

Investing in Minnesota's Future



AN AGENDA FOR SUSTAINING OUR QUALITY OF LIFE

A REPORT TO THE GOVERNOR

The **Minnesota Round Table on Sustainable Development** is a diverse group of 30 business, environmental and community leaders appointed by Governor Arne H. Carlson to consider how Minnesotans can safeguard their long-term environmental, economic and social well-being. Their mission is to serve as a catalyst for sustainable development, to foster public and private partnerships and reach out to Minnesotans across the state, and to stimulate interest in and communicate the importance of achieving sustainable development. The Round Table is part of the **Minnesota Sustainable Development Initiative**, launched in 1993 by Governor Carlson, the Environmental Quality Board and the commissioner of Trade and Economic Development, and coordinated by the Environmental Quality Board staff at Minnesota Planning.

Investing in Minnesota's Future: An Agenda for Sustaining Our Quality of Life was prepared by the Minnesota Round Table on Sustainable Development with assistance from John Wells, Round Table director, and Rolf Nordstrom, assistant director. Other contributors included Round Table staff Susan Hass and Satu Zoller of Minnesota Planning, facilitator Roger Williams of the Office of Dispute Resolution and Tim Nolan of the Office of Environmental Assistance.

The Round Table dedicates this report to the memory of Patty Baker, a charter member and consistent advocate for raising the public's awareness of population and resource consumption issues.

On request, *Investing in Minnesota's Future: An Agenda for Sustaining Our Quality of Life* will be made available in alternate format, such as Braille, large print or audio tape. For TTY, contact Minnesota Relay Service at 800-627-3529 and ask for Minnesota Planning.

For more information or for paper or electronic copies of *Investing in Minnesota's Future: An Agenda for Sustaining Our Quality of Life*, contact:

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Investing in Minnesota's Future

Summary	3
Introduction	5
A New Path	8
Six Challenges to Sustainable Development in Minnesota	11
Appendices	20
Milestones of Sustainable Development Progress in Minnesota	24
Members of the Minnesota Round Table on Sustainable Development	inside back cover



“Over the long run, a successful society is supported by both a healthy economy and a healthy environment, which, in turn, are supported by the health of the community. Each element is one critical leg that supports a three-legged stool. All three legs of the stool must be strong. Remove any of the three legs and the stool will soon collapse.”

Source: *A Citizen's Guide to Achieving a Healthy Community, Economy and Environment*, Center for Compatible Economic Development, The Nature Conservancy, Leesburg, Virginia, 1996. (Used with permission.)

Principles

OF SUSTAINABLE DEVELOPMENT FOR MINNESOTA

The Minnesota Round Table on Sustainable Development offers five principles as guideposts along the path of sustainable development. They are:

1 Global interdependence. Economic prosperity, ecosystem health, liberty and justice are linked, and our long-term well-being depends on maintaining all four. Local decisions must be informed by their regional and global context.

2 Stewardship. Stewardship requires the recognition that we are all caretakers of the environment and economy for the benefit of present and future generations. We must balance the impacts of today's decisions with the needs of future generations.

3 Conservation. Minnesotans must maintain essential ecological processes, biological diversity and life-support systems of the environment; harvest renewable resources on a sustainable basis; and make wise and efficient use of our renewable and non-renewable resources.

4 Indicators. Minnesotans need to have and use clear goals and measurable indicators based on reliable information to guide public policies and private actions toward long-term economic prosperity, community vitality, cultural diversity and healthy ecosystems.

5 Shared responsibility. All Minnesotans accept responsibility for sustaining the environment and economy, with each being accountable for his or her decisions and actions, in a spirit of partnership and open cooperation. No entity has the right to shift the costs of its behavior to other individuals, communities, states, nations or future generations. Full-cost accounting is essential for assuring shared responsibility.

Summary

This report is about the long-term future of Minnesota and what it will take to keep it prosperous over time. It offers a new path toward progress, where the well-being of citizens and communities, the health and diversity of the environment and the economy, and the future of our children and grandchildren are all of paramount importance. The Minnesota Round Table on Sustainable Development invites Minnesotans to consider this new path.

Governor Arne H. Carlson appointed 30 business, environmental and community leaders to the Round Table on January 17, 1996 and asked them to identify practical ways of achieving economic and community vitality while sustaining the quality of Minnesota's environment. The Round Table's recommendations are based on the recognition that Minnesotans do not need or want to choose between good jobs, vital communities and a healthy environment. They want all three.

To ensure that future Minnesotans might indeed have all three, the Round Table identified five principles of sustainable development. The principles underscore that the economy, the environment and society are profoundly interconnected, and that in today's world, we need to recognize the implications of these interconnections if we are to prosper over the long run.

The Round Table also identified a series of strategies consistent with these principles. The strategies, including the priorities which follow, are intended to ensure safe, abundant supplies of food and fiber; clean air, land and water; and healthy families, communities and economies long into Minnesota's future. The Round Table's priorities are:

1. Raise awareness and understanding

- Elevate and expand discussions about sustainable development in both the public and private sectors by convening issue and listening forums that draw together diverse interests around specific concerns. Encourage the use of community round tables to provide a focal point for local and regional discussions on environmental, economic and social issues.
- Integrate sustainable development concepts into the curricula of K-12, universities and technical schools so that students will be prepared to make better choices as citizens and consumers. Develop easy-to-use teaching packages so that teachers can use sustainable development concepts to meet current graduation standards.
- Inform consumers about the life-cycle environmental impacts of the products they purchase. Information should include product content, proper handling and correct disposal. Encourage businesses to become active participants in labeling efforts to accomplish this goal.

**GRAVEL PIT
RETURNED TO PRAIRIE**
*at Buffalo River State
Park in Clay County. A
38-acre gravel pit last
mined in the 1950s will
be returned to prairie by
a partnership among the
Department of Natural
Resources, Clay County
Board, CAMAS, Inc.
and The Nature
Conservancy.*

2. Measure progress toward sustainable development

- Continually improve and update *Minnesota Milestones*, the state's progress measures, to help people understand the fundamental interconnections between Minnesota's long-term environmental, economic and community well-being.
- Develop an integrated report card that provides Minnesotans with clear, understandable information on the state's progress toward sustainable development. The report card should provide information on companies, communities and other institutions.
- Engage communities in understanding and monitoring their economic, environmental and social health, and that of their neighborhoods, by developing model indicators and sharing information for their use.

3. Encourage sustainable communities

- Develop a team approach to community assistance by supporting a Sustainable Community Partnership modeled after the successful Minnesota Design Team. The partnership would be made up of private and public professionals who can help interested communities to design and measure sustainable development practices.
- Provide the incentives needed to get people, communities and state agencies to join in the Community-Based Planning process, making the new framework attractive, helpful and meaningful. This effort should include sufficient financial and technical assistance to meet community needs.

4. Engage and empower business

- Develop state-of-the-art methods for assessing full life-cycle costs and environmental effects of activities and products.
- Establish regulatory standards based on environmental and public health outcomes and good science — not on end-of-pipe technical solutions. Introduce harm- and risk-based approaches that are responsive to differences in ecoregions and the latest advances in scientific knowledge.
- Establish a special commission to examine tax policy, including the merits and liabilities of a controlled and focused revenue-neutral shift in taxes — from income, property, capital investment and payroll taxes, for example, to taxes on pollution and waste. The commission also would be asked to assess how the tax system could provide incentives, such as the selective use of tax credits, that encourage socially responsible sustainable practices in business, agriculture and forestry.

