

Minnesota's natural resources contribute to strong and sustainable job markets, economies and communities.

The Challenge

A rapidly changing global economy is altering competition, demand and opportunity for environmentally sound and economically beneficial natural resource development.

Why is this important?

Minnesota's natural lands and waters have drawn people here to live, work and play for generations. They also provide raw materials that support economies across the state. Careful management ensures Minnesota will be able to attract future businesses, tourists and skilled workers to the state. We've been successful in the past at growing a competitive economy and protecting the land, air and water that make Minnesota among the nation's leaders in quality-of-life measures.

Forestry and Mining Economies:

Forest products and mining sectors are major employers in the state, accounting for 62,400 and 11,000 jobs, respectively. Minnesota mines produce 80 percent of U.S.-mined iron ore and taconite.

Tourism Economy:

Minnesota's lakes, wild lands, and state parks and trails are main attractions that contribute to the state's \$12.5 billion annual sales from travel and tourism.

If done right, natural resource-based economic development can help Minnesota maintain our competitive advantage as a top place to live, work and play.



Four Key Trends next page

Trends

Four key trends illustrate this challenge:

● The forest products industry is changing

- The 2007–2011 recession reduced forest products demand, timber harvest and economic activity.
- Since 2000, annual timber harvest on state-managed lands in Minnesota has fluctuated between 500,000 and 1 million cords, while annual harvest on private and tribal lands has declined from nearly 2.5 million to less than 1 million cords.
- Timber sales from state forests yield \$18 million to \$20 million of revenue per year to the state.

● Demand for mineral development is increasing

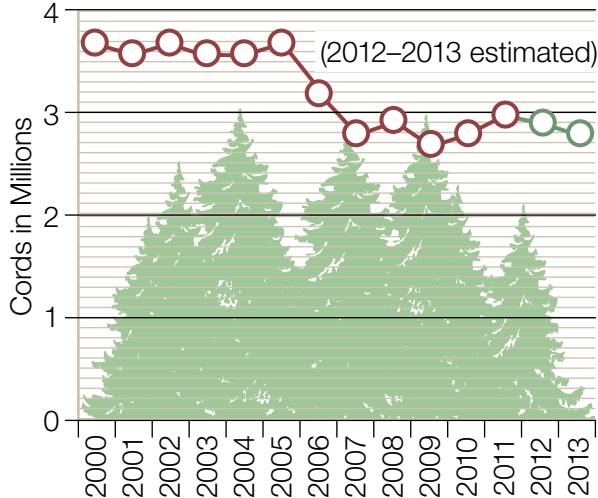
- As global demand grows, mining companies are increasingly interested in Minnesota’s reserves of iron, copper, nickel, platinum, gold, other precious metals and silica sand.
- Proposals for new and expanded mine operations are increasing demands on the DNR’s environmental review and regulatory staff to protect the environment, encourage appropriate minerals development, and ensure a transparent and accessible process.

● Revenue from school trust lands is increasing

- Net revenue from mineral leases, timber sales, surface leases, utility licenses, easements, land sales and state forest campground fees on DNR-managed school trust lands for the Permanent School Fund increased from \$11.7 million in 2003 to \$31 million in 2013.
- Increased mineral demand is the primary contributor to this increase.

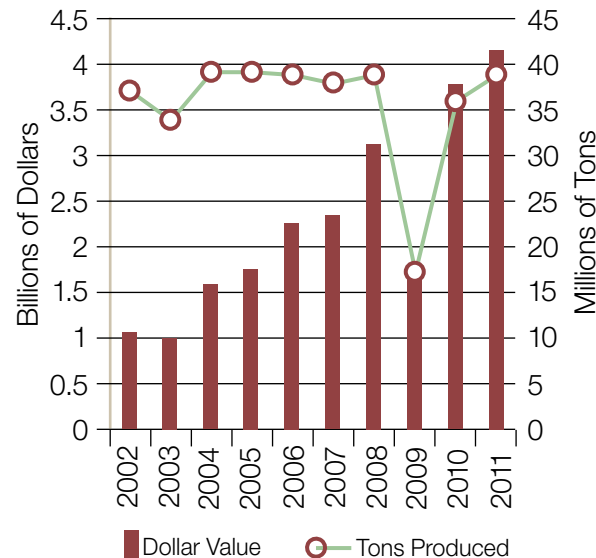
Total wood harvest in Minnesota

from all landownership



Reduced harvest has limited foresters’ ability to manage diverse, healthy forests for recreation, forest products, habitat and other goals. A recovering economy and new bio-based chemical and fiber markets offer increased opportunities.

