



DATE: September 21, 2006
TO: Environmental Quality Board Members
FROM: Dana B. Badgerow, Commissioner
SUBJECT: Department of Administration Response to Legislative-Citizens Commission on Minnesota Resources Request

The Minnesota Department of Administration plays an ongoing role in environmentally-responsible procurement and disposal; management of the state fleet; design, construction and maintenance of state buildings; protection and management of Minnesota's historic and cultural resources; development, coordination and management of environmental information systems; and development and coordination of state environmental policy. In carrying out these functions, we strive to meet customer needs in a sustainable manner by providing leadership in conserving natural and economic resources and in coordinating the development of related policy.

What are the pressing natural resources issues for your agency?

Information systems. The past decade has seen an explosion in information systems management capability. Agencies have developed geographic information systems and databases that enable them to more efficiently and effectively address their program needs. The emerging challenge of today's natural resource issues is the need for information systems that cut across agency boundaries, that integrate air, land, water, fish, wildlife and other resource data, and that help people understand threats, trends and opportunities to manage and protect resources put at risk.

Land use change. Indiscriminate land use change may be one of the most significant threats to Minnesota's natural resources. Whether the change breaks up large forest tracks, intrudes on environmental corridors and wildlife habitat, or contaminates air, land and water, such change can adversely affect communities and economies, as well as natural resources.

Water sustainability. The protection of water quality and management of supplies have emerged as major natural resource issues that may potentially affect the state's prosperity and livability.

Climate change. The changing climate is likely to have a pervasive effect on Minnesota's efforts to protect natural resources, just as it will on our economy, ranging from higher energy use in buildings to water use on the farm. We need to understand not only how we contribute to the problem, but how we might adapt to it in a way that provides us economic opportunity and environmental sustainability.

Historic and cultural resources loss. Minnesota's historic and cultural legacy is at risk from lack of information as much as development. The status, condition and threats to these resources need to be identified and plans adopted to protect them.

Cumulative effects. Whether from habitat destruction, economic growth, land use change or climate change, our natural resources often are put at risk by small decisions that on their face may seem inconsequential. Understanding where, how and when decisions may have significant cumulative implications is essential to protection and management of Minnesota's natural resources.

**Office of the Commissioner
200 Administration Building, 50 Sherburne Avenue, Saint Paul, MN 55155
P: 651.201.2555 / F: 651.297.7909 / Minnesota Relay Service 1.800.627.3529**

An Equal Opportunity Employer

Sustainable development. Taken together, the above issues come down to learning how to live and conduct business in a manner compatible with natural resource limits. In this we have much to learn.

What are your recommendations to enhance and/or preserve natural resources and address the issues identified?

Information systems. To address the critical issues identified requires high-quality contemporary geo-spatial data. Administration can play a key role in coordinating its collection, integration and dissemination, and the LCCMR can help with the funding, as LCMR has in the past. Future investments by LCCMR in key geo-spatial data will help ensure that natural resource managers and decision makers have the GIS information they need to make effective, informed decisions. A state blueprint, providing strategic direction for GIS and investments in critical data resources has been prepared by the Minnesota Governor's Council on Geographic Information: *A Foundation for Coordinated GIS, Minnesota's Spatial Data Infrastructure* (see <http://server.admin.state.mn.us/resource.html?Id=9084>). The Minnesota Spatial Data Infrastructure parallels the National Spatial Data Infrastructure, a nationwide strategy established in 1994, but is adapted to focus upon Minnesota's business needs and priorities.

LCMR also has long supported the continued collection of natural resource data in a way that guarantees maximum benefit to the state as a whole, and is consistent and compatible with Minnesota best practices. It is important that spatial data conform to geographic information system guidelines and standards as adopted by the Minnesota Geographic Data Clearinghouse at the Land Management Information Center.

Land use change. Minnesota must develop a better understanding of where land use change poses the greatest threat to our environment, our economy – including agriculture – and communities. We need to understand how state policies and programs may contribute to the problem and how the state might work with local governments to better manage it.

Water sustainability. The state is taking major steps to address impaired waters, but will need to identify permanent sources of funding to address impairments, while also supporting preservation of unlisted waters. This should take care of most surface water quality issues. Ground water quality remains a concern, however, and while agencies have come together to monitor the resource, more needs to be done to assess trends and adopt measures to protect this major state asset. As Minnesota continues to grow and prosper, the availability of supplies to meet long term needs is emerging as a serious concern that warrants new efforts to better understand the state's ground water supplies and the amount of water that can be withdrawn on a sustainable basis.

