Under Construction

Tools and Techniques for Local Planning

MN PLANNING

MINNESOTA PLANNING

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Minnesota Planning develops long-range plans for the state, stimulates public participation in Minnesota's future and coordinates public policy among state agencies, the Minnesota Legislature and other units of government.

The Environmental Quality Board, staffed by Minnesota Planning, draws together five citizens and the heads of 10 state agencies that play a vital role in Minnesota's environment and development. The board develops policy, creates long-range plans and reviews proposed projects that would significantly influence Minnesota's environment. It also coordinates the Minnesota Sustainable Development Initiative.

Acknowledgements

Under Construction is dedicated to the memory of Senator Janet Johnson, whose deep concern for the environment, strong interest in helping Minnesota communities meet the challenges of growth and change, and effective action in the Legislature inspired its creation.

This document was prepared by Minnesota Planning with the assistance of numerous collaborators from federal, state, regional and local governments, and from the private and not-for-profit sectors. Major contributors included: Jeff Bloomquist, Aaron Buffington, Heidi Habeck, John LaVine, Roy Murphy, Rolf Nordstrom, Deborah Pile, Steve Reckers and John Wells of Minnesota Planning; former Minnesota Planning staff Lisa Freese and Cindy Carlsson; Gunnar Isberg and Associates; Brian Ross, Biko Associates, Inc.; Carole Zellie, Landscape Research; and Marilynn Taylor. Deborah Pile and John Wells were project managers.

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Upon request, copies of *Under Construction: Tools and Techniques for Local Planning* will be made available in an alternative format, such as Braille, large print or audio tape. For TTY, contact Minnesota Relay at (800) 627-3529 and ask for Minnesota Planning.

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WHY A PLANNING GUIDE?

This guide is for people interested in shaping the future of their community – their county, city or township. The Minnesota Legislature saw the need for a guide because today's communities face complex challenges and opportunities. In response, Minnesota Planning developed *Under Construction* to help communities shape their future by choice not chance.

The guide's focus is on how local governments and those they serve can work together to develop a good comprehensive plan. A good plan articulates the aspirations and vision of a community and provides the policy framework for decisions regarding development proposals, public investments and the delivery of government services.

Under Construction offers ideas and suggestions that will make a difference when planning for a community's future. It taps the experiences of a wide range of communities and the lessons they learned. And it offers these lessons in a number of ways – from "how to" lists, to "consider this" discussions, to citations of other places to find good information.

The guide makes three assumptions. First, the people who make up a community must take part in shaping its future. The guide describes a number of ways a community may engage its residents in this effort. In today's busy world, elected officials and planners must try many different approaches and create numerous opportunities for people to weigh in on a community's future.

Second, a comprehensive plan is a good way to bring complex, connected and competing issues into sharp focus. To this end, the guide emphasizes how to help citizens recognize the relationships between issues.

Third, although they cannot be at the table, a community's future residents have every bit as much – if not more – at stake in a community's future as its current residents. For this reason, the guide asks a community to carefully consider the long-term consequences of its actions.

This guide is offered in the hope that it will stimulate greater citizen involvement in local planning and development decisions. Broad citizen participation in planning and decision-making is a key ingredient for success. Listening to all stakeholders may lengthen the planning process and reveal conflicts within a community, but the resulting consensus and vision will establish community support and make future decision-making easier.

In addition, the guide will:

- Help communities start local planning.
- Outline basic, proven steps that make planning easier and more effective.
- Help communities identify their essential economic, environmental and social features.
- Help people identify relationships among these features and integrate them through the community's vision into a useful plan.
- Suggest how to gather the facts and opinions necessary for developing a plan that embodies the community's vision and goals.
- Provide ideas about how to use geographic information systems in planning.
- Describe a range of tools for implementing a comprehensive plan.

The guide follows no single method, no one law. It does not advise a community how to meet the specific requirements, for example, of the Metropolitan Land Planning Act; a community must consult the Metropolitan Council for those directions. Instead, the guide considers a full range of community needs and ways citizens might best address them.

While this makes the guide comprehensive, it also makes it lengthy. To help users quickly find what they need, the guide is laid out in small, digestible pieces. Often, the best community plans take the same approach, focusing on the issues that most concern a community rather than addressing every topic. It is important to remember that a guide cannot write a plan for anyone. Instead, a guide offers suggestions and advice for users to consider in deciding what makes sense for their community.

HOW TO USE THE GUIDE

Under Construction covers the basics of developing a good comprehensive plan with the understanding that every suggestion will not be equally relevant to every community. It is meant to be an easy-to-use resource for county, city and township governments, residents serving on local advisory committees, economic developers, citizens, businesses, state agencies and regional development commissions. The guide is offered in the spirit of making the state a partner in fostering sound local planning.

This guide should provide enough information on a given topic to get users started, but it likely will not answer all questions or address all situations. It is organized to allow users to quickly identify and extract individual chapters or sections as they need them.

Users will find illustrative examples sprinkled throughout the guide, along with an appendix that suggests sources of more in-depth information. The appendix also includes a glossary and information about public participation tools and the state laws that guide local planning.

Each chapter concentrates on one aspect of planning and contains information on each step in that part of the planning process.

- **Chapter 1** discusses why planning is important, what a comprehensive plan is, who can develop a plan and how a community might approach the task.
- **Chapter 2** outlines the steps for starting the planning process, including decisions about the commitment, establishing the structure, marshalling resources and developing a plan for public participation.
- **Chapter 3** details what should be inventoried to prepare a factual community profile, including current status, future needs, and assets and challenges.
- **Chapter 4** describes how to use the information generated in a community profile to craft a vision and the goals and policies to achieve it.
- **Chapter 5** shows by example, step by step and issue by issue, how to develop comprehensive plan strategies drawing on the information in a community profile and a community's vision, goals and policies.
- **Chapter 6** summarizes how to implement and update a plan, as well as use it in daily decision-making and monitoring of progress.
- **Appendix** presents additional resource information.

Minnesota Planning offers *Under Construction* as a work in progress. It will evolve as new information is discovered and better methods come to light. Communities are invited to identify topics or techniques that should be included in future versions, as well as aspects of this guide that are particularly useful. Regular feedback from those using the guide is the only way to keep it up-to-date and relevant. To offer suggestions or receive updates, contact Minnesota Planning at local.planning@state.mn.us or sustainable.development@state.mn.us.

Considering the Opportunity

CONSIDERING THE OPPORTUNITY

Bringing people together to plan for the future of their community is, at its core, a way to reinvigorate democracy and self-governance.

WHAT IS COMPREHENSIVE PLANNING?

Comprehensive planning can be defined as deciding where you want to go and how you will get there. This sounds easy enough. Yet planning for economic development, housing, roads, sewers, schools, environmental quality and parks is obviously more complex than planning a family trip, and it requires broad participation from the community. The box contains seven key steps in developing a comprehensive plan.

A comprehensive plan generally includes background information on the essential cultural, demographic, economic, environmental, historic, physical and social elements of a community, the community's vision, and the collection of goals, policies and strategies that will be used to realize that vision. The policies and background information can be separated into two documents, one that serves as the official plan and the other that is an official document of relevant background material that serves as the basis for all plans, reports and implementation activities. Sometimes strategies also are contained in a separate companion document called an implementation action plan.

WINONA COUNTY'S "UPDATE 2000"

Winona County officially adopted a three-document approach to comprehensive planning by developing a *Background Report*, a *Comprehensive Plan* that includes the implementation strategies, and an official *Comprehensive Plan Map*. The process was titled "Update 2000."

SEVEN KEY STEPS IN PLANNING

1. Organizing the process and engaging people in the community to participate throughout
2. Establishing a shared understanding of the most important issues and asking core questions about economic, environmental and social implications of these issues
3. Identifying future needs and desires, and developing the vision, goals, policies and progress indicators that reflect them
4. Developing alternative strategies for addressing a community's vision, goals and policies
5. Understanding relationships between possible plan strategies, accounting for their long-term costs and benefits, and choosing those that best fit a community
6. Selecting plan monitoring indicators, and completing and adopting the plan
7. Implementing the plan, tracking progress and changing the plan in future years as needed

Comprehensive planning is as much a process to engage the public in local decisions as it is to create a document for guiding development. The planning process is fundamentally a way for people with different perspectives to articulate the sort of community they would like to live in and leave behind. Planning can also help create a stable, predictable, fair set of policies and ground rules within which development, entrepreneurship and the marketplace can flourish. Above all, it is about making places better.

Minnesota Statutes, Section 462.351 describes legislative goals for city and township planning:

- Prepare for anticipated change.
- Guide future development of land.
- Ensure a safer, more pleasant and economical environment.
- Preserve agricultural and other open lands.
- Save money in both private and public expenditures.
- Enable other public and private agencies to plan their activities in harmony with the plan.
- Assist in developing lands more wisely to serve citizens more effectively.

- Make the provision of public services less costly.
- Achieve a more secure tax base.
- Promote the public health, safety and general welfare.

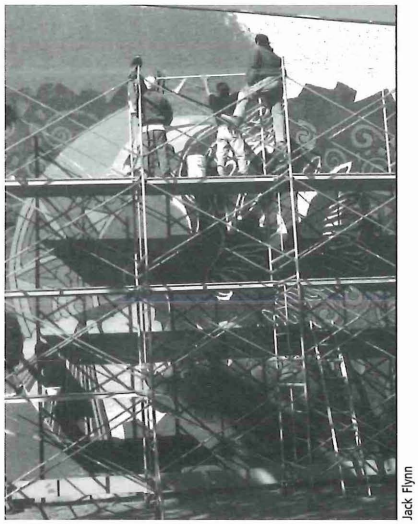
Minnesota Statutes, Section 462.352(5) defines a comprehensive plan of a city or township as "a compilation of policy statements, goals, standards and maps for guiding the physical, social and economic development, both private and public, of the municipality and its environs, including air space and subsurface areas. . ."

For counties, Minnesota Statutes, Section 394.22(9) defines a comprehensive plan as the "policies, statements, goals and interrelated plans for public and private land and water use, transportation and community facilities, including recommendations for plan execution documented in texts, ordinances and maps which constitute the guide for future development of the county."

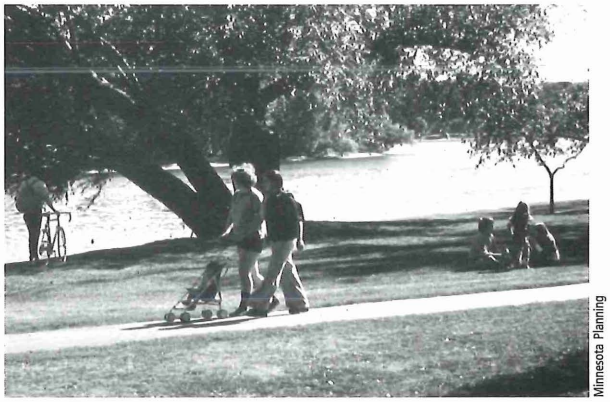
No matter how large or small the community, comprehensive planning boils down to three basic questions:

- **What is the state of the community today?** What are the current social, economic and environmental conditions and trends?
- **What would people like the community to be in the future?** What characteristics and features of the community would residents like to preserve and build on? What would they like to change? What is the community's picture of itself in the future?
- **How will the community get there?** What goals, policies and strategies will lead to this vision?

Abundant clean water, open space for recreation and people working together to improve their communities are all part of Minnesota's quality of life.



Jack Flynn



Minnesota Planning

Jack Flynn

Minnesota Planning

This guide will help communities formulate the answers. Taken together, these are what make up a community's comprehensive plan.

At their best, comprehensive plans not only reflect the vision and goals of a community but also embody:

- **A thoughtful approach to issues that considers all sides and interconnections.** Almost every decision has economic, environmental and social implications.
- **Coordination among neighboring jurisdictions and levels of government on topics of mutual concern.** Regional issues such as traffic congestion, affordable housing, air pollution and labor shortages don't respect political boundaries; there is great benefit in joint problem-solving.
- **A long-term perspective that accounts for the future impacts and costs of today's decisions.** Local policies should make sense for citizens, businesses and the environment, in both the short and long term.

Instead of balancing one thing with another – such as jobs and water quality – in a way that creates winners and losers, a successful comprehensive planning process will identify how to simultaneously improve the status of both.

WHY PLAN?

Planning can help growing areas preserve what made people want to live there in the first place. According to the State Demographic Center at Minnesota Planning, the population of Minnesota is expected to increase by 14 percent between 2000 and 2025. In many communities, the increases will be far greater. How communities manage and accommodate growth could lead either to vibrant, thriving economies and neighborhoods or to higher property taxes, more traffic congestion, school overcrowding, environmental degradation and the loss of valued landscapes.

For other communities, population growth would be a dream come true. As troublesome as rapid, unplanned growth can be, decline can be as bad or worse. The State Demographic Center predicts that nearly half of Minnesota's counties will lose population through 2025. These areas are faced with the challenges of maintaining a viable local economy, funding schools, reinvesting in aging infrastructure and meeting the needs of older residents as many young people find greater opportunities elsewhere.

Somewhere in the middle are places where the residents like their community's size and character pretty much as they are; they are not too anxious to see rapid growth or decline change things dramatically. These communities may need to take steps to maintain their current quality of life.

While the issues differ, the need to plan does not. Whether a community is declining, growing or maintaining the assets it has, effectively managing change can help it prosper over the long term.

The value of community planning is easier to appreciate when comparing it to the role planning plays in every day life. Planning is so fundamental to the success of both individuals and organizations that most people do it without even thinking about it. Planning has become second nature because people and institutions perform better when they plan than when they do not.

MINNESOTA BUSINESSES PLAN

What do 3M, Honeywell, Pillsbury, Medtronic, Target, General Mills, Northwest Airlines, The St. Paul Companies and Hormel have in common? All these prominent Minnesota businesses do long-term planning. Such planning includes identifying the forces that are likely to influence their future and positioning themselves to flourish in that future. This planning is essential to remaining competitive in an increasingly international marketplace. These firms plan in an effort to give the best value to their customers and their owners. They plan as a way to recognize change and meet its challenges. In short,

they plan to remain successful and to avoid becoming obsolete and going out of business.

MINNESOTA FAMILIES PLAN

Families plan for their vacations. They plan when buying a house. They plan for the expense of a college education, health care and old age. As with a business, this includes identifying the forces that are likely to influence their future and positioning themselves to flourish in that future. While a family is not concerned about flourishing in the global marketplace, it is concerned about making ends meet – and meeting the needs of its members.

It is no different for communities. In an information-based economy where people can live virtually anywhere, communities wanting to be competitive, attractive places to live and work – places that thrive – will need to plan to make that happen.

TOP TEN REASONS TO DEVELOP AND IMPLEMENT A LOCAL COMPREHENSIVE PLAN

1. Provides legal justification for a community's land use decisions and ordinances
2. Creates the opportunity for residents to guide a community's future
3. Helps a community identify issues, stay ahead of trends and accommodate change
4. Offers a process for joint problem-solving and leveraging scarce resources among neighboring jurisdictions
5. Protects and makes the most of public investments
6. Helps ensure that growth makes the community better, not just bigger
7. Fosters sustainable economic development
8. Helps a community maintain its resource base and other "natural capital"
9. Protects property rights and property values
10. Provides an opportunity to consider future impacts of today's decisions

A COMPREHENSIVE PLAN GENERATES A VARIETY OF BENEFITS

A comprehensive plan fosters the kind of development that citizens really want. This is probably the biggest benefit of planning, but there are several other significant benefits. The top 10 are described here and listed in the box.

1. Provides legal justification for a community's land use decisions and ordinances. A fundamental reason for preparing a comprehensive plan is to establish a legal foundation for local officials' development decisions. Land use decisions can be controversial and spark lawsuits. Minnesota courts have upheld local land use decisions when there was a reasonable basis for the decisions, and the courts are more likely to find a reasonable basis for a decision if it is consistent with a community's comprehensive plan. In 1926, the U.S. Supreme Court upheld comprehensive municipal zoning in Village of Euclid, Ohio v. Amber Realty. And, in 1984, in Amcon v. City of Eagan, the Minnesota Supreme Court stated that "the essence of constitutional zoning is demonstrated by the existence of a plan which uniformly, without discrimination and without unreasonable restrictions, promotes the general welfare."

2. Creates the opportunity for residents to guide a community's future. Comprehensive planning offers citizens a way to articulate common goals and ensure that day-to-day land use decisions reflect their values. It also gives them a way to invite the kind of development they would prefer. Finally, it creates an opportunity for community dialog and for residents to meet one another and discuss community issues from different points of view.

3. Helps a community identify issues, stay ahead of trends and accommodate change. Planning prompts a community to identify issues and prepare for major demographic and development changes. Planning involves collecting and analyzing data on population, employment, housing, land use,

environmentally sensitive areas, business and industrial development, community facilities, shopping areas, waste generation, water and energy use, and growth trends.

Upon study, this data paints the picture of a community's strengths and limitations. This picture, in turn, helps residents and local officials develop meaningful goals and strategies that build on the strengths and deal with any problems before they become a major concern.

For example, as baby boomers face retirement and the elderly live longer, a community may want to consider how well these groups will be able to meet their needs with the current development pattern. Will older people have access to the health care, medicines and food they need? Similarly, a community that has a large college or industry as a neighbor or resident may need to consider whether it has adequate housing, jobs and services for these employees and their families.

4. Offers a process for joint problem-solving and leveraging scarce resources among neighboring jurisdictions. Comprehensive planning, by its very nature, helps people look at their community and region as a whole, and identify and account for the linkages between all the economic, environmental and social elements that comprise it.

This allows a community to anticipate the potential ripple effects of any given goal or decision. If stimulating new businesses is a goal, people know they must address the ability of local schools, housing and transportation systems to meet additional demands, as well as the water, energy and waste implications.

Interdependence across issues also exists across political boundaries. Comprehensive planning is a vehicle for engaging neighboring jurisdictions on issues of mutual concern and for citizens and decision-makers to become aware of the impacts their decisions have on areas outside their immediate community.

Cooperation among local governments can benefit everyone by providing a formal mechanism for addressing shared problems that do not respect political borders, such as traffic, flooding, or water and air pollution. Multijurisdictional planning reflects the reality that the fate of one community is, in many ways, tied to the fate of those around it. It is a way to make sure that the many parts of an area pull together toward common ends and do not go in directions that are at odds. The unifying framework provided by the planning process can help prevent serious conflicts.

Minnesota Historical Society

Taking a broad view helps identify linkages and potential ripple effects. Aerial view of Pipestone, Minnesota, 1954

5. Protects and makes the most of public investments. The quality and cost of public infrastructure, such as roads, water and sewer systems, and transit, can influence a community's livability and fiscal health. A comprehensive plan can help a community understand, protect and make the most of public infrastructure and improvements, as well as determine if and when to construct new infrastructure.

In addition, state and federal dollars for local government projects are increasingly tied to sound comprehensive planning. Funding criteria for highway projects, water and sewer grants, environmental protection and local facilities tend to favor communities that have demonstrated their intentions and forethought through comprehensive planning. Some types of planning, particularly water planning,

often are required by law for funding and assistance. One example is flood mitigation grants. More generally, a good comprehensive plan can influence state policy, investments and priorities.

Comprehensive planning can help control long-term costs and increase the quality of public facilities and services by:

- Staging growth so that it coincides with the planned extension of public facilities and services
- Leading to a capital improvement program that establishes the financial support, timing, standards and priorities for providing public facilities and services
- Fostering a mix of land uses, such as residential and neighborhood commercial, and the development of town centers
- Encouraging development patterns that use land, energy and other resources efficiently

Building on unique landscape features enhances a community's distinctive sense of place. River Center, Red Wing, Minnesota

Jack Flynn

- Helping a community understand the need to reduce the risk of loss of property to flooding, wildfire and other disasters through hazard mitigation plans
- Including cooperative planning agreements and active collaboration with adjacent communities that leverage scarce resources, e.g., sharing police and fire services

THE COSTS OF SPRAWL

A Bank of America-sponsored study asserts: "It is clear that sprawl has created enormous costs ... Housing, jobs, shopping and other activities are scattered across a huge area, and long auto trips are often required to connect them. Such a development pattern imposes a considerable cost on all who use it, though the costs are often hidden and those who pay them are not always aware of it. Businesses suffer from a loss in worker productivity and underutilized investments in older communities ... Suburban residents pay a heavy price in taxation and automobile expenses ... Residents of older cities and suburbs lose access to jobs, social stability and political power. Agriculture and ecosystems also suffer ... Unchecked growth cannot be sustained forever."

Source: *Beyond Sprawl: New Patterns of Growth to Fit the New California.* Bank of America, California Resources Agency, Greenbelt Alliance and The Low Income Housing Fund.

Finally, given that local governments rely heavily on property taxes to fund local infrastructure investments, it is important to note that good planning can make the pace and nature of future development more predictable and the local tax base more stable.

6. Helps ensure that growth makes the community better, not just bigger. Seeking to grow as a community has become synonymous with survival. If the community is not growing, it is dying, goes the logic. Yet what does this say for suburban areas or small cities where the population is stable or declining? Growth and development can and must mean something other than only physical expansion.

Growth is often equated with getting physically bigger, but development is more about improving the quality of life for residents and may or may not require growth in the physical size of the community. An effective community plan helps officials and citizens distinguish between changes that improve

the quality of life and others that may simply increase costs. A local comprehensive plan can encourage new construction or redevelopment projects whose long-term environmental, economic and social benefits outweigh their costs.

Development means building on the things that make a community unique. Doing so helps a community enhance the distinctive sense of place that retains residents and businesses and draws visitors. Some things that make a community unique are:

- Landscape features, topography or vistas, such as lakes, rivers, forests or bluffs
- The design and aesthetics of a place, including its architecture, landscaping and arrangement of streets and buildings in relation to one another
- Proximity to nearby communities
- Social, cultural and educational institutions, such as places of worship, schools, universities, libraries, theaters, community centers and civic clubs
- Business centers, including downtowns and village centers

WHAT IS "NATURAL CAPITAL"?

Although sometimes taken for granted, the state's largest source of capital is its natural environment. This "natural capital" is made up of four elements, all of which communities may want to think of as part of their economic base:

- The physical environment, including non-renewable resources, such as ferrous and nonferrous ores, sand and gravel, oil and gas
- Plants and animals living in the physical environment
- Natural processes, such as the water, carbon and nutrient cycles that provide services ranging from waste recycling to climate control
- Renewable resources, such as air, water, soils, trees, plants, animals and other resources important for their beauty and ecological significance

Carole Zellie

Natural resources continue to shape Iron Range communities. Virginia, Minnesota

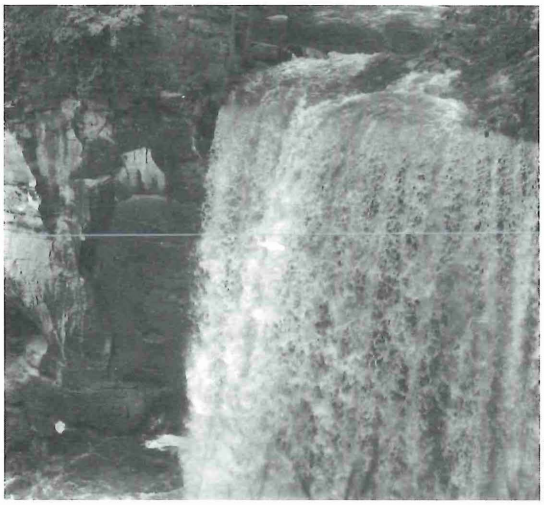
- Meeting places, such as the local post office, restaurants, parks and recreational facilities
- Historic and cultural features, traditions and celebrations
- Environmental quality and the natural environment, including clean air and water, healthy wildlife habitat and wildlife
- The "sense of place" of a community, or why people call a community "home"

7. Fosters sustainable economic development. Governments make decisions about public investments in things – ranging from streets and sewers to power lines and schools – that have a profound influence on the health, diversity, self-reliance and competitiveness of the local economy. Even though economic development is rightly thought of as largely a private-sector concern, local governments have an important responsibility to ensure that commerce serves the general health and welfare of their constituents.

In addition to sufficient space, transportation and public utilities, businesses look for a mix of characteristics that make for a high quality of life, such as affordable housing, good schools, a clean environment and recreational and cultural opportunities that will attract and retain a high-quality work force.

Good local planning serves both public and private interests by maintaining and improving the social, economic and environmental assets that citizens and businesses need to prosper over the long term.

Done well and driven by community interests, planning fosters the kind of public support, stability and predictability that contributes to a healthy local economy.



Deborah Pile

Natural capital is the foundation of a community's prosperity. Minneopa Falls, west of Mankato, Minnesota

8. Helps a community maintain its resource base and other "natural capital." Natural resources such as water, forests and agricultural lands, along with the services they provide such as waste absorption and food and fiber production, are the foundation of a community's prosperity. Together, natural resources and services represent a community's largest form of capital, even though people often do not think of them this way.

Taking care of this "natural capital" is like maintaining the principal in an endowment fund. Comprehensive plans, zoning ordinances, subdivision regulations and market-based strategies are important tools for ensuring that communities maintain or improve this natural inheritance for tomorrow's citizens, as well as for present-day benefit. Maintaining the community's natural capital is both good business and good public policy.

9. Protects property rights and values. The Fifth Amendment to the U.S. Constitution stipulates "that private property may not be taken for public use without just compensation." Article I, Section 13 of Minnesota's Constitution repeats the federal Constitution's "takings clause," saying that "private property shall not be taken, destroyed or damaged for public use without just compensation, therefore, first paid or secured."

A comprehensive plan protects property owners from arbitrary and discriminatory actions by providing an agreed-upon set of goals and policies by which to judge land use decisions and individual development proposals. Without a plan, local officials face the challenge of giving each issue fair and consistent treatment. In addition, a comprehensive plan gives current and prospective property owners notice of where, when and how the community expects to grow so that they can plan accordingly.

Planning also protects property values by helping communities prevent incompatible land uses from locating next to one another. It helps avoid, for example, a solid waste transfer station ending up next to a residential area. This, in turn, avoids the problems arising from incompatible land uses, such as time-consuming and costly litigation. A community without an adopted comprehensive plan has few tools to avoid or minimize land use conflicts and may be unable to effectively protect citizens' interests.

10. Provides an opportunity to consider future impacts of today's decisions. In the day-to-day functioning of a community, the tendency is often to react to issues as they arise and deal with them one by one. While understandable, this reactive approach can, over time, lead to community conditions with

GOOD WATER QUALITY SAVES MILLIONS

Many municipal water systems in Minnesota use ground water and as many as half of those systems do not now need water treatment. But as water quality declines, treatment costs rise. A Department of Health study of costs over a 10-year period found that where contamination standards for drinking water were exceeded, water suppliers spent more than $44 million to solve the problems.

which citizens may not be pleased or that come with a higher-than-expected price tag.

The comprehensive plan is a tool that residents and local leaders can use to ask and answer the question: Is our community on a sustainable path? Does the community have goals and policies in place that lead to decisions about land use, transportation, housing, utility investments and economic development that make long-term economic sense, improve the quality of life for present and future residents, and are compatible with the health of the environment?

THE LEGAL FOUNDATION FOR PLANNING IN MINNESOTA

The Legislature has recognized the importance of local planning for nearly five decades, passing laws that enable communities to develop plans and exercise various growth management authorities. In 1925, the Minnesota Supreme Court sanctioned the use of comprehensive planning and zoning as legitimate tools for promoting the general welfare of the public, *Berry v. Houghton*. Below are some of the key laws that form the foundation for comprehensive planning and growth management in this state:

1939 Township planning and zoning (Minnesota Statutes, sections 366.10 – .18). Authorized townships to plan and regulate land use to, among other things, prevent excessive concentration or wasteful scattering of population.

1959 County planning enabling act (Minnesota Statutes, sections 394.21–.37). Authorized counties to adopt planning tools and land use controls.

1965 Municipal planning enabling act (Minnesota Statutes, sections 462.351 – .365). Authorized cities to adopt planning tools and land use controls.

1969 Regional development act (Minnesota Statutes, sections 462.381 – .397). Authorized creation of regional development commissions in 12 areas of the state outside of the Twin Cities metropolitan area.

1976 Metropolitan land use planning (Minnesota Statutes, sections 473.851 – .871). Mandates the creation of coordinated plans, programs and controls by all local governments in the seven-county Twin Cities region for planned, orderly and staged development that is consistent with metropolitan system plans prepared by the Metropolitan Council. School districts must prepare capital improvement programs for review by the Metropolitan Council.

1982 Township authority expanded with revisions to the Municipal Planning Act (Minnesota Statutes, sections 462.351 – .365).

1996 Sustainable development for local governments (Minnesota Statutes, Section 4A.07). Required Minnesota Planning to develop and periodically update a sustainable development planning guide, as well as a model ordinance for use by local governments.

1997 Community-based planning (Laws of Minnesota 1997, sections 4A.08 – .09). Enumerated broad goals to guide local and state planning efforts. Although the Legislature repealed this law, effective July 1, 2001, many communities find the goals useful in thinking about the future.

SUMMARY OF PLANNING AUTHORITIES FOR COUNTIES, CITIES AND TOWNSHIPS

The Legislature has given local governments the authority and responsibility to plan for a wide variety of issues that are important for the health and well-being of communities and the state as a whole. There are, however, different requirements and levels of authority for townships, cities and counties. (See table of city, township and county authorities in the appendix.) A community should understand these differences before beginning a comprehensive planning effort.

Key authorities include:

- To plan and regulate land use and subdivision (counties, cities and towns)
- To create planning commissions or agencies, to prepare and adopt comprehensive plans for future development and to establish procedures for plan implementation (counties, cities and towns). These include, but are not limited to, the adoption of official controls to further the purpose and objectives of the comprehensive plan, including zoning, subdivision regulations and official maps.
- To undertake joint-planning studies with municipalities located within their boundaries (counties)
- To extend, under certain conditions, zoning and subdivision regulations within a two-mile area beyond their corporate limits (cities)
- To establish jurisdiction over planning in areas outside municipal corporate boundaries (counties)
- To be consistent with or at least as restrictive as county zoning ordinances (townships)

COUNTY COMPREHENSIVE PLANS

A county comprehensive plan contains policies, statements, goals and interrelated plans for public and private land and water use, transportation and community facilities. A plan may include recommendations for ordinances and maps to guide future development. A county's main responsibility is to protect the general health, safety and welfare of citizens and residents.

The law specifies that when adopted by ordinance, a comprehensive plan "must be the basis for official controls." Official controls include zoning and subdivision regulations and official maps.

A comprehensive plan may also provide guidelines for the timing and sequencing of the official controls to ensure planned and orderly development that is consistent with the comprehensive plan.

Although not specifically required by law, a county usually asks its planning commission and staff to prepare and recommend a comprehensive plan to the county board. However, a county alternatively may use other planning advisory bodies or create a joint powers board with membership from the county, cities and townships to prepare a comprehensive plan.

MUNICIPAL COMPREHENSIVE PLANS

A municipality (i.e., a city or township) may carry on comprehensive planning activities for guiding its future development and improvement, including proposed development densities. It may prepare, adopt and amend a comprehensive municipal plan and implement the plan by ordinance and other official actions in accordance with the provisions of Minnesota Statutes, Sections 462.351 to 462.365.

In exercising these powers, a municipality may collect and analyze data, prepare maps, charts, tables and other illustrations and displays, and conduct necessary studies. A municipality may publicize its purposes, suggestions and findings on planning matters, distribute reports about them and advise the public.

The law requires the municipal planning agency to take into account the plans of the county, neighboring cities and townships when planning. In addition, Minnesota Statutes, Section 462.3585 authorizes the creation of a joint planning board with membership from the city, county and adjacent townships. The purpose of this board is to jointly prepare a plan for the area immediately outside the city but no more

than two miles from the city boundary. In addition to planning responsibilities, the board may adopt and enforce official controls if authorized to do so by the participating local governments.

A key distinction between city and township planning and implementation is that official controls for townships cannot be inconsistent with or less restrictive than the county's controls.

MULTIJURISDICTIONAL PLANNING

Minnesota law provides a formal mechanism for organizing multijurisdictional planning efforts. Passed in 1943, the Joint Exercise of Powers Act (Minnesota Statutes, Section 471.59) remains a national model for local governmental cooperation and coordination. It authorizes governmental units to enter into voluntary agreements to cooperatively offer services or perform functions to all participating governments.

The act permits service contracts, in which one level of government purchases a particular service from another level of government. It also allows shared power agreements in which participating governmental units share responsibility for the type, amount and distribution of particular services. One example of a shared power agreement is a joint planning effort, in which more than one unit of government works together to cooperatively create a comprehensive plan.

Minnesota Statutes, Section 462.371 authorizes an agreement under Section 471.59 to conduct regional planning activities by any two or more counties, cities or towns. This includes the creation of a regional planning board and the preparation and adoption of a regional development plan. The section on municipal planning law (see above) also has a discussion about the creation of a "joint planning board" to plan for the area just outside a city's boundaries.

REGIONAL PLANNING

Regional planning may take many forms, from legislatively mandated organizations to groups formed by local discretion through various enabling laws. Organizations may consist of representatives of local general-purpose governments or have a completely different governing structure. In either case, the organization plans across local boundaries because the issues it is concerned with transcend them.

The Legislature authorized 12 regional development commissions in 1969 (Minnesota Statutes, sections 462.381 – .398) covering all areas of the state outside of the Twin Cities metropolitan area. Since then, three have dissolved; however, various planning activities still take place within these regions. The commissions are composed of local elected officials, a tribal council member if a tribe is located within the region, and citizen members. An RDC is authorized to:

- Prepare comprehensive plans for local units of government, individually or collectively.
- Review and comment on the comprehensive plans of local governments based on their effect on development in the region.

JOINT PLANNING EFFORTS IN MINNESOTA

- The cities of Austin, Mankato and Rochester have each joined with their respective counties (Mower, Blue Earth and Olmsted) to create combined city-county planning departments to coordinate efforts in their areas.
- The city of Sauk Rapids and Sauk Rapids Township created a joint planning board to prepare plans and review development proposals for the fringe areas of Sauk Rapids.
- A number of Twin Cities metropolitan area cities have entered into agreements to form joint water management organizations for the purpose of developing surface water management plans for the area. About 30 such WMOs exist.
- Two community-based planning projects, the Upper Minnesota River and the St. Cloud area projects, created joint powers boards with city and county membership. The joint boards are charged with developing and implementing areawide plans.

- Provide a range of services to local governments and residents, including technical assistance for comprehensive planning, citizen involvement initiatives and intergovernmental facilitation.

Regional development commissions provide planning assistance to local governments.

In Region 4, the West Central Initiative provides most of the services of an RDC. Region 11 is served by the Metropolitan Council.

- Appoint citizen advisory committees to assist in the review of plans, programs and other matters requiring public participation.
- Provide funding for commission projects and services through grants and a property tax levy.

A regional comprehensive plan can cover an area defined by common interests and needs, an area defined by topography or natural features such as a river basin, or an area defined by historical, economic or cultural affinity. In any case, some common thread or interest exists that makes a regional approach to planning desirable.

Some examples of regional planning based on common interests and needs include:

St. Cloud Area Joint Planning District Board. This board consists of three counties and five cities that banded together to develop a community-based plan addressing the region's rapid growth.

Mississippi Headwaters Board. This board is an example of regional comprehensive planning based on a shared natural resource of regional interest, the Mississippi River.

North Shore Management Board. Established by a joint powers agreement between Lake Superior's North Shore counties and cities, this board works for coordinated management of land within 1,000 feet of the lake.

Northern Counties Land Use Coordinating Board. Established by a joint powers agreement between nine northern counties, the board is concerned with how local priorities and goals affect land use and natural resource management.

Minnesota River Joint Powers Board. This 37-county joint powers board works to protect the water resources of the Minnesota River basin through coordinated county and state nonpoint source pollution control initiatives.

Metropolitan Council. The council is an example of regional cooperation driven by a concentration of local governments having a variety of common interests, ranging from a regional wastewater problem to regional transit and growth management needs.

CURRENT PLANNING CONCEPTS

Community planning efforts once focused almost exclusively on land use and zoning issues. While these are still important, the list of issues with which communities must contend has increased dramatically.

Minnesota's population is getting older. As documented in the Department of Human Services' *Project 2030* report, the older population (65 and over) will be Minnesota's fastest-growing age group between 2000 and 2030. This trend will not only contribute to labor shortages and other shifts in the marketplace, it also will bring new demands and added pressures on everything from health care and

school funding to transportation and community design.

Many communities also are facing large infrastructure costs for basic services, such as water and wastewater treatment. According to a 1997 survey, Minnesota's communities will have to spend $2.4 billion over the next 20 years just to keep pace with the demand for drinking water. A 1998 assessment by the Pollution Control Agency and the Public Facilities Authority projected a $1.8 billion need over the succeeding five to 10 years for wastewater treatment facilities.

These examples highlight the need for citizen-driven community planning as a way to make sound choices about a community's future. They also underscore the need for better tools to help a community visualize how it may look in the future and better weigh the implications of planning and regulatory decisions.

TRADITIONAL NEIGHBORHOOD DESIGN

Anyone who has been to Northfield's main street, Windom's central square or Two Harbors' lakeside neighborhoods has already experienced "traditional neighborhood design." As its name suggests, "traditional neighborhood design" is largely concerned with the design of the built environment and patterns of development on the ground – things that influence the look and feel of a community.

YOUR FACE IS NOT A FRILL!

"Challenge anyone to name his or her favorite place and then ask why. Many of the reasons that attractive places are attractive have to do with design. Without these design elements, a specific place becomes just anywhere. Design of a city communicates what it is. It is as much of a frill as your face is."

— Mayor John Bullard,
New Bedford, Massachusetts

Many aspects of design have profound effects on the sustainability of a community. For example, having a mix of uses in one place can reduce the need for some car travel and the air pollution it generates, as well as offer greater access to services for those who cannot drive, such as the very old and very young.

In Minnesota, even communities that originally adopted a different development pattern, such as Burnsville and Maple Grove, are working toward having a definite town center, a mix of homes, businesses, parks and a library, and more definition between what is urban and what is not.

The re-emerging interest in traditional neighborhood design is guided by a number of key design principles. These principles, called the Ahwahnee Principles for Community Design (named after the Yosemite National Park hotel in which the experts met), were identified in 1991 by experts from around the country who were brought together by the National Local Government Commission.

The principles of traditional neighborhood design ask communities to think of their streets as outdoor "public rooms" defined by building fronts and other elements, such as trees, hedges and fences. In communities following these principles, building codes encourage developers to place garages in back alleys or other inconspicuous places so that the character of the houses enhances these public rooms. Sidewalk and street design practices minimize traffic speeds and conflicts with pedestrians and bicyclists. Ordinances allow stores and community facilities to locate in or close to residential neighborhoods, and encourage a mixture of housing sizes, prices and types to meet a variety of needs and income levels. Regulations requiring large lots and large houses are avoided or limited to help make public transit and other community services economically feasible.

SMART GROWTH

States as diverse as Arizona, Georgia, Maryland, New Jersey, Oregon, Pennsylvania, Wisconsin and Utah are actively reforming policies, incentives and zoning codes to invite more cost-effective, environmentally

AHWAHNEE PRINCIPLES FOR COMMUNITY DESIGN

Community principles

- All planning should be in the form of complete and integrated communities containing housing, shops, workplaces, schools, parks and civic facilities essential to the daily life of the residents.
- Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
- As many activities as possible should be located within easy walking distance of transit stops.
- A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
- Businesses within the community should provide a range of job types for the community's residents.
- The location and character of the community should be consistent with a larger transit network.
- The community should have a center focus that combines commercial, civic, cultural and recreational uses.
- The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.
- Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.
- Each community or cluster of communities should have a well-defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.
- Streets, pedestrian paths and bike paths should contribute to a system of fully connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting, and by discouraging high speed traffic.
- Wherever possible, the natural terrain, drainage and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.
- The community design should help conserve resources and minimize waste.
- Communities should provide for efficient use of water through natural drainage, drought-tolerant landscaping and recycling.
- Street orientation, placement of buildings and use of shading should contribute to the energy efficiency of the community.

Regional principles

- The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.
- Regions should be bounded by and provide a continuous system of greenbelts or wildlife corridors determined by natural conditions.
- Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.
- Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

Implementation principles

- The comprehensive plan should be updated to incorporate the above principles.
- Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. Comprehensive plans should designate where new growth, infill or redevelopment will be allowed to occur.
- Prior to any development, a specific plan should be prepared based on these planning principles.
- Plans should be developed through an open process and participants in the process should be provided visual models of all planning proposals.

Source: Local Government Commission. See www.lgc.org.

SMART GROWTH GENERATES SAVINGS

In addition to improving housing and transportation options, smart growth is intended to help avoid the extra expense of building new infrastructure in areas outside of urban zones when the infrastructure already in town is underused. According to research by Rutgers University, a more compact development pattern – a smart growth characteristic in some communities – can save significant money, including 20 to 40 percent in land area, 15 to 20 percent in local and state road costs, 8 to 15 percent in water and sewer costs and 4 to 8 percent in housing development costs. Nationally, these savings translate into an average of $5 billion per state over 25 years.

Source: *Impact Assessment of the New Jersey State Development and Redevelopment Plan*, Burchell, Robert, Rutgers University.

sound, people-friendly and coordinated land use planning.

The concept of smart growth takes many of the sustainable development principles and applies them to how cities, towns, counties and regions grow. The idea is that communities should have a sense of uniqueness and a sense of place, work equally well for people of all ages and income levels, and reflect the goals and values of residents.

Another way to define smart growth is to think of it as "informed growth." In other words, smart growth does not lead to some preconceived outcome but is the result of understanding and accounting for the real costs, benefits and tradeoffs associated with various growth alternatives. Instead of a new layer of regulation, smart growth uses incentives and streamlined regulations to encourage the kind of development people in a community say they want. As the box illustrates, this can save a community money.

Smart growth is not a one-size-fits-all recipe for accommodating growth. What is "smart" for the Twin Cities will likely not make sense in more rural settings. In fact, in part because communities are so diverse, there is no universally accepted definition of *smart growth*. However, in its publication, *Smart Growth: Myth and Fact*, the nonprofit Urban Land Institute has identified common characteristics of smart growth:

- Development is economically viable and preserves open space and natural resources.
- Land use planning is comprehensive, integrated and regional.
- Public, private and nonprofit sectors collaborate on growth and development issues to achieve mutually beneficial outcomes.
- The development process is predictable or made to be so.
- Infrastructure is maintained and enhanced to serve existing and new residents.
- Redevelopment of infill housing, brownfield sites and obsolete buildings is actively pursued.
- Urban centers and neighborhoods are integral components of a healthy regional economy.
- Compact suburban development is integrated into existing commercial areas, new town centers or near existing or planned transportation facilities.
- Development on the urban fringe integrates a mix of land uses, preserves open space, is fiscally responsible and provides transportation options.

Sarah Spilman

Smart development preserves open space and recreational opportunities. Elm Creek Park Reserve, Hennepin County, Minnesota

MINNESOTA PRINCIPLES OF SMART GROWTH

- **Stewardship** - Manage land, water, air, energy and other natural resources wisely to sustain them for the future. The State of Minnesota will protect, conserve and restore the environment and agricultural land, wildlife habitat, wetlands, open space, surface and ground water quality and supplies, other conservation and recreational lands, and other natural resources to support activities in the state consistent with these principles. The state will conserve energy and expand development of renewable energy resources. The state will assist communities to maintain a unique sense of place and to respect and restore local cultural and natural resources. These steps will ensure that future growth is sustainable long term.
- **Efficiency** - Make efficient, integrated public investments in transportation, housing, schools, energy, utilities, information infrastructure and other public services. The State of Minnesota will coordinate and link its tax policies with public investments in transportation, information infrastructure, land use, housing, schools, energy and utilities so they expand economic opportunity for the entire state while protecting cultural and natural resources. The state will maintain and improve existing investments in roads, schools and utilities to avoid wasteful public spending. New public investments will be consistent with these principles and support sustainable economic development.
- **Choice** - Give communities Smart Growth options and choices. The State of Minnesota will work with local and regional governments to encourage citizen and business participation in decisions about growth. The state will help communities by providing incentives for linking housing, transportation, energy and utilities, commerce, jobs, education, open space and the other amenities that make communities desirable places to live.
- **Accountability** - Reinforce responsibility and accountability for development decisions. For Smart Growth to become a reality, government, businesses and individuals must make smart choices and take responsibility for the true costs and consequences of their decisions. The marketplace can be an effective force for Smart Growth, but only if state and local policies send consistent signals that protect the state's cultural and natural resources, governmental units coordinate regulatory decision-making and act in a timely manner, and if development decisions are predictable, fair and cost effective. The state will not subsidize land use and infrastructure decisions that are not consistent with these principles.
- **Prevention** - Prevent future costs and negative impacts. The state has a responsibility to avoid unintended consequences of its actions and to prevent future costs and negative impacts of its decisions on the environment and the livability of communities. The state must account for the long-term implications of its current actions and choose practices that eliminate or minimize future problems. The state will prevent pollution and waste of resources, minimize societal costs and stimulate economic growth by evaluating the full life-cycle costs and benefits of its decisions.

Source: Adapted from *Growing Smart in Minnesota*, Office of the Governor, October 1999.

Smart growth in Minnesota. The state's framework for action on smart growth, a work in progress, is laid out in *Growing Smart in Minnesota*. The framework was built around the idea that "some things must grow — jobs, productivity, wages, education, housing and recreational opportunities, savings, profits, opportunity and knowledge. Others — pollution, waste and poverty — must not."

MARKET-ORIENTED PLANNING

Market-oriented planning offers an approach to managing growth and development that emphasizes using the comprehensive plan as a flexible basis for reforming zoning codes so that developers can respond to shifts in consumer preferences.

A 1997 policy study by the Reason Foundation, *The Sprawling of America: In Defense of the Dynamic City*, describes seven principles that state and local governments can use to "ensure that economic growth is sustainable and land development is consistent with the goals and values of most residents and citizens." See the box, *Principles of Market-Oriented Planning*.

Taken together, the principles of market-based planning and smart growth may help a community set down the rules of the game for development without trying to plan exactly how the community will develop over time.

COMMUNITY-BASED PLANNING

The Legislature adopted the Community-Based Planning Act of 1997 — a voluntary approach to comprehensive planning — to promote greater citizen participation in local planning, encourage coordination among units of government and develop stronger partnerships between the state and local governments.

The act was based on the idea that communities should use local planning to engage citizens in shaping their future based on local values and as a way to prevent or minimize the unintended costs and consequences of development. In addition, it encouraged counties, cities and townships to jointly participate in establishing urban growth areas to manage future land uses, provide for the timely and efficient placement of public infrastructure and serve as the basis for future annexations.

Although the Legislature repealed the act, effective July 1, 2001, a number of its key provisions are worth mentioning and could continue to guide local governments in their comprehensive planning efforts. In particular, the act established 11 broad planning goals to define the public interest in local planning. The goals, also meant to guide state decisions, are presented in the box *Goals of Community-Based Planning*. By the date of the law's repeal, 17 counties and about 150 cities and towns had engaged in community-based planning.

SUSTAINABLE DEVELOPMENT

Sustainable development is thinking and acting long term about the future in a way that connects economic, environmental and social conditions. For a business, this might mean deciding to manufacture a product in a way that makes the most of the energy, land and materials used – that is, in a resource-efficient as well as economical way. It also might mean taking responsibility for the product from its birth to its death. For a community, this might mean deciding to act in ways that make the most of its energy, land and resources while taking responsibility for ensuring that its actions and choices contribute to

PRINCIPLES OF MARKET-ORIENTED PLANNING

- **Pursue economic neutrality.** This means not using subsidies to favor one industry over another. For example, this might mean rejecting the use of tax increment financing to lure new businesses into a community at the expense of existing ones.
- **Price on-site public services at their full cost.** Local governments should collect from developers and residents the full costs of providing on-site services, including capital costs. This could be accomplished, for example, by charging new developments the marginal cost of the burdens they may impose on a community and not merely the cost averaged over the community at large.
- **Reform zoning to accommodate market trends.** Reforms could include allowing mixed uses and higher densities and adopting performance zoning to streamline the development process so that projects meeting specific outcomes could proceed more easily.
- **Use flexible, voluntary programs to protect open space.** For example, farmers could be offered a tax credit for voluntarily removing their land from development for a fixed period of time, often between 10 and 90 years. Such approaches allow communities to adjust their priorities over time as conditions and preferences dictate.
- **Enforce private-property rights.** A well-defined system of property rights increases the predictability of development and is necessary for the smooth functioning of real estate markets.
- **Adopt nuisance-based standards for land use regulation.** Development often has spillover effects that impact other residents or other jurisdictions. Such "nuisances" include congestion, noise and loss of open space. This approach to land regulation allows local officials to directly address impacts of development that are negatively affecting others rather than being forced to accept certain developments because they meet the zoning requirements for a particular area.
- **Facilitate change and community evolution.** The community would have policies in place that allow it to adapt and change to new demands. Such policies might include focusing on the actual impacts of development rather than specific land uses and using planning largely for public infrastructure investments, relying on performance zoning and resident preferences to dictate how the community evolves beyond that.

Source: *The Sprawling of America: In Defense of the Dynamic City*, The Reason Foundation, 1997.

Well maintained older homes provide character and affordability.

Carole Zellie

achieving the community's desired future. When viewed this way, sustainable development is more than just a "planning concept." That is why the Legislature directed that this guide follow the principles of sustainable development.

Conventional wisdom has held that a community must balance environmental quality and community character against economic growth, as if these were conflicting objectives. The goal of sustainable development, in contrast, is not to balance environmentally damaging activities with environmental protection but to move toward technologies, development patterns and daily practices that are, by their nature, good for people, business and the environment over the long term. A sustainable community is one that can persist over generations. It functions in ways that do not undermine its economic, environmental or social health, or that of other communities.

Minnesota Statutes, Section 4A.07 defines sustainable development as that which "maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend." This is not a new idea. Minnesotans have understood for some time that people's needs must be met in ways that are good for communities, profitable and compatible with nature. One of the first calls for sustainable development appeared in 1973 as part of the Minnesota Environmental Policy Act (Minnesota Statutes, Section 116D.02): "It is the

11 GOALS OF COMMUNITY-BASED PLANNING

1. **Citizen participation.** To develop a community-based planning process with broad citizen participation in order to build local capacity to plan for sustainable development and to benefit from the insights, knowledge and support of local residents
2. **Cooperation.** To promote cooperation among communities to work toward the most efficient, planned and cost-effective delivery of government services
3. **Economic development.** To create sustainable economic development strategies and provide economic opportunities throughout the state
4. **Conservation.** To protect, preserve and enhance the state's resources
5. **Livable community design.** To strengthen communities by following the principles of livable community design in development and redevelopment
6. **Housing.** To provide and preserve an adequate supply of affordable and life-cycle housing throughout the state
7. **Transportation.** To focus on the movement of people and goods, rather than on the movement of automobiles, in transportation planning, and to maximize the efficient use of the transportation infrastructure
8. **Land use planning.** To establish a community-based framework as a basis for all decisions and actions related to land use
9. **Public investments.** To account for the full environmental, social, and economic costs of new development
10. **Public education.** To educate people about communities' and the state's finite capacity to accommodate growth, as well as the need for planning and resource management
11. **Sustainable development.** To provide a better quality of life for all residents while maintaining nature's ability to function over time

Source: *Laws of Minnesota 1997*

continuing policy of the state government to use all practicable means and measures to create and maintain conditions under which human beings and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations."

Simply posing the question "Is this activity sustainable over the long term?" can be a revealing way for a community to evaluate the direction it is heading and chart a new one, if necessary. A community aware of the need for sustainable development is less apt to see economic, environmental and social issues as separate and unconnected. Instead, it is more likely to recognize and think through the long-term, often unintended, consequences of a given decision, policy or activity.

No two places have exactly the same resources, ecology, values, geography, businesses or cultures, so what is sustainable in one place may not be in another. Communities that are sustainable places to live and work, however, share some general characteristics. Based on research conducted by the Minnesota Round Table on Sustainable Development and on the experiences of communities around the country, these characteristics are listed in the box *Ten Things Sustainable Communities Do.*

THE COMPREHENSIVE PLAN

A comprehensive plan is a kind of business plan for the community. Similar to a good business plan, an effective comprehensive plan includes careful analysis of demographic data and other information on current conditions and trends affecting things important to the identity and livability of the community. The plan identifies a clear and compelling vision of the community's future, comprehensive goals, and specific policies, strategies and action steps for implementing the strategies and meeting the vision and goals.

Developing a comprehensive plan that expresses community values and sets clear policies for development is a good community investment. The comprehensive plan allows a local government to set well-founded priorities for investing scarce resources, establish long-range policies that guide day-to-day actions and develop publicly supported guidelines for making tough decisions.

For example, local decision-makers can use the plan to guide their evaluation of a particular development proposal, such as for a new school or shopping mall. The plan can and should guide the preparation of development controls, such as zoning or subdivision regulation, and various incentive programs or educational efforts. It also can inform how a local government allocates funds for public improvements and where it might best invest in sewer extensions or new transportation options for the elderly.

The plan also serves an educational function by making citizens more aware of their community, how it is structured, how it is changing, what its major problems are and what needs to be done to remedy those problems. It is a statement of community intentions, setting forth major policies concerning desirable future development on behalf of the common good.