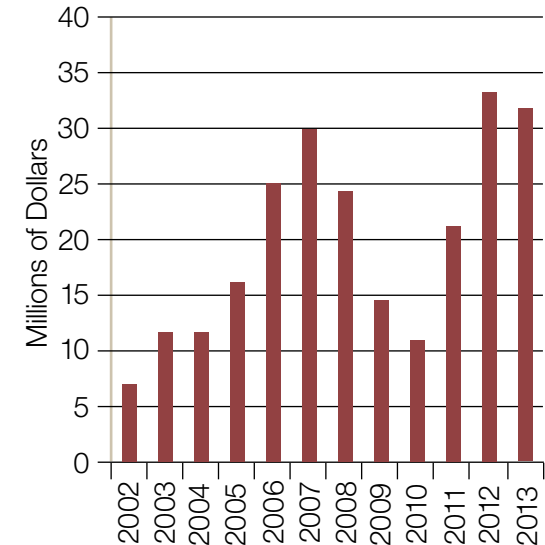
Minnesota iron ore production



While iron ore production in Minnesota dipped during the recent financial crisis, it’s at record levels today due to increased global demand.

Source: United States Geological Survey

School Trust Revenues

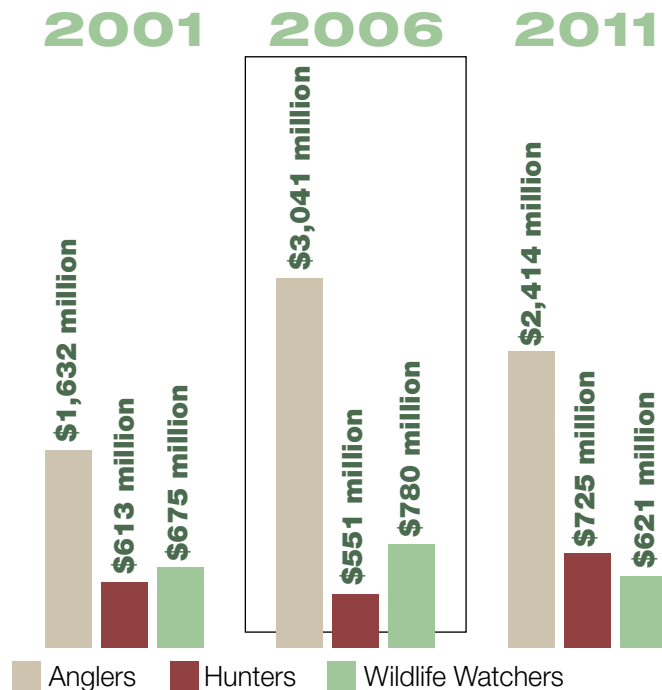


The DNR manages 2.5 million acres of school trust lands for maximum long-term economic return to Minnesota’s public schools using sound conservation practices.

Fish and wildlife recreation spending continues to grow the state's economy

- Retail sales in Minnesota amounted to \$2.4 billion for fishing and more than \$670 million for hunting in 2011.
- Fishing supported 35,462 jobs and hunting supported 12,439 jobs statewide in 2011.
- Fishing brought in \$264 million and hunting brought in \$94 million in state and local tax revenues in 2011.

Total expenditures by participants in Minnesota (In 2011 dollars)



Spending in Minnesota on angling, hunting and wildlife watching totaled \$3.8 billion in 2011.

Source: United States Fish and Wildlife Service

Strategies

The following strategies guide targeted management actions aimed at cultivating strong and sustainable job markets, economies and communities.

Forests

Manage for healthy, productive forests that support jobs, provide a sustainable supply of wood resources, and create the foundation for outdoor recreation, tourism, biodiversity and clean water.

