

👉 **03hr_AC-FO_Misc_pt02**



👉 2003-2005 Budget summary

(FORM UPDATED: 08/11/2010)

WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

2003-04

(session year)

Assembly

(Assembly, Senate or Joint)

Committee on Forestry...

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)
(**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
(**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Stefanie Rose (LRB) (July 2013)

April 14, 2003

TO: Tim Gary
FR: Kim Zeuli
SU: Update on the Forestry Cooperative Grants Program

As you requested, this memo provides information on the role of the Forestry Cooperative Grants Program in benefiting non-industrial private forest owners in Wisconsin and the importance of continued funding for the program in the 2003-2005 biennium.

Purpose of the Program

The primary purpose of the Program is to increase the number of Wisconsin forest owners who manage their woodlands well. A key premise of the Program is that locally-based cooperatives and non-profit associations provide landowners with the following opportunities and incentives:

- To learn about how to improve their forest management practices;
- To receive forestry services that help them improve their practices; and
- To realize increased economic, environmental and recreational benefits from their land.

Complementary Relationship with DNR Forestry, Private Forestry Professionals and the Wisconsin Woodland Owners Association

The Program is intended to complement the forestry services and educational programs provided by DNR, private forestry professionals and the Wisconsin Woodland Owners Association. DNR estimates that only 26% of non-industrial forest acreage in Wisconsin has current management plans and that the need for forest guidance on private lands is five times the level currently being met by DNR and cooperating non-governmental forestry professionals. As a result, DNR has played an important role in recent years in encouraging the formation of forestry co-ops and associations.

Key Activities during the Past Four Years

The Forestry Cooperative Grants Program has been operating for almost four years. During that time it has assisted in the formation of six forest owner cooperatives and has worked closely with Wisconsin Family Forests (WFF) to develop eight local, non-profit chapters of WFF. All together, these co-ops and local associations have about 900 members who own approximately 70,000 wooded acres. We have also achieved the following objectives:

- Published two editions of **Balancing Ecology and Economics – A Start-up Guide for Forest Owner Cooperation**;
- Organized a statewide conference on forest owner cooperation;
- Organized and made presentations at over 30 local and regional events, providing information to landowners and forestry professionals about opportunities for forest landowner cooperation; and

- Leveraged over \$600,000 in federal and foundation grants for forestry co-op and forestry association projects. This matching support provides \$3 for each \$1 in state funds for the Program.

State of Cooperatives and Local Associations Today

The formation of locally based forest owner co-ops and associations is still very much in its early development stage in Wisconsin. In the past four years we have learned lessons about what works and what doesn't work in the formation and early operation of these organizations.

One lesson learned, in particular, is to encourage these fledgling organizations not to try to do too much too fast. For example, Sustainable Woods Cooperative in south central Wisconsin had to close its doors recently because it had attempted to get into value-added wood processing without adequate capital and without having profitable markets clearly identified. Partially as a result of SWC's experience, the other co-ops and WFF chapters are focusing their early stage activities on forestry education and forestry services rather than on wood processing.

Priorities for the 2003-2005 Biennium

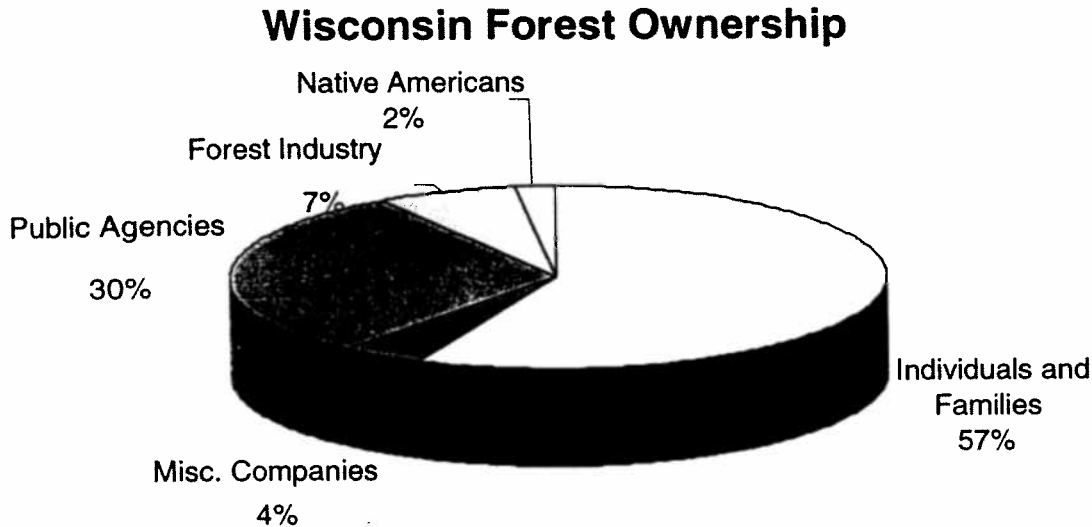
During the coming biennium, the Program will concentrate its efforts on the following initiatives:

- **Continuing to offer support services to co-ops and associations already in operation or being formed.** Support services include business and financial planning; strategic planning; forestry and cooperative education; and assistance in accessing public and private sector loans and grants.
- **Educational events** around the state presenting information on the benefits of forest landowner cooperation and on how to go about forming local forest landowner organizations.
- **Assisting in the formation of new forest owner co-ops and associations** in the state, especially in northwestern, central, east central and southwestern Wisconsin, where there appear to be good opportunities for the formation of new locally based forest owner organizations.

A high priority will be to coordinate forest owner cooperation activities with the state's forest products industries. A number of large forest products companies are selling their land base. As a result, they will be relying on timber supplies from private non-industrial lands more than ever. One of the Program's main goals over the next two years will be to help landowner associations and cooperatives make the timber on small private holdings available to Wisconsin's forest industry.

Wisconsin Private Forestry Facts

- Wisconsin's 15.7 million acres of forestland cover nearly half of the state. Individuals and families hold the largest portion (57%), covering 9.7 million acres.



- Everyone benefits from the clean air and water, scenic beauty, recreational opportunities and wildlife habitat that comes from private woodlands. Woods owned by individuals and families also produce about 64% of the raw materials used by Wisconsin's forest products industries, helping employ more than 300,000 people.
- Of the estimated 260,000 private woodland owners in Wisconsin, only 19% of owners say they have received management advice from a professional forester. They own about forty percent of the private forested acreage. (DNR estimates that about 26% of the acreage of non-industrial private forest land has a current management plan prepared within the last fifteen years.)
- DNR and cooperating non-governmental foresters assist about 10,000 private landowners annually. Of that group, about 40% are new contacts and 60% are following through on earlier management recommendations. The actual need for forest guidance on private lands is probably about five times that level of assistance based acreage and growth characteristics of forests. Since DNR and other public agencies will never be able to hire enough foresters to meet the real level of need, fostering NGO landowner cooperation could offer significant new resources for landowner assistance.
- The pool of owners who need forestry education is constantly changing. Approximately 10,000 woodland owners transfer about 4% of private forestland annually. That means 10,000 new forest manager owners a year who need education.
- Fewer than 20% of the people harvesting timber in Wisconsin utilize the assistance of professional foresters. That could be having a negative impact on the future productivity of the resource.
- Only 18.5% of the acreage of non-industrial, private forestland is enrolled in the voluntary Managed Forest Land/Forest Cropland programs. About 26,000 participants agree to follow a state approved forestry plan in return for an average 80% property tax reduction. MFL may not be the right choice for everyone, but forest owner cooperatives and associations might be able to offer alternative incentives that appeal to people whose needs are not being met by existing programs. We need to offer landowners choices in order to expand their involvement in forest management.

- The challenge of serving private woodland owners grows as land is broken into smaller parcels. The number of private forest parcels is estimated to have doubled since the 1960's. Landowner cooperation efforts help bring manageable blocks of timber back together, reversing some of the effects of fragmentation.
- Landowner cooperation efforts help remove barriers to forest management when people receive reassurance from their neighbors that sound forestry is worth the investment.

Economic Significance of Wisconsin's Forests:

- Forest products and forest-based recreation account for 12 % of the Gross State Product and 18 % of jobs.
- Of Wisconsin's total industrial output, forest products and processing produced 8.1% (\$22.6 billion) of the state's total output.
- Capital Investments in the forest industry is \$811 million (20% of all Wisconsin manufacturing). Wisconsin has the second highest capital investment in the forest industry in the nation.
- Wisconsin has the second largest number of employees in the forest products sector in the United States.
- Forest products and processing jobs account for 4.8% of total employment in Wisconsin (157,357)

Many of Wisconsin's major forest products industries are selling their land base. As a result, they will be relying on timber supplies from private non-industrial lands more than ever. Landowner cooperation through associations and wood cooperatives may play a key role in making timber on small private holdings available to Wisconsin's forest industry.

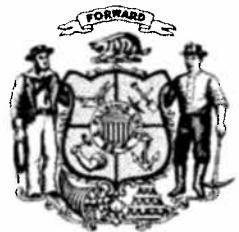
If Wisconsin Loses its Robust Forest Products Industry:

- Loss of pulp markets would reduce the range of commercial options available to landowners, likely increasing the prevalence of "high-grading" (destructive cutting) forests in the state for log value, at the expense of the future forest.
- Loss of economic value associated with standing timber would provide an incentive to further subdivide and develop forest lands.
- Incentives to address the threat of invasive exotics species in our forests will decline.

April 14, 2003



WISCONSIN STATE LEGISLATURE



Assembly Forestry Committee
April 28, 2003

The Board of Commissioners of Public Lands (BCPL) is Wisconsin's oldest state agency, responsible for managing 80,000 acres of Trust Lands and the Trust Funds which have grown to over \$546 million. The primary beneficiaries of the Trust are the state's K-12 public school libraries, which receive most of the Trust's annual earnings. Since 1990, libraries have received \$261 million in direct aid, derived from earnings of the Common School Fund, the Board's largest trust fund. The May 2003 distribution will be \$17.4 million.

The Board is currently authorized by statute to invest in a limited number of financial instruments: federal, state and local bonds or notes, Lambeau Stadium District bonds, and loans to local governments and school districts. The loan program represents the biggest investment, with 1498 outstanding loans totaling about \$235 million. (*See attached chart*)

The governor's budget proposes to expand the Board's investment authority in two ways. First, the Board would be authorized to contract with the State Investment Board to invest unencumbered funds. Second, the Board would be authorized to invest in land in Wisconsin. The Board currently may only sell or trade trust land.

The Board is requesting the authority to invest in land for three reasons:

- 1) To increase the rate of return on investments.
- 2) To enhance land management efficiency and reduce costs;
- 3) To mitigate the impacts of forest fragmentation that threaten to block access to BCPL lands and increase management costs.

In order to increase the efficiency of its operations, the BCPL would like to undertake the following land consolidation plan.

Consolidation Plan

- 1) The BCPL would sell all of its holdings in 32 counties (10,000 acres) and an additional 4,000 acres in scattered isolated tracts within the nine counties of its "home" region. (See map)
- 2) The BCPL will use the proceeds from these sales to purchase lands adjacent and within its tracts in the nine county region. The BCPL would attempt to purchase approximately 25,000 acres of property from willing sellers to consolidate existing properties.
- 3) The BCPL would exchange approximately 7500 acres with US Forest Service, Counties and private landowners to enhance blocking and access.

The State of Wisconsin has a compelling interest in preventing forest resources from becoming fragmented and ensuring continued public access to most of the industrial forest landbase.

If the BCPL is given the authority to buy land, Wisconsin's citizens will benefit in several ways:

- 1) The Trust's beneficiaries will gain through diversified investments and higher earnings.
- 2) The process of forest fragmentation will be reversed or mitigated in some areas, especially where the BCPL currently owns land.
- 3) The efficiency of BCPL's land management programs will be enhanced through reduced costs.
- 4) Local and regional forest industry partners (loggers, mills, other large land owners) will have increased access to managed timber tracts, and reduced costs of production per acre, due to the blocking of lands.
- 5) The tourism and recreation industries will maintain access to existing tracts of public land, and gain access to tracts of land that were once land-locked.

In an era of shrinking government resources, Wisconsin will be able to take a leadership role—without taxing its citizens—to keep its forestry and tourism industries productive, and to maintain the economic and biological health, and character, of the Northwoods region.