5. Create new institutions and approaches

- Establish a Minnesota Center for Sustainable Development outside of government and charge the center with providing leadership across sectors and institutions in pursuit of sustainable development in Minnesota.
- Develop the concept of a sustainable development note analogous to the fiscal note (which assesses fiscal implications of a legislative proposal) to aid legislators in assessing legislative initiatives.

6. Understand connections between long-term economic and environmental health, and the issues of liberty and justice

- Convene a forum of people representing a wide range of ages and backgrounds to discuss the connection between liberty and justice and long-term economic and environmental sustainability.

Introduction

The Minnesota Round Table on Sustainable Development invites you to join in the conversation about a Minnesota future that is *sustainable*. Most Minnesotans want a future full of opportunity, prosperity, security, diversity, beauty and respect. These are, we believe, essential elements of a sustainable future.

We are convinced that a new way of thinking called *sustainable development* is needed if we are to find this future.

Most Minnesotans understand that there can be no choosing between good jobs, vital communities and a healthy environment. They want all three. According to a 1996 survey sponsored by the Office of Environmental Assistance, 61 percent of respondents disagreed with the idea that Minnesota must ease environmental protection policies to attract and keep good jobs and compete with other states.

When asked to describe what makes a high quality of life, more respondents mentioned a healthy environment than safety, financial security and health. And when offered a brief definition of sustainable development, 76 percent of respondents felt it “very closely” or “somewhat closely” reflected their own views. Citizens are demanding more sustainable approaches to resource use and economic and community development.

Although definitions of sustainable development vary, the definition adopted by the U.N. Commission on Environment and Development in 1987 is the most widely used. According to the U.N., sustainable development “meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Adopting this definition in Minnesota law in 1996, the Legislature added that sustainable development “maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend” (*Minnesota Statutes*, Section 4A.07).

Three points lie at the foundation of a sustainable approach to the future:

- It is long-term. It is not so much for today as for tomorrow, and not so much for us as for our children and our grandchildren.
- It asks for changes in thought, outlook, policy, priorities and behavior. While the principles of sustainable development are long-term, they call for actions today and in the near future if we are to reach the goal of a sustainable Minnesota.
- It offers great opportunity for those who find and adopt sensible win-win steps to efficient use of resources, whether fiscal, economic, natural or community.

These are, we believe, essential elements of a sustainable future. The search for a future achieved through sustainable development is not an academic exercise. It’s an outlook that affects the choices we make daily as a part of living — including our political choices. The search for a sustainable future is not by nature a partisan topic. It is, however, a vision that should inform our choices as voters.

**3M CHIEF EXECUTIVE
ARTICULATES BUSINESSES’
ROLE IN SUSTAINABLE
DEVELOPMENT**

Achieving sustainability is not only part of 3M’s mission statement, it is reflected in a new book co-authored by CEO L.D. DeSimone: Eco-efficiency: The Business Link to Sustainable Development. The book advocates business activities that create economic value while reducing ecological impact and resource use.

HOW MINNESOTA IS DEVELOPING

Minnesota Milestones: 1996 Progress Report outlined progress toward a broad range of social, economic and environmental goals that Minnesotans defined in 1992. Of the 20 goals, progress was positive for nine, negative or mixed for seven; information was lacking for four.

Despite these findings, a more hopeful picture emerges when we look at the number and breadth of new efforts to achieve sustainable development.

On the state level, for example, we see a new sustainable development focus in agriculture and forestry as well as a more flexible, outcome-based approach to environmental regulation. We also see more outreach to citizens and communities through both electronic and traditional media. A new effort is underway to rethink our measures of success and to refocus on making communities livable. Government has increased its commitment to collaboration and partnership in addition to its traditional role as enforcer. And governmental focus is shifting from single purpose to comprehensive programs, from unilateral to collaborative planning, and from top-down to bottom-up initiatives.

At the local level, we see people deciding to take control of their community's future in an increasingly global world. Communities such as the urban neighborhoods of Hamline-Midway in St. Paul or Bridal Veil in Minneapolis; the small towns of Cass Lake, Embarrass and Two Harbors; and the counties of Crow Wing, Steele and Olmsted have all committed to plans and projects for sustainable development.

Nonprofit organizations have initiated discussions leading to new approaches, plans and policies. For example, The 1000 Friends of Minnesota played a leading role in developing and generating support for the Community-Based Planning Act. The citizen-driven Big Woods Project has proposed an ordinance designed to protect the three main natural areas near Northfield and to promote compatible and sustainable ecosystem uses. The Northern Citizens League and the Urban Ecology Coalition have raised questions about what sustainable development can and should mean for their communities.

The business community, too, has taken strides to make more with less, to waste less and to fruitfully use what once went to waste. It has saved millions of dollars in the process. Today, for example, Andersen Windows makes window frames out of what once was waste sawdust. Network Systems Corporation is another of many corporations that has found waste reduction profitable, reducing packaging waste and initiating a comprehensive source reduction program to reduce waste at points throughout the life of each NSC product.

These examples of progress may be the first indications of an era of governance, commerce and civic involvement in which every act is inherently sustainable and restorative.

LAKE PHALEN CORRIDOR

INITIATIVE

While many communities replace open space and wetlands with shopping centers, St. Paul's East Side is turning that common occurrence around by demolishing a defunct strip mall to make way for the Ames Lake Wetland. The redevelopment also includes remediating polluted lands, returning them to productive use, improving adjacent residential and commercial areas and improving local work force skills to increase employment.

THE GOVERNOR'S ROUND TABLE

How can Minnesotans shape a future that is desirable and sustainable? Governor Arne H. Carlson asked 105 citizens this question in 1993. These citizen leaders participated in seven teams studying topics central to Minnesota's future — from agriculture to residential development, from energy to manufacturing. They held the first citizen discussions of the Minnesota Sustainable Development Initiative, discussions that led to a vision for a sustainable Minnesota (see page 10).

In 1996, Governor Carlson appointed 30 business, environmental and community leaders to the Minnesota Round Table on Sustainable Development. He asked them to build on the Initiative's earlier work by identifying practical approaches that the people of Minnesota might embrace to achieve this vision of sustainable development.

The Round Table's objectives are to increase public awareness of what *sustainable development* means, why it is necessary and what its benefits are; and to develop and communicate practical ways to make and measure progress toward sustainable development. The group adopted a three-fold mission:

- To serve as a catalyst for sustainable development.
- To foster public and private partnerships.
- To reach out to Minnesotans across the state to stimulate interest in and communicate the importance of achieving sustainable development.

The Round Table also identified three key areas of study:

- To learn what makes a given community an enduring place to live and work. The Round Table formed the Sustainable Communities Committee to consider this question.
- To come to terms with how land use decisions are made, and how they might be made in a more sustainable manner. The Round Table established the Land Use Committee to tackle these issues.
- To understand the barriers that discourage businesses from adopting sustainable development practices and technologies. The Round Table created the Economics and Incentives Committee to find these answers.

This report combines the findings of each committee to explain how individuals, communities, businesses and government can contribute to a lasting and prosperous future.

COLONIAL CRAFT, INC.

This \$20 million company is perhaps the first manufacturer of hardwood products drawn from temperate forests certified as sustainably managed. Certification means foresters are managing for a sustainable yield, maintaining the diversity and integrity of the ecosystem, and producing socioeconomic benefits for the community. The company sees certification as perhaps the best way to guarantee the perpetuation of healthy forests, the company's prosperity and that of its employees.

A New Path

RENVILLE TURNS WASTE ENERGY INTO ECONOMIC DEVELOPMENT

The City of Renville purchases excess hot water heat from the Southern Minnesota Beet Sugar Cooperative's sugar beet processing plant at less than half the cost of other heat sources. In turn, it sells what was once "waste heat" to an aquaculture company, MinAqua Fisheries, thereby reusing precious water and energy resources and spurring local economic development.

