

16. Forest ownership, land use, and specially designated areas

16.1 Forest land and population

Human population growth is generally regarded as the greatest threat to the world's environment. Combined with increases in income and wealth, population growth leads to development pressure on forest lands (Alig, 2004). More people living in forests can mean less land for growing and harvesting trees, more need for fire planning in the wildland-urban interface, loss of open hunting grounds, spread of invasive species and the displacement of interior forest wildlife with edge dwellers, among other issues.

Wisconsin's estimated population of 5,627,967 in 2008 is 253,834 (4.72%) higher than in 2000 and 725,702 (14.8%) higher than 1990. This extends a long-running population increase trend (Figure 16.a). Neighboring states have experienced similar growth in the number of people, many of whom are attracted to recreational opportunities in Wisconsin and are in the market to own woodland.

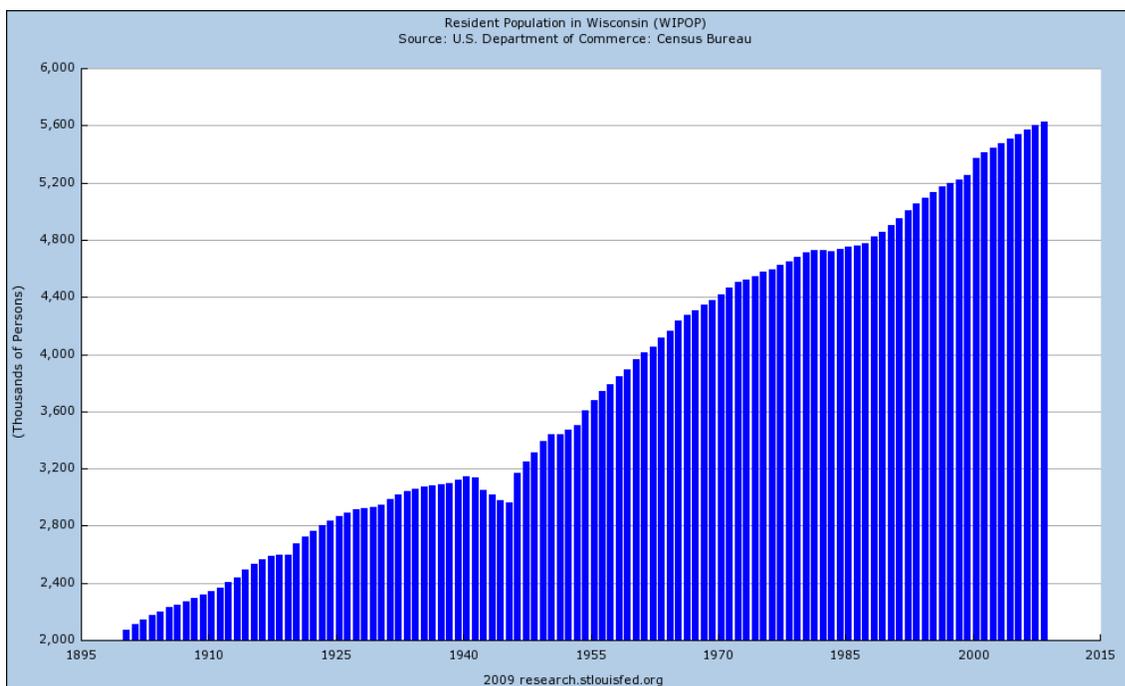
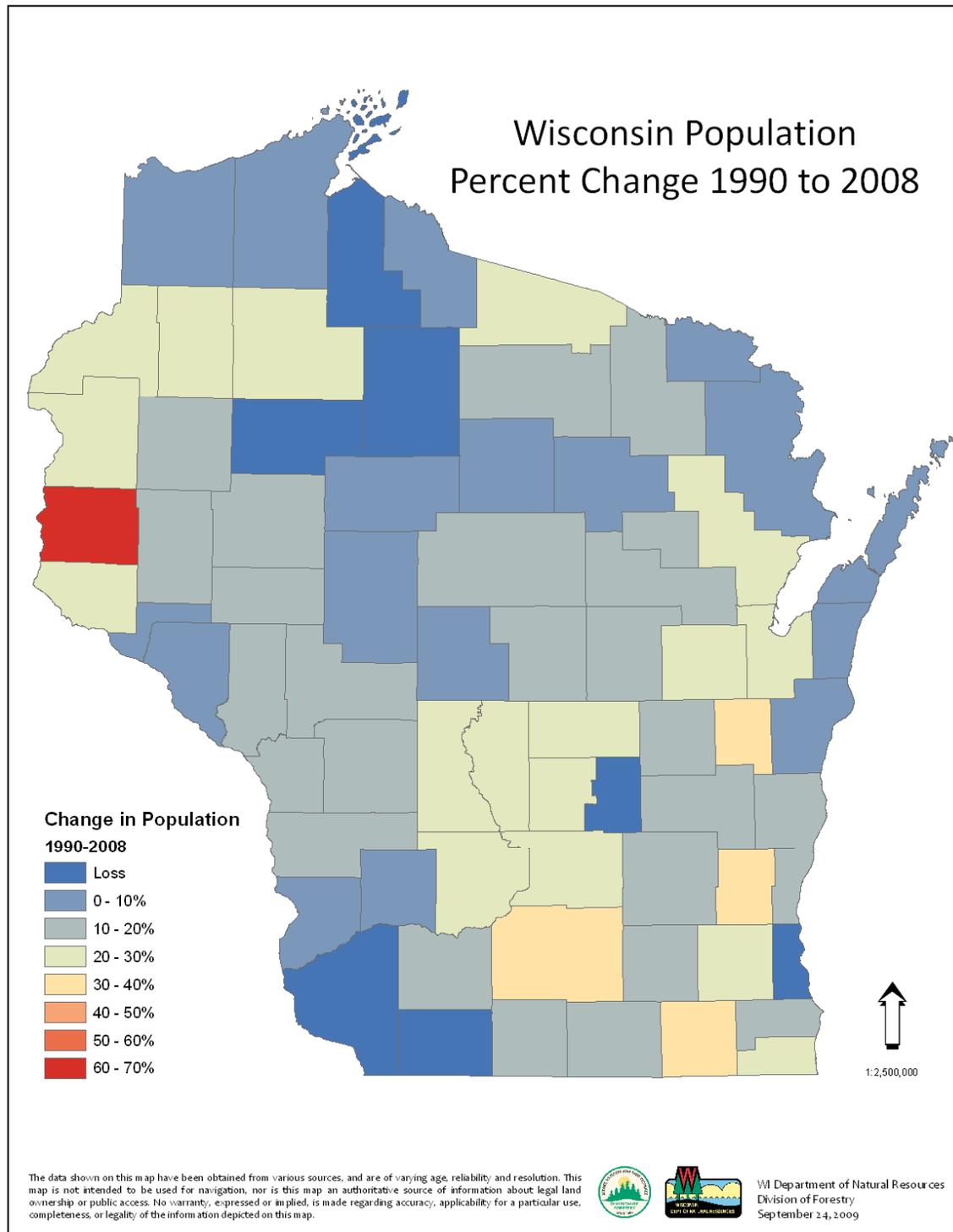


Figure 16.a: FRED®: [Resident population in Wisconsin 1900 to 2008](#)

Growth in resident population is unevenly distributed across the state. Map 16.a shows the areas of the state with the highest percentage increase in population from 1990 to 2008. As might be expected, the population near urban centers and along primary transportation corridors grew the fastest on a percentage basis. Proximity to the Twin Cities had significant impact on St. Croix County, for example, which experienced the largest population rise in the state with a 64% increase. Recreation destinations such as Washburn, Sawyer and Vilas Counties in the Northwoods also saw large relative increases in resident populations.

16. Forest ownership, land use, and specially designated areas



Map 16.a: Percentage change in Wisconsin population grid 1990 to 2008
(Source: U.S. Census). See data for each county in Table F.1 in Appendix F.

16. Forest ownership, land use, and specially designated areas

In addition to having more people, Wisconsin's population enjoyed sustained growth in per capita personal income (Figure 16.b). Although per capita income gains were only slightly greater than inflation during the last couple decades, Wisconsin household income (ranked 21st in the United States) increased substantially because of the growth of dual-income families (U.S. Census, 2008).

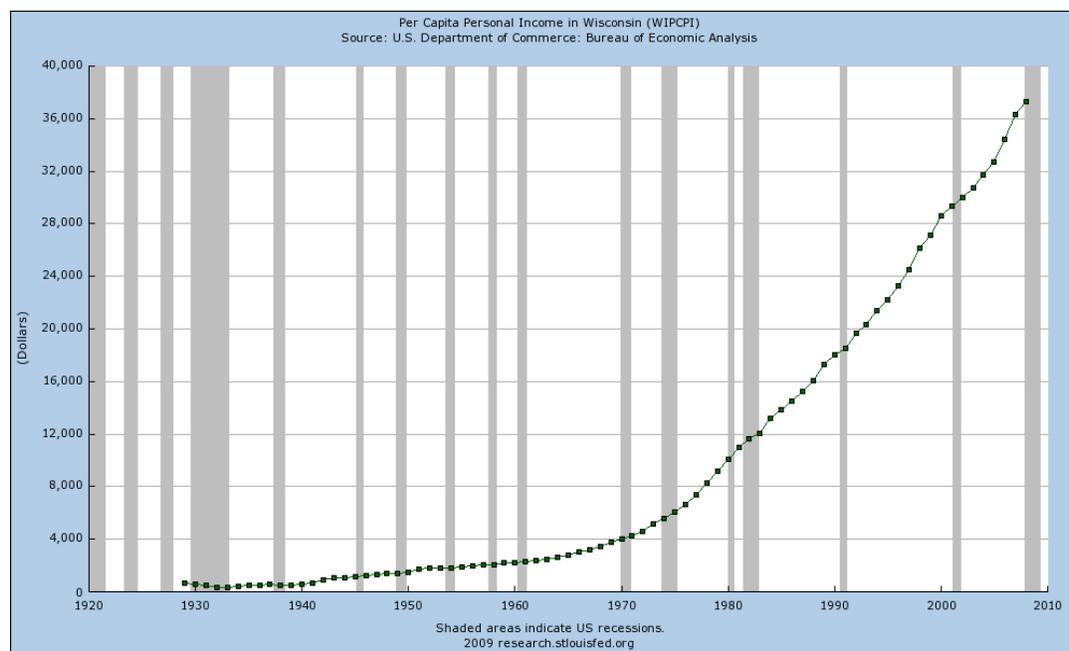
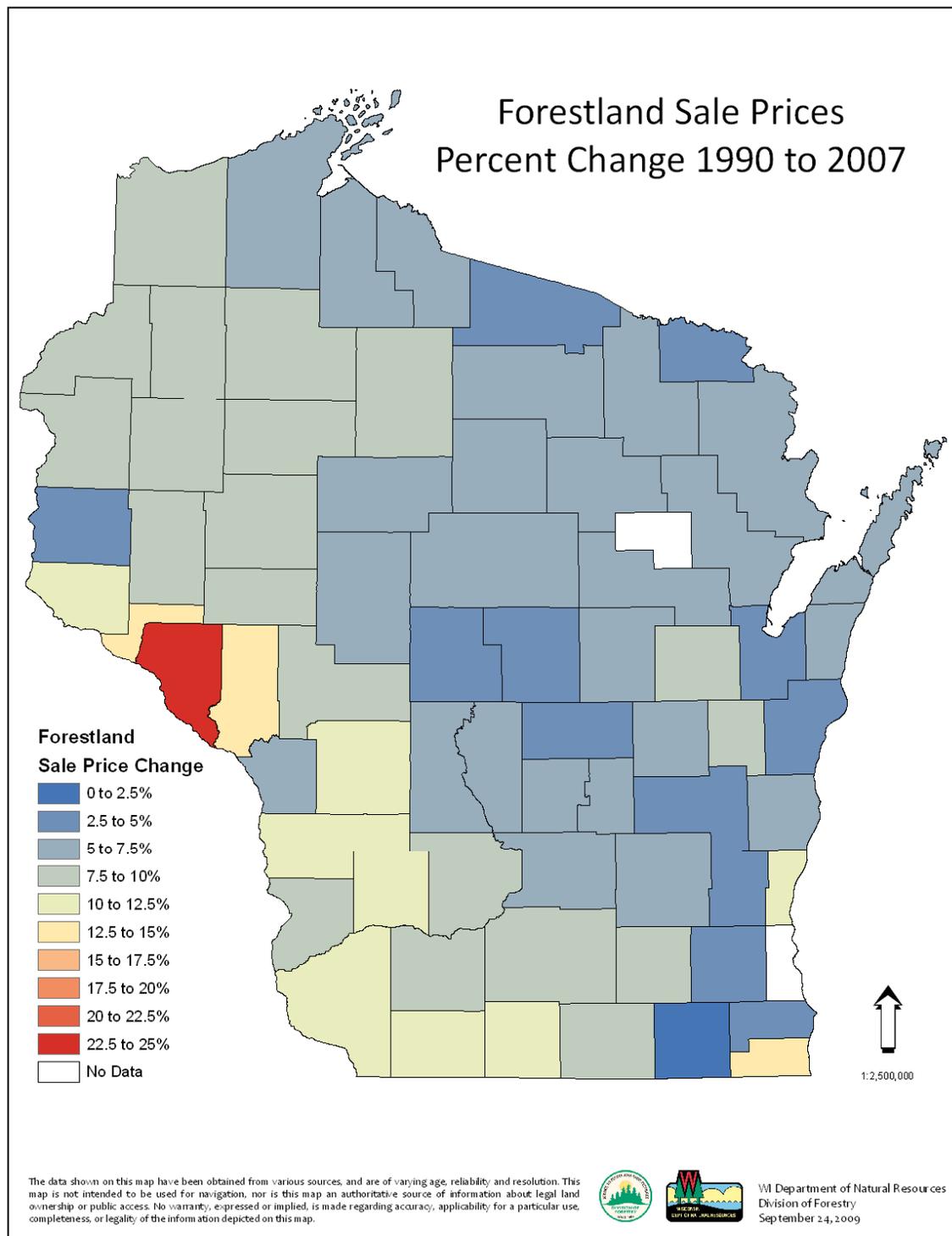