Board of Commissioners of Public Lands

Common School Fund

Bonds

Veterans Dept.	\$86,145,000	
Lambeau Field	<u>47,450,000</u>	\$133,595,000

Outstanding Loans

School	\$43,136,400	
Municipal	<u>\$191,144,400</u>	\$234,280,800

Total Investments \$367,875,800

Cash in State Investment Pool \$159,442,900

Encumbered for Approved Loans	\$54,066,400
Unencumbered	\$105,376,500

Total in Common School Fund **\$527,317,700**

Normal School Fund

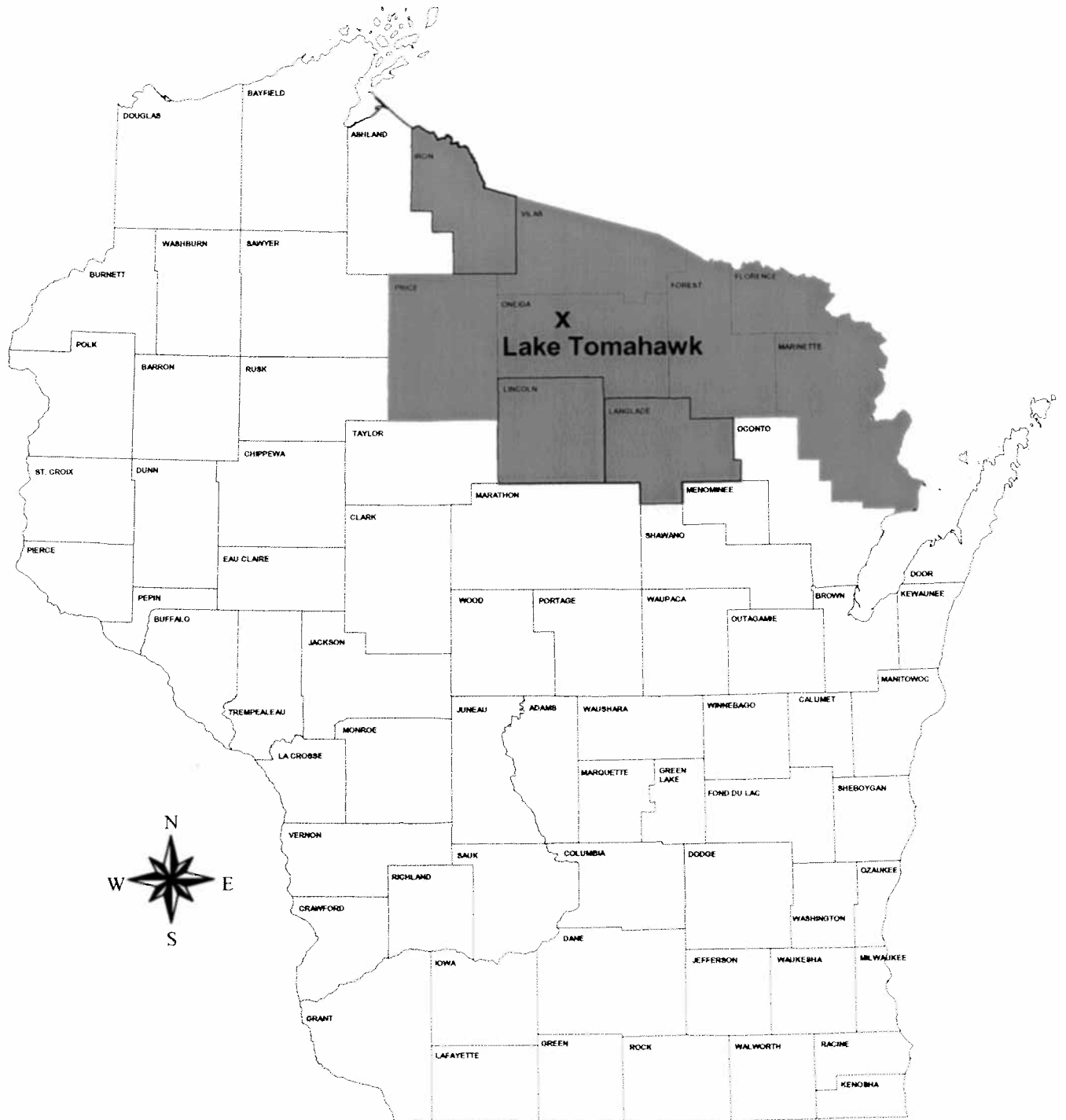
Outstanding Loans

School		
Municipal		\$125,000

Cash in State Investment Pool \$19,200,500

Total in Normal School Fund **\$19,325,500**

Board of Commissioners of Public Lands Land Consolidation Map



 BCPL "SELL" Counties
 BCPL Long-Term Land Ownership

Board of Commissioners of Public Lands
Lands Currently Held in Trust

COUNTY	ACRES	COUNTY	ACRES
Adams	119.82	Langlade	991.28
Ashland	2172.80	Lincoln	444.32
Barron	0.24	Marinette	3,400.18
Bayfield	276.00	Monroe	40.00
Buffalo	302.59	Oconto	80.37
Burnett	281.66	Oneida	22,463.45
Chippewa	120.00	Pepin	36.90
Columbia	107.80	Pierce	78.31
Crawford	51.82	Polk	25.85
Dodge	160.00	Portage	40.00
Door	78.68	Price	9,206.99
Douglas	434.22	Richland	3.68
Dunn	325.10	Rusk	160.00
Eau Claire	40.00	Sawyer	3,402.12
Florence	2,911.29	Shawano	56.81
Forest	17,893.97	Taylor	180.30
Grant	92.12	Vernon	156.51
Iron	6,815.52	Vilas	5,856.01
Jackson	118.50	Washburn	435.60
Juneau	90.00	Wood	40.00
LaCrosse	42.44	Grand Total:	79,533.25

Expected Rates of Return for Timberland Investments in Northern Wisconsin

Introduction

In the past five years, large corporate owners of productive timberland have sold approximately 94% of the 1.1 million acres of industrial timberland in Wisconsin.¹ These sales mirror a national trend of corporate timberland disposition. For instance, in 1999, approximately 6,000,000 acres of timberland were put up for sale by corporate owners.² In addition, smaller acreages of productive timberland are routinely offered for sale by private landowners, and small businesses.

The Board of Commissioners of Public Lands (BCPL) is a program revenue agency that manages 80,000 acres of State Trust Lands and four Trust Funds worth \$546 million. The Board believes timberland acquisition ideally suits its diverse mission to enhance the value of its educational Trust Funds and lands for the benefit of the public. Current timberland sales offer institutions such as the BCPL, foundations and pension funds an attractive dual investment opportunity to diversify their asset portfolios with appreciating real estate that grows valuable timber.

If the Board is granted the authority to invest in land, it is proposing to sell approximately 13,000 acres of Trust Land it owns in 32 counties in southern and western Wisconsin. Revenues from these sales would be reinvested in timber lands in the nine northern counties (Florence, Forest, Iron, Langlade, Lincoln, Marinette, Oneida, Price and Vilas Counties) where it already holds about 67,000 acres in trust. These lands are managed through the agency's district office in Lake Tomahawk in Oneida County.

The following analysis shows the expected rates of return and present net worth amounts from timber production through environmentally sound forestry practices in northern Wisconsin. Timberland acquisition provides not only a significant economic benefit to the Trust Funds, it provides an important array of social, environmental and economic public benefits that shouldn't be overlooked:

- Timberland acquisition is needed to achieve the BCPL's long-term goal of blocking its scattered ownership into contiguous large parcels. Management costs and its subsequent savings to the public are substantially reduced for larger blocks of lands.
- In most cases, corporate timberlands are open to the public for hunting, fishing, and hiking. When these lands are sold, they often wind up being subdivided and closed to the public. Public acquisition by the BCPL would ensure that the land base for these activities remains open.
- Subdividing timberlands is a real threat to Wisconsin's tourism industry because many snowmobile and hiking trails are dependent upon leases with large corporate landowners. In Oneida County, an ATV/Snowmobile trail has been shut down because a large block of corporate land was sold and subdivided. Subsequent landowners declined to renew trail leases.
- Many plants and animals are dependent upon large blocks of undeveloped land. For example, in Wisconsin the endangered timber wolf is dependent upon habitat that is composed of undeveloped and unfragmented lands.³
- Fragmenting forestland also makes it much more difficult to manage efficiently for forest products. Economies of scale are generally lost when lands are subdivided below 160 acres.

Methods

Established discounted cash flow techniques are used to compute the following financial criteria for purchasing timberland: present net value; and, simple rates of return. Present net worth is the most reliable of all investment performance criteria. This measure, the difference between discounted revenues and discounted costs, is also sometimes called net present value. The simple rate of return is derived by calculating the capitalized net annual income from a sustained yield forest and dividing it by a range of initial investments which are equal to the amount expended to purchase timberlands.

Net Annual Income --Net annual income is derived for four of most valuable timber types in northern Wisconsin (Red Pine, Jack Pine, Northern Hardwoods, and Red Oak). These are the timber types that the BCPL would make a focused effort to acquire in the nine county region where it seeks to hold land for the long term. (Table 1.) Since half of the land in the nine county region contains valuable timber types, it is reasonable to assume that significant acreages would be available over time.

Table 1. Timber Type Proportions in the Nine County Region ⁴ (Florence, Forest, Iron, Langlade, Lincoln, Marinette, Oneida, Price, and Vilas)

Timber Type	Proportion in 9 County Region
Red Pine-Jack Pine	6%
Aspen-White Birch	25%
Northern Hardwoods	39%
Other	5%
Non-Forested or unproductive wetland forests.	25%

It is assumed that the BCPL would only cut as much timber as it grows on these sites and that it would not diminish its timber capital by cutting it in an unsustainable rate (i.e. cutting more than net growth). Furthermore, it is assumed that timber would be cut in each type to maximize the average annual growth. This is called harvesting timber at its economic rotation age.

Per Acre Revenue for Four Valuable Timber Types in Northern Wisconsin

Red Pine – On average, Red Pines are grown for about 105 years from the time they are planted to the time of the final harvest. Over that time, timber harvests or thinning operations are carried out every 15 years beginning at age 30.

Table 2. Harvest and Income Schedule for a Typical Red Pine Stand

Age of Harvest	Amount & Product Harvested	Value of products Harvested	Total Revenue per acre
30	10 cords/acre	\$40/cord	\$400
45	10 cords/acre	\$40/cord	\$400
60	10 cords/acre	\$40/cord	\$400
75	8 cords/acre + 2000 bd. Ft. of sawtimber	\$40/cord - \$100/1000 bd. Ft. sawtimber	\$520.00
90	5 cords/acre + 4000 bd. Ft. sawtimber	\$40/cord \$100/1000 bd. Ft. sawtimber \$690/acre	\$600
105	5 cords/acre + 16,000 bd. Ft. sawtimber	\$40/cord \$120/1000 bd.ft. sawtimber*	\$2,120
Total			\$4,440

* Higher quality product harvested with older trees that bring higher prices than earlier harvests.

Over the course of 105 years, the average red pine acre will produce about \$4,440 dollars in revenue, which averages out to an annual revenue of \$42.28/acre. Subtracting the management costs of \$5.45 per acre yields a net annual revenue of **\$36.83/acre**

Northern Hardwoods – This timber type is typically managed so that there are both young and old trees in the same stand. Trees in the forest are all-aged. After each harvest, the remaining trees grow into the next largest size class. In this way, northern hardwood stands are able to perpetuate themselves over very long times without a distinct beginning and endpoint such as a red pine stand. In general, northern hardwood stands are harvested approximately every 12 years. In each harvest, a range of species and different types of products are sold ranging from hardwood pulpwood to sugar maple and yellow birch sawtimber.

The average northern hardwood harvest amounts to approximately 5 cords of pulpwood and from 500 to 1400 board feet of sawtimber per acre. Over the long term, the BCPL expects to harvest about 900 bd. Ft. of sawtimber and 5 cords per acre per harvest.