Safe, abundant supplies of food and fiber; clean air, land and water; and healthy families, communities and economies — these are Minnesota trademarks, and the keys to a sustainable future. Yet today's concerns about labor and housing, increasing property taxes, and land-use patterns that threaten farm land and natural areas suggest challenges that the state must overcome if we are to retain the quality of life most of us now enjoy and to create similar opportunities for others.

Sustainable development requires citizens to consider fundamental changes in the way they define social progress, do business and protect the environment. But what is the right path to sustainable development and how can Minnesotans be certain they are on it?

The Round Table devoted much energy to addressing this question. Three kinds of tools provide the answer: principles, policies and indicators.

Principles are general guideposts along the path. A set of rules for long-term economic, environmental and social well-being, the principles reflect values most Minnesotans share. The Round Table's principles are presented in the opening pages of the report because we believe they are the keys to a sustainable future.

The principle of global interdependence stems from the belief that the economy, the environment, and society are profoundly interconnected. This principle is often forgotten when, in the pursuit of simplicity and focus, we segment the whole to understand its parts. In today's world, we need to recognize the implications of our decisions in the context of regional and global realities.

We bear responsibilities to act as caretakers for future generations (stewardship), to conserve ecosystem functions that maintain clean air and water, wild places, animals and plants. We also must conserve resources (conservation). Only by setting goals, and identifying and measuring indicators can we chart our progress (indicators). Finally, we must accept the costs of our own behavior and not expect others to bear them (shared responsibility).

Policies will help us stay on a path to sustainable development. If Minnesota is to adopt more sustainable approaches to environmental protection and economic and community development, policymakers will need new criteria to guide their decisions. Policies must be based upon a long-term perspective and flexible approaches that address root causes in a systematic, equitable and accountable manner. They should be self-regulating and should provide incentives to do the right thing.

Indicators provide a tangible basis for tracking and understanding our progress. First, what gets measured tends to get done. We see progress in terms of its measures: if we track the wrong things, we may get the wrong impression of how we are doing. Secondly, it can be difficult to tell success from failure. Unrecognized success may not be rewarded or repeated. Without indicators, even the lessons of failure can be lost.

Ten characteristics **OF SUSTAINABLE DEVELOPMENT POLICIES**

- 1** They take a **long-term perspective** that includes present and future generations.
- 2** They take a **systems approach** that treats social, economic and environmental goals as interdependent.
- 3** They are **self-regulating**, that is, the price of a product, service or activity covers its life-long social, economic and environmental cost.
- 4** They encourage **cooperation** among diverse interests, rather than relying on regulatory mandates, in situations where cooperation can achieve the same or better outcomes than mandates.
- 5** They allow **regulatory flexibility** based on public-private consensus and commitment to long-term goals that emphasize sustainable outcomes rather than prescribing "do's" and "don'ts."
- 6** They reward **resource efficiency** as well as financial efficiency.
- 7** They provide a **transition** away from unsustainable behaviors.
- 8** They promote an **ecological economy** that is based on high efficiency, low waste production and consumption, and feedback signals (usually in the form of prices) that produce outcomes that are best for the environment, businesses and the broader community.
- 9** They promote **equitable solutions** and equal opportunity.
- 10** They **address root causes** of problems. For example, rather than attempting to protect the environment only by better control of the economy, policies would encourage the economy to operate in ways that protect the environment as a matter of course.

MINNESOTA FORESTS MEET INTERNATIONAL STANDARDS FOR SUSTAINABILITY

More than 550,000 acres of forest in Aitkin County, jointly managed by the Aitkin County Land Department and the Department of Natural Resources, have been certified as sustainably managed by SmartWood, a New York-based, independent certification company. Certification is based on long-term forest management, maintenance of ecosystem integrity and provision of socioeconomic benefits to the community.

Minnesota Milestones, the state's long range progress measures, focuses on the need to track results and outcomes so government can be efficient and effective in spending taxpayer dollars and meeting citizen needs. The concepts apply equally well to businesses and other non-governmental activities.

An effective indicator tends to measure progress fundamental to the resilience and viability of a company or community. It demonstrates links between the environmental, economic and social elements of an issue; it does not measure only one side of this three-part equation. It is based on reliable and timely information, is understandable and accepted by the people in the community, and is long-term.

**MAHTOMEDI LAUNCHES
CITY-WIDE EFFORT TO
ACHIEVE SUSTAINABILITY**
*In workshops organized
and planned by citizens,
Mahtomedi's mayor,
other city representatives
and citizens have begun
a visioning process and
charted out steps to
ensure the city's long-
term sustainability.
Next steps include
planning beyond
traditional city budget
cycles, integrating
school board and city
plans and hiring
professionals with
backgrounds in
sustainability principles
and practices.*

The Vision **OF THE MINNESOTA SUSTAINABLE DEVELOPMENT INITIATIVE**

The Minnesota Sustainable Development Initiative envisions a future where businesses grow and prosper while respecting the natural and human environments that support them. In this future:

- We Minnesotans make commitments and choices to preserve the options future generations will need to secure the quality of life we now enjoy. We see sustainable development as a positive, fundamental change in the way we define social progress, do business and protect the environment.
- We view the health of our natural environment, the strength of our community and our economic security as interdependent. We maintain our quality of life through the sustainable use of energy and natural resources, recognizing that population growth, resource consumption and lifestyle choices determine the options we leave for future generations.
- Our communities are places where all citizens enjoy rich opportunities in education, employment, involvement in community and appreciation of the environment.
- Our economy is healthy, diversified, globally competitive and in harmony with Minnesota's ecosystems; it provides all citizens ample opportunity for a fulfilling life.
- Our natural environment is biologically and ecologically diverse and able to provide the resource benefits, products and services needed for the indefinite future.
- We continually work to change our political and economic systems so that they consistently reward economically efficient, socially beneficial and environmentally sustainable behavior.

Redefining Progress: Working Toward a Sustainable Future, February 1994.

Six Challenges to Sustainable Development in Minnesota

The Round Table believes Minnesotans face a series of profound challenges if they are to pass on a high quality life to their children and grandchildren. These challenges are laid out in the next several pages, each followed by one or more critical steps and strategies. We must begin to implement these strategies today because waiting will only make the needed changes more costly and difficult, and some may take years, if not decades, to put in place.

Challenge One

Understand the importance and benefits of sustainable development.

The Round Table found that, although pockets of understanding and experience exist in the state, the term sustainable development is sometimes unknown, misunderstood or viewed with suspicion by organizations, communities and Minnesotans. Sustainable development will not happen until its concepts and practices are better understood and more widely accepted.

To achieve sustainable development, individuals and organizations need to make choices that are not only good economically, but are also good for the environment and the broader community as well. As a practical matter, this challenge is about people deciding to improve the resource efficiency of what they make and buy, reducing unnecessary consumption and waste, and acting to eliminate pollution and poverty.

CRITICAL STEP

Provide a broad range of opportunities for learning about sustainable development concepts and practices.

To achieve sustainable development, we will need to rethink our activities — from the ways we make, move and use products to the way we produce and consume energy and food, use land, and move about. A successful shift toward such lasting development will require that educational, community, governmental and professional institutions incorporate sustainable development principles. All sectors of society will need to grapple with the interconnections between business success, environmental health and social concerns.

STRATEGIES

- Elevate and expand discussions about sustainable development in both the public and private sectors by convening issue and listening forums that draw together diverse interests around specific concerns.
- Encourage the use of community round tables to provide a focal point for local and regional discussions on environmental, economic and social issues.