10 THINGS SUSTAINABLE COMMUNITIES DO

- Promote informed decision-making.
- Maintain natural and cultural assets.
- Promote local and regional economic prosperity.
- Promote a mutually supportive network of businesses.
- Account for the full environmental, social and economic costs of new development.
- Plan, finance and provide public facilities and services in a timely, orderly and efficient way.
- Develop a balanced transportation system that offers people choices in meeting their diverse needs and energy-efficient, low-cost modes of travel.
- Use natural resources in a way that sustains them over time.
- Foster livable communities.
- Preserve community character.

CHIEF COMPONENTS OF A COMPREHENSIVE PLAN

Although Minnesota law provides different requirements for various units of government, some important components of a comprehensive plan include:

A vision statement. This describes what residents want their community to be like in the future.

Statements of goals and policies. These lay out the framework for how a community will achieve its vision. The goals describe the ultimate ends of a community in pursuit of its vision (e.g., affordable housing for all or a balanced transportation system). The goals may not always be achievable, but they set a challenging "high bar" toward which a community can work. Policies are the principles or courses of action that guide a community's actions in pursuit of its goals. Together, the vision, goals and policies provide the foundation, or policy framework, for everything else in a comprehensive plan.

Strategies for achieving the goals and vision. Strategies are the steps a community will take, consistent with its policies, to achieve its goals and vision. They should have measurable objectives and definite time frames. A community should pick those strategies that offer the greatest long-term benefits at the lowest long-term cost.

Information to inform decisions. Surveys, studies and other information about existing conditions tell a community about its overall health and how it may be changing. Background data should cover the community and its area of influence and include major aspects of a community's physical (including environmental), economic and social conditions and trends. This is the information that helps a community define its assets and challenges, and develop its vision, goals, policies and strategies. This element can serve as a stand-alone plan document, as well as reference for a comprehensive water plan, transportation plan, recreation plan, zoning ordinance or other implementation effort of a community.

A land use element. This element guides future development of public and private property to implement a comprehensive plan's goals and policies. It should designate allowable land uses, as well as lay out specialized plans for specific areas or specific types of land uses. A land use element may also identify development densities acceptable to a community.

An implementation element. This element describes the recommendations, timing, cost, resources and steps needed to implement the various aspects of a plan. This should include performance measures that allow citizens and others to track how well a community is doing in implementing its comprehensive plan.

Many communities may see the need to address what, for them, seem like new issues, whether that means tackling historic preservation, housing, intergovernmental cooperation, natural resource stewardship or energy. Sometimes, these issues can have just as profound an effect on a community's character as the more traditional elements of economic development, land use and transportation. The appendix includes a table covering the various planning duties of cities, counties and townships.

Carole Zellie

Public art invites people to explore Lake Superior's myths and realities. Canal Park, Duluth, Minnesota

OTHER TYPES OF LOCAL PLANS

In addition to a comprehensive plan, many communities develop special, more detailed plans, many of which emphasize specific implementation strategies and programs. A comprehensive plan guides and helps shape these special plans. Linking

and coordinating special plans and programs with a comprehensive plan will minimize duplication of effort. Recognizing other local plans in a comprehensive plan also will facilitate the management and implementation of those plans.

This guide focuses on the comprehensive plan, but a community may choose to develop a number of related plans, depending on its needs.

- **Land use plans** focus primarily on physical land use issues and can form the basis for community zoning ordinances. Although land use plans can be freestanding documents, they are most effective as part of a comprehensive plan.
- **Comprehensive water plans** focus on water issues of a county, including objectives for future development, use and conservation of water and related land resources – both ground water systems and watersheds. Watershed districts and soil and water conservation districts also develop water-related plans. In the seven-county metropolitan area, watershed management organizations develop surface water management plans while counties develop ground water plans.
- **Solid waste plans** determine how a county and local governments will reduce, reuse, recycle, collect and dispose of solid waste.
- **Capital improvement plans** guide spending on specific infrastructure elements, such as parks, roads, and water management, wastewater and drinking water facilities. A capital improvement program includes a proposed schedule and priority of all capital improvements to be implemented during a specific period of time, along with cost estimates and anticipated means of financing. The comprehensive plan provides the basis for and guides development of a capital improvement program.
- **Hazard mitigation plans** evaluate and rank the major natural, technological and domestic preparedness hazards affecting a community and recommend strategies for reducing their actual threat by limiting the impact of damages and losses. Communities are encouraged by the Federal Emergency Management Agency to prepare mitigation plans before disasters strike, and in certain cases may be required to have one before receiving disaster assistance.
- **Strategic plans** are perhaps more often associated with the private sector, but they can be very useful in helping a community analyze its strengths, weaknesses, opportunities and threats. This analysis helps a community understand how it relates to the larger world and how best to position itself for the future.
- **Corridor plans** focus on specific corridors that transcend political boundaries, such as the land along a stretch of highway, a recreational trail, a river or other open space. A transportation corridor plan, for example, involves detailed analysis of the existing and future land uses, as well as the resulting transportation needs in the defined area. Again, corridor plans should be developed or used in conjunction with a comprehensive plan. Planning for any one aspect of a community in isolation from other aspects can lead to unintended and sometimes costly consequences.
- **Neighborhood plans** are often developed for a geographic area smaller than an entire jurisdiction, which means that they are most often done in larger cities. Through this more geographically focused planning effort, strategies in the plan can be made specific to the situations and needs of particular neighborhoods.

REALITY CHECK ON A COMPREHENSIVE PLAN

Does it:

- Use common sense?
- Balance public interests with the interests of individual property owners and businesses?
- Encourage flexibility in the means of achieving community goals while avoiding overly strict or prescriptive approaches?
- Meet its intended public purpose?
- Guide development to fit the community's vision and avoid or mitigate negative effects?
- Include a means of implementation, monitoring and enforcement, and a process for plan evaluation, review and updating?

BASIC PLANNING STEPS

Whether a community is beginning a planning process for the first time or has a history of planning, it is important for people involved to understand the basic steps of community planning and communicate them to others. These steps, however, have as many variations as there are types of plans. Communities should make adjustments as necessary to fit their situation, capabilities and resources. Also, it is important to realize that some steps in the process should be taken simultaneously and that while planning may seem linear, it is actually a cyclical, iterative process. Perhaps the most important reminder is that there is no one right way to plan.

Each of the following planning steps will be discussed in more detail in later chapters of this guide.

Getting started

- Considering the commitment
- Establishing the structure for planning
- Marshalling resources
- Developing a plan for public participation

Assessing the state of your community

- Creating a community profile
- Establishing two levels of a community inventory
- Identifying community assets and challenges

Setting a community's course

- Creating the vision
- Setting goals
- Developing policies
- Identifying community progress indicators

Developing strategies

- Identifying a range of alternative strategies
- Evaluating alternatives and understanding interconnections
- Selecting preferred strategies
- Setting priorities

Implementing a comprehensive plan

- Drafting or changing ordinances and tax and investment policies
- Implementing policy through administrative actions and programs
- Monitoring progress with community progress and plan implementation indicators
- Adjusting plan as needed

CHECKLIST OF BASIC PLANNING STEPS

Preparing to plan

- ❑ Make a decision to plan and commit resources
- ❑ Hold public hearing
- ❑ Pass a resolution
- ❑ Establish leadership and staffing
- ❑ Establish a budget, work program and timeframe
- ❑ Hold an initial planning meeting and celebrate the start of the process

Assessing your community

- ❑ Gather background data
- ❑ Review plans and ordinances
- ❑ Develop detailed information about issues
- ❑ With public involvement, identify the key issues to be addressed

Developing the plan framework

- ❑ Engage the public at each step
- ❑ Develop the community's vision
- ❑ Develop the goals
- ❑ Develop the policies
- ❑ Identify community progress indicators

Developing strategies

- ❑ Engage the public at each step
- ❑ Identify a range of alternative plan elements
- ❑ Evaluate alternatives and select preferred plan elements
- ❑ Draft plan of action, including implementation steps and indicators
- ❑ Give final approval once comments are addressed

Implementing and monitoring

- ❑ Engage public in key steps
- ❑ Draft or change ordinances, tax and investment policies
- ❑ Implement policy through administrative actions and programs
- ❑ Monitor community progress and plan implementation indicators
- ❑ Adjust plan as needed

Getting Started

GETTING STARTED

Like yeast for bread, a comprehensive planning process requires a "starter." This can be a jurisdiction's elected leader or governing body, a planning commission or a group of concerned citizens that sees planning as necessary to taking some responsibility for the future of their community. Without a nucleus to take the initiative and provide leadership, nothing is likely to happen.

A community planning effort can take many forms, but there are a few key factors that seem to determine the ultimate success of a planning process. If the nucleus of interest and the will exist, these factors will help a community succeed in planning for its future.

Many factors affect the chances of developing a successful comprehensive plan. These include the extent to which a community-wide commitment to planning is made and the public engaged, and the efficiency with which resources are marshalled.

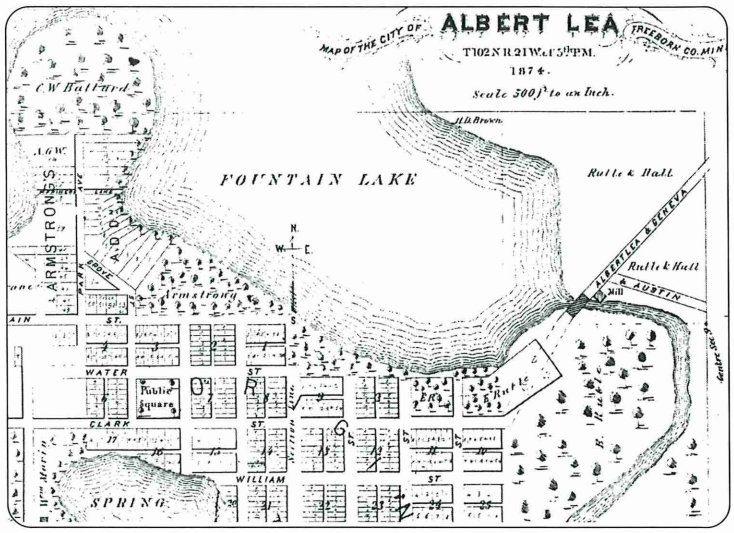
Engaging the public is a theme that is repeated throughout this guide; good sources of information on how to do this are provided in this chapter and in the appendix. As was noted in Chapter 1, *Considering the Opportunity*, good community planning is a "bottom up" effort. Community participation and input in developing a plan leads to acceptance and support for it. The finest comprehensive plan in the world – even if one could be developed without community involvement – is meaningless without community acceptance and support.

CONSIDER THE COMMITMENT

Community commitment to developing a plan is critical not only to the process but also to implementing the results. To make an informed decision about launching a planning initiative, local officials and other community leaders need to educate themselves about the process. They should understand the time and resources it will take and what a plan's likely outcomes and benefits will be. They should discuss this information with the community so that people know what to expect and can reach an understanding about the need to plan.

DECIDE WHY AND TO WHAT EXTENT TO PLAN

The decision to move forward should be based on whether the concerns of the community can best be addressed through planning. The following issues should be considered:



Minnesota Historical Society

Maps document a community's plans and visions. Albert Lea, Minnesota, 1874

A vision for the future. Does the community have a sense of the future? Does it see the need to shape the future, or is it content with letting outside forces shape it?

Changes in a community. A major change in a community, such as a new road, expansion or loss of a major business, or a rapid increase in development pressure, may prompt a decision to plan or to update a plan. Sometimes the "major change" is the subtle accumulation of many small changes, like the spread of new homes around community lakes. Changing demographics also can trigger new needs: for example, a new demand for schools or senior citizen housing, or an emerging threat to agricultural lands or sensitive areas. Such changes usually warrant a decision to plan.

Changes in federal or state law, new government programs or a court decision invalidating an ordinance. Because a plan serves as the legal basis for a community's zoning and subdivision ordinances, changes in laws, government programs and policies, or court decisions may require updating a plan. A community with ordinances but no viable plan should also take note of the need for a plan.

Age of an existing plan. A community with an existing plan should consider regularly updating its plan. If a community is changing rapidly, updates should take place at least every five years. In other communities, every 10 years may be adequate.

This guide strongly encourages a community to conduct an annual review of its plan. An annual review will ensure consistency between the plan and the day-to-day decisions a community makes in implementing ordinances. The review also can highlight areas of a plan that may need to be changed.

When being updated, the entire plan should be evaluated, rather than just one or two sections. Many elements of a plan are interrelated. For example, reclassification of a state trunk highway might at first appear to impact only a community's transportation plan. However, adjustments to the local road network plan to accommodate the change may significantly affect adjoining properties and may require re-examining and possibly reworking the land uses planned along the roadway. In turn, other community elements may be impacted, such as the local public infrastructure, adjacent land owners, land uses and property values, and sometimes even community character.

TIPS FOR SUCCESSFUL COLLABORATION

- Build positive relationships with leaders of other communities in the area.
- Start small because regional collaboration is more likely to succeed if communities first build a track record of successful cooperation, and that is easier to do on a small scale.
- Encourage local elected officials to think about their community's natural ties to neighboring communities, that is, to think regionally.
- Invite leaders from the business and civic sectors to take a lead role.

DECIDE HOW TO COORDINATE WITH OTHER JURISDICTIONS

Land use and growth issues seldom follow neatly drawn governmental boundaries. A community should consider including neighboring jurisdictions in the network of interests they involve as part of any new planning process. Decisions made in one community can affect, for example, the economy, water resources or traffic patterns of another community. Neighboring communities should, at the very least, discuss their planning efforts with one another. Involving neighbors can be mutually beneficial. Keeping other communities informed is as simple as sending out notices and planning documents, and inviting them to be part of the planning effort.

Sometimes participation of other units of government should be more formal. In those cases, legal arrangements may be necessary to expedite intergovernmental cooperation. See the section on joint planning for a discussion of the steps for formally establishing a joint planning effort.

HOLD A PUBLIC FORUM OR HEARING TO AFFIRM COMMUNITY SUPPORT AND COMMITMENT

Although not required by law, holding a public forum or hearing before beginning planning will enhance the process. Interested citizens should be given an opportunity to express their views about the need, process and initial steps of planning.

Good public meetings do not just happen. Many steps must be taken in preparation. First, the date, time, location and purpose of the meeting must be well

publicized. To ensure that the full range of a community's diverse membership participates, invitations may need to be issued to specific people and interests. The box lists some of the people and interests that might be invited.

Participation by representatives of various community interests is essential as the planning process proceeds, and the start of a planning process is the time to begin involving them.

PASS A RESOLUTION

If, after hearing from the public, a community decides to move forward with a planning program, the local government should pass a resolution articulating why the decision to plan is being made and what it hopes to address by the planning effort. This also formalizes the intent to plan. With the passage of an official resolution, the comprehensive planning process becomes a recognized and formal program. If joint planning is to be undertaken, each community should pass a resolution committing to the process.

PEOPLE AND INTERESTS TO ENGAGE IN COMMUNITY PLANNING

- Business people
- Organized labor
- Government officials
- Energy, communications and water utilities
- Realtors and real-estate developers
- Chamber of commerce members
- Newspaper editors and publishers and area media representatives
- Political party representatives
- Service group leaders
- Minorities
- Retirees
- Young people
- Teachers
- Religious leaders and congregations
- Health and social service professionals
- Newcomers
- Special occupational groups such as loggers, miners, farmers and ranchers
- Leaders of environmental groups and other nonprofit organizations
- Neighborhood groups and activists
- Artists and craftspeople
- Cultural and historic associations

Minnesota Historical Society

Involving community leaders is crucial. International Order of Good Templars, Maulung, Minnesota, ca. 1900

ESTABLISH THE STRUCTURE FOR PLANNING

Involving community leaders is crucial to the effectiveness of any local planning effort. Without their participation, a planning program is likely to fail, regardless of its other strengths.

Good community leaders have the interest, background and skills necessary to represent the diverse interests of a community. They understand trends, listen to citizen desires and concerns, and assess constraints and opportunities. Like other people, they have jobs, families and avocational interests, so they cannot be expected to devote their time and energy to a planning effort that is not well organized.

A planning process can engage citizen leaders through the planning commission, a joint planning effort, advisory committees or a special comprehensive plan commission.

PLANNING COMMISSION

A local government is not required to establish a planning commission. The law governing cities and townships authorizes these units to establish a "planning agency" – either a planning commission or staff – and requires the agency to prepare a comprehensive plan, and review and comment on any plan amendments before the plan is adopted by a council or board.

Cities and townships that have not done so should create a planning agency before starting work on a comprehensive plan. Historically, most local governments, including counties, have chosen to form a planning commission because they see important benefits in doing so.

A planning commission advises the locally elected governing body. It initiates and proposes courses of action for the elected body to consider and drafts a comprehensive plan. A commission may also be responsible for:

- Developing the other plans and studies that either inform or are integrated into a comprehensive plan (e.g., solid waste and transportation plans)
- Developing the regulations, ordinances and capital improvement programs necessary to implement a plan
- Drafting or redrafting the zoning and subdivision ordinances and procedures needed for land use permit applications

A local government may also choose to use or rely on other advisory bodies to aid in community planning, whether or not the community has a planning commission. If a planning commission exists, it is a good idea to evaluate how well the commission is working and whether or not it is in a position to take on a communitywide planning effort. The following questions may be helpful in this assessment:

- Does the planning commission's current workload allow it to spearhead the additional work of an important planning effort?
- Does the planning commission well represent the full range of interests in the community?
- Has the planning commission had to devote a great deal of attention to regulatory matters, which might make it difficult to engage the community in planning issues?

Answering no to either of the first two questions or yes to the third may mean that a new organization might be better able to tap the enthusiasm and expertise of a community's residents.

If no planning commission exists and the decision is made to have one help develop a comprehensive plan, a local government should adopt an ordinance governing its establishment. The following can help guide how this is best accomplished and implemented:

Meet with the public. As with the initial decision to launch a planning effort, it is a good idea to hold a public meeting concerning the proposed ordinance establishing a planning commission.

Adopt key elements in an ordinance. An ordinance should include a statement that the local government is establishing the planning commission; a description of the commission, including its purpose, size, organization and bylaws (which may be developed by the commission after it is formed); and a description of the powers and duties delegated by the local government to the commission.

Appoint commissioners who will deliver results. An important first step in finding good volunteers is to develop a brief job description that describes a commissioner's duties and estimates the time necessary for carrying them out. The application process should be open to all members of the public. Openings should be advertised in various media, including a community's official newspaper. Officials might also encourage qualified individuals to apply.

Ask interested individuals to submit an application that includes a brief biography and a statement of why they would like to serve on the commission and what they feel they would bring to the table. Set a reasonable deadline by which candidates must apply.

After the applications are collected, the governmental body may choose to interview all applicants or just those who stand out. Ideally, the entire governing body should be involved in the interviews, but in larger communities, the interview process may need to be delegated to a subcommittee.

Commission appointments should reflect the interests and diversity of a community. A commission should have broad-based representation, and the people selected should be committed to the welfare of the community as a whole. Like other public officials, planning commissioners must be willing to work with others and compromise when necessary to achieve public goals. They also must have the time and energy necessary to prepare for and participate in commission meetings.

Once a governing body has come to agreement on which candidates to select, it should send letters inviting them to serve on the planning commission. The body may want to select a few alternate candidates in case some of the selected applicants turn down the invitation to serve. Once the slots on the commission are filled, the governing body should send a letter of notification to the appointees and a letter of thanks to those not selected, encouraging them to get involved in other ways.

Once the commission is appointed, it is helpful to hold an organizational meeting to orient new members. In fact, an annual organizational meeting following new appointments will make the commission function more efficiently. The organizational meeting is an opportunity to take care of the following business:

Elect officers. The commission will need to elect a chair, vice chair and secretary.

Establish bylaws. Because planning commissions are legally constituted bodies, they should function according to a set of bylaws. Bylaws should enumerate delegated authorities, membership terms and responsibilities, the duties of officers, staffing and staff responsibilities, and procedures or policies for elections, meetings, orders of business at regular meetings and hearings. Legal counsel can be helpful in crafting the language.

Review existing planning tools. If a commission already exists, new members should review its bylaws, as well as the community's comprehensive plan, capital improvement program and land use ordinances (zoning, subdivision, parking, signage, etc.). They also should familiarize themselves with any special studies used in reviewing land use applications, such as soil surveys, facilities plans and plans from other levels of government that may affect local decisions.

BEING A RESPONSIBLE COMMISSIONER

Serving on the planning commission can be overwhelming to new members. The following tips from the America Planning Association may help commissioners adapt to their new responsibilities.

- Meet with the community planner to determine his or her vision for the commission.
- Discuss the value of community plans, visions and strategies.
- Review the commission agenda.
- Request copies of reports and additional information as you need it.
- Read and absorb.
- Master the rules of procedure.
- Set aside time for brainstorming and long-range thinking.
- Meet with the local governing body at least once a year.
- Publish an annual report.
- Continue to learn and keep an open mind.

Get oriented. A representative from the governing body should review the governing body's expectations of the planning commission – in this case, about the comprehensive planning process and the community's goals and expectations for it.

Receive training. Commissioners should be given access to training and materials to help them understand the law, the planning process and the role of the commission. Minnesota Planning has an extensive collection of planning books, periodicals and audiotapes available through interlibrary loan. Local government associations – the League of Minnesota Cities, the Association of Minnesota Counties and the Minnesota Association of Townships – and the Government Training Service also have training programs and materials.

JOINT PLANNING

The points discussed in the section above on deciding to coordinate with other jurisdictions also apply here. The steps to formally establish a joint planning effort include:

- Invite all appropriate planning and elected bodies to an informal discussion to determine whether a joint planning effort would benefit the communities and to outline the elements of an initial agreement or resolution.
- Develop a formal participation structure by determining such things as which persons or parties are necessary participants, how the parties will ensure appropriate and fair representation, where administrative support will come from and how the planning effort will be funded.
- Draft a joint powers agreement, which is usually the best way to manage any joint funding considerations. The agreement should include provisions for funding and any objectives or organizational concerns, including management structure; meeting schedules; membership and representation of governmental units; subcommittees; powers and duties; conditions for termination; and the effective date of the agreement.

Jack Flynn

Involving many different people and interests ensures broad support for a community's plan.
Minnesota State Fair

- Each participating government must approve and execute the agreement. Individual governments may want to hold separate community meetings to discuss terms of the agreement before signing.

ADVISORY COMMITTEES

Local governing bodies, sometimes with the help of planning commissions, often create advisory committees that can gain a more in-depth understanding of a particular issue or set of issues, or advise on the overall planning process, reporting back to the full planning commission or the governing body, as appropriate. An advisory committee should be of a workable size, ideally no more than 15 people. Members should have the necessary time, expertise and desire to work closely with staff or consultants. Just as with a planning commission, an advisory committee should represent the various sectors of a community.

In some cases, a subcommittee of the planning commission may serve this function. This can be advantageous because planning commissioners will already be familiar with community plans and ordinances. Commission members also would have already made a commitment to serving the community and would have set aside time for this purpose. However, the planning commission sometimes represents a smaller cross-section of a community than a committee created specifically for a given planning process, and more of the community can be

involved and represented in the planning process by forming an additional committee.

Many communities in Minnesota have used advisory committees to great effect. For example, when Roseville updated its comprehensive plan in 1993, it began the process with what it called the "Vista 2000" visioning process. This process established several committees in specialized, core-issue areas to facilitate faster progress on defining the vision. Each committee developed the vision and goals for its corresponding issue area and then passed the work to the planning commission to develop more specific goals and action steps related to the community's land use and infrastructure plans.

SPECIAL COMPREHENSIVE PLAN COMMISSION

An alternative approach is for the governing body to appoint a special commission of citizens to develop a comprehensive plan or update. The special commission could include members of the governing body and planning commission representatives, as well as representatives of various community interests. With this kind of structure, the final product is most likely to reflect the community's values and dreams and have community support.

Regardless of the organizational approach selected, the American Planning Association's "Tips on Building Better Commissions" offers helpful advice.

TIPS ON BUILDING BETTER COMMISSIONS

- **Seek a representative cross section of the community.** Think both in terms of geographic area and background.
- **Select individuals with an interest in the future of the community.** They must understand the art of compromise and demonstrate an ability and willingness to work with others.
- **Tap a few individuals with training or an interest in building and development.** Engineers, architects and realtors are often valuable resources to a committee. Such folks, however, may have conflicts of interest that might disqualify them if they are actively involved in development in the community. If a conflict involving a commission member develops, the individual should recognize his or her obligation to withdraw from participating.
- **Get representation from major players in the community.** This might include a large employer or banker. But representatives who will not play an active role in the committee or who will dominate or intimidate others should be avoided.
- **Select individuals whose integrity and judgment is respected.** They must have the time and interest to do the work. People who are not likely to attend meetings, participate or read what is required should not be appointed, regardless of who they are.

Source: America Planning Association

Editor's note: In Minnesota, counties are prohibited from appointing land developers to a commission.

MARSHALLING RESOURCES

Once a community has made its commitment and selected the vehicles it will use to guide planning, it must marshal resources to do the job. It must decide how to staff the project, including whether or not to employ consultants to supplement in-house expertise, and it must determine how and how much to fund the project. Then, it must adopt a work plan that lays out the steps the community will take to develop its plan.

ESTABLISH STAFFING

Successful planning requires good staffing and support. Skilled professional staff must identify and compile needed information, supervise contracts, engage citizens, conduct research, analyze issues and solutions, facilitate visioning and the development of goals and policies, and draft plan elements as indicated by the planning committee or governing body. With the help of support staff, they must organize meetings, prepare agendas and notices, and do all the countless tasks necessary for making a planning process run smoothly. While some smaller communities may be able to prepare an effective plan with the knowledge and expertise of local leaders, planning commissioners, residents and existing staff, the issues in many communities are sufficiently complex to warrant securing outside technical expertise.

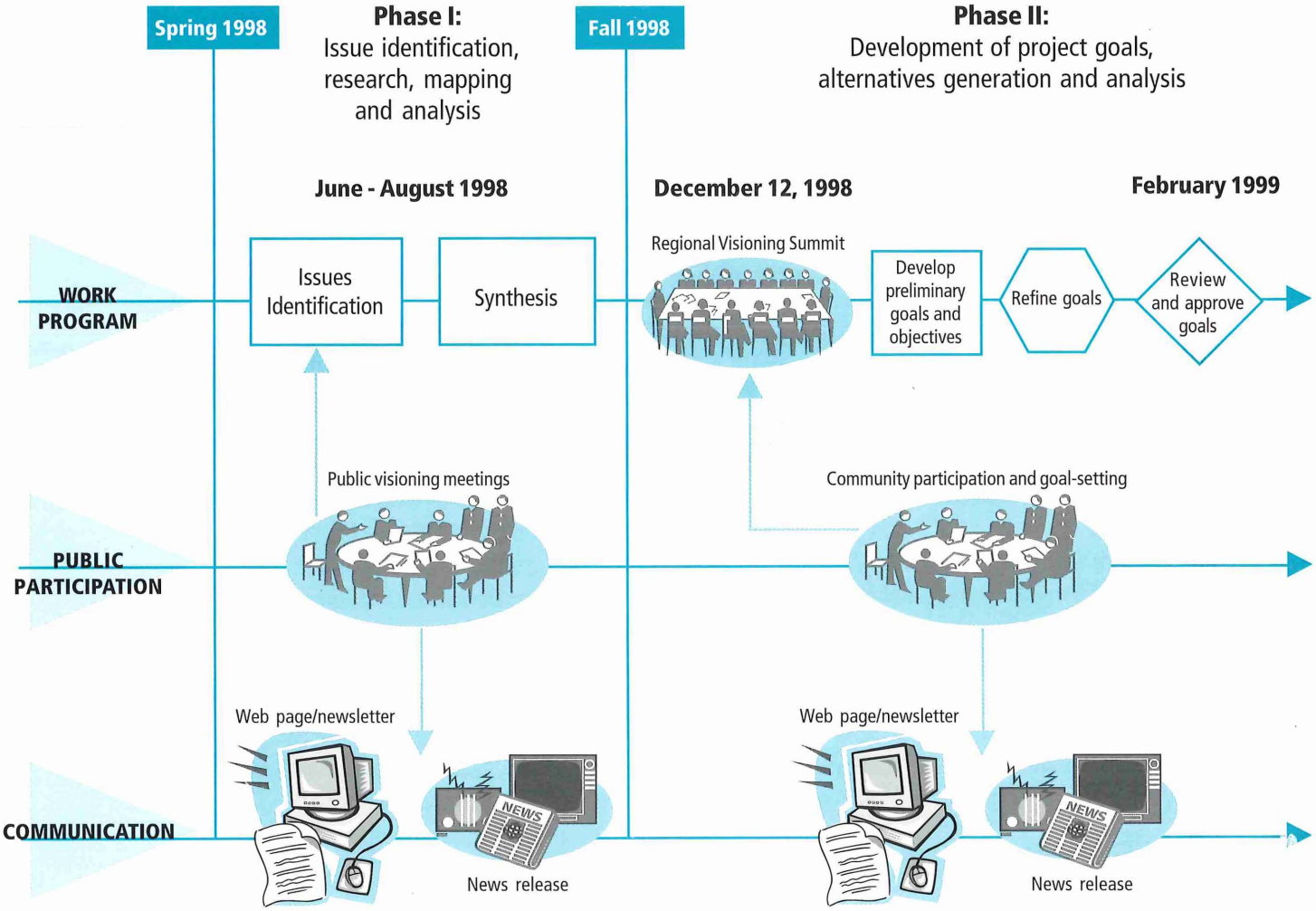
Designating the project director and staff planning team. In most cases, a community's planning department should take the lead technical and coordinative role on the project, while other key staff, such as a city engineer, parks director, economic development coordinator and finance director, should contribute their interests and expertise throughout the process as part of a staff planning team. The active participation of these other experts is essential, since the final plan will affect and, perhaps, govern their activities and they will be expected to play a key role in carrying out elements of the plan.

Communities also can take advantage of outside technical expertise by tapping into the resources of regional development commissions, county extension agents, soil and water conservation districts, watershed districts or water management organizations, and state agency staffs in area, regional or central offices.

The state has initiated a Local Solutions Alliance to help communities tap state resources in an integrated way. State agencies work in unison to provide the full range of help a community needs, without requiring that community to deal separately with numerous individual agency representatives. The point is to package state help in the way a community needs it.

PROPOSED WORK PROGRAM ST. CLOUD AREA JOINT PLANNING PROJECT

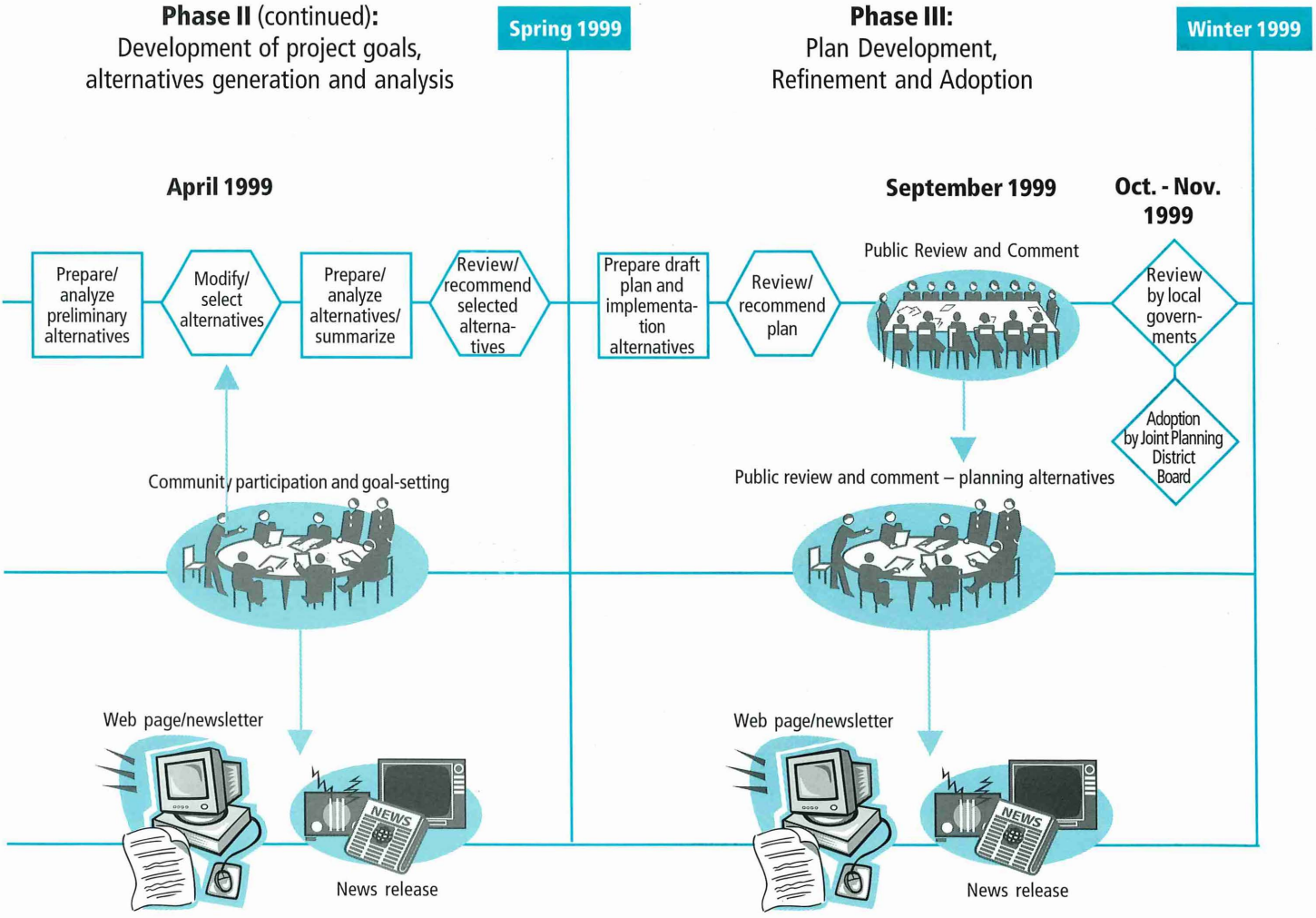
Source: Dahlgren, Shardlow and Uban



Most communities need professional assistance with at least part of the comprehensive planning effort. This assistance gives a community an outside perspective and brings in expertise that may not exist in the community. Communities can get this assistance in a number of ways. One option is to contract with professionals from a higher level of government (e.g., a city or town may contract with a county or a regional development commission). Others are to tap the services of local and regional nonprofit organizations or a local college or university, or to hire a private consultant.

Hiring a consultant. Hiring a consultant involves issuing a request for proposals. The best proposals are specific about the community's goals but general enough to allow responders to offer innovative suggestions. Generally, consultant proposals should include at a minimum:

- A clear picture of how the consultant will approach the project and interact with staff and community officials
- A work plan and budget for the project, including a timeline for public and joint planning staff meetings and milestones, as well as a breakdown



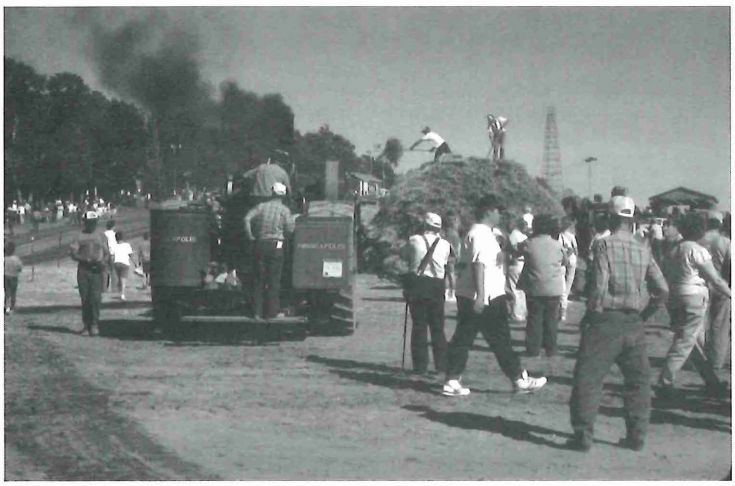
of the work assignments and timing, time commitment and cost of each of the consulting firm's assigned staff and any subcontractors
- A detailed description of the objectives and content of products to be produced
- Samples of work done by the consultant and any subcontractors, and a description of the experience, education and expertise of consultant staff and subcontractors
- A list of communities with which the consultant and subcontractors have worked

Candidates should be interviewed before making a hiring decision, especially if a community expects the consultant to facilitate the planning process. A community may want to interview two or three consultants using a standard set of questions.

DEVELOP A BUDGET FOR THE PLANNING PROCESS

Because comprehensive planning can be relatively expensive, a community should have a realistic estimate of the costs and know how it will cover those costs before beginning. When estimating planning costs, a community should consider the need for:

- Staffing and related administrative needs, including computers and computer software
- Training for government officials, staff and volunteers involved in the process
- Legal, planning and engineering assistance to develop the plan and implementation tools
- Collecting the information needed to prepare a good base map, a land use inventory, a natural resource inventory, an infrastructure analysis, a survey of housing types and conditions, and so forth
- Purchasing data or interpretive services from consultants or fee-for-service organizations, such as Minnesota Planning's Land Management Information Center
- Paying for overtime and travel expenses for officials and staff
- Photocopying, mailing and delivering planning products
- Advertising meetings and planning documents in flyers, legal notices, newsletters and newspapers or other media
- Developing and maintaining a Web page
- Providing meeting needs, such as food, audiovisual equipment and room rental



Jack Flynn

Celebrations help mark progress and maintain enthusiasm.
Western Minnesota Steam Threshers Reunion, Rollag, Minnesota

To better understand the costs of comprehensive planning, Minnesota Planning in 1998 surveyed all Minnesota counties that had undertaken comprehensive planning activities during the previous five years. The survey found that the cost of planning was largely determined by the services provided and the analysis done in planning. A rural county generally required a minimum of $50,000 for comprehensive planning; a county with both rural and urban issues required from $150,000 to $200,000; and an urban county required $200,000 or more. The cost of a comprehensive plan likely would be higher today, especially if the plan covered the full range of issues presented in this guide.

DEVELOP THE WORK PLAN

Once a community has established its leadership and staffing, it is time to develop a work plan. This often takes place in a series of steps, beginning with a preliminary outline of a plan of study and progressing to a detailed and well-considered program for plan development. The final work plan should set forth

how specific phases or steps of planning, such as collecting and analyzing information, defining issues and setting vision and goals, will be addressed. A good work plan is broken down into small steps with identifiable outcomes. It also includes a timeline of public meetings and project milestones, along with a description of the staff and committees assigned to various aspects of a project. If a community has hired outside assistance, the consultant – with community input – may assist with this task.

DEVELOPING A PLAN FOR PUBLIC PARTICIPATION

One of the most powerful ways to ensure broad and ongoing support for a comprehensive plan is to involve many different people and interests in the planning process. The public should be asked to participate in a way that goes well beyond the public notice and hearings required by law. A planning process that attracts and engages members of a community is more likely to produce a plan that reflects the vision and goals of the community. A plan that reflects a community's vision and goals is more likely to be supported by community members. In addition, formally celebrating completion of key milestones with community events also helps mark progress and maintain enthusiasm throughout a planning process.

A planning process should provide frequent, accessible and interesting opportunities for public involvement in the development of a comprehensive plan, since it will guide a community's development for years to come. The public brings a variety of perspectives to the planning process and can provide new and important information for consideration by a planning committee. Public participation instills a sense of ownership in the plan and ensures residents that their concerns and priorities will be addressed. Public participation also helps citizens and officials understand the community as a whole and the values, desires and perceptions of its members.

DECIDE WHO TO INVOLVE IN THE PROCESS

Involving a great variety of people helps ensure that key interests and issues are not left out and increases the chances that lasting solutions will be found. Community stakeholder groups should guide the process of engaging citizens. See the box at the beginning of the chapter for ideas on people and interests a community might involve.

Generally, three categories of people participate in planning:

People who want to share their opinions and ideas. The vast majority of citizens who become involved in a planning process fall into this category. These individuals will take the time to participate in one or two events, such as answering a survey or attending a three- to four-hour visioning meeting.

People who want to be actively involved. Some people are particularly interested in the planning process and will commit some of their time and skills to it. Whatever their occupation and background, these individuals are likely to volunteer for more time-consuming tasks and have expertise that can be a real asset to a planning effort.

People who want to play a major role. A few people may want to play a major role in the planning process. These people are often active in local government, business and civic groups. They can bring continuity, energy and commitment to the process.

FORUMS TO GET PEOPLE INVOLVED

Providing opportunities for public involvement in a planning process is not a simple task. A community must consider such things as meeting times, child care, refreshments, locations and formats, as well as the points in the planning process at which to solicit public input. Involving the public adds time and expense to a planning process, and a community needs to account for it in its planning budget.

A community can use a variety of forums at various points in the process to get different interests engaged. It should structure public involvement opportunities to encourage participation from people with varying degrees of interest and time. Keep in mind that even if a forum requires minimal time from participants, those hosting the meeting must devote a substantial amount of time to organizing and preparing for the meeting and synthesizing the results. The "Public Participation Toolbox" lists several methods a community might use to engage its citizens. The appendix presents the full description of these methods, when to use them and their pros and cons. The full public participation "toolbox," which was prepared by the International Association for Public Participation, is also available on the Internet at www.iap2.org/aboutiap2.html.

Each of the ways that a local government may involve the public has its advantages and disadvantages. Some things to consider when choosing an approach include:

- What does the community hope to accomplish? Which forum will best help the community accomplish its goals?
- How many people and what stakeholder groups does the community want to involve at a particular event or opportunity?
- What time and financial resources has the community committed for getting public involvement?
- What are the likely costs in staff, time and money for each approach and opportunity for involvement?
- Can staff manage the public involvement process, or does the community need to hire outside assistance?

Public hearings. Minnesota law requires a local government to hold a public hearing in many land use decisions. But because these hearings are the most formal forms of public participation, they are the least likely to lead to constructive dialogue. Due to legal deadlines and requirements, they often occur too late in the planning process for the public to make a meaningful contribution. Public hearings also tend to be poorly attended unless an issue is highly controversial. Thus, while they may be necessary, a community should not count on them alone for meaningful public involvement.

Planning events. Planning events are usually one-time forums designed to excite the public about a planning process and to create a positive attitude about the planning effort. While such participation often elicits little immediate information for plan development, it can help build a cadre of citizens interested in contributing to the process through follow-up opportunities.

Open houses. Open houses give the public the opportunity to view planning-related information and talk with local officials and planning staff. This helps citizens get to know planning leaders and vice versa, and allows for exchange of ideas and information in a less formal setting than a public hearing.

Community meetings. These are usually formal and structured forums in which people involved in the planning process can present information to the public. Small group discussions and interactive exercises can be incorporated into the meeting.

Community visioning. Visioning is designed to engage the public in discussions about the community's future. These meetings focus on developing a specific output: the statement of a vision of the future around which people in a community can rally. Chapter 4, *Setting a Community's Course*, offers tips about visioning exercises.

Working groups. Working groups, such as advisory committees and task forces, involve small numbers of experts, community representatives or volunteers who clarify and work on a particular aspect of the planning project. The groups are responsible for providing input to the planning commission and assisting with some of the work, usually by serving as review committees for the decision-makers. Working groups can also structure and facilitate other forums for public participation, make preliminary policy decisions and provide technical assistance.

PUBLIC PARTICIPATION TOOLBOX

PASSIVE PUBLIC INFORMATION TECHNIQUES

Printed public information materials

- Fact sheets
- Newsletters
- Brochures
- Issue papers

Information repositories
Libraries, city halls, distribution centers, schools, and other public facilities make good locations for housing project-related information

Technical reports
Technical documents reporting research or policy findings.

Advertisements
Paid advertisements in newspapers and magazines.

Newspaper inserts
A "fact sheet" within the local newspaper.

Feature stories
Focused stories on general project-related issues.

Bill stuffer
Information flyer included with monthly utility bill.

Press releases

News conferences

Television
Television programming to present information and elicit audience response.

Web sites
World Wide Web sites which contain project information, announcements, and documents.

ACTIVE PUBLIC INFORMATION TECHNIQUES

Briefings
Use regular meetings of social and civic clubs and organizations to provide an opportunity to inform and educate. Normally these groups need speakers. Examples of target audiences: Rotary Club, Lions Club, Elks Club, Kiwanis, League of Women Voters. Also a good technique for elected officials.

Central information contact
Designated contacts are identified as official liaisons for the public and media.

Information hotline
Identify a separate line for public access to prerecorded project information or to reach project team members who can answer questions/obtain input. Also use email and Web sites.

Technical assistance
Providing access to technical expertise to individuals and organizations.

Simulation games
Exercises that simulate project decisions.

Information centers and field offices
Offices established with prescribed hours to distribute information and respond to inquiries.

Expert panels
Public meeting designed in "Meet the Press" format. Media panel interviews experts from different perspectives.

Field trips
Provide tours for key stakeholders, elected officials, advisory group members and the media.

Open houses
An open house to allow the public to tour at their own pace. The facility should be set up with several stations, each addressing a separate issue. Resource people guide participants through the exhibits.

Community fairs
Central event with multiple activities to provide project information and raise awareness.

SMALL GROUP PROBLEM-SOLVING TECHNIQUES

Design charrettes
Intensive session where participants redesign project features.

Community facilitators
Use qualified individuals in local community organizations to conduct project outreach.

Mediation/negotiation
The process of resolving disputes through compromise.

Consensus building techniques
Techniques for building consensus on project decisions such as criteria and alternative selection. Often used with advisory committees. Techniques include Delphi, nominal group process and public value assessment and many others.

Focus groups
Message testing forum with randomly selected members of target audience. Can also be used to obtain input on planning decisions.

Advisory committees
A group of representative stakeholders assembled to provide public input to the planning process.

Task forces
A group of experts or representative stakeholders formed to develop a specific product or policy recommendation

Panels
A group assembled to debate or provide input on specific issues

Citizen juries
Small group of ordinary citizens impanelled to learn about an issue, cross examine witnesses, make a recommendation. Always non-binding with no legal standing

Role-playing
Participants act out characters in predefined situation followed by evaluation of the interaction.

LARGE GROUP PROBLEM-SOLVING TECHNIQUES

Electronic democracy
Internet, Web sites, televoting, online dialogue, online delivery of government services.

Samoan circle
Leaderless meeting that stimulates active participation.

Open space technology
Participants offer topics and others participate according to interest

Workshops
An informal public meeting that may include presentations and exhibits but ends with interactive working groups.

Future search conference
Focuses on the future of an organization, a network of people, or community.

Deliberative polling
Measures informed opinion on an issue.

Source: IAP2. See appendix for full toolbox.

Surveys. Surveys are a convenient, simple and unintimidating way to gather the opinions of people who may find face-to-face encounters uncomfortable or may not otherwise participate in the planning process. Surveys are usually done through written questionnaires, telephone calls or personal interviews. A survey can effectively assess citizen satisfaction and perceptions about the community, document and measure the change in citizen opinions and attitudes, and provide data on citizen awareness of local governmental plans and programs. With a survey, a community can poll a specific portion, a random sample or a stratified random sample of the population; in the latter, the community is divided into various subpopulations, each of which is then surveyed randomly. To be statistically valid, a survey must be well designed, administered to the selected population and elicit a sufficient number of responses.

Planning charrettes. Charrettes are short, intense, collaborative processes for designing projects, planning for community revitalization and building consensus. They differ from more traditional public meetings in that they focus more on design issues and generate drawings and pictures that show participants what things would look like under various scenarios. They usually last a day or two. Like other forums for public participation, charrettes may be limited to participation by select groups or may involve the public at large. They help the community focus on a specific design or planning issue. Because of their short-term nature, charrettes should be combined with other forums of public participation.

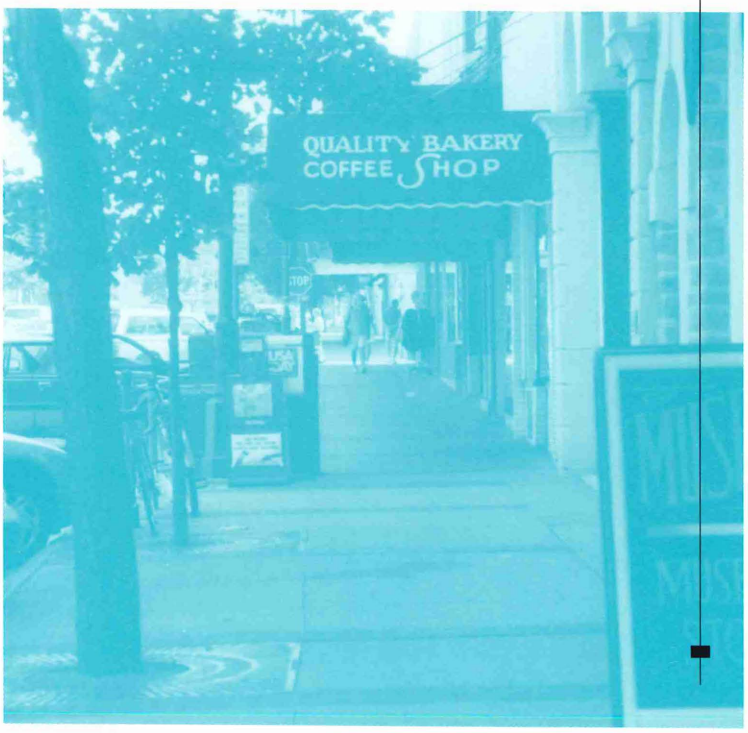
A citizen jury. A citizen jury allows decision-makers to hear thoughtful and informed citizen input based on a jury's collective deliberation over a given issue or set of issues. A jury of citizens is convened to make recommendations about specific, usually controversial, topics. After hearing testimony and reviewing the evidence, the jury makes a recommendation.

Getting public participation in the local planning process may be the single most important factor in the long-term success of a plan. People will be more committed and supportive of something that they have had a hand in crafting. And since almost everybody leads a busy life, a community must use a variety of tools and approaches to get the word out and to get people involved, particularly in the absence of a clear, looming crisis.

John Wells

The Kensington Runestone, found by farmers more than a century ago, and Viking heritage engender distinctiveness and local pride.
Big Ole, Alexandria, Minnesota

Assessing the State of a Community



ASSESSING THE STATE OF A COMMUNITY

Anyone thinking about a career change would naturally take stock of their interests, experience and skills, and marketplace trends when searching for the right job. The same applies to a community wanting to plan for its future, to take a new direction or simply to brace for emerging demographic or economic changes.

Commissioners, citizens and others involved in a community's "career change" must take stock of their community. They need to ground their deliberations in an understanding of the community's past and current circumstances. Without this understanding, a community's vision, goals and policies may be unrealistic and lead to frustration.

This chapter describes the most common types of information a community should gather to support comprehensive planning and the kinds of questions it should ask to help it understand community assets and challenges.

TIPS FOR CREATING A COMMUNITY PROFILE

A community profile is indispensable to understanding a community's health, assets, liabilities, trends and opportunities for shaping the future. The understanding of a community's history and evolution gives people an appreciation of "why we are what we are" and is helpful as a community looks to the future. A profile also provides a common starting point and benchmark when embarking on a comprehensive plan.

Before the kinds of inventories are discussed, it is useful to consider geographic information systems – a tool that can be immensely helpful to communities in determining their assets and challenges.

GEOGRAPHIC INFORMATION SYSTEMS

Before investing much time in an inventory, a community should examine its capability for using geographic information system technology. This technology allows a community to inventory its assets and identify its challenges using maps. GIS provides opportunities for modeling and analyzing a community from a variety of perspectives and allows a planner to present and link detailed information about various community characteristics. In addition, special GIS studies can link various elements of a plan to provide insight into a community's future potential. A GIS capability is usually within the financial reach of a community large enough to have its own full-time planner, and it is an investment that will save a community time and money in the long run. For smaller communities, a GIS capability might be possible through a shared investment with neighbors. An important step is to evaluate GIS data and tools available from Minnesota Planning and other state agencies.

PROFILE DETAIL

A community needs two levels of information in its planning effort: basic background information and in-depth scientific or technical analysis.

First, a community needs to assemble the basic, readily available background information. This will give its planning participants an initial, common understanding of the community's health, assets and liabilities. A background package should not overwhelm citizens, plan advisors or decision-makers, nor should people expect it to provide all the data or analysis needed for every step of the planning process.

Second, a community must decide what additional in-depth information and analysis are needed to foster the understanding people need to make sensible, informed choices about the community's future. This information must be sufficient to help a community understand the problems that hold it back and the assets it might tap to be what it hopes to become. The information must allow people to understand community trends and what might be done to help things along or change those trends. In short, the information should help unite citizens around a vision and support the creation of goals, policies and strategies that will aid a community in reaching its vision for the future.

GIS PUTS NEW POWER IN PLANNING

Planners have always used maps as an integral part of comprehensive planning. They use them to map land use, zoning classifications, valuable resources and other features. They use them to inform and spark discussion. But, before geographic information systems and computer generated maps, preparing them was a long and labor intensive process of hand drawing and Mylar overlays. And when finished, they were difficult to reproduce and time consuming to modify.

Now, with GIS, planners can quickly compile, store, analyze and map spatial data. GIS has been under development since the early 1970s. But widely available data, easy-to-use software, and faster, cheaper computers are now putting GIS within the reach of all communities.

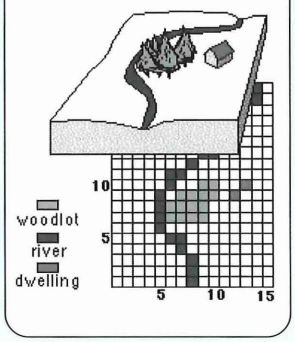
GIS puts a wealth of data at the communities' fingertips – data they can map, analyze and remap to address their specific questions and concerns. They can create a community atlas. They can visualize opportunities, constraints, strengths and weaknesses. They can produce maps and post maps on the web to involve more people in planning decisions. They can ask "what if?" questions and weigh options to see what various policies could yield.