Table 3. Harvest and Revenue Schedule for a Typical Northern Hardwoods Stand

Product	Amount Cut	Value	Totals
Hardwood Pulpwood	5 cords/acre	\$15/cords	\$75
Sugar Maple Sawtimber	600 bd ft./acre	\$450/1000 bd. Ft.	\$270
Yellow Birch Sawtimber	100 bd. Ft./acre	\$350/1000 bd. Ft.	\$35
Other Sawtimber	300 bd ft/acre.	\$225/1000 bd. Ft.	\$67.50
Total			\$447.50

Over the course of 12 years, the average northern hardwood acre will produce about \$447.50 dollars in revenue, which averages out to an annual revenue of \$37.29/acre. Subtracting the management costs of \$5.45 per acre yields a net revenue of **\$31.84/acre**

These figures represent an average northern hardwood stand. When careful management is directed towards producing high quality sawtimber and veneer products, per acre revenue can increase to levels between \$500 and \$750 dollars per acre. Over the past several years, the BCPL has sold several timber sales that have been carefully managed for several decades. These stands have achieved per acre revenue figures listed below:

Timber Sale

TS-200001 – Forest County -110 Acres – \$71,507 - **\$650/acre**

TS-200207 – Forest County – 100 Acres - \$59,702.04 – **\$590/acre**

TS-200304 – Florence County – 90 Acres - \$42,623 - **\$473/acre**

On good sites, northern hardwoods can yield \$600/acre over 12 years, or \$50.00 acre. Subtracting the management costs of \$5.45 per acre will yield a net annual revenue of **\$44.55 per acre.**

Jack Pine – This short-lived timber type is typically planted and grows to an age of about 50. Trees grow in close proximity to one another and there are usually no intermediate thinnings before the final harvest at age 50. In most jack pine forests, there are other species such as pin oak, aspen and red pine that are mixed in. For the typical jack pine forest, about 15 cords of jack pine are harvested and 6-7 cords of other species are also cut at the final harvest.

Table 4. Harvest and Revenue Schedule for a Typical Jack Pine Stand

Product	Amount Cut	Value	Totals
Jack Pine Pulpwood	15 cords/acre	\$55/cord	\$825
Aspen Pulpwood	2 cords/acre	\$25/cord	\$270
Pin Oak Pulpwood	3 cords/acre	\$15/cord	\$45
Other Products	2 cords/acre	\$40/cord	\$80
Total			\$1220

Over the course of 50 years the average jack pine acre will produce about \$1220 dollars in revenue. which averages out to an annual revenue of \$24.40/acre. Subtracting the management costs of \$5.45 per acre yields a net annual revenue of **\$18.95 per acre.**

In cases where the proportion of jack pine approaches 22 cords/acre due to careful stewardship, the profitability of jack pine management can increase dramatically. For example, in that case, a jack pine stand would yield about \$1500 per acre and produce annual average revenue of **\$30/acre.**

Red Oak – Stands of red oak have a point of initiation and final harvest much like a red pine stand. In Wisconsin, red oak forests typically grow about 120 years before they are harvested and are subject to intermediate thinnings much like a red pine stand starting at age 45.

Table 5. Harvest and Revenue Schedule for a Typical Red Oak Stand

Age of Harvest	Amount & Product Harvested	Value of products Harvested	Total Revenue per acre
45	5 cords/acre	\$15/cord	\$75
60	5 cords/acre	\$20/cord	\$100
75	5 cords/acre + 500 bd. Ft. sawtimber	\$20/cord \$325/1000 bd. Ft. sawtimber	\$162.50
90	5 cords/acre + 1000 bd. Ft. of sawtimber	\$40/cord - \$325/1000 bd. Ft. sawtimber	\$425
105	5 cords/acre + 2000 bd. Ft. sawtimber	\$20/cord \$325/1000 bd. Ft. sawtimber \$690/acre	\$750
120	5 cords/acre + 10000 bd. Ft. sawtimber	\$20/cord \$325/1000 bd.ft. sawtimber	\$3350
Total			\$4862.50

Over the course of 120 years, the average red oak acre will produce about \$4862.50 dollars in revenue, which averages out to annual revenue of \$40.52/acre. Subtracting the management costs of \$5.45 per acre yields net annual revenue of **\$35.07 per acre**.

Current timber prices were determined by averaging prices for each timber type on 12 timber sales conducted by the BCPL over the past two years in six separate counties. BCPL timber prices are representative of Northern Wisconsin because sales cover a wide geographic area and offer the full range of timber products.

Derivation of Annual Costs

In order to determine net revenue per acre, costs must be deducted from the annual value increment. In general, costs are borne in five categories: property taxes, salary, management, travel, and office expenses.

It is assumed that in order to make land transactions property tax neutral, the BCPL will pay property taxes to local units of government at the same rate as the previous owner for all new lands that it purchases. The BCPL estimates that 80% of the land that it would purchase is currently corporate-owned or private land enrolled in the Managed Forest Law at a tax rate of \$0.74-\$1.74 per acre, depending on whether it is open or closed to the public. The Board proposes that it continue to pay the "open" MFL rate of \$0.74 per acre (since all BCPL lands are publicly accessible) and, in addition, pay the \$0.20 per acre state contribution that DNR pays for each acre enrolled in the MFL program. The remaining private lands targeted for potential purchase by BCPL are generally taxed at rates between \$4.00 and \$6.00 dollars per acre. The Board proposes that it make payments in lieu of taxes on those lands based on the previous tax level. Overall, it is anticipated that BCPL would make payments that would average \$1.80 per acre on the lands it would acquire in the nine county region.

The single largest cost associated with purchasing timberland is additional salary and fringe benefits for staff. While staffing levels can vary from one agency to another, the BCPL anticipates that it will continue to hire personnel at a level of one full-time-equivalent employee or consultant (\$45,000 annual salary and fringe benefits) for every 20,000 acres under management. Other costs are shown in Table 6.

Table 6. Fixed Annual Timberland Management Costs on a per Acre Basis

Type of Cost	Costs Per Acre
Property Taxes	\$ 1.80
Personnel	\$ 2.25
Tree Planting, regeneration & protection costs	\$ 0.35
Travel & Vehicle expenses	\$ 0.30
Office & Supply Costs	\$ 0.75*
Total	\$5.45/acre/year

* The BCPL achieves considerable savings in office costs because it owns its own office building.

In general, it will cost the BCPL \$5.45dollars to manage an acre of timberland annually. When this amount is subtracted from the annual value growth from the timber types, a net present value or annual average revenue per acre is derived.

Expected Purchase Prices --Research of prices from Registrar of Deeds records in Oneida County for 13 separate purchases of 82,000 acres of corporate timberlands shows that in 1999, both private and corporate buyers paid an average of \$359.00/acre for unimproved timberland. Prices ranged from \$256.33/acre to \$781.25 acre reflecting differences in site potential for growing trees and other variables such as amount of upland versus lowland and ease of access. In a recent 2002 land transaction between Stora Enso Paper Company and Plum Creek Timber Company, Plum Creek purchased timberland at an average price of \$460/acre.

These prices reflect the bottom price that the BCPL could expect to pay for corporate timberlands. It is imperative, however, that the BCPL purchases timberlands in acreages large enough to take advantage of economies of scale. A 40-acre by 40-acre purchase scheme would inflate the purchase price of any timberland.

Financial experts from Barrons agree that "timber is the only low-risk, high return asset class in existence. Timber is the only commodity that has had a steadily rising price for 200 years, 100 years, 50 years, 10 years. And a unit of wood, just the price of a piece of wood -in real terms- beat the S&P over most of the 20th Century, from 1910 to 2000."⁵

Table 8. Average prices for the BCPL's timber in northern Wisconsin for 1999, 1979, with rates of increase above the 1999-1979 - 4.2% inflation rate.⁸

Timber Type	1999 price	1979 price	Rate of Increase	Exceeds Inflation By
Aspen	\$27	\$6.00	7.8%	3.6%
Hardwoods	\$75	\$13	9.1%	4.9%
Pine	\$42	\$12	6.4%	2.2%
Other	\$36	\$11	6.1%	1.9%
Average				3.1%

1979 prices based upon 15 timber sales in 6 counties; 1999 prices based upon 12 sales in six counties.

These rates of return do not take into consideration the robust appreciation of timberland in northern Wisconsin. For example, in 1996-97, equalized property values increased 12.6 and 9.3 percent in Vilas and Oneida Counties, respectively.⁶ Between 1992 and 1997, property values in Oneida County have increased by an average of 10.6 per year.⁷ Figures released by the State Assessment Office for 2001 show a 10.46% increase. "Regardless of what happens in 2002, the latest figures show a continuation of a decade-long trend of soaring property values."⁸ Twenty-five percent of the Trust Lands are located in Oneida County.

Results

Dividing the discounted net annual income by the original cost of the investment derives the simple annual rate of return on an investment. Table 7 shows rates of return for a range of purchase prices.

Table 7. Percentage Rate of Return for a range of purchase prices.

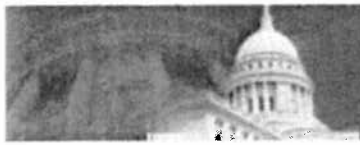
Timberland Purchase Price (per acre)	Rate of Return for Red Pine	Rate of Return for Red Oak	Rate of Return for Northern Hardwoods (average)	Rate of Return for high quality Northern Hardwoods	Rate of Return for Jack Pine
\$100 (transaction cost only)	36.83	35.07	31.84	44.55	18.55
\$500	7.36	7.01	6.36	8.91	3.71
\$600	6.14	5.84	5.30	7.42	3.09
\$700	5.26	5.00	4.54	6.36	2.65
\$800	4.60	4.38	3.98	5.56	2.31
\$900	4.09	3.90	3.53	4.95	2.06
\$1000	3.68	3.51	3.18	4.45	1.85
\$1500	2.45	2.33	2.12	2.97	1.23
\$2000	1.84	1.75	1.59	2.22	0.93

Rate of return on a timberland investment is highly dependent upon timberland purchase, prices, timber stumpage prices and property tax levies. **For tracts that the BCPL purchases using the proceeds from existing lands, the investment involved only corresponds to the transaction cost. These costs entail appraisal, advertising and staff time. Since the BCPL is planning on selling approximately 14,000 acres, the first 14,000 acres that it purchases with the funds should produce outstanding rates of return (41.35%- 19.10%) much higher than alternative investments.**

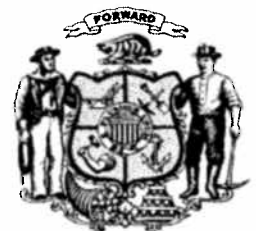
If the BCPL utilizes existing Trust Funds to purchase timberlands, then rates of return on the investment are highly dependent upon the initial purchase price. Expected rates of return vary from a very impressive 8.91% for high-quality northern hardwoods at \$500/acre to a very modest 0.93% for jack pine at \$2000/acre.

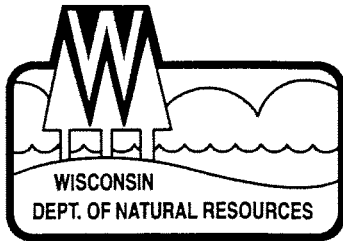
Clearly, this analysis of expected rates of return points out the BCPL can purchase lands up to a cost of about \$900 per acre for red pine, \$900/acre for Red Oak, \$800/acre for average northern hardwoods, \$1000/acre for good quality northern hardwoods and less than \$500/acre for jack pine and achieve a rate of return of approximately 4%. Currently, BCPL's overall rate of return on the investment of all its trust funds is approximately 4.0%.

These return rates assume that all increases in future timber prices will be equal to the increases in costs (2% annual rise). We believe that this assumption is very conservative because timber prices have risen dramatically in the past decade. If timber price increases continue to exceed the rate of increase in costs over time, rates of return will be higher than those above. An analysis of timber prices received by the BCPL From 1979 to 1999 shows that timber prices exceeded the inflation rate for every timber category (see table 8) with hardwoods rising at the fastest rate. When the timber types are weighted by their net annual growth, the average cord of timber exceeded the average inflation rate over the past 20 (4.21%) by approximate 3.1%.



WISCONSIN STATE LEGISLATURE





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY 608-267-6897

Assembly Committee on Forestry

Department of Natural Resources
Division of Forestry
Paul DeLong, Division Administrator

April 28, 2003

Mr. Chairman and Committee Members:

Good afternoon. I appreciate the invitation to appear before you to discuss Governor Doyle's 2003/05 Budget as it relates to forestry issues.

As Governor Doyle made clear in his budget speech earlier this year, our state's fiscal situation and challenging economic times make this a painful budget across state government. We are no exception. I will outline some of the important challenges we face for which needed resources are not available. However, I want to begin by highlighting provisions within Governor Doyle's 2003/05 Budget that will enhance opportunities to advance the protection and sustainable management of Wisconsin's forests. Over the 2003/05 biennium the Governor has proposed increased spending authority of \$7.9 million for the Division of Forestry to address some key needs.