Figure 16.b: FRED® - [Per capita personal income in Wisconsin 1930 to 2008](#)

Since World War II, inflation-adjusted disposable income, consumption and wealth have roughly tripled on a per capita basis in the United States (Kennickell, 2008). For residents and non-residents alike, that translated into more interest in owning forest land and the ability to purchase it. Fueled by growing population and higher economic well-being, the demand for forest land caused sale prices to jump in the last couple decades (Map 16.b).

16. Forest ownership, land use, and specially designated areas



Map 16.b: Percentage change in Wisconsin forest land sale prices 1990 to 2007
 (Source: USDA National Agricultural Statistics Service). See data for each county in Table F.2 in Appendix F.

16. Forest ownership, land use, and specially designated areas

The change in forest land values in the seventeen years spanning 1990 to 2007 is especially dramatic in western and southwestern parts of Wisconsin where smaller parcels of woodland are mixed with farms. Sale activity data complements U.S. Forest Service research that found farmers have been divesting their holdings. For example, in 1956, farmers owned 6.4 million acres of forest land in Wisconsin. By 1997, farmer-owned forest land had declined to 1.5 million acres (Leatherberry, 2001).

In La Crosse County, woodland selling for an average price of \$609 per acre in 1990 sold for an average of \$4,153 per acre in 2007, nearly a seven fold increase. Table F.2 in Appendix F details additional county-level price changes. Statewide, average forest land values increased from \$311 per acre to \$2,438, a 683% increase in seventeen years. In the eight years from 1999 to 2007, the statewide average forest land sale price went from \$1,068 to \$2,438, a smaller 128.28% simple increase. These figures are based on DNR analysis of USDA National Agricultural Statistics Service data on forestland sales.

The annualized compound rate of statewide forest land price increases over 1990-2007 was 12.87%. That compares to an annualized compound rate of inflation during the same period of only 2.76%. The pace of forest land price increases slowed later in the period, with a 10.87% compound annual rate of change between 1999 and 2007. This compares to a U.S. inflation rate of 2.78% over the period of 1999 to 2007, demonstrating that forest land values continued to rise relatively faster than other costs.

Changes in forest land sale prices are an indicator for other transforming values. While separating woodlands from working farms, other land splits and rural development may help more people satisfy their notion of “the good life”, high forest land values create barriers to entrepreneurial land management activities such as agriculture and timber production (Alig, 2004). Negative effects on recreation opportunities, forest health, local communities, and ecological vigor can also be anticipated from parcelization and fragmentation. Solutions will require a combination of strategies involving regulation, taxes, incentives, acquisition or easements, education and ethics. (Rickenbach and Saunders, 2009)

Policy changes and the economy greatly influence where forest land property values will head next. They were carried to their current position by the “Boomer” generation and their parents. Land use planners and managers will need to continue monitoring such trends.

16.2 Forest land ownership

Forest ownership is tracked by Forest Inventory Analysis (FIA) and the National Woodland Owner Survey (NWOS). According to the most recent comprehensive report of 2006 data, Wisconsin has 16 million rural forested acres (47% of the total land area). Of the forest land, 61.88% is held by non-industrial private forest land (NIPF) owners. The rest is owned by local government (primarily County Forests), 15.4%; federal government, 9.68%; state government, 6.61%; forest industry, 4.17%; and Native American Tribes, 2.26% (Butler, 2008).

16. Forest ownership, land use, and specially designated areas

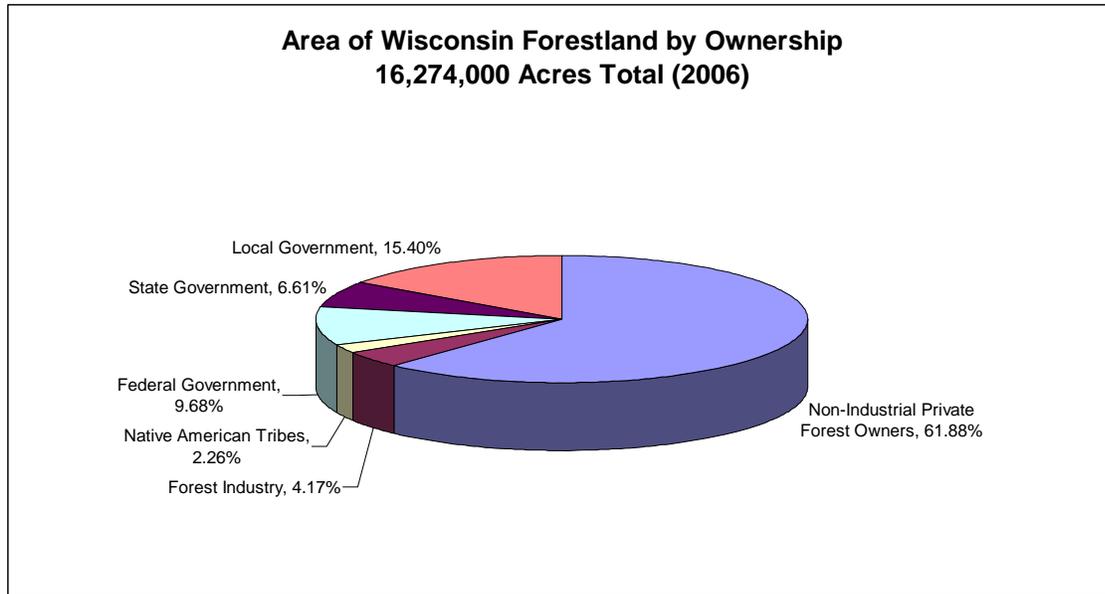


Figure 16.c: 2006 Area of Wisconsin forest land by ownership (Butler, 2008)

As described in section 16.1, more people are engaging in woodland ownership. Total NIPF acreage rose 14.23% and forest industry ownership fell 51.50% during the 38 year span shown in Figure 16.d.

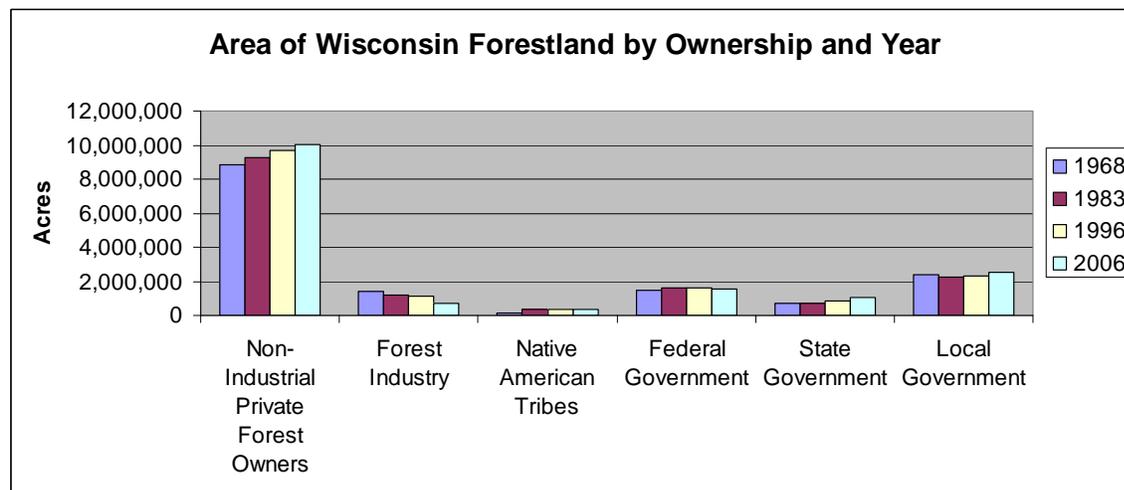


Figure 16.d: Area of Wisconsin forest land by ownership by year (Butler, 2008) (Schmidt, 1996) (Spencer 1983) (Spencer 1972) – Sampling error may account for minor variation.