In 1995, ANDERSEN CORPORATION, in Bayport, Minnesota, received certification from Green Seal, the national environmental labeling organization, for 21 models of energy-efficient windows and patio doors. Andersen has made other strides toward becoming a sustainable enterprise by implementing a wide range of pollution prevention projects that save the company more than \$1.4 million annually.

CITIES MANAGEMENT, INC.
creates environmental and economic efficiencies for its clients through pollution prevention, environmentally benign, reusable and recyclable products, energy and water efficiency, non-toxic pest control and lawn care, and the recycling of glass, aluminum and building materials.

The Legislative Commission on Minnesota Resources has funded development of a
MINNESOTA GENUINE PROGRESS INDICATOR,
a new measure of economic progress, to better reflect social and environmental contributions to the state's quality of life.

- Initiate a public conversation on population growth and demographic changes and their effects on Minnesota's economy, natural resources and social dynamics.
- Ask Minnesota educational institutions to join with businesses, trade associations and government in providing information to the public about how to achieve sustainable development.
- Engage children in conversations about their future and about sustainable development, using vehicles such as periodic youth summits to understand and address their concerns and to build their understanding, involvement and support for sustainable development.
- Integrate sustainable development concepts into curricula of K-12, university and technical schools so that students will be prepared to make better choices as citizens and consumers. Develop easy-to-use teaching packages so that teachers can use sustainable development concepts to meet current graduation standards.
- Inform consumers about the life-cycle environmental impacts of the products they purchase. Information should include product content, proper handling and correct disposal. Encourage businesses to become active participants in labeling efforts to accomplish this goal.
- Engage the media in communicating the importance of sustainable development and the practical steps individuals and organizations can take toward achieving it.
- Identify and publicly celebrate individuals and households, organizations and businesses, communities and governments that have made outstanding contributions to Minnesota's long-term environmental, economic and community health.

Challenge Two

Measure progress toward sustainable development.

Minnesota is a pioneer in the development of measures for determining socioeconomic well-being. But the Round Table found that existing measures neither adequately incorporate the dimension of long-term sustainability nor accurately depict the interdependence of economic, social and environmental trends.

We cannot overstate the value of measuring progress toward sustainable development. Indicators provide a concrete way for people to envision sustainable development and to work toward it. To make the transition toward sustainable development, individuals and organizations will need to improve the ways they measure success.

CRITICAL STEP

Take new steps to measure success in Minnesota.

STRATEGIES

- Continually improve and update *Minnesota Milestones*, the state's progress measures, to help people understand the fundamental interconnections between Minnesota's long-term environmental, economic and community well-being.
- Establish a baseline that details where Minnesota is today in its progress toward sustainable development. This baseline should include indicators such as waste generated and energy used per capita and per unit of output. Businesses should also consider the economic advantage of doing this for their own operations.

- Require state agencies to measure their performance and submit report cards to the legislature every two years. As part of this effort, agencies might be asked to develop and use specific, measurable indicators, tailored to individual programs, as a way of tracking their contributions to sustainable development.
- Develop an integrated report card that provides the public with clear, understandable information on the progress of the state toward sustainable development. The report card should provide information on companies, communities and other institutions.
- Expand and integrate a statewide system of measures designed to help people understand the value of renewable and non-renewable natural resources as natural capital. Such a system would also help ensure that these resources are conserved for the benefit of future generations.
- Engage communities in understanding and monitoring their economic, environmental and social health, and that of their neighborhoods, by developing model indicators and sharing information for their use.

Challenge Three

Shape a sustainable future in and through Minnesota communities.

The Round Table noted that recent legislation encourages the development of sustainable communities. A few successful case studies also exist. But this isn't enough: if communities are to become sustainable, they must have access to financial and technical assistance. They also need a framework to help them incorporate the goal of sustainability into the entire range of public and private activities.

Community leaders make choices affecting the use of land, the provision of infrastructure and the location of homes and businesses. They need help to make these decisions in ways that create communities which are more livable, economically prosperous and environmentally sustainable places to live and work.

CRITICAL STEP

Help communities meet their long-term needs by delivering state services in an integrated fashion.

STRATEGIES

- Develop a team approach to community assistance by supporting a Sustainable Community Partnership modeled after the successful Minnesota Design Team. The partnership would be made up of private and public professionals who could help interested communities design and measure sustainable development practices.
- Allow communities to use a single application process to access and integrate the various types of social, economic and environmental assistance provided by the state.
- Permit state agencies to collaborate and fund integrated community projects that address environmental, economic and social issues. Projects should be rewarded by outcomes rather than adherence to rigid programmatic rules. Tie community funding to the ability to meet the specific baseline criteria of sustainability.
- Identify the types of environmental, economic and community funding currently available throughout the state, and redirect a percentage of those funds toward collaborative

STEELE COUNTY

businesses, farmers, community leaders and citizens work toward sustainability with help from the Office of Environmental Assistance. A diverse coalition of interests is finding innovative ways to prevent pollution, reduce energy use, improve local business performance and educate themselves and others about opportunities for improving the county's environment, economy and quality of life over the long-term.

NORTHERN COUNTIES

LAND USE

COORDINATING BOARD

is developing 10 model county plans based upon the principles of sustainable development and scientific assessment.

A

ST. CLOUD CITIZENS

ADVISORY COMMITTEE

is helping that community design a city ordinance to ensure that remaining open space is used in a way that is sensitive to the needs of property owners, the economy, the environment and the community.

The

RIVER-FRIENDLY

FARMER PROGRAM,

sponsored by the Minnesota Alliance for Crop Residue Management and others, has recognized 170 farmers who have adopted farming practices that benefit Minnesota's rivers while maintaining farm productivity.

community initiatives. These initiatives should have environmental, economic and social benefits. They should also implement plans created under the Community-Based Planning Act of 1997.

CRITICAL STEP

Make the Community-Based Planning Act easy to use, attractive to follow, and responsive to community and state interests.

The 1997 law gives pioneering communities the opportunity to plan for their futures, with help from the state. It provides voluntary, community-oriented means for engaging citizens and local officials in charting the future of their neighborhoods, towns, region and state. Active, meaningful community planning balances individual, business and public interests. This voluntary approach to community-based planning is extremely important and must be given a fair chance to succeed.

STRATEGIES

- Provide the incentives needed to get people, communities and state agencies to join in the Community-Based Planning process, making the new framework attractive, helpful and meaningful. These incentives should include sufficient financial and technical assistance to meet community needs.
- Marshall existing state technical support for community planning. Coordinate and integrate the various ways this support is made available to communities.
- Think long-term and adopt a flexible approach to evaluating community plans.
- Communicate the importance of neighborhoods in community planning, and the importance of community planning to regions and the state.
- Change course if community-based planning efforts are unable to prevent parts of the state from growing at the expense of their neighbors, taxpayers, agriculture or the environment.

Challenge Four

Work with Minnesota businesses to shape a sustainable future.

The Round Table recognizes that Minnesota is home to many businesses that promote sustainable development through their products or practices. But tax policies, regulatory approaches and gaps in knowledge about product life cycles currently impede the shift to a more sustainable economy for the state.

Our goal is to help businesses adopt sustainable practices and to challenge them, as they do so, to help society as a whole work toward sustainable development. The present combination of economic incentives and disincentives needs to be changed so that what is good for the environment and the community at large is also profitable for business. All branches and levels of government, as well as the private and nonprofit sectors, must contribute to this transition. Here, as elsewhere in these challenges, we see agriculture and forestry, as well as manufacturing, services and nonprofits, as important sources of innovation.

CRITICAL STEP

Require government to use sustainable management practices.

Minnesota government should become a catalyst for sustainable business activity by creating opportunities for sustainable business assistance and adopting its own sustainable practices.