The Governor has proposed \$1 million over two years to help meet the Division's rapidly growing Managed Forest Law responsibilities. The funding would be used to annually contract with consultant foresters for the preparation of additional MFL management plans. This initiative responds to a major finding of the recent Legislative Audit Bureau's audit of the Forestry Account. Managed Forest Law practices are beneficial to the forest resource by maintaining forest health and vigor, as well as improving the recreational value of our privately owned forests. Implementing this initiative will also provide economic stimulus to landowners, forest industry, and aids returned to municipalities. The popularity of the MFL program has significantly reduced the ability of Department foresters to accomplish other high priority work. As a long term solution the Department would like to contract approximately 50% of the required plan writing to consultant foresters. At current application levels, the additional funding proposed by the Governor would enable us to contract approximately 25% of the plans.

The Governor proposes \$2 million over two years to strengthen the Division's ability to protect forests and people from wildfire. The Division of Forestry has identified a variety of technical and program gaps within its forest fire suppression program. This initiative addresses several of these gaps. The funding would enhance aerial fire detection, replacement of the fire fighting tractors and trucks in a timely manner, the development and distribution of fire prevention materials, and renewed assistance to fire departments within the cooperative fire protection areas. The proposal will help the program maintain the minimum standard of readiness that is necessary to respond effectively to fires, natural disasters and other crises.

Several other initiatives also are being advanced by the Governor. An additional \$402,000 over the biennium is proposed to fully fund the County Forest Administrator Grant Program. This grant program

has strengthened the partnership that exists between the twenty-nine County Forests and the State. Over the biennium, \$123,400 would be provided for operational support for the Division's Urban Forestry program and digital access to the LeMay and Trout Lake offices. An additional \$176,400 over the biennium would be provided to help implement the Karner Blue Butterfly Habitat Conservation Plan. This initiative allows for the conservation of an endangered species while allowing normal forest management activities on the working landscape. This is a legally binding responsibility for the Department and a high profile partnership effort between governmental agencies and the private sector.

The Governor further proposes allocating \$4 million over the biennium to continue the re-building and modernization of forestry facilities across the state. This initiative supports implementation of a long-term plan for constructing and improving Forestry buildings and infrastructure. Many of the forestry buildings were built during the 1930's and are inadequate to meet the needs of a modern forestry program.

The Department is pleased that the Governor has recognized the importance of the initiatives I just outlined and is advocating that the legislature allocate resources from the Forestry Account to fund them. However, as I mentioned at the outset, the Governor's efforts to effectively address the state's fiscal crisis will impact our ability to achieve aspects of our mission, which is to protect and sustainably manage Wisconsin's forests to provide ecological, economic and social benefits for present and future generations.

To address the large shortfall in GPR funding, the Governor has proposed shifting \$16 million over the biennium from the Forestry Account to pay debt from the Stewardship bonding program, which is paid by GPR. In doing this, the Governor made the painful decision to forego several important forestry initiatives. These include an initiative to improve the Department's ability to manage, protect, and operate the State Forests and the other state-owned forests, and enhance recreation and public safety on these lands. This initiative would stimulate the economy through primary jobs to loggers and secondary jobs through product flow to forest industry such as saw mills and paper mills, as well as increased revenue to the state.

Another major initiative foregone targets Wisconsin citizens and visitors to enhance their appreciation for sustainable forestry and the value of the state's forests to their daily lives. Recent research shows that the citizens of the state use the forest resource extensively for forest products while simultaneously holding the view that harvesting trees is undesirable. This initiative included funding to establish the forestry education center in Milwaukee County. We are in the process of acquiring the land and will be coming back to the legislature for the funding to build and operate the center.

Funding limitations also have curtailed being able to move forward to address other needs, including initiatives to fully implement the first phase of a program to enhance our Cooperative Fire Program, enhance our inventory and assessment of Wisconsin's forest resources, and address growing information technology needs.

Workload problems and funding shortfalls associated with existing mandates and priorities hinders our ability to perform important functions across the Forestry Division, as well as effectively fill our niche in the area of private forestry. We do not, however, believe these challenges should be addressed only by increasing resources to DNR Forestry. As an example, we are working with partners and you and your colleagues in the legislature to begin to address the workload situation and other issues associated with the Managed Forest Law. We will continue to pursue all available tools for addressing barriers to achieving sustainable forestry. However, there are critical facets of achieving our mission that are directly impacted by available resources.

The Governor also recommends a reduction of twenty FTE's from the Division of Forestry, as part of his initiative to shrink the size of state government. The Division Leadership has initiated an assessment of the position reduction situation and has implemented a process to identify which positions must be given up. The process was based on an assessment of Division priorities, responsibilities, and alternatives for accomplishing workload. The Governor has proposed to mitigate our reduced ability to meet workload demands by shifting the salary and fringe dollars being freed up through position reductions to our supplies and services account for use in contracting with the private sector. We greatly appreciate being able to obtain this contract funding as it will certainly mitigate part of the impact of cutting 20 positions. However, contracting is not a replacement for the full range of services being eliminated through position reductions. Furthermore, contracting creates its own workload for Department staff that prevents a one-for-one tradeoff.

The bottom line is that, in spite of contracting, our capacity to achieve our mission will be adversely affected by these reductions. This will exacerbate an already serious workload problem that grows worse each year with the increasing popularity of the MFL. We will continue to meet minimum needs related to forest fire protection, county forest assistance, mandatory MFL workload and management of designated State Forests. However, in order to do so the following activities will be further curtailed:

- MFL backlog mandatory practices will continue to be reduced, but at a pace slower than currently planned;
- Private landowners not entering MFL who request initial guidance will not receive service;
- State lands outside of designated State Forests will see service further reduced from levels that are already woefully inadequate.
- A number of important education and awareness activities designed to promote sustainability will not be pursued; and
- Important improvements to our fire program will be foregone or further delayed (e.g., some prevention activities, training).

These cutbacks will also result in:

- Higher numbers of remaining overdue mandatory practices under MFL, which reduces revenue to town, county and state governments through severance payments;
- Reduced state revenues from timber sales on state lands, as well as a poor example set by the state on implementing management plans; and
- Additional private land potentially non-sustainably harvested due to lack of professional guidance, creating long-term adverse ecological and economic consequences.

There is no question the state is in very difficult fiscal shape. The Governor is working aggressively to address this problem. He stated in his budget speech in February that getting the state back into fiscal shape would be painful. I know that you and your colleagues are well aware of the pain throughout government at all levels. I don't envy your task as you prepare to finalize a budget and send it back to the Governor.

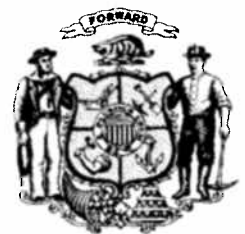
I want to close by reiterating the fact that the Governor in his budget request will provide resources to address several important needs within forestry. The Department recognizes the benefits of fiscal restraint and will work diligently with the resources we are provided to work in partnership to protect and sustainably manage Wisconsin's magnificent forest resources.

I appreciate this opportunity to speak with you today and I welcome your questions.

Thank you.



WISCONSIN STATE LEGISLATURE



**Comments from Kim Zeuli to the Assembly Committee on Forestry
April 28, 2003**

Thank you for giving me this opportunity to discuss the importance of the Forestry Cooperative Grants Program and the role that the University of Wisconsin Center for Cooperatives (UWCC) plays in the Program's implementation. I will start by providing a brief history of the Program, although it should be duly noted that my own history at UWCC has been relatively brief. I was hired at UWCC as Associate Director in the fall of 2001. I became Acting Director in January 2003.

Although forestry cooperatives and associations are not a new phenomenon in the US (early examples date back to the 1900s), they were never widely adopted. They received renewed interest during the 1990s, however, as stakeholders searched for alternative methods to motivate private non-industrial forest landowners to actively manage their forests. Since forestland covers half the state, and individuals and families own the majority of the forests, perhaps it is not surprising that Wisconsin quickly became the hotbed of this new era of forestry cooperative development. The Wisconsin Federation of Cooperatives, Cooperative Development Services, and the University of Wisconsin Center for Cooperatives were at the forefront of the movement, providing technical assistance and education. By 1998, one cooperative was already established and several other initiatives were in the works. The demand for forestry cooperative development assistance had, however, exceeded the available resources.

In recognition of both the potential for forestry cooperatives to increase forest management and the clear need for additional resources, both houses supported the Forestry Cooperative Grants Program in the Spring of 1999. The purpose of the Program is to increase the number of Wisconsin forest owners who manage their woodlands well through the creation of local forestry cooperatives and associations. The Program allocates \$50,000 annually to UWCC, which in turn funds subcontractors to provide technical assistance and education to forestry cooperatives and associations around the state. UWCC coordinates the assistance efforts, provides additional research and educational assistance, and administers the funding.

The Forestry Cooperative Grants Program is undeniably successful. In less than four years it has helped form 6 forestry cooperatives and 8 local, non-profit chapters of the Wisconsin Family Forests (WFF) across the state. Together, the co-ops and local associations represent about 900 members who own approximately 70,000 acres of woodland.

Perhaps even more valuable are the lessons learned from these early development ventures and the efforts made to ensure those lessons are passed on to other parties interested in forming forestry cooperatives and associations. *Balancing Ecology and Economics—A Start-up Guide for Forest Owner Cooperation*, now in its second edition, exemplifies the type of quality outreach made possible by the Forestry Cooperative Grants Program. Other initiatives range from organizing and sponsoring

much more
in Europe
Pace Inst.

statewide conferences on forest owner cooperation, creating financial worksheets for new cooperatives, writing outreach publications, and presenting at small, local events.

The forestry cooperative movement in Wisconsin, and in the US, is still in a very formative stage. We continue to learn about the limitations of the cooperative model and the challenges that accompany growth. For instance, the forestry cooperative established in 1998, Sustainable Woods Cooperative (SWC) in south central Wisconsin, recently filed for bankruptcy. SWC was in hindsight overly ambitious, jumping into innovative, value-added wood processing. SWC's experiences have been used to help other groups make more informed decisions about the objectives their cooperative might pursue. With more realistic expectations about the difficulties involved in value-added activities, the remaining cooperatives and WFF chapters have chosen (for the time being) to focus on forestry education and services.

The Forestry Cooperative Grants Program complements the forestry services and educational programs provided by the DNR, the Wisconsin Woodland Owners Association, and private forestry professionals. According to the DNR, only 26% of non-industrial forest acreage in Wisconsin has management plans and the need for forest guidance on private lands is five times the level currently being met by DNR and cooperating non-governmental forestry professionals and associations. Of the estimated 260,000 private woodland owners in Wisconsin, only 19% have received management advice from a professional forester.

A priority for the Program in the coming biennium will be to connect the activities of forestry cooperatives with the state's larger forest industry. A number of large forest product companies are selling their land base, meaning they will be relying on timber supplies from other sources—including non-industrial, private lands. Forest cooperatives and landowner associations are uniquely situated to help match timber supply from small woodlots to industry demand.

Clearly, there is a promising future for forestry cooperatives and associations. Achieving this future, however, will not be possible without adequate funding for education, analysis, and technical assistance. Loss of funding during the next 5-10 years, a critical stage in the nascent forestry cooperative movement, would seriously hinder new cooperative and association development.

Thank you for your time. If you have any questions or concerns about the Program, please don't hesitate to contact me.

Contact Information:

Kim Zeuli

Acting Director, University of Wisconsin Center for Cooperatives

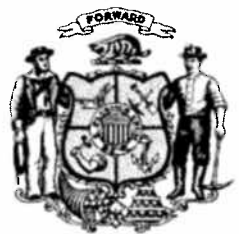
Assistant Professor, Department of Agricultural and Applied Economics, UW—Madison

Phone: 608-263-3981

E-mail: zeuli@aae.wisc.edu



WISCONSIN STATE LEGISLATURE





University of Wisconsin--Extension
432 N. Lake St., Room 625
Madison, WI 53706

608-262-1748
608-262-9166 (fax)
800-947-3529 (TTY)

Cooperative Extension
Community, Natural Resource &
Economic Development

May 30, 2003

Representative Donald Friske
Chair, Assembly Committee on Forestry
Room 312 North
Wisconsin State Capital
Madison, WI 53707

Dear Chairman Friske,

I would like to offer my thanks for the recent opportunity to address the Assembly Committee on Forestry. I'm also following up by providing some additional information pertaining to your question on how UW-Extension Programs address forestry issues in Comprehensive Planning.