UNDERSTANDING GIS DATA

GIS uses two types of information: spatial (graphic features) and tabular data (attribute database). Spatial information tells *where* something occurs, while tabular data tells *what* occurs, or the characteristics of the spatial information. Spatial data comes in two types: raster and vector.

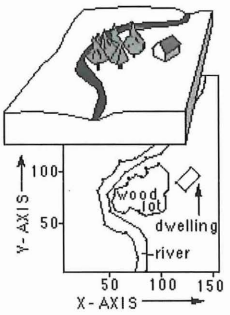
Raster data is made up of rows and columns that create a gridwork of squares or "cells." Each cell contains information about the particular location of that cell. Common raster data includes satellite data, land use classifications, soils and elevation. Raster data is easier and faster to analyze and is useful when exact shapes are not needed or available. It can be analyzed by overlaying separate layers or by interpolating continuous data to create gradients. Overlying agricultural land with high productivity soils produces a map of agricultural land with high potential productivity. Interpolating elevation data creates a slope map.

Raster data shows dominant characteristics by cell



Vector data consists of points, lines and polygons, referred to as features. It is used where the specific location or shape of features is important. Examples of vector data include well locations, roads, streams, lakes and parcels or property ownership. Each feature is linked to attribute information keyed to the feature's location. Analysis of a vector data set usually involves working with the attributes within the feature's data table. Extracting public water supply wells from the data table of well locations produces a map displaying that subset of wells.

Vector data shows specific locations of features



Tabular or attribute data provides descriptive information about a feature or cell. Stored in a database, it can be developed from a variety of sources such as aerial photography, satellite imagery, field surveys, assessment records and paper maps. Existing data sets also can be joined to a GIS. For example, joining a county assessor's database to the GIS parcel coverage yields a base map of parcels displaying tabular information such as property values and housing type. Much of the analysis performed in GIS begins with the manipulation of tabular data.

TABULAR DATA LINKS A FEATURE TO DETAILS ABOUT IT

ID No.	Area	Soil Type	pH
31	150	2	7.1
32	94	6	7.0
33	77	5	6.9

◄Record

GIS data can come from many sources, promoting multiple uses. Data sources include global positioning system (GPS) information, satellite-downloaded information, scanned maps, geo-referenced computer-aided drawings (CAD), and an array of tabular data from database and spreadsheet software. This versatility has allowed many local governments to turn GIS systems into broad networks that span many different fields – city planners now look at CAD drawings of sewer pipes during utility expansion studies, police officers look at parcel information to assess crime, and engineers look at zoning layers to address future road expansions.

GIS PUTS NEW POWER IN PLANNING (continued)

UNDERSTANDING BASIC GIS ANALYSIS AND OPERATIONS

GIS allows the user to manipulate and analyze geographic data. The power of a GIS is not only the ability to *display* spatial information, but also to *analyze* the spatial information. Here are a few kinds of analysis within a GIS.

Buffer – A polygon or area enclosing a point, line or another polygon at a specified distance. Example: How many acres of wetlands will be affected by the new road expansion?

Measurement – A tool used to measure both distances and areas within the base map. Example: Display the total length of a bus route within the city of Rochester.

Overlay – A spatial operation where one layer is superimposed on another layer(s) to see the relationship of features in the same geographic space. Example: Relationship between ground water contamination and septic systems.

Query – A method of selecting features or attributes from a database. Example: Buildings that were permitted in 2000 within Le Grande Township of Douglas County.

Proximity analysis – Selecting features (points, lines, polygons) based on their proximity or distance from other features. Example: selecting all feedlots within 1000 feet of protected waters.

Map algebra – A method which allows the user to perform mathematical relationships between maps. Example: Display land most suitable for development using soils and slope maps by giving more weight to areas with lower slopes and less weight to areas with highly productive soils.

GIS TOOLS & RESOURCES

Land Management Information Center Web site at www.lmic.state.mn.us

Department of Natural Resources Data Deli at www.deli.dnr.state.mn.us

The ESRI Guide to GIS Analysis, Mitchell, Andy, Environmental Systems Research Institute, Inc., California, 1999.

ESRI Web site at www.gis.com. See sections "What is GIS" and "GIS for State, Provincial and Local Governments" under "GIS for Your Specialty."

Exploring Spatial Analysis, Chou, Yue-Hong, Onward Press, Sante Fe, 1997.

GIS County User Guide, Huxhold, William and et al., Oxford University Press, New York, 1997.

EXAMPLES OF GIS PLANNING APPLICATIONS

Issue Identification –
Mapping assets and challenges

Land use
- Existing land cover and use
- Zoning classifications

Transportation
- Roads and functional classes
- Airports
- Transit systems

Environmental quality and natural resources
- Wetlands, lakes and streams
- Soils
- Flood plains
- Mineral resources
- Potential pollution sources

Demographics
- Past population trends
- Population projections

Community facilities
- Sewer and water systems
- Civic and historic buildings
- Schools
- Hospitals

Recreation
- Parks and trails
- Playgrounds/sports facilities

Beginning Analysis –
Identifying areas for specific uses or special attention

Areas suitable for urban development

Infrastructure location and condition

Critical transportation corridors
- Conditions
- Capacities
- Setbacks and easements
- Accident patterns

Environmental hazard areas
- Highly erosive
- Geologic hazards
- Flooding

Areas most suitable for agriculture

Critical wildlife habitat

Proximity to recreation areas

Spatial Modeling –
Incorporating values and policies

Allocating land for urban growth

Identifying areas for high-density development

Delineating areas for roadway access management

Designating areas for agricultural preservation

Identifying conservation connection areas

Defining potential future recreational areas

More technical and scientific information often can be added to the background package once a community identifies areas of interest and priorities for addressing them. This step is also very iterative: people may have to revisit information needs many times as they wrestle with understanding community interests and needs.

The appropriate amount of background detail may vary considerably among communities. The line between general background information and more detailed scientific and technical analysis is not fixed, changing as a result of several factors:

Quality and detail of background data available to a community. Some communities have detailed, automated databases and geographic information system maps from which staff can easily assemble a package of information on a variety of issues. Other communities may not have reliable or accessible sources of information and must rely, initially at least, on state, federal and private sources. It is important to remember that the scale and level of detail of data affect its validity and usefulness. For example, remote sensing, such as satellite imagery, can be very useful in assessing land cover at a county scale, but it may not be sufficiently accurate or detailed for a county's siting of a landfill or a city's natural resource inventory.

Size of a community. A background study should include enough detail to define a community's character and condition. In general, the detail required depends on the size and complexity of a community, but any community will need sufficient information to draw the picture of what defines and concerns it. A county, for example, may want to focus on landscapes and general development trends, while a city may need to understand what is happening to its neighborhoods.

Rate of change in and around a community. A community in the midst of rapid change (significant population growth or decline, or rapid business expansion or closings) will require more background detail than a community experiencing little or no change. Rapid change requires study to provide detail on trends and root causes of change, as well as the consequences.

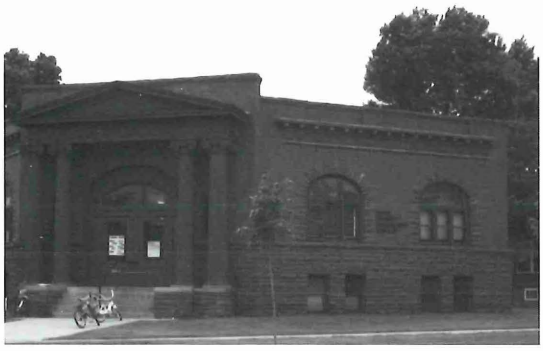
Resources available for new studies. A community with few staff or little consultant time must be more selective in deciding which issues require additional information. More detailed information can help a community better understand and describe an issue, but there also comes a point at which added information is likely to be only marginally useful.

WHAT TO INVENTORY

A community should organize its initial gathering and presentation of background information in a way that helps people see and address important issues and interrelationships. This helps a community understand and identify priority issues, which, in turn, helps guide the collection of additional data or the design of new studies. The point is to get the information needed to support a community's vision and its goals, policies and strategies.

Core questions. A community should ask basic questions early in the process to identify its information needs and planning priorities. Questions might include:

- What are the community's most important assets, including its economic, natural, cultural and human resources?
- What does it need to know about these assets? What information should it have to be able to



Jack Flynn

Luverne's Carnegie Library, fashioned of native red quartzite, adds beauty and distinctiveness. Rock County, Minnesota

decide what is most worth protecting or exploiting?
- What are the community's most important challenges? What does it need to know to address them and avoid them in the future?

The answers to these questions will help a community know what background information and additional study it needs and the future directions it should take.

EXISTING PLANS AND ORDINANCES

One of the first steps in assembling background information is to review existing planning documents or ongoing planning processes. A community can frequently identify valuable background information in existing plans and develop a sense of how this information can be structured. Understanding how other planning efforts addressed complex issues and encompassed a community's values will inform the comprehensive planning process.

The planning team should review a community's existing comprehensive plan, as well as any capital improvement, water, economic development, redevelopment or land use plans. It should also review planning efforts of other jurisdictions in or around it. A county should be aware of federal, state, city, township, special district and joint powers board plans (including those for solid waste or river management), as well as plans of adjacent counties that may greatly affect it. A city should be aware of the same kinds of plans, as well as neighborhood and commercial corridor, and school district plans.

ELEMENTS OF A COMMUNITY PROFILE

After a community has identified its priority topics, it must systematically collect, describe, assess and report the information. This guide suggests that a community cover the history, current status, future trends, and assets and challenges of each topic.

While each community should identify its own topics, this guide suggests the following:

- Land use
- Population and other demographic information
- Environmental quality and natural resources
- Historic and other cultural resources
- Economy
- Housing
- Infrastructure and utilities
- Transportation
- Information and communication
- Drinking water, wastewater and storm water
- Solid waste
- Energy
- Community facilities and related services

The discussion under each topic identifies the information, information sources and analysis helpful in a community planning process. It also offers questions a community might consider as it identifies assets and challenges.

LAND USE PATTERNS

The planning team must assess and understand the range and pattern of a community's existing land uses. The background analysis should identify several aspects of the community's current land use patterns: type of use, intensity of use and ownership type. Possible land use categories are:

Carole Zellie

A thriving main street can form the backbone of a community. Ely, Minnesota

Town center. This includes the central business district or traditional downtown with a mix of uses that usually features a pedestrian-orientation and transit opportunities.

Neighborhood centers. Largely residential, these neighborhoods have their own "town center," whether it is a park, commercial area of neighborhood interest or other center of a neighborhood "community."

Residential. Traditional subcategories include seasonal, vacant, single-family, two-family, multifamily and farmstead.

Commercial. Traditional subcategories include retail, service, neighborhood-oriented, office and vacant.

Mixed use. Possible subcategories include single-family residential with attached commercial and multifamily with neighborhood-oriented retail commercial or intermixed office commercial.

Industrial. Possible subcategories include parks (including eco-industrial parks); heavy, light and vacant industrial; and specific industries important in the community's economic base (such as managed forestland, mining or feedlots).

Carole Zellie

Broad sidewalks and awnings invite pedestrians. Northfield, Minnesota

Community facilities. Possible subcategories include schools, public services (e.g., libraries, post offices, city hall, courthouses, fire and police stations) and publicly owned industrial land uses (maintenance sheds, impound lots, salt and gravel storage).

Recreational. Possible subcategories include local, state or federal parkland; county, state or national forests; private recreational land; and greenways and trails.

Natural resources. Possible subcategories include forest or types of forest, mineral or gravel deposits, sensitive natural areas or habitat (e.g., Re-Invest in Minnesota lands, ground water recharge areas, natural heritage sites, blufflands or wellhead protection zones), water and wetlands, floodplains, shoreland management areas, wild and scenic rivers, critical areas and conservation corridors.

Agricultural. Possible subcategories include pasture, grassland, cropland and Conservation Reserve Program land.

A community should establish categories that capture its significant land uses. The appropriate mix of categories for the background analysis will depend on the type of community (city, county, township or a joint powers combination), the community's land use priorities and the available data. For example, a community that is concerned with connecting its neighborhoods and its downtown may prefer to describe its land use in terms of town centers and neighborhood centers.

As noted before, a background assessment's level of detail will vary. One community may need to include many subcategories and to present its information over several maps and charts. Another may only need a few categories and a single map to provide adequate background on current land use.

A background study also should consider the history of recent land use changes. Land uses are always in flux, responding to market forces, changes in the natural and social environments, and changes in regulation. Identifying areas where land uses are changing and

mapping the latest land use patterns can help shape plan goals and the strategies to achieve them. Some important questions to consider are:

- How have land uses changed over time, and what has most influenced these changes?
- Are there plans for changes in major transportation systems (rail, bridges, arterial roads and freeways)?
- Has the community seen increased vacancies or demolition in commercial or industrial space?
- Has the community seen residential areas converted to retail or industrial uses (or vice versa)?
- How much of the community was recently in forest land or agricultural production, and what land uses have replaced these?
- Has the community seen much housing demolition (changing the land use from residential to vacant)?
- Where are the community's brownfields? How did they come about? How recent was the brownfield designation and what are the prospects for reclamation?
- How much development has occurred within each land use category (e.g., intensification of residential or commercial land use, or industrial redevelopment)?
- Is there sufficient park land, and is existing or potential park land threatened?

Carole Zellie

Communities might want to categorize housing by type and size.

Another aspect of the background study of land uses is the intensity of use. Intensity is particularly important for areas with rapid development, although every community must ultimately address land use intensity in its plan. Distinguishing between general land use categories (residential versus commercial) may be adequate in some rural areas but insufficient in others. For example, planning for a variety of housing, infrastructure and other public services may require that a community distinguish between multifamily and single-family homes. Commercial areas with high floor-to-area ratios may create more demand on transportation infrastructure than those with lower ratios.

Minnesota Planning

Carole Zellie

Agricultural land use is an important part of many communities. LEFT: Corn harvest RIGHT: Soybeans

Finally, a community should identify current land ownership patterns. Relating a community's priorities for land use to an implementation strategy requires close attention to the type of ownership. The appropriate strategy for changing a forested area to another land use will be quite different if the land is owned by private citizens, the community, the state or the federal government.

Ownership is particularly important for counties and other communities that have large land ownership blocks. A single county may have large areas owned by federal, state, local or tribal governments, corporations or private individuals. A community can get ownership information through assessor records or a parcel-based geographic information system.

Assets and challenges. Land use is a catch-all topic, and a land use inventory and map provide insight into the assets and challenges of most other topics. A community might consider asking the following kinds of questions as it moves from the background study to vision, goal and policy setting:

- Does the community feel comfortable with the changes taking place to its land use patterns?
- Does the community have unique water and land amenities worthy of building around, protecting or enhancing?
- Are significant historical, archeological or cultural assets present that should be identified, preserved and celebrated?
- Can future growth be absorbed by or connected to existing residential and commercial areas?
- Is there adequate public open space for the community? Are public and private open space areas connected?

SOURCES OF LOCAL LAND USE INFORMATION

- Local planning and zoning staff
- Aerial photographs
- Information from building permits, conditional uses, variances and street or alley vacations
- Utility records (electricity, water and wastewater, gas, district heating systems, etc.)
- County assessor records
- Individual septic tank system permits
- Geographic information systems parcel map
- Land cover data
- Soil surveys
- Geologic atlas
- Biological survey
- Other GIS data (available from Minnesota Planning, DNR, Metropolitan Council, private sources)

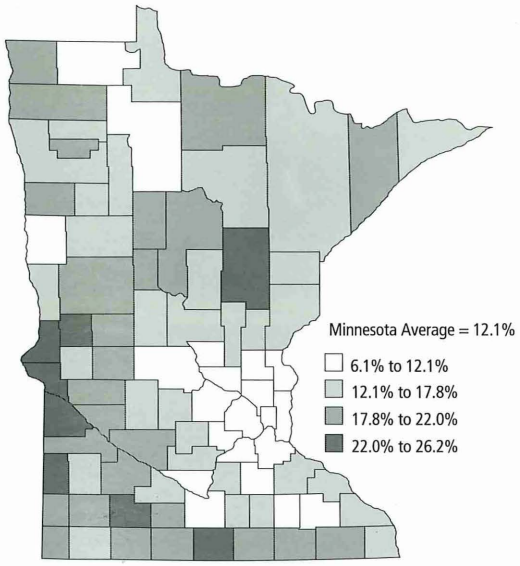
POPULATION AND OTHER DEMOGRAPHIC INFORMATION

Population analysis and projections are vital to any comprehensive planning effort. Communities must understand whether they are growing, declining or maintaining their size and why. The size and mix of a community's population profoundly affect everything from future transportation and housing needs to the labor force and employment conditions.

For example, one population trend in Minnesota whose influence will only increase is the growth in the number of elderly people. According to the State Demographic Center at Minnesota Planning, over the next three decades, Minnesota will experience the most profound age shift in its history, with the elderly going from 12.7 percent to 23 percent of the total population. Communities of all sizes will need to think through what sort of development pattern and which infrastructure investments can best prepare them for this shift. The American Association of Retired Persons cites access to public transportation, pedestrian-friendly neighborhoods and shopping districts, and affordable housing as among the key features that a community needs for its older residents to remain independent. A community with many elderly living in rural areas may face tougher challenges in meeting their needs.

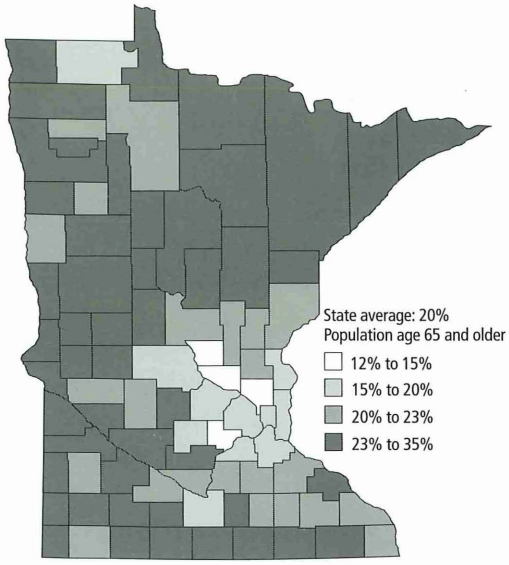
Many communities are expected to decline in the decades to come. These communities should consider positive ways they can prepare for losses in population and make the adjustments needed.

HIGHER PROPORTIONS OF ELDERLY TENDED TO BE IN THE WEST AND SOUTH IN 2000



Source: State Demographic Center at Minnesota Planning

ELDERLY WILL BE MORE THAN ONE-FIFTH OF MOST COUNTIES' POPULATIONS BY 2025



Source: State Demographic Center at Minnesota Planning

Special needs of older residents must be addressed.

Background studies should clearly note several demographic facets of a community:

- Historic population growth
- Current population estimates and structures (household types, age-sex distribution, work force participation, ethnic and cultural distributions, etc.)
- Population projections over the planning time frame
- Trends in age of population and household types, along with other relevant statistics
- Trends in language, race and ethnicity

The State Demographic Center prepares county projections at least once a decade and estimates county, city and town populations and households each year. The center also has a "how to" pamphlet on making projections by city. It considers projections a key part of planning, but cautions a community to prepare for the unexpected as well.

A community with large land areas may need to break its demographic analysis into smaller units to show intracommunity differences. A county, for instance, should identify population by major political subdivision (cities and townships). A city may need to view itself in parts, using census units (tracts, blocks or block groups) to understand past demographic characteristics and to consider future changes.

Data from the 2000 U.S. Census provides detailed demographic information and allows researchers to cross-tabulate a variety of demographic variables.

Minnesota Historical Society

Population growth might lead to the need for new schools. Washington County, Minnesota

Minnesotans celebrate their diversity and heritage.

Top Right: Mahkato powwow. Mankato, Minnesota

Top Left: Scandinavia Today. Minneapolis, Minnesota

Bottom Right: Juneteenth. North Minneapolis, Minnesota

Bottom Left: Cinco de Mayo. St. Paul, Minnesota


Jack Flynn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Calculating future land use needs. Demographic information is crucial to identifying the need for accommodating or managing growth or decline. A good projection will look at past trends, but it also will factor in other information, such as recent business developments or changes in adjacent communities. When developing a plan for staged growth, a community might want to stay within a 20-year horizon, since projections beyond that are imprecise.

One of the key factors in calculating future land use needs is, not surprisingly, how much a community's population is expected to grow or decline during the plan's time frame. A community may determine this by looking at population trends over the last 20 years or so and extrapolating those trends into the future. As noted, it should also examine recent events that may influence those trends, such as immigrants moving in or the creation of jobs by a new or growing business. If a community has experienced a large population increase in the last decade, it should question the cause of that increase and determine if it is likely to continue.

While a community or its consultants may develop a reasonable projection of its likely population growth, translating that projection into a reasonable estimate of the area necessary to accommodate that growth is difficult. It may be appropriate, initially at least, for a community to assume a cushion in estimating the land

A SIMPLE METHOD FOR CALCULATING RESIDENTIAL LAND NEEDS

1. (Forecasted population) – (Current population) = Additional population
2. (Additional population) / (Average number of people per household) = New households
3. (Number of housing units to be displaced) / (Average displaced density) – (Number of housing units to be added by redevelopment) / (Average redevelopment density) + (New households / Average new density) = Additional acres

it might need. This will allow it to accommodate market changes or unexpected growth factors. It also should make it easier to draft a long-term plan and budget for the associated infrastructure, services, parks and environmental protection. Later in the planning process, the full cost implications of growth and associated land needs also might help a community focus on the desirability, timing and location of that growth.

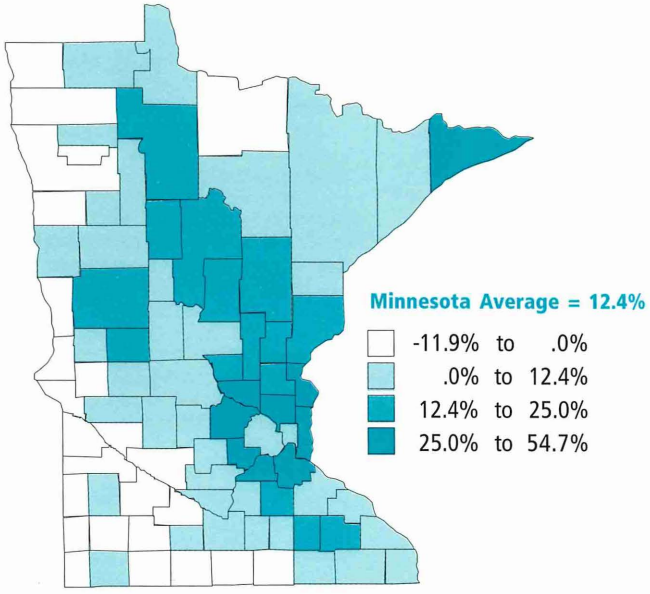
The State Demographic Center provides existing population estimates for Minnesota communities and projections for counties. Private forecasting companies or planning staff develop projections for cities and townships. Each technician may use a different method of projecting population, so forecasts may differ. A community may want to consider using more than one method of projecting its population and demographic characteristics.

A community that expects to grow may also want to consider how much of its expected growth could be absorbed through redevelopment and infill development. Depending on a community's characteristics, opportunities may exist to accommodate future growth in developed areas by building on vacant lots, reusing buildings, increasing allowed densities or redeveloping brownfield sites. In some cases, this may be the least expensive form of development, because the infrastructure is usually in place and it tends to keep a community's service area more compact. In this way, infill development can maximize use of a community's existing infrastructure as well as enhance the vitality and health of the surrounding neighborhoods.

Estimating residential land needs. Residential land use needs are predominately influenced by population growth and housing preferences. Changes in household size, however, also can be a factor. If a comprehensive plan includes several residential land use designations, a community will need to break down the land need calculations by category.

Note that the natural resource inventory should identify lands on which it might not be possible or desirable to build. These lands should be excluded when planning for the additional residential acres needed. Also, a community may choose to adjust the density assumed for new households as part of its comprehensive plan. If it were to do so in strategy development, it would recalculate the area needed.

POPULATION CHANGE 1990-2000

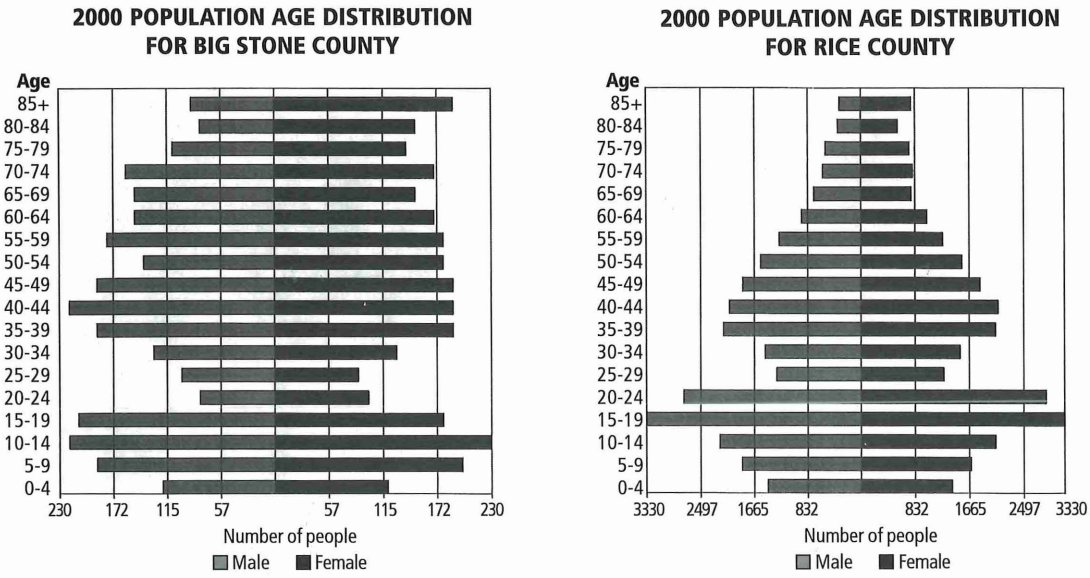


Communities must understand whether they are growing, declining or maintaining their size.

Source: U.S. Census

Assets and challenges. A community should use its population and other demographic information to help frame its vision and goals. Once it defines them (see Chapter 4, *Setting a Community's Course*), a community will need to assess how the demographic forecast matches its vision and goals. If the forecast is consistent with its vision, then a community should identify the assets that can ensure the forecast becomes reality. For instance, growth in seasonal retirement-age households can be an asset in a community seeking to capture tourism dollars. The same forecast can be a problem for a community that wants to keep more of its youth or attract younger households to expand the labor force. Core questions might include:

- Does the community see its population and demographic forecast as an asset or a challenge?



Each community should consider how its age distribution affects development and infrastructure needs.

Source: Datanet, www.mnplan.state.mn.us/datanetweb

- Does it see a need for population growth to maintain its quality of life or strengthen its economic base?
- Is the carrying capacity of the environment adequate, given the land and other environmental demands of the projected population growth?
- How might the community have to change to accommodate age or diversity changes in the future?

ENVIRONMENTAL QUALITY AND NATURAL RESOURCES

Imagine for a moment what would happen if Duluth launched a planning effort that ignored its connection to Lake Superior. Or if Stillwater charted a future that left out its connection to the St. Croix River. Or if Renville County created a comprehensive plan that ignored its agricultural land base. Such natural features not only gave rise to these communities but also are their continuing lifeblood. Further, they may pose special opportunities or problems that require careful consideration in comprehensive planning. This is true for every community in Minnesota.

The natural systems in and around a community comprise part of the community's "green" infrastructure. A community might think of these resources as a bank account of natural capital that it must manage, just as it might the principal in an endowment fund. This natural capital represents a community source of wealth and part of the foundation of a healthy economy. Natural systems help mitigate floods, recharge ground water, treat pollution and waste, clean the air and improve energy use in nearby buildings. A community's natural resources help sustain its economic and social functioning, and require investment, maintenance and monitoring, just as do a community's roads, sewers and utility systems.

A community's inventory of natural resources should help it understand its natural assets and limits. While the line between the categories is not always sharp, a community should consider collecting two kinds of natural resource data. For both, efforts to understand historic, current and future status or conditions in environmental quality and natural resources may be important.

The first category is the information needed to understand limits to growth or conditions of development. This category includes such information as:

- Landforms such as streams, drainage areas and wetlands and general topography

- Geologic hazards such as floodplains, erosive areas and areas of Karst geologic formations
- Significant or sensitive plant communities or ecosystems
- Species that are endangered, threatened or of concern (including invasive species)
- Soil suitability (for development, wastewater treatment, etc.)
- Landfills and brownfields
- Surface and ground water availability
- Air quality

The second category is information that represents a potential community asset for which special attention might be warranted. Examples include:

- Lakes, wetlands and rivers
- Outstanding water quality
- Forests, including managed timberland, urban forests, orchards, landscape nurseries and tree farms
- Game and nongame wildlife
- Aggregate resources, such as sand and gravel deposits, and mineral resources, including precious and ferrous minerals
- Conservation corridors and connections between sensitive areas
- Local energy resources (renewable and nonrenewable)
- Land suitable for long-term agricultural use or with multiple uses (e.g., Conservation Reserve Program lands, agricultural land with development restrictions)
- Open space

For open space planning, a community also may want to inventory and analyze the following:

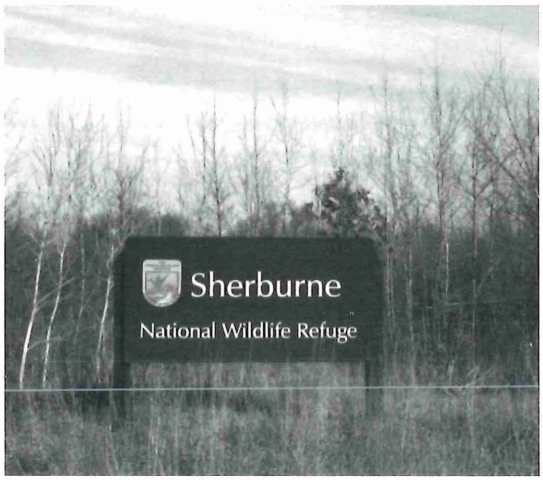
- The variety of open spaces, including actively used public spaces such as parks and ball fields, as well as conservation areas such as forests, lakes, rivers and wetlands
- Access to open spaces, some of which may be connected or connectable by conservation corridors and trails
- Native vegetation and wildlife
- Maintenance practices, including the use of herbicides, pesticides, fertilizers, water and energy
- The mixing of open spaces with development
- Air, land and water quality, and noise levels due to adjacent development

Natural resource and land-feature data help a community identify and set priorities for areas best suited for development (including resource extraction) and for conservation or preservation. By overlaying maps of public ownership, wetlands, steep slopes, land greater than one mile (for example) from a public road, forests and high-quality agricultural soils, a community can identify areas of priority for protection or for growth and development. Before drawing conclusions from this analysis, a community also would need to factor in its development priorities. The natural resources inventory can and should, however, lay the groundwork for such considerations after a community identifies its goals and policies.

Data for natural resource background studies can be detailed and specialized, but much of it is often digitized for use with geographic information systems. Natural resource information is readily available at the county level for wetland designations, forest cover types, elevation, watersheds and digital

NATURAL HERITAGE PROGRAM

The Department of Natural Resources Natural Heritage Program works to identify and locate Minnesota's ecologically significant natural lands, plant and animal species, plant community types, wildlife habitats and geologic features. The program has a centralized information system that communities and planners can use to identify areas that deserve protection. Users can also evaluate the potential impacts of public and private development projects by examining alternate routing and siting decisions and their effects on the environment.



Sarah Spilman

Wildlife areas are an important part of a community's green infrastructure. Sherburne County, Minnesota

orthoquads (corrected black-and-white aerial photographs from 1995). The Department of Natural Resources County Biological Survey contains valuable information on significant plant and animal communities. Some counties have current digital soils data. Most have access to current infrared aerial photography, although this data set often needs technical corrections. As noted, it is important to keep in mind how the scale and level of detail of data may affect its validity and usefulness.

Lands involved in resource-based economic uses, such as agricultural and forest lands, also provide noneconomic benefits to communities. For example, land used for agricultural production or silvaculture can also be considered as open space, wildlife habitat, infrastructure for water and air management, and sometimes even as a part of a community's wastewater treatment system (e.g., for the treatment of septage).

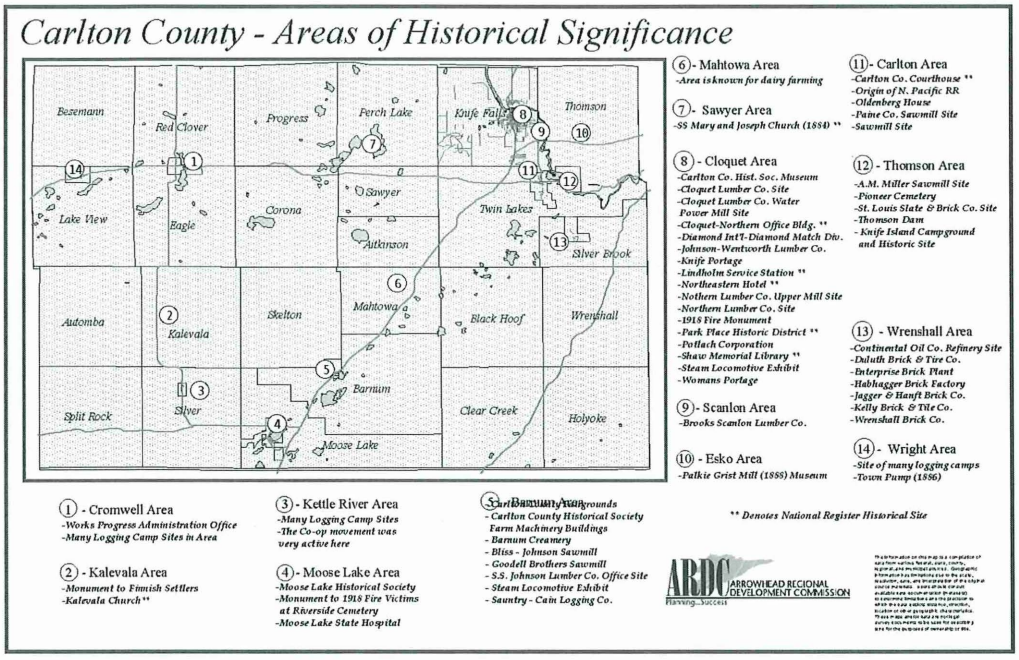
To identify and preserve the best lands for resource-based uses, background information on each use should include physical information about slopes, soils productivity and susceptibility to erosion, along with economic information on value of the resource and any value-added processing. The relationships between various resource uses may also be important to describe. For example, crop land can provide important habitat for game species.

ENVIRONMENTAL INFORMATION TO DISPLAY ON MAPS

- Watershed boundaries, lakes, streams, rivers and wetlands
- Soils by type
- Wetland types and jurisdiction
- State shoreland management classifications of lakes and rivers
- Agricultural land by productivity class
- Lands enrolled in a conservation program
- Forest cover by age and condition
- Steep slopes (greater than 12 percent)
- Flood plains and floodways
- Important plant and animal communities
- Historical sites and scenic areas
- Degraded air, land and water resources
- Potential pollution hazards
- Pristine areas
- Climate

Assets and challenges. Core questions might include:

- Do community development policies protect and enhance natural resources and environmental quality?
- Does the community have enough passive spaces, such as natural areas, and active spaces, such as soccer fields?
- Are the community's open spaces integrated into the current development pattern so that all residents, including children, have safe and easy access to recreational and natural areas?
- Would potential new industrial or residential development require a lot of water and, if so, are local supplies sufficient to meet those demands?
- What are the maintenance practices for managed open space and recreational areas? Do they impose the lowest long-term costs on the public and the environment?
- Are industries located and managed in a manner that keeps their emissions and runoff within local wastewater treatment plant and storm water management system capacities?



Maps enhance community awareness of historic and cultural assets. *Carlton County Community-Based Comprehensive Plan*

HISTORIC AND OTHER CULTURAL RESOURCES

Assessing a community's historic and cultural resources requires understanding its past. This, in turn, results in a better view of a community's current and future identity. An assessment may cover buildings and structures, commercial and residential historic districts, scenic or natural resources and archaeological remnants of past Euro and Native American sites. The insights an assessment may bring often motivate a community to protect its historic structures and rural landscapes.

Identifying economic factors, development patterns and public attitudes is important to assessing preservation needs. A community may want to establish a local preservation commission to address these issues. It also may want to contact the Minnesota Historical Society for information on existing historical assets along with ideas on how to get started. The society has identified over 32,000 historic properties across the state, which are available in a computer database.

Assessing historic and cultural resources.
A community may choose from a number of approaches to assessing its historic and cultural resources. These range from looking systematically at selected geographical areas to taking a timeline approach, considering all buildings from a certain era; a stylistic approach, looking only at particular styles such as colonial or Victorian; or a crisis approach that first considers the most endangered structures.

Some additional points to consider are:

- Significance of historic and cultural factors at the federal, state and local levels and how they may enhance one another
- Awareness of neighborhood and block landmarks that create community character and provide linkages to the past
- The style, design, materials, integrity and rarity of a structure or building that brings significance to the site and to a community
- Significance of a site for possible placement on the National Register of Historic Places
- Incentives for historic preservation, including various tax breaks, relief from zoning and building code regulations, and grant programs
- Existing data on historic and archaeological properties in the community, including their documentation and general location

An inventory is a detailed look at each of the buildings, structures, monuments, objects, landscape features and burial grounds of a community. A survey form can be used containing a black and white photo, a map, an architectural description and a brief history of the property.

A community should assess its historic and cultural resources in as comprehensive a fashion as possible, identifying all potential sites. However, when a more focused assessment is necessary, it should avoid any implication of the dismissal of other potential sites. For example, if only one type of structure or district is considered, other sites may be viewed as unimportant. It is important for a community to make clear that this is not the case.

A community should not leave its assessment only to the experts. In fact, the process should allow for individual property owners and members of the general public to help identify and designate historic sites.

Assets and challenges. Some questions to ask along the way:

- Is there an economic decline in the area that does not allow for maintaining historic sites? Conversely, does economic prosperity bring large-scale development that ignores historical significance?
- Will the preservation effort result in a viable, economic use when completed?
- Can historic preservation be used to revitalize the main street of smaller, rural communities?
- Can preservation efforts in urban areas bring people to underused parts of the city or provide infrastructure for creative housing options?
- How do changes in local and regional transportation systems affect preservation opportunities? What changes will take place along old highways, railroads and old airports?
- Are historic and cultural resources an integral component of local, comprehensive plans?
- Is the community aware of historic and cultural assets that surround it and is it willing to protect them?
- What elements of its heritage does the community want to preserve?
- What actions have been taken and what plans might protect historic and cultural resources in the community?

ECONOMY

The economy has sometimes been ignored in comprehensive planning and handled as an independent activity. Yet the local economy profoundly affects and is affected by everything from housing and transportation to land use patterns and quality of the environment. Achieving a healthy local economy takes far more than creating economic incentives to lure one big company to town; it requires paying attention to those things that determine whether existing businesses in a community are retained and new ones attracted. Some factors, such as the demographic characteristics of a community, may be beyond the direct influence of local government, but others are well within their control. Examples of these include:

- Quality of life factors, such as schools, housing, environmental quality, parks, open space and cultural amenities
- Policies that affect the siting and operation of businesses, such as tax policies, zoning and environmental regulation
- Infrastructure, such as telecommunications, transit, roads, bridges, energy, storm water, water supplies and wastewater facilities
- Public facilities and community design

A community can begin painting a picture of its economy and businesses by gathering data on labor force estimates by occupation and industry, tax base, and unemployment rates and employment sectors by industry. It also might consider how much energy the local economy consumes, how much pollution it emits and how toxic or hazardous its wastes may be. A variety of data sources provide such information by community, including county business patterns, economic census information (conducted every five years) and sales and use tax data. The departments of Trade and Economic Development, Economic Security,

Revenue and Commerce, the Pollution Control Agency and a host of private data companies gather and create economic and related environmental statistics.

Other important background information includes:

- Principal businesses and industries in the community, historically and currently
- Kind of jobs created recently and how they compare to the historic job types (wage levels, seasonal or full-time, unionized or nonunion, low-skill or high-skill and rate of self-employment)
- Recent community losses of a major employer and whether those jobs and that private capital were replaced
- Existence, location, effect, responsibilities and promise of brownfields and other polluted sites

More specific information about a community's economic health may also help it understand assets and challenges:

- Performance and prospects of principal industries in relationship to other industries
- Characteristics of the local labor force, including age, education and training
- Adequacy of job opportunities for the local labor force
- Commuting habits of community residents
- Ratio of part-time or seasonal to full-time jobs in the community
- Trends in various job categories
- Location and draw of major retail and service centers in the region
- Incidence of locally owned businesses
- Waste streams or emissions from the community's industries
- Growth of wages in local businesses
- Match of job and population forecasts

Estimating commercial and industrial land needs. Towns near metropolitan areas have an advantage in estimating land need for commercial and industrial growth because employment forecasts and market expansion estimates are more readily available for those areas. Land needs depend, in part,

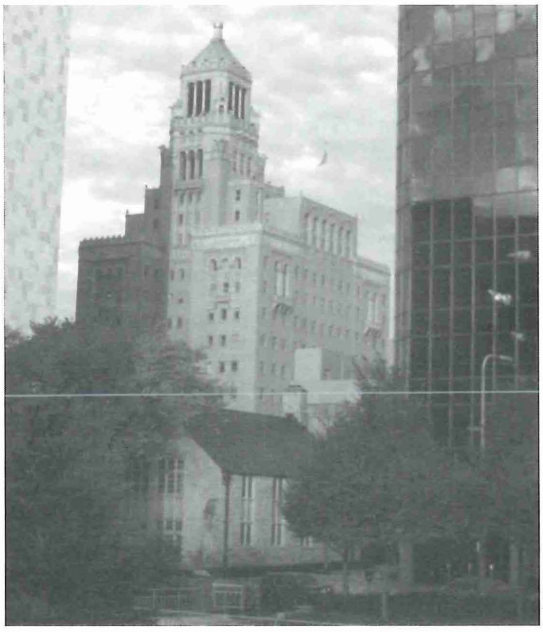
MAPPING PRIORITY LANDS FOR AGRICULTURE

Where agriculture is an important part of the economy and landscape, mapping priority agriculture lands can give a community important information. The level of sophistication needed in mapping depends on a community's goals and strategies for agriculture. For a community that wants to preserve agriculture and control nonfarm growth through zoning or urban growth boundaries, it may be sufficient to simply map lands with a land cover that is agricultural (i.e., cropland, pasture land and, possibly, wooded land). A community that is growing rapidly and needs to expand its urbanizing area or one that wants to protect high-priority resources through purchase or transfer of development rights may require more detailed mapping and analysis that assigns priority to lands based on their physical (e.g., soil type) or cultural (e.g., proximity to cities) characteristics.

One basic framework for such analysis is the Land Evaluation and Site Assessment system developed by the U.S. Department of Agriculture in 1981. As its name suggests, the system has two components: land evaluation and site assessment. The land evaluation component assigns each parcel of land a numerical rating reflecting soil quality and suitability for farming. The site assessment component rates surrounding economic, social and geographic features to indicate development pressures and considerations on the farm and farm viability.

Jurisdictions in Minnesota and throughout the United States have developed maps identifying agricultural land. Many Minnesota counties have mapped land based on the land's Crop Equivalent Rating, a system developed by the University of Minnesota to classify land according to its productive value for agriculture. Winona and Dakota counties, among other local governments, have used more sophisticated models to classify and prioritize lands based on the LESA system.

Jack Flynn



Jack Flynn

A community should evaluate the performance and prospects of its principal industries. RIGHT: Mayo Clinic, Rochester, Minnesota LEFT: Blandin Paper Company, Grand Rapids, Minnesota

on the average "footprint" for each type of use. For example, if the pattern of commercial development is likely to change in the future (e.g., from being treated as a separate use to one of a mix of uses in more compact developments), a community will need to take this into account when estimating future land needs.

One initial option for estimating commercial land needs is to look at how much commercial and industrial space was added to a community in the last 20 years and then assume the same level of growth during the next 20 years. This makes sense only if the average "footprint" of commercial development is not likely to change. A community can obtain some of this information by consulting building permit records for commercial and industrial space. A second option is to conduct a survey of business owners regarding plans for expanding over the next five to 10 years. A third option is to estimate needs based on the ratio of population change to commercial square feet over the past decade. In most cases, however, a community can make a rough estimate of land needs using the following formula:

1. (Forecasted population) – (Current population) = Additional population
2. (Additional population) x (Current number of commercial/industrial acres per 1,000 population) = Additional commercial/industrial acres expected

Resource-based economic activities. Agriculture, forestry, mining and tourism are important components of many local economies in Minnesota. Manufacturing operations often are directly related to a community's resources. For example, crop and animal processing, paper and pulp processors, and saw timber operations use renewable resources as a feedstock. Even in areas where other resources and industries may offer more jobs and tax base, such as in many metropolitan communities, it is important to address resource-based industries in a comprehensive plan.

As a model for any resource-based activity, background and analytical work for agriculture might include:

- Historic and current information on the number of days farm operators worked off farm (from the Census of Agriculture)

EVERYTHING IS CONNECTED

Economic, environmental and social conditions are fundamentally interdependent, and the decline of one area can bring about the decline of the others. For instance, as described in a 1999 article in *Governing Magazine,* "The Czar of Sprawl," Hewlett-Packard, one of the largest computer manufacturers in the world, decided not to expand its business operations in Atlanta because air quality and traffic congestion there made it difficult to move employees from home to work. Richard Skinner, a local college president, commented, "If life gets too bad here, it is possible some of these corporations could say, 'Do we really need to be here?' That's the part that ... scares everybody to death."

- Location and area of land in crop production, pasture, timber land (from statewide land use/ land cover information or local land use inventory)
- Volume and value of production by crop or agricultural product
- Number of animal agriculture facilities and number of animals by type

Assets and challenges. A community should invite businesses, residents and visitors to comment on the state of its economy. Some key questions to ask to identify assets and challenges and the degree to which an economy is sustainable:

- How diverse is the local economy, and how resilient is it in enduring cyclical declines in any single industry? What role might the community play in diversifying the economy?
- How efficiently does the economy use local natural resources for feedstock (e.g., mineral inputs to manufacturing) and infrastructure (e.g., to protect the quality of air, land and water resources as wastes are assimilated)?
- How efficiently does the economy tap local human resources in its work force?
- How well do local businesses respond to local and regional market opportunities?
- What is the community's mix of residential, commercial and industrial land uses, and what is the overall effect on the tax base?
- How do the businesses or industries contribute to the economic diversity of the community? Are they stable, growing or shrinking components of the local economy?

Icons illustrate the importance of forestry, mining and agriculture to Minnesota's history and economy.
LEFT: Paul Bunyan, Akeley, Minnesota MIDDLE: Iron Man Memorial, Chisholm, Minnesota RIGHT: Jolly Green Giant, Blue Earth, Minnesota

- What meaningful contributions do businesses make to community causes?
- What are the effects of local industries on public health and the environment?
- Is there a public or community interest in promoting alternative production methods?
- Should the community sponsor efforts to add value locally to local resources?

A community can think about the assets and challenges of resource-based economic activity in several ways. One is to compare maps of lands determined to be important for an activity with maps of areas that are growing and developing. Are there potential conflicts or competing land uses? Another is to invite representatives of agriculture, forest product or mining industries, economic development authorities, technical assistance groups and others to evaluate the roles of these industries in a community and devise strategies for making those sectors more resilient and sustainable. Key questions to ask might include:

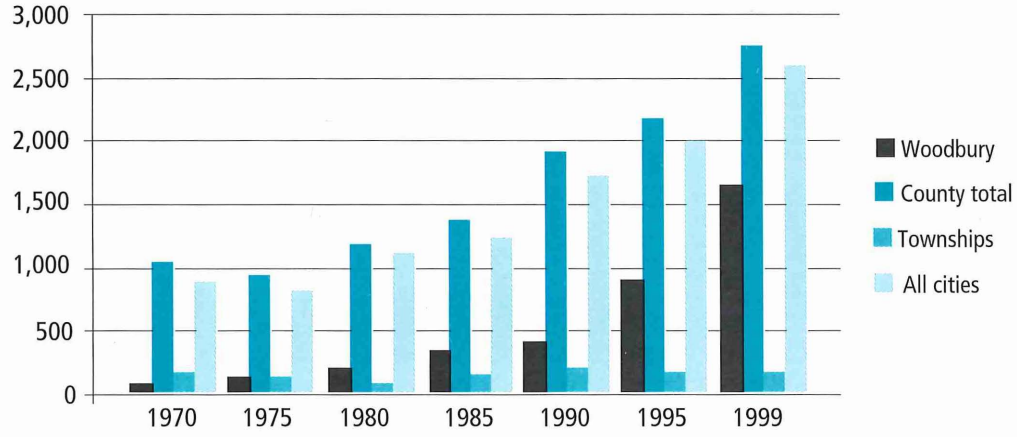
- What national and global trends and issues in the industries may affect the local economy?
- What is each industry's share of the local economy? Has this share been stable, growing or shrinking over time?
- What proportion of products (e.g., food and forest products) produced locally is sold locally? What proportion is exported?
- How have the number, size and type of operations changed over the last 10 years?
- How are local businesses adding value to local products? Does the community support local markets? What locally produced products are available locally? For example, do local restaurants and schools offer locally grown foods? Is there an opportunity for the community to help promote local markets?
- What land areas are expected to develop over the next 20 years? What issues might this growth pose for resource-based industries?
- Which areas should be preserved over the long term for these industries? Which might be appropriately converted back to natural areas, and which might best be developed?
- What methods should the community use to preserve and protect farm and forest land?

HOUSING

Communities usually identify general types and locations of housing through a land use inventory. A community may want to collect additional information about its housing stock and identify housing programs available to community residents. Participants in the planning process also may want to examine whether housing supplies are expected to

A county can uncover differences and trends in the growth of its cities and townships by examining building permits.

WASHINGTON COUNTY BUILDING PERMITS



Sources: Metropolitan Council, Washington County Department of Public Health and Environment

match demands for the foreseeable future. For many places in Minnesota, the lack of affordable housing has become a limiting factor for economic development.

Assessing housing supply. When assessing the existing supply and future demand for housing, a community may want to inventory and analyze the following:

- The supply and condition of housing: the number of units by type, size, location, age, energy efficiency and physical condition (including health and safety factors)
- Neighborhood conditions, including housing vacancy rates by area and building type, infrastructure quality, and neighborhood cleanliness and safety
- The accessibility to and availability of essential neighborhood facilities and services, such as transit, parks, libraries, shopping areas, post offices and community centers
- Public and private programs in the community that support the creation or revitalization of housing
- Constraints on housing development, such as the threat of wildfire or flooding, supply of land, building practices, code requirements or financing gaps

A SAMPLE RATING SCHEME FOR ASSESSING HOUSING CONDITIONS

- **Standard:** Housing has no visible exterior defects, has solid construction and is built to provide safe, healthy living.
- **Substandard minor:** Housing has slight defects that are normally corrected during the course of regular maintenance but may require immediate attention.
- **Substandard major:** Housing needs more than regular routine maintenance. The structure must be made safe and healthy for the occupants.
- **Dilapidated:** Housing does not provide safe and adequate shelter. Dwellings with three or more major defects are considered dilapidated.

Minnesota Historical Society

Housing inventories help determine if supplies will match future demands. Cottage Grove, Minnesota, 1952

- Special-needs housing in or near the community, including transitional housing, shelters, housing for the elderly and people with disabilities, and issues associated with this housing, such as its connection to the community and access to transit
- The affordability and occupancy rates of both rental and owner-occupied housing
- Change in housing values and rents over time
- Change in utility costs which have occurred or are anticipated
- The number of undeveloped platted lots which are available, with or without infrastructure extensions
- Vacant school, commercial and industrial properties which could be converted to housing

In assessing its housing stock, a community may want to collect data on major housing styles and their ages. If this information is not available for individual buildings, researchers can identify general areas of the community by predominant housing type and vintage. A community may also want to consider the condition of its housing stock. Assessor data sometimes includes up-to-date information on the condition of housing, or the community can conduct a housing condition survey in randomly selected neighborhoods or throughout the community. Smaller communities may want to simply note neighborhoods and properties known to have problems or maintenance issues. Such surveys may miss serious structural deficiencies, however, because they usually involve viewing the property only from the exterior.

Minnesota Planning

In the past, smaller homes offered affordability.

An inventory of housing stock and occupancy rates, coupled with projections of a community's population, can offer insight into future availability of housing. If current housing stock cannot meet future needs, more housing must be built or existing housing modified. This sort of analysis shows how self-evident many of the goals in the comprehensive plan can become. Once people have good information, it is a short step to turn that knowledge into a clear goal for the future.

For a community interested in using energy efficiency as an economic development strategy, a housing survey may be a good opportunity to assess the relative energy efficiency of a community's housing stock. Helping residents and businesses improve their energy efficiency can be a very cost-effective way to keep more dollars circulating in the local economy rather than leaving to pay for outside energy sources.

