did not meet the dimensions referenced in the law. This study shows the vast majority of existing piers are at or below those dimensions.

You'll find more information on Wisconsin pier regulations and the current Pier Planner brochure on DNR's website at:

www.dnr.state.wi.us/org/water/fhp/waterway/piers.shtml.

For research on piers and sensitive shallow water habitat, see:

www.dnr.wi.gov/org/es/science/fish/habitat.htm.

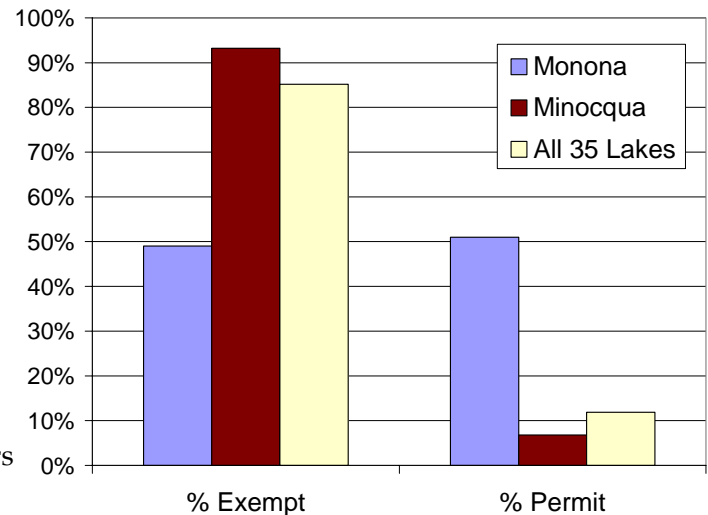


Figure 1. Percentage of piers exempt or requiring permit