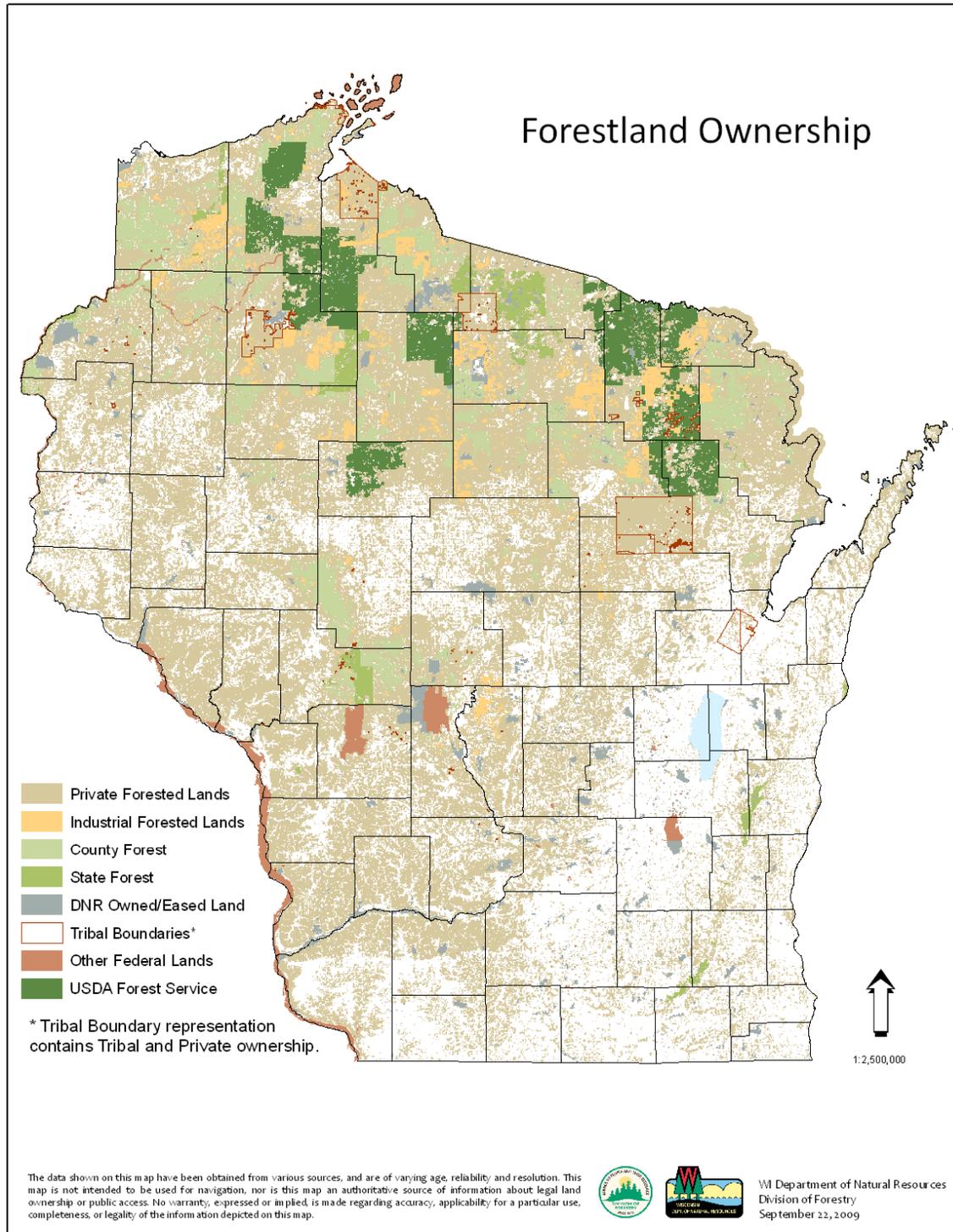
The continuing evolution of private forest holdings is revealed in 1997-2006 figures. The number of private landowners jumped from an estimated 263,000 in 1997 to 362,000 in 2006, a 37.64% increase. The average NIPF parcel shrank from 37 acres in 1997 to 28 acres in 2006. The number of small parcels less than 50 acres grew – parcels in the smallest 1-9 acre category nearly doubled – and area in ownership categories over 100 acres dropped.

Table 16.a: Area of private forest land in Wisconsin by ownership size 1997-2006 (FIA, NWOS, 2007)

16. Forest ownership, land use, and specially designated areas

Size Class of Owners	Owners (<i>thousands</i>)			Acres (<i>thousands</i>)		
	1997	2006	% Change	1997	2006	% Change
1-9	92	176	91.30%	339	529	56.05%
10-19	40	46	15.00%	518	575	11.00%
20-49	69	77	11.59%	2,157	2,204	2.18%
50-99	37	36	-2.70%	2,290	2,411	5.28%
100-199	17	19	11.76%	2,111	1,996	-5.45%
200-499	7	7	0.00%	1,569	1,496	-4.65%
500-999	1	1	0.00%	435	423	-2.76%
1,000-4,999	<1	<1	0.00%	316	304	-3.80%
5,000+	<1	<1	0.00%	1,077	810	-24.79%
Total	263	362	37.64%	10,812	10,749	-0.59%

16. Forest ownership, land use, and specially designated areas



Map 16.c: Forest land ownership
(Source: WDNR, Division of Forestry, 2009)

16. Forest ownership, land use, and specially designated areas

The status of Wisconsin large-owner industrial forest land has been turbulent. Vertically-integrated forest products companies have been divesting their timberland assets throughout the U.S. Companies actions have been prompted by a perception that industrial forest holdings are undervalued and by paper and other forest products manufacturing restructuring due to global competition. Their theory was that they could take undervalued land, convert it to cash, and continue to produce paper and other products through long-term wood supply contracts with the new land owners (Hagan, 2005). That the wood supply chain will hold up over time may be a tenuous assumption as more of the land is spun off by investors to small—often recreational or residential—ownerships.

In Wisconsin, about one million acres of industrial forest blocks changed ownership not just once but multiple times in the last decade. Nearly all industrial forest land is enrolled in the state forest tax law programs, facilitating tracking ownership changes as shown in Figure 16.h. The portion of land owned by forest products companies fell from 62% in 2002 to 24% in 2008 after transfer primarily to Real Estate Investment Trusts. An additional 210,084 acres of industrial forest land were sold to a host of small ownerships and public agencies between 1999 and 2008.

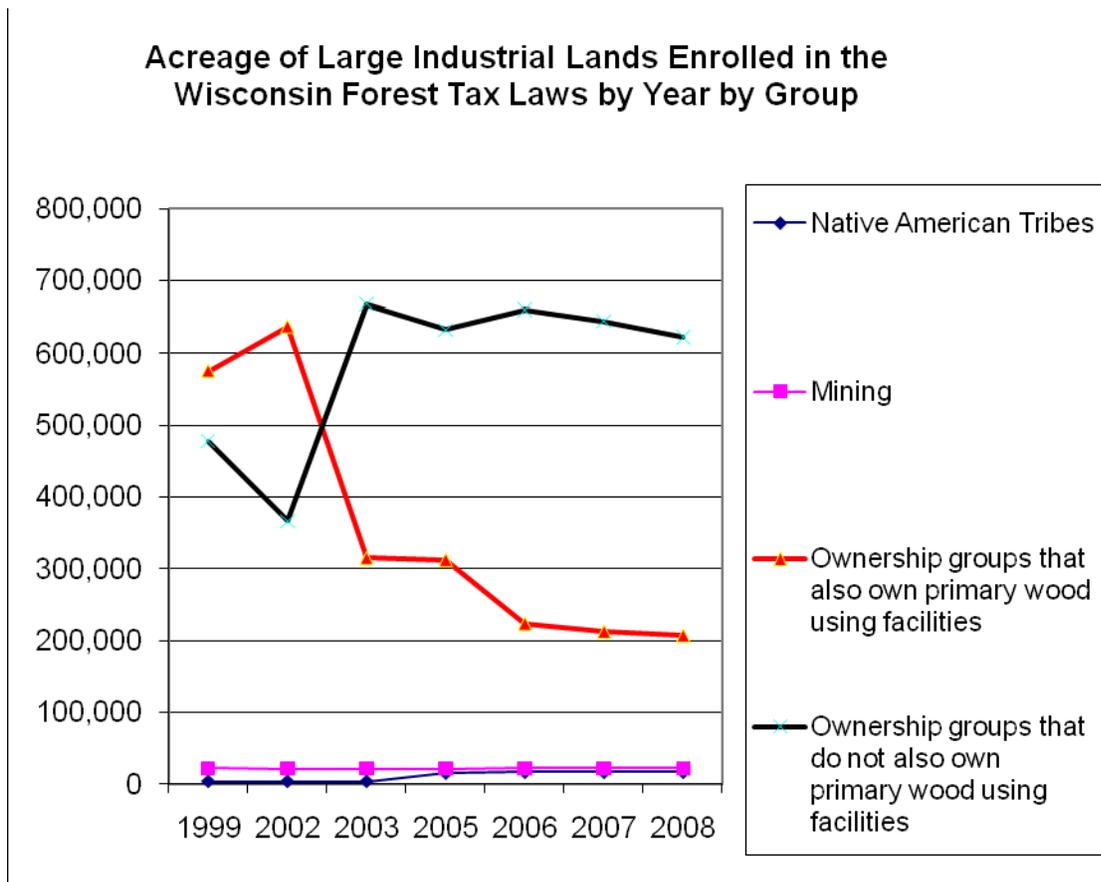


Figure 16.e: Large industrial forest ownerships by category, 1999-2007
(Source: WDNR, Division of Forestry, 2009)

In addition to negative impacts from parcelization noted elsewhere in this assessment, Hagan (2005) observes the following issues that have been experienced in Wisconsin:

16. Forest ownership, land use, and specially designated areas

- The development pressure in shoreland areas along lakes and streams grew dramatically and appears to be facilitated by landowner type change.
- Many of the new owner types (e.g., financial investors, timber brokers, individuals or families) do not participate in social discourse on sustainable forestry, such as forest certification.
- When timberland changes ownership, new owners may incur a debt burden from the land purchase that can lead to aggressive timber harvesting.
- Investment in silviculture and biodiversity research has been declining since many of the new landowners do not view research as a social responsibility associated with owning timberland, or they simply cannot afford to contribute to research.

Another implication of the growing number of NIPF owners is the need for technical forestry assistance, landowner education, and incentive programs to encourage new landowners to engage in responsible forestry. The DNR conducted private forestry assistance program reviews in 1999 and 2004 that resulted in constructive initiatives. Considering the ongoing change in land ownership and the emergence of new issues, an updated private forestry assistance review and a high-level Legislative Council study on the Managed Forest Law were recommended by the Council on Forestry in February 2010.

16.3 All public lands

Public forest lands are generally undeveloped, and uses in Wisconsin are mostly limited to activities such as outdoor recreation, watershed protection, growing renewable forest crops, habitat management. Public lands also play a critical role in preserving biodiversity, cultural history and other non-commercial values.

Estimates from the 2006 National Woodland Owner Survey presented in section 16.2 show approximately 5,157,000 acres of public forest land, 32% of the state's total forest area (Butler, 2008). Data based on DNR land records and other sources in Table 16.b list 6,627,415 acres of all public land in 2009. The DNR data includes grasslands, wetlands, crop fields and other property in addition to forests. Of the local government land in the table, 2,361,944 acres are located in 29 County Forests. The federal land includes 1,529,204 acres in the Chequamegon-Nicolet National Forest. Other federal land in Wisconsin is owned by the Department of Defense, the U.S. Fish and Wildlife Service, Army Corps of Engineers and the U.S. Park Service. DNR land is detailed by management program in Appendix F, Table F.3. The Board of Commissioners of Public Lands (BCPL) holdings are mainly scattered across Oneida, Forest, Price, Vilas, Iron, Lincoln, Langlade, Florence and Marinette counties. All public land is mapped by ownership in Map 16.d.