STRATEGIES

- Adopt best practices, giving preference to suppliers and approaches that support sustainable development.
- Adopt investment and procurement practices and policies that provide for continuous improvement in pollution prevention and other sustainable development practices.
- Establish guidelines for the sustainable design, construction, operation and maintenance of publicly financed buildings.
- Integrate state economic development and environmental protection programs, focusing and coordinating loan and grant programs to encourage sustainable investments.

CRITICAL STEP

Provide technical and financial assistance.

Minnesota business, trade associations, educational institutions and government should provide technical assistance on sustainable practices and processes. This assistance should also be coordinated and combined with financial incentives. As appropriate, these efforts should be directed at businesses with limited internal resources to promote sustainable activities on their own.

STRATEGIES

- Create a sustainable business capital fund that uses sustainable development criteria.
- Build partnerships between communities and businesses. Each needs the information, tools and technical expertise that can only be provided by the other.
- Involve citizens and neighborhoods in developing better relationships with businesses and communities. Support cooperative undertakings with financial and technical assistance.
- Provide financial and technical assistance to help corporations integrate sustainable practices and processes that enhance energy efficiency and resource productivity.
- Provide access to the information and tools necessary to investigate and employ pollution prevention, design for the environment, environmental cost accounting, product stewardship and eco-efficiency concepts. Partner with schools and nonprofits to make this happen.
- Make information available on the profitability of healthy workplace practices and work with citizens and community leaders to meet community and environmental needs.
- Compile and communicate information on successful sustainable business activities, including case studies, best practices, lessons learned and implementation strategies.
- Further develop coordinated assistance through collaborative programs between government and business-association service providers. Provide outreach and referral services to help businesses access these programs.
- Urge business suppliers to adopt sustainable business practices themselves and to encourage the adoption of these practices by the companies they serve.
- Develop state-of-the-art methods for assessing full life-cycle costs and environmental effects of activities and products.

GUIDESTAR PROJECT

at the Department of Transportation and the City of Cambridge has turned the vacant Isanti County Courthouse into a “telework center.” The center will house 25 department staff members, along with public and private tenants.

COMMUNITY

ENVIRONMENTAL

TECHNICAL ASSISTANCE

PROGRAM

Launched by Citizens for a Better Environment, this program helps citizens conduct effective environmental initiatives and become well-informed partners with local businesses by providing the technical expertise many residents lack.

CRITICAL STEP

Continue to reform the regulatory framework as a means of encouraging sustainable business activity in Minnesota.

Minnesota has been among the national leaders in pursuing regulatory reform that maintains basic protections for human health and the environment, while encouraging continuous improvement and performance beyond the minimum. We urge the state to continue its efforts to create a model regulatory system.

STRATEGIES

- Establish regulatory standards based on environmental and public health outcomes and good science — not on end-of-pipe technical solutions. Introduce harm- and risk-based approaches that are responsive to differences in ecoregions and the latest advances in scientific knowledge.
- Encourage pollution prevention, life-cycle analysis, design for the environment, total product responsibility and take back, and other system-wide approaches.
- Break down the separate focus of regulatory laws, rules and enforcement on air, land and water so that environmental impacts can be understood holistically.
- Move toward permit fees that are based on the detrimental effects caused by pollution.
- Employ total cost-benefit analysis as a tool in decision making.
- Allow community-wide or area-wide emission standards based on environmental quality and health goals, provided local impacts can be addressed or avoided.
- Allow stakeholders a greater opportunity to provide input into the decision-making process, and provide clear, understandable information about the state of the environment and the effect, or potential effect, of business activity on both the environment and human health.
- Seek agreements among affected parties to encourage and allow innovation and experimentation in developing and addressing regulations.

CRITICAL STEP

Rethink the framework of incentives used to encourage business in Minnesota.

Minnesota should determine how the tax code can be employed to encourage sustainable business activity. The current system tends to tax things society wants to promote, such as income, investment and property, rather than things it wants to reduce, such as pollution and over-consumption of resources.

STRATEGIES

- Establish a special commission to examine the merits and liabilities of a controlled and focused revenue-neutral shift in taxes — from income, property, capital investment and payroll taxes, for example, to taxes on pollution and waste.
- Direct the commission to determine how the tax system could be modified to provide incentives to encourage socially responsible sustainable practices in business, agriculture and forestry. These might include changes in land development, investment in new technology or equipment, changes in practice or operations, changes in materials input and changes in research and development.

ENVIRONMENTAL

REGULATORY

INNOVATIONS ACT OF 1996

offers individual facilities, sectors of industry, governmental units and whole communities freedom from rigid regulatory requirements in exchange for higher environmental performance.

RAHR MALTING COMPANY

In January 1997, Rahr Malting Company of Shakopee, working with the Pollution Control Agency and the Center for Environmental Advocacy, received one of the nation's first pollutant "trading" permits. This allows the company to reduce soil erosion and agricultural runoff on sensitive lands to offset its new discharges to the Minnesota River.

- Direct the commission to examine the potential for selective use of tax credits to encourage use of sustainable development technology and practice. Similar credits could also be given for research into sustainable product development or management.
- Direct the commission to consider which subsidies and tax expenditures could be reduced or eliminated to pay for new tax credits, or whether taxes or fees on pollution or waste should be increased to fund new credits.

Challenge Five

Institutionalize sustainable development concepts and practices in Minnesota.

The Round Table recognizes that numerous small initiatives within the state focus on one or more aspects of sustainable development. There is, however, a strong need to concentrate our resources and attention to boost both public and private action in support of sustainable development in Minnesota.

While the state has made major strides in understanding the principles of sustainable development, many institutions have not begun to see its practical application or the opportunities it offers to improve long-term performance.

CRITICAL STEP

Change the way public policies are made and implemented.

We need to ensure that government understands that it has a responsibility to facilitate sustainable development.

STRATEGIES

- Ask the Environmental Quality Board to coordinate implementation of Round Table recommendations that affect the policies and operations of state government.
- Evaluate the Minnesota Environmental Policy Act of 1973 to determine whether it fully reflects sustainable development principles and how it might be more actively implemented through the state's environmental, economic and social policies.
- Direct state agencies to suggest legislation that would modify their statutory missions and create the necessary program changes so that principles of sustainable development can be explicitly incorporated and addressed.
- Develop the concept of a sustainable development note analogous to the fiscal note (which assesses fiscal implications of a legislative proposal). The note would help legislators to assess legislative initiatives.
- Expand or change the environmental impact assessment process so that it fully integrates the principles of sustainable development.
- Once it is formally established, ask the Sustainable Community Partnership (an emerging group of public and private interests devoted to helping communities achieve sustainability) to develop a common understanding of sustainable development within state government. Ask the Partnership to study how state agencies might contribute their respective strengths to Minnesota's overall sustainable development goals.
- Provide sustainable development training for elected officials through local government associations and other organizations, which would conduct workshops for newly elected officials.

**TAKING ROOT: STATE
AGENCY EFFORTS TOWARD
SUSTAINABLE
DEVELOPMENT IN
MINNESOTA**

is the Environmental Quality Board's report on state efforts to address sustainable development principles. The 1996 law also codifies a definition of sustainable development and asks Minnesota Planning to prepare a local government planning guide based upon the principles of sustainable development.

The Department of Natural Resources has adopted an ECOSYSTEM APPROACH to sustainable development, integrating community and economic factors within natural resources management activities.

PHENIX

BIOCOMPOSITES, INC.

in Mankato had gross sales of over \$1.5 million in 1996. The innovative manufacturer combines low grades of waste paper with soy beans to make composite materials used in furniture, flooring, millwork, custom fixtures, displays and wall systems.