Finally, a housing assessment offers the opportunity to evaluate how well current housing provides access (for both those who drive and those who do not) to community amenities such as shopping areas, jobs, parks and libraries.

Display housing information on maps. Maps are useful for illustrating housing and neighborhood issues. A spatial display of housing data can help pinpoint areas where housing efforts need to be focused. Most of the housing data collected should be aggregated to the block level, particularly when presenting the information publicly. Geographic information systems can help communities look at this on a property-by property-basis, but it is important to consider the need for confidentiality whenever information on individual houses is involved. Some housing elements that can be mapped are:

- Age, displayed at parcel level
- Condition, displayed at block level
- Risk of loss of property to wildfire or flooding
- Values of owner-occupied housing, displayed at block level
- Type, displayed at parcel level
- Sales, displayed at block level
- Vacancy rates, displayed at block or neighborhood level

Assets and challenges. Key questions to ask in identifying a community's housing assets and challenges include:

- Does the community have a sufficient mix of housing so that people at different stages of life and in different economic circumstances can afford a place to live? Is the housing stock in good condition?
- Does the physical placement of housing provide easy access to the amenities that people need to

Carole Zellie

Today's townhomes help fill the affordability gap.

reach, including shops, parks, libraries, health care and schools?

- Is housing served by transit to accommodate people who cannot or choose not to drive, and to reduce traffic congestion and air pollution? Is it connected by trails and sidewalks to community amenities?
- Are affordable housing options sufficient to enable local employers to attract and retain skilled workers?
- Do neighborhood and housing designs help connect people with one another and with the community?
- Is the housing being built or renovated in ways that are energy efficient and environmentally sound, provide high-quality indoor air and minimize lifetime operation and maintenance costs?
- What challenges and opportunities do regional trends in housing, job growth, wages, transit, school and child care needs, and human services pose for the community?

INFRASTRUCTURE AND UTILITIES

A community's infrastructure and utilities include the built and natural systems that support its economic, environmental and social functioning. Both the built and the natural infrastructure require a community's ongoing investment and maintenance, and need to be addressed in a comprehensive plan. This section discusses comprehensive plan elements concerning transportation, drinking water, wastewater, storm water, energy and information and communications systems.

A community's infrastructure is a limited and precious asset that is critical to meeting the community's development goals. It is important to evaluate the capacity of a community's infrastructure – its ability to meet current and future development needs. A review should assess the age, condition and efficiency of each element of infrastructure in satisfying existing demands. It also should identify how much increased capacity and efficiency may be needed to accommodate future demand.

A PRIMER ON ROADS

Roads are usually described by their functional class, with each classification characterized by the type of trip served, the length of each trip, and the general traffic conditions. Each community requires a variety of roadways, organized as an integrated system, to accommodate different types of trips.

- **Local roads and streets** carry low volumes of traffic, usually at low speeds and for short trips. These may be city streets or township roads, but they all provide direct access to adjacent land, homes and businesses.
- **Collectors streets** are the principal traffic arteries within residential or commercial areas. These streets carry high traffic volumes and convey traffic from local streets to the arterial street and highway system. Parking should be discouraged along collector streets and residential lots should access collector streets via local streets. Collector streets may extend into commercial areas, and businesses may directly access them.
- **Principal and minor arterial roads** collect and distribute high traffic volumes at higher speeds and over longer distances. The state's trunk highway system connects cities and regional trade centers. Local arterials connect major subareas and groups of neighborhoods in communities. Because arterials are intended to link together more distant areas, maintaining their mobility is important. Thus, speeds are often higher, and direct access from individual parcels is limited. Indirect access to commercial and industrial development adjacent to minor arterials should be well spaced and organized, using intersecting collector streets and service roads. Principal and minor arterial roads make up the state's interstate and trunk highway systems. Freeways and expressways are characterized by controlled access with no at-grade intersections or other accesses.

MINNEAPOLIS TMO

In response to the impressive growth of its downtown, Minneapolis created its Transportation Management Organization in June 1991. This growth had increased the number of downtown workers and customers to an all-time high, raising concerns of congestion and pollution.

The TMO works to:

- Provide an information and sales outlet called the Commuter Connection for commuters and the general public.
- Teach the public about alternatives to driving alone.
- Involve employers, developers and building managers in making sound transportation decisions.
- Advise government agencies in creating solutions to transportation problems.
- Promote effective improvements and alternative transportation methods.

Source: Minneapolis Transportation Management Organization, www.mplstmo.org/index.html

TRANSPORTATION

The transportation infrastructure is the system of roads, rail, air travel, waterways, public transit, sidewalks and bikeways that transport people and goods within, to and through a community.

Minnesota's roads are administered by the state, counties, cities and townships. These roads fit into a hierarchy based on the function the roadway is intended to serve. The box, *A Primer on Roads*, outlines the hierarchy of roads in Minnesota.

A community must evaluate how its transportation network contributes to its long-term vision and planning goals. The background assessment of the transportation network includes an inventory and description of the transportation system, how people and businesses use it, how different modes of travel are connected and how the local network fits into the larger regional system.

The Minnesota Department of Transportation, cities, counties, metropolitan planning organizations and transportation management organizations keep and update transportation plans and information. Transportation management organizations can best be described by example. The Twin Cities area has two active TMOs, but TMOs can also work for a county or region. The Minneapolis TMO is described in the box.

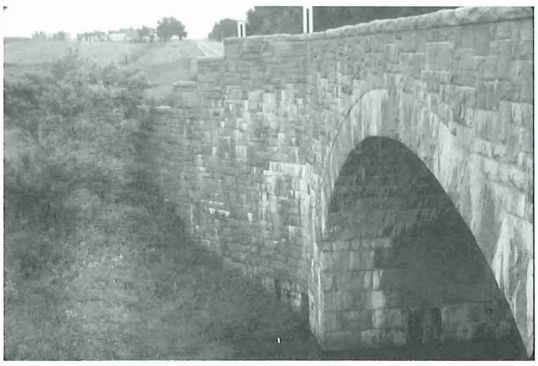
Through these sources, communities have access to a variety of transportation background information, including records of peak traffic volumes by type of road, level of service on a number of roads or at key intersections, traffic forecasts, transportation capital improvement plans and maintenance and monitoring plans.

Assessing transportation needs. When assessing transportation needs and facilities, a community may want to inventory and analyze the following information:

- Existing and projected land use and trip generation rates, including the relationships between where people live, work, play and shop
- Adequacy of traffic circulation within and around the community
- Capacity of street and highway systems, traffic control devices, bridges and culverts. An inventory might include surface type, road width, road and bridge load limits, rights-of-way, facility condition, responsible jurisdiction, traffic counts and level of service ratings.

Carole Zellie

Communities must address traffic movement and safety for pedestrians and bicyclists.



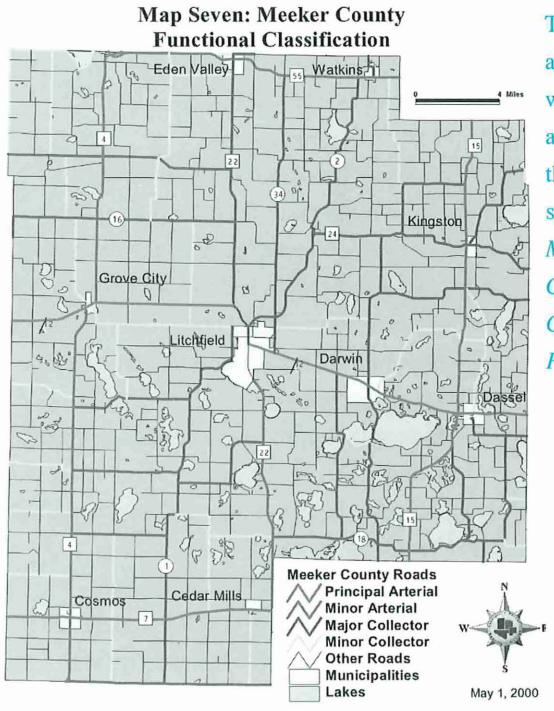
Jack Flynn

Bridges offer function, as well as historic and aesthetic value. WPA bridge over Split Rock Creek, Rock County, Minnesota

- The cost, location, size, occupancy and utilization periods for public, commercial and private parking in commercial and industrial districts, and its link to transit
- The location of transit, walkways and bikeways in relation to community amenities, businesses, shops, medical facilities and neighborhoods
- Transit service information, such as service areas, routes, ridership and cost. Rural areas may only have bus services directed toward the elderly or people with disabilities. Metropolitan areas have a wider range of transit alternatives, from public bus and train services, to carpooling services and employer van pools.
- Commercial traffic information. Airports, rail and truck traffic – even barge traffic – may need to be considered in a community's long-range vision, goals, policies and strategies.
- Traffic demand management plans in a community. These plans are generally location-specific, often created for a single business or business node, and detail the steps that employers will take to reduce traffic congestion and parking problems for a specific area. TDM plans can include simple investments in transit infrastructure (e.g., bus stops) or promotion of carpooling, walking and bicycling.
- Existing traffic corridor studies
- Existing air quality information and studies

Display transportation information on maps. It may be useful to employ geographic information systems to generate maps of various types of transportation information overlaid on ecological base information (such as environmentally sensitive areas or groundwater recharge areas) and demographic and economic information. Such overlays can foster a better understanding of the consequences of and relationships between where people live, work, play and shop. Whenever possible, these overlays should include information about condition, capacity and current use levels. Examples of overlays include:

- Community road network, including rail lines and facilities
- Regional road network
- Traffic counts and level-of-service designations
- Transit, bike and pedestrian routes and trails
- Pipeline and electrical transmission lines (not local service)
- Major traffic generators and attractors
- Telecommunications infrastructure



The background assessment begins with an inventory and description of the transportation system. *Meeker County Community-Based Comprehensive Plan*

Information on alternative modes of transportation (bicycling, walking, snowmobiling, etc.) is more difficult to obtain than background information for automobile traffic. Communities must be aware of the distinction between traffic `information and information on other modes of transportation. A traffic level-of-service rating for a particular intersection, for instance, focuses only on vehicle traffic and does not consider the ease with which pedestrians can cross the intersection.

Assets and challenges. The current capacity and quality of transportation infrastructure and the likely future need for improvements or alternative systems will shape the community's process of setting its vision and goals. Some key questions to ask to begin that process include:

- How can the functions of regional highways that go through town be preserved?
- Do the community's access management practices support intended road uses?
- Can people safely and easily get to community centers, commercial areas and park and ride lots without driving?
- Who in the community depends on transit or nonmotorized modes of travel?
- What development patterns are leading to significant traffic bottlenecks?
- When will highway expansions to remove bottlenecks solve the problem long-term, and when will they only lead to more growth and new, more costly bottlenecks within a few years?
- Are the functions of arterial or principal highways put at risk by local traffic patterns from existing and expected development?
- Does the community have good access to regional bicycle routes or other kinds of recreational trails?
- Are there good opportunities to relieve congestion and air pollution problems by designating bikeways and encouraging use of transit?
- Does the community have good rail access? Do local industries need rail to transport goods?
- Is the airport adequate? Does air travel adequately support business and personal travel needs?
- Are local streets and intersections pedestrian-friendly? Does the city have a bicycle and pedestrian plan?

INFORMATION AND COMMUNICATIONS

Communication and information technologies are rapidly evolving, and access to the latest technologies is becoming an essential element of a community's economic competitiveness and its quality of life. Although frequently overlooked, planning for telecommunications should help a community identify its present and future needs for information services.

Assets and challenges. In the rapidly changing world of information and communications systems, identifying assets and challenges can be difficult and yet vitally important. Some key questions to consider are:

- What is the current use of telecommunications services (i.e., types of services and types of users)? What are the expected future needs?
- What kinds of telecommunications services are citizens and businesses interested in? What are their needs?
- Does the community have a good inventory of telecommunications towers and other technology infrastructure, such as fiber optic cables, phone and electric service?
- Does the community have adequate regulations in place to site telecommunications towers and related facilities?
- Does the community have access to cable systems? Does the cable provider offer Internet or information services? Does the franchise agreement adequately address the community's needs for ongoing improvements to service, public access channels and use of the community's rights-of-way?
- What capacity and speed can the local Internet access system provide? Is competition sufficient to keep rates low and provide incentives to maintain reliable service?
- Does the community have local expertise or technical capability to stay abreast of changes in the information industry?

- Have local businesses or local government invested in information technology? Is the technology adaptable for future advances?
- Does the community have private sources of capital willing to invest in or upgrade technology as necessary to take advantage of information systems advances?

DRINKING WATER, WASTEWATER AND STORM WATER

Taken for granted by most residents, a community's water infrastructure is critical for sustaining its social, economic and environmental amenities. Most communities cannot economically import their drinking water from distant locations, so they draw their supplies from local surface or ground water sources. Similarly, wastewater must usually be treated and discharged locally, without contaminating local waters. Finally, storm water must be collected and managed to prevent flooding, erosion, contamination of lakes and streams, and destruction of native wetlands and aquatic habitat.

Background studies should identify the kind, capacity, current use level and condition of a community's three forms of water infrastructure. Rural areas often depend on a variety of decentralized systems, including septic systems for wastewater, individual wells for drinking water and natural systems for managing storm water. Cities and metropolitan areas, on the other hand, tend to use centralized, mechanical systems.

The elements of water infrastructure that may need assessment include:

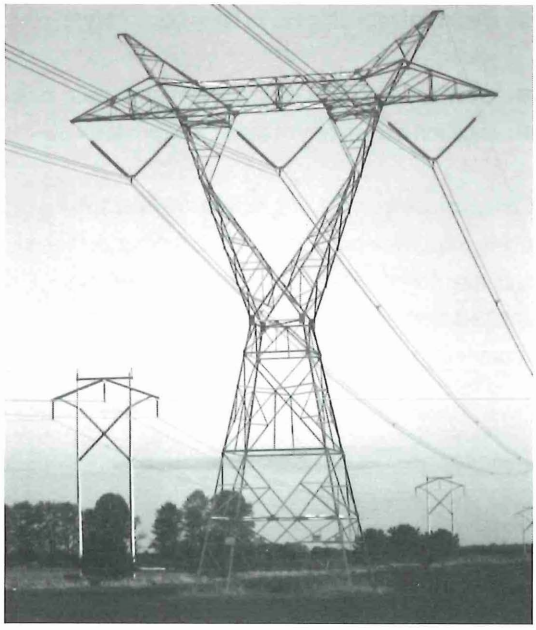
- Quality and availability of potable water sources
- Water pressure and service elevation limits
- Sewer lift stations and force mains
- Wastewater treatment system location, design, capacity, operation, maintenance and monitoring
- Number, location and condition of septic systems
- Drinking water system capacity and treatment effectiveness
- Water distribution system location, integrity and efficiency
- Natural and built storm water systems
- Quality of receiving waters and other natural systems
- Wellhead and other source-water protection areas
- Location and quality of public and private wells

Communities experiencing rapid growth or specific utility concerns may supplement background studies and inventories with more detailed engineering analysis. These can map or model the functioning of a community's water infrastructure, any needed

ICED TEA AND MORE? MAKING THE TRANSPORTATION-LAND USE CONNECTION

In 1991, Congress adopted the Intermodal Surface Transportation Efficiency Act, which emphasized improved connections between land use goals and transportation planning. ISTEA requires that all proposed transportation projects be evaluated through a comprehensive planning process that considers local and state mobility goals, as well as community goals, environmental protection, economic growth and energy efficiency. In response to ISTEA, the Minnesota Department of Transportation began a Statewide Transportation Improvement Program to set priorities for federal highway funds. Eight area transportation partnerships were established to advise the department on project and funding priorities, each representing a geographic region of the state.

ISTEA also called for comprehensive transportation planning in larger communities and strengthened the powers of metropolitan planning organizations, which serve metropolitan areas with populations of 50,000 or more. Minnesota has seven designated organizations, four of which represent bi-state partnerships. These MPOs prepare annual work plans and develop 20-year transportation plans that must include long- and short-range strategies that contribute to an intermodal transportation system.



Environmental Quality Board

Consider impacts of existing and planned utility corridors.

changes or plans and information about system repair and capacity expansion needs. The location of excess capacity or pressure points in water infrastructure may affect how, whether or where a community could accommodate growth. Communities experiencing less change and having well-maintained systems may require only a utility system inventory.

Assets and challenges. Background information on the current status of water, wastewater and storm water systems and the likely future need for additional or more efficient systems may influence a community's setting of its vision and goals. Key questions to ask in identifying a community's water, wastewater and storm water system assets and challenges include:

- Are individual sewage treatment systems properly maintained and monitored, particularly in such sensitive areas as Karst and sandy soils or along lakes, wetlands and rivers?
- Is the water quality in local lakes and streams an asset or a challenge? If a challenge, are the sources and impact of pollution known?
- Does storm water create erosion, flooding or water-quality problems anywhere in the community? Can the community reduce the amount of impervious surface in existing and expected developments to protect its lakes, wetlands and streams from runoff problems?
- Are the capacities of the wastewater and drinking water systems adequate to accommodate expected growth?
- Do zoning ordinances protect wellhead zones and other source-water protection areas?

SOLID WASTE

The amount of solid waste that Minnesotans produce per person continues to rise. According to the most recent figures from the Office of Environmental Assistance, despite Minnesota's high recycling rate of 46 percent, per capita waste generation was up 5 percent, to 1.11 tons per person in 1998. The OEA's *Minnesota Solid Waste Policy Report* for year 2000 notes that since 1992, municipal solid waste has increased 30 percent statewide. This rate far outpaced the state's population growth during this period and is a clear concern for local governments and residents who bear much of the cost of managing it. State figures show that cities and counties spend $7 million each year just to handle products that pose problems for their waste stream, such as old electronics, paint and used motor oil.

The process of developing a comprehensive plan provides a perfect opportunity to anticipate and address solid waste management needs and the impacts of future development.

MOORHEAD GENERATES ELECTRICITY AND SAVINGS FROM WIND

With two 750 kilowatt wind turbine generators, Moorhead Public Service is ranked first nationally for the percentage of customers participating in a renewable energy program, according to the National Renewable Energy Laboratory. The utility is also recognized for charging the seventh-lowest premium in the nation for clean, wind energy. See http://www.mpsutility.com/capture.htm.

Assets and challenges. A community can evaluate current waste management practices and identify opportunities that have economic, environmental and social benefits by asking:

- What is the capacity of the current waste management system?
- What local materials are currently collected in recycling?
- What materials are put to use again locally, either through reuse or recycling?
- Are there local or regional programs to reduce construction waste?
- Is there a program to capture the usable materials from buildings being torn down?
- Is a waste exchange program available to businesses or residents?
- Do waste exchanges occur?
- Is there a composting program?
- Are there packaging restrictions to encourage recycling and composting?
- Do any local businesses use products from composting programs?
- Do local businesses use materials from curbside recycling programs in their manufacturing processes?
- Can local government encourage businesses that use recycled materials to locate in the community?

ENERGY

Energy systems are crucial to a community's livelihood. Virtually everything people do requires energy in some form. Yet energy is often left out of comprehensive plans because local governments view it as outside their realm of influence. The way a community and its buildings are designed, built and placed, however, can dramatically influence the type and amount of energy used and affect a community's economic and environmental well-being. A community has a clear stake in how energy is generated and delivered to its citizens and businesses, and it should look for opportunities to work with energy providers in tapping home-grown resources and for other ways to fit energy into its economic and community development picture.

Background information on energy infrastructure and evaluation of quality and capacity issues may include:

- Inventory of energy utilities serving the community
- Inventory and maps of existing and planned utility corridors
- Inventory of energy utility programs available to community residents and businesses, including those for energy efficiency, marketing and economic development assistance
- Types of heating fuels used in residences and businesses
- Local renewable-energy fuels and potential
- Service reliability of the energy distribution system
- Capacity of the regional transmission system
- Energy rates

Assets and challenges. Questions to help start a discussion on what may be a community's energy assets and challenges include:

- What is the projected demand for energy, and what are the economic implications?

Jack Flynn

Wind power is a renewable resource that can keep energy dollars circulating locally. Buffalo Ridge, Minnesota

- To what extent has the community (schools, local government, businesses, households) adopted energy efficient measures and technology in its lighting, heating, cooling and mechanical systems?
- Have businesses, residents and public agencies participated in energy efficiency programs?
- Does the community enforce the State Energy Code? Does the enforcement agency have sufficient resources and staff to ensure compliance?
- Do residents know where to find energy-efficient and renewable-energy products and services? Are any of these manufactured or provided locally? Could they be?
- What local renewable-energy sources could be tapped? Are any currently used? Could the community leverage interest in renewable energy in contracts with energy providers to increase the availability of renewable energy?
- Do potential sites for co-generation of electricity and heat warrant study?
- Does the community have a municipal utility or a franchise agreement with private utility companies?
- Are energy-wise siting and landscaping of buildings promoted to reduce the energy demand of the buildings and landscape maintenance?

COMMUNITY FACILITIES AND RELATED SERVICES

Local governments provide a broad array of services to citizens and residents. For a typical county, such social services as recreation, health care and welfare account for over half of the budget. For a typical city, recreation, transit, public safety (including police, fire and emergency services), street maintenance, snow plowing, libraries, waste collection and other general government services represent about 85 percent of the budget. Schools are by far the largest category of state and local spending, and their placement significantly affects development patterns.

Community services require significant expenditures of public funds and have a tremendous impact on residents' quality of life. The relationship between land use decisions and public services is a close one. The location of a new school or library, the efficiency with which emergency services can be provided, the ease of collecting and disposing of solid and hazardous waste, the location of public and assisted-living housing and the viability and location of public transit all are directly linked to land use patterns, policies and regulation.

A community should inventory and assess the services that various organizations provide locally and identify any needs that citizens and local service providers may have.

Gathering and reporting background data and conducting technical analysis on public services can be complicated. Capacity is a more difficult assessment for some types of public services; the need for libraries, cultural institutions or some educational services can be difficult to measure. The government entity responsible for some local services, such the local school board, is not the entity conducting the comprehensive plan. It is often in the area of public services that cooperation with other governmental groups is most necessary. Representation from them in the planning process can be extremely important.

Demographic trends are a critical component in service planning. Health care and housing are a growing concern in many communities as the median age of residents creeps upward. Transportation access to basic services is similarly a growing concern as communities spread out in less dense patterns and increasing numbers of people have disabilities. Recreational and educational services will vary greatly depending on the makeup of the population.

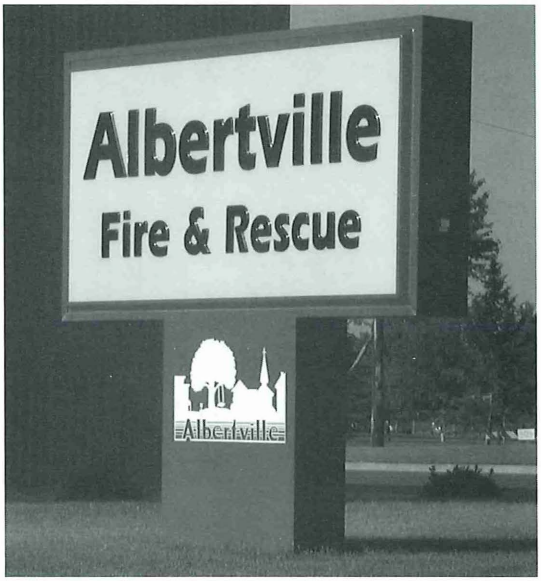
When addressing its public services, a community may want to consider:

- Conducting an inventory of services
- Evaluating information on demand for or use of these services, such as by reviewing statistics on fire, police and emergency medical services
- Assessing the per capita cost of various services
- Assessing the condition and status of equipment, vehicles and buildings

- Identifying nonprofit providers or advocates that may help a community meet its future needs
- Developing relationships between governmental entities that provide local services, such as between the local government and the school board, county and state agencies

Assets and challenges. Following are some questions that will help a community determine its vision, goals and policies for services it provides:

- How valuable is each public service as a community asset? If the service were to be eliminated, would the quality of life in the community decline? If it were enhanced, would it boost the quality of life?
- What is the condition and capacity of existing school facilities? How might future development affect the ability of schools to provide good education? How might it affect the vitality of the community?
- How do school locations and programs reinforce community values? How might residential development affect schools and the school tax levy?
- When a new building is needed, whether for a school, library or other public service, does the community consider how the needed facility and service might be integrated and co-located with other public facilities?
- How can the community ensure new facilities are sustainably designed, providing high performance, disaster resistance and a creative environment with the lowest long-term cost?
- What is the response time for emergency services (police and ambulance)? How might future residential development affect response time?
- Does the community have a plan for how it will respond in the event of a natural disaster? Does it have policies to prevent or reduce the effects of natural disasters?
- Will the community need to ensure that health care services and means of access are expanded?
- How might development affect the need to expand or modify cultural centers, libraries and recreation programs?
- Have opportunities for sharing services been explored with neighboring communities?
- Has the community adequately assessed its changing demographics and the impact on public services? For example, if the population is aging, what opportunities have been made for nursing home care, assisted living and other appropriate housing arrangements?
- Has the community considered the change in demand for various types of recreation and other social programs that will accompany a different population and cultural structure?



John Wells

Keeping the community safe is a core government function. Albertville, Minnesota

Setting a Community's Course

SETTING A COMMUNITY'S COURSE

With a good, realistic picture of their community, its assets and challenges, citizens and local leaders can make intelligent, well-informed decisions about what they would like the community to look like in the future. What assets do they want to maintain, invest in or improve? What problems must they confront? What do residents want their community to look like in 10, 20, 50 or more years? A comprehensive plan is the vehicle for articulating these wishes, and the plan's vision, goals and policies are a road map that sets the vehicle's course.

To help a community draw the road map, this chapter will discuss the value of stepping back to look at community assets and challenges, and using this fresh perspective in visioning, setting goals and developing policies. The guide offers a number of tools to use in this course-setting process and in evaluating action steps and indicators for progress.

REVIEWING COMMUNITY ASSETS AND CHALLENGES

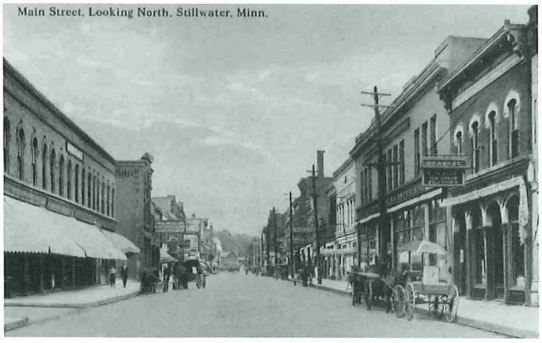
As the first step in setting its course, a community should revisit the assessments of its assets and challenges. It should step back from the detail these may provide and look for the bigger picture. What community assets must be part of that picture? What challenges are met within it?

Assets and challenges likely come to the surface issue by issue as a community assesses its background information, but to be most useful in setting a course, these assets and challenges should be viewed as a package. One way to do this is to make lists of "key assets" and "biggest challenges," and then to ask citizens what the lists tell them.

This means sorting through ideas and taking stock of what is most important and relevant to a community's vision of the future and to its goals and policies for meeting that vision. This exercise can take place within a number of forums, which should be defined in a community's public participation plan (see Chapter 2, *Getting Started*).

Building on a common understanding of assets and challenges to craft a vision, set goals and develop policies brings a community's information together with its values. Making sure this results in a plan that fully reflects both information and values takes careful and persistent effort to involve as many people as possible.

People commonly view community planning as a form of problem-solving. The activity itself suggests a focus on problems as the first step toward generating solutions. What is wrong with our community that we need to fix? While this approach is logical, familiar and can be effective, a more constructive option is to focus first on what is right with a community and to brainstorm ways to leverage and build on those things. This approach often can be motivating and illuminating in ways a problem-centered focus is not.



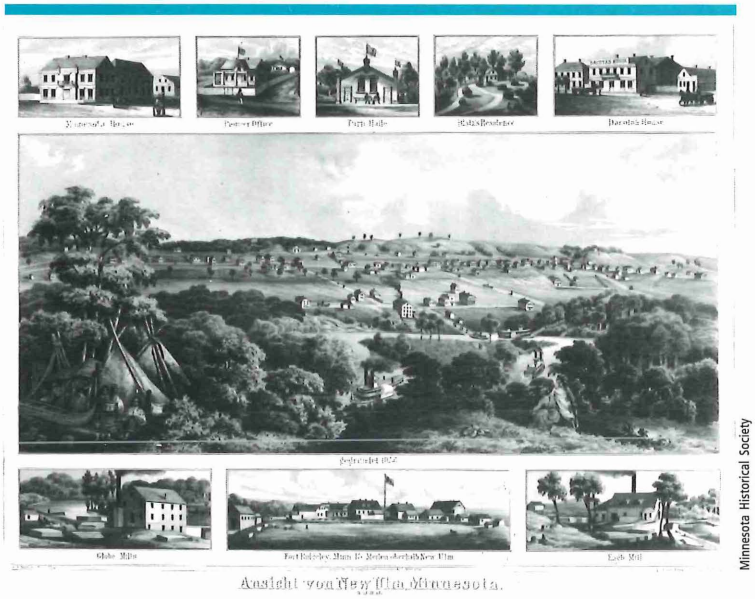
Minnesota Historical Society

Main Street, Stillwater, Minnesota, ca. 1905

Carole Zellie

Main Street, Stillwater, Minnesota, ca. 2001

Minnesota's first town builds on its connection to the river and historic character.



Minnesota Historical Society

The Minnesota River, Fort Ridgeley, mills, hotels and housing all formed part of New Ulm's asset picture. New Ulm, Minnesota, 1860

Examples of assets upon which a community might build include:

- The community's connection to the river is its greatest attraction.
- People really feel like they are part of this community: we're all really tuned in and connected to what's happening.
- Our main street is still the heart of this town.
- Our community is strategically located at the intersection of two thoroughfares and is a natural center for area commerce.
- The school gives this town its identity and its potential for the future.

Understanding the challenges a community faces – particularly if they are pressing – is a useful complement to an asset inventory in thinking about a community's vision for the future. It is helpful to use the same broad framework of economic, environmental and social features to organize specific challenges to which the comprehensive plan will speak.

Examples of broad challenges with which a community must wrestle include:

- Our community lacks educational and employment opportunities for our young adults.
- Our historic main street is struggling economically, and we want to keep it as a vital asset to our community.
- The population in a particular neighborhood is aging, and many elderly lack the ability to keep up their homes and access necessary services.
- The current development patterns in or near our community threaten some of our most prized natural areas.
- The cost of energy to heat our buildings is skyrocketing, and it is draining the community's budget. The same thing is happening to homeowners, and this makes housing less affordable.

Asset and challenge statements may or may not imply elements of a particular vision or specific goals and policies. They serve, however, as good points around which a community can begin to build consensus. Gaining consensus on assets and challenges can make setting a community's course much easier, because participants will have agreed on the strengths to be preserved and challenges to be faced.

ADDRESSING GROWTH

With few exceptions, no planning issue gets more attention than growth. Whether it is a new subdivision, mall or business, many people have a

PAYING FOR GROWTH

According to the Rocky Mountain Institute in *Paying for Growth, Prospering from Development*, "An efficient local government would require that revenue from new growth be sufficient to pay for all public service and capital facility expansions demanded by the new growth, plus the wear and tear that the expansion imposes on existing infrastructure." Charging for the water and wastewater costs of growth has become common in Minnesota through access fees. Many communities that want to encourage growth, however, may set the fees too low to fully cover the costs.

stake in the debate. Homeowners and businesses do not want to pay more for their land and buildings than necessary. Developers often feel they pay more than their fair share of new development costs. Local governments may not want to pay more for public infrastructure and services than growth provides in revenue. In addition, development can impose costs on the natural environment and social fabric of a community if it leads to greater isolation of residents, more dependence on cars or pockets of extreme poverty.

A community that has set its course will have a vision, goals and policies to guide it in thinking about growth. These will help the community understand what really makes long-term sense for it and what does not.

COPING WITH DECLINE

Another increasingly common challenge for many communities is the opposite of growth – population decline. A community with a stagnant or declining economy or deteriorating infrastructure and services may well benefit from planned growth. Such a stressed community, however, may tend to accept any sort of growth, even if it is incompatible with its long-term health. For this reason, it is just as important for struggling areas as for growing ones to define a vision of the future.

COPING WITH DISASTER

Every community should have a plan for coping with natural disasters, and the plan should be linked to its comprehensive plan. The vision, goal and policy elements of a comprehensive plan – the course-setting elements – are key to this connection. One example of the value of this connection comes with recovery efforts. Recovery can be the silver lining for a community faced with rebuilding after a disaster. The community has the opportunity to rebuild in a way that helps it achieve its vision and goals. Instead of simply struggling to stay ahead of rapid growth or continuing decline, a community can reshape itself through rebuilding. To be successful in doing this, a community should have policies in place to guide it in achieving its goals and moving toward its vision.

CREATING THE VISION

A vision is a big-picture description of a desired future. It communicates the shared values and aspirations of a community and what the community hopes to look like or accomplish in the future. This picture serves as the basis for establishing community goals, policies and strategies, as well as a guide for implementing the comprehensive plan and evaluating its success.

An effective community vision must be grounded in reality. This is one reason it is useful to first collect and analyze information about a community and then to come to consensus about its assets and challenges. The understanding of what assets make a community unique and what challenges it faces informs visioning.

A PRINCIPLED APPROACH TO GROWTH

In the cost-of-growth debate, three principles are worth considering:

- **Freedom of choice.** People should be able to choose where they live and do business, as long as they pay the identifiable costs of those choices and do not impose unaccounted-for costs on other people or nature, now or in the future.
- **Responsibility for choice.** People should pay the fullest identifiable costs of their choices. For the market to work efficiently, the price of anything should reflect what it costs to produce it, including land, labor and capital (including the depreciation of natural capital).
- **Design within community values.** The design of a new development and how it fits a community's goals and values are as important as its location and cost. Part of a community's economic base and overall appeal is the way it looks and feels. What a development may add to or subtract from a community's appeal is part of its cost, and a community needs to evaluate this.

Minnesota Planning

Disasters can yield a stronger, more resistant community when recovery is guided by a community's vision and goals. Rochester, Minnesota

This knowledge, however, should not smother people's creativity or ability to imagine their community as they would like it to be. Therefore, it is sometimes best to bring in factual information after an initial vision has begun to come together but before it is finalized. This may make it easier for people to see how the data may support a vision, rather than how a vision can accommodate the data.

A broadly shared vision increases the chances that thousands of individual decisions will, in the long run, add up to places that people will enjoy living in and be proud to pass on. It is an opportunity for residents to ask and answer such fundamental questions as:

- What do we like about our county, city or town?
- What would we like to change?
- How much are growth and development benefiting us, and how much are they threatening what we cherish about our community?
- Is our community healthy economically, environmentally and socially, and will it remain so over the long term?
- How much of our community would we want to put on a postcard?

VISIONING PROCESS

The process of creating a vision provides an excellent opportunity to involve citizens and other stakeholders in planning and to establish a common understanding and commitment to taking action. Visioning should be both fun and thought-provoking.

Communities have lots of ways to get people thinking and dreaming about the future, including brainstorming, visual preference surveys, mapping exercises, community tours, small-group exercises and community-themed games. The point is to get people involved as participants and not simply as observers offering occasional input.

For example, visual preference surveys engage people by asking them to vote on their preferences on images of everything from open spaces to

SUCCESSFUL COMMUNITIES ENVISION THE FUTURE

Successful communities know both what they want and what they are willing to do to achieve it; they have a clear, integrated and credible vision. The key components of envisioning a community's future include:

- **Inclusive leadership committed to community, not individual goals**. Leaders should represent all segments of society, focus on doing the right things, listen and explore new ideas, and have the courage to make mistakes.
- **Noble and sustaining values, such as openness, equity, equality and fairness**. These must be held in common while acknowledging conflict and celebrating diversity.
- **Commitment to its vision as the sum of all a community has to offer**. This includes government services, education, business opportunities, residential ambiance, etc. Communities that grow understand their unique character and potential.

A prerequisite to effective visioning is overcoming common pitfalls. These include "hardening of the categories," which occurs when factions are intolerant of other views; reducing debates to battles of will; and "coveting thy neighbors" – defining goals based on borrowed ideas, images and strategies.

Source: Joseph Whorton, director of the Institute of Community and Area Development, University of Georgia.

CHATTANOOGA'S STORY OFFERS A LESSON

In 1969, Chattanooga, Tennessee, a mid-sized city on the Tennessee River just north of the Georgia border, was not only voted as the city with the worst air pollution in the United States, it also was an "invisible city" because it had no real image. Residents faced job layoffs, a deteriorating city infrastructure, racial tensions and social division. Recognizing these problems, a few visionary community leaders created Chattanooga Venture, a nonprofit organization with the goal of bringing the community together to clean up the city on all fronts.

Chattanooga Venture's first monumental task was designing and implementing "Vision 2000," which brought together more than 1,700 people over a four-month period. During a series of meetings, community members were encouraged to dream about the way they wanted their city to be, and these dreams were organized into a formal list of shared ideals. When completed, the community participants set 40 goals under the categories of "future alternatives," "places," "people," "work," "play" and "government" for the city to achieve by the year 2000. "Vision 2000" led to 223 projects and initiatives, created 1,381 jobs and 7,300 temporary construction jobs, served 1,551,000 people and triggered a total financial investment, public and private, of nearly $800 million in the community.

Chattanooga Venture recently completed a "Revision 2000" process in which citizens set 27 goals and made 122 recommendations for improving the community. Chattanooga has become a living laboratory for sustainable development. The process resulted in a presidential award for the redevelopment efforts, numerous infrastructure improvements, a homegrown electric bus manufacturer and the establishment of a Human Rights and Human Relations Commission, among other things.

Source: www.chattanooga.net/sustain/pcsd_briefing_book/particihousing_venture.html

Minnesota Historical Society

What would our community want to put on a postcard?
New Ulm, Minnesota, ca. 1914 postcard

transportation and housing options. Generally, 60 to 70 percent of the images come from the local area in question, the rest from elsewhere or from computer simulations. They can cover urban, suburban and rural settings. The goal of these surveys is to identify people's tastes and preferences (including cost trade-offs) in the characteristics and physical design of their communities and neighborhoods.

From the information gathered during visioning exercises, the planning team should draft a concise statement that summarizes the consensus of the participants. The team should then ask citizens to comment on the statement and, ultimately, embrace it.

SETTING GOALS

Goals serve as a community's compass headings. They are statements of aspiration, the big things that a community hopes to accomplish.

The ideal goal statement covers one major idea. Because most goals lend themselves to a variety of approaches, it is important for a goal to be specific enough to offer meaningful guidance but general enough to not dictate the strategies that a community might employ to achieve it.

Because much of the success of a plan hinges on public support of its goals, a community should

GREAT RIVER ROUNDTABLE DRAWS ON CITIZENS' IDEAS

The St. Cloud Area Joint Planning District began its comprehensive planning efforts in 1998 with the Great River Roundtable visioning process. The effort was kicked off by 85 students from St. Cloud area schools who were asked to imagine what the region could be like in the future. Fourteen similar sessions were conducted in the area, involving more than 400 residents and compiling nearly 1,200 ideas. The ideas were then sorted into 13 topics that residents discussed at goal-setting workshops. Through the visioning process, the ideas and aspirations of residents in the St. Cloud region were heard and helped shape the goals and policies of the comprehensive plan.

develop its goals through a public process. A number of effective participatory methods can be used to identify community goals. One of these, the "Looking Back, Looking Ahead" exercise, is explained in the box.

BASING GOALS ON ASSETS AND CHALLENGES

The very act of analyzing background information about a community and then identifying assets and challenges often naturally begins to reveal possible goals for the future.

A first step in developing goals from lists of assets and challenges is to understand the support and priority within the community. This may have been accomplished to some extent in preparing for visioning, but a community may need to take a closer look since goal-setting itself is a step more specific.

One process that might be used to understand these priorities is to set up a matrix with issues listed on one axis and their relative importance to various sectors of the community on the other. Then, representatives of each sector and the public at large can be invited to help fill in the chart at one or more meetings or community open houses. If lists of assets and challenges were prepared to inform the visioning process, these should be used in developing the goal-setting matrix.

Another goal-making step is to craft initial goal statements. In some cases, a goal may be an obvious extension of an asset and its related challenges. For example, if a community's lakes – one of its key points of interest – are deteriorating in quality, an obvious goal is to restore that quality. Each lake may require specific actions, but that conversation might be put off until later, when possible strategies are developed.

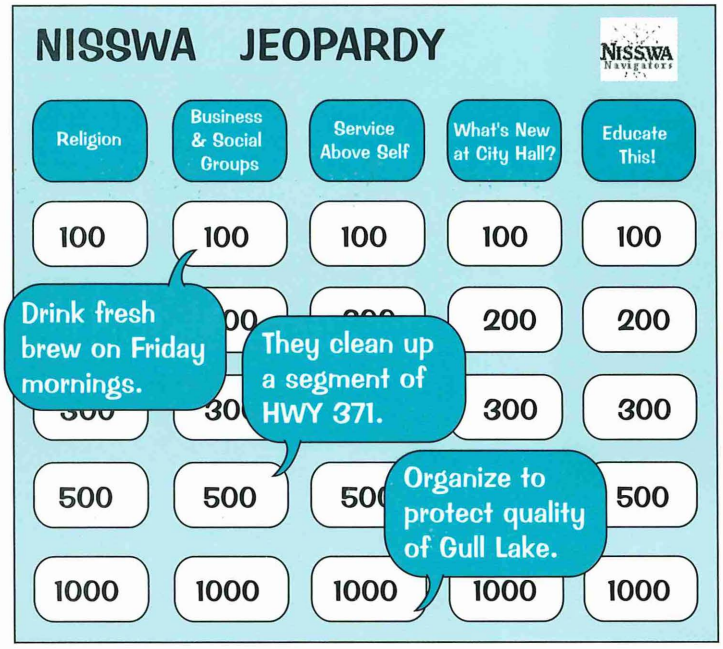
"LOOKING BACK, LOOKING AHEAD" SPURS INSIGHT

"Looking Back, Looking Ahead" is an effective exercise for identifying people's wishes and fears about their community. It encourages discussion about how people see things and why they view things differently. It can provide a sound, neutral foundation for creating a community's vision. A community can uncover a lot about what people want by asking four simple questions:

- Looking back 50 years, what three things have happened that you like the most – or feel best about – in your community?
- In that same time frame, which three things are you least happy about?
- Looking ahead 50 years, what three things do you hope will happen?
- What are three things do you fear will happen?

Each response to the questions should be written on a single card, and all the cards should be organized by question and posted on a wall. Ask participants to survey the wall and react to the cards. Were they surprised by anything on the cards? Was there something on the cards that they have never considered a positive or negative aspect of the community? Were some of things listed as fears also listed as things people want to happen? Lastly, read the things people hope for and ask participants to fill in the following sentence: "When our community has reached its desired future, it will ... "

JEOPARDY™ MADE LEARNING ABOUT NISSWA COMMUNITY GROUPS FUN



Answers to the clues on the Nisswa Jeopordy Game:

Drink fresh brew on Friday mornings:
What is the Friday Morning Coffee Club?

They clean up a segment of HWY 371:
Who are the Nisswa Jaycees?

Organize to protect quality of Gull Lake:
Who is the Gull Area Lakes Association?

Source: City of Nisswa

In other cases, a goal may be needed to capture a set of related issues. An example is the occasional mismatch between location and availability of jobs, affordable housing and transit. While each may warrant its own goals, a goal that links the three might be most important when considering community land use plans, funding priorities and business incentives.

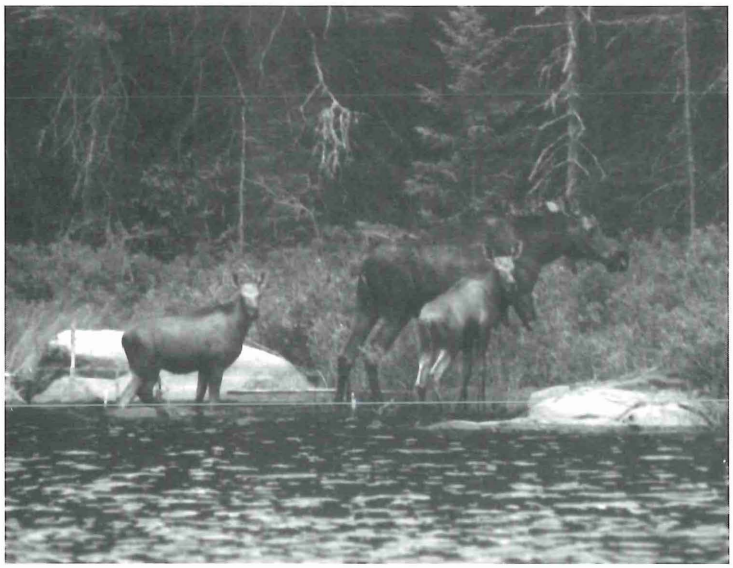
Understanding how issues may be related to one another, sometimes across traditionally unconnected areas of interest, is extremely important. Taking a step back from single issues to consider the bigger picture can be a powerful exercise in goal making. It can create opportunities to approach problems with greater understanding and depth, and spur the emergence of more sustainable solutions.

The final steps in goal setting are common to any method. People need to be engaged and re-engaged until a community senses it has consensus on its list of goals. The planning team will need to record and re-record many iterations of possible goals. Team members and the public at large need to study the draft goals to make certain they hit the right issues at the right level of detail. The development of community progress indicators may also aid in goal setting (see below).

DEVELOPING GOALS THROUGH A STRATEGIC PLANNING PROCESS

Used regularly in business, strategic planning can be a valuable method for developing community goals with a broad range of citizen participation. In the case of a community, strategic planning means identifying that community's internal strengths and weaknesses, as well as its external opportunities and threats. One way for a community to interpret this is to consider its assets and challenges as strengths and weaknesses. Its external opportunities are the "who or what" outside a community that might help. Its external threats are those things that might block a community from making progress. The point is to understand how a community relates to the larger world so that it can best position itself to prosper in the future.

Once planning participants have a good understanding of the current state of the community,



Jack Flynn

Recreation and wildlife draw visitors to the Gunflint Trail.

they can brainstorm options for enhancing strengths and minimizing weaknesses. After participant responses have been compiled, it often is useful to play out hypothetical scenarios built around the various options and compare their likely economic, environmental and social effects. The ultimate aim is to clarify what actions may be necessary to ensure that a community builds on its strengths, seizes its opportunities and minimizes or overcomes its weaknesses and threats. The exercise also brings into sharper focus which community goals, if implemented, have a realistic chance of leading to the desired future.

RENVILLE COUNTY VISION SEEKS A BALANCE

Renville County will find a sustainable balance between being a leading agricultural county and managing natural and human resources for long-term benefit. Crop and livestock yields will be maintained or increased by taking advantage of improvements in management practices, science and technology. Agriculture will not be unreasonably limited, but a comfortable co-existence with nonfarm activities will be sought.

GUNFLINT TRAIL LOOKS AHEAD

Cook County's Gunflint Trail is an extraordinary recreational and wilderness resource. Many resorts, outfitters, camps, residences and commercial services are located in the area. The vision for the Gunflint Trail includes:

- A roadway corridor largely flanked by forest cover with occasional roadside services and restrained, well-designed private and public informational signage
- Strong concern that the scale, materials and design of buildings maintain the historic image of the trail
- Commercial and social opportunities for trail residents and year-round visitors
- A continuation of the change in visitor patterns that includes expanded winter and off-peak-season use and increasing group sales

DEVELOPING POLICIES

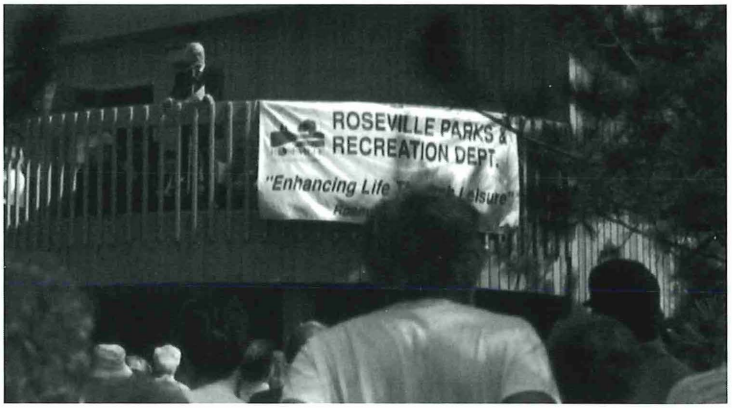
Having clear policies in place helps a community choose from among the many actions it might undertake in pursuing plan goals. A policy provides the rationale for choosing one implementation step over another. It informs a community about which strategies to pick and why. Put another way, a policy is a principle or course of action that guides a community's decisions and actions in pursuit of its goals.

Policies can be crafted at any level of detail and a community can use them in any number of ways. A community might first want to consider the need for "big picture" policies. These – like a set of overarching principles – guide community decisions across the board. They help it avoid sacrificing one goal for another. They bind potentially disparate plan efforts together.

For example, a community may adopt policies to take a long-term perspective and an integrated approach

in its projects and programs. This might mean a community would ask developers to examine the long-term economic, environmental and social implications of their projects. This helps a community ensure that it is not pursuing one goal at the expense of others. It also provides a safeguard to make sure projects that may seem attractive in the short term do not impose unforeseen costs on the community in the long run. The box on the following page, *Characteristics of Sustainable Development Policies,* presents a list of 10 policy characteristics a community might consider.

One way to formulate a policy is to consider the kind of guidance needed to reach a community's goals. A community may have a number of policies aimed at accomplishing any given goal, or it may have policies that address several goals at once. For example, if the goal is to keep property taxes low while protecting the quality of the environment, the community may choose a policy tying its approval of new subdivisions to the availability of infrastructure capacity needed to support them.



Jack Flynn

The Harriet Alexander Nature Center, dedicated in 1990, sits on a 52 acre nature preserve at the east end of Roseville's 225 acre Central Park.

The best policy statements help a community select achievable, measurable courses of action to accomplish one or more goals. A policy often works best if it is aimed at a clear result (e.g., keeping taxes low and environmental quality high) and if it concisely explains the nature of the approach to reach that result (e.g., phasing growth with existing capacity).

A community must make numerous choices in implementing a comprehensive plan, and policies can help it make these choices in a consistent manner. When this is done, the policies become a community's insurance that it is taking the right course toward implementing its goals and achieving its vision.

ROSEVILLE VISION SEEKS QUALITY OF LIFE

Roseville shall be a community that has as its highest priority the quality of life – both for those who live here and for those who work here. Roseville shall be committed to preserve, promote and improve the beauty, vitality, safety and serenity of the total environment in which its citizens live and work. Further development of business and industry, shopping, transportation, housing, entertainment, leisure and recreation opportunities shall be in harmony with the commitment Roseville has made to its environment and quality of life.

Sample goals

- Maintain and improve the community character and identity.
- Maintain the existing residential areas of the city as designated on the currently adopted land use plan.
- Eliminate blight and prevent deterioration of buildings and infrastructure.
- Protect and enhance the natural ecological systems within the city.

SELECTING INDICATORS

Communities commonly use two types of indicators in planning. The first can be called a community progress indicator. People use these measures to track a community's key economic, environmental and social conditions and trends over time. Such indicators are a useful way to measure how, and how rapidly, a

community is changing and where it is headed. In other words, they help a community ask whether it is meeting its vision and goals.

If indicators are identified during a planning process, they also can help a community develop or refine its vision and goals. For example, by posing the question "How would we know when we have achieved this goal?" indicators can be used by participants to help make a goal statement more focused and understandable. Afterward, they help a community understand whether it is moving toward its vision and goals.

CHARACTERISTICS OF SUSTAINABLE DEVELOPMENT POLICIES

1. They take a long-term view that leaves future generations at least as well off as the present one.
2. They take a systems approach that treats social, economic and environmental goals as interdependent.
3. They strive to be 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.
5. They allow regulatory flexibility, emphasizing sustainable outcomes rather than prescribing how to achieve those outcomes.
6. They reward resource as well as financial efficiency.
7. They provide a transition away from unsustainable behaviors.
8. They promote an efficient, low-waste economy that produces the best long-term outcomes for the environment, business and community.
9. They promote equitable solutions and equal opportunity.
10. They address root causes of problems.

Source: Adapted from *Investing in Minnesota's Future: An Agenda for Sustaining Our Quality of Life*, Minnesota Round Table on Sustainable Development, July 1998.

The second kind of indicator has the narrower purpose of tracking the steps called for in a comprehensive plan. It is helpful to think about plan monitoring indicators when developing strategies. If an easy way to monitor a plan step is not readily apparent, this may call into question whether the step, as written, can be implemented.

Taken together, community progress and plan monitoring indicators can be used to assess the success of plan elements in pursuing a community's vision and goals.

COMMUNITY PROGRESS INDICATORS

Community progress indicators provide a focused snapshot of a community at a given point in time. They allow a community to track its performance against an agreed-upon set of economic, environmental and social measures. If reported regularly, community indicators can help catalyze diverse interests into action based on a shared understanding of issues and trends. They can alert citizens and policy-makers to troubling signs of economic, environmental or social decline.

When developed as part of the visioning and goal-setting process, these indicators allow a community to track systematically its overall, long-term health. While some communities have developed community indicators separately from their comprehensive planning efforts, several benefits are realized by including them in the plan:

- The economic, environmental and social conditions identified through the planning process can establish a baseline for understanding future trends.
- The vision and goals of a comprehensive plan should be the basis for identifying what a community wants to measure and track over time.
- Indicators give a community the tools to evaluate its goals, policies and strategies and to make needed course changes.