16. Forest ownership, land use, and specially designated areas

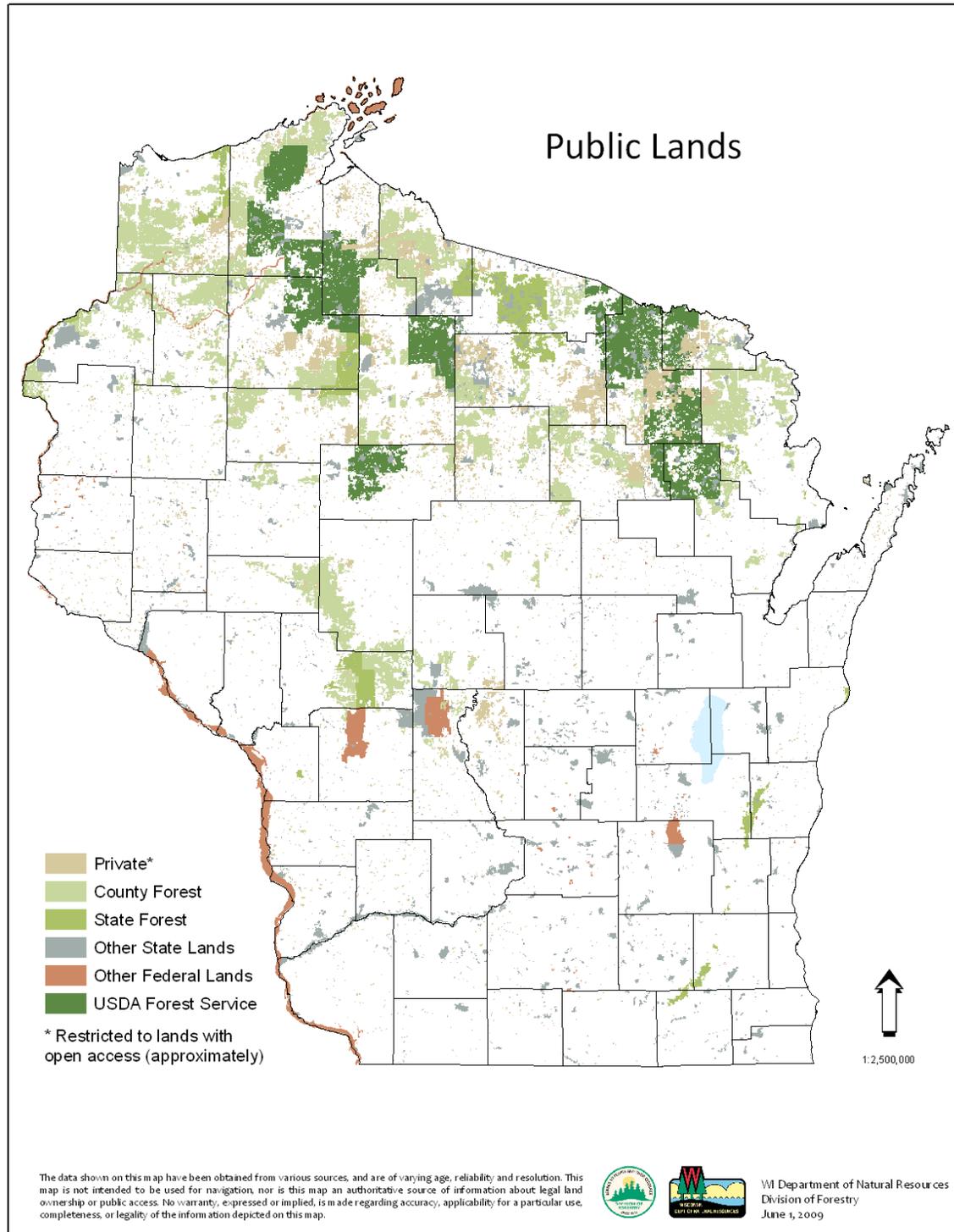
Table 16.b: Public land ownership in Wisconsin (See detail in the Appendix at end of this document)

Landowner	Acres	Percent of Land Area
Local Govt.	2,594,625	7.46%
Federal	2,335,000	6.72%
DNR	1,622,390	4.67%
BCPL	75,400	0.22%
Total	6,627,415	19.07%

State Land Area	34,758,500	
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(Source: DNR, 2009)

16. Forest ownership, land use, and specially designated areas



Map 16.d: All Wisconsin public land
Source: DNR, Division of Forestry, 2009

16. Forest ownership, land use, and specially designated areas

The most important source of funding for new public land and conservation easement purchases in Wisconsin is the Warren Knowles – Gaylord Nelson Stewardship Program. The Stewardship Program was first authorized in 1989. Under the program, DNR acquires land and provides grants to local units of government and non-profit organizations for land acquisition and property development activities. The program was most recently reauthorized as part of the 2007-2009 State Budget for a ten-year period beginning with fiscal year 2010-11 and ending fiscal year 2019-20. The annual bonding authority was increased from \$60 million to \$86 million for this additional 10-year period (Rushmer, 2009).

As shown in Table 16.c, DNR purchased almost a half million acres of conservation land since the Stewardship Program started in fiscal year 1990. Continuing the Stewardship Program for an additional ten years provides for great stability in land protection by the DNR, local governments, land trusts, and many conservation partners. Knowing the program will continue to 2020 allows for long-range planning and patient negotiations with landowners to be successful. It will also allow the DNR and its partners to be ready and capable of taking advantage of matching federal funding sources as they become available in future years.

Table 16.c: Knowles-Nelson Stewardship Program Purchases 1990-2008

DNR Program	Cumulative Total Acres Since 1990
Fisheries	39,508.84
Northern Forests	128,966.67
Parks	30,412.53
Natural Area	56,076.31
Southern Forests	5,564.97
Wildlife	92,148.53
Wild Rivers	99,965.28
Other	5,319.73
Total Acres	457,962.86

Source: DNR, 2009

While the number of acres of public land has grown, an often overlooked corollary is that budgets for land management have shrunk. Figure 16.f shows the cumulative acreage purchased under the Stewardship program between fiscal years 1990 and 2007. It also shows how the fiscal resources (wages for Limited Term Employees and operations funds) available within the DNR Land Division for property management changed during that time, on a per-acre basis. Division of Land funding dropped from about \$60 per acre to just over \$30 per acre in that time period. The chart does not reflect mandatory state budget reductions that were made in 2008 and 2009 in response to the economic recession, and so DNR resources to manage land continue to fall. As captured in forest certification reports, the state is struggling to complete property management master plans, collect biotic data, maintain roads and infrastructure, control invasive species and address other critical public land management duties.

16. Forest ownership, land use, and specially designated areas

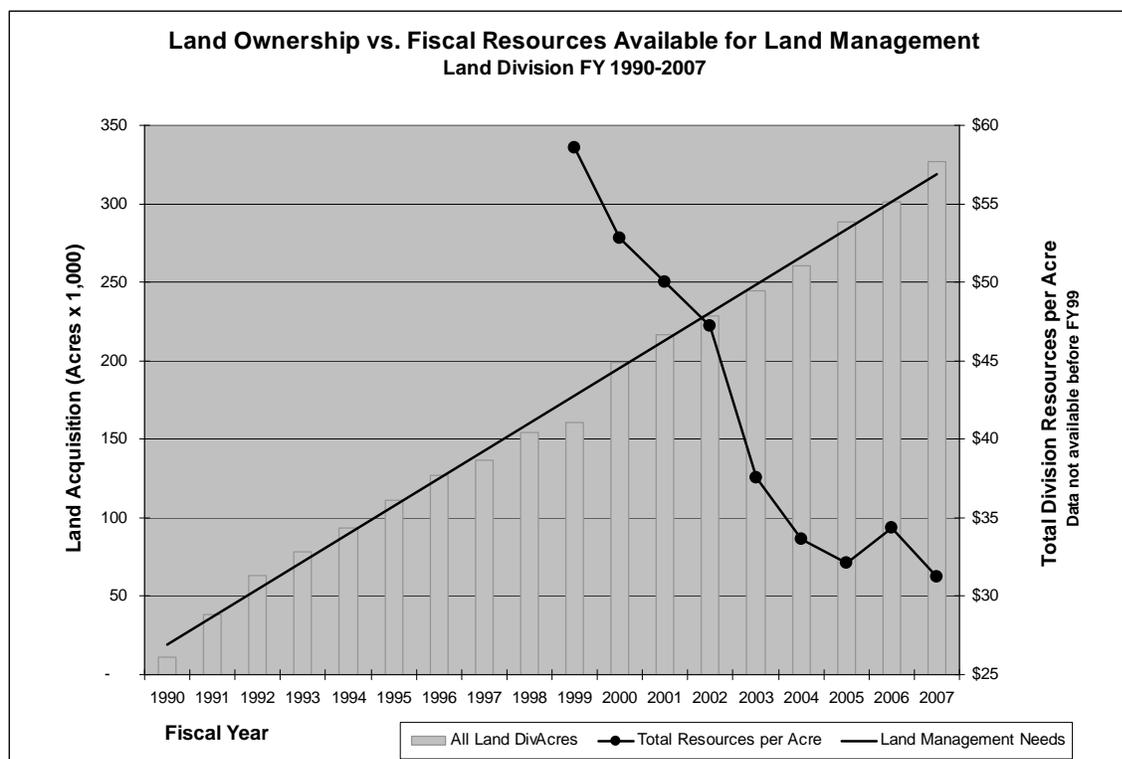


Figure 16.f: DNR land acquisition and resources available

(Source: DNR Division of Land Budget Proposal - 2009-11 Biennium, June 6, 2008)

16.4 Protected lands

The definition of “protected” forest land is subject to debate. One generally accepted approach was initially developed by the USGS Wisconsin GAP Analysis Program and currently administered by the PADUS Project is the Protected Areas Database. The database was developed as a geographic information system (GIS) dataset that represents protected areas in the coterminous United States, Alaska, and Canada, and their associated protection levels presented as Gap Analysis Program (GAP) codes. It includes land holdings that have a protection level of GAP 1, 2, 3 or 4 (see definitions below).

Gap 1. An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, intensity, and legacy) are allowed to proceed without interference, or are mimicked through management. Examples: National Parks, State Natural Areas, National Forest areas withdrawn from timber production, Wild Rivers, Nature Conservancy owned lands, National Wildlife Refuges away from the Mississippi River.

Gap 2. An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive uses or management practices that degrade the quality of existing natural communities, including suppression of natural disturbance. Examples: State Parks, State Trails, National Wildlife Refuges and associated easements along the Mississippi River, National Park Service Scenic Easements, US Army Corps of Engineers Wildlife

16. Forest ownership, land use, and specially designated areas

Management Areas, State-managed Fisheries Areas, State-managed Wildlife Management Areas, and Nature Conservancy conservation easements,

Gap 3. An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type (e.g., logging) or localized, intense type (e.g., mining). It also confers protection to federally listed endangered and threatened species throughout the area. Examples: National Forests, State Forests, County Forests, military reservations, state and federal right-of-way and scenic easements, US Army Corps of Engineers recreation areas, National Wildlife Refuge recreation areas, DNR tree nurseries, state and federal fish hatcheries,

Gap 4. There are no known public or private institutional mandates or legally recognized easements or deed restrictions held by the managing entity to prevent conversion of natural habitat types to anthropogenic habitat types. The area generally allows conversion to unnatural land cover throughout. Examples: Native American Lands, state-owned tower sites, ranger stations, right-of-way easements on private property, US Army Corps of Engineers easements, National Wildlife Refuge operations areas, DNR headquarters, statewide non-point easement program lands, and state-owned gift lands.