URBAN PARTNERSHIP

Honeywell, the Honeywell Foundation, the Allina Foundation and the Minneapolis Foundation are taking action to battle crime and better the Phillips neighborhood by leveling two square blocks of run-down buildings and replacing them with affordable, owner-occupied homes and townhouses. The \$12.7 million project illustrates that being a good corporate citizen and neighbor is considered an important part of doing good business.

- Establish a Governor's Sustainable Community Award program in cooperation with county, city and township associations. Award categories could honor outstanding neighborhood and community initiatives, as well as exemplary nonprofit, local business and state agency efforts. This special recognition would go to those making continuous and simultaneous improvement in economic, environmental and social conditions.
- Incorporate sustainable development concepts into legislative forums under the auspices of appropriate legislative committees.
- Require the head of each major state agency to incorporate sustainable development principles and practices into the agency's programs and activities, and to dedicate appropriate staff resources to this end.
- Reward state agencies and public employees for taking successful, flexible, integrated approaches to meeting environmental, economic and social policy goals.

CRITICAL STEP

Challenge the business community to engage in discussions about its broader role in driving sustainable development.

The business community's commitment is key. Business must take the initiative to make its activities sustainable and to help others do so as well. Businesses should be encouraged to accept this challenge. Other community members should also be urged to challenge and work with businesses so that society as a whole can move quickly toward sustainable development.

STRATEGIES

- Ask the business community to establish a round table and to support other forums that encourage businesses to take responsibility for helping create a sustainable society.
- Encourage the World Business Council to establish a North American office in Minnesota. Link the activities of that office to the Minnesota Business Round Table, the Minnesota Business Partnership and the Minnesota Chamber of Commerce.

CRITICAL STEP

Establish a new institution outside of government to aid in facilitating sustainable development.

Sometimes, new concepts need new institutions to support them. While we are committed to change within existing institutions — and consider such change essential — we also believe that a new institution may be needed to help people and organizations understand and pursue opportunities for sustainable development.

STRATEGIES

- Establish a Minnesota Center for Sustainable Development as a public-private partnership and charge it with providing leadership across sectors and institutions in pursuit of sustainable development in Minnesota.
- Assign the center responsibility for: a) monitoring public and private sector progress toward sustainable development, including progress in implementing these challenges; b) communicating the need for sustainable development; and c) collaborating with and supporting others engaged in sustainable development activities.

Challenge Six

Understand the connections between liberty and justice, and long-term economic and environmental health.

The Round Table believes that it has not adequately addressed the issues of liberty and justice. The concept of liberty requires respect for individual freedoms, rights and responsibilities. Justice means that all Minnesotans have an equal opportunity to enjoy clean water, air and uncontaminated food, and, over time, to responsibly meet their needs for healthy family and community systems, healthy natural systems and a prosperous economy.

These issues are at the heart of sustainable development. Yet discussions about sustainable development tend to focus on the more obvious relationship between the environment and the economy, often to the exclusion of the equally real connections between liberty and justice, and economic and environmental health. *Minnesota Milestones* suggests that healthy social conditions are just as important to Minnesota's long-term prosperity as maintaining a healthy environment and economy. Indeed, we should be particularly concerned about young people, as Minnesota's future depends on the well-being of our children today.

CRITICAL STEP

Expand public conversations that focus on social issues and their relationship to economic and environmental conditions.

STRATEGIES

- Convene a forum of people representing a wide range of ages and backgrounds to discuss the connection between liberty and justice and long-term economic and environmental sustainability.
- Discuss how the social goals in *Minnesota Milestones* affect, and are affected by, economic and environmental conditions. Ask Minnesota Planning to consider the results of this discussion when updating or reporting *Milestones*, so that readers may better understand the connections between social issues and environmental and economic conditions.
- Investigate whether a bias exists toward locating developments with potentially large negative impacts, such as hazardous waste facilities, landfills and highways, in areas of relative poverty. If such a bias exists, take steps to rectify it.
- Encourage the business community to explore and communicate how businesses might benefit from community partnerships and programs that enhance the workplace environment.
- Hold public institutions accountable for ensuring that their decisions are scientifically informed and open to public scrutiny. Decisions should lead to an equitable sharing of the burdens they may impose.
- Produce a list of critical questions about liberty and justice that people could ask themselves about any given action or decision.

THE GREEN INSTITUTE,
a nonprofit that encourages new economic opportunity in the Phillips neighborhood of Minneapolis, launched the ReUse Center and Demolition Services, dedicated to salvaging construction and solid waste materials for resale and reuse. Future plans include the Phillips Eco-Enterprise Center, an eco-industrial park devoted to housing and environmentally sustainable businesses.

YELLOW BIKE COALITION
works with at-risk youth and other volunteers to transform unwanted bikes into a free, economical and environmentally friendly transportation alternative that provides easy access to St. Paul businesses, shopping areas, restaurants and trails.

Appendices

A Sampling of Activities in Sustainable Development

STATE ACTIVITIES

Sustainable Forest Resources Act of 1995 calls for public-private partnerships in protecting and managing Minnesota's forest ecosystem resources.

Metropolitan Livable Communities Act of 1995 establishes a multi-million dollar program aimed at brownfield redevelopment for the purpose of urban revitalization, while in turn setting metropolitan-wide goals for affordable housing.

Environmental Regulatory Innovations Act of 1996 offers individual facilities, sectors of industry, governmental units and whole communities freedom from rigid regulatory requirements in exchange for higher environmental performance.

A 1996 law also codifies a definition of sustainable development and calls for a **state government self-assessment** based upon the principles of sustainable development. *Taking Root: State Agency Efforts Toward Sustainable Development in Minnesota* is the Environmental Quality Board's report on these assessments.

The 1996 law asks Minnesota Planning to prepare a **local government planning guide** based upon the principles of sustainable development.

Community-Based Planning Act of 1997 establishes state goals and grants for community planning designed to encourage sustainable development.

Energy and Sustainable Agriculture Program helps farmers, researchers and educators develop farm systems that are environmentally sound, profitable and enhance the well-being of farmers and communities.

Guidestar Project at the Department of Transportation and the City of Cambridge has turned the vacant Isanti County Courthouse into a "telework center." The center will house 25 department staff members, along with public and private tenants.

Office of Environmental Assistance publishes a **sustainable communities network** biweekly electronic newsletter, serving 1,400 people.

The Department of Natural Resources has adopted an **ecosystem approach** to sustainable development, integrating community and economic factors within natural resources management activities.

Public Utilities Commission and Department of Public Service have asked electric utilities to include the **hidden costs of air pollution** in integrated resource planning for meeting future energy demands.

Minnesota Milestones targets are being revised to better reflect the principles of sustainable development.

The Legislative Commission on Minnesota Resources has funded development of a **Minnesota genuine progress indicator**, a new measure of economic progress, to better reflect social and environmental contributions to the state's quality of life.

LOCAL ACTIVITIES

Lake Phalen Corridor Initiative. While many communities replace open space and wetlands with shopping centers, St. Paul's East Side is turning that around by demolishing a defunct strip mall to make way for the Ames Lake Wetland. The redevelopment also includes remediating polluted lands, returning them to productive use, improving adjacent residential and commercial areas and improving local work force skills.

Big Woods Project in Rice County has developed a model ordinance designed to protect the three main Big Woods natural areas and to promote compatible and sustainable ecosystem uses.

City of Hutchinson has partnered with the Minnesota Department of Transportation and the Federal Highway Administration to create a "**light traffic action plan**" for the city placing priority on walking, bicycling and transit.

Community Design Center's **Women Food and Fiber Project** assists women in developing business skills and promotes local economic development in food and fiber.

