

A Strategic Conservation Agenda 2003-2007

Measuring Progress Toward Mission

Minnesota Department of Natural Resources

Fact sheet: Conservation Indicators and Integrated Management

The *Conservation Agenda* includes over 75 interlinked indicators and conservation targets. Together they will help us measure progress as we work with partners to accomplish our mission.

The Big Picture

What can we do to ensure that Minnesota's rich natural resources remain healthy and abundant for future generations? A *Strategic Conservation Agenda 2003-2007* outlines specific, measurable outcomes and actions that will allow us to enjoy the benefits of our natural resources today while protecting them for tomorrow.

To help manage for multiple outcomes, we've grouped over 75 specific indicators and targets into six performance areas: Natural Lands, Fisheries and Wildlife, Waters and Watersheds, Forests, Outdoor Recreation, and Natural Resources Education. But as we address them, remember that nature is not so easily pigeonholed. The indicators and targets are interlinked, both within and among performance areas. Working to achieve one without considering the others makes about as much sense as taking a fishing trip with bait and a boat but no hook, line, or reel. Each is interconnected and reliant on others for successful conservation.

Integrated Management

Pursuing multiple conservation objectives requires integrated resource management. That means our efforts must interact and reinforce each other, just as natural resources do. In the case of the *Conservation Agenda* it means addressing indicators together, rather than independently, and recognizing the trade-offs and connections among them. And it means working with partners to accomplish our mission.

In some cases, progress in one area means progress in another. For example, efforts that seek to meet our target of no-net-loss of wetlands can help us meet targets related to duck harvest, flood damage reduction, and frog and toad populations.

In other cases, progress in one area may conflict with another area. For example, enhancing opportunities for motorized recreation can impact silent sports. Either way, integrated resource management means paying attention to how management activities intended to achieve specific targets also affect other conservation values.

(over)

***A Strategic Conservation Agenda 2003-2007* is available in
full text on the DNR web site at:**

www.dnr.state.mn.us/conservationagenda/index.html

DNR's Strategic Conservation Agenda is updated periodically.
A new update will be posted on the DNR web site in February 2005.

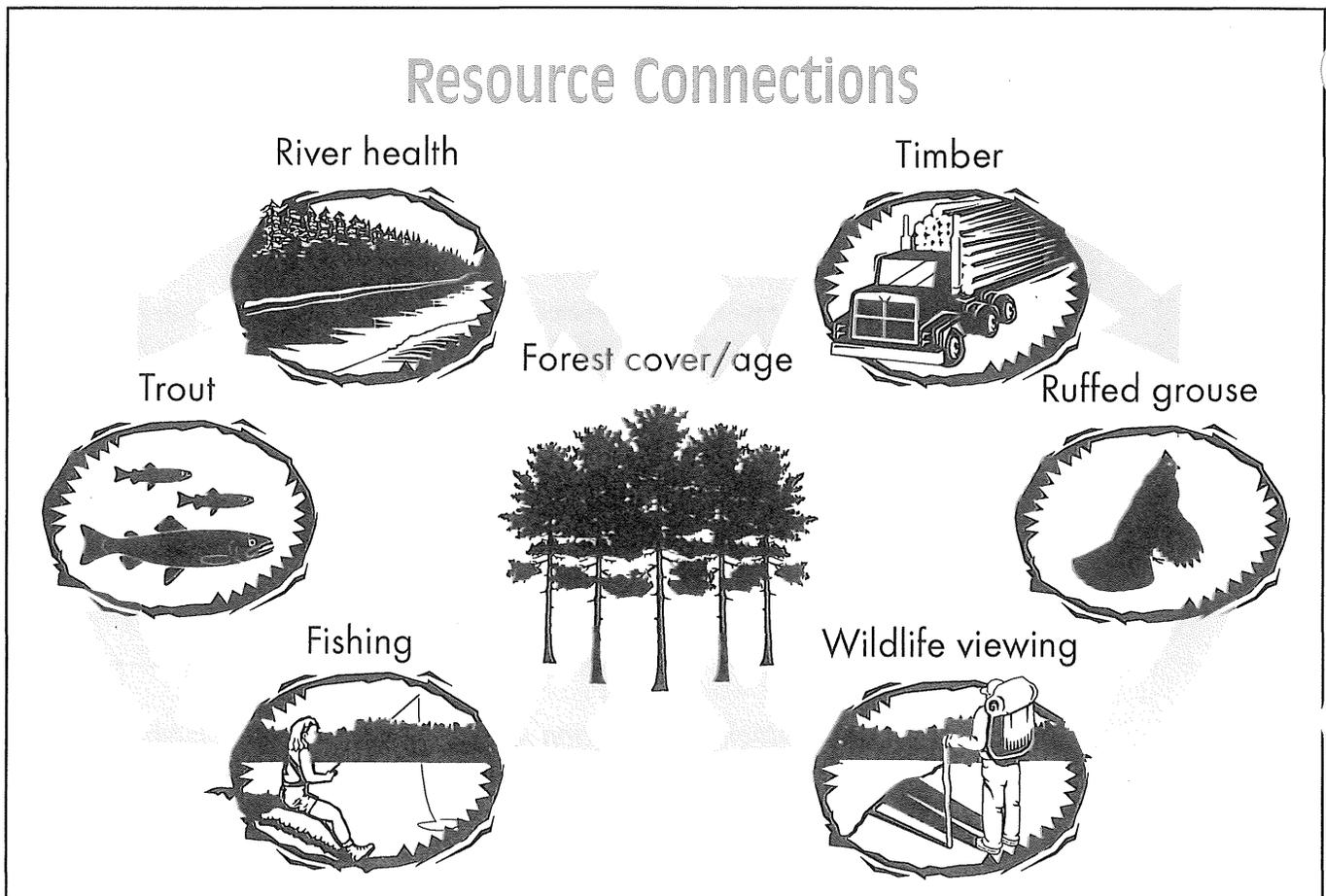
Seeing Connections

Consider the *Conservation Agenda's* Forests section. Several indicators address key forest attributes such as extent, age, and type. These indicators directly influence not only the type and quantity of timber available for harvest (and hence the economic health of the forest products industry) but also affect goals in the agenda's other performance areas. For example:

- The Conservation Agenda's wildlife targets include increasing the average annual grouse harvest to 650,000 birds. Grouse rely on aspen, one of the first tree species to grow after a major disturbance, such as timber harvest. By harvesting appropriately, we can meet the timber target and simultaneously ensure adequate habitat for ruffed grouse.
- A variety of animals, including lynx, fishers, pine martens, and northern goshawks, need forests that include large patches of mature trees. Thus, the Conservation Agenda's target for maintaining old-growth forest and extended rotation forests can also contribute to achieving the target of fewer species moved to endangered status.
- Forests help keep water clean by regulating overland and subsurface flows. Thus, targets for maintaining and increasing forest cover are strongly linked to water-quality targets. For example, enrolling private forestlands in forest stewardship plans helps enhance water quality by helping to protect watersheds.

Interlinked Resources, Integrated Solutions

The bottom line is that none of the Conservation Agenda's targets can be pursued—or achieved—in a vacuum. As we make progress toward one, we will, intentionally or not, influence progress toward others. The challenge—and, ultimately, the reward—will lie in seeing and embracing the links and anticipating and minimizing negative impacts as we work with partners and fulfill our mission “to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.”



Our natural resources are interconnected. Improving resource conservation indicators in one performance area affects indicators in other areas as well.



Department of Natural Resources

Conservation Agenda

Measuring Progress Toward Results

Gene Merriam, Commissioner

Senate Environment and Natural Resources
Policy Committee
January 26, 2005



Presentation Outline

- DNR Mission and Organization
- DNR's Conservation Agenda
 - *Vision*
 - *Challenges*
 - *Example Performance Indicators*



DNR Mission Statement

We work with the citizens of Minnesota to:

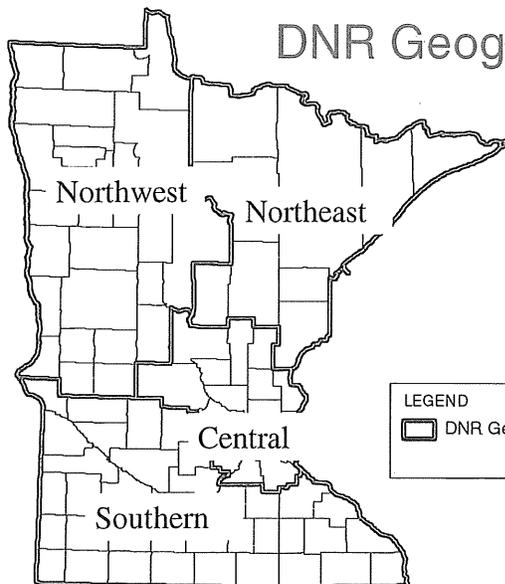
- conserve and manage the state's natural resources;
- provide outdoor recreation opportunities; and
- provide for commercial uses of natural resources;

in ways that create a sustainable quality of life.