Climate change. While the state is taking many of the steps needed to reduce the threat of climate change, such as designing high performance buildings and leading the way on biofuels and renewable energy development, it might have greater effect with a comprehensive approach to the issue. The state should assess its role in the release of climate change gases, determine what it can do to reduce emissions, decide how it can model behavior for others, and plan the steps it should take to make changes internally while encouraging others outside of state government to make like changes.

Historic and cultural resources. The location, status, condition and threats to unmarked burial sites, archaeological sites, Indian sacred sites and traditional cultural resources need to be assessed with plans developed for how should they be preserved and managed. This should include: a) a survey of known and reported burial sites and development of a management strategy, b) an archaeological survey of poorly understood areas, and c) a survey of sacred sites and traditional cultural resources to develop a database of sensitive locations and a management plan.

Cumulative effects. The Environmental Quality Board is considering changes to the state's Environmental Review rule to better address cumulative effects issues. State and local governments would be able to address cumulative effects more effectively in the future with a greater understanding of the science and practical tools for their systematic assessment.

Sustainable development. Administration operates much of the business of state government, and strives to do so in a way that models sustainable behavior both to the benefit of state government and to Minnesotans. The department seeks approaches that foster continuous improvement in all areas, from using products without toxic materials to buildings with little environmental footprint, with the goal being a state government that functions as a sustainable corporation. Research is needed to inform these efforts.

What priorities are identified in each agency's strategic plans for the management of natural resources?

The Department of Administration strategic plan calls for conserving natural and economic resources through resource recovery, the wise use of energy, and sustainable design. It advocates the development of sound policy and better-informed decisions based on well-grounded research and experience.

Administration's priorities related to natural resources include: purchasing environmentally-preferable goods and services; promoting and managing recycling in government offices; encouraging employees to car pool and ride the bus; supplying vehicles to meet state and local government transportation needs; recycling and selling the state's surplus goods; helping state agencies save energy; issuing licenses for archaeological work on public land; preserving state assets by managing risk; providing demographic services to state and local government and citizens; coordinating and providing the resources for planning, design and construction of state facilities; managing state grants for local construction projects; providing geographic information and analysis services; and coordinating environmental policy.

What past projects funded through the Trust Fund or Future Resources Fund have made a major impact on how the agency has managed natural resources?

Geographic information systems development. As early as 1963, the Minnesota Outdoor Recreation Resources Commission (renamed LCMR) recognized the important role GIS could play in protecting Minnesota's natural resources. LCMR support helped Minnesota lead the nation in innovative and productive use of geographic information and technology. Highlights of the LCMR support include:

- 1963: Topographic, geologic and soils maps, and aerial photography
- 1967: The groundbreaking University of Minnesota Lakeshore Project
- 1968: Software support for the project: the Environmental Planning & Programming Language
- 1969: The Minnesota Land Information System, which produced the first state land use map
- 1971: State park planning project
- 1975: First automated statewide map of public land ownership and the nation's first digital statewide forest resources map
- 1977: LMIC, the nation's first state GIS center
- 1981: Public ownership study, providing maps still used today
- 1990s: Aerial photography in computer readable form covering the entire state, wetlands data, conversion of historical timber survey maps to a GIS compatible format, mapping the progression of oak wilt through Minnesota's cities and towns

More than 11% of LCMR's budget between 1963 and 2001 was devoted to natural resources data, producing a data resource unparalleled among states.

Comprehensive local water management pilot grants. This assistance fueled the statewide implementation of a voluntary county water planning program and changed the way local and state governments view water management roles in Minnesota.

Timber harvesting generic environmental impact statement. The Forestry GEIS provided the baseline understanding of Minnesota's forest resources necessary for their management on a sustainable basis.

Statewide archaeological survey. The survey provided the fundamental knowledge for site location models, reorganized and greatly enhanced the archaeological record system for the state, and found hundreds of previously unrecorded archaeological sites.

Minnesota shipwreck initiative. The initiative provided for the first comprehensive surveys of Minnesota's Lake Superior and inland shipwrecks, educational materials on shipwrecks, and a shipwrecks management plan. The Minnesota Historical Society webpage developed by this initiative is still the second most popular destination at MHS (<http://www.mnhs.org/places/nationalregister/shipwrecks/>).

Pilot implementation of Minnesota's archaeological plan. The plan provided for development of prehistoric and contact period historic context documents, radiocarbon dating of Browns Valley Man, survey of the Grand Meadow Chert Quarry (now listed on National Register of Historic Places), and an initiative to bring archaeology to the public through the Internet.

Smart signals: economics for lasting progress. This project questioned basic assumptions about the relationships between the environment, economy and communities. It identified issues concerning the economic implications of state policies and ways to improve them for a healthier Minnesota.