Unfortunately, the most current Protected Areas Database, PADUS version 1 created in 2009, and its predecessor, Protected Areas Database version 4, are relatively poor representations of protected lands in Wisconsin, so the USGS Wisconsin Stewardship GAP Dataset (2005) is typically used. This dataset, created in 2005, identifies a GAP code for each polygon in the dataset. Geographic data depicting protected areas is useful in helping natural resource managers assess which habitat types, species, etc. are adequately protected in existing reserve networks, and in identifying where gaps in protection exist. The USGS Wisconsin Stewardship GAP Dataset emphasizes federal and state owned areas and includes county, city, and private reserves when data are available. Some protected lands in Wisconsin such as Forest Legacy Easement lands, the Kickapoo Valley Reserve, some State Natural Areas, lands of the Board of Commissioners of Public Lands, county parks, city natural areas, and any lands protected after December 2005 are missing from this dataset. A map showing USGS Wisconsin Stewardship GAP lands is presented in Map 16.e.

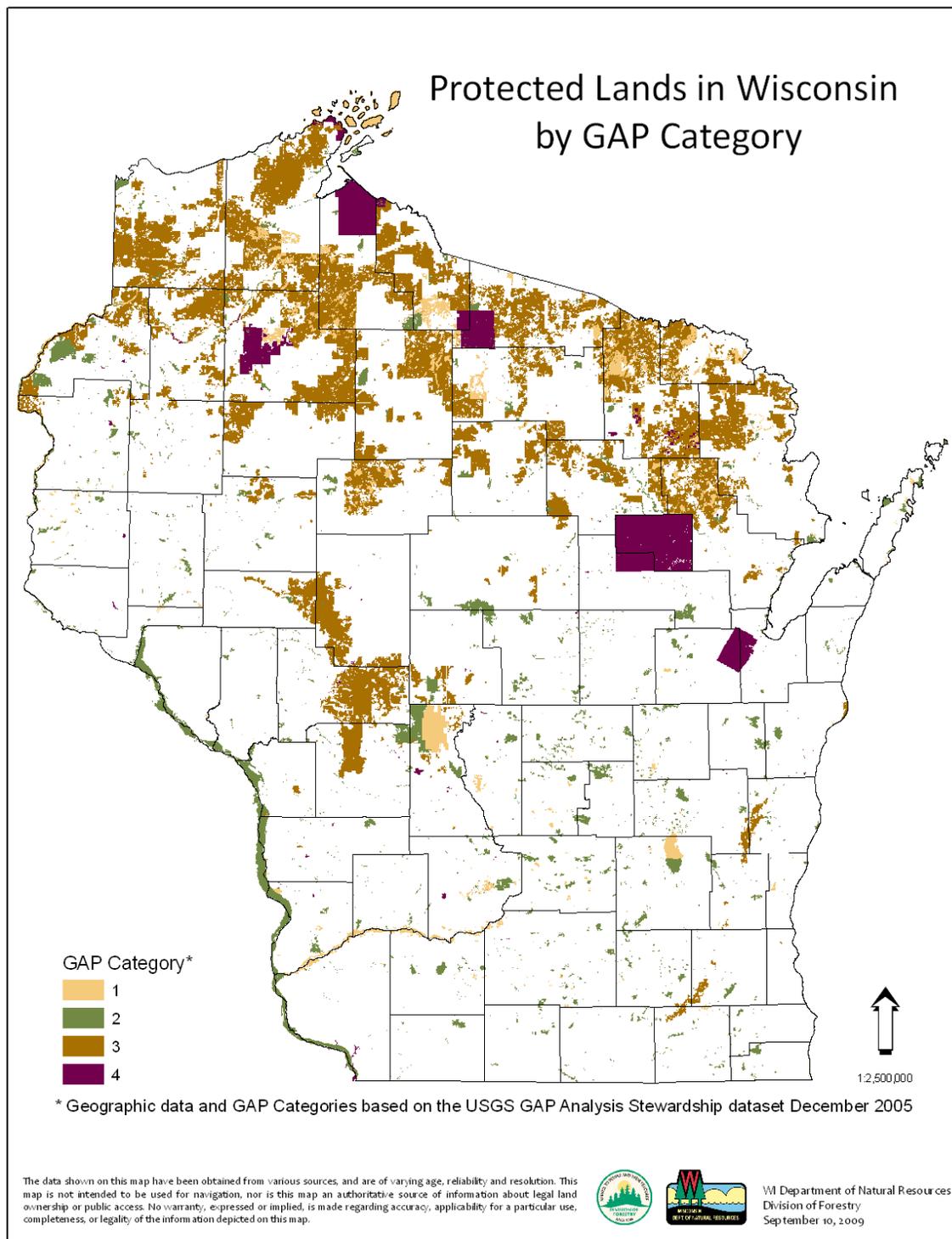
Table 16.d: Wisconsin Protected Lands - GAP Area

GAP Category	Acres
GAP 1	649,196
GAP 2	981,001
GAP 3	4,148,706
GAP 4	680,899

(USGS, 2005)

GIS data for protected lands in Wisconsin is incomplete and requires regular updates as new lands are acquired. The USGS Wisconsin Stewardship GAP dataset, pictured below, which was last updated in December, 2005, records 7,459,802 protected acres that are categorized as shown in table 16.d. Many of the individual datasets used to create the GAP composite data layer have been updated, but the composite GAP layer with categories have not been updated.

16. Forest ownership, land use, and specially designated areas



Map 16.e: Lands identified in the Wisconsin Stewardship GAP Dataset
Source: USGS, 2005

16. Forest ownership, land use, and specially designated areas

16.5 Private land with public and private conservation easements

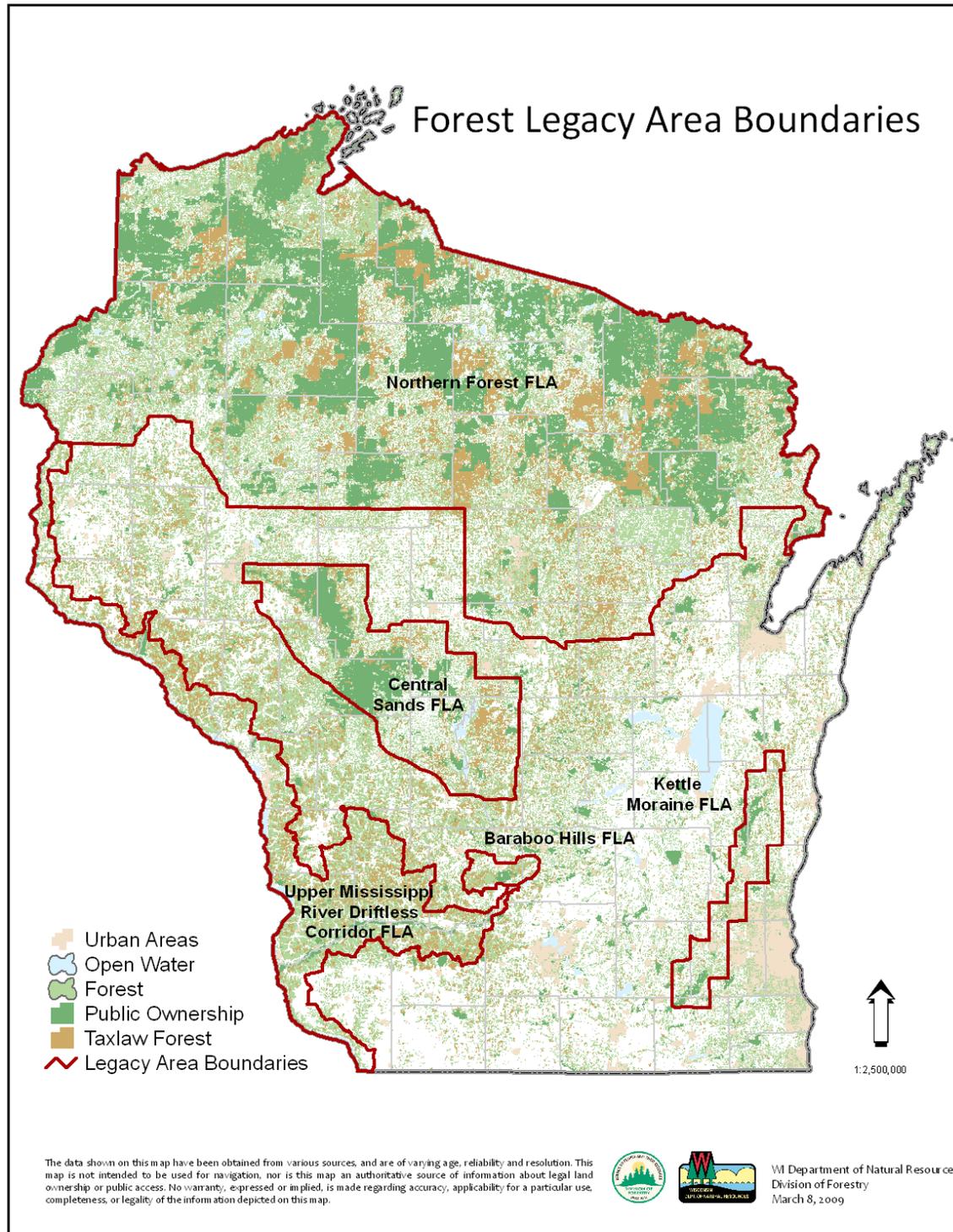
A conservation easement is a voluntary legal agreement between a landowner and a government agency, a non-profit conservation organization or a land trust that permanently limits specified current and future uses. Such an easement could, for example, prevent livestock grazing in a stream corridor or building construction in woodland. The purpose is to help protect water quality, wildlife habitat and other natural resources. As with other easements, landowners still retain ownership and many uses of their property such as agriculture, hunting and fishing.

Conservation easements specify geographical boundaries of the agreement, and the legal document is recorded at the Register of Deeds Office. Easement rights "run with the land" which means the holder of an easement retains the easement rights even if the landowner sells the property. Any new landowner must abide by the easement.

There are a number of conservation easement programs administered by governmental agencies in Wisconsin. The DNR purchases conservation easements or provides grants to local governments for easements through four programs defined in Section 700.40 of the Wisconsin Statutes. They are targeted primarily at farming-related water quality concerns but may involve forest lands. The U.S. Department of Agriculture purchases easements under the Conservation Reserve Enhancement Program. The federal Natural Resources Conservation Service administers the Wetland Reserve Program, which includes options for permanent and 30-year easements to improve and protect private wetlands.

As part of the 1990 Farm Bill, Congress created the Forest Legacy Program (FLP) to identify and protect environmentally important private forest lands threatened with conversion to non-forest uses such as subdivision for residential or commercial development. To help maintain the integrity and traditional uses of private forest-lands, the Forest Legacy Program promotes the use of conservation easements.