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DNR Geographic Regions

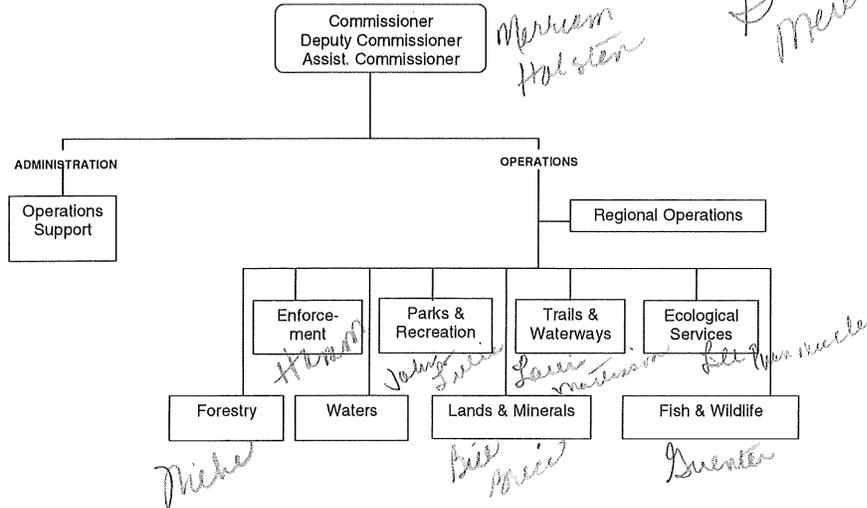


LEGEND
□ DNR Geographic Regions

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The DNR Organization



Natural Resource Management

Vision & Goals

DNR's Mission and Long-term Goals



Operations

Integrated Resource Management



Evaluation

Performance Indicators to Measure Progress



Governor's Expectations for Results

"Manage for Results...Develop challenging indicators and benchmarks for all levels of government, measure results, and use the outcomes to guide decisions and direct our work"

-- Governor Pawlenty, January 2003

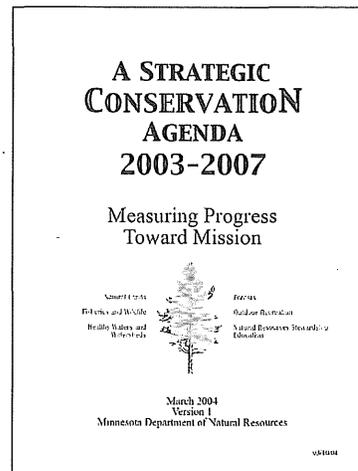


Conservation Agenda

1st edition- March 2004
2nd edition- coming February 2005

Uses a succinct set of 85 indicators and targets to:

1. Clearly state department-level priorities in specific and measurable terms
2. Measure progress and document conservation results
3. Clarify expectations with citizens and stakeholders





Conservation Agenda

Report Structure and Contents

Vision, challenges, and indicators in six performance areas:

- Fish and Wildlife
- Forests
- Waters and Watersheds
- Natural Lands
- Outdoor Recreation
- Natural Resources Stewardship Education

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Conservation Agenda: Fish and Wildlife

A Vision for the Future

- Great fishing, hunting, and wildlife viewing opportunities
- Stable and healthy fish and wildlife populations and high quality habitat to support them
- Strong conservation partnerships and a strong stewardship ethic in Minnesota

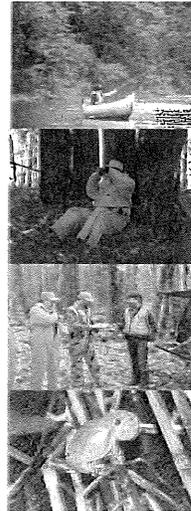
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Conservation Agenda: Fish and Wildlife

Indicators (29) define DNR progress in four core areas

- Fisheries / angler satisfaction
- Wildlife / hunter satisfaction
- Nongame wildlife / wildlife observation
- Fish and wildlife enforcement



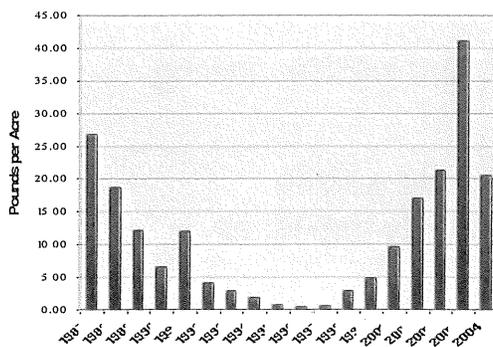
Examples follow...

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Conservation Agenda: Fish and Wildlife

Red Lake Walleye Restoration



Indicator: Red Lake walleye biomass

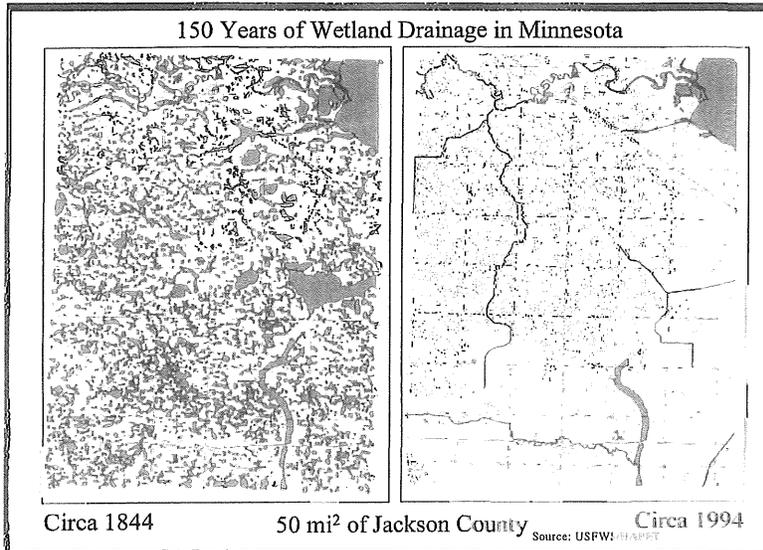
Target: Achieve a self-sustaining walleye fishery that supports a thriving sport fishery in May 2006

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Conservation Agenda: Fish and Wildlife

Challenges: Historic habitat loss and wildlife declines

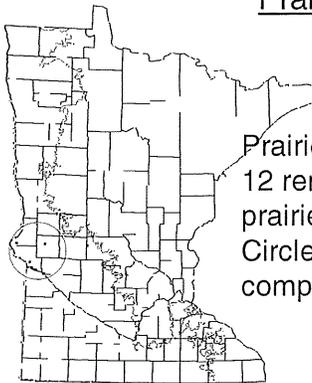


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Conservation Agenda: Fish and Wildlife

Prairie Wetland Complexes



Prairie pothole region:
12 remaining high-quality
prairie wetland complexes.
Circled area contains 11
complexes.



Indicator: Number of high-quality prairie wetland complexes

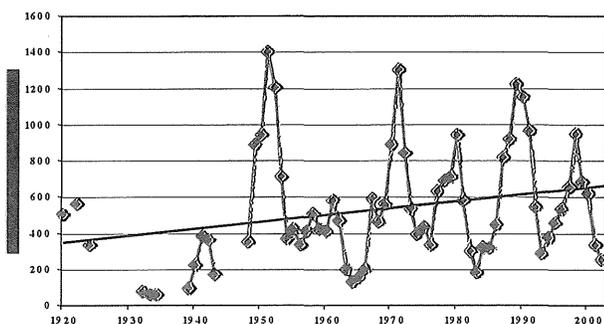
Target: Increase the number of high-quality prairie wetland complexes through wetland and grassland restorations

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Conservation Agenda: Fish and Wildlife

Ruffed Grouse



Indicator: Ruffed grouse harvest levels

Target: Provide an average annual harvest of 650,000 ruffed grouse

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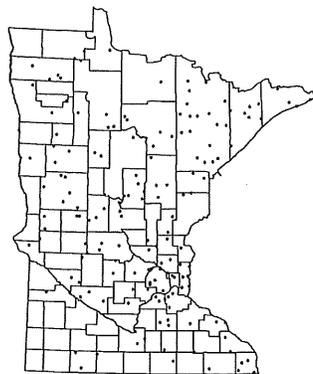


Conservation Agenda: Fish and Wildlife

Frogs and Toads



Spring Peeper



Survey routes conducted in 2004

Indicator: Frog and toad species distribution based on volunteer surveys

Target: Maintain or increase frog and toad distribution

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Conservation Agenda: Forests

A Vision for the Future

A substantial and protected forest

- As much, or more, forests than we have today
- People and property protected from wildfire harm



A healthy and resilient forest

- Includes young-, middle-, and old-aged forests
- More diverse mix of tree species and habitats



A sustainably managed forest

- Recreational opportunities are many and varied
- Forest-based industries are healthy and stable



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Conservation Agenda: Forests

Indicators (10) define DNR progress in four core areas

- State Forest Land Management
- Fire Management
- State-of-the-art Technology and Science
- Private Forest Management



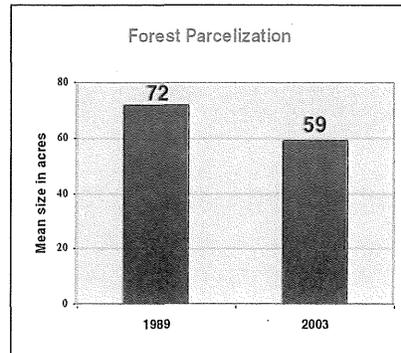
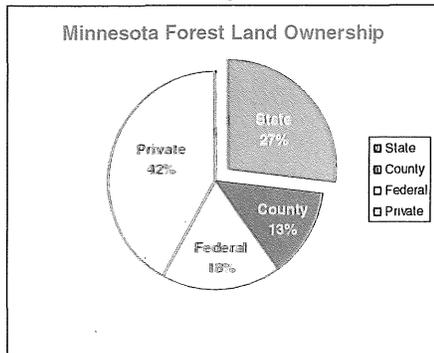
Examples follow...