TWO HARBORS VISION STRESSES COMPACTNESS

The vision for Two Harbors is to be a small, pleasant village of safe, clean neighborhoods that values family and community and is successful in environmental preservation and sound economic development. The town's growth will be guided by an overriding principle of compactness, and it will preserve existing development and focus new development on existing available lands with suitable infrastructure patterns.

Sample policies

- Rejuvenate downtown as an entertainment, hospitality, retail and waterfront historic district relating to the development of a marina in Agate Bay.
- Continue developing the west entrance to the city as a travel-oriented commercial area, while improving the visual, environmental and traffic management aspects of new and existing development to reflect the scenic byway designation of Highway 61.
- Preserve the old town nature of Seventh Avenue as a shopping and hospitality district for residents and visitors through design-oriented zoning districts, a streetscape project and improvements to maximize traffic capacity.

Minnesota Planning

Old town charm beckons tourists to stop and shop. Two Harbors, Minnesota

The exact categories a community chooses or indicators it tracks are probably less important than having the people who live in a place decide what is important to them – which is done through visioning and goal setting – and how to track the status of those things.

A tool called the "community balance sheet" might be useful in tracking plan implementation. The Center for Compatible Economic Development describes this tool in its *Citizens Guide*. The balance sheet incorporates high-priority components of environmental, economic and social capital. Community members regularly evaluate the status of each component, based on quantitative or qualitative factors, and assign each a score or letter grade. Although these issues are divided into three categories, they are interdependent. For example, education is not just a social indicator but also part of what makes up the economic base of a community and allows people to make intelligent choices about their impact on the natural environment. These evaluations form an easily communicated report card or balance statement on the relative sustainability of a community.

PLAN MONITORING INDICATORS

Rather than measuring the progress of a community in meeting its vision and goals, plan monitoring indicators are meant to help a community evaluate whether or not it is succeeding in implementing its strategies. Plan monitoring indicators include things such as whether or not codes have been changed to align with new goals, whether or not special studies have been completed or how the plan is being used in day-to-day decision-making.

Plan monitoring indicators track progress in carrying out a given strategy or in implementing a specific policy. For example, if a plan calls for staging approval of new subdivisions to the extension of water and sewer lines along a corridor, the plan monitoring indicator provides a crosscheck to gauge the community's success at implementing its policy.

Minnesota **Milestones**

Measures that matter

A VISION FOR MINNESOTA'S FUTURE

The vision developed from the priorities of thousands of Minnesotans in 1991 and 1992 remains a guiding force in *Minnesota Milestones 2002*. It can serve as a beginning point for a community considering its own vision.

We Minnesotans like our state. We believe Minnesota is a good place to raise a family, go to school and enjoy life. We appreciate the natural beauty, the friendliness and sense of opportunity, the good government and the diverse economic opportunities. We believe strong values are important – spiritual values, individual responsibility, volunteering, a strong work ethic and sharing with others. We appreciate our cultural diversity. These are the personal values we cherish and want to carry forward into the next century.

We do not want growth and change to overpower our quality of life. We want to plan for the future. Yet we recognize that we will have to make tough choices, as we have in the past. We want to deepen the values that have guided earlier generations and made Minnesota a leader in the nation. We want to begin now to build an even better place to live, a Minnesota to pass on proudly to our children and grandchildren.

When we talk about our hopes for the future, we share a vision with these common themes:

- *Minnesota will be a community of people who respect and care for one another.*
- *Our economic activity will create wealth and provide a good standard of living for all our people.*
- *Our citizens will be good thinkers, creative, always learning, with the skills to compete internationally.*
- *We will protect and enjoy the natural world.*
- *Our government will be responsive, effective and close to the people.*

STATE INDICATORS PROVIDE A MODEL FOR LOCAL USE

Minnesota Milestones 2002 uses 70 indicators to provide a statewide assessment of progress on 19 goals relating to Minnesota's people, environment, economy, communities and government. The data and information in *Minnesota Milestones 2002* can help citizens, communities and public officials make better informed decisions.

New features of this online version allow users to:

- View school district and county data
- Compare data within a region or across the state
- Download data sets
- Create maps showing county comparisons
- Search for data by geographic area, subject or indicator
- View new data throughout the year as it becomes available

Communities are encouraged to adapt *Minnesota Milestones* to fit their local needs.

Source: Minnesota Planning. See *Minnesota Milestones 2002* at www.mnplan.state.mn.us/mm.

Developing Strategies

DEVELOPING STRATEGIES

A community is challenged to develop plan strategies that:

- Reflect its vision, goals and policies yet remain flexible enough to accommodate uncertainty and unforeseen change
- Take a long-term perspective yet provide strategic direction for day-to-day activities
- Recognize issues as interconnected yet respect a community's social, economic and environmental limitations
- Are comprehensive in scope yet seize opportunities to secure the desired future

Carole Zellie

Development and environmental protection can go hand-in-hand. Washington County, Minnesota

TIPS ON DEVELOPING STRATEGIES

To help a community meet this challenge, this section offers a few pointers on how to select alternatives and avoid costly tradeoffs. A standard set of questions can help participants choose the most effective strategies:

- Is the strategy responsive to the community's vision and goals, and consistent with its policies?
- Is it likely to be cost-effective and easy to keep within budget?
- How would it affect other organizations, departments, individuals and communities?
- Is it likely to impose troubling short- and long-term economic, environmental or social costs?
- How long would it take to carry out the strategy, and would this likely fit within the community's timetable?
- Does the community have the organizational resources and personnel to carry out this strategy? If not, can it get them elsewhere?
- What are the possible savings from choosing one option over another?
- What, if any, regulatory or other policy changes would the strategy require?
- What would the cost of inaction be?
- What would future generations think about it?

AVOIDING COSTLY AND UNNECESSARY TRADE-OFFS

Local officials are expected to make decisions that satisfy the needs of a wide range of people. At the same time, they must act in the best interests of the community as a whole. It is common to treat this purely as a balancing act based on the belief that improving one aspect of the community must necessarily come at the expense of another. The following questions may help officials and others avoid this win-lose approach and instead seek solutions that benefit people, business and the environment:

- Would the strategy make economic sense, given the short- and long-term environmental, economic and social costs and benefits?
- Would it provide jobs and economic activity that would improve or be compatible with environmental and community health?
- Would it be ecologically sound? For example, would it draw on local resources faster than they can be replenished or replaced? Would it produce products or by-products that are reusable, recyclable or biodegradable? Would it destroy resources that cannot be replaced?
- Would it serve and add value to the community?
- Would it impose disproportionate costs on people who receive little or no benefit?

- Would it add to the community's quality of life without diminishing the quality of life elsewhere?

Even after a community has decided on a set of strategies, it would be wise to periodically re-evaluate them as it implements its comprehensive plan. This occasional reassessment can help ensure that existing strategies are the most effective ways to carry out a community's policies and meet its goals.

Jack Flynn

Bike trails provide recreational opportunities and enhance local economies. Cannon Valley Trail, Goodhue County, Minnesota

The rest of this chapter offers ideas about the policies and strategies a community might develop to address its goals. It suggests the questions a community might ask and the opportunities it might tap in selecting strategies. The chapter covers the following issues:

- Environmental quality and natural resources
- Historic and other cultural resources
- Economic development
- Agriculture
- Housing
- Transportation
- Information and communications systems
- Drinking water
- Wastewater
- Storm water
- Solid waste
- Energy
- Community facilities and related services
- Land use

The discussion of each issue begins with a brief introduction, then considers its relationships to other plan elements, sample goals and policies, and a range of possible strategies to meet the goals. Not every community will have the interest or resources to pursue every topic, but the guide explains why each topic may be important to a community and offers ideas for tackling the most common challenges.

ENVIRONMENTAL QUALITY AND NATURAL RESOURCES

Minnesota prides itself on the quality of its environment and natural resources. Whether it is a nature center, a ballfield or a walking trail, people appreciate places to relax, play or just enjoy the beauty of the outdoors. This makes planning for environmental quality and natural resources every bit as important as planning for roads and sewers.

According to the Minnesota Pollution Control Agency's *Environment 2000 Report*, citizens continue to rate clean, healthy water as a top environmental priority for the state. The report also notes that while Minnesota has made great strides in cleaning up large, stationary sources of pollution from cities and industries, the state still faces significant problems with nonpoint source storm water runoff (that which comes off farm fields, buildings, parking lots and lawns).

Most Minnesota communities face the challenge of protecting, preserving and enhancing environmental quality and natural resources. Local planning efforts must wrestle with how to manage these things in a way that enhances community life, the economy and the environment simultaneously.

Some of the important features a community may want to protect are:

- Air quality
- Lake and stream water quality and hydrologic characteristics
- Drinking water
- Habitat conservation areas and corridors

ECONOMIC IMPACT OF TRAILS

The Cannon Valley Trail runs between Cannon Falls and Red Wing. A 1994 study found that the trail had approximately 110,000 visitors per year, generating $1.1 million in trip-related spending. The study also found additional benefits that are harder to quantify, including the preservation of open space, enhancement of recreational and fitness opportunities, stimulation of low-impact economic development and a new commuting option for some.

Source: Department of Natural Resources

- Productive working forests and tree-lined streets
- Environmentally sensitive areas (e.g., steep slopes, unusual geological formations, forests, prairies, wetlands, shoreland and floodplains)
- Natural area, park and recreational open space

A basic goal of natural resources stewardship is to safeguard the functions of ecosystems. This means achieving the right balance between resource consumption and regeneration. A community should strive to manage its natural resources so that they continue to provide social, economic and environmental benefits to people over time while supporting other important ecosystem functions.

Many communities have grown up around a natural amenity and today use this open space to create a distinctive community attraction. Sometimes, these become a center of community life and not just a place tourists visit. High quality natural amenities are attractive and benefit a community. Open space can:

- Define the look and feel of a community
- Improve property values
- Provide places for recreation, rest and relaxation
- Promote socializing with neighbors
- Facilitate physical health and well-being
- Help clean the air and support a diversity of animal and plant life
- Allow people to learn about and appreciate nature
- Provide garden space for those who may not otherwise have it
- Naturally store and filter rainwater and runoff
- Provide corridors of habitat for wildlife

A community can ensure a high quality network of open spaces by identifying and mapping priority areas to preserve and acquire for parks and trails or to protect as private conservation lands through easements and voluntary measures. By identifying such areas before development occurs, a community can maintain a healthy balance between open space and land devoted to buildings and roads, and can ensure that the most ecologically sensitive sites will remain intact.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Economic development. Natural resources and environmental quality can be key ingredients of a community's economic development portfolio. Natural resources often support local manufacturing industries, including agriculture, mining, and pulp and paper. Natural resources also support tourism and recreation. Actions to enhance or protect natural resources and environmental quality should be linked to economic development priorities in a comprehensive plan, and vice versa. For example, a community might view its waterfront as an opportunity to draw people together. Making the waterfront a central community attraction can have great benefit, and in fact, can help define a community.

WOODBURY'S GREEN MAP

The Woodbury League of Women Voters invited residents to help develop a *green map* for the city to show interconnections between the city's natural and cultural environments. The public was invited to nominate sites, which the league used to produce a map that educates residents about ways to get involved with the environment and help people make sustainable choices.

Source: www.sowashco.com/lwv/sustain/gmap.html

"FIREWISE" COMMUNITIES PLAN TO REDUCE RISK

Firewise planning uses community and disaster mitigation planning, community partnerships and personal responsibilities to design, build and adapt communities to make them safe from wildfire. A community expanding at the edge of a wild land-urban interface can benefit most from firewise planning.

The city fire chief, city planner, developers, local Department of Natural Resources forester and other local partners who are concerned with home fire safety come together to develop a firewise plan. Getting all concerned parties at the table is critical to the success of the planning process.

This planning group should assess the community's fire risk by looking at: 1) fire history, 2) the vegetative structure that provides fuel for wild land fires, and 3) the existing and planned values (homes, businesses and other special features) that are at risk from fire. Using this assessment, a community can begin planning ways to reduce its fire risk. Fire loss in wild lands can be lessened, for example, with development planning that provides safe access and water sources for fire suppression equipment. At the same time, plans must provide safe egress for residents.
Other factors include materials used in building, landscaping and outdoor fire use.

The key strategies of a comprehensive community firewise plan are:

- Development planning (road and lot layout in relation to surrounding vegetation)
- Building codes (that restrict the use of fire-prone materials and designs)
- Outdoor fire use ordinances (that reduce the number of wildland fires)
- Landscaping and maintenance guidelines for homeowners

Source: Minnesota Department of Natural Resources

Land use. Greenfield development directly affects natural resources through construction grading, which often destroys vegetation and contributes to erosion and sedimentation. It can damage forests (e.g., oak trees, which can die from oak wilt due to construction wounds) and increase impervious surfaces and runoff, which can overload and damage natural hydrological systems. In addition, much of the damage to homes and businesses through "natural" flood disasters can be prevented by planning to avoid, remove or flood-proof development in floodplains. Further, damage from wildfires can be reduced or prevented by adopting "firewise" practices, a new approach that encourages local units of government to adopt subdivision regulations and other practices to reduce the risk of property damage from wildfires. (See "Firewise" box.)

Transportation and utilities. Transportation and utility corridors can have significant direct and indirect adverse effects on natural areas. Some corridors serve a recreational purpose and are enhanced by preservation of viewsheds, buffers and judicious use of narrower rights-of-way and grading. Actions to preserve natural areas around some corridors may conflict with transportation goals to improve the flow and safety of regional highways or with utilities' plans to extend services. A community should make every effort to find solutions that address the needs of both.

SAMPLE GOALS AND POLICIES

The best environmental quality and natural resource goals and policies will lead to more than just a healthy environment. They will also provide the foundation for a prosperous local economy, a high quality of life and a sense of pride in a community. Below are examples of community goals and policies to consider in a comprehensive plan.

Jack Flynn

Better construction techniques and storm-proof safe rooms can save money and lives when disasters strike.

Goal: Achieve a balanced and sustainable use of natural resources in the community to accommodate the economic and noneconomic needs of residents, industries and visitors.

Policies:

- Maintain high water quality in the community's lakes, wetlands and waterways.
- Protect the quality of drinking water by preventing pollution in wellhead protection areas and watersheds.
- Preserve forests and other buffer areas around lakes and along scenic vistas, and encourage restoration of altered areas.
- Encourage the sustainable management of forestland to protect timber resources and encourage long-term viability of the community's forest products industries.
- Create or preserve tree-lined streets and forested parks.
- Protect or acquire priority, privately held, environmentally sensitive lands.

Goal: Attain an integrated open space and recreation system within the community that provides adequate recreational opportunities for all residents and visitors and permanently protects unique scenic and natural areas.

CONSERVATION DEVELOPMENT MAKES FINANCIAL SENSE

According to the Minnesota Land Trust, "Developers using conservation development techniques often realize reduced capital costs and increased sales thanks to the preserved open space. The open space benefits of conservation development can be further enhanced by more advanced storm water management techniques, by restoring areas to native habitat and by minimizing the amount of soil disturbance during construction."

Policies:

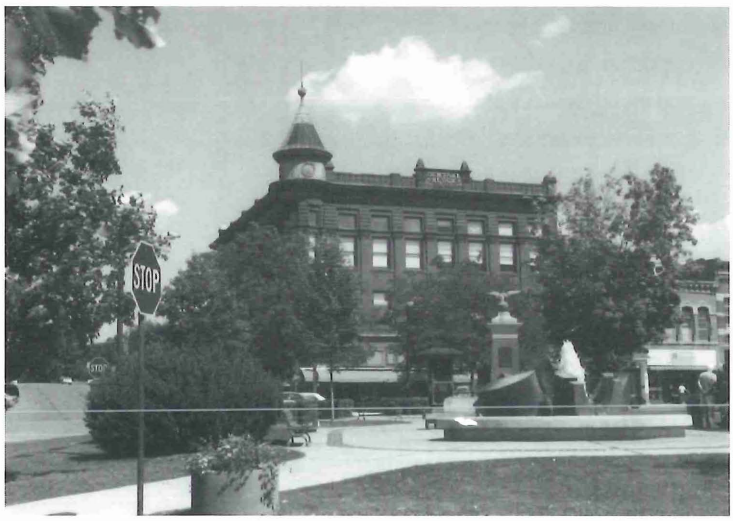
- Ensure that a diversity of recreational opportunities exists in the community's forests and along its lakes and rivers.
- Enhance existing facilities to enable appropriate use of diverse recreational sites.
- Pursue no net loss of publicly owned land by allowing the sale of parcels that are less appropriately in public ownership and the acquisition of parcels that may be more appropriately under public protection.
- Provide trails and greenways to connect natural and recreational areas for people and wildlife.

IMPLEMENTATION APPROACHES

A community can take a number of approaches to protecting environmental quality and conserving natural resources. Two approaches, landscape management and watershed planning, can help a community understand the combined effects of its decisions and those of its neighbors.

Landscape or ecosystem management. A landscape approach to implementation considers natural resource relationships across natural and cultural features in and around a community. Landscape approaches – sometimes called ecosystem management – often require interjurisdictional cooperation that integrates social, economic and ecological considerations.

Watershed planning. A watershed approach to planning considers human activities that affect water, land and water interactions, and aquatic life within a watershed. The goal is to protect the health of a watershed ecosystem as land uses and management practices change. A watershed plan identifies areas suitable for development and provides guidelines to be followed in development designs.



Carole Zellie

Thriving town square capitalizes on historic structures to meet today's needs. Northfield, Minnesota

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to manage environmental quality and natural resources. Incentive and educational programs, resource and land use regulation, and various forms of land or resource acquisition all can help a community realize its goals. Examples include:

- Develop programs to educate citizens about the effects of stormwater runoff on water quality, wellhead protection area boundaries and related pollution prevention measures.
- Celebrate the community's prime waterfront area, fostering an appropriate mix of shops, parks, trails and open space.
- Adopt voluntary development or resource management guidelines for private lands and standards for lands owned or managed by the community.
- Adopt ordinances for purchase or transfer of development rights and overlay districts to protect natural resources and environmental quality.
- Adopt cluster housing and site design standards to protect some types of terrain, natural habitat, scenic qualities and other natural features of the land.
- Designate urban growth areas, conservation corridors and agricultural preserves.

HISTORIC AND OTHER CULTURAL RESOURCES

Historic preservation is too often viewed as an optional component of a comprehensive plan, despite its importance. At the very least, its ideals should be noted in the goals section of a plan. If a preservation plan exists as a separate document, it should always be part of overall community planning and development.

A unique challenge of historic preservation planning is determining how older land uses will fit into the current comprehensive plan, as for example, when a historic home has become surrounded over the years by commercial or business uses. Historic preservation is affected by zoning, economic development, recreation, housing, transportation, capital facilities planning and other issues, some of which are outlined below.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Economic development. Rehabilitation of historic buildings generates new tax revenues, increases employment, and provides upgraded spaces for retail, offices, housing, lodging and entertainment.

Housing. Historic buildings such as hotels, office buildings, stores, schools, warehouses or homes can be modified for affordable housing and mixed use opportunities.

TRIBES FOCUS ON HISTORIC PRESERVATION

The Mille Lacs and Leech Lake bands of Ojibwe were among the nation's first 12 Indian tribes to establish Tribal Historic Preservation Offices – similar to that of the State Historic Preservation Office of the Minnesota Historical Society. These agencies cooperate on preserving archaeological and traditional cultural sites.

Land use. Zoning ordinances should be compatible with and promote the protection of historic resources. If high-rise office buildings are allowed, then the smaller, historic two- to three-story buildings may be in danger of being demolished. Conversely, residential districts that prescribe densities different than prevailing ones can threaten the character of historic neighborhoods.

Transportation. Growth patterns continue to disjoin and pave over many of the historic elements of communities. Additionally, overly rigid parking standards can contradict traditional, historic design. Creative alternatives can be sought, however, as seen with the Federal Highway Administration's context-sensitive highway design initiative that takes into consideration natural and built environments. (See box in this chapter's transportation section.)

SAMPLE GOALS AND POLICIES

Goal: Maintain the historic character of the county's rural towns while encouraging their development as commercial and cultural centers.

Policies:

- Preserve older and historic structures, landscapes and features in order to provide a sense of identity.
- Revitalize, maintain and allow for limited expansion of the older commercial core.
- Encourage the collection of artifacts at archaeological sites during excavation for new construction and consider alternative development patterns if necessary.
- Favor transportation routes that do not compromise the historic character of the community.

Goal: Increase awareness of the social and economic value of historic preservation.

Policies:

- Offer tax incentives to developers and owners of historic properties in order to encourage preservation; invite lawmakers at the local, state and national levels to support such incentives.

PRESERVATION ADDS MORE THAN NEW BUILDING

According to the Center for Compatible Economic Development, "Preservation of historic housing stock and commercial buildings generates proportionately more new jobs and a greater contribution to local household income than new construction."

- Seek funding and cooperation from the private and nonprofit sectors and include education and outreach measures that accomplish this.
- Publicize the success of preservation efforts in the community or nearby communities to encourage similar action.

RANGE OF IMPLEMENTATION STRATEGIES

A community can adopt a variety of strategies to preserve and enhance its historic and cultural resources:

- Establish a local Heritage Preservation Commission "to promote the use and conservation of historic properties for the education, inspiration, pleasure and enrichment of the citizens" as stated in Minnesota law.
- Incorporate a "demolition delay bylaw" that allows for time to consider alternative uses and possibilities for historic sites scheduled to be torn down. For example, Arlington, Massachusetts adopted a 12-month waiting period that was suggested by its local historical commission.
- Develop an overlay zone to protect historic properties.
- Cluster development to avoid interference with historic sites.
- Create historic districts, both urban and rural.
- Consider adaptive re-use for mixed or multi-purpose uses.
- Establish special purpose districts or development authorities.

ECONOMIC DEVELOPMENT

A local economy is more than just the sum of a community's businesses. Economic health is affected by the quality of the natural environment, the local culture, the safety and stability of a community's neighborhoods, the quality of its schools and other public services, the quality and efficiency of the built environment and a community's general sense of place and uniqueness. In fact, one of the main reasons to do community planning is to ensure that none of these aspects is neglected and that no one aspect flourishes at the expense of the others. A community must maintain all of them if it and its economy are to be healthy. In turn, a community should expect its economy to support the investments necessary to maintain community health.

Part of taking a long-term view today means thinking strategically about what kind of economic development is likely to succeed in an economy that faces different constraints than it did 20 years ago. These include a changing work force, housing problems, lack of capital, persistent pollution problems, a rapidly growing waste stream and new competitive pressures from consumers to improve environmental and social performance. A community can use the planning process to take a strategic look at these and other trends, evaluate its assets and challenges, and establish goals and policies on how best to invest scarce economic development resources.

Carole Zellie

Community shopping areas provide convenience for area residents.

IRON RANGE OFFERS EXAMPLE OF A LONG-TERM APPROACH TO DEVELOPMENT

The experience of Minnesota's Iron Range highlights the importance of taking a long-term approach to economic development. Waiting until a natural resource is no longer economically retrievable or viable creates great dislocation and hardship for residents and workers alike. The creation of the Iron Range Resources and Rehabilitation Board 60 years ago is testimony to the sort of foresight that can avoid such problems. The board was created by the Minnesota Legislature to help prepare northeastern Minnesota for the eventual depletion of its nonrenewable mineral resources and their related industries. While the board has changed over the years, its mission continues to be one of economic diversification.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Traditional approaches to comprehensive planning often have paid less attention to economic development than to other issues. Local governments may have felt they could keep economic development activities separate from planning. Yet decisions about land use and public investments in transportation, water, sewers, schools and housing all influence local economic conditions.

Housing. Economic development both depends on and creates the need for housing. Affordable, quality housing is necessary for maintaining a sustainable labor force for businesses to tap.

Land use. A community's land use patterns can make business access to markets and customers easy, or congested, complicated and costly.

Natural resources. Some basic industries, such as agriculture, forest products and mining, depend on local feedstocks of natural resources. Economic development goals should recognize the value and importance of sustainable harvest or extraction of natural resources. Natural areas also support recreation and tourism businesses, provide economic diversity and improve the quality of life for the local labor force.

Infrastructure. Transportation, wastewater, drinking water and telecommunications infrastructure are all vital to business success.

SAMPLE GOALS AND POLICIES

Goal: Enhance the synergies between businesses, residential areas and public services.

Policies:

- Consider opportunities to meet business needs by addressing the needs of schools, hospitals and other elements vital to the health of a community.
- Locate industrial development to minimize conflict with other land uses and protect natural resources.
- Recognize the links and potential conflicts between economic expansion in different industries such as timber harvesting and tourism.
- Direct commercial development to existing commercial nodes and areas with adequate transportation, sewer and water infrastructure.

Goal: Encourage a sound and diverse economy that meets the needs of community residents and visitors for employment and services.

Policies:

- Support efforts to provide a trained workforce through increasing educational opportunities, experiential opportunities and new technology.
- Encourage new commercial and industrial development related to the recreation industry, including resorts, services and products.
- Encourage the sustainable management of forest land to protect timber resources and ensure the long-term viability of forest products industries.

Goal: Support existing industries and businesses.

Policies:

- Help businesses and industries prevent pollution and comply with environmental regulations.
- Assist businesses and industries in efficient use of energy and natural resources.
- Encourage the development of new businesses and industries that complement existing ones.
- Support local markets and steps that add value locally to forest products, mining and agricultural industries.

BUSINESSES ARE ADOPTING RECIPE FOR PROSPERITY

Natural Capitalism: Creating the Next Industrial Revolution proposes four goals as the recipe for long-term economic prosperity. The goals also reflect emerging market trends and a new business model that is showing up in businesses as diverse as 3M, General Electric, Nike, Xerox and BMW. The goals are:

- Increase energy and resource efficiency four- to 10-fold in the next 30 years.
- Work to eliminate the concept of "waste" by treating wastes as valuable resources. This means returning virtually everything to productive use through industry or nature, imitating the efficiency and cyclical resource use of natural systems.
- Work toward a business model based on providing services rather than products. For example, people do not necessarily want roads (a product); they want mobility and access to things (a service that can be provided in lots of ways, roads being only one). Another way to think of this is to create more value locally.
- Reinvest in the natural capital that underwrites economic progress by restoring damaged ecosystems. These natural systems provide services on which the economy depends.

ST. PETER CONSIDERS ECO-INDUSTRIAL DEVELOPMENT

The tornado of 1998 led the city of St. Peter, Minnesota to consider an innovative approach to local economic development, recognizing the potential of eco-industrial development. An eco-industrial development is a partnership between a community and businesses that share resources for economic gain, and gains in environmental quality and community well being. In January 2001, the city began to build a partnership to redevelop and diversify its economy based upon the region's agricultural base and the city's existing industries. The result was a proposal to target development opportunities in two areas: 1) bio-based chemical production, and 2) a community food production system using local suppliers and processors, and a marketing cooperative.

RANGE OF IMPLEMENTATION STRATEGIES

A community can boost its economic health through a variety of strategies that recognize the importance of a well-trained and healthy workforce, good housing, well-managed natural resources, efficient infrastructure, a quality environment and other community amenities. It might:

- Make investments that connect people, build and enhance special community assets and improve the overall health of a community, thereby enhancing its attractiveness to businesses and their workers.
- Encourage the redevelopment of commercial areas in viable town centers through private investment in existing or new buildings.
- Provide incentives to developers that incorporate sustainable building design practices with respect to siting, energy, water, indoor air quality, materials use and waste management.
- Discourage commercial development of sensitive environmental areas and encourage commercial development in existing commercial areas and designated areas with adequate transportation, sewer and water infrastructure.
- Develop coordinated downtown or "main street" promotions and investment strategies to emphasize the vitality and existing resources of a community's older commercial areas.
- Modify local government procurement practices to include products from local, environmentally sound businesses.
- Target economic development efforts toward the development of local value-added industries.
- Develop a high performance industrial park (often called an eco-industrial park) that connects a group of interdependent businesses that can reap special benefits from sharing energy, water and materials, as well as services and infrastructure. Seek businesses interested in adopting sustainable design features in their buildings and operations, and superior economic and environmental performance.
- Require proposed new commercial development outside of municipal boundaries to demonstrate adequate wastewater treatment plans.
- Create performance criteria, such as for managed and bonded group septic systems and visual buffers for recreational and resort development or for expansion along lakes or in sensitive watersheds.
- Identify prime areas for natural resource harvesting or extraction (e.g., forest, peat, gravel and minerals). Limit tourist-oriented development in these areas to compatible recreational uses, such as trails, hunting and snowmobiling. Restrict housing or nonnatural-resource commercial or industrial expansion in these areas.
- Adopt performance criteria for pollution prevention, requiring ongoing efforts for – and increasing productivity of – waste reduction or pollution prevention equipment and programs.

AGRICULTURE

A community should consider agriculture – a key type of economic development – in its comprehensive plan for at least four reasons: agriculture is an important part of the local economy in many Minnesota communities and efforts to protect agriculture can help safeguard a community's economic base; planning is often necessary to avoid conflicts with agriculture in a community whose growth has taken it, or will take it, into the thick of agricultural operations; protection of agricultural lands can aid in the wise management of a community's urban and urbanizing lands; and agriculture can bring a community together through community-supported agriculture and farmers' markets.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Transportation. Agriculture is an export business. While some agricultural products are consumed locally, most are exported outside the community or processed locally for distant markets. A community's transportation system must allow safe and efficient transport of agricultural products to market.

Housing. The best land for agriculture has many of the same characteristics as prime land for development. Yet agriculture also presents many of the same liabilities as industrial land use. Even sustainable agriculture can create what would be considered nuisances in residential and commercial areas: smells, noise and substantial activity and use of large machinery early in the morning and late at night. Housing expansion into agricultural areas may also cost a community more in services than it collects in tax revenues. A community often must consider how to protect its agricultural areas from land use conflicts with housing expansion.

Natural environment. Agricultural lands can provide edge habitat and open spaces for many species, as well as important corridors and buffers within natural and human environments. However, agriculture can adversely affect the natural environment if production is not carefully managed to minimize soil erosion and the runoff of fertilizers and pesticides.

SAMPLE GOALS AND POLICIES

Goal: Encourage agriculture as the primary use in historically farmed areas and respect the settlement characteristics of agricultural areas.

Policies:

- Recognize and support agriculture as a valuable basic industry that diversifies a community's economy.
- Adopt a "right-to-farm" policy that acknowledges and accepts noise and odor aspects of farm operations in designated agricultural zones.
- Minimize the impact of feedlots on neighboring land uses and protect natural resources by adopting criteria for the location and design of animal feedlots.
- Support marketing of a community's agricultural products.
- Encourage economic development opportunities based on creating or expanding value-added processing of agriculture and forest products.

Goal: Encourage sustainable agricultural practices.

Policies:

- Encourage conversion of marginal agricultural land to sylvaculture or natural vegetation.
- Link a community's management of natural areas with agricultural practices and methods.
- Encourage development of community-supported agriculture and agricultural products for local markets.

Minnesota Planning

"Right-to-farm" policies can reduce conflicts between agriculture and residential developments.

COW POWER

Haubenschild Farms near Princeton, Minnesota manages its dairy manure using a plug-flow digester for collecting and breaking down manure, and capturing the gas produced from the process. The gas, mostly methane, can be used to produce electricity and hot water for heating. The farm's 800 dairy cows produce enough methane to meet the farm's electricity needs, plus enough additional power to supply about 75 homes. The dairy saves $400 per month in heating costs by using waste heat from the generator. Project developers believe a payback period of five years or less is possible in such projects.

Source: Minnesota Project Web site at www.mnproject.org/id51.htm

- Encourage the growing of nontraditional crops in a community's agricultural areas.
- Support the conversion of conventional to sustainable practices and methods.

RANGE OF IMPLEMENTATION STRATEGIES

A community may adopt a number of strategies to integrate agriculture into its comprehensive plan:

- Adopt agricultural land preservation strategies to protect the farmland base from competing or conflicting with nonfarm development. A range of strategies is available from zoning, to agricultural preserves covenants under the Minnesota Agricultural Land Preservation Program or Metropolitan Agricultural Preserves Program, to purchase of development rights.
- Foster economic development activities to retain and attract businesses important to the agricultural economy (e.g., elevators or food processors).
- Develop infrastructure (roads, bridges, railroads, ports, sewers, etc.) to support movement of agricultural products.
- Direct nonfarm residential development away from prime agricultural areas, using performance criteria to distinguish between productive agricultural land and marginal land; encourage development of marginal land adjacent to developed areas.
- Require a planned and thoughtful mix of large agricultural minimum lot sizes (e.g., one dwelling per 160 acres) in the countryside and city densities in planned urban growth areas.
- Require buffer strips on the edges of new residential developments that abut agricultural land.
- Create property tax structures that encourage sustainable agricultural land uses, while retaining the net tax benefit of agriculture.
- Establish cluster overlay zones to provide increased gross density in subdivisions that incorporate clustering of residential units and permanently protect a majority of the land in the subdivision for agriculture or open space.
- Direct residential development in a designated agricultural area to be sited on land with a crop equivalency rating of 50 or less.

HOUSING

A community needs to recognize how important an adequate supply of affordable and life-cycle housing is to both its economy and its residents. Developing a comprehensive plan is an opportunity to establish housing policies to meet this goal. Based on population projections and forecasted land use needs, a plan can guide a community in maintaining and enhancing its housing stock. Since housing is fundamental to a functioning community, it makes sense to have a comprehensive plan articulate the links between housing locations and daily activities, such as jobs, recreation, shopping and education.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Infrastructure. The amount and location of housing directly affect the pressures on public infrastructure, such as roads, water and wastewater systems and electric utilities.

Economic development. A community's housing policies can have significant impact on economic development efforts. Housing costs should be consistent with prevailing wages, and low levels of housing availability can diminish the ability of local businesses

to retain or expand a productive work force. Communities with a dearth of "starter homes" or apartments may find that businesses are unable to fill entry-level jobs. Similarly, economic development can occur faster than the expansion of housing, causing rapid escalation of housing costs and pricing low- and middle-income households out of the market.

Energy and environment. Housing is not just an economic or social issue but an environmental one as well. While making housing more energy- and resource-efficient can increase up-front capital costs, these measures have been shown to dramatically lower lifetime operation and maintenance costs, thereby actually making housing more affordable in the long run.

Curtis Borchert

Affordable, detached housing was designed to meet needs of community's senior citizens.
Twin Valley, Minnesota

SAMPLE GOALS AND POLICIES

Goal: Respect the unique settlement characteristics of each neighborhood or area and encourage diversified housing development that maximizes the use of infrastructure, including roads, sewer, water and other public services.

Policies:

- Encourage residential development at traditional city densities in areas adjacent to urban zones.
- Limit development outside of urban expansion areas to very low densities.
- Link conditional-use permit approvals, tax increment financing district designations and use of community condemnation power to accomplish affordable housing, housing design and site design preference goals (as identified in the comprehensive plan).
- Honor the local preference for large-lot residential development in selected residential areas.
- Improve diversity in the community's housing mix to meet lifecycle needs and increase overall affordability.
- Locate affordable and life-cycle housing where transit can provide efficient access to community services and amenities.

Goal: Reduce the number of substandard housing units while maintaining the level of affordability.

DULUTH HOUSING INITIATIVE STRESSES REDEVELOPMENT

The At-Home in Duluth initiative is the result of community partners – residents, housing providers and business leaders – coming together to evaluate the needs of their neighborhoods, then creating and implementing a plan to meet these needs. Led by the Local Initiatives Support Corporation, the initiative is a collaboration of 20 public, private, nonprofit and neighborhood organizations. A good example of efficient redevelopment in an older city, the initiative's plan includes:

- Rehabilitation of homes throughout the city
- Employer assistance with down payment and closing costs for families
- Assistance for low-income families to buy and rehabilitate housing
- Development of homes above commercial space in certain neighborhoods and downtown
- In-fill new home construction

Source: Neighborhood Housing Services of Duluth

New designs echo the past, with front porches linking public and private spaces.

TOP: ROSEAU County, Minnesota, ca. 1900

BOTTOM: Fields of St. Croix, Washington County, Minnesota, 2000

Carole Zellie

Carole Zellie

Policies:

- Adopt and enforce the state building code.
- Ask developers to incorporate a percentage of affordable housing units in proposed developments.
- Encourage the redevelopment of both renter- and owner-occupied substandard housing stock.
- Encourage investment in older homes.
- Favor housing projects that cut long-term costs by incorporating sustainable design elements.
- Support the redevelopment or renovation of the community's historic or culturally unique housing stock.

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to manage its housing stock:

- Establish design standards for historic or culturally significant neighborhoods.
- Review and update official controls to ensure they do not discourage affordable or life-cycle housing.
- Use techniques such as transfer of development rights and cluster development in official controls to accommodate housing goals or to avoid development pressure in environmentally sensitive areas. A cluster ordinance would require the protection of environmentally sensitive areas within a development site.
- Establish standards for the conditional-use approval process that implement a community's housing and natural resource goals.
- Set housing development priorities for the local housing redevelopment or economic development authority to carry out comprehensive plan goals and policies.

INFRASTRUCTURE, SERVICES AND FACILITIES

Planning goals and strategies for a community's infrastructure, services and facilities cover a broad array of topics, including transportation, water, energy, telecommunications and the facilities needed to provide a wide range of public services. A community frequently makes big investments to provide these basic services. The challenge in each of these areas is to put in place policies, incentives and funding mechanisms that will ensure services keep pace with demand. One fiscally sound way to do this is to ask the users of these public services to pay the full, long-term costs of providing them. The community at large, for example, should not be expected to subsidize water, sewer and other services needed by large lot subdivisions located on the fringe of an urban area.

A community also may need to rethink traditional solutions to find more sustainable answers to meeting its infrastructure and service needs. New technologies and approaches are available for everything from winter road maintenance, to on-site wastewater treatment, to improved energy efficiency and use of renewable fuels. These can offer short- and long-term

benefits to a community, including lower lifetime costs and a healthier environment. The following sections give a range of ideas about how a community might meet its infrastructure and service goals.

TRANSPORTATION

People place great importance on transportation and transportation facilities. Federal, state and local governments have committed billions of dollars to build the railways, harbors, airports, roads, highways and transit systems necessary to give citizens the mobility they desire and support economic activity. But when new development adversely affects an existing network of roads and highways, it can be quite costly to a community or its neighbors faced with maintaining or expanding a clogged transportation system.

Communities will be challenged in the future to adopt policies that reduce traffic congestion and make more efficient use of the existing system. One way of doing this is through access management – controlling the number and type of connections to a roadway. Access management recognizes that different types of roads serve different purposes.

Conflicts arise when roadways designed to move large amounts of traffic at higher speeds also provide frequent direct access to adjacent properties. These conflicts result in increased crashes and delays for through traffic.

The ability of a particular roadway segment to function as planned is highly dependent on the network of roads and streets to which it is connected. Access to freeways and principal arterials should be limited and reserved for intersection connections with other highways and arterials, while collectors and local streets should serve the access needs of individual homes and businesses. Planning and constructing an adequate, integrated roadway network with a complete hierarchy of streets and highways is essential to successful access management.

A community should weigh goals or policies designed to improve traffic movement against other considerations, such as safety for pedestrians, children and bicyclists. The Minnesota Department of Transportation's Sustainable Transportation Initiatives group can help a community plan for a balanced transportation system using the "transportation

COMMON PRINCIPLES OF ACCESS MANAGEMENT

Safety

- Every access point increases the number of points where the paths of two vehicles diverge, merge or cross, increasing the potential for a crash.
- Access spacing must allow sufficient sight distances to permit vehicles to safely leave and enter the roadway.
- The location of an access point should not result in drivers choosing to make unsafe maneuvers.

Operation

- Mobility generally degrades as the number of access points increases.
- Access points should be uniform in design and location so that drivers know what to expect.
- Unique situations and locations where drivers face multiple conflicts should be avoided.

Roadway hierarchy

- Effective roadway networks consist of minor roads directing traffic to major roads, resulting in many more minor roads than major roads.
- A well developed roadway hierarchy encourages appropriate connections among roads: for example, local streets connecting to collectors and collectors connecting to minor arterials.
- Roadway hierarchies and well-defined networks of local streets support system wide mobility.

Balanced and reasonable access

- Compromises between mobility and accessibility will occur.
- Reasonable access must be provided to property.
- Access may be limited or redirected to nearby streets, based on the location of the access point, anticipated traffic volumes, and type and importance of the roadway.

Jack Flynn

Highway 169 and railroads connect communities, economies on Minnesota's Iron Range.

action model." This citizen-driven planning process allows residents to influence the transportation system in their community. It helps a community incorporate bicycling, walking and telecommuting as alternatives to driving and reallocate road space for cycling and walking, traffic calming and other bicycle- and pedestrian-friendly features. One goal is to reduce the number of short trips from home or work made with a motor vehicle occupied by one person. A Telework Program seeks to facilitate the expansion of nontravel work alternatives, such as telecommuting.

A system with travel mode options means improved quality of life for drivers and nondrivers alike in the form of reduced congestion and pollution and increased mobility and accessibility. Communities that have used the transportation action model include Cambridge, Two Harbors, Nisswa, St. Peter, Little Falls, Detroit Lakes, Roseau and Koochiching County.

In addition, a community may want to consider policies and design standards that accommodate automobiles without having them dominate the landscape or budget. Toward this end, a community should consider providing other options for people, such as youth and the elderly, who either choose or need alternatives. Design standards for buildings, streets and parking can also reduce the visual impact of automobiles.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Land use. Transportation goals are closely tied to the intensity and type of land use in a community. Transportation facilities influence where people choose to live and businesses locate. People purchasing or building new homes will likely want to avoid a location near a busy intersection with a state highway, while a retail business may see that same location as ideal. Transit routes and hubs intended to serve existing trips are also likely to draw new development. Land use also affects transportation decisions, as the closer origins (where a person starts from) are to destinations (where a person wants to go), the more likely a person can use nonmotorized (walking or bicycle) and public modes of travel.

Environmental quality and natural resources. Transportation facilities, whether highways, streets, dedicated transit lines, airports or railroads, can have a significant effect on the physical environment. While intended to knit areas together, they can also create physical barriers and degrade the natural and built environments. In addition, transportation-related pollution sources make up the largest category of sources in most metropolitan areas. Although this could change with new low emission vehicles coming on the market, increased congestion serves to exacerbate the problem.

Roadways and parking lots are frequently the primary component of impervious surfaces in a community, creating the need for expensive storm water facilities and causing degradation of waterways, lakes and natural areas. Clearance of road (and even trail) rights-of-way too often destroys and fragments habitat and leads to further damage from invasive exotic species and pollutants, such as deicing salt.

Economic development. Access to fast and reliable transportation is an important element of the locational decisions of many businesses, and a plan's economic diversity or business growth goals may depend on and affect highway, rail and air transportation systems.

PRINCIPLES OF CONTEXT SENSITIVE DESIGN

Minnesota is one of five states testing the principles of context-sensitive transportation design.

Qualities of excellence in transportation design

- The project satisfies the purpose and needs as agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted as the project develops.
- The project is a safe facility for both the user and the community.
- The project is in harmony with the community, and it preserves environmental, scenic, aesthetic, historic and natural resource values of the area.
- The project exceeds the expectations of both designers and stakeholders and achieves a level of excellence in people's minds.
- The project involves efficient and effective use of the resources (time, budget, community) of all involved parties.
- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

Characteristics of the process contributing to excellence

- Communication with all stakeholders is open, honest, early and continuous.
- A multidisciplinary team is established early, with disciplines based on the needs of the specific project, and with the inclusion of the public.
- A full range of stakeholders is involved with transportation officials in the scoping phase. The purposes of the project are clearly defined, and consensus on the scope is forged before proceeding.
- The highway development process is tailored to meet the circumstances. This process should examine multiple alternatives that will result in a consensus of approach methods.
- A commitment to the process from top agency officials and local leaders is secured.
- The public involvement process, which includes informal meetings, is tailored to the project.
- The landscape, the community and valued resources are understood before engineering design is started.
- A full range of tools for communication about project alternatives is used (e.g., visualization).

Source: Federal Highway Administration, www.fhwa.dot.gov/csd/qualities.htm

SAMPLE GOALS AND POLICIES

Goal: Maintain a transportation system that meets the local and regional access needs of community residents, industries and visitors.

Policies:

- Connect residential areas to retail centers, job centers and public facilities through an interconnected network of local streets and roads.
- Improve business access to regional commercial and industrial markets.
- Work with the Department of Transportation to develop plans that meet statewide and local transportation needs.
- Support diverse transportation opportunities.
- Invest in transit improvements that meet the needs of transit-dependent populations, such as the elderly, low-income people and youth.
- Develop trails for nonmotorized use along linear greenways and waterways to connect residential and retail areas.
- Enhance and protect the scenic areas along community roadways.

Goal: Reduce the social and environmental costs associated with automobile use, such as air pollution, congestion and accidents.

Policies:

- Support more efficient use of existing transit infrastructure and invest in transit to reduce congestion.
- Encourage business planning efforts to develop flexible work schedules and reliable alternatives to automobile commuting.

- Consider recreational uses of the community's roads in their design, improvement and management.
- Promote improvements to transportation facilities that enhance the aesthetic and environmental quality of the community.
- Purchase low emission vehicles, such as hybrid and alternatively-fueled cars, for the community's fleet.

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to improve its transportation infrastructure. They might include:

- Use the Department of Transportation's transportation action model.
- Adopt a public facilities ordinance that is consistent with the community's capital improvement program and comprehensive plan.
- Develop ordinances that require businesses and residences to gain access through local street systems.
- Require new developments to design and construct transportation improvements to connect with the existing and planned street grids and collector and transit systems.
- Improve pedestrian access to local streets through boulevard design and landscaping.
- Connect residents of affordable and life-cycle housing to community services and amenities with transit.
- Evaluate and adopt local road development standards, rights-of-way and pavement widths, sight-line standards, speed limits and other safety measures that assure safe movement on and around streets and roads.
- Adopt street design standards that encourage the use of narrow streets in residential areas and accommodate pedestrian traffic in both commercial and residential areas.

INFORMATION AND COMMUNICATION SYSTEMS

Access to computers and the Internet, and the ability to effectively use the technology, are becoming increasingly important for full participation in America's economic, political and social life. People are using the Internet to shop for goods and services, work from home or start their own business, acquire new skills through distance learning and make better decisions about their health care needs. People with the skills to use this technology often land information-technology jobs that pay above the average private sector wage. A community that fails to plan for and make available technology resources could seriously short-change itself and its citizens.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Land use. Information and communications systems may significantly affect a community's land use, and it is important for a comprehensive plan to determine how utility corridors and towers fit into the community's vision of the future.

Economic development. For many businesses, high-capacity, high-quality information and communications systems are an essential element of success. If a community has such businesses or would like to recruit them, it may need to help ensure access to adequate information and communications systems.

SAMPLE GOALS AND POLICIES

Goal: Ensure availability of state of the art technology.

Policies:

- Play an active role in designing and locating telecommunications infrastructure.
- Support electronic commerce by developing the appropriate infrastructure.
- Support the creation of high-technology remote work centers.

- Work with employers to establish polices that allow more people to telecommunicate.

Goal: Provide access to services through shared technology.

Policies:

- Provide affordable and equal technology access to all.
- Maximize value of bandwidth by sharing with others.
- Develop partnerships among business, local governments and schools to share technology costs, equipment and training.

RANGE OF IMPLEMENTATION STRATEGIES

Various tools ranging from encouragement through incentives to regulation are available to integrate technology resources into a community comprehensive plan:

- Develop a community telecommunication plan using the process outlined in *NetPlan,* available from Minnesota Planning.
- Organize and support training opportunities.
- Establish a mobile technology classroom.
- Develop satellite services for technology.
- Inventory infrastructure resources and determine needs.
- Explore the types of technology infrastructure necessary to allow people to telecommunicate.
- Establish a regional communications center.
- Set design and location criteria for telecommunications infrastructure.

DRINKING WATER

Clean, safe and abundant supplies of drinking water are directly connected to the prosperity of a community. In some parts of Minnesota, water supplies may be limited, and a community must pay close attention to these limits or water may become a barrier to economic development. Inadequately treated wastewater, both from centralized facilities and septic systems, and various sources of nonpoint pollution, also present a challenge to keeping drinking water supplies safe and clean.

Tom Klaseus

Safe, clean drinking water is key to a community's prosperity and health.

Jack Flynn

Protection of water sources, whether surface or ground, is an important consideration for ensuring a pure and adequate water supply. The Minnesota Department of Health oversees the state's drinking water program, and works with local authorities to encourage the protection of drinking water sources. Each county outside of the Twin Cities metropolitan area has a plan to protect water quality and manage other aspects of water resources under the state's Comprehensive Local Water Management Act of 1985. Watershed districts, soil and water conservation districts, watershed management organizations (metropolitan area only) and many metropolitan area cities and counties also have plans for water management. Given the close relationship between

land use and water quality, it is a good idea to incorporate appropriate aspects of an existing water plan into a community's comprehensive plan.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Land use. The efficiency and cost effectiveness of centralized systems for drinking water are closely tied to the intensity and type of land uses in a community. Intense land uses need to be supported by engineered water systems. In turn, construction of water supply mains can enable growth to occur in places where it might otherwise be limited. Sometimes, such systems can open up an area for development before a community is ready to manage that development or to a degree of development that a community may not be able to support. Distribution systems, water reservoirs and treatment facilities are capital intensive, and the more extensive the system, the greater the capital investment required. Area land uses can also threaten drinking water, whether from surface or ground water sources, and a community should take steps to prevent pollution of these waters.

Natural resources. The development of water supplies sometimes affects other natural resource goals, particularly where dams or extensive distribution systems are required or if use of ground water draws down levels of local wetlands and lakes. In such cases, it is important to consider siting and designing systems to avoid sensitive areas and to take other steps to reduce adverse effects, such as employing water conservation measures instead of adding wells that would tap sensitive aquifers.

Economic development. Access to adequate supplies of clean, safe water is an important element in the location decisions of many types of business. Water can be a limit on growth and an important factor to consider when setting economic diversity or business growth goals in a comprehensive plan.

SAMPLE GOALS AND POLICIES

Goal: Maintain an efficient, adequate and safe drinking water system that meets the long-term needs of community residents, industries and visitors.

Policies:

- Approve water system upgrades and expansions based on comprehensive plan goals and policies, and link them to economic development strategies.
- Require new developments in urban growth areas to connect to the existing drinking water system.
- Set design standards that encourage compact residential and planned unit developments.
- Adopt incentives for "density development" in commercial, mixed use districts and along transit routes.
- Require developers to pay for and install water mains and fire hydrants of a size that supports a development's projected population.
- Adopt fees, such as connection fees, at a rate designed to ensure that new developments cover the marginal cost of their connection.
- Adopt progressive water use or consumption fees to encourage conservation.

RANGE OF IMPLEMENTATION STRATEGIES

A local government can tap a variety of strategies to manage its drinking water supply system. These include:

- Assess the condition of the water supply system (i.e., source water, treatment and distribution components), including age, condition, public health protection, efficiency and capacity.
- Site intakes or wells, treatment facilities and distribution systems in a context-sensitive manner.
- Adopt a public facilities ordinance that is consistent with the community's capital improvement program and comprehensive plan.
- Keep familiar with commercial and industrial customer plans and needs, and the plans for public facilities of other local governments.
- Encourage water conservation, including the use of water-efficient appliances and low-flow showerheads and fixtures.
- Collaborate with the Department of Natural Resources and others to ensure a sustainable water supply before new development is planned.
- Establish and fund a multi-year capital improvement program for potable water supplies

located, designed and phased in as specified by the comprehensive plan.

- Ensure wellhead zone and other source waters protection with point and nonpoint source pollution controls and land and watershed conservation and management practices.

WASTEWATER

Any wastewater treatment system requires careful monitoring, maintenance and upgrading. This is true whether for a region, community, neighborhood or home. The ideal system will vary, depending on how much wastewater it must treat and the natural characteristics of the site, such as its slope, soils and connections to surface and ground waters. The ideal system is also determined by the ability of users to afford, monitor and maintain it.

Traditional centralized wastewater treatment is often technically complicated and may require a great deal of energy and money to operate, monitor and maintain. Decentralized systems that treat wastewater from a single home or business also require regular monitoring, maintenance and upgrading. Because individual sewage treatment systems are decentralized, communities often have trouble ensuring they are adequately monitored and maintained. They also may have difficulty making sure that system improvements follow changes in land use, such as conversion of seasonal properties to full-time residences. Routine monitoring, maintenance and upgrading of these systems are vital to protecting natural resources and human health.

A number of treatment options might be used to address wastewater needs, some of which may require pretreatment. These include:

- Community drain fields
- Soil treatment mounds
- Constructed wetland systems
- Sand filters
- Drip irrigation
- Aerobic tanks and package plants

DESIGN AND SITING CONSIDERATIONS FOR TREATMENT OF SEWAGE

Estimated volume of wastewater flow. This is based on the number of people and, if appropriate, businesses to be served. Bigger is not always better; clustering homes in a system can reduce costs, be safer for the environment and make monitoring easier.

Site characteristics. These include the ability of soils to absorb and filter wastewater, and the implications of slopes and other natural features. Included should be an evaluation of the vulnerability of receiving water bodies where treated wastewater might be discharged.

Land needed. This depends on the design requirements of various system options, site characteristics and projected future demand for treatment. For certain systems, such as septic tanks and drain fields, a site must be large enough to carry a second system when the first can no longer do the job.