As I responded to you and members of the Committee, our educational programming does not provide specific templates for local planning. We focus on providing science-based information about Wisconsin forestry that is used during the issue prioritization process - that is part of comprehensive planning. To help illustrate this, I've attached a copy of the educational materials that are commonly used in our educational workshops. The workshops provide information on the importance of forestry to local communities, demographics of forest use and ownership, ecological issues related to forest management, and how forestry issues could be incorporated into the nine elements of Comprehensive Planning. (These nine issues are further elaborated in the attached materials.)

In further explanation of how UW-Extension Educators are involved in Comprehensive Planning a second attachment is a publication we often use with stakeholders and our own educators to explain the specific role of UW-Extension.

Again, thank you for the opportunity to share information about the successful programs of UW-Extension and especially those impacts of the Basin Educators. If I can be of further help and assistance please feel free to contact me directly.

Respectfully,

A handwritten signature in black ink, appearing to read "Robin Shepard".

Robin Shepard
UW-Extension State Program Leader,
Community Natural Resources and Economic Development.
608/262-1748

Wisconsin's Forest and the Comprehensive Planning Law

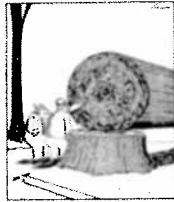


Forests in the wilderness of Smart Growth

Draft curriculum
UW-Extension

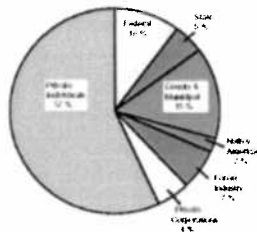
Presentation outline

- Brief overview of forestland ownership in Wisconsin.
- The effect of forest fragmentation on forest processes...
- Forests and the comprehensive planning law.



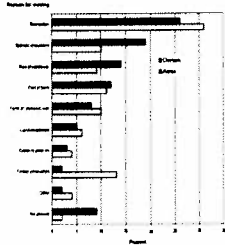
Who owns Wisconsin's forestlands

- **Private ownership**
Individual, private owners own the majority of Wisconsin's forestland, about 57%.
Forest industry 7%
Private corporations 4%
Tribal lands 2%
- **Public ownership**
Counties and municipalities own the largest percentage 15%.
The federal government about 10%.
The state owns just 5%.



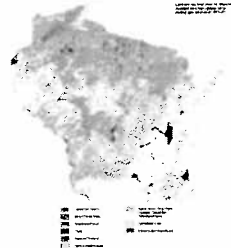
Primary reason for owning timberland

- Timberland owners hold land for a variety of reasons, primarily as a place for recreation and esthetic enjoyment.
- Benefits derived from owning timberland correspond closely to reasons for owning timberland. Recreation and esthetic enjoyment are the primary benefits of owning timberland.
- Although most owners do not hold timberland for timber production, almost half of owners (46 percent) have harvested timber from their land.



Changing Face of Forest land ownership in Wisconsin

- Private non-industrial land owners own approximately 10,811,900 acres of Wisconsin's forest land.
- Between 1984 and 1997, the number of Wisconsin's non-industrial private owners increased 20% to about 262,000.
- Every year an average of 3,385 new parcels are carved out of Wisconsin's forested land base.
- As a result, ownership size is decreasing and development is increasing.



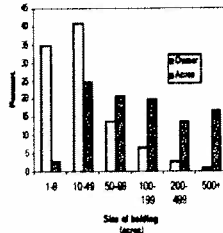
Average size of private timberland holding by Region

- Owners with fewer than 50 acres hold nearly one-third of the State's private timberland.
- In the Central and southern units, small noncontiguous tracts are often intermixed with other land uses, especially agriculture.



Distribution of private owners by size of holding

- About three-fourths of owners (76 percent) hold about one-fourth (28 percent) of the private timberland.
- More than one-third (35 percent) of owners hold fewer than 10 acres of timberland, accounting for only 3 percent of the private timberland acreage.
- Conversely, 10 percent of owners hold more than half (51 percent) of the private timberland area.

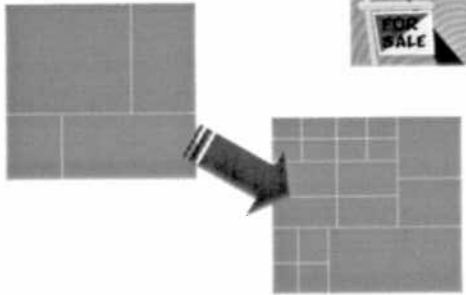


What is Forest Fragmentation

- Parcelization
- Ecological fragmentation
- Conversion to other land uses.

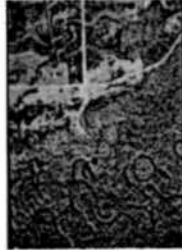


Parcelization



Ecologic Fragmentation

- Fragmenting the vegetation of a large expanse of forest into isolated pieces by inserting new uses and different mixtures of plants and animals



Conversion to other land-uses

- Fragmenting forest uses by converting pieces of land to other uses



Ecological implications . . .

- Competing land uses
- Changing disturbance regimes
- Changing habitat types – even if forests remain the dominant feature
- Changing array of flora and fauna

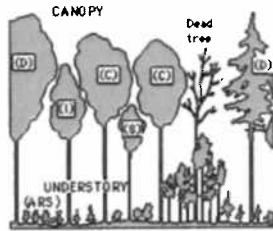


Forest Processes

Woodland Ecology in Action

■ Forest Succession

The natural sequence of plant community replacement beginning with bare ground and resulting in a final, stable community in which a climax forest is reached.



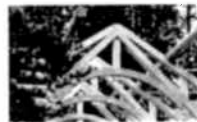
Altered Forest Processes

- Invasive non-native plant species
- Introduced insects and diseases.
- Alteration in natural disturbance regimes.




Economic implications . . .

- Economies of parcel size
- Increased value and cost of land
- Changing rural economies
- Greater uncertainty for owners, businesses, and communities




A Forest Management Plan Generating Income From Your Woodlands

- **Timber Harvests**
 - Some figures to consider
 - 51 percent of Wisconsin's forest land is owned by NPI land owners.
 - 54 percent of Wisconsin's net volume of growing stock trees are harvested by NPI land owners.
 - 51 percent of Wisconsin's average annual tree growth or sawtimber cubic mortality is owned by NPI land owners.
 - 69 percent of Wisconsin's average annual removals of sawtimber cubic feet are owned by NPI land owners.




Social implications . . .

- New people
- Different values and uses of forests
- Changing expectations for public goods and services
- Competing and conflicting visions of place



National Woodland Owner Association's "Woodland Responsibility Code"

- In 1994 the National Woodland Owners Association linked private property right directly with responsible land stewardship through the "Private Property Responsibility Initiative." The heart of the campaign is a 12-point "Woodland Code" that outlines rights and responsibilities of woodland owners.



Smart Growth Law...

The basics of Wisconsin's Comprehensive Planning Legislation

- The purpose of this legislation is to provide local governments with a framework for developing a comprehensive plan.
- Comprehensive plans are designed to guide land use decision-making and land use decisions must be consistent with the plan
- State agencies must consider state planning goals.
- Every community must have a comprehensive plan in order to take any action related to land use after 1/1/2010.

Some reasons to consider forest resources in your Comprehensive plan...

- Forests are often a defining feature for local communities throughout the state
- Wisconsin's forests are facing significant threats due to increasing human demands by a growing state population.
- Direct impacts of current and projected development patterns lead to the fragmentation of forests which directly affect the ecologic, economic, and social well-being of our state.

Nine plan elements required...

- | | |
|---|---------------------------------|
| ■ Issues and opportunities | ■ Economic development |
| ■ Housing | ■ Intergovernmental cooperation |
| ■ Transportation | ■ Land use |
| ■ Utilities and community facilities | ■ Implementation |
| ■ Agricultural, natural, cultural resources | |

Issues and opportunities element...

- Background information
 - Employment forecasts
 - Income levels
 - Employment characteristics



Housing element...

- Policies and programs that promote the development of housing
- Forest fragmentation
 - keeping large intact tracts together and promote the use of Conservation developments (subdivision)
- "Firewise planning" in the development of subdivisions



Transportation element...

- Forestry best management practices for water quality in the road building process
- Location and design criteria for forest roads



Utilities and community facilities element...

- The value of urban forests to the community as well as the programs that exist to help manage urban forests.
- DNR's fire program
 - insure adequate design for facilities and fire equipment
 - Mutual aid agreements
 - sub divisions design in fire prone area



Agricultural, natural and cultural resources element...

- A compilation of objectives, policies, goals, maps and programs for the conservation and promotion of the effective management of natural resources
 - Forests
 - Environmentally sensitive areas
 - Threatened and endangered species
 - Parks, open spaces, & recreational resources



Economic development element...

- Present county economic data here.
- Programs to promote the stabilization, retention or expansion of the economic base
- Opportunities in the local governmental unit, including an analysis of the labor force and economic base of the local governmental unit.



Land-use element...

- Listing of the amount, type, intensity and net density of existing uses of land in the local governmental unit
- Discuss fragmentation and conservation developments. Also, expected future impacts of fragmentation on land prices, wood supply, recreation, wildlife.



Implementation Element...

- This is where we discuss the importance of sending consistent messages and information.



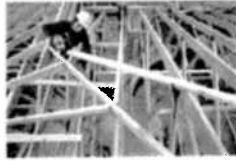
Some Closing Thoughts...

- The Comprehensive planning process is about having a vision for your community and putting that vision into action
- The result of your Comprehensive Plan should be sensible and smart growth that will help you to build a stronger community.



The material in this presentation was collected from numerous sources, including

- Wisconsin Private Timberland Owners: 1997
USDA Forest Service Research Paper No. 339
- Wisconsin's Forests at the Millennium
WISCONSIN FORESTS 2000
- Wisconsin Forest Statistics: 1996
USDA Forest Service Research Bulletin No. 183
- "The effect of urban sprawl on timber harvesting"
Journal of Forestry, Volume 96, number 12
- "Sustainable Forestry: Principles and Guidelines"
American Forest and Paper Association, 1995





**Community, Natural Resource
and Economic Development**

**432 North Lake Street, Madison, Wisconsin 53706
(608) 262-1748 • FAX (608) 262-9166**

EXTENSION EDUCATIONAL PROGRAMMING IN COMPREHENSIVE PLANNING

THE OPPORTUNITY AND THE CHALLENGE

Throughout Wisconsin, how local governments respond to growth and change has become a major public issue. Controversies have arisen over the spread of low-density development into rural areas, the loss of prime farmland, increased traffic, the effects of development on natural resource areas, and the demands placed on communities for costly facilities and services to support new development. Such issues have been difficult for individual communities to deal with because development can have area-wide effects and raise questions about the respective roles of different units of government in land use matters.

The Wisconsin legislature responded to development issues and planning needs by adopting a "Comprehensive Planning and Smart Growth Law" as part of 1999 Wisconsin Act 9, the biennial budget act. This act:

- Defines comprehensive planning and procedures for developing and adopting plans;
- Establishes consistency with plans starting in 2010 as a requirement for local land use decision-making; and
- Establishes comprehensive planning goals, a planning grants program and emphasized public participation as integral to the planning process. (Including language requiring UW-Extension (UWEX) to provide for education about local planning and the grant program).

The University of Wisconsin's Cooperative Extension is uniquely suited to play an important role in increasing public understanding of the Smart Growth law, the consequences and impacts of development, alternative ways of managing growth, and in building consensus regarding land use solutions appropriate to Wisconsin. In the past, UWEX has been active in public education related to land use planning and natural resource management. It has also been involved in community economic development education. Now this broader public policy issue of comprehensive planning and smart growth provides another education challenge and legislative expectation.

PRINCIPLES FOR UWEX INVOLVEMENT IN COMPREHENSIVE PLANNING

- Comprehensive planning should strike a balance among economic, social and environmental objectives to achieve beneficial patterns of development by enabling the right development to occur in the right place at the right time. Development is not always beneficial; nor is development, in and of itself, the problem. Some persons and organizations argue that development is always beneficial, and should never be discouraged. Others contend that land use and environmental problems are caused by too much development, and that state agencies, counties and local governmental must adopt policies and regulations severely restricting development. Both of these representations are overly simplistic.