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Conservation Agenda: Forests

Challenges: Decreased availability of private forest lands for management and recreation



Private forest lands are becoming smaller and more expensive.

From 1989 to 2003:

- Mean size decreased from 72 to 59 acres
- Median price per acre increased from \$175 to \$981

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Conservation Agenda: Forests

Implications of private land parcelization:



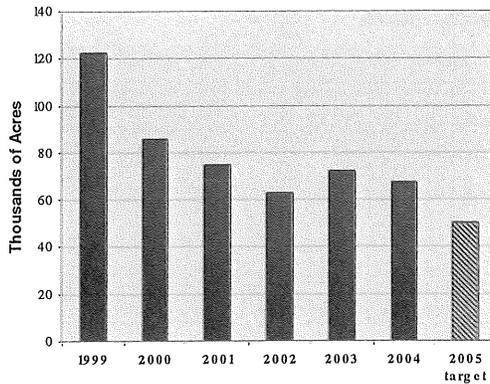
- Decreased value as habitat
- Decreased ability to manage
- Decreased access for recreation
- Decreased access for timber harvesting
- Greater economic value for development vs conservation and outdoor recreation

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Conservation Agenda: Forests

Private landowner stewardship



Indicator: Acres of private forestlands with forest stewardship plans

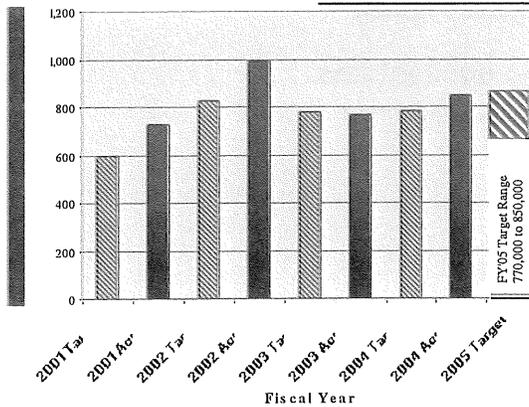
Target: Complete 50,000 acres of Forest Stewardship Plans in FY05 with 20,000 acres completed by DNR staff and the remainder by the private sector

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Conservation Agenda: Forests

DNR Timber Sales



Indicator: Number of cords of wood offered for sale on DNR lands

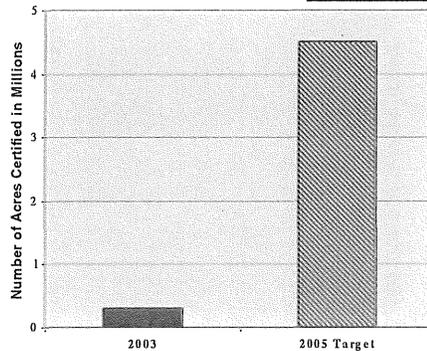
Target: Offer 770,000-850,000 cords of timber for sale from DNR lands in FY 2005

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Conservation Agenda: Forests

Forest Certification



Indicator: Acres of state-administered lands approved for forest certification

Target: Certify 4.5 million acres of state-administered forestlands by the end of 2005

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Conservation Agenda: Waters and Watersheds

A Vision for the Future

Healthy, sustainable aquatic ecosystems

- Self-sustaining fish and wildlife populations and protected habitats

Waterways with integrity

- Natural characteristics are protected
- Unsafe, unsound dams are removed
- Impact of exotic and invasive species is minimized
- Future flood damages are reduced

Conserved and allocated water resources

- Water resources are shared fairly

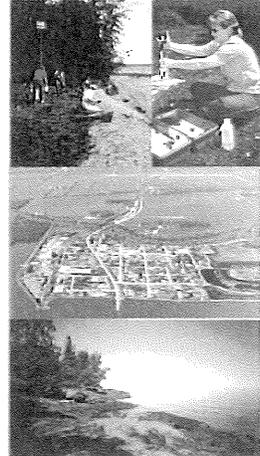
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Conservation Agenda: Waters and Watersheds

Indicators (16) define DNR progress in six core areas

- Managed & protected water supplies
- Flood damage reduction
- Wetlands conservation
- River and stream conservation
- Lakes conservation
- Limited spread of harmful, invasive exotic species



Examples follow....

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Conservation Agenda: Waters and Watersheds

Challenges: Wetland Conservation



Is Minnesota achieving its statutory goal of no-net-loss in wetland quantity and quality ?

Photo courtesy USDA/NRCS

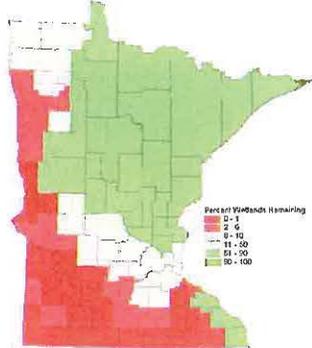
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Conservation Agenda: Waters and Watersheds

Minnesota Wetland Status

Wetland Health



Source: Anderson, J. and W. G. Cole, 2005. Drinking water sources in Minnesota's watersheds: the land use perspective. U.S. Environmental Center for Urban and Regional Affairs, Inc. CUWA-24-2

- Indicators:
- Ability to monitor 'no net loss' of wetlands;
 - Net change in wetland acres

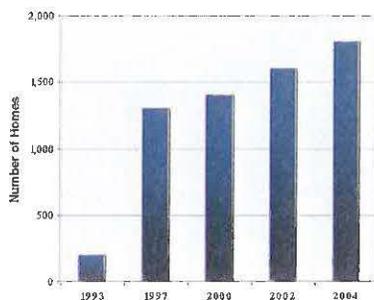
- Targets:
- Develop a comprehensive monitoring program to monitor 'no net loss' statewide by 2006;
 - Achieve no net loss of Minnesota wetlands

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Conservation Agenda: Waters and Watersheds

Preventing Flood Damage



- Indicator: Number of homes removed from flood plains to prevent flood damages

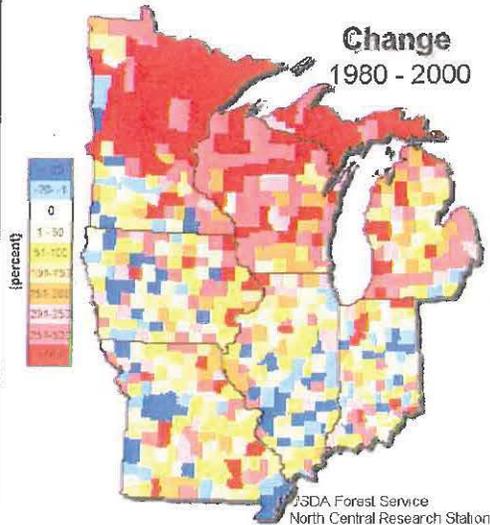
- Target: Maintain or increase efforts to remove homes from flood plains with available funding and through other cooperative efforts

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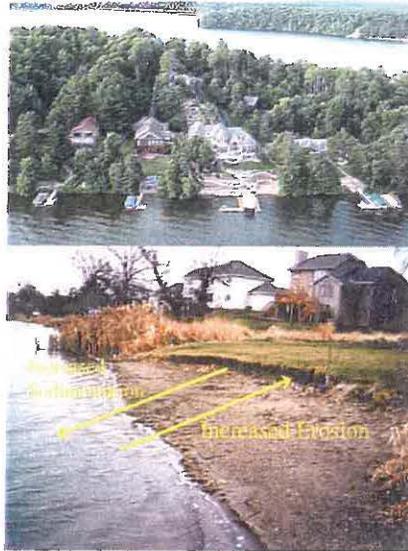


Conservation Agenda: Waters and Watersheds

Challenges: Lake Development



Red areas: >500 % change (1980-2000)
in seasonal housing density

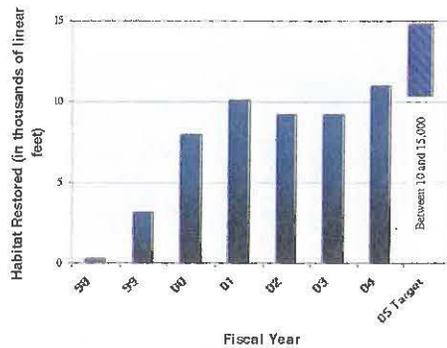


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Conservation Agenda: Waters and Watersheds

Shoreland habitat restoration



Education workshops reach lakeshore owners, realtors, industry, etc.