A **St. Cloud citizens advisory committee** is helping that community design a city ordinance to ensure that remaining open space is used in a way that is sensitive to the needs of property owners, the economy, the environment and the community.

Land Stewardship Project's **1000 Friends of Minnesota** discusses options for improving Minnesota's state land use framework and was instrumental in passage of the Community-Based Planning Act of 1997.

Northern Citizens League is a grassroots organization exploring how Itasca County and surrounding areas may utilize sustainable development concepts.

Northern Counties Land Use Coordinating Board is developing 10 model county plans based upon the principles of sustainable development and scientific assessment.

Olmsted County recently revised its general land use plan to focus on sustainable development concepts. The plan map was created with a

geographic information system that rates the suitability of land for different uses.

Winona County/LaCrescent and Houston/Fillmore Counties areas **Common Visions Projects** are building a common information base and a vision for each area's economy and environment.

Urban Ecology Coalition is a network of people and organizations promoting neighborhood collaboration, environmental education and sustainable urban development in the Twin Cities.

Yellow Bike Coalition works with at-risk youth and other volunteers to transform unwanted bikes into a free, environmentally friendly transportation alternative for easy access to St. Paul businesses, shopping areas, restaurants and trails.

Community Environmental Technical Assistance Program. Launched by Citizens for a Better Environment in 1995, this program provides technical expertise for citizens to conduct effective environmental initiatives and work with local businesses. The program has empowered citizen initiatives on watershed restoration, pollution prevention, brownfield cleanup and neighborhood beautification.

Mahtomedi Launches City-wide Effort to Achieve Sustainability. In workshops organized and planned by citizens, Mahtomedi's mayor and other city and school officials have begun a visioning process to ensure the city's long-term sustainability. Next steps include planning beyond traditional city budget cycles, integrating school board and city plans and hiring professionals with backgrounds in sustainability principles and practices.

Steele County Businesses, Farmers, Community Leaders and Citizens Work Toward Sustainability. With help from the Office of Environmental Assistance, Steele County Environmental Services is helping a diverse coalition of interests find innovative ways to prevent pollution, reduce energy use, improve local business performance and educate themselves and others about opportunities for improving the county's environment, economy and quality of life over the long-term.

*A sampling
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BUSINESS ACTIVITIES

*A sampling
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Honeywell, the Honeywell Foundation, the Allina Foundation and the Minneapolis Foundation are taking action to battle crime and better the Phillips neighborhood by leveling two square blocks of run down buildings and replacing them with affordable, owner-occupied homes and townhouses. The \$12.7 million project illustrates that being a good corporate citizen and neighbor is considered an important part of doing good business.

Automated Building Components, a supplier of millwork products and services located in Chanhassen, began in 1994 its successful shift from solvent-based wood coatings to non-hazardous water-based finishes. The company reduced hazardous waste by 100 percent, volatile organic compound emissions by 90 percent and use of toxic chemicals by 90 percent, with an annual savings of \$60,000.

The **River-Friendly Farmer Program** recognizes farmers who meet 10 farm management criteria. The program has two main goals: first, to publicize and promote farming practices that benefit Minnesota's rivers while maintaining farm productivity; and second, to increase public awareness of farmers' efforts to clean up the state's rivers. Sponsored by the Minnesota Alliance for Crop Residue Management and other public and private organizations, the program has recognized 170 farmers so far.

Minnesota forests meet international standards for sustainability. More than 550,000 acres of forest in Aitkin County, jointly managed by the Aitkin County Land Department and the Department of Natural Resources, have been certified as sustainably managed by SmartWood, a New York-based, independent certification company. Certification is based on long-term forest management, maintenance of ecosystem integrity and provision of socioeconomic benefits to the community.

In 1995, **Andersen Corporation**, in Bayport, Minnesota, received certification from Green Seal, the national environmental labeling organization, for 21 models of energy-efficient windows and patio doors. Andersen has made other strides toward becoming a sustainable enterprise by

implementing a wide range of pollution prevention projects that save the company more than \$1.4 million annually.

Dufour's Cleaners in Northfield, Minnesota has remained competitive and kept insurance costs in check, in part, by improving its environmental performance. Mr. Dufour has switched to using plain water and mild soaps whenever possible and using an efficient, computer-operated machine that filters and redistills hazardous solvents used in the operation. These steps protect his family, the community and the environment.

Employee-owned **Erickson's Diversified Corporation** operates 17 grocery stores and pharmacies throughout Minnesota and Wisconsin. In addition to reducing energy use, pollution and waste at its stores, Erickson's built its new headquarters on the banks of the St. Croix in Hudson, WI, using the latest in sustainable building design and materials.

Phenix Biocomposites, Inc. in Mankato had gross sales of over \$1.5 million in 1996. The innovative manufacturer combines low grades of waste paper with soy beans to make composite materials used in furniture, flooring, millwork, custom fixtures, displays and wall systems. The company's manufacturing minimizes toxins and waste, keeps waste paper and plastic out of landfills, provides an alternative to virgin hardwoods and creates another market for Minnesota's renewable agricultural products.

Recyclights, Inc., receives, processes and recycles fluorescent lamps and other mercury-containing products, reclaiming phosphor powder, glass and aluminum in addition to mercury. In 1996, its Minnesota facility had revenue of \$2.4 million. The company has recycled over 17 million fluorescent lamps to date, recovering 42,000 pounds of mercury annually. The company also recycles its own pallets, cardboard and other transport packaging.

Cities Management, Inc. is one of the first property management firms in the country to integrate sustainable, cost effective practices into the services it provides. The company creates environmental and economic efficiencies for its clients through pollution prevention,

environmentally benign, reusable and recyclable products, energy and water efficiency, non-toxic pest control and lawn care, and the recycling of glass, aluminum and building materials.

Colonial Craft, Inc. This \$20 million company is perhaps the first manufacturer of hardwood products drawn from temperate forests certified as sustainably managed. Certification means foresters are managing for a sustainable yield, maintaining the diversity and integrity of the ecosystem, and producing socioeconomic benefits for the community. The company sees certification as perhaps the best way to guarantee the perpetuation of healthy forests, the company's prosperity and that of its employees.

Hogs Your Way: Alternative Production Systems for Minnesota Farmers. This publication is available through the Minnesota Institute for Sustainable Agriculture. It helps individuals explore alternatives for hog production, including how practicing hog farmers have profited by using Swedish deep straw farrowing systems, pasture farrowing systems and hoop house finishing systems.

The Green Institute. Founded in 1993 in one of the state's most ethnically diverse communities, the nonprofit institute encourages new economic opportunity in the Phillips neighborhood of Minneapolis, while reducing the region's environmental impact. The institute has launched two new businesses, **The ReUse Center** and **Demolition Services**, dedicated to salvaging construction and solid waste materials for resale and reuse. The Institute's latest and most ambitious project is the Phillips Eco-Enterprise Center, a three-acre, 64,000-square-foot eco-industrial park devoted to housing and environmentally sustainable businesses.

Rahr Malting Company. In January 1997, Rahr Malting Company of Shakopee received one of the nation's first pollutant "trading" permits. This allows the company to expand while creating equal or better protection for the Minnesota River. To ensure that the river's natural capacity for handling wastes is not exceeded, the Pollution Control Agency and the Center for Environmental Advocacy worked with Rahr on an innovative

permit that combines the most restrictive emission limits on the river with flexibility for Rahr in how it meets those limits. In short, Rahr is reducing soil erosion and agricultural runoff on sensitive lands to offset its new discharges to the Minnesota River.