- Public understanding of how communities are growing and changing, and of how public plans and actions affect the way communities grow and change, is essential to the exercise of responsible citizenship. Citizens as well as governmental officials need to understand the alternative ways that growth can be accommodated, so that they can participate intelligently in land use decisions and policymaking.
- Comprehensive planning must be inclusive, rather than exclusive and exclusionary. Planning, to be effective and fair, requires a sense of citizenship, and an appreciation of the inter-dependency and shared interests of urban, suburban and rural areas. Similarly, it requires that current residents be encouraged to think not only of their needs and interests, but also of the needs and interests of future generations of citizens.
- Plans and policies must be developed with concern for social and fiscal equity, so that the costs and benefits are shared fairly among the residents and taxpayers of different units of local government.
- In making decisions about land use and development, communities need to consider social and environmental consequences as well as economic impacts, and must consider long-term as well as short-term consequences.
- An important part of planning is respecting and preserving historic, cultural and environmental resources that enhance community identity and sense of place.
- Comprehensive planning must incorporate the principles of hazard mitigation and community sustainability to help insure that plans, policies and decisions eliminate or reduce the potential impact of natural and other hazards.
- Public education is needed to make citizens aware of public policy choices related to how growth is managed, and to encourage citizens to participate in processes and initiatives at the local, county, state and federal levels aimed at developing plans and policies related to land use and development. The Legislature has recognized public education and participation as an integral part of the Smart Growth law.
- There is no definitive way of planning wisely, and no single source of information on what will work and not work, or what is desirable or appropriate in particular circumstances. This reality reinforces the importance of public education and information sharing. Numerous approaches and techniques for managing growth have been devised in communities and states across the country, and more can be expected in the future. This diversity of approaches, illustrating an openness to innovation and experimentation, is a positive development. UWEX views this trend toward experimentation as an opportunity for learning and information sharing, so that individuals and communities can learn from each other.

**DEPENDING ON THE LOCAL SITUATION,
COUNTY AND CAMPUS BASED FACULTY MAY
ASSUME A VARIETY OF ROLES IN
COMPREHENSIVE PLANNING**

Role As Educator:

Provide a wide range of information and education programs through workshops and locally-based programs, web-based and printed educational materials, newsletters, distance learning opportunities, radio and television programs, and videos.

Educate the public and local government officials about comprehensive community planning and development -- such as the state Smart Growth law, conservation subdivision development, traditional neighborhood design, incentive zoning, flexible zoning and subdivision regulations -- to encourage informed decision-making and broad public input.

Serve as a source of information for local governments by teaching on a wide range of land use-related topics, such as comprehensive and strategic planning, alternative ways of involving citizens in planning and visioning, zoning and land use regulation.

Advise and assist county and local governments in establishing model planning processes to meet local needs.

Teach approaches to effective intergovernmental collaboration.

Role As Convener, Facilitator and Catalyst:

Provide a forum for the discussion of development-related issues, including controversial issues that pose difficult public choices. Allow competing views to be debated.

Encourage local planning and problem-solving related to land use, development and preservation. Help communities build consensus on how to accommodate growth and change.

Assist communities in attempts to resolve inter-governmental disputes over land use and development. Help communities understand opposing interests and viewpoints, and recognize shared interests.

Role as Applied Researcher:

Identify and document development-related issues and problems that are of statewide significance because they occur in large numbers of communities.

Conduct applied research on specific local comprehensive planning and land use issues.

Prepare case studies of plans and policies attempting to manage and shape growth and development, with special attention to regional, county and local plans and policies that seek to balance competing economic, social, and environmental objectives.

Evaluate alternative approaches and processes of undertaking comprehensive planning. Assess effectiveness in terms of involving citizens in decision-making, in achieving consensus on difficult policy questions, and in terms of effectiveness in regulating and channeling growth. Transmit lessons and insights gained to other communities.

Identify and document sources and causes of intergovernmental conflict related to growth and development.

Test and evaluate alternative methods and procedures for resolving intergovernmental conflicts over growth and development.

Support public policy development through applied research at the local, county and state level.

Role in Information Transfer and Collaboration:

Identify issues and problems of concern to communities, and provide a mechanism for transferring knowledge and experience gained at the local level to other units of local government.

Capture and synthesize the knowledge, insights and opinions of a broad range of actors and interests having experience, interest and expertise in land use and growth-related issues.

Recognize issues of statewide significance, and communicate experience and knowledge gained at the local and county levels to state agencies with program responsibilities related to land use and growth management.

Encourage discussion and refinement of proposals to strengthen and improve institutions, processes and tools of planning and growth management in Wisconsin. Support public policy development at the local, county and state levels.

Education/Outreach Relationships:

In carrying out its education mission, UWEX will collaborate with county and local government officials and staff, state and federal agency personnel, professional associations, community organizations, and other interested persons.

MAINTAINING EXTENSION'S EDUCATIONAL FOCUS

Comprehensive planning policy may require a variety of professional skills to be successfully implemented, including working with community planners or private planning consultants, attorneys, and other content experts. Extension professionals must always focus on education and not be expected to adopt non-educational support roles better suited to other professionals in the community planning policy process. Also, all Extension educators do not have an academic background in planning and cannot provide the same level/type of support everywhere.

Extension's role is to work with professionals and community leaders to insure that education is provided to help the community meet its goals of making informed decisions about the community's future. UWEX faculty and staff working in counties around the state can provide targeted education in

support of comprehensive planning, but this in no way substitutes for professional and technical support needed to complete local comprehensive plans.

For more information about Comprehensive Planning education resources, contact:

Your local County Extension office

Or

Community, Natural Resource & Economic
Development Program Office
625 Extension Building
432 N Lake St
Madison, WI 53706
www.uwex.edu/ces/cnred/
(608) 262-1748

An EEO/Affirmative Action employer, University of Wisconsin-Extension provides equal opportunities in employment and programming, including Title IX and ADA requirements. Requests for reasonable accommodation for disabilities or limitations should be made prior to the date of the program or activity for which it is needed. Publications are available in alternative formats upon request. Please make such requests as early as possible by contacting your county Extension office so proper arrangements can be made.

G:\coop\cnred\text\edprog
8/01/01



How the University assists with Wisconsin forest products and the paper industry

More than 40 percent of Wisconsin's land area is forested. The state's forestry resources comprise a substantial economic influence and impact on wood-related products, the paper industry, recreational forest usage and the tourism industry. Addressing a wide variety of forestry issues often requires multiple approaches that involve the University's research capabilities, campus-based instruction and statewide outreach networks. The University works in concert with various state and federal agencies to solve problems and extend its expertise to forest managers, landowners, businesses such as the paper industry and other forest-product companies.

Some of the most prominent areas of work at the University of Wisconsin include:

- forestry and paper industry workforce development
- paper science and production
- waste reduction, management and by-product utilization
- undergraduate and graduate instruction
- non-industrial private forest owner education
- forestry research

Faculty and staff at UW campuses in Madison, Stevens Point and Milwaukee work on issues associated with forest management, forest ecology, wood processing/marketing, and papermaking technology and management. Programs also extend beyond campus research and formal student instruction to outreach efforts involving faculty and staff in the Community Natural Resources and Economic Development (CNRED) program of Cooperative Extension and Continuing Education Extension.

In addition, UW-Extension partners directly with the Wisconsin Department of Natural Resources and U.S. Forest Service on programs offered through the network of UW-Extension River Basin Educators, and provides joint support for several research and outreach positions at UW-Stevens Point and UW-Madison. These coordinated efforts include educational programs for private non-industrial woodland owners, professional development of local foresters, and leadership programs such as the Master Woodland Stewardship and Forest Leadership Institute.

Forestry and Paper Industry Workforce Development

The University of Wisconsin-Extension School for Workers (SFW), a unit of Continuing Education Extension, is the oldest university-based labor education program in North America. Each year SFW faculty do extensive work with the paper industry, improving workplace conditions and providing educational and training opportunities. Also, UW faculty in Madison and Stevens Point provide short course programs as professional development opportunities for public and private foresters.

- SFW staff lead labor-management training at two large paper plants in the Fox Valley that collectively employ more than 500 workers. A longitudinal survey in 2002 found that plant-wide Conflict Management training helped lower perceptions of conflict at the mills, thereby positively affecting perceptions of honesty, fairness, respect and the conflict resolution. This contributed to a more positive work environment and higher productivity.
- SFW faculty worked with Appleton Papers in Combined Locks and Repap in Kimberly to develop a skill-based pay compensation system.
- SFW staff conducted safety and health committee trainings in the Great Northern Nekoosa Plant (now Georgia Pacific) in Port Edwards.
- A collaborative effort with UW-Fox Valley, UW-Extension and Continuing Education provides workshops for paper industry workers transitioning into retirement. Such programs offer strategies for understanding benefits and managing personal finances in retirement.
- Private and public foresters, as well as paper industry experts, routinely attend one or more of seven industry short courses taught by UW faculty. Courses include: wood technology, forest production and yields, business plan development, and computer technology in forestry.
- UW-Extension River Basin Educators and the Wisconsin Society of American Foresters support regional workshops on tax law requirements, forest fragmentation, logging and species management.

Paper Science and Paper Production

Collaboration across UW campuses in Stevens Point and Madison helps the paper industry address the increasingly complex problems it faces. Some of those efforts include:

- The PAPER Academy, a joint effort with UW-Extension's Continuing Education Extension, four Wisconsin paper companies and UW-Stevens Point, was formed to provide customized training and certification of workers in supervisory, management and technical pulp and papermaking.
- Paper Machine/Paper Science Laboratory Research is conducted in a state-of-the-art facility that includes a 22-inch wide Pilot Paper Machine Project at UW-Stevens Point. This is a joint project involving the State of Wisconsin (WISTAR), the University of Wisconsin and the paper industry. The machine serves as a demonstration for undergraduate instruction and as a platform for testing new production methods.
- The Paper Science Foundation is an organization dedicated to the support and guidance of the Paper Science Department at UW-Stevens Point. It is comprised of member corporations and individuals whose annual donations have created an endowment to support scholarships and professional development programs.

Waste Reduction, Management and By-product Utilization

Technical training, information about hazardous waste and air emission rules, and linkages to recycling markets directly help the paper industry deal with its by-products. Such efforts involve training programs for businesses and communities on resource conservation, recycling, solid waste management and pollution prevention.

- UW-Extension's Solid and Hazardous Waste Education Center (SHWEC) has co-directed the Printers' National Environmental Assistance Center (PNEAC) since 1976. PNEAC assists printers across the country in understanding environmental regulations. It is one of the 10 "sector-based" compliance assistance centers funded by USEPA and currently reaches over 1,000 users per day.
- SHWEC assists industries that generate high-volume industrial by-products like sludge and ash. Traditionally, those materials have been either land-spread or land filled. SHWEC is helping develop alternative uses for such materials, through the development of an information database and mapping locations of where large amounts of waste materials are generated.
- In La Crosse, UW-Extension collaborative programs including the campus-based Small Business Development Center and SHWEC have helped printers with on-site assessments and development of recommendations for process improvement.
- UW-Extension offers training and one-to-one technical assistance to local businesses and governments that recover paper for recycling. County-based Extension agents and SHWEC staff help generators of recyclable materials understand requirements and specifications for waste management and by-product recovery. The SHWEC staff has worked directly with mills and paper manufacturers in developing ways to capture recyclables.
- The Packaging Research and Development Center provides technical, development, testing and evaluation of products in its ISTA certified laboratory at UW-Stout.
- The Center for By-Products Utilization at UW-Milwaukee was formed in 1988 with a focus on finding cost-effective products that decrease the volume of waste.

Undergraduate and Graduate Instruction

The UW-Stevens Point Paper Science department and the UW-Madison Department of Forestry help prepare individuals for technical careers in the pulp and paper industry. Students are challenged with mathematics, chemistry, physics and engineering fundamentals while learning the science and technology associated with the manufacture of pulp and paper. Campus instruction goes beyond technical training. It offers students opportunities to concentrate on forestry economics, ecology and public management practices. Job placement of those with a Bachelor of Science degree is excellent. Geographically, 50 percent of the UW-Stevens Point Paper Science alumni find work in Wisconsin.

Graduate programs, such as those at UW-Madison, offer students opportunities to conduct research associated with sustainable forestry and rural economic vitality and community development. Graduate programs also make use of the latest technical advances in ecological mapping to broaden our understanding of regional ecosystems and forest patterns.