Lakeshore restoration at Lake Phalen

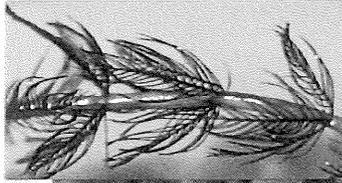
Indicator: Amount of lakeshore habitat restored

Target: Restore 10-15,000 linear feet of shoreline in FY05

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Conservation Agenda: Waters and Watersheds
Challenges: invasive species



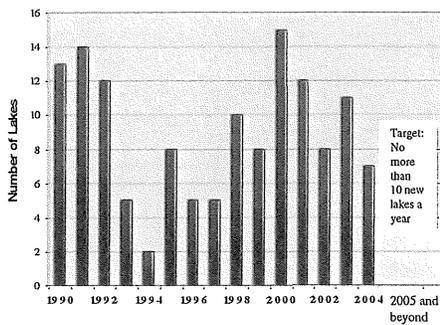
Eurasian water milfoil

Zebra mussels



Conservation Agenda: Waters and Watersheds

Aquatic Invasive Species



Indicator: Number of water bodies infested with Eurasian watermilfoil

Target: Maintain high levels of awareness among boaters; limit the spread of Eurasian watermilfoil to no more than 10 new lakes each year



Conservation Agenda: Natural Lands

Indicators (15) define DNR progress in three core areas

- DNR-administered Lands
- Farmland Conservation
- Conservation Partnerships and Community Assistance



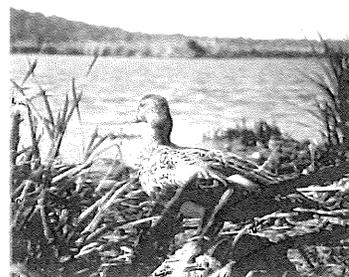
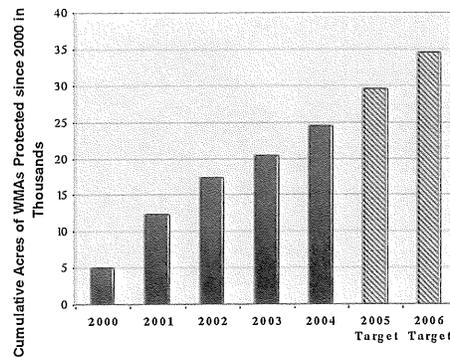
Examples follow...

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Conservation Agenda: Natural Lands

Wildlife Management Areas



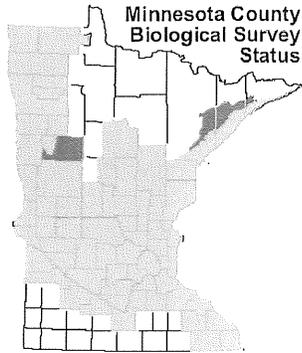
Indicator: Number of acres protected in Wildlife Management Areas (WMA's)

Target: Acquire 5,000 WMA acres per year in FY05 and FY06

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Conservation Agenda: Natural Lands



- COUNTY SURVEY COMPLETED 1987-2004 (60 counties)
- SURVEY IN PROGRESS (portions of 4 counties)
- COUNTIES NOT SURVEYED

Community Conservation Assistance



DNR provides technical assistance and natural features information to local communities

Indicator: Number of counties with a Minnesota County Biological Survey

Target: Complete 62 counties and portions of 5 counties by 2007 and all counties by 2021

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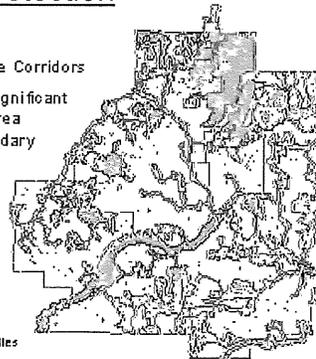
Conservation Agenda: Natural Lands

Metro Area Habitat Protection



Forest-wetland complex protected in 2004 in Scott County

- Metro Wildlife Corridors
- Regionally Significant Ecological Area
- County Boundary



Indicator: Number and distribution of acres protected

Target: Protect additional 1,200 habitat acres and restore about 2,500 habitat acres through the Metro Wildlife Corridors Project from 2004-2008

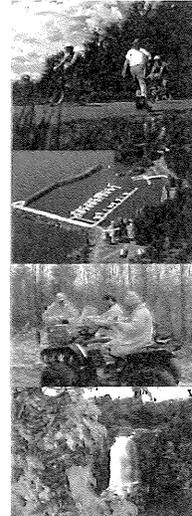
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Conservation Agenda: Outdoor Recreation

Indicators (10) define DNR progress in four core areas

- Trails
- Water Access
- Recreation safety and enforcement
- State Parks



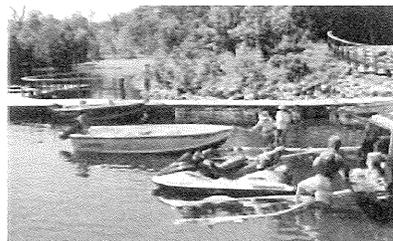
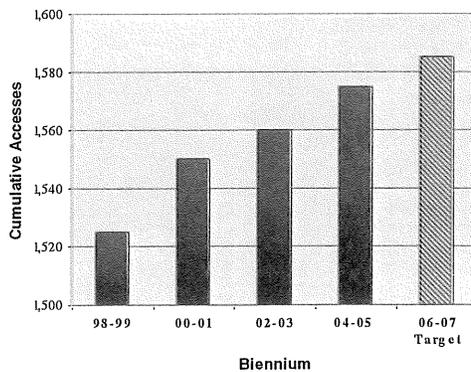
Examples follow...

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Conservation Agenda: Outdoor Recreation

Public access to lakes and rivers



Indicator: Number of accesses acquired or developed along high-priority lakes and rivers

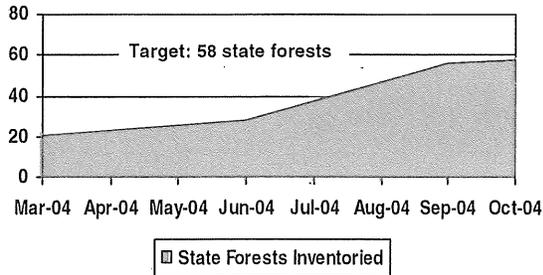
Target: Acquire 10 new access sites statewide in FY2006-07, with special emphasis on the Mississippi River and lakes over 5,000 acres

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Conservation Agenda: Outdoor Recreation

Forest Roads and Trails: Inventory and Designation



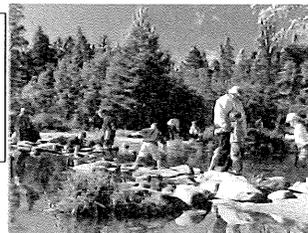
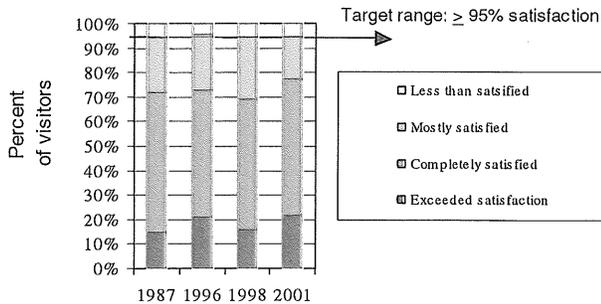
- Indicators: --No. of state forests with a completed forest road & trail inventory;
 --No. of miles & location of OHV trails designated & closed
- Targets: --Inventory all forest roads & trails by Oct. '04 (*Completed*);
 --Designate forest roads & trails as open or closed to motorized use & reclassify "managed" forests as "limited" or "closed" by Dec. 31, '08

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Conservation Agenda: Outdoor Recreation

State Park Visitor Satisfaction



- Indicator: Percent satisfied with a visit to a Minnesota state park
- Target: Maintain a 95 percent or higher satisfaction rating

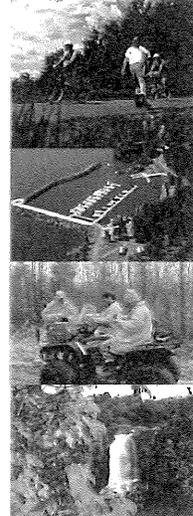
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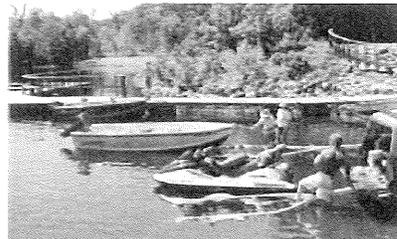
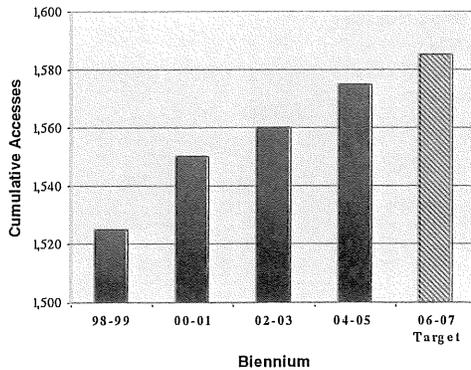
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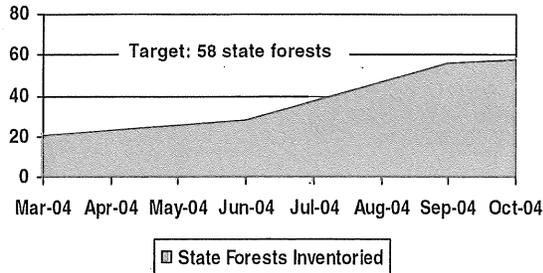
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Conservation Agenda: Outdoor Recreation