16. Forest ownership, land use, and specially designated areas



Map 16.f: Wisconsin Forest Legacy Areas

Source: WDNR, 2010

16. Forest ownership, land use, and specially designated areas

The Wisconsin FLP program is administered by the DNR Division of Forestry. For a complete description of the program and how it is administered, please see the Statewide Forest Strategy. 75% of funding for easements comes through federal grants, and the Wisconsin Knowles-Nelson Stewardship Program generally fulfills the 25% state cost-sharing requirement. With minor exceptions, state FLP properties allow public access. FLP also requires annual DNR monitoring to assure that landowners abide by the terms of the easements. As of 2009, five FLP projects identified in Table 16.e have been funded. Two properties totaling 35,377 acres were protected with conservation easements valued at \$13,251,000 using \$5,000,000 in Forest Legacy funds. \$6.4 million in Forest Legacy Funding for three additional projects totaling over 17,000 acres had a cost share component of over \$12.5 million in State, local, and donated funds. (USDA Forest Service, 2004, [A Forest Legacy Success Story](#))

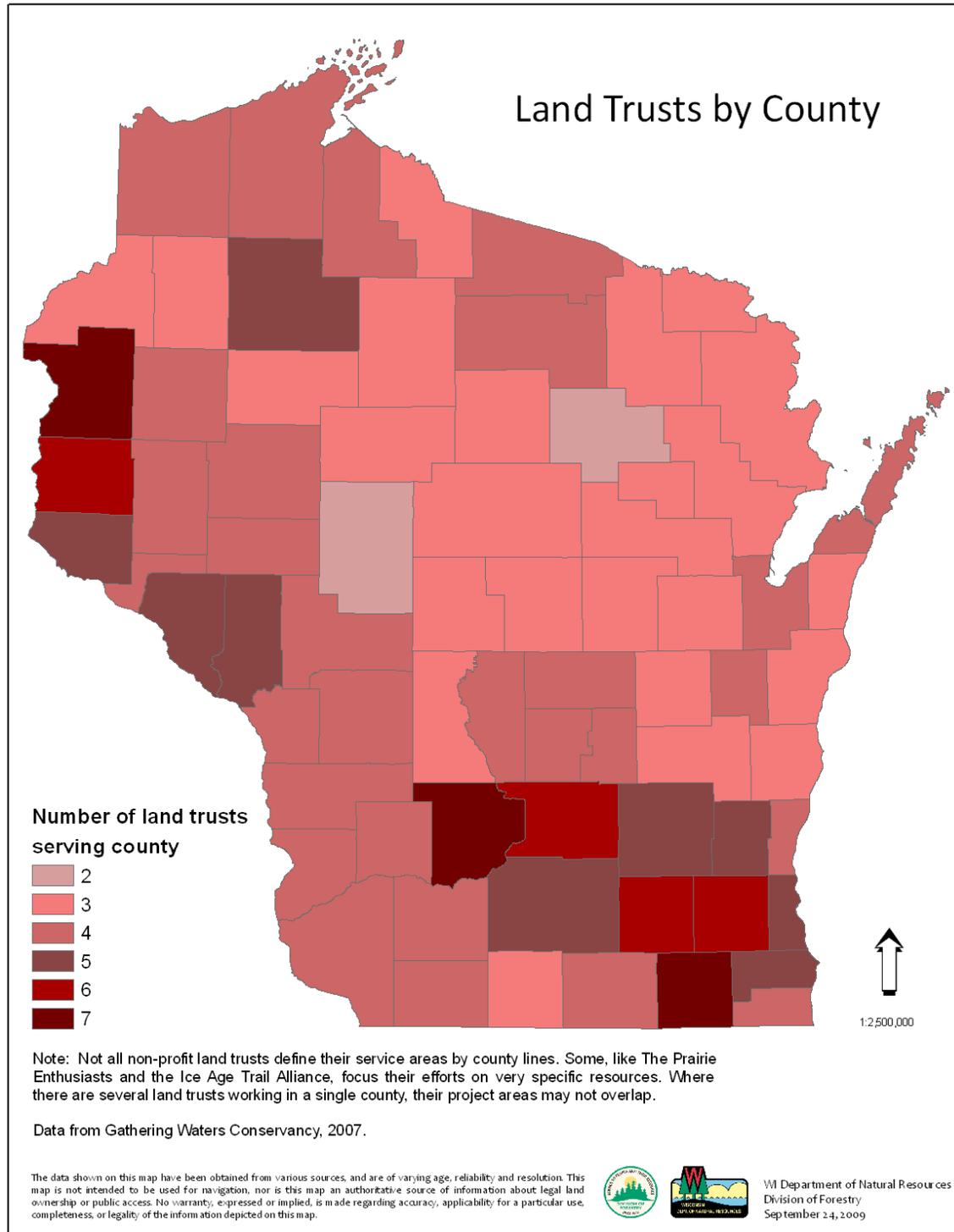
Table 16.e: Wisconsin Forest Legacy Program Easements - 2009

Project	Acres
Baraboo Hills	924.65
Holy Hill (Kettle Moraine FLA)	198.64
Tomahawk Timberlands (Northern Forest FLA)	36,883.30
Wolf River (Northern Forest FLA)	18,511.00
Wild Rivers (Northern Forest FLA)	7,260.00
TOTAL FLP ACRES	56,517.59

Source: WDNR, 2009

Governmental agencies like the DNR would lose many purchase and easement opportunities without private non-profit conservation organizations to help. Gathering Waters Conservancy is a service center for more than 50 active land trusts that collectively protect and manage an estimated 200,000 acres with significant ecological, scenic, recreational, agricultural, and historic value. The Nature Conservancy was instrumental in protecting more than 141,600 acres in Wisconsin. Considering that such private efforts can dwarf governmental conservation easement programs, continued efforts to build such public-private partnerships are essential to achieve land conservation goals. Not all non-profit land trusts define their service area by county lines. Some, like The Prairie Enthusiasts and the Ice Age Trail Alliance, focus their efforts on very specific resources. Where there are several land trusts working in a single county, their project areas may not overlap.

16. Forest ownership, land use, and specially designated areas



Map 16.g: Land trusts by county
Source: Gathering Waters Conservancy, 2007

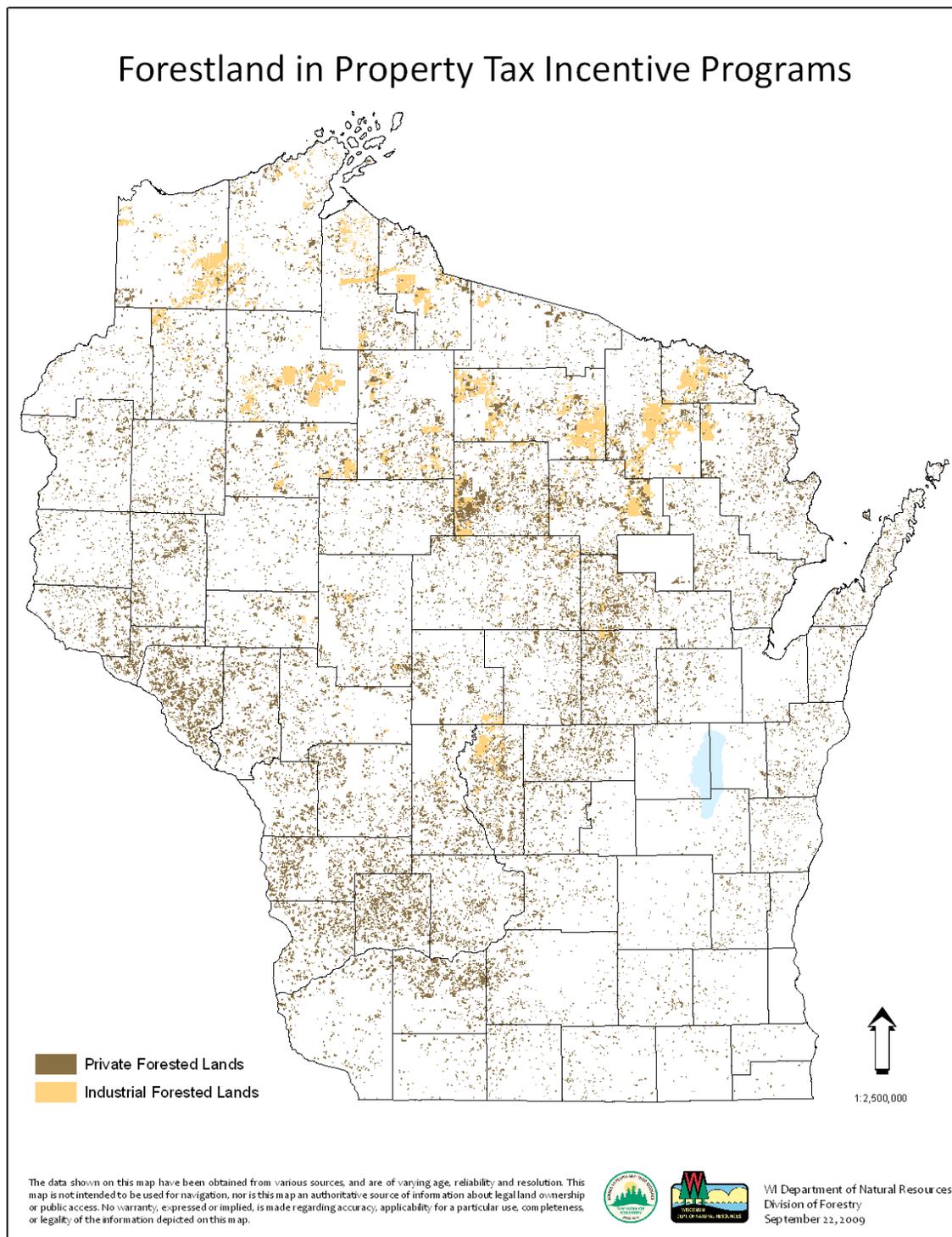
16. Forest ownership, land use, and specially designated areas

Surveys conducted by Gathering Waters indicate that property tax policy changes might be needed for conservation easements to be more effective. Current Wisconsin real-estate assessment rules for tax assessors only require that they “consider” the presence of conservation easements when they establish a parcel’s assessed value. Since most assessors do not know how to interpret the impact of an easement on the residual land value, conservation easements have been little help in lowering taxes. Other states have developed clearer assessment rules with formulas based on proximity to urban areas and other factors in an effort to encourage use of conservation easements to promote related public benefits.

16.6 Forest land in property tax incentive programs

Rising forest land values, discussed in section 16.1, have an impact on all forest owners whether or not they have recently bought or sold land. The effects of higher values are experienced through property tax changes. For good or bad, property taxes have a profound influence on land management decisions people make, e.g. whether to plan for future generations or exploit timber for a quick return; whether to keep forest land as a family legacy or sell all or part of it.

16. Forest ownership, land use, and specially designated areas



Map 16.h: Forest land in property tax incentive programs

Source: DNR, 2009

16. Forest ownership, land use, and specially designated areas

Table 16.f shows Wisconsin forest land property taxes since 1965, the annualized compound rate of tax change for five-year or one-year intervals, and the U.S. annualized inflation rate during the same period. For example, average forest land property taxes between 1995 and 2000 increased at a 10.70% annual compound rate, while inflation was only 2.47% annually. When forest land property taxes increase at a significantly faster rate than inflation, landowners tend to look for relief.