Outreach Programs for Non-industrial Private Forest Owners

Wisconsin has more than 250,000 Non-industrial Private Forest (NIPF) owners. While some have many years of forest management experience, many find the responsibilities of actively managing their woodlands challenging because of the demands of broader farm management considerations, land fragmentation, rental and absentee ownership and recreational interests. UW-Extension's River Basin Educators and CNRED County Agents offer a variety of educational programs that address many aspects of private forest management, including:

- Workshops for basic forest management, managed forest law, and best management practices.
- Wisconsin DNR and the Wisconsin Woodland Owners Association (WWOA) team up with UW-Extension River Basin Educators to conduct a series of workshops addressing woodland issues for WWOA members.
- The Master Woodland Steward Programs provides advanced training to woodland owners in the basic concepts of forest resource management, forest ecology and land stewardship. The target audience is woodland owners with more than 10 acres who have management plans they have at least partially implemented.

Forestry Research

Today, UW campuses and the UW-Extension Community, Natural Resources and Economic Development program support approximately 10 faculty members who work on forestry issues statewide. These research specialists at UW-Madison and UW-Stevens Point apply science to the many pressing issues facing Wisconsin's forest and paper industry.

For example, UW-Madison professors David Marcouiller, Scott Bove and Mark Rickenbach are studying how the location of specific forestry-related industries impact the primary and secondary users of wood pulp. Such research is important to Wisconsin as it addresses competitive influences from non-U.S. processors of wood. In a global market, this information helps Wisconsin's wood and paper industry increase its understand of the competitive influences that can help and/ or hurt rural economic vitality.

More traditional areas of research by the University of Wisconsin have focused on forest ecology and the impacts of land/parcel fragmentation on the health of the forest ecosystem. This type of research is conducted by UW-Madison's David Mladenoff, whose position is jointly funded by UW and the DNR. This is a strong example of how the UW-DNR partnership can help solve forest and paper industry problems.

A Fiscal and Programmatic Summary:

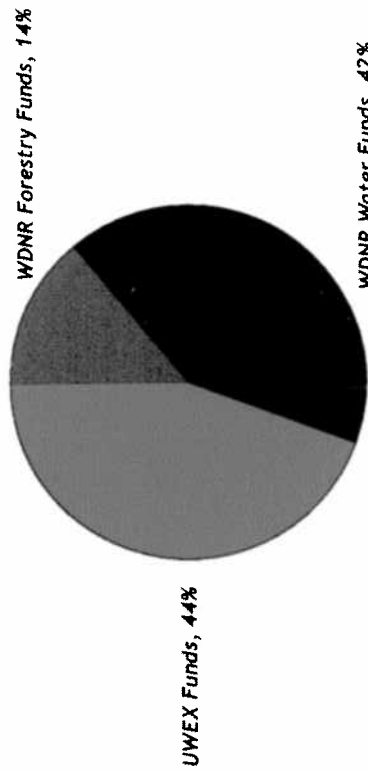
The Multi-agency Approach to Forestry, Land and Water Education

Forest landowners and forest industry professionals benefit from workshops, demonstrations, tours, consultations and materials addressing forest management developed and implemented by Basin Educators and support staff. The Basin Educators establish priorities based on local needs identified through a variety of methods, including regular consultation with WDNR staff, UWEX state specialists, county educators, county land conservation departments, NRCS and Basin Partner Teams.

This multi-agency approach to forestry, land and water education is made possible through approximately 30 positions, supported primarily by funding from WDNR, UWEX, USDA-NRCS, and USDA-CSREES.

This multi-agency funding not only supports Basin Educators, but provides for educational publications and materials development, agency staff training and professional development, volunteer monitoring through Water Action Volunteers, and educational program evaluation.

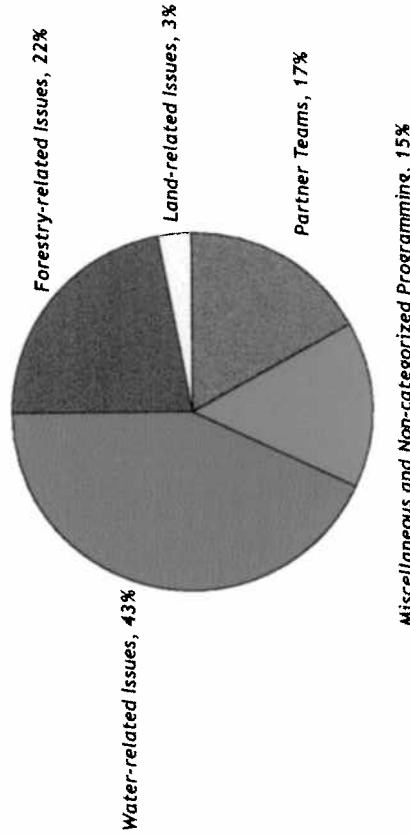
Estimated Annual Multi-agency Funding



Not shown in this chart:

- ♦ Federal NRCS grant and matching funds supporting related educational programs (locally matches with NRCS 1:3).
- ♦ Additional Extension forestry specialists John DuPlissis, Mark Rickenbach and Scott Bowe.

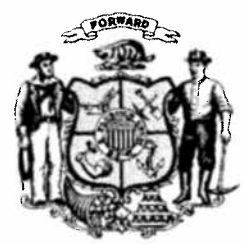
Basin Educator and Support Staff Focus



- ♦ Our programs stress integrated resource management principles, therefore strict divisions such as these do not represent true programmatic content. They merely represent the dominant program issues being addressed. For example, educators strive to integrate forestry topics into programs that address water and land-oriented issues.
- ♦ The multi-agency initiative also provides basin educators with staff support for educational materials development, program development and evaluation, and program administration.



WISCONSIN STATE LEGISLATURE



Basin Education: Forestry

Preliminary Report to the DNR Division of Forestry
for January 2002-June 2003

Introduction

In 1998, University of Wisconsin-Extension, in a combined partnership with WDNR, WDATCP, NRCS and FSA, began a new approach to promoting land and water resources management in Wisconsin. This initiative provides educational programs and other services in areas delimited by the state's major river basins. The identification of local needs is a critical aspect of the basin approach, and the foundation upon which educational programs are designed. Through a variety of interactive processes, citizens, agency staff and other key stakeholder groups work together to identify and address the important resource issues in their particular basins. These efforts are driven by the Basin Partner Teams, made up of representatives from the aforementioned groups. The Partner Teams advise and support stakeholders both in defining local environmental problems and in planning strategies to address those problems.

This report has been developed to provide an overview of forestry related educational programs Basin Educators were involved in from January 2002 through June 2003. Although it cannot cover all the projects Basin Educators are involved in, it will describe the principal efforts and highlight some early results of those programs.

A COORDINATED APPROACH TO FORESTRY EDUCATION

The UW-Extension Basin Educators are continually working to build relationships with government agencies, private consulting foresters, landowner groups, nongovernmental advocacy groups, and other stakeholders who share a common interest in forest resource management issues. Basin Educators work with agencies and organizations actively involved in forest resource education both to improve existing programs and to develop new and innovative programs for stakeholders who are not currently being served or targeted by existing programs. Their strategy has been to identify issues affecting the management of forest resources throughout the state, seek out existing educational programs and materials, connect with the agencies and organizations providing those resources, and spot any gaps in the educational offerings and help to fill them in.

Basin Educators have identified two particular target audiences for their educational efforts: non-industrial private forest (NIPF) landowners and forestry professionals (foresters and loggers). The goals are to help these groups become informed decision makers and manage forests in a responsible manner. The following two sections highlight some of the work Basin Educators have implemented with these groups.

Enhancing Sustainable Forestry Management for NIPF Landowners

The backgrounds, and therefore the educational needs, vary widely among woodland owners. Some landowners may know very little about forest management, while others may have had years of experience, but still want to learn new and more effective management practices. Basin Educators work with a broad range of these individuals, tailoring forestry education programs to fit local needs and issues. These efforts can be grouped into four categories: an introduction to woodland management, continuing education for woodland owners, advanced education for woodland owners, and targeted programs for participants in the Managed Forest Law Program.

INTRODUCTORY WOODLAND OWNER CONFERENCES

These workshops introduce woodland owners to the resources available to help them develop and implement forest management plans for their properties. The target audience is forest landowners with more than 10 acres, particularly those who do not yet have management plans. Workshops were held in Southeastern Wisconsin in 2002 and 2003, and in Taylor County in 2003. A workshop will be held in the spring 2003 in Dunn County. A total of 743 landowners attended these conferences, including a projected 100 in Dunn County. Partners in these conferences included DNR-Forestry, the Wisconsin Forest Productivity Council and the Wisconsin Woodland Owners Association.

CONTINUING EDUCATION FOR WOODLAND OWNERS

Basin Educators work closely with their partners to support, coordinate, or implement programs for woodland owners who have some experience in forest management. These efforts introduce these woodland owners to more advanced aspects of forest management in order to improve both their decision-making abilities and their management skills.

Winter Workshop Series

DNR - Forestry and the Wisconsin Woodland Owners Association (WWOA) coordinate this workshop series with support from Basin Educators. The target audience for these workshops was woodland owners with some experience in forest management particularly those members of WWOA. Basin Educators from the Wolf, Lakeshore, Central Wisconsin, and the Lower Chippewa Basins served on planning committees, assisted with the development of brochures, and/or helped with administration on the day of the event.

Field Days

These events show woodland owners the benefits of forest management techniques by taking them to areas where various practices have been implemented. Basin Educators hosted or supported forestry field days in the Central Wisconsin, Lower Wisconsin, and Lower Chippewa Basins, as well as two in the Lakeshore Basin. Our partners in these field days included DNR-Forestry, the Wisconsin Forest Productivity Council, the Wisconsin Tree Farm Committee, and the Wisconsin Woodland Owners Association. More than 300 woodland owners attended these events.

OTHER CONFERENCES

Best Management Practices (BMP) Workshop

The Upper and Lower Chippewa Basin Educators coordinated a BMP workshop for woodland owners in Dunn County in conjunction with DNR-Forestry staff. The goal of this program was to share information with woodland owners about the importance of following BMPs while conducting forestry operations on their lands. Thirty woodland owners attended this event.

Door County Invasive Species Workshops

The Lakeshore Basin Educator, working with the Door County Invasive Species Team, coordinated a workshop for people interested in getting more involved with this issue. The workshop was designed to introduce relevant issues and describe what the Door County Invasive Species Team hopes to accomplish in controlling these species. Additionally, organizers of the workshop hoped to learn from the participants what skills they have regarding identification and eradication of invasive species. The target audience for this workshop was community members with interest and skills in this topic. Approximately twenty-five private citizens, members of various organizations, and local agency staff attended.

A follow-up to this workshop will take place in spring 2003. The goal is to train one citizen volunteer from each township in Door County on the identification of, and rapid response to, invasive species. These volunteers will then train and lead others in their communities in detection and eradication activities. The Lakeshore Basin Educator will invite 20 participants from the previous workshop to attend this event.

Partners in Forestry (PIF) Woodland Owners Cooperative Conference

The Headwaters Basin Educator served on the steering committee and coordinated a conference for woodland owners for PIF. The workshop had two goals: to educate woodland owners on various aspects of forest management and to promote the Cooperative to local residents. Woodland owners within the Headwaters Basin participating in the Managed Forest Law Program, the Tree Farm program, and/or a member of WWOA were targeted for this event and for membership in the Cooperative. Sixty woodland owners attended this event.

Exploring Options to Restore Wisconsin's Oak Savannas

The Oak Savanna Restoration project is a collaborative effort between UWEX, UW-Madison, UW-Platteville, WDNR, USDA-NRCS and landowners. The project includes trials exploring the use of cattle and fire in the restoration of oak savanna in the Yellowstone Wildlife Area and on two private farms. The Grant-Platte-Sugar-Pecatonic Basin Educator coordinated two field days for landowners and agency professionals to view the study areas and discuss resources and tools available for restoration activities. Fifty-four landowners and agency personnel attended these field days.

Western Wisconsin Technical College (WWTC) Farmer Woodlot Management Classes

The Black-Buffalo-Trempealeau Basin Educator coordinated classes on forest management as part of the WWTC continuing education program. These classes allowed students to work with a professional forester on developing a management plan and setting up subsequent timber sales. The classes fit well with the farmers' schedules, as they would not normally be able to attend woodland owner conferences. Twenty-nine farmers took part in this program.