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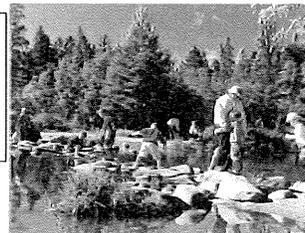
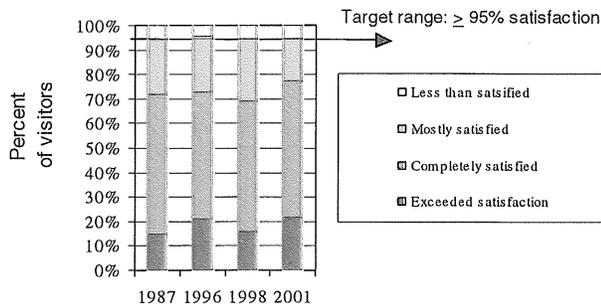
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Conservation Agenda: Outdoor Recreation

State Park Visitor Satisfaction



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Conservation Agenda: Stewardship Education

Education is integrated throughout all DNR work



Safety education

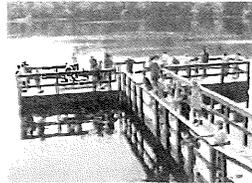
Parks education



One-on-one interactions



Forestry education



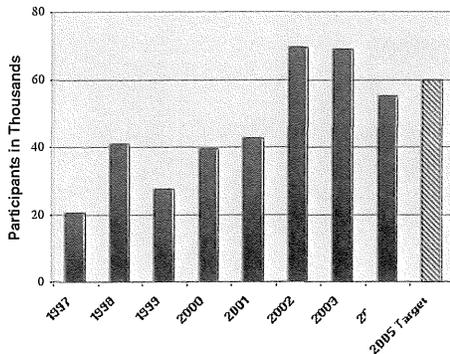
Aquatic education

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Conservation Agenda: Stewardship Education

Aquatic Education



Indicator: Number of participants involved in MinnAqua fisheries aquatic education program

Target: Maintain at least 60,000 participants per year in the MinnAqua program

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Conservation Agenda

Natural Resources Challenges

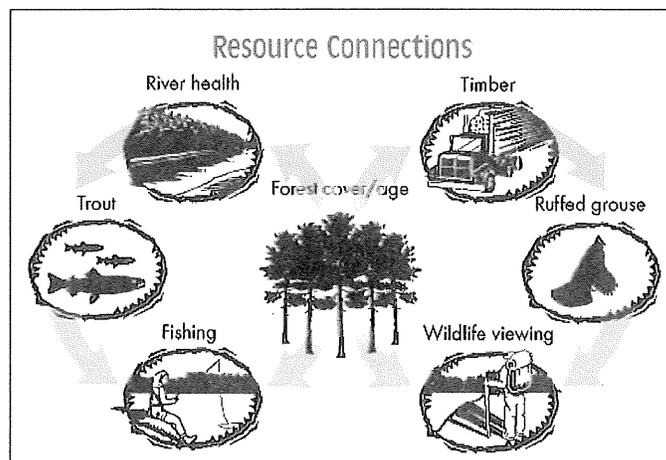
- Habitat loss
- Shoreland development and water demands
- Forest ownership patterns and industry changes
- Hunting and fishing access to lands
- Invasive Species
- Chronic Wasting Disease next door
- Balancing recreation uses

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Conservation Agenda

Interconnected Natural Resources - Integrated Solutions



Resource conservation indicators are interconnected and reliant on each other for successful conservation.

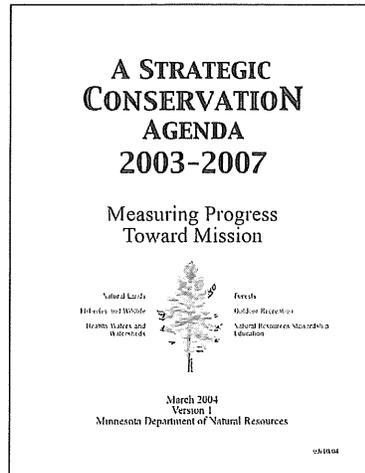
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The Conservation Agenda

Available on the DNR web site at:

<http://www.dnr.state.mn.us/conservationagenda/index.html>



A periodically updated
performance and
accountability report:

The 2005 update will be
posted on the DNR web
site in early February

2003 Minn. Laws, Ch. 128, Art.1, Sec. 167

Sec. 167. [FOREST LAND OFF-HIGHWAY VEHICLE USE RECLASSIFICATION.]

Subdivision 1. [FOREST CLASSIFICATION STATUS REVIEW.] (a) By December 31, 2006, the commissioner of natural resources shall complete a review of the forest classification status of all state forests classified as managed, all forest lands under the authority of the commissioner as defined in Minnesota Statutes, section 89.001, subdivision 13, and lands managed by the commissioner under Minnesota Statutes, section 282.011. The review must be conducted on a forest-by-forest and area-by-area basis in accordance with the process and criteria under Minnesota Rules, part 6100.1950. After each forest is reviewed, the commissioner must change its status to limited or closed, and must provide a similar status for each of the other areas subject to review under this section after each individual review is completed.

(b) If the commissioner determines on January 1, 2005, that the review required under this section cannot be completed by December 31, 2006, the completion date for the review shall be extended to December 31, 2008. By January 15, 2005, the commissioner shall report to the chairs of the legislative committees with jurisdiction over natural resources policy and finance regarding the status of the process required by this section.

(c) Until December 31, 2010, the state forests and areas subject to review under this section are exempt from Minnesota Statutes, section 84.777, unless an individual forest or area has been classified as limited or closed.

Subd. 2. [TEMPORARY SUSPENSION OF ENVIRONMENTAL REVIEW.] The requirements for environmental review under Minnesota Statutes, section 116D.04, and rules of the environmental quality board are temporarily suspended for each reclassification and trail designation made under subdivision 1 until the commissioner has met all requirements under subdivision 1, or December 31, 2008, if the commissioner has failed to complete those requirements as required by law.

Subd. 3. [RULEMAKING.] By January 1, 2005, the environmental quality board shall adopt rules providing for threshold levels for environmental review for recreational trails.

[EFFECTIVE DATE.] This section is effective the day following final enactment.

Forest Classification and Road/Trail Designation Schedule – Subject to Change

(All forest reclassification and road/trail designations completed by Dec. 31, 2008)

| Planning Unit (State Forests / Scattered State & Co. Lands) | Acres (DNR ADMIN) | Area FOR / TAW Supv. [Planner] | Kick-Off Date [D1] | To RMT [D1+6 mo] | To OHVPC [D1+8 mo] | Public Notice [D1+12 mo] | Effective Date (if completed) | DNR Region |
|--|-------------------------------------|---|--------------------------|------------------------|--------------------------|--------------------------------|-------------------------------------|---------------|
| Foot Hills & surrounding State/County land | 18,713+ | Chapman / Jaeger [Olson] | 08/20/03 | 10/20/03 | 01/07/04 | 02/02/04 | | 1 |
| Pillsbury | 8,773+ | Simar / Jaeger [Olson] | 08/21/03 | 12/15/03 | 01/07/04 | 02/02/04 | | 1 |
| Chengwatana General CC Andrews Nemadji St. Croix | 17,325 5,826 93,387 28,432 | Dunkley / Arends [Johnson] | 08/20/03 | 12/15/03 | 01/15/04 | 02/02/04 | | 3 |
| Fond du Lac Whiteface River | 40,874 2,464 | Grindy / Arends [Weseloh] | 10/23/03 | 03/15/04 | 04/21/04 | 08/16/04 | | 2 |
| Solana Wealthwood | 57,567 4,666 | Lane / Moore [Olson] | 10/08/03 | 01/20/04 | 03/10/04 | 08/23/04 | | 2 |
| Beltrami Island | 254,293 | Long / Broten [Cozzetto] | 01/15/04 | 06/07/04 | 08/20/04 | 11/08/04 | | 1 |
| Paul Bunyan Badoura Scattered lands in Hubbard County | 60,470 4,570 | Carlstrom / Kimball [Cozzetto] | 09/15/03 | 02/15/04 | 10/28/04 | 11/08/04 | | 1 |
| Rum River Snake River Scattered lands in Mille Lacs/Kanabec Counties. | 17,036 7,962 | Sanow / Schroeder Dunkley / Arends [Pending] | 05/26/04 | 11/01/04 | 01/15/05 | 05/01/05 | | 3 |
| Birch Lakes (closed) Sand Dunes (closed) Scattered lands in remaining Reg. 3 Counties | 554 6,164 | Sanow / Schroeder Nelson / Schroeder [Pending] | No planned review | No planned review | No planned review | No planned review | | 3 |
| Crow Wing Emily Scattered lands in Crow Wing County | 6,182 640 | Simar / Jaeger [Weseloh] | 06/30/04 | 03/01/05 | 04/15/05 | 06/01/05 | | 1 |
| Sturgeon River | 62,499 | Olson / Kelling [Weseloh] | 09/17/04 | 03/15/05 | 04/15/05 | 06/01/05 | | 2 |
| Red Lake Buena Vista Mississippi Headwaters Scattered lands in southern Beltrami County | 58,309 18,481 8,800 | Rabe / Broten Christensen / Kimball Christensen / Kimball [Olson>Cozzetto] | 04/15/05 | 08/15/05 | 10/15/05 | 02/15/06 | | 1 |
| DAR Scattered lands in Pine County Scattered lands in Carlton County | 364 8,500 | Dunkley / Arends [Pending] Grindy / Arends | 08/15/04 | 02/01/05 | 04/15/05 | 08/01/05 | | 3 2 |
| Cloquet Valley Scattered lands in So. St. Louis Co. [55+Twnshps] | 39,214 75,823 | Grindy / Peterson [Weseloh] | 01/26/05 | 07/26/05 | 09/26/05 | 01/26/06 | | 2 |