System characteristics, reliability and monitoring. Many system designs – each with its own cost, efficiency, water, land, energy and management implications – are available. System reliability is especially important in sensitive environmental areas, such as sand plains, Karst topography or lake shores, and more frequent monitoring might be required in such areas.

Maintenance and personnel requirements. Will a more engineered or centralized system require more attention or less? Will it require a full-time specialized technician or a part-time inspector?

Adaptability. As demands on the system or health or environmental standards change, a system's capacity and capability often must be enhanced. This is easier to do with some systems than others.

Source: Adapted from *Residential Cluster Development: Alternative Wastewater Treatment System* by J.L. Anderson and D.M. Gustafson. See www.extension.umn.edu/index.html.

- Spray irrigation
- Compost toilets

Communities often use natural systems, such as constructed wetlands, to aid in purifying wastewater. Natural wastewater treatment systems rely on purification by plant and animal organisms and can even be used to produce food, ornamental plants and organic matter for soil enhancement. Natural systems differ in a variety of ways from their high-tech cousins. They:

- Require relatively little maintenance, monitoring or energy
- Take advantage of existing natural resources and processes appropriate to the location
- Can have lower construction and operational costs
- Can provide better purification performance
- Offer greater operational safety
- Complement other objectives, such as boosting agricultural productivity or saving energy
- Can create habitat for birds and other animals

Traditional wastewater treatment and more natural systems are not mutually exclusive and can complement one another. The choice depends on space requirements, performance in breaking down sewage and long-term cost.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Land use. A community should carefully consider its options for wastewater management, taking care to understand the connections to land use and possible smart growth solutions. The cost of traditional sewer extensions and new collection and treatment systems can be very high. In some unsewered areas, project costs exceed $20,000 per connection. Even if an unsewered community is fortunate enough to receive grants, the average amortized cost to existing homeowners often exceeds $50 per month and, in some cases, may be $100 per month or more. These projects may also significantly change the character of an unsewered area. Not only do they open up more land to be developed, but they also create an incentive to add as many new users to the system as possible to share the infrastructure costs.

A COST-EFFECTIVE SOLUTION TO WASTEWATER TREATMENT PROTECTS LAKES

Cass County has a program that helps homeowners team together to share the cost of wastewater treatment by using a common drain field away from the lake shore. Septic tanks and a clustered drain field system near Little Boy Lake in Wabedo Township, for example, cost about $6,500 per connection – up to six times less than the cost of regional collection and treatment systems.

The use of decentralized alternatives also carries its own set of costs for a community.

Housing. Most communities plan for a variety of housing types, from large-lot, single-family homes to multifamily developments, each with differing wastewater demands. Planned and thoughtful consideration of wastewater management choices, staged extension of wastewater systems and routine maintenance of individual sewage treatment systems let a community retain a diversity of housing options, minimize inefficient or corrective investment in wastewater systems and help keep housing affordable.

Economic development. Limited capacity of wastewater systems can prevent the creation of jobs and expansion of the tax base.
In addition, some commercial and industrial activity may have special treatment needs. Sensible planning for design and operation of its wastewater system can help a community efficiently attract and support commercial and industrial development.

Environmental quality and natural resources. Rivers and lakes improve the quality of life for community residents and provide a basis on which to build tourism. Lake and river water quality and habitat need to be maintained through appropriate management of storm water and wastewater.

SAMPLE GOALS AND POLICIES

Goal: Maintain a safe and efficient wastewater collection and treatment system that meets the long-term needs of community residents, industries and visitors.

Policies:

- Locate public facilities where they best serve the long-term needs of a community and its environment.
- Channel new urban development into areas that can be connected safely and economically to existing infrastructure.
- Discourage development in areas not served by sewer systems with adequate capacity.
- Approve wastewater system upgrades and expansions based on comprehensive plan goals and policies.
- Coordinate system upgrades and expansion with a community's economic development program, plans for other public facilities and commercial and industrial plans.
- Set design standards and cost recovery policies that make people and businesses responsible for the costs of their decisions.

Goal: Take advantage of opportunities to address wastewater needs cooperatively.

Policies:

- Provide incentives to encourage groups of homeowners on lakes and in other neighborhoods to develop clustered wastewater treatment systems.
- Coordinate and implement system upgrades and expansion with nearby communities.
- Phase development of wastewater treatment systems to avoid unintended and uncontrolled growth.
- Manage growth associated with system improvements.

Goal: Where individual sewage treatment systems are the preferred treatment approach, ensure that systems are maintained and that failing systems are promptly identified and corrected.

Policies:

- Establish a program of periodic inspection of individual sewage treatment systems.
- Require owners of individual sewage treatment systems to identify an approved backup drain field site or have an approved failure contingency plan on record.
- Adopt a fee-based inspection program to help defray the public costs of monitoring private systems.

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to manage its wastewater infrastructure. These might include:

- Assess the condition of the wastewater collection and treatment system, including age, condition, efficiency and capacity.
- Adapt and adopt the *From Policy to Reality* model ordinance for individual sewage treatment systems.
- Require compliance with the individual sewage treatment ordinance as a condition of issuing a building permit, transferring property or replatting or subdividing land.
- Require developers of subdivisions to pay for and install a wastewater collection system capable of supporting the projected population.
- Collect connection fees to cover the cost of new hook-ups.
- Encourage water conservation, including the use of water-efficient appliances and low-flow showerheads and fixtures.
- Establish a multi-year capital improvement program and budget for wastewater treatment infrastructure.
- Educate homeowners about the proper care of individual sewage treatment systems, and the risks and liabilities associated with failing, noncompliant or poorly maintained systems.
- Encourage and monitor the land application of septage in appropriate areas of the community.
- Require cluster developments and community owned and managed wastewater systems in sensitive resource protection areas.

Carole Zellie

Wetlands provide open space and storm water retention in Woodbury development.

- Create a public entity, or contract with a private entity, to build, own and manage individual sewage treatment systems and small community systems to ensure proper long-term maintenance and upgrading.
- Explore ways to encourage and allow alternative systems, such as compost toilets, constructed wetlands or shared drain fields.
- Use constructed wetlands to meet tertiary sewage treatment needs.

STORM WATER

A community has a responsibility to ensure that storm water runoff is managed to protect residents, property and water resources. This can be done through the adoption of ordinances or guidelines encouraging the retention of rainwater. Retention measures such as swales, managed wetlands and ponds allow the runoff to naturally percolate into the soil. These measures provide a natural filter for polluted runoff, reduce flooding and erosion, cut the cost of development by requiring less infrastructure, replenish ground water supplies and lessen impacts on watershed habitats in developed areas.

The feasibility and benefits of natural retention and drainage vary from community to community. A community should consider the percent of its land surfaces that are impervious, permeability of its soils, depth to the water table and applicable regulations in deciding how to handle storm water in its comprehensive plan and subdivision regulations.

Some communities also may have to address the issue of systems that combine storm water and wastewater, a historic practice that overwhelms wastewater systems during heavy rainfalls and leads to degradation of rivers, lakes and ground water.

A community with recurring flood problems will need to give serious thought to the design of its storm water management system. Storm water runoff should be a significant element of its comprehensive plan and subdivision regulations.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Land use. Terrain and topography greatly influence land use. Areas within known floodways and flood plains or those that are natural flowages or wetlands should be identified in a comprehensive plan as unsuitable for development, or as requiring special technical considerations. Natural swales, wetlands and streams of all sizes swell to carry storm waters, which can mean flooded basements or worse if the runoff is not properly managed. Land use changes can make things worse, particularly if development adds a significant amount of impervious surface and if those surfaces hold polluting activities.

Natural resources. Natural features, such as flowages and wetlands, can be cost-effective elements of a planned community storm water management system. However, storm water will degrade the quality and health of receiving water bodies if special care is not taken to avoid affecting sensitive habitats and overloading a system with too much water or polluted runoff. A community should identify which wetlands to set aside for use in storm water systems and which to preserve and protect.

Transportation. Roadways and parking lots are frequently major components of the total area of impervious surface in a small watershed, sometimes creating the need for expensive storm water detention and treatment facilities and causing degradation of waterways, lakes and natural areas.

Housing. Roofs and driveways also are important contributors to the total area of impervious surface and can make it difficult for lawns to adequately retain storm runoff. Soils compacted by construction, even when overlain by sod, also increase the rate and quantity of runoff, sometimes functioning more as "green concrete." They provide far less infiltration than that obtained by native vegetation over soils that have not been compacted. When fertilizers and pesticides are applied to lawns, storm water runoff can be a special threat to water quality and the water environment.

SAMPLE GOALS AND POLICIES

Goal: Prevent the encroachment of development into natural watercourses, floodplains and wetlands.

Policies:

- Limit encroachments in watercourses, floodplains and wetlands.
- Adopt principles of low-impact development to optimize on-site storage and infiltration of storm water.
- Use and protect natural storm water features and resources in the community's storm water management program.
- Adopt incentives for planned unit developments and density development that retain natural open space.

Goal: Restore watercourses and their flood plains and mitigate existing encroachment to eliminate or minimize economic and social losses from storm and flood waters.

Policies:

- Develop programs to correct or mitigate existing development that is subject to periodic flooding or storm water damage.
- Offer financial or tax incentives to property owners in flood plains to encourage relocation.
- Establish and fund a multi-year capital investment program or budget for managing storm water.

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to manage storm water. These include:

- Identify natural watercourses and related floodplains and wetlands on the land use map as part of the community's storm water management system.
- Enforce limits to the types of structures or activities permitted in identified flood plains.
- Develop and enforce a state-approved floodplain ordinance.
- Adapt and adopt a state model storm water management ordinance.
- Plan public spaces to use flood plains, water courses, natural water basins and wetlands for greenways and passive recreational uses, thereby protecting them.
- Set and apply design standards for roads and public investments that assist in storm water management.
- Periodically review and reassess the capital investment program or budget.
- Amend subdivision regulations to require the use of natural water drainage and retention systems.
- Educate developers and community staff on innovative storm water management methods.

SOLID WASTE

Comprehensive planning offers an opportunity to anticipate the solid waste impacts of future development. Counties have statutory responsibility for solid waste planning, but cities and townships must conform with a county's plan (see Minnesota Statutes, Section 115A.471). Any community should consider how it can plan for solid and hazardous waste services, and how those services fit with the county's plan. City and township programs could be coordinated with a county's program to reduce costs.

Jack Flynn

Recycling saves landfill space and resources.

A community might choose to have a policy that asks prospective developers to forecast the likely impacts of a proposed project on waste generation rates and the makeup of the waste stream. Similarly, conditional uses can be linked to higher standards for reducing waste streams in some kinds of development.
A community could develop standards that either encourage or require contractors to separate and recycle construction materials, such as corrugated cardboard, shrink wrap, untreated wood waste and metals. To reduce toxic materials present in a community, a local government may want to encourage or require the use of treated lumber that does not contain chromated copper arsenate. Other treated wood products are available and meet the American Society for Testing and Materials and building code requirements.

A community also may want to develop policies that require the use of environmentally preferable products. Information on these is included in the *Environmentally Preferable Purchasing Guide* for local governments, which the Office of Environmental Assistance has posted at www.moea.state.mn.us/lc/purchasing/index.cfm.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Economic development. Solid and hazardous waste is a liability to businesses and local governments; they not only must bear the cost of disposal and treatment, but they also must document that they followed appropriate cradle-to-grave procedures. In addition, they face a risk that inadequate waste disposal or treatment may bring future liability. Reducing a waste stream or identifying how waste can be converted into a product with market value can make a business more prosperous, or save a community money. Plymouth, for example, taps the Plymouth Environmental Business Committee to promote business efforts to reduce the volume and toxicity of the waste they generate.

Natural resources. A community's waste streams – water, air and solid and hazardous waste – all tax an ecosystem's ability to render them harmless. Through careful management of these waste streams, the

LANDFILLS CAN BE A DRAG!

Using landfills has a tremendous impact on communities. Landfills emit air contaminants as landfill gas and water contaminants as leachate. The degree of contamination ranges from slight to severe. Contaminants include substances such as heavy metals, organic compounds and greenhouse gasses. While properly designed and operated landfills generally manage these pollutants, even the best-designed and operated facilities can fail. Long-term assurances cannot be given that well-designed landfills will continue to protect the environment, and the costs of remedial actions can be enormous. Finally, landfills provide few jobs to the local economy and can depress surrounding property values. Once a landfill closes, the land has limited use for future development and may be of little economic value to the community.

If Minnesotans continue to use landfills at the present rate and out-of-state landfills receive the same proportion of Minnesota municipal solid waste as they do today, Minnesota will likely run out of landfill capacity by about 2010. Based on this scenario, it will be necessary to begin the costly and controversial search for new landfill sites by the year 2005. These sites will likely be in the rural, agricultural regions of the state.

Source: Office of Environmental Assistance, *Solid Waste Policy Report*, January 2000; www.moea.state.mn.us/policy/99policy.cfm.

natural systems in a community can continue to provide the services people expect.

SAMPLE GOALS AND POLICIES

Goal: Reduce the amount of residential, commercial and industrial solid waste generated in the community.

Policies:

- Encourage participation in household recycling and waste reduction programs.
- Promote business efforts to reduce the volume and toxicity of the waste they generate.
- Use local waste streams as a resource through recycling, waste exchange or industrial feedstock.
- View solid waste as a valuable resource to be returned to productive use either by industry or nature and not merely as material to be burned or buried.
- Work with nearby communities to address solid waste issues and opportunities regionally.

Goal: Landfills will be a disposal method of last resort and any new landfill will be developed and sited at a location and in a manner that allows reclamation of the land once it is closed.

Policies:

- Encourage development of alternatives to traditional landfills, such as municipal composting facilities or reuse and recycling enterprises, which may provide new streams of revenue.
- Adopt siting criteria for placing landfills in appropriate areas.
- Plan future land uses that are compatible with a reclaimed landfill site.

TAPPING LANDFILL POWER

Elk River Municipal Utilities generates enough electricity to power 250 average-sized homes from a generating system that burns gas created by decaying garbage at the Elk River Landfill.

Source: *Energy Alley*, Minnesota Environmental Initiative at www.mn-ei.org/eapage.html

RANGE OF IMPLEMENTATION STRATEGIES

A community can use a variety of strategies to manage the solid waste infrastructure. These include:

- Establish backyard and curbside organics composting programs.
- Work with local businesses and civic organizations to develop a waste exchange program in which materials once thought of as wastes can be reused by industry or community organizations.
- Identify materials that are collected locally for recycling and work with economic development officials to support new businesses that would use and add value to these materials to create new products.
- Link financial assistance, such as tax increment financing, to pollution prevention investment and management.
- Ensure consistency between local comprehensive plans and the solid waste infrastructure and programs identified in county solid waste plans.
- Set industrial or commercial performance standards for solid waste generation.
- Assess local service fees (similar to connection fees) on proposed developments to pay for future solid waste infrastructure needs.

ENERGY

Minnesota produces most of its electricity from imported coal and meets most of its heating and transportation energy needs with imported natural gas and petroleum products. Other energy sources include nuclear, hydroelectric, solar and wind. While these energy sources have helped build a high quality of life for most Minnesotans, most are also limited and will eventually have to be replaced by substitutes that are renewable, affordable, reliable and plentiful. And because nearly all but solar and wind power come from other places, Minnesota communities lose the economic benefits of having their own, homegrown energy sources. In addition, emissions from burning of fossil fuels have altered the chemical composition of the atmosphere through the buildup of greenhouse gases.

RENEWABLE ENERGY AND LOCAL GOVERNMENT

A community can use renewable energy technologies to encourage economic development and a cleaner environment. The options include:

Use renewables to generate electricity for local government use.

- Build a small wind or other renewable project at a school or government building.
- Add renewables to a municipal utility.
- Use solar technology in remote locations.
- Use cogeneration to generate electricity and capture heat.
- Use methane from landfills, sewage treatment plants or feedlots to generate electricity.

Purchase green electricity.

- Buy green on behalf of all consumers.
- Form a municipal power agency to procure local renewable energy.

Use economic development tools to promote local renewable development.

Recognize and promote the use of renewables by others.

Incorporate energy issues in local planning.

Source: *Plugging into Green Power: Local Government Options for Renewable Energy*, Joshua Warner and Lola Schoenrich, The Minnesota Project, November 1999.

CONSERVATION

A community's simple commitment to energy efficiency can reduce the negative environmental impacts of energy production, save residents and businesses money on their energy bills and retain millions of dollars to circulate longer in the local economy. According to an article in the American Planning Association's *Public Investment*, 80 to 90 percent of every dollar spent by most communities on nonrenewable energy will leave the community permanently. By contrast, the small town of Osage, Iowa, keeps millions of dollars circulating within its local economy because of the success of its comprehensive energy efficiency campaign.

One of the added benefits of investments in energy efficiency is that communities can put their savings into other energy improvements, creating a positive domino effect that encourages continuous improvement.

Public utilities operating in Minnesota are required by law to invest a portion of their state revenues in programs designed to reduce their customers' consumption of electricity and natural gas and to generally improve efficient use of energy resources. Through the Conservation Improvement Program, the Energy Division of the Department of Commerce ensures that the five investor-owned (and state-regulated) electric utilities and the seven natural gas utilities serving Minnesota invest the required amount in conservation programs. Minnesota is recognized as having one of the nation's most effective conservation programs.

WIND POWER

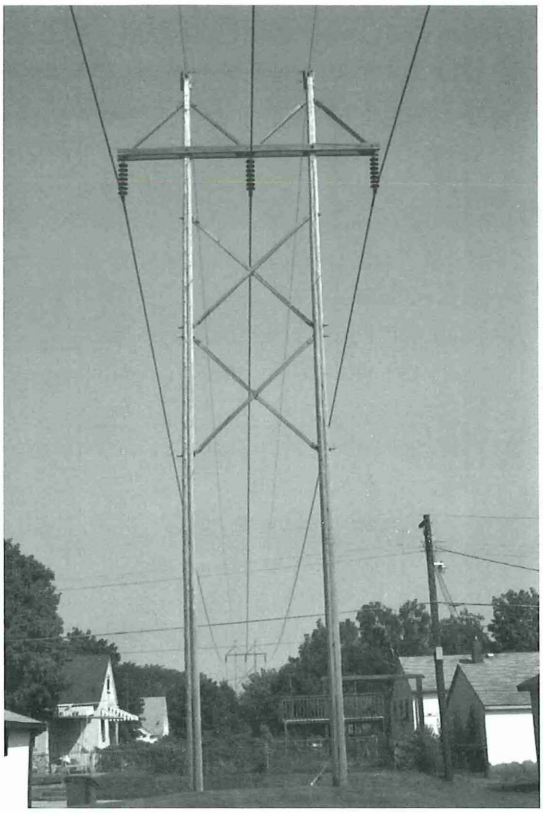
Wind energy development has become big business in southwest Minnesota as energy developers tap Minnesota's best wind resource on Buffalo Ridge. Other Minnesota wind power sites also may provide an economical source of energy and, as a homegrown resource, can help keep energy dollars circulating

MINNESOTA SOLAR ELECTRIC REBATE PROGRAM

The Minnesota Department of Commerce provides local governments and others financial assistance for the installation of solar electric energy connected to the power grid. The rate of assistance is $2,000 per kilowatt with an $8,000 maximum. A total of $1 million is available, enough incentives for 500 kW of solar power. For 2002, eligible participants include:

- Minnesota local unit of government
- Individual who resides in Minnesota
- Minnesota small business
- Minnesota nonprofit organization
- Minnesota educational institution
- Tribal council
- Minnesota cooperative

Source: www.commerce.state.mn.us/pages/Energy/ModTech/Rebate



Environmental Quality Board

Land use conflicts could have been avoided by designating adequate space for utility corridors and imposing set-back requirements.

locally. The American Wind Energy Association estimates that Minnesota has a potential wind energy capacity of as much as 75,000 megawatts. A Minnesota wind power resource map is posted at www.commerce.state.mn.us/pages/Energy/MainData.htm. A community should consider how it might tap this resource and identify in its plan the policies needed to make sure this happens. This step might be taken even if development is not likely to occur in the immediate future.

COGENERATION

Cogeneration is the production of both electric and thermal energy from the same process. Because it produces two useful outputs, cogeneration greatly increases the overall energy efficiency (the ratio of useful energy produced from energy input) of a facility. A conventional electric generating facility may have an overall energy efficiency of 35 percent, whereas cogeneration plants have an overall energy efficiency in the range of 80 to 90 percent. Although cogeneration suitability varies greatly between sites, facilities that produce thermal energy for heating or use in industrial processes, such as paper production, grain drying or food processing, may be good sites for cogeneration. A community might consider encouraging the development of cogeneration opportunities because it can save money, make good use of local resources and help local businesses prosper.

TYPICAL CONSERVATION IMPROVEMENT PROGRAM PROJECTS

Residential customers

- Energy audits and checkups with a trained energy consultant
- Rebates on energy-efficient appliances and lighting
- Low-flow showerheads that conserve water and the energy needed to heat the water
- Load management tools, such as air conditioner or water heater controls
- Low-interest loans or grants for more substantial home energy improvements
- Energy-efficient home construction guidelines calling for proper building and window orientation and high insulation levels coupled with air quality control systems and efficient appliances

Commercial and industrial customers

- Rebates for chiller replacement, cool storage systems, refrigeration efficiency improvements and rooftop air conditioners
- Rebates for lamp ballast replacement, street lighting or entire new lighting systems
- Rebates on farm equipment, high-efficiency motors and customer-designed projects
- Grants or low-interest loans for energy efficiency improvements

Source: Department of Commerce, Energy Division, www.commerce.state.mn.us/pages/Energy/MainCIP.htm

TIPS FOR DEVELOPING WIND POWER

Stakeholders

- Be flexible. Don't get locked into development plans, permit conditions or other requirements until the big picture is understood.

Permitting agencies

- Look at the land use relationships and objectives for an entire wind resource area. Early knowledge of concerns and planning are crucial to reducing potentially incompatible uses.
- Consider the potential impacts of both wind and nonwind project development in the wind resource area before development projects are proposed, and develop a plan for the area that minimizes land use conflicts.
- With input from wind developers, resource agencies and the community, develop specific land use classifications, zones, policies and development guidelines for wind projects in advance of permit applications.
- Review each individual wind project design for compatibility with existing and other planned land uses in the wind resource area.
- Ensure that all the stakeholders fully understand the entire project (construction, operation and decommissioning) to address and resolve potential land use issues.
- Consider landowner agreements before making specific permit conditions.

Project developers

- Contact agencies, property owners and other stakeholders early to identify potentially sensitive land uses and issues.
- Learn the rules that govern where and how a wind project may be developed.
- Review and resolve land use compatibility issues before leasing the land.
- Design the project site layout for efficient use of the land and consolidate necessary infrastructure requirements wherever possible.
- Beware of potential conflicts between lease provisions and permitting agency conditions for project development.

Source: National Wind Coordinating Committee, *Permitting of Wind Energy Facilities: A Handbook*, March 1998.

UTILITY CORRIDOR PLANNING

An often forgotten community opportunity is to consider, in advance, where energy utility corridors, such as for natural gas, petroleum or electricity, might best be located. "Best" means, of course, the optimal location given all the interwoven elements of a thoughtful community plan. A community's authority to weigh in on corridor siting may be greatly compromised if siting policies and plans are not already part of its comprehensive plan by the time a corridor route is proposed by a utility. This is true whether the regulatory siting duties reside with the Environmental Quality Board or with local government. A community may regulate the siting of power lines smaller than 200 kilovolts, but it cannot adopt policies on the fly. A community also may have a significant influence on state siting decisions if it has a well-thought out rationale for its corridor recommendations and if both are part of its comprehensive plan.

DISTRIBUTED ENERGY GENERATION

Distributed energy is electric power generation purposefully located near where all or most of the energy generated will be used. With judicious selection of energy sources (e.g., avoiding diesel fuels other than biodiesel) and generation methods, distributed energy generation is thought to have great potential for reducing environmental harm associated with energy generation and distribution. High efficiency generation systems, such as fuel cells and some microturbine technologies, provide the opportunity for a community or its occupants to generate energy and cut waste, both in dollars and pollution. A community and its energy provider may also want to consider distributed energy generation if they can tap a particular local homegrown resource, such as biomass (including animal waste), methane from a community's landfill or animal waste management facility, wind or direct sun (through photovoltaics), or if their location on the power grid makes doing so particularly economical or prudent.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Community facilities. Energy is an important consideration in the design and maintenance of any facility. Sustainable design features can cut long-term costs and enhance the beauty and livability of a building and the productivity of its occupants. The Minnesota Energy Security and Reliability Act of 2001 requires the state to develop sustainable design goals for state buildings, and energy efficiency goals for all public buildings. The Legislature also required school districts to consider sustainable design features in construction of every new school.

Economic development. Whether it is used for electricity, space heating or transportation, energy is an input and a cost to every business. Reducing costs through more productive use of energy can add to a business's profitability. Use of local electrical energy sources, such as wind power, direct solar conversion or biomass, also keeps local dollars circulating in the local economy. In essence, it makes a community's financial resources work harder for the community and can be a community's singular advantage in the competition for business recruitment and retention.

Housing and other buildings. The cost of energy over the life of a house or commercial building will likely exceed the original construction costs. The affordability of housing is, furthermore, affected by the energy costs of living in the home. An energy-efficient building that taps solar energy can be more comfortable to inhabit and can enhance the productivity of workers. However, indoor air quality can be an important health concern and design consideration, particularly with well-insulated buildings.

Infrastructure. Reducing reliance on mechanical systems, such as by using natural wetland treatment systems and on-site infiltration to manage wastewater, can cut a community's energy use. Installation of certain renewable energy systems, such as photovoltaics, also can pay off over time. The Burnsville Transit Center uses photovoltaics to meet its energy demands.

OAKDALE GOES GREEN WITH BUILDING POLICY

Called "Generation Green," Oakdale's green building policy offers businesses a 15 percent discount in building permit fees for materials recycling, lighting conservation and innovative building design to conserve energy and natural resources.

Land use. Allowing a greater mix of compatible land uses, such as residential and retail/services, can reduce car trips and, thus, the amount of gasoline used.

Natural resources. Consuming traditional fuels (particularly gasoline, diesel or coal) results in emission of a variety of pollutants that degrade both natural systems and human health. More efficient land use, coupled with the preservation and restoration of native landscaping, benefits the natural environment and saves energy.

Transportation. The transportation sector accounts for about 30 percent of the state's energy use and a significant amount of its air pollution, particularly in urban areas. Widespread use of low emission vehicles, or simply reducing the number of unnecessary trips, could significantly reduce the concern. The transport of energy resources, such as coal, can also affect community well-being.

A WARM BUILDING WITHOUT A FURNACE?

The Green Institute's Philips Eco-Enterprise Center in downtown Minneapolis has no furnace. Instead, the building extracts heat from the ground using a heat pump. In summer, this same system cools the facility. This solution saves money and avoids air pollution. Check out the center's Web site at www.greeninstitute.com.

GLOBAL CLIMATE CHANGE AND LOCAL GOVERNMENT

The Earth's climate is changing on both a global and regional scale. Activities like the burning of fossil fuels and cutting of forests increase the concentration of greenhouse gases in the atmosphere. These gases, including carbon dioxide, methane and nitrous oxide, are considered an important factor in climate change. Global climate change may influence a community's quality of life, affecting public health and the health of forests, agriculture, animals, fish, water resources, recreation and tourism. Although the benefits of taking action to address climate change may seem distant, most actions have other short term payoffs and make good sense. A strategy that cuts community costs while reducing energy use, air pollution and greenhouse gas emissions can help a community save money as it meets environmental, public health and economic goals.

Examples of local cost-saving opportunities that also reduce greenhouse gas emissions:

- Make building energy improvements
- Replace motors used in city operations with more efficient models
- Buy ENERGY STAR equipment for municipal offices
- Change traffic lights to light-emitting diode (LED) fixtures
- Use renewable energy systems to improve air quality
- Purchase green power to improve air quality
- Redesign communities to encourage walking, biking and mass transit
- Provide incentives for mass transit or carpooling
- Foster telecommuting and similar trip reduction programs
- Put police on bicycles
- Convert fleets to run on alternative fuels
- Initiate "Pay-As-You-Throw" waste disposal programs
- Implement curbside recycling
- Recycle office paper and reduce landfill costs
- Buy products made from recycled materials
- Establish composting programs
- Capture methane from landfills
- Integrate Smart Growth in planning
- Plant trees to keep buildings and streets cooler to improve air quality, lower air-conditioning loads and save money
- Use highly reflective surfacing and roofing materials

Sources: www.ipcc.ch
www.epa.gov/globalwarming/visitorcenter/publicofficials/course.html
www.epa.gov/globalwarming/actions/local/smartsavings/index.html
www.pca.state.mn.us/hot/globalwarming.html

SAMPLE GOALS AND POLICIES

Goal: Make the community's energy system reliable, affordable, efficient and diverse.

Policies:

- Make energy policy a key element of economic development, environmental protection, community design and building design.
- Encourage developers to adopt voluntary energy-efficiency standards.
- Help businesses and residents shift to energy-efficient lighting, heating, cooling and water-saving technologies.
- Make energy efficiency and renewable energy key factors in the evaluation of any public expenditure or development proposal.
- Establish efficiency requirements and renewable energy set-asides in energy service contracts. Favor tapping local renewable energy sources.
- Provide tax or loan incentives for district or central energy systems such as a central heating system for a cluster or planned unit development or a downtown redevelopment.

Goal: Reduce the effects of the community's energy system on the environment.

Policies:

- Adopt energy-saving and energy-generating policies to save the community money.
- Invest in energy efficiency and energy-producing improvements to municipal buildings.
- Support opportunities to switch to renewable energy systems, like wind or direct solar, or to purchase green power to improve air quality.
- Consider the redesign of community streets and land use regulations to encourage walking, biking and transit.
- Encourage telecommuting.
- Make the commitment to converting the community fleet to run on alternative fuels.
- Integrate energy initiatives, like the planting of trees to keep buildings and streets cooler in summer, with other community initiatives, like beautification.
- Adopt criteria and procedures for the systematic evaluation and siting of utility corridors consistent with the comprehensive plan.

TWO HARBORS' CITIZENS MAKE THE CONNECTION

The HEART of Two Harbors community initiative proposed to bring citizens of all ages together by connecting the hospital to a new 7th-to-12th grade school by means of a shared community health facility. HEART stands for health care, education, auditorium, recreation and therapy – all the diverse elements the initiative intended to connect through a multigenerational, multiple-use, community-oriented facility. It is a good model for other communities to consider.

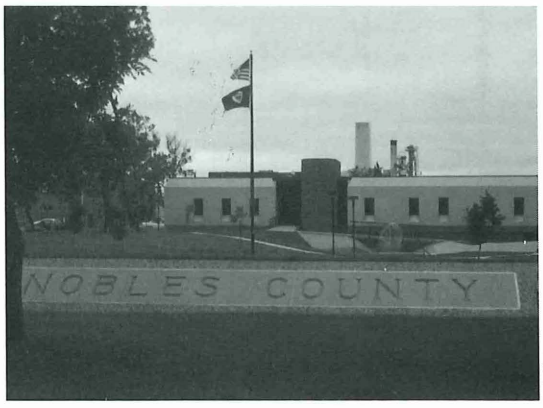
RANGE OF IMPLEMENTATION STRATEGIES

A community might consider energy policy a key area of opportunity for meeting its economic and environmental goals. A range of energy strategies might include:

- Open up regular communications with local energy providers to discuss the potential importance of energy to the comprehensive plan and ways they might help.
- Invite energy providers to become partners in community planning for sustainable economic development, renewable energy resource development, energy conservation and high-performance building design.
- Promote participation in energy utility conservation improvement programs, including low-interest loans or grants for home energy improvements.
- Identify potential sources of renewable energy (e.g., wind, geothermal heating and cooling systems, and photovoltaics) and encourage residents and businesses to develop and use these sources.
- Evaluate opportunities to tap local energy resources, such as biomass, methane from landfills or waste management facilities, wind or direct solar, for distributed energy generation.
- Conduct energy audits of community facilities and encourage individuals and businesses to do the same for private buildings.
- Examine cogeneration opportunities with facilities that produce thermal energy for heating or use in industrial processes.
- Phase out old equipment with energy efficient motors, fixtures and other items, like LED traffic lights and Energy Star approved copiers, fax machines, computers and windows.
- Adopt community energy-saving and energy-generating housekeeping practices, like recycling and composting, and encourage citizens to do so as well.
- Modify building and zoning codes to encourage commercialization of renewable energy technologies.
- Modify franchise agreements to incorporate energy goals.

COMMUNITY FACILITIES AND RELATED SERVICES

A community provides a variety of services to its residents, visitors and businesses. In addition to those discussed elsewhere in this guide, such services include fire and police protection, justice, park and recreational programs, schools, colleges, libraries, emergency services and health care. City halls, courthouses, community centers, schools and the other public buildings in which these services are



Jack Flynn

The low profile and underground facilities of the Nobles County Government Center were designed with Minnesota storms in mind. Worthington, Minnesota

carried out offer opportunities for thoughtful community collaboration, design, maintenance and administration, whether or not the community has direct management responsibility for the service.

Often, as with public schools, a different unit of government – in this case, the school district – is responsible for making key decisions. But just as with energy and many other issues, a community can take the initiative to bring people together to serve a community's best overall long-term interests.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Demographics. The population of Minnesota and nearly all of its communities is aging. Communities outside of the Twin Cities metropolitan area are concerned with keeping or attracting youth and families. Health care and community centers, libraries, schools and other community services bring people together. Services respond to the changing needs of people.

Economic development. A healthy community is an inviting place to do business. A community that thinks through the connections between schools, health care, other public services and community amenities stands to take best advantage of its potential for connecting people and creating that sense of community people cherish. A community that makes these connections meets business needs and interests as well.

Land use. Community facilities and services often affect or are affected by land use. Land use usually plays a key part in determining where a community locates a facility. A community facility, in turn, can profoundly affect the character of a neighborhood. The same is true for how a service is provided. For example, a community needs to understand how street designs and regulations, including cul de sacs, outlets and street width and parking requirements, may affect and be affected by fire protection services. In turn, fire protection choices, like the size of trucks used, may have implications for community design. A community should consider all interests in its design and service choices.

Transportation. The kind and location of services provided by a community can have a dramatic effect on transportation needs and goals. The elderly and people with disabilities are most likely to require access to health care systems and are likely to be the least mobile. The location of health care services and the type of service a community may choose to offer can ameliorate or exacerbate mobility and access issues for a large segment of the population. Location of schools, serving another part of the community's "transit-dependent" population, should similarly include consideration of nonmotorized access.

SAMPLE GOALS AND POLICIES

Goal: Investment in public facilities and services should aim to make the community, as well as its citizens, healthy.

Policies:

- Invest in facilities and services that bring people and functions of a community together to make the community a more desirable place to live.
- Adopt people- and environment-sensitive policies for new residential and mixed use development, encouraging pedestrian-friendly streets, buried phone and power lines, and compatible fire protection strategies.
- Link government offices, schools, libraries and other community facilities to the central business district.
- Consider sharing investments, services and facilities to connect people, extend resources and save money.
- Public investment should favor services not provided by a community's private sector.
- Adopt guidelines for the sustainable design of community facilities, including schools.
- Ask developers to pay for the share of public services they require.
- Consider the public services needed to support residential, commercial and industrial developments before they are approved.

RANGE OF IMPLEMENTATION STRATEGIES

Local governments can use a variety of strategies to manage community facilities and the delivery of

public services. These might include:

- Integrate planning efforts of school districts and a community through the comprehensive plan.
- Plan the location of schools and other public facilities so that they do not stress the capacity of roads or other infrastructure.
- Plan the siting of community facilities to take advantage of solar heating opportunities.
- Educate developers and homebuyers on the difficulty and cost of providing public services (e.g., emergency services, transportation infrastructure and schools) to isolated areas.
- Assess fees to cover the costs of public services necessitated by development.
- Give density bonuses for commercial or residential developments that provide links to linear greenways, other green infrastructure or park facilities.
- Define and adopt an urban growth area to encourage development where urban services can be provided cost effectively.
- Locate public facilities within walking distance of a set percentage of their users.
- Develop a public facilities ordinance to establish location and building performance goals and criteria.

LAND USE

Virtually every policy or decision in a community affects the way land is used. Land use is the umbrella under which most comprehensive plan issue areas fall, whether the issue is housing, transportation, natural resources, economic development, open space or agriculture.

How a community addresses its priority issues usually defines the land use element of its plan. After developing its alternative strategies for other plan elements, a community should examine their implications for land use. This step is important because a comprehensive plan guides decisions about buildings, streets, parks, natural areas, commercial and industrial development, housing and civic functions. A community should adjust existing land use elements to reflect a plan's final goals, policies and strategies.

SMART GROWTH STRATEGIES

- Mix land uses
- Take advantage of compact building design
- Create housing opportunities and choices
- Create pedestrian-friendly communities
- Foster distinctive, attractive communities with a strong sense of place
- Preserve open space, farmland, natural beauty and critical environmental areas
- Strengthen and direct development toward existing communities
- Provide a variety of transportation choices
- Make development decisions predictable, fair and cost-effective
- Encourage community and stakeholder collaboration in development decisions

Source: Adapted from the Smart Growth Network at www.smartgrowth.org.

Policies and strategies often have different implications for distinct locations in a community, although goals usually apply to an entire community. Policies in the Wabasha County Comprehensive Plan are organized around four geographic areas: Agricultural, Common Interest, Lower Valley and Upper Valley. These four geographic areas were chosen based on the land use and landform mapping completed during the background phase of the process. The issues confronting each area vary, with some overlap.

Site-specific plan effects may come from differences in the natural environment within a community, historic development patterns, cultural preferences of residents or community priorities for future development, such as where to locate new commercial or industrial development. Larger cities will define policies and strategies differently for downtown areas than for residential neighborhoods.

URBAN GROWTH AREAS

"Urban growth" is generally defined as residential, commercial or industrial growth that requires additional or expanded services for sanitary sewers, public water supply and storm drainage facilities, parks, and police and fire protection. An "urban growth area" is the land needed to accommodate the estimated urban growth of a community during a specified time period. The rationale behind defining urban growth areas is that communities can most efficiently provide public facilities and infrastructure by identifying where development is likely to occur and where citizens want it to occur.

Depending on a community's growth rate and current land supply, it may be necessary to establish growth areas outside its corporate limits. When this is the case, it is beneficial, even necessary, to plan jointly with the neighboring jurisdictions so that affected cities, counties and townships can guide growth in areas delineated for it in ways that best suit everyone involved.

The level of detail necessary for developing an urban growth area depends on the size of a community and the intensity of its growth pressure. The basic steps for determining growth areas with an adequate urban land supply are:

1. Prepare projections for population, household and employment growth.
2. Assess condition of existing wastewater treatment system (treatment facility and collection system) and existing water supply system (source water, treatment plant, supply system) including age, physical condition, size and capacity.
3. Eliminate from consideration any land parcels that cannot be developed due to their physical or legal limitations. Such areas could include lands with poor soils or steep slopes, or wetlands subject to policies and regulations prohibiting development.
4. Eliminate the land needed for other public purposes, which could include utility corridors, composting facilities, sewage treatment plants, green infrastructure, recreation areas and schools.
5. Eliminate land parcels not suitable for development due to social and economic factors, such as historic districts, culturally important landmarks and gravel resources.
6. Eliminate land parcels that will not be economically available for development within the plan's timeframe due to wastewater, water and other infrastructure considerations.
7. Identify remaining lands that could accommodate future growth. Land could be undeveloped residential or commercial land, partially used or underutilized residential or commercial land, brownfields, agricultural land or natural areas that the community has assigned a low priority and designated for development.
8. Determine uses for remaining lands and desirable densities.

CREATING THE LAND USE ELEMENT OF A DOWNTOWN PLAN

A model sustainable downtown plan illustrates the process a community might use to develop its strategies. Steps include:

- Develop a shared understanding of sustainability principles.
- Design and implement a public participation process.
- Review existing conditions and land uses in the downtown.
- Working within the participation process, establish a community vision for a sustainable downtown.
- Based on the vision, create sustainable development goals for downtown.
- Identify how people use – and should use – the downtown.
- Question whether existing land uses help or hinder sustainable economic development efforts.
- Define strategies for implementing the downtown land use plan.

Source: *The Heart of the Community: Downtown Planning and Sustainable Development,* Biko Associates, Inc., Hometown, Minnesota, Inc. available at www.moea.state.mn.us/sc/downtownplan.cfm.

9. Multiply the number of acres in remaining land parcels by the number of units per acre allowed in the area to get the total capacity of undeveloped, underutilized and partially used land.
10. Draw the urban growth boundaries for the jurisdiction from the remaining land parcels. Include enough suitable and available land area to meet projected growth needs.

If urban growth areas are poorly designed and not coordinated with surrounding jurisdictions, they can result in leapfrog development that goes to adjacent areas with minimal land use controls.

LAND USE PLAN MAP

Virtually all elements of a comprehensive plan should be reflected in a land use plan map, especially elements such as natural resources, transportation, economic development, public facilities, utilities and housing. Where possible, map text should describe goals and policies unique to specific areas of a community. The box on land use maps lists the types of information that could be displayed.

RELATIONSHIPS TO OTHER PLAN ELEMENTS

Nearly every issue addressed in a comprehensive plan includes land-related goals, policies and strategies. A comprehensive plan's land use element brings them together.

Community facilities and related services. How and where a community locates its facilities should be determined by the services to be provided, the location of clients and the accessibility to transit and other service-related amenities – all things a land use element must bring together.

Economic development. Some elements of a community's economy may need to be clustered and segregated from residential and even light commercial sectors. Other elements may be, in effect, neighborhood or town center attractions. Agriculture provides a good example of a business connection to land use. Agricultural land uses sometimes conflict with urban uses, like residential development, and residential development often consumes agricultural land. A land use element can help a community accommodate conflicting land uses and reduce conflict.

Energy. It is important for a community to identify in a comprehensive plan where it prefers to locate utility corridors. A community also may want to identify and protect renewable energy resources, such as high potential wind farm sites.

Environmental quality and natural resources. The quality of a community's environment – whether air, land or water – is directly affected by its land uses and use patterns. A community's natural resource amenities also should be recognized in a land use element, whether it is an aggregate deposit needed for construction or a prized natural area.

Most water-related issues have a land connection. With floodplain management, for instance, state law requires that a community keep development out of floodways – those areas where most of the water rushes during a flood – and limit development in the adjacent areas called flood fringes. The state also requires that a community manage its shoreland zones, including those lands within 1,000 feet of lakes and 300 feet of rivers and streams – or the landward extent of a floodplain, if greater than 300 feet.

TYPES OF INFORMATION TO DISPLAY ON A LAND USE PLAN MAP

- Residential land use (single family, two-family, multi-family)
- Commercial land use (retail, service commercial, office)
- Industrial land use (light industry, heavy industry)
- Public and semi-public land use (parks, schools, libraries, churches)
- Areas of mixed-use
- Roads and highways, proposed and existing
- Water bodies (streams, wetlands, lakes)
- Source water protection areas
- Urban growth boundary

Housing. Housing must be connected to jobs, schools, amenities and services, and must meet the needs of people and families. It has a clear connection to land use.

Information and communications. Communications towers can dominate a landscape and thus need special consideration in a comprehensive plan's land use element.

Transportation. Transportation, transit and alternative transportation corridors connect people and businesses to their community. These corridors need to be located in a land use element in a way that makes key connections between land uses, while preserving and protecting a community's amenities.

SAMPLE GOALS AND POLICIES

Goal: Integrate key land use elements.

Policies:

- Approach making major land use decisions with caution, avoiding those that might have serious, irreversible consequences.
- Ensure that any proposal to develop land or extend public services respects the goals and follows the policies of each plan element.
- Adopt concurrency requirements for growth and extension of infrastructure.
- Assess new development to cover the marginal cost of public services it requires.

Goal: Take advantage of the riverfront.

Policies:

- Protect the natural integrity of the river ecosystem, including important floodplain habitat, flood flow capacity and water quality.
- Support river-connected, corridor-sensitive commerce in selected areas consistent with ecosystem protection policies.
- Seek dedication of lands for corridor trail and park development that links natural and community-centered areas of the river.

Range of implementation strategies

- Take stock of natural resource amenities; determine where preservation, protection, enhancement or development may be warranted.
- Celebrate the connection to selected natural amenities, making them a community focal point.
- Define urban growth areas and encourage staged development in them concurrent with the development of infrastructure.
- Determine the capacity of infrastructure and an expansion plan to serve areas of planned growth concurrent with approvals of that growth.
- Enhance the town center as a community center of attention, and support its connections to surrounding neighborhoods, including transit, pedestrian and bicycle corridors, as well as roads.
- Use the comprehensive water plan as a tool for monitoring the effects of growth on water resources and informing the community on the possible consequences of growth plans on water amenities.
- Adopt or revise a shoreland management ordinance to put it in step with the community's vision, goals and policies. This may mean, for example, taking advantage of the "flexibility provisions" of the state rule, or rethinking the decision to divide undeveloped shoreland into separate parcels.

SETTING PRIORITIES FOR IMPLEMENTATION STRATEGIES

A community's final step in the comprehensive planning process is to set priorities for strategies to achieve its vision and goals. Just as many distinct policies can speak to a given goal, a community can select a range of strategies – consistent with its policies – to achieve any of its goals. Reaching an understanding of which should be given the highest priority is a key step a community must take. Doing this will include considering the degree of public support, cost and benefit, and how effectively a strategy links to other community needs.

CORE QUESTIONS

A community should recognize that a variety of strategies can move it toward its goals and vision. To choose between possible strategies to meet any particular goal, a community should consider the following core questions:

- Does the goal depend on actions or choices by private citizens, landowners or businesses?
- Can the goal be met solely through choices by public agencies or governments?
- Are there adequate incentives in the market to ensure the goal will be met?
- Will the community need to intervene in the market through regulation or investment to meet the goal?
- Does the community have resources to implement the goal?
- Can the community influence critical decisions by private individuals or organizations?

Based on the responses to these core questions, a community can set priorities for the kind of implementation strategies most appropriate for each goal. Strategies can be organized in the following manner:

- **Strategies that encourage private action.** A landowner or resident voluntarily meets the comprehensive plan goal due to encouragement or education by a government agency or body.
- **Strategies that provide incentives or rewards for private action.** Implementation is cooperative between a citizen and a government agency. The citizen voluntarily chooses whether or not to pursue the incentive, and the government agency provides the incentive but does not require compliance.
- **Strategies that are based on regulation.** Citizens must act within defined boundaries. A government agency is responsible for implementing and enforcing the regulation.
- **Strategies that involve public acquisition and management.** Government or a quasi-public agency owns and manages the land or resource. Government buys, condemns or otherwise acquires the resource or land and manages it in the public interest consistent with comprehensive plan goals and policies.

After a community has decided on a number of strategies, it should periodically re-evaluate these as it implements the comprehensive plan. Occasional reassessment can help ensure that existing strategies are the most effective ways to carry out a community's policies and goals.

There is no single recipe for developing a good comprehensive plan. So, rather than offering a rigid blueprint to follow, this chapter has been devoted to helping a community ask thought-provoking questions, think through connections across issues and reflect this integration in its comprehensive plan.

Implementing a Comprehensive Plan

IMPLEMENTING A COMPREHENSIVE PLAN

In some ways, developing a plan is the easy part. The real challenge often comes in translating a plan's vision, goals, policies and strategies into the day-to-day operations and actions of government. A plan's alternative fate is to sit on a shelf unused.

Translating key plan elements into thoughtful action is the point of planning. When done well, people marvel at the result and unite behind it. Washington, D.C., is a sterling example. It is a city of extraordinary beauty – a place people like to visit – and it was planned. When planning is done poorly or not at all, people rage at inconveniences they experience and abuses they see, like congestion, noise, polluted environments, ugly landscapes and characterless neighborhoods. They do not visit these places unless they have to.

When a community considers how to implement the wonderful ideas it has built into a comprehensive plan, it should never forget why those ideas are so important. A plan is a community's future. It is the collective will and dreams of its citizens. And a community's duty is to find ways to give it life that keep it true to the vision and maintain its integrity.

A comprehensive plan is comprehensive for a reason – because everything in a living community is interconnected – and it must be implemented in a way that treats its components as part of a whole. It takes great care to make every decision within the context of that basic reality.

With these thoughts in mind, this chapter is meant to help a community adopt, implement and update a comprehensive plan and make it available to the public .

ADOPTING A PLAN

A local government must hold a public hearing on its comprehensive plan before adopting it. If residents are actively involved throughout the planning process, this hearing should go smoothly. After the hearing, the local government formally adopts the plan – by a simple majority vote in counties or a two-thirds vote in cities and townships. The procedures for adopting a plan are described in Minnesota Statutes, sections 394.23, 394.26, 375.51, 462.355 and 473.864.

Even with a well-designed planning process, a community may lack consensus on certain issues or, in the worst case, may not have enough support to adopt a plan. In that case, a local government may want to:

- Set up a committee to work through the remaining issues. The committee should have balanced representation from all sides of the issues in dispute and a definite timeline for reporting back its recommendations.
- Recommend further study of the issues with a clear timeline. Through additional study, participants may discover new information that will help them develop a consensus.
- If the community is extremely divided on an issue, it may be necessary to bring in a professional facilitator or a mediator to help it find a solution. Sometimes a community must make tough choices and move on.

PUBLISHING A PLAN

To be an effective tool, a comprehensive plan should be clearly organized and easy to read so that everyone can understand the vision, goals and policies expressed in it.

A good table of contents, page numbers, tab dividers between chapters and easy-to-read maps, charts and graphs go a long way toward making a plan usable

and understandable. It may even be worthwhile to seek an editor's assistance in refining a plan's organization and language. The best time to do this is before the final draft of the plan is released for public review.

If cost is an important consideration (and it usually is), a community may want to choose a layout and design for the document that is simple and inexpensive to duplicate. While color maps are sometimes more informative, they can be expensive to reproduce, a factor that may limit the number that can be included in the plan. Packaging the plan in a three-ring binder makes it easy to incorporate revisions, amendments and new maps.

Jack Flynn

Architect Louis Sullivan's 1908 bank provides a historical backdrop for Owatonna's town center.

A plan should, above nearly all else, be accessible to people in the community. New technology, including three-dimensional imaging and publishing on the Internet, can help in presenting and distributing a comprehensive plan. Since not everyone in the community may be comfortable with these formats, a community will likely want to use traditional publishing approaches as well. Summaries of the plan can be distributed to residents as brochures or posters; a poster, for example, can feature a future land use map on one side and the community's vision, goals and summarized strategies on the other. Some communities have raised awareness of their community vision by printing it on a business card with key phone numbers and Web sites.

One of the best ways to communicate a plan to residents is to get the local newspaper to print it, or key elements of it.

In addition, community groups and organizations such as the local Chamber of Commerce, extension office, Farm Bureau, Farmers Union, and soil and water conservation office can help distribute the plan to their membership or clients. While getting the plan as much public exposure as possible is desirable, some communities, for cost reasons, have chosen to make copies available by purchase only. Providing free plan summaries and posting a plan on the Internet may be a solution where cost is a barrier to broad dissemination.

CELEBRATING A PLAN

After a plan is officially approved, it is a great idea to throw a party, a community ice cream social, a citywide block party or barbecue – something to mark the successful end of a community's planning efforts and the beginning of its work toward the future it has chosen. A community celebration not only brings people physically together to launch their newly shared vision, it is also a wonderful way for the local government and planning commission or other planning committee to thank all the people and organizations that helped develop the plan.

A community may even want to consider making the celebration an annual event as a way to update citizens on the progress being made toward implementing its plan. The event could become an annual Futures Fair or Community Design Expo.

IMPLEMENTING A PLAN

Once its plan is approved, a community should begin implementing it. These efforts are most likely to be successful if a community lays out clear implementation steps in the plan and employs a broad range of strategies, tools and techniques. As noted in

the chapter, *Developing Strategies*, a community can choose from a range of implementation strategies to realize a plan's vision, goals and policies.

A community might:

- Revisit economic development policies.
- Implement new building and energy guidelines and design standards.
- Establish or revisit capital improvement programs for staging road, sewer, water or other improvements.
- Engage the school district in considering community issues and opportunities in school expansions or consolidations.
- Implement or revise resource management efforts for solid waste, water management or forest management.
- Start educational and promotional programs.
- Create demonstration projects or voluntary guidelines (i.e., design standards, energy efficiency standards and pollution prevention guidelines).
- Provide incentives for implementing the plan through tax and fee policies.
- Acquire land or resources that are critical to achieving a community's vision and goals.
- Adopt or revise zoning ordinances and subdivision regulations.

Although local government must inevitably take responsibility for implementing much of a comprehensive plan, individuals, groups and organizations also need to contribute. A successful comprehensive plan is implemented through cooperative partnerships among:

- Planning staff and staff in other departments of local government
- The planning commission, local board or planning council
- Economic development, port or housing and redevelopment authorities
- Energy, communications and water utilities
- Other community advisory boards and commissions (i.e., parks and recreation, utilities or recycling commissions)
- Neighboring cities and counties
- Federal, state or regional government agencies
- Property owners, land developers and home-owner associations
- Civic organizations
- Nonprofit organizations and development corporations
- Private foundations
- Faith-based groups
- Conservation organizations
- Bankers and investors
- Media

These parties – most of which were identified as potential "stakeholders" in the chapter *Getting Started* – should use the plan as a guide in designing their activities. While most of these stakeholders should have participated in developing the plan, a community will still need to conduct outreach and education on the plan's goals, policies and strategies. A community might hold seminars to explain its comprehensive plan. The plan should also be posted on a community's Web page, and copies should be made available in local libraries. A community that has a public access cable channel also might periodically run educational programs on the planning process, its outcomes and implementation steps.