Year	Average Property Tax per Acre of Taxable Forest Land	Forest land Property Tax Annualized Compound Rate of Change for Interval	U.S. Inflation Rate for Interval
1965	\$0.56		
1970	\$0.87	9.21%	6.82%
1975	\$1.42	10.29%	8.85%
1980	\$3.31	18.44%	8.87%
1985	\$5.90	12.25%	5.51%
1990	\$6.87	3.09%	3.94%
1995	\$7.76	2.47%	3.13%
2000	\$12.90	10.70%	2.47%
2001	\$15.73	21.94%	2.83%
2002	\$17.96	14.18%	1.59%
2003	\$20.65	14.98%	2.27%
2004	\$23.26	12.64%	2.68%
2005	\$23.53	1.16%	3.39%
2006	\$24.82	5.48%	3.24%
2007	\$27.33	10.11%	2.85%

(Source: WI DOR calculated tax rates.) This table reflects reductions associated with Wisconsin forest tax law incentives and, since 2005, Agricultural Forests classification.

Many landowners reacted to the differential between forest land tax changes relative to other costs over the last ten years. Some who owned woodland in conjunction with farms sought to take advantage of newly implemented Agricultural Use Value Assessment rules through conversion of woodland to pasture or cropland, by letting livestock graze woods or by clearing trees. Taking such action, though destructive to forests, could reduce a farm woodlot's taxes by an average 84% compared to non-agricultural classed land (Boldt, 2002).

Concern about the unintended consequences of forest land conversion on farms led to the enactment of Agricultural Forest classification in 2004. It provides tax relief to landowners of woodlands adjacent to agricultural lands. For lands in Agricultural Forest, property taxes are reduced to 50% of their value compared to forest land under general assessment. An estimated 1.4 million acres of woodland associated with farms in Wisconsin receive this benefit without any additional requirement to follow a forest management plan. The Department of Revenue estimates that farmers own about another 700,000 acres of woodland that is enrolled in the Managed Forest Law (MFL) program, which does mandate planning (Pingrey, 2005).

16. Forest ownership, land use, and specially designated areas

The impact of general property taxes on forests may actually be greater than that shown in Table 16.f. The average taxes for forest lands in the table include property enrolled in forest tax law programs and, since 2004, Agricultural Forest classification. Department of Revenue figures for 2007, for example, show an average forest tax of \$27.33 per acre including forest tax law lands and Agricultural Forests. The average rate for forest land under general taxes, however, was \$32.00 per acre. That higher value is calculated as the statewide average equalized value per assessed acre of taxable forest land multiplied by the net statewide tax rate for 2007. Further, the apparent slowing of tax increases in 2005 with a small 1.16% increase is due to the introduction of Agricultural Forests, but those benefits were not enjoyed by owners of non-farm forest land. The Agricultural Forest effect begins to fade soon after 2005 as farmers' assessments are adjusted and the new provision is maxed out.

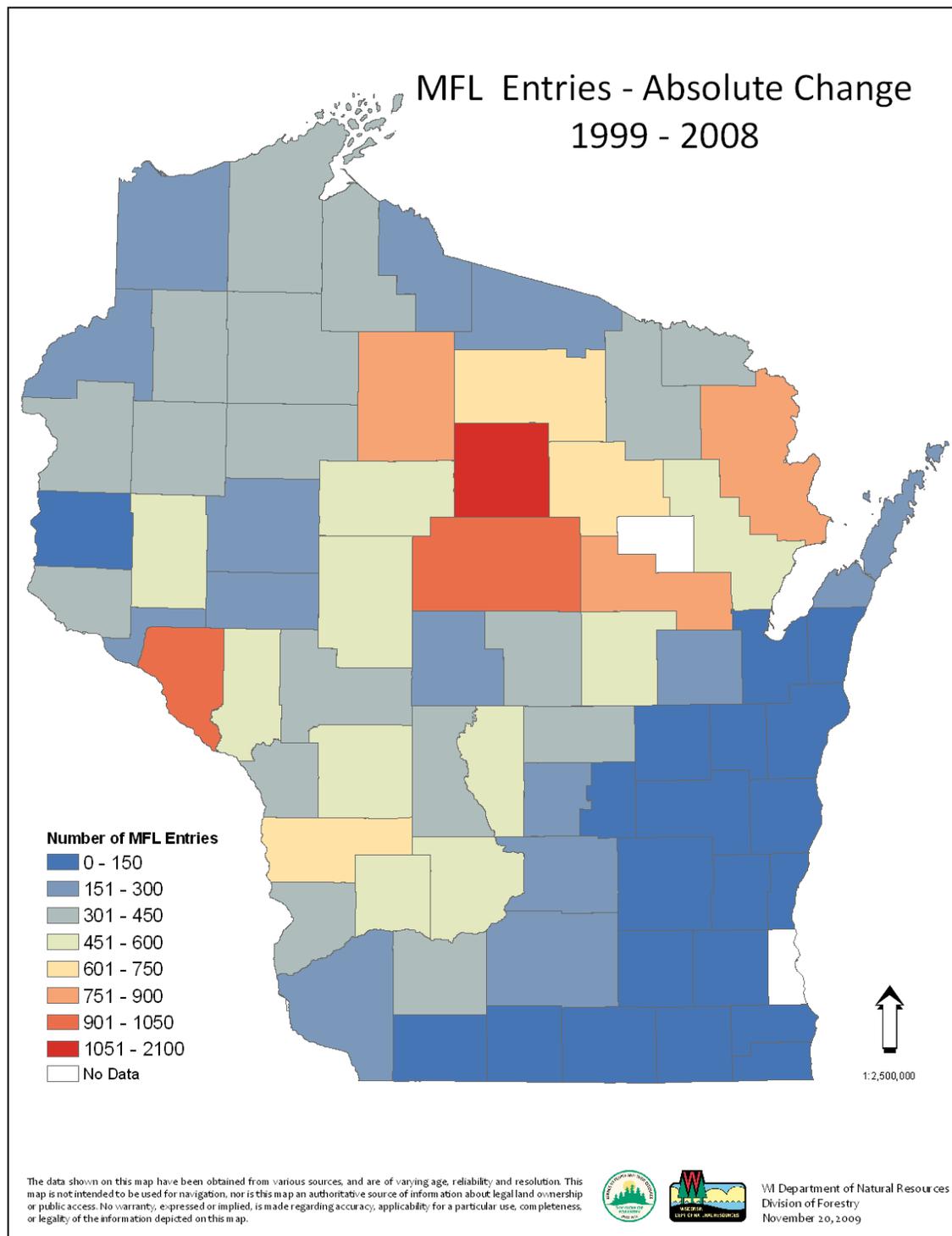
Other landowners with rising property taxes turned to the Managed Forest Law. MFL participation provides up to a 95% reduction in property taxes. Table 16.g shows that MFL acreage for all landowner categories rose 58.94% between 1999 and 2009. The number of MFL entry orders jumped 109.31% – more than doubling in ten years. For non-industrial private forest land (NIPF) owners, both the number of participants and the acreage enrolled more than doubled (112.98% and 115.78%, respectively), with a significantly higher relative amount going into the program as closed to public access. The increase in MFL enrollments was not, however, uniform across the state. Some areas experienced two to three times the average increase in new MFL properties as shown in Map 16.i.

Table 16.g: Managed Forest Law Participation Changes 1999-2009

		1999	2009	Change 1999-2009	% Change 1999-2009
Non-Industrial Private Forest (NIPF) Owners	Number of Orders	20,002.00	42,601.00	22,599.00	112.98%
	Open Acres	316,714.65	417,700.11	100,985.46	31.89%
	Closed Acres	737,424.41	1,856,937.40	1,119,512.99	151.81%
	Total Acres	1,054,139.06	2,274,637.51	1,220,498.45	115.78%
Industrial Landowners	Number of Orders	1,044.00	1,451.00	407.00	38.98%
	Open Acres	853,784.33	738,263.84	-115,520.49	-13.53%
	Closed Acres	4,439.43	26,572.42	22,132.99	498.55%
	Total Acres	858,223.76	764,836.26	-93,387.50	-10.88%
All Landowners	Number of Orders	21,046.00	44,052.00	23,006.00	109.31%
	Open Acres	1,170,498.98	1,155,963.95	-14,535.03	-1.24%
	Closed Acres	741,863.84	1,883,509.83	1,141,645.99	153.89%
	Total Acres	1,912,362.82	3,039,473.77	1,127,110.95	58.94%

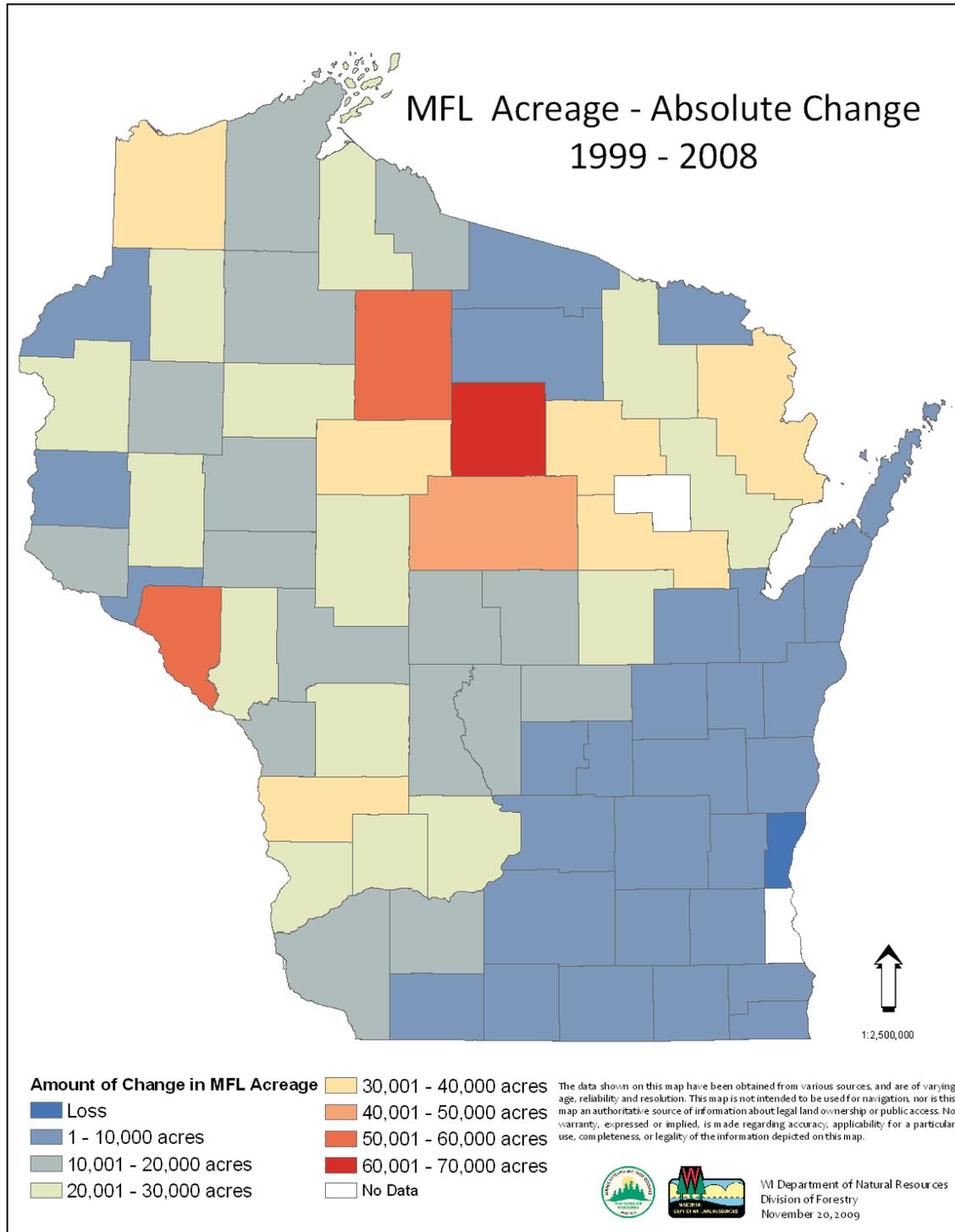
Source: WDNR, 2009

16. Forest ownership, land use, and specially designated areas



Map 16.i: MFL entries - absolute change, 1999-2008
 (Source: DNR, 2009. Map based on single data points centered in each county.)