| Planning Unit (State Forests / Scattered State & Co. Lands) | Acres (DNR ADMIN) | Area FOR / TAW Supv. [Planner] | Kick-Off Date [D1] | To RMT [D1+6 mo] | To OHVPC [D1+8 mo] | Public Notice [D1+12 mo] | Effective Date (If completed) | DNR Region |
|--|------------------------------|--|--------------------------|------------------------|--------------------------|--------------------------------|-------------------------------------|---------------|
| Lost River Scattered lands in Roseau County | 51,062 | Long / Broten [Cozzetto] | 12/10/04 | 06/01/05 | 08/15/05 | 12/01/05 | | 1 |
| Golden Anniversary George Washington Surrounding scattered lands in E. Itasca County | 1,851 96,132 34,000 | Rupert / Moore [Weseloh] | 02/15/05 | 08/01/05 | 10/15/05 | 02/01/06 | | 2 |
| Pat Bayle Grand Portage Finland Scattered lands in Cook & Lake Counties | 38,710 40,931 97,881 | Rowlett / Peterson [Weseloh] | 05/15/05 | 11/01/05 | 01/15/06 | 05/01/06 | | 2 |
| Land o' Lakes Remer Scattered lands in southern Cass Co. | 29,343 2,469 | Chapman / Jaeger Rupert / Jaeger [Olson] | 06/15/05 | 01/01/06 | 03/15/06 | 07/01/06 | | 1 |
| White Earth Scattered lands in Clearwater County | 42,303 | Christenson / Kimball [Cozzetto] | 06/15/05 | 01/01/06 | 03/15/06 | 07/01/06 | | 1 |
| Smokey Bear Koochiching Pine Island Scattered lands in Koochiching County | 11,658 318,150 607,743 | Julson / Johnson [Weseloh] | 08/15/05 | 02/01/06 | 04/15/06 | 08/01/06 | | 2 |
| Smoky Hills Two Inlets Scattered lands in Becker County | 14,915 13,889 | Carlstrom / Kimball [Olson] | 11/15/05 | 05/01/06 | 07/15/06 | 11/01/06 | | 1 |
| Lake Jeanette Kabetogama Scattered lands in NW St. Louis County | 1,357 156,541 | Stegmeir / Kelling [Weseloh] | 11/15/05 | 05/01/06 | 07/15/06 | 11/01/06 | | 2 |
| Hill River Savanna Waukenabo Scattered lands in Aitkin County | 68,898 124,226 15,549 | Lane / Moore [Weseloh] | 02/15/06 | 08/01/06 | 10/15/06 | 02/01/07 | | 2 |
| Burntside Bear Island Scattered lands - NE St. Louis Co. [60+ Twnshp] | 24,293 24,943 149,480 | Magnuson / Kelling [Weseloh] | 05/15/06 | 11/01/06 | 01/15/07 | 05/01/07 | | 2 |
| Battleground Welsh Lake Scattered lands in northern Cass County | 9,599 6,208 | Mathweg / Kimball [Cozzetto] | 06/15/06 | 12/01/06 | 02/15/07 | 06/01/07 | | 1 |
| Huntersville Lyons Scattered lands in Wadena County | 15,363 6,510 | Carlstrom / Jaeger [Olson] | 06/15/06 | 12/01/06 | 02/15/07 | 06/01/07 | | 1 |

| Planning Unit (State Forests / Scattered State & Co. Lands) | Acres (DNR ADMIN) | Area FOR / TAW Supv. [Planner] | Kick-Off Date [D1] | To RMT [D1+6 mo] | To OHVPC [D1+8 mo] | Public Notice [D1+12 mo] | Effective Date (If completed) | DNR Region |
|--|-----------------------------|--|--------------------------|------------------------|--------------------------|--------------------------------|-------------------------------------|---------------|
| Lake Isabella (closed) Insula Lake (closed) | 640 640 | Rowlett / Peterson [Weseloh] | No planned review | No planned review | No planned review | No planned review | | 2 |
| Lake of the Woods Northwest Angle Scattered lands in Lake of the Woods Co. | 140,096 14,461 | Thomas / Broten Long / Broten [Cozzetto] | 06/15/06 | 12/01/06 | 02/15/07 | 06/01/07 | | 1 |
| Misc. scattered lands (Counties w/o state forests) | | Various - [Cozzetto] | 06/15/06 | 12/01/06 | 02/15/07 | 06/01/07 | | 1 |
| Blackduck Bowstring Big Fork Scattered lands in western Itasca County | 41,268 115,878 45,171 | Rabe / Moore Rupert / Moore Schmidt / Moore [Weseloh] | 08/15/06 | 02/01/07 | 04/15/07 | 08/01/07 | | 2 |
| R J Dorer Memorial Hardwood Forest Scattered lands in Region 4 | 73,227 | Helbig / Wagar [Pending] | 01/15/07 | 06/01/07 | 08/15/07 | 12/01/07 | | 4 |

Notes:

1. Acres listed are from the 3/1/04 State Forest Road/Trail Inventory report, using the 'State Acres' figure. Scattered lands acreages are not listed because inventory responsibility is based upon DNR Forestry Administrative Area boundaries, and not on county boundaries.
2. The planning units (forests and scattered lands) are based upon information submitted by DNR Regional Staff, as modified by the OHV Project Implementation Team on 4/23/04.
3. All dates assume that the effort will wrap-up by no later than December 31, 2008, as per ML 2003, Ch. 128, Article 1, Section 167.
4. Definitions: D1 = Beginning or Kick-Off Date; DNR = MN Dept of Natural Resources; FOR = Division of Forestry; Kick-Off = The start date for DNR Area Teams; OHVPC = Off-Highway Vehicle Policy Committee; RMT = Regional Management Team; TAW = Trails & Waterways Division;

MN DNR, Trails & Waterways
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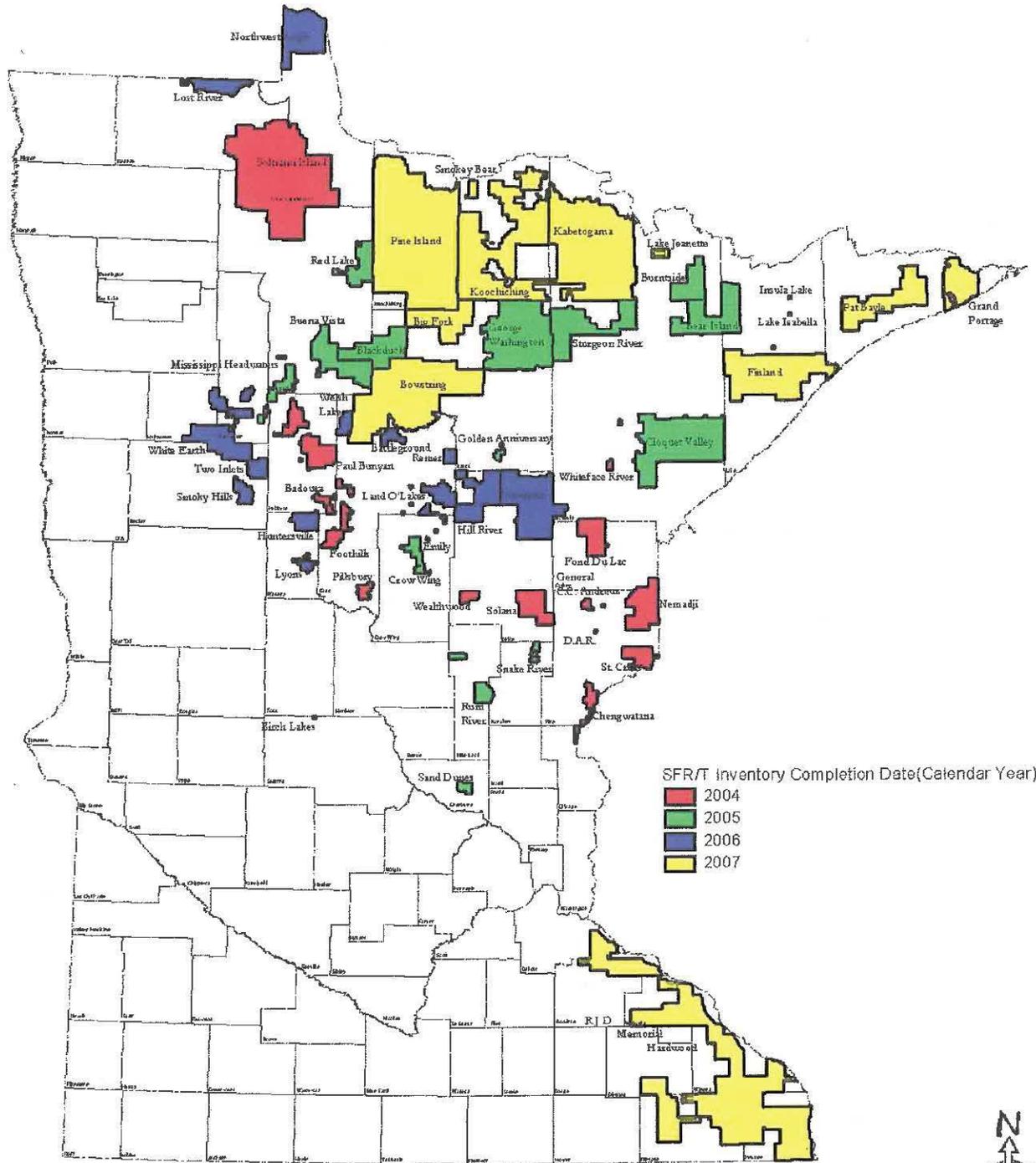
Inventory of State Forest Roads and Motorized and Non-Motorized Trails