Minerals

Develop and manage mineral resources responsibly to enhance environmentally sound mining as a contributor to job markets, economies and community well-being.

Water

Sustain healthy watersheds and ground water supplies to provide clean, abundant water and flood protection essential to supporting aquatic life, industry, agriculture, community growth and development.

Nature-based Tourism

Support and grow nature-based tourism to provide exceptional outdoor recreation experiences that create jobs and generate dollars for local economies.

School Trust Fund

Manage trust fund lands effectively and sustainably to meet our fiduciary responsibility, using sound natural resource management principles.

Actions next page

Actions

The following actions are examples of how the DNR will carry out these strategies:

● Encourage emerging forest industries

- Provide sustainable access to 800,000 cords of wood annually, amounting to one-third of the state's timber harvest.
- Enhance forest inventory and monitoring to ensure accurate assessment of forest resources.
- Meet third-party certification standards by sustaining diverse, healthy and productive forests.
- Promote bioenergy to diversify the state's energy portfolio, bolster the economy in northeastern Minnesota, and reduce emissions from fossil fuels.

Example performance measure

Acres of state-administered lands approved for forest certification



The DNR helps maintain traditional paper and wood markets and promotes emerging wood-based, bio-based chemical and fiber opportunities.

● Advance mining technologies and strategies that protect the environment

- Accelerate development of mining technologies that provide long-term environmental protection.
- Advance connection of new technologies to ongoing efforts to reclaim mine lands for future use.
- Maintain and improve financial assurance measures to provide adequate funds for reclamation and environmental protection in case mining companies fail to cover costs.

Example performance measure

Acres of mine land reclaimed



DNR staff study the use of alternative vegetation to protect drainage water from mining waste.

● Enhance and expand nature-based tourism

- Respond to demand for new recreational amenities, such as mountain bike trails and yurt lodging in state parks and recreation areas.
- Provide rental opportunities such as stand-up paddleboards, kayaks and snowshoes to increase access to new recreation activities in state parks.
- Continue acquisition of private inholdings in state parks to enhance resource protection and recreational opportunities.
- Connect state trails to cities and parks to provide access to more recreation options.

Example performance measure

Annual rentals at state parks



Camper cabins offer a rustic yet cozy option for state park overnight trips.

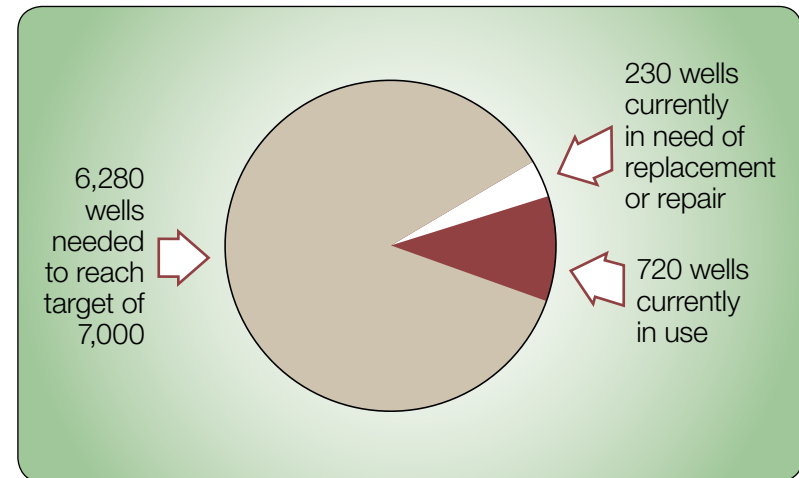
● Improve groundwater and surface water systems

- Install an additional 6,280 monitoring wells so the DNR can track aquifer health and ground water–surface water interactions.
- Improve data management to provide better access to, and analysis of, groundwater and surface water sustainability data.
- Improve the accuracy of water use information.

Example performance measure

Number of long-term groundwater monitoring wells in Minnesota

Building our groundwater monitoring well network, installing 50 per year.



The DNR is striving to install groundwater monitoring equipment at about 100 new wells each year to improve our understanding of ground water and surface water relationships.