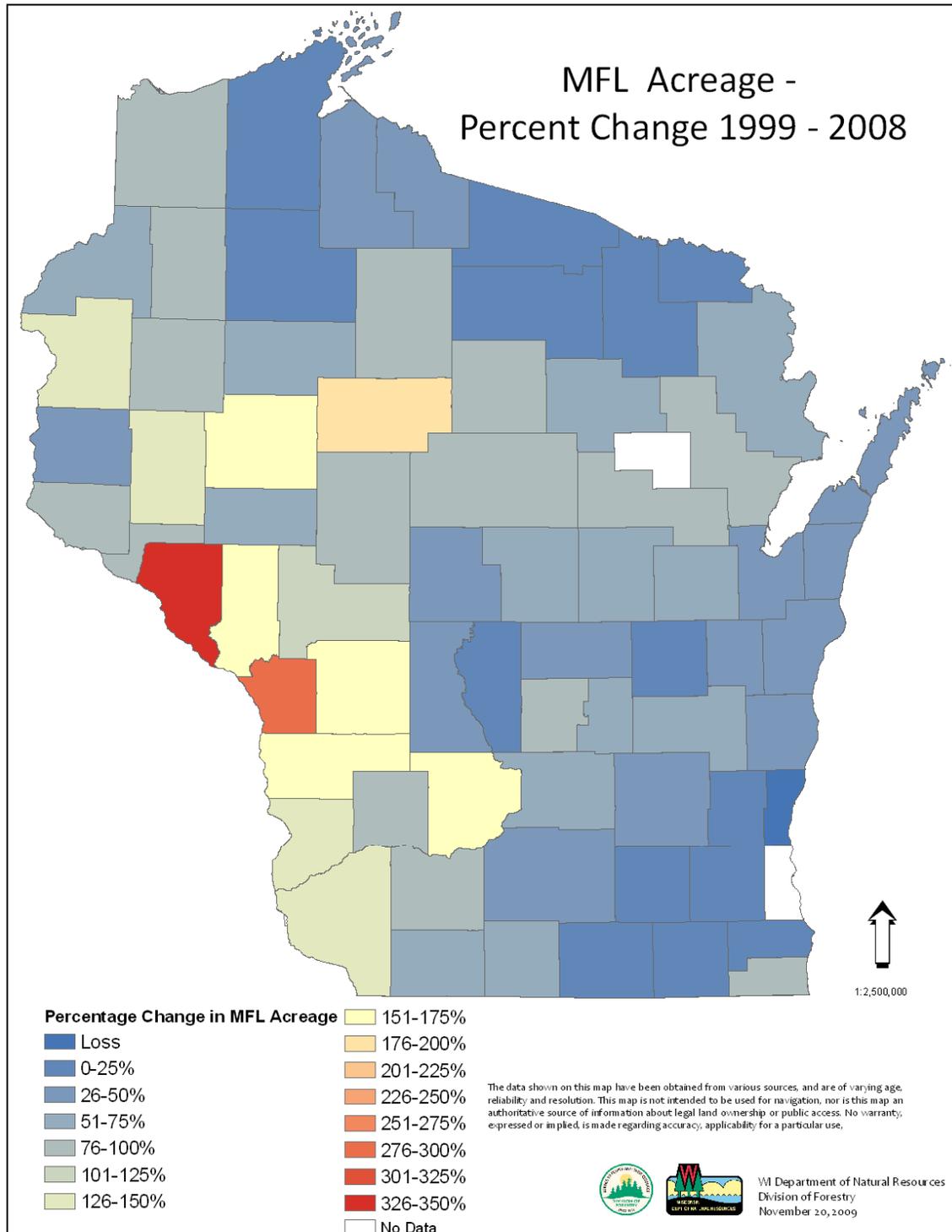
16. Forest ownership, land use, and specially designated areas



Map 16.j: MFL acreage - absolute change, 1999-2008

(Source: DNR, 2009. Map based on single data points centered in each county.)

16. Forest ownership, land use, and specially designated areas



Map 16.k: MFL acreage - percentage change, 1999-2008
 (Source: DNR, 2009. Map based on single data points centered in each county.)

16. Forest ownership, land use, and specially designated areas

Land enrolled in the Forest Crop Law (FCL) program continues to decline as older contracts expire. FCL signups ended in 1986, but the last of the FCL orders will be active until 2035. In 1999, there were 520,000 acres in FCL. By 2009 the area had dropped to 229,184 acres with about 1,800 entry orders split 55% NIPF and 45% industrial ownership. All FCL land is open to public access.

One of the primary concerns for townships and counties is how the number of forest tax entries affect property taxes others must pay. Prior to 2004, new MFL enrollments had small effect on most other property tax payers because the state shared revenue formula generally compensated local governments for any loss in tax revenue. State revenue sharing for each county and municipalities was frozen at its respective 2003 level, for 2004 and beyond. Shared revenues have been replaced by county and municipal aids. For most tax districts the impact of MFL land is still relatively low. Research indicates that a 20% increase in MFL enrollment would raise taxes, on average about \$1.90 on other property assessed at \$100,000. Some townships with a large amount of land in the Agricultural Forest category and a lower per-capita tax base might, however, be especially vulnerable to greater impacts. (Rickenbach and Saunders, 2009)

The rapidly rising popularity of MFL since 1999 worried state legislators. They saw DNR struggling with the workload associated with the steep increase in applications. Towns perceived looming tax impacts (real or not) on other taxpayers. Some legislators were also upset with apparent manipulation of MFL provisions by a few landowners to close land to public access so they could lease it to private hunting clubs. The result of these and other concerns led to numerous MFL statute changes between the years 2000-2008. Additional details about Wisconsin's forest tax law programs, recent revisions and repercussions of policy changes are presented in section 19.2 of the Assessment.

16.7 Forest acres certified

Forest certification is a market-based mechanism giving assurance that forest products originate from responsibly-managed woodlands. Independent auditors review forest management programs to verify conformance to the chosen standards. The standard-setting bodies are themselves separate from land management operations and the audit process. The standards that are applied most often in Wisconsin include Forest Stewardship Council (FSC), Sustainable Forest Initiative (SFI) and American Tree Farm System (ATFS) forest certification.

Forest certification is important in enhancing Wisconsin's ability to market forest products, but it also promotes sustainability in a broader sense, not merely the ability of land to produce timber. Certification does not mandate timber cutting, but rather responsible management for any identified environmental, social or economic objective. About 44% of Wisconsin's forest is certified. Table 16.h shows the distribution of certified land among various standards in Wisconsin. Of the certified land, 55.70% is public land and 44.30% is private ownership.

16. Forest ownership, land use, and specially designated areas

Table 16.h: Wisconsin Forest Certified Acres

	Certification Standard				
	FSC Only	Dual FSC/SFI	SFI Only	Dual ATFS/FSC	ATFS Only
Wisconsin State Forests (DNR)		517,734			
DNR Lands (Parks, Wildlife Areas, Natural Areas, etc.)		1,023,453	57,225		
Wisconsin County Forests (DNR)	165,958	1,464,167	723,772		
Wisconsin Managed Forest Law Group (DNR)				2,239,205	
Forest Industry and Other Landowners	361,635	5,411	342,096		
Traditional (Non-MFL Group) Tree Farms					194,427
Total by Standard	527,594	3,010,765	1,123,093	2,239,205	194,427

Table 16.h.2: Total Wisconsin Forest Certified Acres

Total WI Certified Acres (All Standards - no double counting)	7,095,083
Percent of WI Forest land Certified (All Standards)	43.60%
FSC Certified Acres	5,777,563
SFI Certified Acres	4,133,858
ATFS Certified Acres	2,433,632

Source: DNR, January, 2009

The Lakes States are a “forest certification hub” relative to the rest of the nation (Fernholz, 2008). As shown in Table 16.i, about a third of U.S. certified land and 53% of FSC-US certified land are located in Minnesota, Wisconsin and Michigan. Assuming no overlap from land certified under more than one standard, 16.22% of U.S. forest land was certified in 2009. Considering dual certifications, the actual is likely closer to 12% of U.S. forests certified. (In Wisconsin, about 70% of the certified land is either dual FSC/SFI or FSC/Tree Farm certified.) Over 20 million acres have been certified in the three Lakes States in five years from 2004-2009. The percentage of each state’s forest land certified as of June 2009: Minnesota 50%; Wisconsin 44%; Michigan 26%.

Table 16.i: U.S. and Lakes States Land Management Forest Certification

FSC ¹	Acres	Certificates
United States (June 2, 2009)	30,861,619	115
Minnesota	6,096,827	9
Michigan	4,570,027	3
Wisconsin	5,777,563	7
Lakes States	16,444,417	19
Percent of FSC Acreage in 3 Lakes States	53.28%	16.52%

SFI ²	Acres	Certificates
United States (June 3, 2009)	61,921,042	181

16. Forest ownership, land use, and specially designated areas

Minnesota	6,960,652	9
Michigan	4,991,965	3
Wisconsin	4,133,858	5
Lakes States	16,086,475	17
Percent of SFI Acreage in 3 Lakes States	25.98%	9.39%

American Tree Farm System ³	Acres	Parcels
United States (Approximate 7/16/2008)	29,000,000	73,000
Wisconsin (June 3, 2009)	2,433,632	41,865
Percent of U.S. Tree Farm Acreage in WI	8.39%	57.35%

United States – Percent Certified

US Forests - Acres	751,000,000
FSC Certified	4.11%
SFI Certified	8.25%
Tree Farm Certified	3.86%
Total (if no overlap from dual certifications)	16.22%

Sources: ¹FSC-US, ²Metafore, ³AFF

Interest in certification was initially spurred by demand from large paper companies seeking to remain competitive in global markets. The paper and printing sector has since been joined by a growing number of solid wood manufacturers that have established chain-of-custody certificates in order to market certified product lines (see Indicator 13.6). Many manufacturers claim the most significant area of growth they have experienced is in the demand for certified forest products. Although no figures are available for the direct economic impact of the Lakes States' certification efforts, anecdotal evidence from manufacturers indicates that certification helped minimize the impacts of the global economic recession in 2009.

Public agencies involved in certification report other benefits. It improves program consistency, promotes public awareness and involvement, and corroborates the need for additional resources to manage land. Public agencies embrace certification as a voluntary tool to achieve statutory purposes.

If certification of Wisconsin forest land is to continue to grow, the greatest opportunities reside in National Forests (about 2.3 million acres) and the balance of small family forest owners who do not have MFL plans (about 6 million acres). Approximately 575,000 acres that are owned by 9,100 small landowners who have Forest Stewardship Plans but are not in the MFL program, may have potential for certification. At least some of the larger industrial owners with 764,836 acres who have not pursued certification on their own and who are not now included in the MFL Certified Group (which is restricted to "family forest" owners with less than 2,470 acres) may now have interest in joining a DNR-sponsored certified group.