In October 2004 the DNR completed an inventory of all state forest roads and access routes, including designated off-highway vehicle routes and all motorized and non-motorized trails. The inventory was conducted on all state, county, and federal lands within the boundaries of the state forests. The total acreage inventoried was 5.7 million. The effort was conducted over a 14 month period by nearly 200 employees of the Department of Natural Resources and the Minnesota Conservation Corps. Existing data was used to the extent possible. Approximately 62,300 hours of effort and \$2.3 million were expended to acquire new field data in forests where information was lacking. The results of the inventory are illustrated in the following table:

| Ownership | Miles of Roads and Trails Inside State Forest Statutory Boundaries | Miles of Roads and Trails Outside State Forest Statutory Boundaries | Total Miles of Roads and Trails |
|--------------------------------|---|--|--|
| DNR Forestry Administered Land | 6,333 | 1,378 | 7,711 |
| County | 3,183 | | 3,183 |
| Federal (LUP Lands) | 250 | | 250 |
| TOTAL | 9,766 | 1,378 | 11,144 |

Minnesota State Forests

Forest Classification and Road/Trail Designation Schedule.



SFR/T Inventory Completion Date(Calendar Year)

- 2004
- 2005
- 2006
- 2007

Map created 05/21/04 - forest boundary data provided by the DNR DRS.
 forest apr DAL TAW



Minnesota Department of Natural Resources

INVASIVE SPECIES PROGRAM

Luke Skinner

Invasive Species Program

Minnesota Dept. of Natural Resources



Definition

"Invasive species" means a non-native species that can naturalize and:

1) causes or may cause economic or environmental harm or harm to human health; or

2) threatens or may threaten natural resources or the use of natural resources in the state.

(M.S. 84D.01, Subd. 9a)

Not All Non-native Species are Invasive

Non-native

Naturalized

Invasive

3

- Plants
- aquatic
- terrestrial

• Animals

- insects
- fish
- amphibians
- birds
- mammals

Invasive Species



4

- 1. Prevent introductions of new invasive species into Minnesota
- 2. Prevent the spread of invasive species within Minnesota
- 3. Reduce the impacts caused by invasive species to Minnesota's ecology, society, and economy

Program Goals

- Exotic Species Program - 1991
- Aquatic plants and wild animals
- Funded by Water Rec Acct., majority from surcharge on boat licenses



- Eurasian Watermilfoil Program - 1989



- Purple loosestrife Program - 1987

A Little History

1. Prevent introductions of new invasive species into Minnesota

- 1. Risk assessments
- Species
- Pathways

2. Policy, Regulation & Enforcement

3. Education

4. Special projects

- Horticultural Trade
- Asian Carp

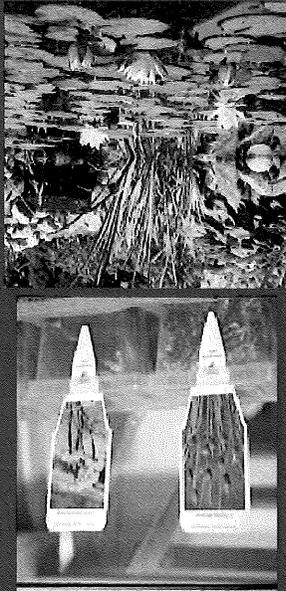


7

Movement of aquatic plants through the Horticultural Trade

Risk Assessment:

- Orders placed to 34 aquatic plant vendors nationwide
- Federal and State prohibited species were acquired 92% of the time
- 93% orders had species not specifically requested
- 10% were Federal or State Prohibited species



8

(Maki and Galatowitsch, 2004)

Movement of aquatic plants through the Horticultural Trade

Actions:

- Target industry and consumers
- Nurseries and distributors
- Water gardeners
- Education campaign
- Laws and consequences
- Alternatives

Harmful Exotic Aquatic Plants

What every water gardener and shoreline restorer should know

Exotic species are plants and animals that are not native to an area. While most exotic plant species are not a problem, a few, such as purple loosestrife, flowering rush, and Eurasian water-milfoil, harm ecosystems and impede water recreation. Purple loosestrife, once sold and used because of its beautiful flowers, has invaded thousands of Minnesota wetlands, displacing native plants and reducing food and habitat for native species. Other exotic plants, such as yellow iris and pink water lilies, have spread in a few Minnesota waters and appear to have invasive characteristics. Once introduced, harmful exotics can spread to new areas and can rarely be eliminated. Once established, the costs to reduce their harmful impacts can be considerable.

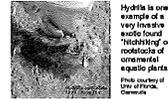
How to avoid harmful exotics:

• **Don't use illegal species**

Minnesota *Prohibited Exotic Species* and aquatic *Federal Noxious Weeds* are likely to cause problems and may not be legally sold, purchased or possessed in Minnesota (see list on back).

• **Use all other exotic species cautiously**
Most aquatic plants available for sale are exotic. These exotic aquatic plants can be possessed, but must be kept out of public waters, which include most lakes, wetlands and streams (see diagram and list on back).

For more information and the phone numbers of your DNR Area or Regional Fisheries Office, visit the DNR Info Center at 651-296-4057 or toll free 1-888-646-6367
www.dnr.state.mn.us



Hydrilla is one example of a very invasive exotic found "hitchhiking" on nonnative ornamental aquatic plants.
www.dnr.state.mn.us

• **Plant clean material**

Wash off loose pieces of vegetation and debris in a bucket of tap water before planting. In some cases, a fragment of a harmful exotic will cling to the rootstock of another desirable plant. Make sure you don't plant any "hitchhikers".

• **Use native plants**

Native plants are adapted to an area and to each other. Ask your local plant seller or contact the Minnesota Department of Natural Resources (DNR) to find out the best native plants to use in your area.

• **If you are planning to plant in a natural water body, contact your local DNR office**
Native species may be planted in natural waters, but a permit is needed to plant below the ordinary high water line in "public" waters (see diagram on back). If you wish to plant in a natural water, please contact your DNR Area or Regional Fisheries Office or the DNR Info Center (toll-free 1-888-646-6367) to find out if the water body is public, to find out if your plants are natives, and to obtain a permit if needed.

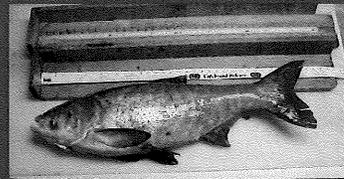
Minnesota DNR
Division of Ecological Services
December 18, 2003



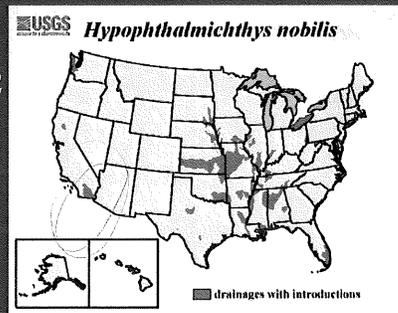
Asian Carp

Threat:

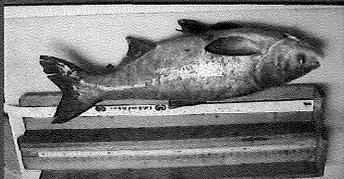
- Top aquatic invasive species problem in Mississippi River
- Imminent threat fisheries, wildlife resources, and water recreation.
- Over \$6.6 billion in revenue from 12 million visitor days for hunting, fishing, boating, and sightseeing



One Asian carp caught in 2003
(Lake Pepin)



Asian Carp



Challenges:

- Interagency cooperation, federal involvement
- Efficacy
- Cost
- Potential impacts to native migratory fish species

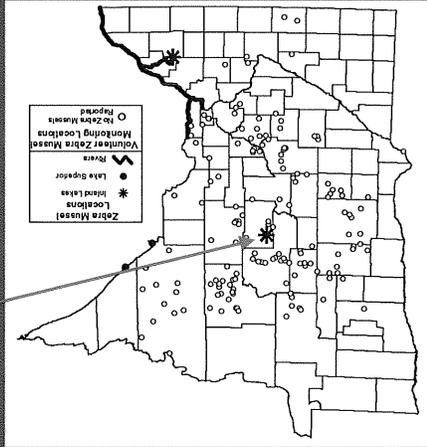


2. Prevent the spread of invasive species within Minnesota

1. Watercraft Inspection Program
 - 20,000 hours of inspection each year
 - More than 50,000 watercraft inspected
2. Enforcement
3. Special Projects
 - Lake Ossawinnamakee