Within government, the various agencies and departments should recognize the comprehensive plan as the basic guide for their programs and administrative efforts. To encourage regular use, a community should have a copy of the plan in every meeting room and department. Having key maps and plan summaries displayed in lobbies and other public spaces reinforces the fact that the plan is now *the* guiding document for all government decisions. This means that all advisory groups, such as the planning commission, economic development authority, parks and recreation commission, and school, hospital and utility boards, will also need to become conversant with the plan. Staff reports should frequently reference the plan and expect its use in policy, administrative and financial decisions.

ST. PAUL'S PLAN FOR URBAN VILLAGES

St. Paul's downtown and riverfront plan, *Saint Paul on the Mississippi Development Framework*, calls for a series of interconnected mixed-use urban villages in and around downtown that are connected with a reforested river valley. The plan's guiding principles for city building are:

- **Evoke a sense of place.** The key is to use the city's unique physical qualities — natural setting, parks and buildings — to strategically enhance them and improve relationships between them.
- **Restore and establish the unique urban ecology.** An unprecedented opportunity exists to re-establish a balance between urban and natural systems and to create a unique urban ecology in St. Paul, embracing natural features and providing a context for initiatives to restore contaminated lands and waters.
- **Invest in the public realm.** A successful and vibrant public realm fosters a sense of security and attracts private investment.
- **Broaden the mix of uses.** A greater mix of uses creates a more vibrant urban core by encouraging people to live, work and walk downtown and by fostering a synergy between activities.
- **Improve connectivity.** The impact and role of built and natural elements downtown could be greatly enhanced if they were connected to and part of a larger citywide network.
- **Ensure that buildings support broader city building goals.** The challenge is to rigorously identify and promote elements of building design that contribute to building a vibrant city and streetscape.
- **Build on existing strengths.** The positive impact of downtown success stories — parks, buildings, streets — can be increased by strategically extending them and replicating their positive attributes.
- **Preserve and enhance heritage resources.** The challenge is to recognize the diverse range of such resources, to preserve them and, where possible, to creatively adapt them for new uses and expanded significance.
- **Provide a balanced network for movement.** This means that street rights-of-way are designed to be shared, attractive and safe for all modes of movement.
- **Foster public safety.** The sense of safety is greatest when there is a vibrant downtown — when streets, parks and public spaces are active for longer hours of the day, when there is a continuous urban fabric and when active uses provide an informal means of surveillance.

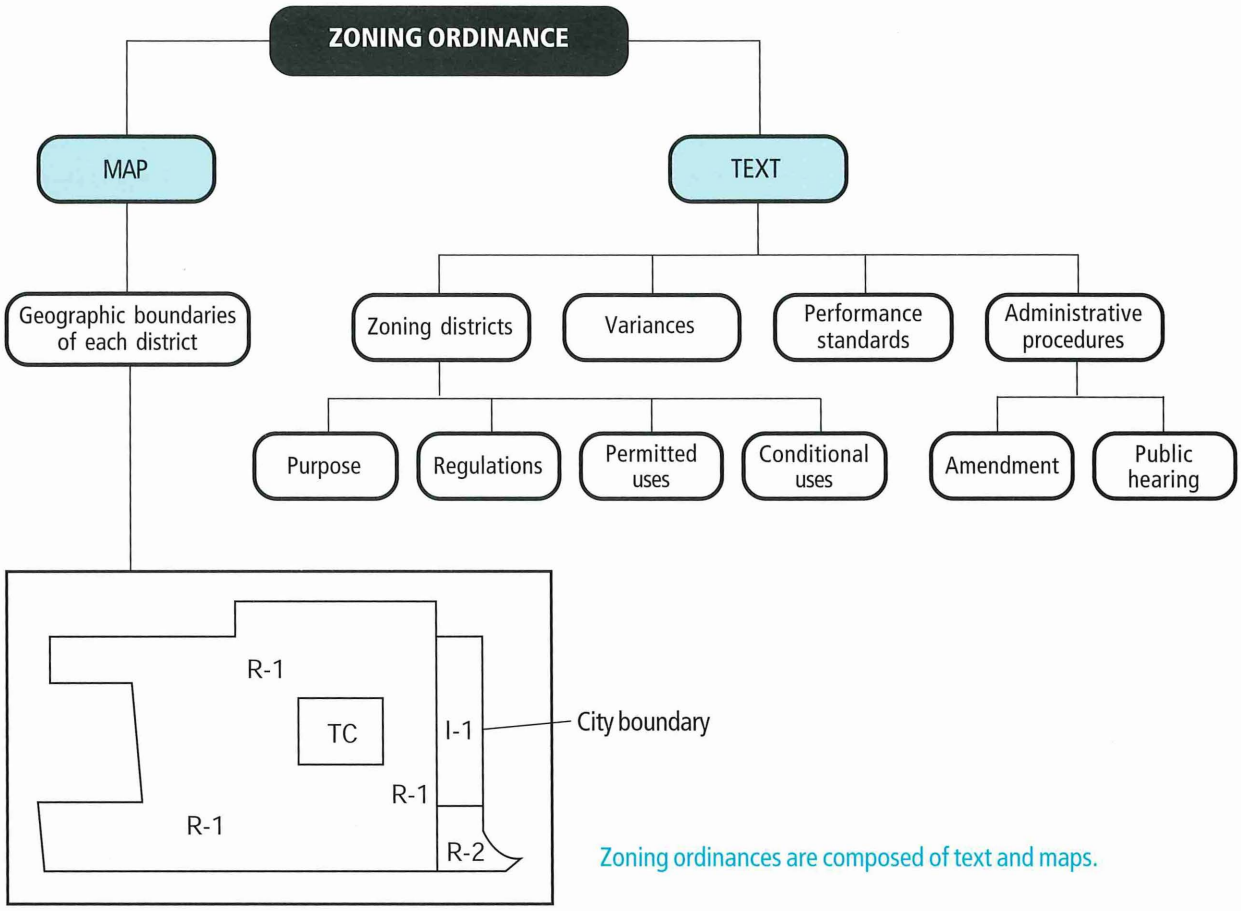
Source: *Saint Paul on the Mississippi Development Framework*, St. Paul, 1997; www.ci.stpaul.mn.us//frame/execsumm.html.

As noted in the chapter, *Developing Strategies*, a community should set implementation priorities to help translate a plan into action. Many communities devote an entire chapter of the plan to implementation or discuss relevant implementation tasks within each chapter. Others develop a short companion document devoted solely to implementation.

However a community chooses to handle this, implementing a plan is a deliberate process that may take years. Action steps need to reflect a community's resource and personnel limitations. Dates need to be set for reflecting on the plan and evaluating the progress being made. These periodic reviews will ensure that the plan is adjusted and refined as needed and citizens continue to feel their community is on the right track.

Implementation consists of two coordinated elements:

Time frame. A community should determine the timing of key action steps: some things must be done immediately, and others should be done farther down the road. Typically, implementation steps can be divided into:



Zoning ordinances are composed of text and maps.

- Ongoing activities, such as public involvement, that will continue throughout the process of creating, implementing, refining and updating a comprehensive plan
- Immediate activities that begin with adoption of the plan, typically completed or realized within the first year
- Short-term activities that start within three years of the plan's adoption
- Mid-term activities that begin three to 10 years after the plan's adoption
- Long-term activities that extend to the second half of the planning horizon, typically 10 years and beyond

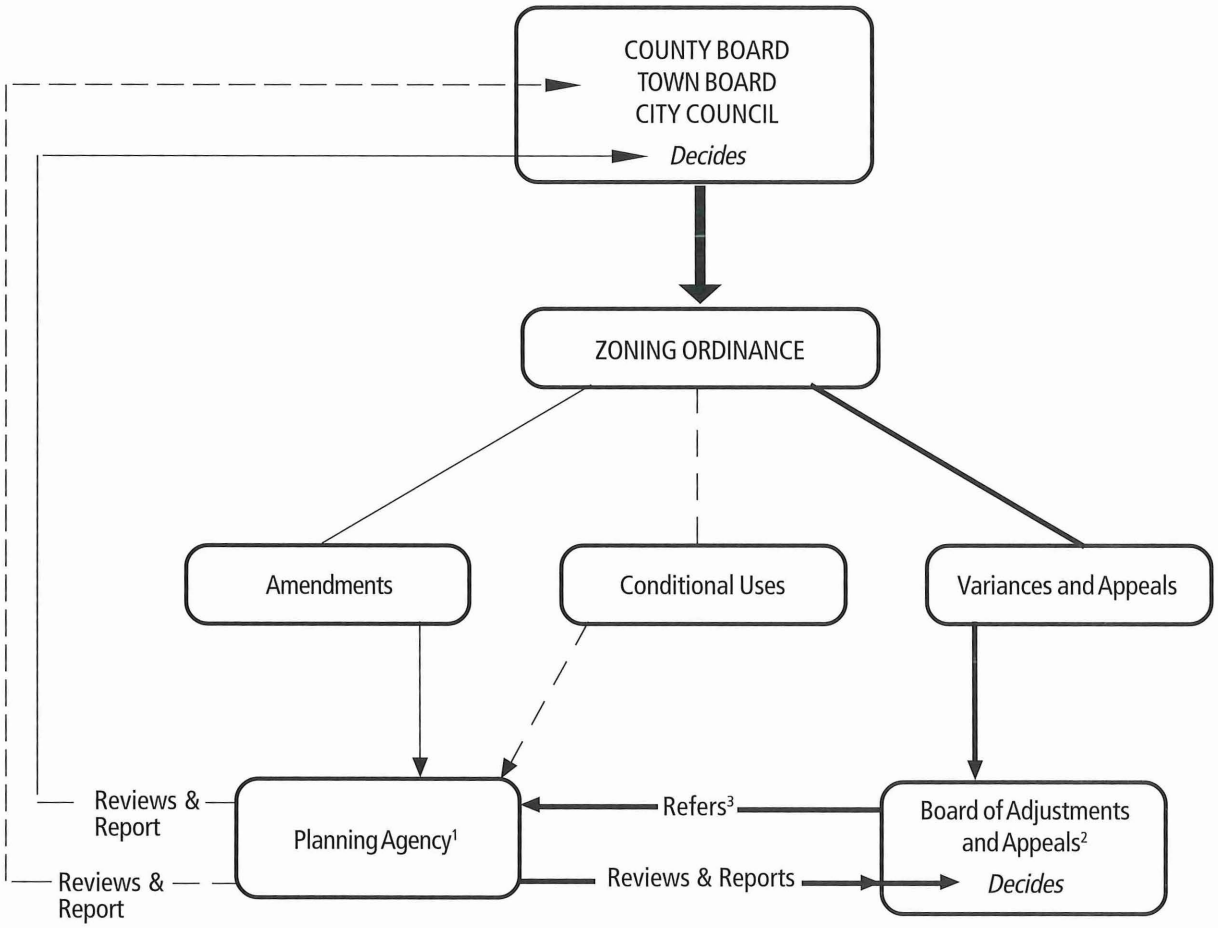
Assignment of responsibilities. Implementation recommendations should indicate the party responsible for executing an activity, whether it is local government staff, the planning commission, a planning task force, the economic development authority, or another organization or governmental unit. A community should also identify key secondary parties to be involved in implementing the plan, such as other governments (federal, state, county, township, city, school board), independent authorities, nonprofit organizations and business associations.

TYPES OF IMPLEMENTATION ACTIVITIES

A community may want to consider a number of implementation strategies and tools, including:

- Land regulation tools
- Fiscal tools
- Public facilities and infrastructure tools
- Housing and economic development tools

ZONING FUNCTION



This typical flow chart for zoning functions may vary depending on the responsibility and authority delegated to the planning agency.

Notes:
[1] Planning agency can be either staff or a planning commission
[2] A city council or town-board may serve this function
[3] Referral steps apply only to municipalities

Sources: Minnesota Planning, Metropolitan Council, Washington County Department of Public Health and Environment.

LAND REGULATION TOOLS

Development controls limit how and where development occurs to protect public interests. Development controls, for example, allow a community to require a developer to build according to zoning ordinances, provide sufficient park space and off-street parking, site buildings to allow access to the main thoroughfare and maintain adequate buffering from adjoining residential properties. Such controls are one of the most common and fundamental ways to implement a comprehensive plan and stem from government's responsibility and authority to protect public health, safety and welfare.

ZONING ORDINANCES

Zoning began as a means of preventing property owners from using their property in ways that harmed the community. Zoning also conserved and protected property values by prohibiting objectionable land uses in certain districts. Modern applications of zoning have broadened to provide orderly community growth, enhance and diversify a community's tax base, maintain or achieve beauty and variety in the physical environment, accommodate complex and unique land uses and, in sum, make a community livable.

Zoning ordinances are the regulatory tool most commonly associated with land use planning. Once a comprehensive plan is adopted, a community should prepare or revise its zoning ordinances to reflect the plan's goals and policies. Effective implementation of a comprehensive plan requires consistency between the plan and the zoning ordinances. If a particular land use is not supported by the comprehensive plan but is permitted by a zoning ordinance, it will be difficult to stop a developer from pursuing it.

Traditionally, zoning ordinances have been applied in a relatively inflexible manner, aimed at separating various land uses. Zoning does not have to be inflexible (and, today, land use separation often is considered a mistake). In fact, legislation that enables planning gives ample latitude for innovation. Planned unit development, mixed-use zoning, bonus or incentive zoning, transfer of development rights and growth management regulations that specify the timing and sequencing of development and public services all offer flexible opportunities for a community to ensure smarter growth and more people-friendly neighborhoods. Many of these approaches are discussed below.

A COMPREHENSIVE PLAN AND ZONING CODE ARE CLOSELY LINKED

Plan	Zoning code designations
Mixed use	MX, residential and neighborhood or community commercial
Town center	TC, downtown or community commercial and high-density residential
Low-density residential	R-1, single family
High-density residential	R-2, multiple family
Commercial	B-1, office
Retail commercial	B-2, retail business
Commercial	C-1, neighborhood commercial C-2, community commercial C-3, downtown commercial
Light industry	I-1, light industrial
Public	P, public
Park	PK, park

Although enabling legislation places responsibility for drafting zoning ordinances with the planning commission, as a practical matter staff planners, consultants or lawyers actually prepare the ordinances for the commission. The governing body (i.e., a county or township board, or city council) is responsible for adopting them after reviewing a commission's recommendations. Community participation is essential in developing an ordinance to ensure that it is both flexible and consistent with the comprehensive plan. A community may want to look at the zoning ordinances of other communities, particularly those with similar plans and visions for the future. Organizations such as the League of Minnesota Cities, the Association of Minnesota

Holsington Koegler Group

Stores, coffee shops and other neighborhood services coexist with housing in this mixed use development.

Counties, the Minnesota Association of Townships, Minnesota Planning and the American Planning Association (through its Planning Advisory Service) often can provide model ordinances and specific examples that are "legally bulletproof."

If a community already has zoning codes in place, updating them to reflect a new comprehensive plan may require anything from minor adjustments and map amendments to a major overhaul. While community staff and legal counsel can handle minor adjustments, expert assistance from a planning consultant or land use lawyer may be necessary when adding creative zoning tools or making code and map changes that result in some properties becoming nonconforming uses.

A zoning ordinance should make it easy for a developer to do what a community wants. For example, if a plan encourages higher density development in a particular area, the zoning ordinance should be structured in a way that allows the target density to be achieved. If instead, the ordinance limits multifamily dwellings, a developer may not know how to proceed in the face of the conflicting goals and regulations. Although a community may sometimes try to maintain flexibility by bending the rules on a case-by-case basis, this is a dangerous approach. The courts will determine whether a local government decision has treated all property owners equally and consistently.

CHANGING HOUSING NEEDS AND ZONING

Local zoning ordinances regulate such things as allowable building types, densities and building setbacks on a site. While written with good intentions, sometimes zoning ordinances have the effect of isolating good community neighbors, such as separating schools from residential areas. Ordinances sometimes even separate different compatible types of housing, such as single-family and elderly housing, offering retired residents little choice but to move out of their neighborhood when their housing needs change. Selectively changing restrictive zoning ordinances to allow mixed-use neighborhoods and a range of housing types can allow the community more flexibility in selecting and developing sites.

Source: *Building Better Neighborhoods: Creating Affordable Homes and Livable Communities,* Greater Minnesota Housing Fund, 2001.

Zoning should reflect the land uses desired by a community and identified in its comprehensive plan. A comprehensive plan is a policy document and thus does not designate parcel-by-parcel land use priorities, as is necessary in a zoning ordinance. The detail of comprehensive plan designations, furthermore, is frequently insufficient to clearly designate conditional uses, appropriate mixes of land uses and prohibited land uses. This level of refinement is generally best left to a zoning ordinance. The box on the previous page shows how a comprehensive plan and a zoning code are interrelated.

Once a community has determined its zoning ordinances' general land use categories, it must develop criteria for each category. These might include:

- A description of the land use category's general characteristics and purpose (whether the land is mainly for agriculture, heavy industry and so forth)

MODEL ORDINANCES OFFER CONDITIONAL USE EXAMPLE

The conditions for single-family dwelling units in an agricultural and forest protection district might be described as follows:

At a minimum, the following standards shall be applied when reviewing applications for conditional use permits within the Agriculture and Forest Protection District:

- The proposed use shall be sited upon lands which are less suitable for commercial agriculture and forestry than other agricultural or forestry lands within the district.
- The proposed use shall be sited on a parcel in a manner which minimizes the amount of productive agricultural and forest land which is converted to the proposed use.
- The proposed use shall be located in close proximity to existing buildings whenever possible and appropriate.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

- Types of acceptable development – permitted uses and conditional uses (including standards for determining appropriate conditional uses)
- Desired minimum and maximum densities or intensities of development
- Minimum or maximum lot size
- Parking requirements
- Performance standards for lighting, signage, open space, drainage, wetland protection, sanitation and so forth.

Variances. A variance is approval to deviate from an official control when the strict application of such a control would result in undue hardship or particular difficulties for the property owner. Variances are issued by the zoning administrator following approval by the board of adjustment. "Use variances" that would permit a use prohibited by ordinance are illegal in Minnesota.

Conditional uses. A zoning ordinance usually specifies the kinds of land uses allowed and prohibited in a particular zoning district. The conditional use falls somewhere between the routinely allowed and prohibited uses. A conditional use permit is usually required for a project that may have adverse off-site impacts, may create a nuisance situation within an allowed land use or may require

Hoisington Koegler Group

Hoisington Koegler Group

Thriving town centers are a goal of many community ordinances, whether revitalizing a traditional downtown or establishing a new one. LEFT: Maple Grove, Minnesota RIGHT: Hastings, Minnesota

ORDINANCES FOCUS ON "TRADITIONAL NEIGHBORHOOD DESIGN"

Older communities typically reflected particular design standards that are now called "traditional neighborhood design." Such design included orienting household gathering spaces (porches, entryways) toward the front of the home, streets and sidewalks that accommodated pedestrians first and automobiles second, neighborhood-oriented commercial development, and other design that emphasized a unique sense of place. Neighborhood design includes a mix of land uses, both apartment and second-story residential in traditional downtown areas of small cities, and neighborhood gathering places such as small diners, stores, and coffee shops. Emphasizing neighborhood design practices in subdivision and zoning ordinances enhances sustainability and preserves existing neighborhoods with elements of traditional neighborhood design.

Model ordinances for the following districts are presented, covering most of the urban, urban fringe and rural areas of a Minnesota community:

- **Town Center District:** Applies to the central business district, or traditional downtown, and provides for a mix of uses similar to or intensifying the existing pedestrian-oriented pattern.
- **Neighborhood Residential District:** Intended to encourage compatible infill development in residential neighborhoods around the town center. Neighborhoods with local or regional historic significance may also fit the profile of this district.
- **Town Extension or Urban Expansion District:** Applies to the potential expansion area around the city or village, which may be part of another jurisdiction but where utility extensions (public water and sewer systems) are planned. The ordinance provides for an efficient urban pattern that is strongly connected to the existing town or village, and shares certain design elements with it. The [Town Extension] can be used as an alternative to the typical planned unit development that many zoning ordinances contain.
- **Traditional Neighborhood Development District:** Intended to allow for development of large tracts of land in a manner consistent with traditional town and village character. Unlike the Town Extension, it is intended to apply to free-standing rural areas that may have been identified as suitable for development. The [Traditional Neighborhood Development] can also be used as an alternative to the PUD.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

selective application of design or performance standards. A zoning ordinance must clearly define general requirements for all conditional uses and, so far as practicable, standards and criteria specific to each designated conditional use. Courts have consistently overturned local government decisions based on rationale and standards not stipulated in an ordinance or plan. If a developer can meet the conditions and standards specified in an ordinance, then the local government should approve the conditional use permit. Common applications of conditional uses are multifamily housing, auto-related uses, outdoor storage, gravel mining and large-scale animal agriculture.

Performance zoning. Performance zoning regulates the effect or impact of proposed development rather than separating the uses into various zoning districts. The standards often relate to the site's development capability and limitations. Communities using this tool should be sure that they will be able to measure the development's impact cost effectively. Local governments need to tie performance zoning closely to their comprehensive plan because the plan must identify specific goals and related performance outcomes that developers must meet. Performance standards can cover things the community cares about, such as noise, odors, smoke, wildlife habitat, water and air quality, or other side

OVERLAY SEEKS TO PROTECT SENSITIVE NATURAL RESOURCES

Sustainable land use planning recognizes the value of natural, historic and economic assets in a community. Traditional downtown buildings help create a sense of place in the community's center. Natural resources, such as rivers, bluffs, and park land in and around the community, add substantial value to particular land uses such as housing or entertainment commercial uses. Natural resource-based industries need protection of resource base to ensure economic sustainability. Sustainability demands that natural, historic, and economic assets be conserved and protected for use by both current and future generation of residents and businesses. Land use planning must recognize community assets and the land uses that enhance, protect, or gain value from the resource.

A Sensitive Natural Environmental Areas overlay district for protecting and conserving significant natural resources in a community defines sustainable uses of a community's natural resources as depending on several factors:

- The sensitivity of the natural resource to various uses and to different kinds of development
- The uniqueness of the resource in the community and in the region
- The quality of the resource
- The economic value of the resource
- The natural resource priorities adopted by a community in its comprehensive plan

The overlay district provides a dual framework for protecting or conserving important community resources. It protects rare resources and areas highly sensitive to development. It also offers conservation methods for natural resource areas with habitat value that are important to community character and quality of life, for resource extraction using sustainable management practices, for recreation and tourism, and for development using conservation development standards.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

effects of a particular land use. They are a formal way for a community to say, "We do not want more traffic congestion than we have today" or "We do not want our schools to be any more crowded."

Industrial performance standards. Industrial performance standards are maximum or minimum thresholds for specific nuisances associated with industry, such as noise, vibration, air pollution and releases of toxic substances. Performance standards generally allow industry to choose the most economic and most appropriate method of compliance.

Technology standards. Technology standards, in contrast with performance standards, mandate that particular compliance methods be used. Counties, for instance, often use technology standards in regulating septic systems.

SPECIAL AREA DESIGNATIONS FOR MIXED USE

Special area designations are another way to accommodate a combination of land uses that do not fit just one land use category or cannot be mapped in advance of development. Traditional neighborhood designs (see box) are an example of such a designation. A community interested in encouraging a mix of uses may want to establish special area designations to do so. Including such designations allows a community to identify the intensity and blend of uses it prefers.

OVERLAY ZONES

Overlay zones allow special regulations within all or part of one or several zoning districts. They typically include an extra level of restrictions, although some allow exceptions to base zoning regulations. They should be used judiciously because they increase the code's complexity. While a single overlay can be manageable, multiple overlays can set the stage for regulatory conflicts and administrative problems. Typical overlay applications in Minnesota include historic preservation, special sign districts, shore land regulations, architectural design review for downtowns or highway corridors, airport hazard zones, special plan areas or critical natural areas.

VOLUNTARY ENERGY EFFICIENCY PERFORMANCE STANDARDS

One model calls for all construction of new buildings in a community to be encouraged, but not required, to follow specified Energy Efficiency Performance Standards. Their effectiveness depends upon consumers placing a high value on certified buildings.

- No penalty or violation shall be assessed for failing to comply with the Standards, nor shall any official deny a permit or petition on the basis of compliance with the Standards.
- Any building constructed to meet the Energy Efficiency Performance Standards shall be certified by the Community Zoning Office as a Resource Efficient Building. Certification will be documented by filing documentation with the Zoning Office identifying the components of the Performance Standards that are met in the new building.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

DESIGN GUIDELINES

Design guidelines help a community achieve more consistent development by conveying preferences to developers for parking, building siting, urban design and architectural style. More discretionary than regulatory, design guidelines have historically been unpublished (perhaps not the best approach) or have been published separately from the zoning code. Recent planning practice, however, has moved toward publishing guidelines within the comprehensive plan. A comprehensive plan can be an important place to publish guidelines.

Although guidelines and regulations are typically used together, guidelines should be clearly identified. Common guideline applications include signage, parking lot design, building siting, street treatments, architectural design and building materials, and buffering between uses. A community also could use such guidelines for energy and water efficiency, storm water management, pollution prevention, and solid and hazardous waste management.

PLANNED UNIT DEVELOPMENTS

Planned unit developments are an alternate form of regulation for large-parcel developments. PUDs allow creative development that would not be allowed on smaller parcels or under a community's regular zoning. A local government negotiates the details of each development with the developer to ensure that the development promotes a specific goal or goals of a comprehensive plan. Approval should be explicitly linked to comprehensive plan goals. PUDs are a useful tool to allow creative site design or an unusual mix of land uses (such as industrial and residential), to increase development density consistent with the comprehensive plan or to use exceptional design standards (such as narrow neighborhood streets or traditional neighborhood building design standards).

INTERIM USES

Interim uses allow cities and towns to grant a zoning permit allowing a temporary use on a property. An interim use is one that lasts for a specified period of time and requires very little investment in site improvements or buildings. Interim uses can be approved under the conditional use process, where time is the condition that must be met for the use to be approved.

TRANSFER OF DEVELOPMENT RIGHTS

Transfer of development rights programs allow development rights to be transferred from areas targeted for protection or low-intensity development to ones designated for development. The community adopts an ordinance defining a sending area where development is discouraged and a receiving area where it is encouraged. The selling landowner places a conservation easement on the property to be left undeveloped, and the purchasing developer is allowed to develop more intensively within the receiving area than is permitted in the community's base zoning.

PURCHASE OF DEVELOPMENT RIGHTS

Similar to a transfer of development rights program, a purchase of development rights program is one in which a government or nonprofit organization acquires and holds in the public interest the development right. The purchaser places a conservation easement on the parcels where the development rights have been acquired.

INCENTIVE ZONING

Incentive zoning requires developers to provide additional amenities in exchange for higher densities, additional floor area or other property enhancements. Local governments often use incentive zoning to encourage development that exceeds minimum standards for performance, density or land use intensity. For example, a multifamily housing developer may receive a density bonus in exchange for providing underground parking, extra open space or an energy- and resource-efficient, low-waste development or for locating the development along specified transit routes or stops.

MORATORIUMS

Elected officials are sometimes reluctant to employ a moratorium on a given land use because people often view such an action as inherently antidevelopment. However, halting development until a local government can make critical changes to an ordinance or gain needed information about the impacts of a particular land use is an effective way to ensure that a local government can plan appropriately. Several local governments, for example, placed moratoriums on large animal feedlots in the 1990s to better understand their impacts before allowing significant growth in their numbers. State law allows local governments to adopt moratorium ordinances for up to one year; cities and towns may extend them for up to 18 months. Local governments may impose moratoriums on certain kinds of development or on whole geographic areas, but in all cases, they must have legitimate planning justification to do so.

SUBDIVISION REGULATIONS

Subdivision ordinances regulate how and under what conditions a parcel can be divided into smaller parcels. The regulations also should require consistency with the comprehensive plan and its implementation tools, such as the capital improvements program, and environmental, natural resource, design and community character goals. A community can address such issues as minimum and maximum lot sizes (although these are more appropriately dealt with in the zoning ordinance), street placement, street widths, utilities, parks, relationship to surrounding commercial areas and related development characteristics to encourage, for instance, traditional neighborhood design. A local government may deny approval of a proposed subdivision if it fails to meet code standards and requirements or is inconsistent with the comprehensive plan.

Subdivision regulations also let a local government require minimum or maximum thresholds for public improvements in a subdivision, such as roads, sidewalks, bike paths, storm water systems, sewers and open space. Subdivision regulations can require

MEETING HOUSING NEEDS WITH PLANNED UNIT DEVELOPMENTS

Planned unit developments allow the mixed development of uses previously separated into exclusive districts, provided that they are properly designed. A PUD permit will allow for smaller lots and narrower streets than traditional zoning. The result is often increased livability and efficiency. For housing developments, a PUD allows for a variety of housing types, such as rental townhomes, apartment buildings and single-family homes, as well as for retail and other services on the same site. Local governments increasingly are willing to view development proposals in terms of integrating rather than separating different uses.

Source: *Building Better Neighborhoods: Creating Affordable Homes and Livable Communities,* Greater Minnesota Housing Fund, 2001.

ENVIRONMENTAL REVIEW AND DEVELOPMENT

Under the state environmental review rules, a community may need to prepare an Environmental Assessment Worksheet or Environmental Impact Statement if a proposed project meets or exceeds a mandatory threshold. Responsibility for making case-by-case decisions on the need for these and for determining if an EIS or an EAW is mandatory lies with local governments and state agencies. For almost any project, the rules identify the governmental unit that has this responsibility. This unit is termed the Responsible Governmental Unit, or RGU. The RGU must prepare the EAW before final decisions are made (such as on permits, conditional uses, plats or planned unit developments). Some typical projects that may require environmental review, depending on their size, are:

- Nonmetallic mineral mining (gravel mines)
- Land use conversions, including golf courses
- Roads, parking facilities
- Recreational developments, such as RV parks and campgrounds
- Residential developments
- Commercial, industrial, and institutional facilities (office buildings, stores, schools, community centers)
- Sewage systems, including sewer extensions (contact the MPCA about this)
- Solid waste facilities
- Sports/entertainment facilities (such as stadiums, amphitheaters)
- Stream diversions
- Projects that affect wetlands or Protected Waters

Environmental review should be initiated as early as possible. If a project fits into a mandatory review category, the Responsible Governmental Unit should be advised as soon as the proposer can thoroughly describe the project's location and basic features. For other projects, the sooner the public and governmental units with authority over the project are advised, the sooner the need for environmental review can be determined.

ALTERNATIVE URBAN AREAWIDE REVIEW

A community with a qualified comprehensive plan can also use an optional form of environmental review called Alternative Urban Areawide Review, or AUAR. While this type of review is never mandatory, it may be substituted for an EAW or EIS. The review's key feature is that its subject is a development scenario or several scenarios for an entire geographical area rather than a specific project. Development scenarios are established by the local unit based upon the comprehensive plan, zoning ordinances, developers' plans and other relevant information. More than one scenario can be reviewed, providing at least one is consistent with the adopted comprehensive plan. A maximum development, "worst case" scenario is usually included. Development scenarios chosen by the local unit serve as the project description for the environmental impacts analysis. Specific projects ready for review within the area can be included, however, the review can also be done before any specific projects are proposed.

More information is available at the Environmental Quality Board Web site at www.mnplan.state.mn.us/eqb or by calling 651.296.8253.

compensation to the local government for public facilities that it must install as a result of a development. Local governments often enter into development contracts or agreements that outline which party will pay for which improvements. A local government may require that a reasonable portion of a proposed subdivision be dedicated to the public or preserved for public use as streets, roads, sidewalks, sewers, electric, gas and water facilities, storm water drainage and holding areas, parks, playgrounds, bike paths, trails, wetlands or open space.

While a community can require that developers dedicate land to the public or pay fees in place of dedicating land for parks and open space, there are limits on its ability to exact fees or place other conditions on the right to develop property.

Once a local government approves a subdivision, it may not impose any additional requirements on that property based on changes to a comprehensive plan or, for example, a code amendment for one year after its preliminary approval of the subdivision or two years after final approval. The only exception to this law (Minnesota Statutes, Section 462.358) is if the subdivider and local government mutually agree to a change.

BOUNDARY CHANGES

A comprehensive plan and the urban growth boundaries designated through it provide the vital data, maps and information needed to make decisions regarding proposed boundary changes, including incorporations, annexations and consolidations. Urban growth boundaries also provide the framework for a city, township and county to jointly develop future land use plans, establish a timing and sequencing schedule for public services and prepare orderly annexation plans. State statutes regulating community boundary changes (*Minnesota Statutes*, Section 414.1) require applicants to provide much of the information contained in a comprehensive plan as part of the decision-making process.

MODEL ORDINANCE ELEMENTS FOR PURCHASE OF DEVELOPMENT RIGHTS

XX.1 Statutory Authorization, Purpose and Geographic Application

A. **Statutory Authorization.** Pursuant to Minnesota Statutes, sections 394.25 (for counties) or 462.357 (for townships and municipalities), Model Community establishes a purchase of development rights program for the purpose of preserving open space, including natural and scenic areas, and productive agricultural and forest land, while the fee title to these areas remains in private ownership. The program's policies, rules and official controls are adopted in this ordinance, hereafter known as the Model Community Purchase of Development Rights Ordinance.

B. **Purpose.** This Ordinance is adopted for the following purposes:
   1. To protect and preserve the rural landscape and high-quality natural areas that make Model Community a special place to live.
   2. To implement the goals of the Model Community Comprehensive Plan regarding managing growth and protecting rural areas. This PDR program addresses the following specific goals as stated in the Comprehensive Plan.
      a. Direct development away from rural areas and areas without existing or planned infrastructure.
      b. Maintain a distinction between urban and rural areas.
      c. Preserve the rural character and landscapes of Model Community.
      d. Preserve agriculture and forestry as permanent land uses and viable economic activities in the community.
      e. Create an integrated system of open space, parkland and trails throughout the community.
   3. To serve additional public purposes through open space protection, including storm water management, habitat protection, trail corridor extension, and linking of public parks and other amenities.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development*, Minnesota Planning, September 2000.

Official maps designate and protect sites for future roads, rights-of-way and other public facilities.

OFFICIAL MAPPING

Official maps are an important, though less commonly used, tool for implementing a comprehensive plan. An official map designates and signals to developers and citizens where the municipality expects roads and other public facilities to go in the future. This avoids the expense and controversy of the government having to acquire and remove buildings later if they fall in the designated areas.

A formally adopted official map allows the community to withhold building permits. It also authorizes the community to acquire structures placed in these designated areas without compensating property owners if the structures were built without a permit. Adoption of an official map does not create public ownership of the land. The government must compensate the property owner for the land at the time it is acquired for a public facility.

Minnesota counties, cities and townships may use official mapping for roads, rights-of-way and other public facilities such as parks, schools and libraries. In the Twin Cities metropolitan area, official mapping also may be used for soil conservation, water supply conservation and flood control.

REVIEWING PROPOSED DEVELOPMENTS AND USING THE ZONING CODE

A comprehensive plan is the foundation for local government decisions involving discretionary zoning actions and permits, including rezoning, conditional use permits, variances, site plan or subdivision review, PUD approval or issuance of building permits. Staff should refer to the plan in reports and other correspondence regarding zoning applications, and policy-makers should be familiar enough with the plan to identify supporting documentation when making decisions. If local officials make a decision that appears contrary to comprehensive plan policies, they should document why they are doing so and how the decision actually furthers plan goals. This not only will help identify what amendments to a plan may be needed but also will demonstrate to citizens and others that the plan does, in fact, guide the community.

HOUSING, BUILDING AND FIRE CODES

Local governments may adopt housing, building and fire ordinances to guide the physical development and maintenance of property. Depending on the goals and strategies identified in the plan, it may be appropriate to use some or all of these codes to assist with implementation efforts:

HOUSING CODES

Housing codes provide minimum standards for the safety, health and welfare of housing occupants. Housing codes are optional and are most often found in mid-sized or larger communities and communities that have older housing stock and a large supply of rental housing.

HOUSING MAINTENANCE CODES

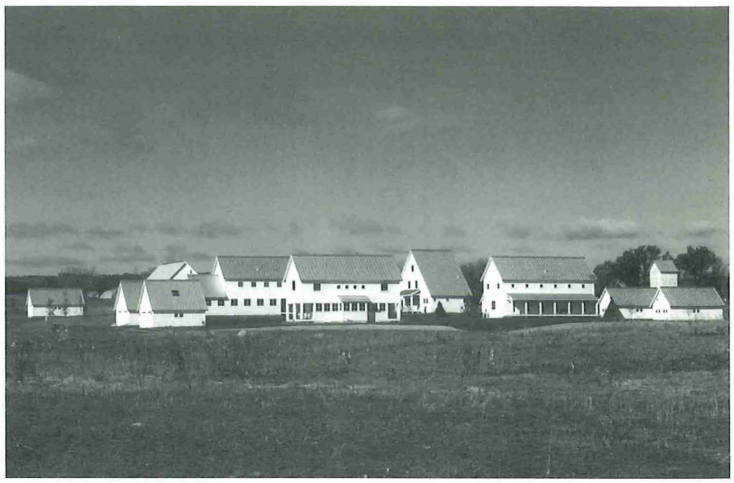
Housing maintenance codes focus on the upkeep of property exteriors and are often used to prevent the decline of neighborhoods.

SUBDIVISION AND SUSTAINABLE DEVELOPMENT

A community's subdivision ordinance includes a number of provisions outlining when and how the subdividing of lots is allowed. A subdivision ordinance identifies the threshold size where the subdivision regulations are applicable, the information required to be compiled by the applicant for review by the local government, site plan review procedures and other requirements. The "From Policy to Reality" model addresses several aspects of sustainable development that can be added to standard subdivision language, including:

- Setting of performance standards for converting agricultural land to housing
- Requiring a determination of the subdivision's fiscal impact on the community
- Requiring explicit compliance with floodplain, shoreland and environmental area ordinances

Source: From *Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.



Carole Zellie

Homes are clustered together at Jackson Meadows, preserving the development's open space for the entire community to enjoy. Washington County, Minnesota

STATE BUILDING CODE

A building code includes standards and specifications regarding building construction and remodeling. Generally, a building code works in concert with other codes, such as those for energy, plumbing, electric, heating and mechanical systems, to protect occupants and ensure minimum construction standards. Minnesota has a uniform State Building Code that encompasses these elements. Some counties and cities do not enforce the State Building Code, however. A county outside the metropolitan area may opt out of code enforcement by a vote of a majority of its citizens who live outside cities that enforce the code. Cities of fewer than 2,500 people in a county that has dropped code enforcement may also opt out by majority vote of their governing board. (See Minnesota Statutes, sections 16B.72 and 16B.73.)

FIRE CODES

Fire codes address fire safety and prevention inside. They go beyond building codes by addressing storage of dangerous materials, exits and sprinkling requirements.

HEALTH AND SANITATION CODES

These encompass a number of health-related activities, including private wastewater treatment facilities, garbage and recycling, landfills and well monitoring.

PROCEDURAL CHART FOR SUBDIVISION APPROVAL

	Pre-application meeting	*Preliminary plat	*Final plat
DEVELOPER	1. Prepare and submit sketch plan to community staff. 2. Meet with staff to discuss sketch plan and development standards.	1. Prepare preliminary plat based on sketch plan and recommendations of staff. 2. Submit preliminary plat to community staff for review.	1. Prepare and submit sketch plan to community staff. 2. Meet with staff to discuss sketch plan and development standards.
ZONING ADMINISTRATOR AND STAFF (Engineer, Surveyor, Attorney)	1. Review sketch plan in relation to existing zoning and various development standards in subdivision regulations. 2. Suggest changes, if necessary, to proposed sketch plans based upon standards in subdivision regulations.	1. Review preliminary plat in relation to standards in subdivision regulations. 2. Submit copies of plat to other departments (engineer, surveyor). 3. If plat abuts state highway, submit to Department of Transportation for review. If plat abuts a county highway, submit to county highway engineer for review. 4. Prepare report for Planning Commission.	1. Review final plat for conformance with preliminary plat. 2. Submit to governing body.
PLANNING COMMISSION		1. Review plat and staff report. 2. Hold public hearing after notice in newspaper. 3. Make recommendation to governing body.	
GOVERNING BODY		1. Review recommendation of Planning Commission. 2. Make decision.	1. Review recommendation of Planning Commission. 2. Make decision. If approved, plat must be filed with Register of Deeds.

**These procedures may be consolidated.*

As with all laws, a significant difference exists between passing regulations and effectively enforcing them. Rather than developing a systematic program of enforcement, most communities rely on complaint-driven enforcement. Enforcement programs are often difficult to implement because inadequate staffing restricts monitoring of violations, especially in smaller communities. Also, local government officials sometimes apply varying standards on when to prosecute individuals for violating the law. When people are cited or prosecuted, convictions are often difficult to achieve because a legal proceeding occurs in the criminal court system where judges sometimes view land use violations as trivial compared to more traditional criminal cases. In addition, a poorly constructed ordinance can sometimes result in the courts dismissing a land use case.

Unfortunately, weak or inconsistent enforcement of codes and ordinances can jeopardize comprehensive plan goals. While both a variance and conditional use permit allow discretion and flexibility by waiving rules that are occasionally inappropriate, a community must exercise great care in granting an exception to its policies. To give real meaning to a comprehensive plan, a community must uphold the integrity of the ordinances that support it. In turn, to give its ordinances legitimacy, a community must support their connection to the comprehensive plan.

FISCAL TOOLS

Local governments are authorized to use a variety of fiscal tools to finance community infrastructure or make major capital expenditures. These tools include capital improvement programs, assessment practices, development and user fees and tax increment financing. Occasionally, a community uses its general funds for development-related improvements, and it may choose to subsidize the installation of utilities to promote development that furthers its goals. For example, a community may promote affordable senior housing by paying for the infrastructure it requires using general funding sources or by pledging future tax increment revenues.

CAPITAL IMPROVEMENT PROGRAM

Aside from a comprehensive plan, the single most important tool for shaping a community's future may be its capital improvements program. This program outlines the timing and nature of a community's major investments in schools (through a school district), transportation, water, police and fire protection, solid waste management, libraries, park and recreation facilities and other public amenities. All of these investments have ongoing operation and maintenance costs, in addition to initial capital costs. The criteria that a local government uses in making these investments may significantly affect the total lifetime costs they impose.

A capital improvement program:

- Allows residents and businesses to anticipate and plan for future tax and levy needs
- Helps residents and local officials set priorities and stage major capital improvements
- Enables a community's fiscal agents to provide accurate advice on planning for future needs, particularly for large infrastructure investments
- Helps businesses plan for major investments, such as roads, that could affect their operations

INDUSTRIAL PERFORMANCE STANDARDS

In Minnesota, many kinds of industrial performance standards are set by the state, usually under Pollution Control Agency rule. Some PCA standards are minimums that local governments can choose to exceed. Other standards include both minimums and maximums, and a community cannot set standards that are either more or less stringent than these.

Model language for a number of industrial performance standards, including a standard for pollution prevention practices, is available in *From Policy to Realty: Model Ordinances for Sustainable Development*. For any standard, however, a community must identify the specific options available to local governments to regulate the activity or exceed state-mandated thresholds. The intent of model language is to provide reasonable regulatory language and a logical structure for performance standards.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

MODEL GROWTH MANAGEMENT AND ORDERLY ANNEXATION AGREEMENT

AGREEMENT BETWEEN THE CITY OF _____ AND THE TOWNSHIP OF _____ FOR GROWTH MANAGEMENT. ORDERLY ANNEXATION AND THE EXERCISE OF JOINT POWERS FOR PLANNING AND LAND USE CONTROL

THIS AGREEMENT is made this day of 200__, ("Effective Date") between the city of _____ ("City") and the Township _____("Township") and is an agreement relating to growth management and constitutes a "Joint Resolution" between the City and Township authorized by Minnesota Statutes, Section 414.325 providing for a procedure and a framework for orderly annexation of a part of the Township to the City. This Agreement also provides for the joint exercise by the City and Township of their respective planning and land use control authority pursuant to Minnesota Statutes, sections 471.59 and 414.325 (Subd. 5).

Source: *From Policy to Reality: Model Ordinances for Sustainable Development,* Minnesota Planning, September 2000.

CORE INFRASTRUCTURE KEY TO DEVELOPMENT

Core utilities provide capacity for land development and include wastewater treatment plants, water treatment plants, water storage facilities, trunk sewer and water lines, storm water management systems and arterial roads. Projected growth for a community may fit within the capacity of the existing infrastructure or may require expansion of existing systems or construction of new ones. State law provides communities with a variety of tools for borrowing the money to finance core utilities. The essential financial issues will be the sources of revenue to pay for those improvements, such as connection charges, utility user fees, special assessments, property taxes and bonding.

- Provides local officials with a solid legal foundation, when consistent with the comprehensive plan, for approving or disapproving individual development proposals, based on whether or not they are compatible with an adopted plan

When evaluating the criteria for capital improvements, a community should determine if the investments will meet local economic and social needs; what net effect the investments will have on the environment, economy and community; and if the investments will be sustainable over time.

Capital improvement plans are generally designed for a five-to-10-year period and often include short-, mid- and long-term projects. A community should prioritize investments based on need and an identified funding source. The plans also should include objectives and policies to guide investment decisions.

Preparation of the plan is generally the joint responsibility of the local government's chief administrator, department heads, governing body, planning commission and citizen committees. The administrative organization used to prepare a capital improvement plan may vary depending on local preferences, the form of government and available personnel. Minnesota law requires that the planning agencies in cities that have comprehensive plans review the capital improvement plan.

ASSESSMENT POLICIES AND PRACTICES

Infrastructure may also be financed through special assessments, which pass on the costs of improvements to the benefited property owners. Assessments, however, may not be fully chargeable to the benefiting property. Minnesota law limits assessments to no more than the increase in market value of the property as a result of the service or improvement. In such cases, costs not recovered through special assessment would be borne by the entire community.

While this approach gives the community control over design and construction of the improvement, the community must be prepared to take legal action and spend time and money to recover unpaid assessments.

DEVELOPMENT AND USER FEES

Minnesota law allows a community to make developers responsible for the cost of infrastructure needed to connect a new development to core utilities, including sanitary sewers, drinking water, storm sewers, streets, curbs and gutters, sidewalks, bike paths and parks. A developer, in turn, passes these costs on to the ultimate buyer in the sale price of a property.

Development-related costs that can be passed on to developers include development review and site construction inspection fees (including staff costs and overhead), building permit fees, wetland mitigation and park dedication fees.

Minnesota does not have enabling legislation that permits impact fees. Therefore, communities must use development and user fees cautiously and must relate the fees directly to costs associated with the development. A community should use great caution and work with an expert financial consultant and

legal counsel when contemplating using fees related to indirect off-site impacts.

TAX INCREMENT FINANCING

Tax increment financing allows a community to use the net increase in tax base of a particular development to finance the infrastructure or public investment that enables the development to occur. In a TIF district, the taxed value of property is frozen for general revenue purposes for the district's city, county, school district or other local entity assessing against the property. The tax revenue from the subsequent increase in property values is dedicated to paying off the public debt for infrastructure and other public investment in the TIF district. Once paid off, the full tax revenue stream is again available to the local taxing entities.

Using TIF for economic development offers potential benefits. Tax increment financing can be a powerful tool to facilitate development in areas or on parcels that would not otherwise attract private development capital, such as a brownfield site. The new development it generates can provide employment and tax base enhancement and may help spur general public improvement projects. Finally, tax increment financing offers a community an incentive-based approach to encourage private developers to meet a community's comprehensive plan goals and policies. A community can require that to receive the TIF designation, the development must employ local residents, provide living wage jobs or meet pollution prevention standards.

Tax increment financing also has potential downsides. One principal risk is that if the anticipated valuation increases do not occur, the community will have to pay off the incurred debt from general revenues. New tax revenues are withheld from various local governments, such as school districts, until debt for improvements is paid. These may end up costing Minnesotans more than they gain across the board. When school funding is compromised, for example, at the same time that housing development is encouraged, greater budget shortfalls may occur.

Also, the 2001 Legislature reduced property taxes for commercial and industrial properties and shifted more of the burden for funding schools from the property tax to the state. These changes significantly reduce the amount of money available for the tax increment subsidy or extend the time needed to pay off the debt.

MODEL ORDINANCE FOR ADEQUATE PUBLIC FACILITIES

XX.1. Purpose and Intent

A. To ensure that public facilities needed to support new development meet or exceed the adopted level of service standards established by the Model Community Comprehensive Plan and this ordinance.

B. To ensure that no rezonings are approved that would cause a reduction in the levels of service for any public facilities below the adopted level of service established in the Model Community Comprehensive Plan;

C. To ensure that adequate public facilities needed to support new development are available concurrent with the impacts of such development;

D. To establish uniform procedures for the review of rezoning applications subject to the concurrency management standards and requirements;

E. To facilitate implementation of goals and policies set forth in the Model Community Comprehensive Plan relating to adequacy of public facilities, level of service standards and concurrency; and;

F. To ensure that all applicable legal standards and criteria are properly incorporated in these procedures and requirements.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development*, Minnesota Planning, September 2000.

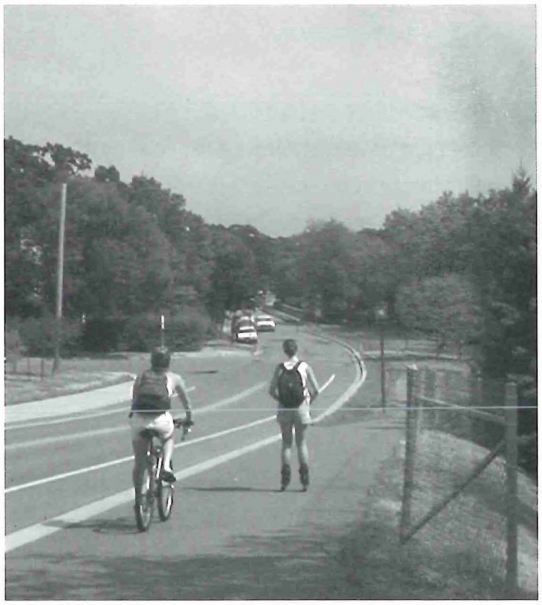
PUBLIC FACILITIES AND INFRASTRUCTURE TOOLS

Public acquisition of land for parks, natural areas, resource protection and other public facilities has long been one of the most successful tools for implementing a community plan. In addition to purchasing land on the open market, accepting donations of land or requiring land dedication as a part of approving a subdivision, a community has three other options for meeting public facilities needs: easements, eminent domain and condemnation, and shared facilities.

ROCHESTER AREA INITIATIVE LOOKS TO INCREASE HOUSING

The Greater Minnesota Housing Fund, with funding from the Mayo Clinic, Rochester and the Rochester Area Foundation, developed the First Homes starter home initiative. This initiative will finance and build at least 875 "starter homes" in 15 cities in the Rochester area over a five-year period. Among other things, the First Homes initiative encourages efficient use of land and infrastructure to promote sustainable land use. The initiative also takes into account that the benefits of homeownership are also realized by local taxing entities such as schools, counties, municipalities, and local development authorities.

The First Homes initiative seeks to help communities establish standards and programs that support well planned neighborhood subdivision development, conservation of land and infrastructure, and cost reduction of single-family homes. The initiative also works to encourage development of efficiently planned residential areas that create healthy and cohesive neighborhoods that connect to other neighborhoods, services and public amenities.



Carole Zellie

Transportation facilities should be designed to meet the needs of bikers, inline skaters and pedestrians, as well as cars.

EASEMENTS

Purchasing an easement is an inexpensive way to protect land for public needs. The property owner retains ownership and use of the property, but the government gains the right to use it and to maintain facilities on it. If an easement is purchased for a storm water pond, however, and the owner wants to put a bike path around the pond, the parties would have to negotiate those additional rights.

EMINENT DOMAIN AND CONDEMNATION

Eminent domain gives communities the authority to condemn private property for public use as long as the landowner is reasonably compensated and a public purpose exists. To acquire property by eminent domain, communities must follow the requirements in Minnesota Statutes, Chapter 117. To begin the process, a local government must pass a resolution of intent. It must then file a petition with the district court stating the proposed public purpose. At this point, it is useful to have a comprehensive plan that makes it clear to the court what public purpose the condemnation will serve. If the court determines that the purpose is authorized, it appoints commissioners to determine the necessary compensation.

BUILDING PUBLIC FACILITIES AND OTHER INFRASTRUCTURE

A comprehensive plan should stipulate that adequate public facilities be in place before development takes place. Communities can therefore link their land use goals with their capital improvement programs so that public facilities known to induce growth are available in those areas where the community chooses to channel growth. For example, communities will want to evaluate the capacity of local schools when reviewing developments that will increase the population of school-age children. Sewers, water systems, roads, sidewalks, bike paths, parks and even the carrying capacity of green infrastructure can be addressed through a concurrency or adequate public facilities ordinance.

SHARED FACILITIES

Most communities have limited resources. This reality provides an extra incentive for a community to explore the option of sharing facilities with another community. Public facilities that might lend themselves to sharing arrangements include joint city and school district athletic facilities, multicity water treatment and storage facilities, wastewater treatment facilities and shared personnel in high-technology areas, such as engineering and computers.