Gravel Pit Returned to Prairie at Buffalo River State Park in Clay County. A 38-acre gravel pit last mined in the 1950s will be returned to prairie by a partnership among the Department of Natural Resources, Clay County Board, CAMAS, Inc. and The Nature Conservancy. Additional goals of the project are to develop cost effective methods for large scale reclamation of abandoned gravel pits, document the reclamation process for future use by others and provide interpretation of gravel mining, reclamation, and prairie restoration for park visitors.

Renville Turns Waste Energy into Economic Development. The Southern Minnesota Beet Sugar Cooperative built a sugar beet processing plant just east of Renville in the mid 1970s. Processing sugar beets produces an average of 10,000 gallons per minute of 120 degree water. The valuable heat in that water used to be wasted, dissipating from large cooling ponds. Today, the City of Renville purchases that excess hot water heat from the beet cooperative at less than half the cost of other heat sources, and an aquaculture company, MinAqua Fisheries, in turn purchases hot water heat from the city, thereby reusing precious water resources and spurring local economic development.

3M Chief Executive Articulates Businesses' Role in Sustainable Development. Achieving sustainability is not only part of 3M's mission statement, it is reflected in a new book co-authored by CEO L.D. DeSimone: *Eco-efficiency: The Business Link to Sustainable Development*. The book advocates business activities that create economic value while reducing ecological impact and resource use, and asserts that companies who do not find ways to become eco-efficient will be handicapped financially and in other ways eventually, and may disappear from the marketplace as a result.

*A sampling
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sustainable
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Milestones of Sustainable Development Progress in Minnesota

MILESTONES

This timeline covers major milestones in Minnesota's sustainable development initiative

1993	1994	1995
<p>JANUARY: Governor Arne H. Carlson, the Environmental Quality Board and the Commissioner of Trade and Economic Development kick off the Minnesota Sustainable Development Initiative.</p> <p>MARCH: Governor-appointed citizens begin defining sustainable development in the areas of agriculture, energy, forestry, manufacturing, minerals, recreation and settlement.</p>	<p>FEBRUARY: Citizen teams publish the Initiative's first findings in <i>Redefining Progress: Working Toward a Sustainable Future</i></p> <p>APRIL: Legislature establishes the Sustainable Economic Development and Environmental Protection Task Force to examine land use policy.</p>	<p>MAY: The Minnesota Sustainable Forest Resources Act passes. The act calls for public-private partnerships to protect and manage Minnesota's forest ecosystem resources and to establish the multi-stakeholder Forest Resources Council.</p> <p>AUGUST: Governor issues <i>Challenges for a Sustainable Minnesota: A Minnesota Strategic Plan for Sustainable Development</i> for public review and comment.</p> <p>SEPTEMBER: Sustainable development task force suggests new approach to community-based planning in <i>Common Ground: Achieving Sustainable Communities in Minnesota</i>.</p>
1996	1997	1998
<p>JANUARY: Governor appoints Minnesota Round Table on Sustainable Development to follow through on ideas in <i>Challenges</i> document.</p> <p>APRIL: Minnesota Laws, Chapter 454 requires state agency self-assessments based on the principles of sustainable development and a guide in local sustainable development planning.</p> <p>MAY: The Environmental Regulatory Innovations Act offers individual facilities, sectors of industry, governmental units, and even whole communities, freedom from rigid regulatory requirements in exchange for higher environmental performance.</p>	<p>JUNE: The Community-Based Planning Act establishes 11 goals as a new framework for local comprehensive planning. The 11 goals include public participation, sustainable development, full-cost accounting of public investment (including long-term community and environmental costs), alternatives for transportation, and livable community design.</p>	<p>APRIL: EQB publishes <i>Taking Root: State agency efforts toward sustainable development in Minnesota</i>.</p> <p>MAY: Round Table's final report published and submitted to the Governor.</p>

Members of the Minnesota Round Table on Sustainable Development

Melanie Benjamin, Representative of the Mille Lacs Band of Ojibwa

Eric Bloomquist, Chief Executive Officer, Colonial Craft; Forestry Team, Minnesota Sustainable Development Initiative

John Bowers, Retired Administrator, Federal Highway Administration

Kim Carlson, President and Owner, Cities Management, Inc.; Charter Officer, Business for Social Responsibility

Tom Cochrane, Director, AgriGrowth Council; Agriculture Team, Minnesota Sustainable Development Initiative

Kathryn Draeger, President, Environmental Ground, Inc.

Steve Erdall (Advisor), President, Western State Bank

Nelson French, Round Table Co-chair; Executive Director, Friends of the Minnesota Valley; Former Director, the Nature Conservancy; Co-chair, Minerals Team, Minnesota Sustainable Development Initiative

Cindy Hayden, Associate Publisher, Lake Superior Magazine; Co-chair, Recreation Team, Minnesota Sustainable Development Initiative

Doug Hildre, Environmental Director, United Defense, L.P.; Environmental Committee Chair, Minnesota Chamber of Commerce

George Honadle, Consultant on Sustainable Development to the United Nations, World Bank, Agency for International Development, World Wildlife Fund and Minnesota Sustainable Development Initiative; Adjunct Professor, College of Natural Resources, University of Minnesota

Randy Jorgenson, Executive Director, Southwest Regional Development Council; Co-chair, Advisory Council on Community-Based Planning

James Kubiak, Chief Executive Officer, Membran Corporation

James Nelson, Financial Administrator, Honeywell, Inc.

Ralph Lentz, Past Chairman, Minnesota Sustainable Farming Association; Agriculture Team, Minnesota Sustainable Development Initiative

Barbara Lukermann, President, Citizens League; Professor of Land Planning, Hubert H. Humphrey Institute of Public Affairs and Center for Urban and Regional Affairs, University of Minnesota; Co-chair, Settlement Team, Minnesota Sustainable Development Initiative

Diane Lynch, District Administrator, Minnehaha Creek Watershed District

Alfred Marcus, Professor, Carlson School of Management, University of Minnesota; Co-founder, Collaborative for a Better Environment and Economy; Manufacturing Team, Minnesota Sustainable Development Initiative

Jean Michaels, Olmsted County Commissioner; Member, National Association of Counties, and Association of Minnesota Counties' Sustainable Development Task Forces

Chris Radatz, Legislative Policy Analyst, Minnesota Farm Bureau

Allison Rajala, President, True North Public Relations

Anita Ryan, Round Table Co-chair; Principal, C. McFarlane Associates; Co-owner, St. Paul Brass and Aluminum; Member, Manufacturing Team, Minnesota Sustainable Development Initiative

Patricia Schmid, Member, Izaak Walton League of America; National Audubon Society

Scott Schuler, Environmental Director, Printing Industries of Minnesota

Brett Smith, Member, Sierra Club; Pollution Prevention Consultant

James Stanton, Chief Executive Officer, Shamrock Development, Inc.; Past President, Builders' Association of Minnesota; Past President, Minnesota Association of Realtors

Jonathan Wilmshurst, Regional President, CAMAS Minnesota Inc. (sand and gravel business); Minerals Team, Minnesota Sustainable Development Initiative

Molly Woehrlin, Former Rice County Commissioner; Co-chair, 1996 Sustainable Economic Development and Environmental Protection Task Force; Co-chair, Settlement Team, Minnesota Sustainable Development Initiative

Annie Young, Associate Director, The Green Institute; Community Activist and Resident of Phillips Neighborhood, Minneapolis; Commissioner, Minneapolis Park Board

Bob Bringer (Special Advisor), 3M Emeritus Executive; World Business Council on Sustainable Development (liaison for 3M chairman); Member, Natural Resources Task Force, President's Council on Sustainable Development; Former Chairman, Corporate Conservation Council, National Wildlife Federation; Co-chair, Manufacturing Team, Minnesota Sustainable Development Initiative