Lake Ossawinamakee

1. Eurasian watermilfoil - 2002
2. Zebra mussels - 2003

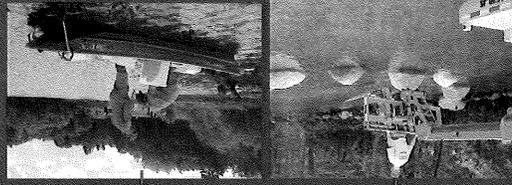
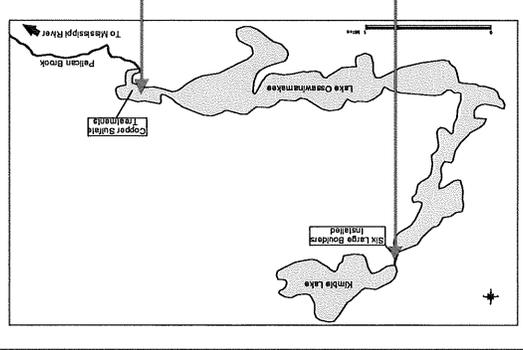


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Lake Ossawinamakee

Three pathways of movement were targeted:

1. Upstream movement via boat traffic
2. Downstream movement via natural waterflow
3. Unintentional transport on trailed watercraft on visiting Lake Ossawinamakee
4. \$200k spent in 2004 (15% of budget)



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Lake Ossawinnamakee

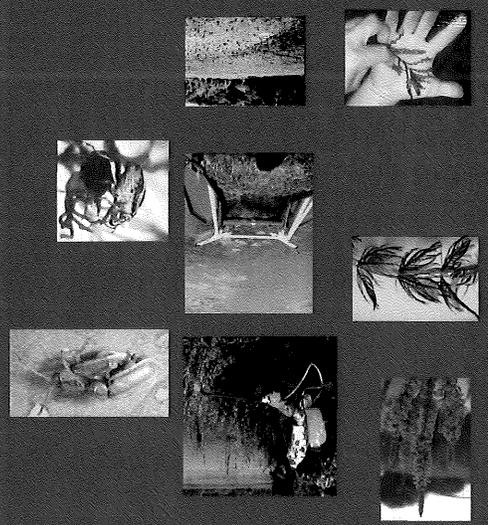
Challenges:

- Public perception of problem
- Are we doing enough
- Are the actions taken doing more harm than good
- Cost



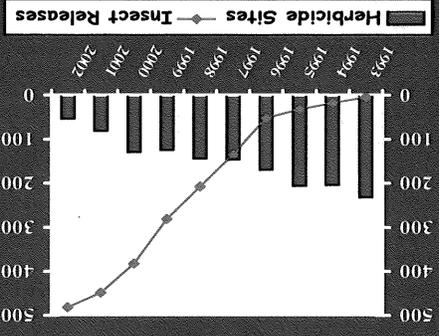
3. Reduce the impacts caused by invasive species

1. Management efforts
2. Research
3. Technical support
4. Grants



Purple Loosestrife – Benefits to MN

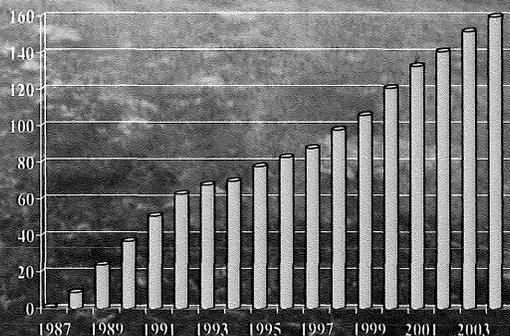
| Year | Herbicide (gal) | Cost (\$) |
|------|-----------------|-----------|
| 1989 | 471 | \$102,000 |
| 1991 | No data | \$77,900 |
| 1993 | 48 | \$65,000 |
| 1995 | 35 | \$63,000 |
| 1997 | 7 | \$36,000 |
| 1999 | 9.5 | \$26,000 |
| 2001 | 1 | \$19,700 |
| 2002 | 2.3 | \$18,800 |
| 2003 | 0.8 | \$8,800 |



Purple loosestrife (*Lythrum salicaria* L.)

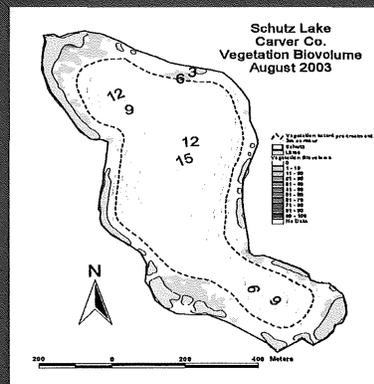
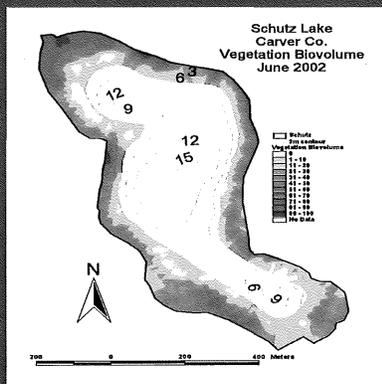
Eurasian Watermilfoil (*Myriophyllum spicatum*)

- Development of new control methods
- Reduce nuisance in public areas
- Lake management plans
- Grants



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Fluridone Evaluation for Milfoil Control



- Pre-treatment
- 40% lake area
- 15% volume

- One year after treatment
- 8% lake area
- < 1% volume

22

Management

Challenges:

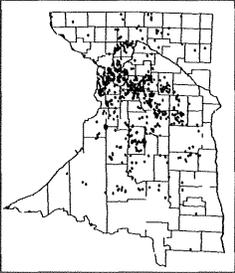
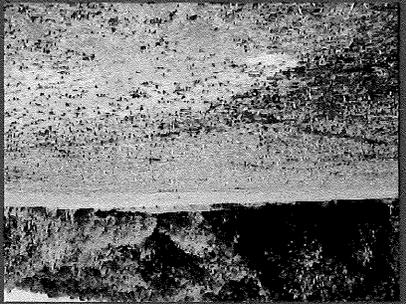
- Conflicting interests
- Are the actions taken doing more harm than good
- Should established invasive plants be treated like native aquatic plants in regards to aquatic plant control



Curly-leaf pondweed

- 1) Provide technical assistance to lake residents
- 2) Research/develop new management methods

- Cold water treatments
- Herbicides
- Biology of the plant



Terrestrial Invasive Species

MN DNR manages ~5.2 million acres or 95% of all the state-owned lands.

Divisions are independently developing management information and tools, carrying out management efforts, and responding to the public

Goal: To improve or enhance DNR's ability to effectively manage terrestrial invasive plants.

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Terrestrial Invasive Species

- Heritage Enhancement funding used in 2003 and 2004 to establish a program

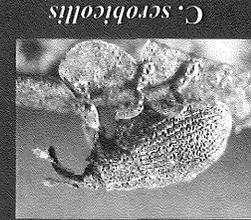
- Coordinate inventories of invasive species
- Gather, maintain, and share knowledge of management practices
- Evaluate and improve current management practices
- Development of new control methods (i.e. biological control)
- Develop BMP's to prevent movement due to commercial and recreational uses

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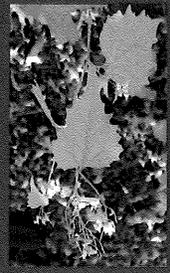
Development of Biological Control

Garlic mustard

- Invades forest Communities and edge habitats causing declines in native plant species.
- 3 insect species being studied as potential control agents.
- Funding for research from USFS.
- First release in ~2006-07

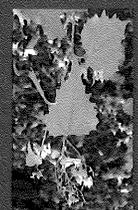
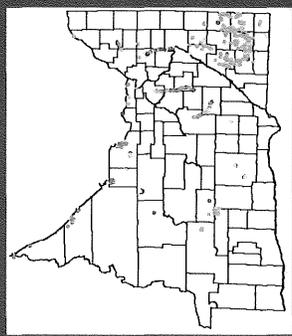


C. scrobicollis



Terrestrial Invasive Species

- A coordinated approach
- Mapping invasive plants
- Development of BMP's
- Training of Staff

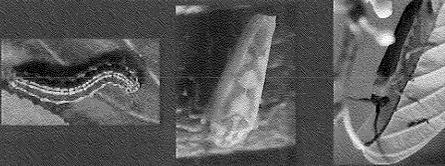


Development of Biological Control

Buckhorn

- Invades forest communities and edge habitats causing declines in native plant species.
- Research initiated in 2001
- Exploratory – looking for potential control agents

• Funding for research from U.S. EPA-GLNPO and LCMR



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Terrestrial Invasive Species

Challenges:

- Funding – no dedicated funding
- Protect high quality habitat from invasive species
- Setting priorities- so many invasive plants
- Collaborations with public and local government

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Summary

- Effective management requires investment on each of the three principle goals (prevention, reduce spread, and manage impacts)
- Each species/situation needs to be evaluated separately
- Partnerships are critical - extend breadth of effort and range of technical expertise, bring in more resources, take advantage of local interest/energy
- Management is not static - our tools and capacities change w/ time as does our knowledge of long-term effectiveness

Wednesday, January 26, 2005

Environment and Natural Resources Committee

Chair: Sen. John Marty

12 noon Room 107 Capitol

Agenda: Commissioner Gene Merriam's presentation on the DNR's Strategic Conservation agenda. OHV forest classification process update. DNR invasive species presentation.