Advanced Education for Woodland Owners - Master Woodland Stewards (MWS)

The Master Woodland Steward Program provides advanced training to woodland owners in basic concepts of forest resource management, forest ecology, and land stewardship. The target audience for this program is woodland owners with more than 10 acres who have management plans that they have at least partially implemented. The goal of these workshops is to create, from the graduates, a corps of motivated volunteers to help friends and neighbors with forestry plans and concerns. Basin Educators have been heavily involved in the development of this program, serving on both the design team and the advisory committee. The Lake Superior, Headwaters and Upper Chippewa Basin Educators were on the curriculum committee and developed and presented several of the component sessions. Additionally, these Basin Educators hosted the pilot sessions in Hayward and Woodruff. Program partners include UW-Extension, DNR-Forestry, the Wisconsin Forest Productivity Council and the Wisconsin Woodland Owners Association. Sixteen woodland owners completed the program.

Managed Forest Law Workshops

Managed Forest Law Workshops inform landowners who have enrolled in the Managed Forest Law Program about the requirements of the program as well as of their rights and responsibilities as participants. Basin Educators have been working closely with area and regional forestry staff to develop and coordinate these workshops for their basins. Workshops have been scheduled for fall 2003 for the Black-Buffalo-Trempealeau, Headwaters, Lower Chippewa, Upper Chippewa, and St. Croix Basins. Additionally, a survey of MFL participants is being developed by the Forestry Issues Team and the Evaluation Unit of the ERC to determine their educational needs and how best to meet them.

SUMMARY OF LANDOWNER WORKSHOPS

Outputs

- Nineteen workshops, conferences, or field days were held
- Participants received a wide variety of educational materials
- Over 1250 woodland owners participated in these events

Outcomes

Evaluations from these and previous similar events indicate that participants improved their understanding of forest management principles, became more confident in their ability to address forest management needs, and increased their awareness of available resources and contacts

Anticipated Outcomes

- Woodland owners will know where to seek professional assistance and sources of financial assistance for the management of their forests
- Woodland owners will utilize what they have learned to better manage their property
- Graduates will assist other woodland owners with management decisions on their property and refer them to appropriate resources and forestry professionals
- At least four Managed Forest Law workshops will be held in 2003-04

Anticipated Impacts

- Woodland owners will make informed decisions regarding the long-term, sustainable management of their forests
- More woodland owners will be reached via peer advising

Supporting Local Leadership for Forestry Management

In addition to educational programming for woodland owners, Basin Educators support local leaders in the forestry community including foresters, community members involved with school forests, and woodland owner organizations. This involves helping with or coordinating training sessions, developing new educational programs, and assisting with the development of local woodland owner organizations.

CONTINUING EDUCATION FOR DNR FORESTERS

At the request of the DNR Northern Regional Forester, the Headwaters Area Specialist and the Headwaters Basin Educator developed an educational program for DNR foresters on global positioning systems and ArcView Geographic Information Systems. The goal of the program was to introduce the foresters to this technology by showing them how it can be used as part of their normal activities. The program served as a

model that the DNR–Forestry Training Office could use in other areas within the Northern Region. Fifty foresters from the Headwaters area attended the workshop, along with 10 county foresters. Additionally, Basin Educators gave presentations to DNR foresters as part of larger events. The Headwaters Basin Educator discussed partnerships in a break-out session of the DNR–Forestry Statewide meeting. At a training session for new foresters, the Black-Buffalo-Trempealeau and the Upper Chippewa Basin Educators gave presentations on the basics of writing educational materials and working with volunteers.

CONTINUING EDUCATION FOR FORESTERS

Basin Educators have been working with the Wisconsin Society of American Foresters (WISAF) and other organizations to support and enhance educational programming for foresters. The resulting regional workshops attracted over 150 participants and included the following topics:

- ◆ Tax law practices for cooperating consulting foresters in (Central Wisconsin Basin)
- ◆ Forest fragmentation and gentle logging operations (Headwaters Basin)
- ◆ Aspen management in the Lake States, impacts from forest management on watersheds, and accelerating succession in stands of pioneer species (Upper Chippewa Basin)

The Headwaters and the Upper Chippewa Basin Educators have been part of planning committees for two WISAF statewide conferences, developing the programs and coordinating the events.

SCHOOL AND DEMONSTRATION FOREST WORK

School and Stewardship Demonstration Forests are vastly underutilized in Wisconsin. Basin Educators have endeavored to promote these resources and increase their use as teaching tools. Basin Educator roles involving both local and Stewardship Demonstration Forests included developing educational materials and conducting educational programming on the forests. The Upper Chippewa Basin Educator provided educational design assistance and technical assistance to the Barron County Woodland Owners Association for their *Demonstration Forests: Stop, Look, and Learn* project.

Educational programming developed by Basin Educators on school forests focused both on promoting their use among teachers and getting community leaders more involved. It is our hope that this twofold approach will have more success than either done separately.

Teacher Education

The St. Croix, Upper Chippewa, and Headwaters Basin Educators developed a program to familiarize teachers with the educational opportunities present in their school forests and to help them design activities that address state standards. The program also promotes the development of a school forest committee to handle the day-to-day operations of the forest and ensure its long-term viability. The Shell Lake School Forest near Spooner was the site for the pilot of this program, and teachers from the elementary and high schools attended the workshop.

Community Leader Involvement

This program is designed to complement the previous program by getting community leaders to lend support “from above” to school districts regarding improving the use of school forests. The goals are to educate community leaders about school forests and show them how they can participate in their management and use. The Headwaters Basin Educator and the Lumberjack RC&D coordinator developed and implemented this program for an audience of 42.

SUPPORT FOR LOCAL WOODLAND OWNER ORGANIZATIONS

Woodland owner organizations can help multiply educational efforts through peer-to-peer counseling. To stimulate this effect, Basin Educators have been working with local woodland owner organizations to improve educational programming for their members. Additionally, Basin Educators have served in a variety of roles

to support fledgling organizations. The Lower Wisconsin Basin Educator helped local citizens establish a new chapter of Wisconsin Family Forests, the Baraboo Hills Alliance, and assisted with educational programming for its members. The Headwaters Basin Educator served on the steering committee for the Partners In Forestry Cooperative, and developed an educational program in conjunction with the Cooperative. Several Basin Educators assisted with local WWOA Chapter events in the Wolf, Lakeshore, Central Wisconsin, and the Lower Chippewa Basins. Additionally, the Upper Chippewa Basin Educator has been helping the local WWOA Chapter in the planning and coordination of their 2003 statewide meeting.

SUMMARY OF SUPPORTING LOCAL LEADERSHIP FOR FORESTRY MANAGEMENT

Outputs

- Seven regional events were organized for continuing education of foresters
- Two statewide events were co-coordinated for foresters
- Two school forest workshops were held
- A total of 210 public and private consulting foresters attended training sessions
- A total of 48 teachers and community leaders attended workshops regarding school forests

Outcomes

- DNR Foresters can better utilize GPS & GIS technologies
- Teachers and community leaders organized a committee for their school forest

Anticipated Impacts

- Management of public and private forests will improve
- Schools will integrate their forests into their curriculum to a greater degree

Integration of Statewide Forestry Education and Information Delivery

Basin Educators have been building valuable partnerships and supporting the activities of agencies and organizations across the state that share similar educational objectives. Combining forces will help all groups involved meet common goals by bringing sustainable forestry education to NIPF landowners, forestland managers, and forestry professionals.

ASSISTING WITH FORESTRY RESOURCE EDUCATION

Wisconsin's Forest Management Guidelines Open House Meetings

Basin Educators from the Upper Green Bay, Central Wisconsin, Headwaters, and Upper Chippewa Basins facilitated these open house meetings and assisted with the local coordination of meeting facilities.

Wisconsin Towns Association Land Use Planning/Smart Growth Seminar Series

Basin Educators from the Lakeshore, Lower Chippewa, and Headwaters Basins gave presentations at these events on the integration of forestry resources into the comprehensive planning process. Approximately 700 people attended these seminars.

Heating with Wood Workshop Series

These workshops were designed to provide basic information on obtaining, cutting, drying, and using firewood. The workshops also included presentations on chainsaw use and safety, and efficient use and maintenance of internal and external wood heating units. Intertwined in these discussions were the ideas of

controlling air pollution and the problems associated with burning trash. Basin Educators from the Lake Superior, St. Croix, and the Headwaters Basins assisted with the development of this program and the coordination of local event sites. Over 100 people attended these three workshops.

Radio Spots on Natural Resources Issues

During March through June, 2002, the Lakeshore Basin Educator provided weekly radio spots on natural resources issues for a local radio station. This venue allowed the Basin Educator to discuss topics such as the value of wetlands, forest ecology, and storm water pollution to a wide audience.

FORESTRY EDUCATION PUBLICATIONS AND MATERIALS

Some of the educational efforts undertaken by Basin Educators require the development or distribution of new publications or materials. These materials can range from workshop brochures to large educational signs or displays. Many times this process is accomplished with support from the ERC Publications Unit and our partners at UW-Extension in Madison and Stevens Point. Basin Educators are also involved in the review of current publications to identify gaps and determine which publications need updating. Other efforts include:

- ◆ The Headwaters and Upper Chippewa Basin Educators, with support from the rest of the Forestry Issues Team, UW-Extension Forestry Specialists, and the ERC, created a woodland owner assistance website for Wisconsin.
- ◆ The Lower Chippewa Basin Educator developed a brochure on tree and shrub selection and planting for riparian buffers.
- ◆ The Lower Wisconsin Basin Educator prepared a directory of prescribed burn schools and distributed garlic mustard educational signs for installation at state and county parks, Ice Age trails, Nature Conservancy preserves and several other locations in and near Sauk County.
- ◆ ERC publications staff are working with UW-Extension Specialist Mark Rickenbach to develop a *Landowners Guide to Conducting a Timber Harvest*.

SUMMARY OF STATEWIDE INTEGRATION OF FORESTRY EDUCATION AND INFORMATION DELIVERY

Outputs

- Two new publications and a website were developed
- Four regional open house sites were facilitated
- Three workshops were held
- Presentations given at three conferences
- Radio spots on natural resources issues
- Over 100 homeowners attended the workshops
- Over 700 town officials heard the presentations

Outcomes

- Public feedback on Forest Management Guidelines

Anticipated Impacts

- Increased integration of forest resources into comprehensive planning
- More efficient use of wood for home heating
- Greater understanding among the general public of natural resources issues

Basin and Cooperating Staff

CURRENT UWEX BASIN EDUCATORS FOR NATURAL RESOURCES:

Kendra Axness, Deborah Beringer, Peggy Compton, Matt Davis, Jennifer Erickson, John Exo, John Haack, Bill Klase, Mike Kroenke, Darren Lochner, Rebecca Power, Patrick Robinson, Suzanne Wade, Andy Yench.

PARTICIPATING WDNR STAFF:

These DNR-Forestry staff worked closely with Basin Educators and other partners to help develop and implement many of these programs and activities: local foresters, Area Foresters, Regional Foresters, the Forestry Training Office in Rhinelander, Jolene Willert, Teague Prichard, Paul Pingrey, Genny Fannucchi, Kirsten Held, Wendy McCown.

INDIVIDUALS PROVIDING SUSTAINED SUPPORT AND COOPERATION:

Geary Searfoss (WFPC), Nancy Bozek (WFOA), Mark Rickenbach (UW-Madison), Scott Bowe (UW-Madison), John DuPlissis (UW-Stevens Point), Scott Craven (UW-Madison), Eden Koljard (WFREA), Amy Luebke (Wisconsin Family Forests).

BASIN EDUCATOR FORESTRY ISSUE TEAM, JANUARY 2002-JUNE 2003:

Bill Klase (Acting Team Leader), Deborah Beringer, Matt Davis, Mark Gawron, John Haack, Mike Kroenke, Rebecca Power, Kris Wimme.

2002-03 Preliminary Report to the Wisconsin Department of Natural Resources
Division of Forestry.

Produced by UW-Extension Environmental Resources Center.



University of Wisconsin-Extension is an EEO/Affirmative Action employer and provides equal opportunities in employment and programming, including Title IX and ADA requirements. The Wisconsin Department of Natural Resources provides equal opportunity in its employment programs, and services and functions under an Affirmative Action Plan.