HOUSING AND ECONOMIC DEVELOPMENT PROGRAMS

A community may establish several different types of organizations to promote economic development and housing. The type of organization depends on the activities targeted. In some communities, for example, business development and job creation are primary goals, while in others housing development is a priority. The kinds of development organizations include:

COMMERCIAL CLUBS

Commercial clubs are usually incorporated, tax-exempt organizations formed to promote community and retail events. Membership is usually composed of volunteers from retail businesses in the central or downtown business districts.

MODEL ORDINANCE DEFINES POWERS OF ECONOMIC DEVELOPMENT AUTHORITY

The following limits shall apply to the Economic Development Authority of *Model Community* and its operation:

A. The sale of all bonds or other obligations issued by the EDA shall be first approved by the Council.

B. The EDA shall follow the budget process for Model Community departments in accordance with city policies, ordinances and resolutions.

C. Development and redevelopment plans of the EDA must conform to Model Community Comprehensive Plan, official controls implementing the comprehensive plan, and other growth management policies set by the Council.

D. Development and redevelopment plans of the EDA must conform to any applicable performance standard in the Model Community Code, including those standards triggered by financial participation by Model Community in the development.

E. The Council shall, from time to time, set general priorities for development and redevelopment activities of the EDA. The priorities must be consistent with the comprehensive plan and other growth management policies of Model Community. The current priorities of the EDA shall be as follows:

- Stabilize the existing job and tax base by promoting existing business and business centers in the community.
- Redevelop underutilized or vacant parcels in areas identified in the Comprehensive Plan as commercial districts or industrial parks, including recruitment of new businesses appropriate for a given area, redirecting proposed greenfield development to appropriate existing commercial or industrial areas, assembly of parcels to facilitate redevelopment, and assembly of financing.
- Create tax base and jobs through technical and financial assistance programs for entrepreneurs.
- Assist local businesses to comply with state and federal air and water emission requirements, and hazardous and solid waste management and reduction efforts.
- Assist local businesses in improving resource productivity through greater energy efficiency and reduction of wastes.
- Provide financial assistance to companies locating or expanding in Model Community. Conditions of any financial assistance provided by the EDA to companies locating or expanding in Model Community.

Source: *From Policy to Reality: Model Ordinances for Sustainable Development*, Minnesota Planning, September 2000.

CHAMBERS OF COMMERCE

Chambers are incorporated, nonprofit and tax-exempt organizations usually affiliated with state and national chambers of commerce. Their primary purpose is to promote local businesses and the community. Some chambers are also politically active and engage in such activities as lobbying. Chambers often sponsor education and training seminars for business managers and employees, and membership typically includes retailers, businesses, and city and county governments. Most chambers have limited staff, while some are larger and can become involved in tourism and business development.

FOR-PROFIT DEVELOPMENT CORPORATIONS

These corporations can be formed to develop and sell industrial land or provide financing for business development within the community. Shares are sold to local investors who are paid dividends for profits made on projects. Also, money invested can be repaid to stockholders. These corporations are subject to federal and state income tax.

NONPROFIT DEVELOPMENT CORPORATIONS

These are like for-profit corporations in that shares are sold, but no dividends are paid on shares. The nonprofit corporation must obtain either 501 (c) (3) or 501 (c) (4) status from the Internal Revenue Service. Donations made to a 501 (c) (3) are tax deductible, but obtaining 501 (c) (3) status can be difficult, expensive and time-consuming. Although 501 (c) (4) status is less difficult to obtain than the 501 (c) (3), only businesses may make contributions that are tax deductible; individual contributions are not tax deductible. Organizations with 501 (c) (3) status are usually not politically active due to regulations that limit expenditures on political activities.

DEVELOPMENT COMMISSIONS

A development commission is an advisory board appointed by the mayor and approved by the city council; it serves as a sounding board and first point of contact for development projects. Such commissions have limited or no decision-making authority but are often responsible for drafting strategies and policies for ratification and implementation by the governing body.

HOUSING REDEVELOPMENT AUTHORITIES

Housing redevelopment authorities are legal entities created by city councils or counties to provide sufficient supplies of adequate housing for low- to moderate-income residents. They also are charged with clearing and redeveloping blighted areas.

PORT AUTHORITIES

These are legal entities authorized by the Legislature to promote the general welfare of city port districts, increase the volume of commerce in the ports and provide facilities for handling, storing and shipping freight. A port authority has broader powers than a housing redevelopment authority or economic development association because it can issue general obligation bonds to finance a development without an election.

RURAL DEVELOPMENT FINANCE AUTHORITIES

These nonprofit corporations are established by counties or groups of counties through special legislation. They work to facilitate the production and processing of agricultural products and promote jobs in agriculture and natural resource industries.

JOINT POWERS BOARDS

These boards are created by two or more cities, townships or counties for a specific purpose, such as economic development or watershed protection. The agreement between the governments specifies the board's activities and powers.

ECONOMIC DEVELOPMENT AUTHORITIES

These have some of the powers of port authorities and all of those of housing redevelopment authorities. By law, economic development authorities are allowed to buy and sell property, make loans and grants to businesses, provide guarantees or other credit enhancements and sell bonds. Although these were originally designed to meet the needs of cities, legislation now allows counties to establish economic development authorities. Economic development authorities also can exercise the powers of cities (such as condemnation, or eminent domain) in connection with city development districts and the

powers of municipalities or development agencies in connection with municipal industrial development. By consolidating the powers of economic and housing development into one body, city officials are able to focus development on blighted areas while also creating programs that will prevent blight from occurring elsewhere. Economic development authorities can also be a vehicle for meeting the community's goals for resource conservation, job quality, pollution prevention, and growth management.

REVIEWING AND UPDATING A PLAN

A community should regularly review its comprehensive plan to evaluate the success of its implementation efforts and ensure the plan remains up to date as the community evolves. The community progress and plan monitoring indicators discussed in the chapter, *Setting a Community's Course*, should help a community do this.

Minnesota Statutes, Section 473.864 requires local governments in the Twin Cities metropolitan area to review and update their local comprehensive plans, official controls and fiscal devices at least once every 10 years.

To ensure the ongoing review of a plan, a planning commission should incorporate annual reports of the plan into its order of business, tying the review to the government's annual budget cycle. For example, a planning commission could present an end-of-the-year report to the governing body during the first quarter of the new year that would identify activities to be undertaken in the next 12 months and items to be considered in the next budget cycle.

SAMPLE MUNICIPAL COMPREHENSIVE PLAN ADOPTION AND AMENDMENT PROCESS

Proposing. Plan/amendments may be proposed or developed by governing body or planning agency.

Considering. A plan/amendment proposed by a local governing body must be considered by the planning agency. It has 60 days to deliberate and get input from neighboring jurisdictions and general public and report back to the governing body on any plan amendment.

Notifying affected properties. Owners of property proposed for redesignation should be notified and given ample opportunity to be heard.

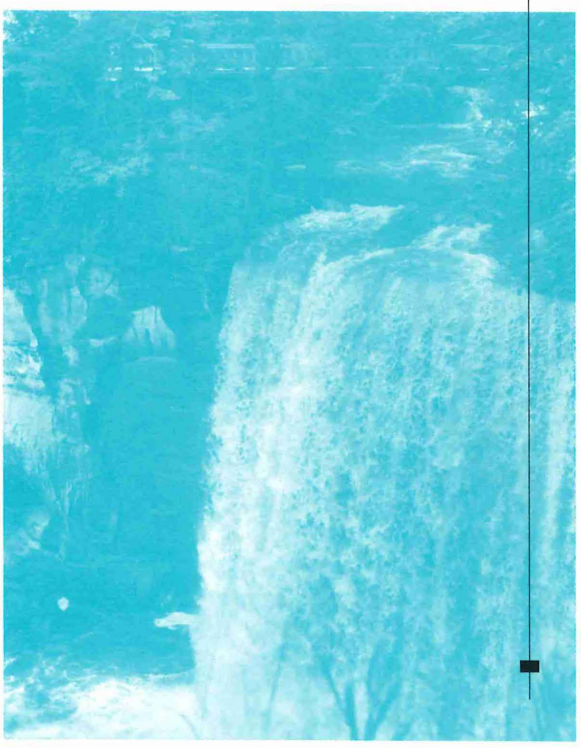
Required public hearing. Planning agency holds a public hearing on the final plan/amendments, makes any necessary additional changes and submits its recommendation to the governing body.

Optional public hearing. Governing body may elect to hold a second public hearing.

Adopting as recommended. Governing body considers recommendations of planning agency and public hearing comments, and adopts plan.

Adopting with modifications. If the governing body modifies planning agency recommendations, the plan should be returned to the agency for reconsideration before final adoption.

Appendix



MINNESOTA LAW SETS PARAMETERS FOR PLANNING

Topics/Elements to include in your plan	Metro City	Metro Township	Metro Counties	Non-Metro City	Non-Metro Townships	Non-Metro Counties
Introduction - Why and how developed	**Recommended**	**Recommended**	**Recommended**	**Recommended**	**Recommended**	**Recommended**
Community Vision and Goals	**Required** MS 473.859	**Required** MS 473.859	**Required** MS 473.859	**Optional** MS 462.352 subd. 5	**Optional** MS 462.352 subd. 5	**Optional** MS 394.22 subd. 9
Community Participation and Input This information about the process and community intent supports the legality of the comprehensive plan	**Required** MS 462.355 subd. 2	**Required** MS 462.355 subd. 2	**Required** MS 394.26	**Required** MS 462.355 subd. 2	**Required** MS 462.355 subd. 2	**Required** MS 394.26
Community Profile/Background Data The quantitative available information on the community: demographic, physical, social, economic, natural environment	**Optional** MS 462.353 subd 2 MS 473.859	**Optional** MS 462.353 subd 2 MS 473.859	**Optional** MS 473.859	**Optional** MS 462.353 subd 2	**Optional** MS 462.353 subd 2	**Recommended**
Land Use and Community Design Data for land and water use, maps of existing and future land use; descriptions, policies and criteria for each land use designation	**Required** MS 473.859 subd. 2	**Required** MS 473.859 subd. 2	**Required** MS 473.859 subd. 2	**Optional** MS462.351 subd. 6	**Optional** MS 462.351 subd. 6	**Optional** MS 394.22 subd. 9
Historic Preservation Historic sites, structures, areas and preservation plans	**Required** MS 473.859 subd. 2 MS 138.74	**Required** MS 473.859 subd. 2 MS 138.74	**Required** MS 473.859 subd. 2 MS 138.74	**Optional** MS 138.74	**Optional** MS 138.74	**Optional** MS 138.74
Housing and Neighborhoods A housing element containing standards, plans, programs to provide adequate housing to meet present and projected needs	**Required** MS 473.859 subd. 2	**Required** MS 473.859 subd. 2	**Required** MS 473.859 subd. 2	**Optional** MS 462.352 subd. 5	**Optional** MS 462.352 subd. 5	**Optional** MS 394.21 subd. 9
Environmental Quality and Natural Resources						
Natural resources protection and conservation	**Required** MS 473.859	**Required** MS 473.859	**Required** MS 473.859			
Shoreland Management	**Required** MS 103F.221	**Required** MS 103F.221	**Required** MS 103F.221	**Required** MS 103F.221	**Optional** MS 103F.221	**Required** MS 103F.221
Critical Areas	**Required*** MS 116G	**Required*** MS 116G	**Required*** MS 116G	**Required*** MS 116G	**Required*** MS 116G	**Required*** MS 116G
Flood Plains	**Required** MS 103F.121	**Required** MS 103F.121	**Required** MS 103F.121	**Required** MS 103F.121	**Required** MS 103F.121	**Required** MS 103F.121
Water Management Plan	**Required** MN 103B.235	**Required** MN 103B.235	**Required** MN 103B.235			**Recommended** MN 103B.311
Wetland plans	**Optional** MS 103G.2243	**Optional** MS.103G.2243	**Optional** MS.103G.2243	**Optional** MS.103G.2243	**Optional** MS.103G.2243	**Optional** MS.103G.2243
Wild and Scenic Rivers	**Required*** MS 103F.301	**Required*** MS 103F.301	**Required*** MS 103F.301	**Required*** MS 103F.301	**Required*** MS 103F.301	**Required*** MS 103F.301
Public Facilities	**Required**	**Required**	**Required**	**Optional**	**Optional**	**Optional**
Transportation Plan	MS 473.859	MS 473.859	MS 473.859	MS 473.859 subd. 5, 7	MS 462.352 subd. 5, 7	MS 394.22 subd. 9
Sewer Treatment Plan	MS 473.859	MS 473.859	MS 473.859	MS 473.859 subd. 5, 8	MS 462.352 subd. 5, 8	MS 394.22 subd. 9
Water Supply Plan	MS 473.859	MS 473.859	MS 473.859	MS 473.859 subd. 5, 8	MS 462.352 subd. 5, 8	MS 394.22 subd. 9
Parks and Open Space Plan	MS 473.859	MS 473.859	MS 473.859	MS 462.352 subd. 5, 8	MS 462.352 subd. 5, 8	MS 394.22 subd. 9
Stormwater Management Plan	MS 473.859	MS 473.859	MS 473.859	MS 462.352 subd. 5, 8	MS 462.352 subd. 5, 8	MS 394.22 subd. 9
Solid Waste Management	NA	NA	MS 473.803	NA	NA	MS 400.01
Community Facilities and Services Police, fire, libraries, sport-recreation and cultural centers, etc.	**Required** MS 473.859	**Required** MS 473.859	**Required** MS 473.859	**Optional** MS 462.352 subd. 5, 8	**Optional** MS 462.352 subd. 5, 8	**Optional** MS 394.22 subd. 9
Economic Development Strategies to support/expand a local stable economic base	**Optional** MS 473.859	**Optional** MS 473.859	**Optional** MS 473.859	**Optional** MS 462.352 subd. 5	**Optional** MS 462.352	**Recommended**
Intergovernmental Cooperation See also **Joint Exercise of Powers** under MS 471.59	**Optional** MS 471.59 MS 473.859 MS 462.3585	**Optional** MS 471.59 MS 473.859 MS 462.3585	**Optional** MS 471.59 MS 473.859 MS 462.3585	**Optional** MS 471.59 MS 462.3585	**Optional** MS 471.59 MS 462.3585	**Optional** MS 471.59 MS 462.3585
Implementation Land use map, official controls, capital improvement budget, zoning ordinances, etc.	**Required** MS 473.859 subd. 4 MS 473.206	**Required** MS 473.859 subd. 4 MS 473.206	**Required** MS 473.859 subd. 4 MS 473.206	**Optional** MS 462.352 subd. 5, 6, 9, 10, 12 MS 462.356	**Optional** MS 462.352 subd. 5, 6, 9, 10, 12 MS 462.356	**Optional** MS 394.22 subd. 6, 9, 12 MS 394.24, MS 394.36
The Plan in Action - Progress Monitoring, Periodic Review	**Required** MS 473.864	**Required** MS 473.864	**Required** MS 473.864	**Recommended** MS 462.355	**Recommended** MS 462.355	**Recommended**

Notes:

1. For purposes of this chart and requirements for comprehensive planning, Metro townships are those located in the designated seven-county Twin Cities metropolitan area. All other townships are non-metro townships.

2. For purposes of this chart and the requirements for comprehensive planning, Metro counties are those located in the designated seven-county Twin Cities metropolitan area. Excepting Ramsey and Hennepin Counties.

*When designated

Passive Public Information Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Printed Public Information Materials - Fact Sheets - Newsletters - Brochures - Issue Papers	• KISS! - Keep it Short and Simple • Make it visually interesting but avoid a slick sales look • Include a postage-paid comment form to encourage two-way communication and to expand mailing list • Be sure to explain public role and how public comments have affected project decisions • Q&A format works well	• Can reach large target audience • Allows for technical and legal reviews • Encourages written responses if comment form enclosed • Facilitates documentation of public involvement process	• Only as good as the mailing list/distribution network • Limited capability to communicate complicated concepts • No guarantee materials will be read
Information Repositories Libraries, city halls, distribution centers, schools, and other public facilities make good locations for housing project-related information	• Make sure personnel at location know where materials are kept • Keep list of repository items • Track usage through a sign-in sheet	• Relevant information is accessible to the public without incurring the costs or complications of tracking multiple copies sent to different people • Can set up visible distribution centers for project information	• Information repositories are often not well used by the public
Technical Reports Technical documents reporting research or policy findings	• Reports are often more credible if prepared by independent groups	• Provides for thorough explanation of project decisions	• Can be more detailed than desired by many participants • May not be written in clear, accessible language
Advertisements Paid advertisements in newspapers and magazines	• Figure out the best days and best sections of the paper to reach intended audience • Avoid rarely read notice sections	• Potentially reaches broad public • May satisfy legal notification requirements	• Expensive, especially in urban areas • Allows for relatively limited amount of information
Newspaper Inserts A "fact sheet" within the local newspaper	• Design needs to get noticed in the pile of inserts • Try on a day that has few other inserts	• Provides community-wide distribution of information • Presented in the context of local paper, insert is more likely to be read and taken seriously • Provides opportunity to include public comment form	• Expensive, especially in urban areas
Feature Stories Focused stories on general project related issues	• Anticipate visuals or schedule interesting events to help sell the story • Recognize that reporters are always looking for an angle	• Can heighten the perceived importance of the project • More likely to be read and taken seriously by the public	• No control over what information is presented or how

Passive Public Information Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Bill Stuffer Information flyer included with monthly utility bill	• Design bill stuffers to be eyecatching to encourage readership	• Widespread distribution within service area • Economical use of existing mailings	• Limited information can be conveyed • Message may get confused as from the mailing entity
Press Releases	• Try to hand deliver press releases or kits to get a chance to discuss project • Foster a relationship with editorial boards and reporters	• Informs the media of project milestones • Press release language is often used directly in articles • Opportunity for technical and legal reviews	• Generally low media response rate • Frequent poor placement of press release within newspapers
News Conferences	• Make sure all speakers are trained in media relations	• Opportunity to reach all media in one setting	• Limited to newsworthy events
Television Television programming to present information and elicit audience response	• Cable options are expanding and can be inexpensive • Check out expanding video options on the Internet	• Can be used in multiple geographic areas • Many people will take the time to watch rather than read	• High expense • Difficult to gauge impact on audience
Web Sites World Wide Web sites which contain project information, announcements, and documents	• Keep it simple and easy to navigate • Use a logical site organization • Always keep site up-to-date	• Capable of reaching very large audiences with enormous amounts of information • Can be a very low cost way of distributing larger documents	• Many people still cannot access the Web • Information overload and poor design can prevent people from finding what they need

Active Public Information Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Briefings Regular meetings of social and civic clubs and organizations to provide an opportunity to inform and educate. Normally these groups need speakers. Examples of target audiences: Rotary Club, Lions Clubs, Elks Clubs, Kiwanis, League of Women Voters. Also a good technique for elected officials.	• KISS - Keep it Short and Simple • Use "show and tell" techniques • Bring visuals	• Control of information/ presentation • Opportunity to reach a wide variety of individuals who may not have been attracted to another format • Similar presentations can be used for different groups • Can build community good will	• Project stakeholders may not be in target audiences • Topic may be too technical to capture interest of audience
Central Information Contact Designated contacts identified as official liaisons for the public and media	• If possible, list a person not a position • Best if contact person is local • Anticipate how phones will be answered • Make sure all recorded messages are kept up to date	• People don't get the run around when they call • Controls information flow and promotes information consistency • Conveys image of accessibility	• Designated contact must be committed to and prepared for prompt and accurate responses • May filter public message from technical staff and decision-makers • May not serve to answer many of the toughest questions
Information Hot Line A separate line for public access to prerecorded project information or to reach project team members who can answer questions/obtain input, also use email and Web sites	• Make sure contact has sufficient knowledge to answer most project-related questions • If possible, list a person not a position • Best if contact person is local • Use toll free number if not local	• People don't get the run around when they call • Controls information flow and promotes information consistency • Conveys image of accessibility • Easy to provide updates on project activities	• Designated contact must be committed to and prepared for prompt and accurate responses
Technical Assistance Access to technical expertise to individuals and organizations	• The technical resource must be perceived as credible by the audience • Work with your technical people to make sure they understand public issues	• Builds credibility and helps address public concerns about equity • Can be effective conflict resolution technique where facts are debated	• Availability of technical resources may be limited • Technical experts may not be prepared for working with the public
Simulation Games Exercises that simulate project decisions	• Test "game" before using • Be clear about how results will be used	• Can be designated to be an effective educational/training technique, especially for local officials	• Requires substantial preparation and time for implementation • Can be expensive

Active Public Information Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Information Centers and Field Offices Offices established with prescribed hours to distribute information and respond to inquiries	• Provide adequate staff to accommodate group tours • Use brochures and videotapes to advertise and reach broader audience • Consider providing Internet access station • Select an accessible and frequented location	• Provides opportunity for positive media coverage at significant events • Excellent opportunity to educate school children • Places information in a positive educational setting, easily accessible to the public • Provides an opportunity for more responsive ongoing communications focused on specific public involvement activities	• Relatively expensive, especially for project-specific use • Access is limited to those in vicinity of the center unless facility is mobile
Expert Panels Public meeting designed in "Meet the Press" format. Media panel interviews experts from different perspectives.	• Provide opportunity for participation by general public following panel • Have a neutral moderator • Agree on ground rules in advance • Possibly encourage local organizations to sponsor rather than challenge	• Encourages education of the media • Presents opportunity for balanced discussion of key issues • Provides opportunity to dispel scientific misinformation	• Requires substantial preparation and organization • May enhance public concerns by increasing visibility of issues
Field Trips Tours for key stakeholders, elected officials, advisory group members and the media	• Know how many participants can be accommodated and make plans for overlfow • Plan question/answer session • Consider providing refreshments • Demonstrations work better than presentations • Make sure everything is safe	• Opportunity to develop rapport with key stakeholders • Creates greater public knowledge of issues and processes	• Number of participants is limited by logistics • Potentially attractive to protestors
Open Houses A public tour at their own pace. The facility should be set up with several stations, each addressing a separate issue. Resource people guide participants through the exhibits.	• Someone should explain format at the door • Ask participants to fill out a comment sheet • Be prepared for a crowd all at once-develop a meeting contingency plan • Set up stations so that several people (6-10) can view at once	• Fosters small group or one-on-one communications • Ability to draw on other team members to answer difficult questions • Meets information and interaction needs of many members of the public who are not served by typical public meetings • Builds credibility	• Difficult to document public input • Protestors may use the opportunity to disrupt event • Usually more staff intensive than a meeting • May not provide opportunity to be heard that some public will expect
Community Fairs Central event with multiple activities to provide project information and raise awareness	• All issues, large and small, must be considered • Make sure adequate resources and staff are available	• Focuses public attention on one element • Conductive to media coverage • Allows for different levels of information sharing	• Public must be motivated to attend • Usually expensive to do it well • Can damage reputation if not done well

Small Group Public Input Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Interviews One-to-one meetings with stakeholders to gain information on public concerns and perspectives for developing or refining public involvement and consensus building programs	• Where feasible, interviews should be conducted in-person, particularly when considering candidates for citizen committees • Take advantage of opportunity for public to input in how they participate	• Provides opportunity to get understanding of public concerns and issues • Provides opportunity to learn how to best communicate with public • Can be used to evaluate potential citizen committee members	• Scheduling multiple interviews can be time consuming • Interviewers must engender trust or risk negative response to format
In-Person Surveys One-on-one "focus groups" with standardized questionnaire or methodology such as "stated preference"	• Make sure intended use of results is clear before technique is designed	• Provides traceable data • Reaches broad, representative public	• Expensive • Focus groups may have a marketing/public relations image
Coffee Klatches Small meetings within neighborhood usually at a person's home	• Make sure staff is very polite and appreciative	• Relaxed setting is conducive to effective dialogue • Maximizes two-way communications	• Requires a lot of labor to reach many people
Small Format Meetings Small meetings at existing groups or in conjunction with another event	• Understand who the likely audience is to be • Make opportunities for one-on-one meetings	• Opportunity to get on the agenda • Provides opportunity for in-depth information exchange in non-threatening forum	• May be too selective and can leave out important groups

Large Group Public Input Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Response Sheets Mail-in forms often included in fact sheets and other project mailings to gain information on public concerns and preference	• Use prepaid postage • Include a section to add name to the mailing list • Document results as part of public involvement record • Provides input from those who would be unlikely to attend meetings	• Provides a mechanism for expanding mailing list	• Does not generate statistically valid results • Results can be easily skewed
Mailed Survey and Questionnaire Inquiries mailed randomly to sample population to gain specific information for statistical validation	• Make sure you need statistically valid results before making investment • Survey/questionnaire should be professionally developed and administered to avoid bias • Most suitable for general attitudinal surveys	• Provides input from individuals who would be unlikely to attend meetings • Provides input from cross-section of public, not just activists • Statistically tested results are more persuasive with political bodies and the general public	• Response rate is generally low • For statistically valid results, can be labor intensive and expensive • Level of detail may be limited • May be perceived as a public relations tool
Telephone Survey/ Polls Random sampling of population by telephone to gain specific information for statistical validation	• Make sure you need statistically valid results before making investment • Survey/questionnaire should be professionally developed and administered to avoid bias • Most suitable for general attitudinal surveys	• Provides input from individuals who would be unlikely to attend meetings • Provides input from cross-section of public, not just those on mailing list • Higher response rate than with mail-in surveys	• More expensive and labor intensive than mailed surveys • Bias is easily charged if questions not carefully constructed
Internet Surveys/ Polls Web-based response polls	• Be precise in how you set up site, chat rooms or discussion places can generate more input than you can look at	• Provides input from individuals who would be unlikely to attend meetings • Provides input from cross-section of public, not just those on mailing list • Higher response rate than other communication forms	• Generally not statistically valid results • Can be very labor intensive to look at all the responses • Cannot control geographic reach of poll • Results can be easily skewed
Computer-Based Participation Surveys conducted via computer network	• Appropriate for attitudinal research	• Provides instant analysis of results • Can be used in multiple areas • Novelty of technique improves rate of response	• High expense • Detail of inquiry is limited
Public Hearings Formal meetings with scheduled presentations offered	• Avoid if possible, otherwise try to use informal meetings immediately before	• Provides opportunity for public to speak without rebuttal • Meets legal requirements • Puts comments on record	• Does not foster dialogue • Creates us vs. them feeling • Many dislike public speaking

Small Group Problem-Solving Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Design Charrettes Intensive session where participants re-design project features	• Best used to foster creative ideas • Be clear about how results will be used	• Promotes joint problem solving and creative thinking • Effective for creating partnerships and positive working relationships with public	• Participants may not be seen as representative by larger public • May not have lasting effect if used as a one-shot technique
Community Facilitators Use qualified individuals in local community organizations to conduct project outreach	• Define roles, responsibilities and limitations up front • Select and train facilitators carefully	• Promotes community-based involvement • Capitalizes on existing networks • Enhances project credibility	• Can be difficult to control information flow • Can build false expectations
Mediation/ Negotiations The process of resolving disputes through compromise	• Should be used typically as a last resort to solve specific problems with well-defined stakeholder groups	• Promotes accountability on both sides • Focuses on specific issues	• Difficulty of defining who the parties are and who they represent • Time and labor intensive
Consensus Building Techniques Techniques for building consensus on project decisions such as criteria and alternative selection. Often used with advisory committees. Techniques include Delphi, nominal group process public value assessment and many others.	• Use simplified metholodgy • Allow adequate time to reach consensus • Consider one of the computerized systems that are available • Define levels of consensus, i.e. a group does not have to agree entirely upon a decision but rather agree enough so the discussion can move forward • Make sure decision maker is committed to consensus	• Encourages compromise among different interests • Provides structured and trackable decision making • Focuses on solving problems with mutually satisfactory solutions • Can help avoid later conflicts	• Not appropriate for groups with no interest in compromise • Consensus may not be reached
Focus Group Message testing forum with randomly selected members of target audience. Can also be used to obtain input on planning decisions.	• Conduct at least two sessions for a given target • Use a skilled focus group facilitator to conduct the session	• Provides opportunity to test key messages prior to implementing program • Works best for select target audience	• Relatively expensive if conducted in focus group testing facility

Small Group Problem-Solving Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Advisory Committees A group of representative stakeholders assembled to provide public input to the planning process	• Define roles and responsibilities up front • Be forthcoming with information • Use a consistently credible process • Interview potential committee members in person before selection • Use third party facilitation • Make sure members communicate with their constituencies	• Provides for detailed analyses for project issues • Participants gain understanding of other perspectives, leading toward compromise	• General public may not embrace committee's recommendations • Members may not achieve consensus • Sponsor must accept need for give-and-take • Time and labor intensive
Task Forces A group of experts or representative stakeholders formed to develop a specific product or policy recommendation	• Obtain strong leadership in advance • Make sure membership has credibility with the public • Make sure members represent diverse perspecitves and will be independent	• Findings of a task force of indepent or diverse interests will have greater credibility • Provides constructive opportunity for compromise	• Task force may not come to consensus or results may be too general to be meaningful • Time and labor intensive
Panels A group assembled to debate or provide input on specific issues	• Most appropriate to show different views to public • Panelists must be credible with public	• Provides opportunity to dispel misinformation • Can build credibility if all sides are represented • May create wanted media attention	• May create unwanted media attention • Can polarize issues if not conceived and moderated well
Citizen Juries Small group of ordinary citizens empanelled to learn about an issue, cross examine witnesses, make a recommendation. Always non-binding with no legal standing.	• Requires skilled moderator • Commissioning body must follow recommendations or explain why • Be clear about how results will be used	• Great opportunity to develop deep understanding of an issue • Public can identify with the "ordinary" citizens • Pinpoint fatal flaws or gauge public reaction	• Resource intensive
Role-Playing Participants act out characters in predefined situation followed by evaluation of the interaction	• Choose roles carefully. Ensure that all interests are represented • People may need encouragement to play a role fully	• Allow people to take risk-free positions and view situation from other perspectives • Participants gain clearer understanding of issues	• People may not be able to actually achieve goal of seeing another's perspective

Small Group Problem-Solving Techniques

Tools and techniques	Always think it through	What can go right	What can go wrong
Electronic Democracy Internet, Web sites, televoting, online dialogue, online delivery of government service	• Carefully plan how information will be presented and how feedback will be used	• Facilitates interactive communication • Convenient	• Not accessible to everyone • Opportunity for manipulation/ misinformation/ incivility
Samoan Circle Leaderless meeting that stimulates active participation	• Set room up with center table surrounded by concentric circles • Need microphones • Requires several people to record discussion	• Can be used with 10 to 500 people • Works best with controversial issues	• Dialogue can stall or become monopolized
Open Space Technology Participants offer topics and others participate according to interest	• Important to have a powerful theme or vision statement to generate topics • Need flexible facilities to accommodate numerous groups of different sizes • Ground rules and procedures must be carefully explained for success	• Provides structure for giving people opportunity and responsibility to create valuable product or experience • Includes immediate summary of discussion	• Most important issues could get lost in the shuffle • Can be difficult to get accurate reporting of results
Workshops An informal public meeting that may include presentations and exhibits but ends with interactive working groups	• Know how you plan to use public input before the workshop • Conduct training in advance with small group facilitators. Each should receive a list of instructions, especially where procedures involve weighting/ ranking of factors or criteria	• Excellent for discussion on criteria or analysis of alternatives • Fosters small group or one-to-one communication • Ability to draw on other team members to answer difficult questions • Builds credibility • Maximizes feedback obtained from participants • Fosters public ownership in solving the problem	• Hostile participants may resist what they perceive to be the "divide and conquer" strategy of breaking into small groups • Several small-group facilitators are necessary
Future Search Conference Focuses on the future of an organization, a network of people, or community	• Hire a facilitator experienced in this technique	• Can involve hundreds of people simultaneously in major organizational change decisions • Individuals are experts • Can lead to substantial changes across entire organization	• Logistically challenging • May be difficult to gain complete commitment from all stakeholders • 2 – 3 day meeting
Deliberative Polling Measures informed opinion on an issue	• Do not expect or encourage participants to develop a shared view • Hire a facilitator experienced in this technique	• Can tell decision-makers what the public would think if they had more time and information • Exposure to different back-grounds, arguments, and views	• Resource intensive • Often held in conjunction with television companies • 2 – 3 day meeting

RESOURCES

GENERAL SOURCES

American Planning Association, APA: www.planning.org/index.html. General planning support, membership information, planning documents and research services can be found here.

Association of Minnesota Counties: www.mncounties.org/Links/links.htm. Provides links to a variety of agencies involved in county government and planning.

Community Profiles: www.mnpro.com/. Community Profiles reports on a city's economic development, demographics, workforce, employers, utilities, transportation, education, business and community services. The site is run by the Minnesota Department of Trade and Economic Development.

Cyburbia: www.cyburbia.org . Contains a comprehensive directory of Internet resources relevant to planning, architecture and the built environment.

Datanet: www.mnplan.state.mn.us/datanetweb/ . This online information system from Minnesota Planning offers summarized statistical information about social, economic and demographic conditions in Minnesota.

Government Training Service: www.mngts.org. The GTS mission statement is "To help those in the public sector (and their collaborators in other sectors) meet current needs for knowledge and skills, plus anticipate and prepare for the changes to come." They sponsor and offer a variety of training opportunities related to planning and other community-building efforts.

International City/County Management Association: www.icma.org. This group develops and implements programs that provide local government managers and administrators with expertise on a variety of topics.

League of Minnesota Cities: www.lmnc.org or 651.281.1220. Access to planning documents and information for cities, including how to set up a city's Web site.

Local Government Guide to the Internet: http://www.rural.org/lgg//lggurls.html. Put together by the University of Kentucky, it offers many links to planning related sites.

Local Planning Assistance Team at Minnesota Planning: www.mnplan.state.mn.us/commplan/ or 651-296-6550. Helps communities around the state with comprehensive planning efforts through GIS support, access to planning resources and literature and responses to informational requests. The team also supports a multi-agency pilot project—Local Solutions Alliance—that delivers assistance to communities requesting help with comprehensive planning and implementation of community projects.

Local Planning Handbook. Metropolitan Council of the Twin Cities, May 1997. This document was put together for the communities in the seven-county metro area to assist them in creating comprehensive plans. However, it is quite applicable for all planning efforts and not just those of the metro area. The document can be found online: www.metrocouncil.org/planning/assistance/ktitle.htm.

Metropolitan Council: www.metrocouncil.org. The Metropolitan Council is the regional planning organization for the seven-county Twin Cities area. The council advocates Smart Growth for vital communities and a competitive region. It runs the regional bus system, collects and treats wastewater, manages regional water resources, plans regional parks, and administers funds that provide housing opportunities for low- and moderate-income individuals and families. See also a variety of supportive documents and data for planning concerns: www.metrocouncil.org/resources/resources.htm.

Minnesota Association of Townships: www.mntownships.org/ Provides guidance and training opportunities for the officers of Minnesota's townships. Legal guidance is also available.

Minnesota Statutes, Session Laws and Rules: www.leg.state.mn.us/leg/statutes.htm. An online search tool that provides access to planning laws and a complete listing of laws across the sate.

The New Illustrated Book of Development Definitions. Moskowitz, Harvey and Lincbloom, Carl. New Brunswick, N.J.: Center for Urban Policy Research, 1997. From "abatement" to "zoning," this resource is a handy reference for anyone involved in community issues.

North Star: www.state.mn.us/local/ . This state government site lists hundreds of links to state agency and local community Web sites for information and cross referencing of ideas; state laws can also be accessed here.

Planning Minnesota Online: http://www.mnapa.com/. The Minnesota chapter of the American Planning Association provides information on local planning activities and events and offers a bulletin board for posting questions.

The Practice of Local Government Planning. Washington, D.C.: International City/County Management Association, 1988. This resource provides a good comprehensive look at planning concepts and applications.

Regional Blueprint 2030. Metropolitan Council of the Twin Cities, 1996. The Blueprint is the council's action plan to enhance economic growth and development, bolster reinvestment, strengthen environmental protection, and build vital local and regional communities.

AGRICULTURE

American Farmland Trust: www.farmland.org/. Works to stop the loss of productive farmland and promotes farming practices that lead to a healthy environment. The site contains information about policy issues and resources for farmland protection.

Farmland Information Library: www.farmlandinfo.org/. Includes resources on agricultural land preservation and fact sheets.

Land Evaluation and Site Assessment Guidebook: www.swcs.org. The guide can be ordered from the Soil and Water Conservation Society, 7515 NE Ankeny Rd., Ankeny, IA 50021; 515-289-2331. Land evaluation and site assessment is a systematic tool for classifying land, determining which lands should be set aside for agriculture and rating lands to justify land use decisions.

Land Stewardship Project: www.landstewardshipproject.org/ or 612-653-0618. This Minnesota nonprofit was founded in 1982 to foster an ethic of stewardship for farmland, to promote sustainable agriculture and to develop sustainable communities.

Minnesota Institute for Sustainable Agriculture: www.misa.umn.edu/. Food and environmental sciences bring together diverse interests and promote sustainable agriculture in Minnesota.

Planning for Agricultural Land Preservation in Minnesota: A Handbook for Planning Under Minnesota Statutes, Chapter 40A. Minnesota Department of Agriculture: 651-296-7686 or Becky.Balk@state.mn.us. This step-by-step handbook provides information to assist rural counties and local governments interested in preparing farmland preservation plans in accordance with the Minnesota Agricultural Land Preservation Act.

Planning and Zoning for Animal Agriculture in Minnesota: A Handbook For Local Government. Minnesota Department of Agriculture: 651-296-7686

or Becky.Balk@state.mn.us. This handbook provides practical planning assistance to local units of government dealing with livestock-related land use issues.

Productivity Factors and Crop Equivalent Ratings for Soils of Minnesota. University of Minnesota Extension Service. Bulletin AG-BU-2199-F. Minneapolis, 1992. Crop equivalent ratings are used by many counties to classify land for land use planning and tax assessment purposes, and are a required assessment element under the Minnesota Agricultural Land Preservation Program (Minnesota Statutes Chapter 40A).

CITIZEN PARTICIPATION (SEE ALSO "VISIONING")

Building Citizen Involvement, Strategies for Local Government. Walsh, M. Washington, D.C.: International City/County Management Association, 1997. Innovative approaches to citizen participation are presented and roles of both local government and citizens are defined.

Effective Communication: A Local Government Guide. Wheeler, K., ed. Washington, D.C.: International City/County Management Association, 1994. From interpersonal development to effective presentations, this guide shows how to use communication links to enhance local government operations.

Facilitator's Guide to Participatory Decision-Making. Kaner, Sam; Lind, Lenny; Toldi, Catherine; Fisk, Sarah; and Berger, Duane. Canada: New Society Publishers, 1996. Outlines the process of facilitating meetings and provides creative tools that will motivate people and expand ideas in group meetings.

Hear Every Voice: A Guide to Public Involvement at Mn/DOT. St. Paul: Minnesota Department of Transportation, 1999. Although geared toward transportation needs this easy-to-use guide is useful for any community project and planning effort that starts with public involvement.

Information sheets on people, partnerships and communities: http://www.ssi.nrcs.usda.gov/ssi/ Contact the Natural Resources Conservation Service at 608-265-3646. More than 40 pamphlets are available on a variety of topics such as coalition building, conflict management, running effective meetings, and conservation planning.

International Association of Public Participation: www.iap2.com/. A member organization that offers public participation events, publications, and communication technology.

The Job of the Planning Commissioner. Solnit, A. American Planning Association. Chicago: Planners Press, 1987. From public meetings to the nuts and bolts of zoning this guide shows you how a commissioner of a small town can get the job done.

Subdividing the Countryside: You Don't Always Get What You Want. Bourland, Dana, Wegner, Thomas and Willeford, Catherine. Teaching Note, Minnesota Extension Service, University of Minnesota, 2000. See: www.extension.umn.edu.

You be the Judge: A Handbook for the Land Use Decision Maker. Driscoll, J. and Hunter, T. Seattle: Driscoll & Hunter, 1997: 206-233-1908. Guide leads user through procedural due process, fairness, decision making and the hearing itself.

COMMUNICATIONS SYSTEMS

Action Guide: Taming Wireless Telecommunication Towers. Scenic America. Ray Foote. Washington, D.C.: Scenic America 2000. See also Scenic America's Web site at www.scenic.org. Dedicated to protecting natural beauty and distinctive community character.

Local Officials' Guide: Siting Cellular Towers—What You Need To Know, What You Need To Do. National League of Cities, Washington, D.C., 1997. This booklet provides a step-by-step outline on how to deal with cellular towers.

Net Plan: A Community Planning Guide for Advanced Telecommunications Services: http://www.mnplan.state.mn.us/pdf/2000/planning/netplan.pdf or 651-296-6550. Developed by Minnesota Planning and the Minnesota Department of Administration, this guide helps communities identify their information technology needs.

COMPREHENSIVE PLANNING

A Citizen's Guide to Achieving a Healthy Community, Economy and Environment. Center for Compatible Economic Development, The Nature Conservancy. May 1996. See www.cced.org/publications.html . Explains the concept of planning for and achieving sustainability. Features case studies of successful initiatives and offers an extensive bibliography.

Coming to Terms with Sustainability. Environments for Life, Conservation Issues Forum Series. Sustainability Education Project, Izaak Walton League of America, March 1997. Presents a workbook for community discussions. See www.iwla.org .

Community Planning, An Introduction to the Comprehensive Plan. Kelly, Eric, and Barbara Becker. Washington, D.C.: Island Press, 2000.

Getting Started with Community-Based Planning, August 1998. Local Planning Assistance Team at Minnesota Planning. www.mnplan.state.mn.us/commplan or 651-296-6550. Although the Legislature repealed the Community-based Planning act of 1997, many of its benefits are still available to communities that choose to plan; this guide outlines the components of community-based planning.

A Guidebook To Creating Framework Land Use Plans: Our Experience With Land Use Planning In Northern Minnesota. Biko Associates, Inc. 2000. A concise planning guide that includes visioning, creating goals and objectives, creating the final plan and indicators.

Neighborhood Planning, a Guide for Citizens and Planners. Jones, Bernie. Chicago: Planners Press, 1990. A readable overview of planning ideals for community development, from visioning to plan implementation.

Preparing the Heart of Your Comprehensive Plan. Washington State Growth Management Program, April 1993.

The Small Town Planning Handbook. Daniels, Thomas L.; Keller, John W.; and Lapping, Mark B. American Planning Association. Chicago, 1995. This book is geared toward the planning needs of smaller communities.

State Demographic Center at Minnesota Planning: www.mnplan.state.mn.us/demography/ or 651-296-2557. Access to census, economic and demographic data and projections, as well as consultation and referrals. The web site contains a useful search option that links to a variety of demographic sources.

CONSULTANTS

Choosing a Consultant for Local Planning. Minnesota Planning, 1998: 651-296-6550. This short guide outlines the steps needed in identifying a consultant.

How to Negotiate with Consultants, a Step-By-Step Guide. Baltimore, Maryland: Project Management Publications, 1990. Discusses what you need from a consultant and how to negotiate the terms of an agreement.

How to Oversee Consultant Spending, a Positive Guide to Success. Baltimore, Maryland: Project Management Publications, 1990. A straightforward guide on understanding the financial aspects of consultant's projects.

ECONOMIC DEVELOPMENT

Building Natural Assets, New Strategies for Poverty Reduction and Environmental Protection. Boyce, J.K. and Pastor, M. Amherst, MA: Political Economic Research Institute, 2001. Available in PDF format: www.umass.edu/peri/. A look at how social factors and the environment play an important role in local and global economies.

Crossroads Resource Center: www.crcworks.org/ or 612-869-8664. This Minneapolis-based organization focuses on grassroots community development in both urban and rural areas, with an emphasis on sustainable communities.

Economic Development Authorities Handbook. Minnesota Department of Trade and Economic Development. St. Paul, Minnesota, 1995. Shows how to set up an economic development authority and investigates some economic development strategies.

Economic Development Directory: www.ecodevdirectory.com/minnesota.htm. This site lists a variety of agencies in Minnesota that deal with economic development, such as regional development commissions.

The Economic Development Reference Guide: www.cued.org/research/ecorefcontents.htm. This resource is posted on the Council for Urban Economic Development web site and is filled with helpful ideas on economic development.

The Economic Renewal Guide, Third Edition. Kinsley, Michael. The Rocky Mountain Institute, 1997. See www.rmi.org/ . Outlines how to accomplish economic development that is sensitive to local values and the environment.

Growing Rural Economic Success, August 2001. Minnesota Planning: www.mnplan.state.mn.us or call 651-296-3985. This publication outlines strategies in six areas of economic and community development: financial capital, business spirit, work force, infrastructure, natural resources and visioning.

Key Assets, Guide to Minnesota Economic Resources. Minnesota Planning, St. Paul, 1998. Lists statewide and national programs and organizations that support economic development efforts.

Minnesota Department of Economic Security: www.mnworkforcecenter.org/index.htm. Provides background information on employment by occupation and industry.

Minnesota Department of Trade and Economic Development: www.dted.state.mn.us/05x00f.asp. Answers questions about economic development. Click on "FAQs" to reveal the answer to many common questions on business, tourism, international trade, communities and the economy.

Pathways: Building a Local Initiative for Compatible Economic Development. Center for Compatible Economic Development, The Nature Conservancy, March 1997. See www.cced.org/publications.html . A community workbook that details the tasks needed to complete a broadly based, collaborative local plan for compatible economic development.

Regional Sustainable Development Partnerships. University of Minnesota, College of Agricultural, Food and Environmental Sciences and College of Natural Resources, and the Minnesota Extension Service. See www.regionalpartnerships.umn.edu. Supports agricultural and natural resource-based sustainable development by directing the resources of the University and Minnesota Extension Service to community-identified research, education and outreach needs.

Take Charge, Economic Development in Small Communities. By Janet Ayres, et al. Ames, Iowa: North Central Regional Center for Rural Development, January 1990. This workbook is a result of a 13-member task force that looked at ways of revitalizing rural communities. Many assessment techniques and tips on organizing efforts are included.

ENERGY

Inventory of Cogeneration Potential in Minnesota. The Environmental Quality Board at Minnesota Planning reports on potential cogeneration sites, and also has posted a handbook outlining the regulatory process for cogeneration facilities at www.mnplan.state.mn.us/eqb/pdf/2001/CogenHandbook.pdf .

Communities of the Future: Energy Programs for Livable Communities. Office of Energy Efficiency and Renewable Energy. Golden, CO: National Renewable Energy Laboratory, April 1999.

Energy Policy & Conservation Report 2000. Minnesota Department of Commerce: www.commerce.state.mn.us or 651-296-4026. A review of policy and supportive statistics on energy sources is given in this report.

The Energy Yardstick: Using PLACE3S to Create Sustainable Communities. Center of Excellence for Sustainable Development: www.sustainable.doe.gov/articles/place3s.shtml. This document shows how the comprehensive plan can help communities efficiently use land, provide housing and jobs, move people and materials, operate buildings and public infrastructures, site energy facilities and use other resources.

Got Energy? County Energy Management Plan. Chisago County, Minnesota, December 1, 2000.

International Ground Source Heat Pump Association: www.igshpa.okstate.edu/GHPBasic.htm or 800-626-4747. Ideas on how to get started with a heat pump system: describes benefits, financing and technical information, and provides contacts.

Minnesota Department of Commerce, home of the state energy agency, has a comprehensive Web site at www.commerce.state.mn.us/pages/EnergyMain.htm. Its Energy Information Center has posted a straightforward discussion on the delivery of energy at www.commerce.state.mn.us/pages/Energy/InfoCenter/delivery.htm .

Minnesota Sustainable Design Guide and Rating System: www.sustainabledesignguide.umn.edu. This evaluation tool explains the key factors in sustainable building design, and can be used to help in the design, construction and operation of new or renovated facilities.

Minnesotans for an Energy Efficient Economy: www.me3.org. Provides information and tips on energy conservation and renewable energy development.

Permitting of Wind Energy Facilities, A Handbook. National Wind Coordinating Committee: www.nationalwind.org/pubs/permit/permitting.htm.

The U.S. Department of Energy: www.doe.gov. An informative Web site on energy and community development issues.

ENVIRONMENTAL QUALITY

Airphotos Online: http://maps.dnr.state.mn.us/forestry/photos/. An Internet aerial photography delivery service that provides direct public access to the most recent color infrared airphotos taken by the Minnesota Department of Natural Resources for forest management.

Bridges: http://bridges.state.mn.us/. Developed through the collaboration of Minnesota state environmental agencies, this site offers access to environmental information in electronic format.

Conserving Wooded Areas in Developing Communities, Best Management Practices In Minnesota. Minnesota Department of Natural Resources, St. Paul, 2000. Outlines several methods for preserving trees during development, with a focus on design and construction methods.

Ecological Design Handbook: Sustainable Strategies For Architecture, Landscape Architecture, Interior Design, And Planning. Stitt, Fred A. New York: McGraw-Hill, 1999.

Ecosystem valuation: www.ecosystemvaluation.org. A nontechnical view of how to evaluate the benefits of the natural environment in a community.

Environmental Protection Agency: www.epa.gov/epahome/resource.htm. Access to publications and links to a vast area of environmental topics, policies and procedures.

Green Plans: A Primer, Resource Renewal Institute. See http://www.rri.org/greenplans.html. Argues that a shared vision and cooperative effort among all sectors of society are necessary in planning for a healthy environment, enhanced quality of life and vibrant economy.

Guide to Minnesota Environmental Review Rules. St. Paul: Minnesota Planning, Environmental Quality Board, April 1998. A technical guide to Minnesota's environmental impact statement and environmental assessment worksheet requirements. See www.mnplan.state.mn.us/press/ruleguid.htm.

Minnesota Lakes Association: www.mnlakesassn.org. Extensive bibliography of shoreland educational materials.

Minnesota Shoreland Management Resource Guide. University of Minnesota, Water Resource Center, St. Paul, 2000. Online, easy access to information about sustainable shoreland practices to improve management of Minnesota's lakes and rivers at www.shorelandmanagement.org/.

Natural Areas: Protecting a Vital Community Asset: A Sourcebook for Minnesota Local Governments and Citizens. Allmann, Laurie. St. Paul: Minnesota Department of Natural Resources, 1997. Transfer of development rights is discussed along with multilevel government partnerships.

Protecting Your Community's Natural Resources: A Land Protection Toolbox for Local Government. Coleman, Jean. Green Corridor Project, St. Paul, 1998.

Smart Links: Turning Conservation Dollars into Smart Growth Opportunities, Environmental Law Institute, 2002. Examines land conservation programs across the U.S. for linkages between public funding for land acquisitions and the development of smart growth policies – including urban revitalization, development patterns that conserve waterways and habitat, and targeted improvements of transportation and infrastructure. See www.eli.org/store/rr02smartlinks.html.

Tree Emergency Plan Manual. University of Minnesota Extension Service. Available from Ken Holman, Minnesota Department of Natural Resources Forestry Division, 651-772-7565.

FISCAL TOOLS AND FINANCING

Assistance opportunities: www.epa.gov/owm/smallc.htm. This Environmental Protection Agency site outlines assistance opportunities for small communities, including tribal governments.

Comprehensive listing of funding sources: www.mnplan.state.mn.us/commplan/grants.html. This Minnesota Planning, Local Planning Assistance web site lists a variety of funding sources for communities.

Cost of Public Services Study. Minnesota Department of Agriculture: 651-296-7686 or Becky.Balk@state.mn.us. Case studies conducted on Scott, Becker, Wright, Carlton and Winona counties identify and quantify the fiscal impacts of "rural sprawl" by comparing the cost-revenue relationship of growth. The study also includes information on the Development Impact Assessment Model (DIAMaTR) software that helps local officials assess the fiscal impact of development.

Estimating Fiscal Impacts of Residential Developments in Smaller Communities. Ryan, Barry and Taff, Stephen. Department of Applied Economics, University of Minnesota, 1996. See www.mes.umn.edu and www.apec.umn.edu/faculty/sjtaff/readings/impact.pdf .

Financial Assistance Directory, July 2001—July 2003. Minnesota Department of Natural Resources: 651-297-4831 or emmett.mullin@dnr.state.mn.us. All of the department's financial assistance programs for local governments, schools and individuals are outlined in this directory, which covers such topics as education, forest management, habitat improvements, land conservation, recreation and water.

Smart Growth Funding Resource Guide, June 2001, U.S. Environmental Protection Agency. www.smartgrowth.org/pdf/funding_resources.pdf. This downloadable guide provides a comprehensive source for funding options. There are three parts to the guide: funding categories, other funding directories, and how to write a successful proposal.

GEOGRAPHIC INFORMATION SYSTEMS

Aggregate Resources Inventory of the Seven-County Metropolitan Area, Minnesota, Metropolitan Council and Minnesota Geological Survey. Southwick, D. Saint Paul: Minnesota Geological Survey, University of Minnesota, 2000. ftp://156.98.153.1/pub2/ic46/ic46.pdf. A survey of sand, gravel and dolostones available to the metropolitan area. ArcInfo Export format files available from the Minnesota Geological Survey or from MetroGIS http://www.datafinder.org/catalog.asp.

The ESRI Guide to GIS Analysis, Mitchell, Andy, Environmental Systems Research Institute, Inc. California, 1999.

ESRI Web site at www.gis.com. See sections "What is GIS" and "GIS for State, Provincial and Local Governments" under "GIS for Your Specialty."

Exploring Spatial Analysis, Chou, Yue-Hong. Santa Fe: Onward Press, 1997.

"Geographic Information Technologies for Community-Based Planning: Understanding the Impacts on Neighborhoods and Neighborhood Organizations": Elwood, Sarah, www.socsci.umn.edu/~bongman/gisoc99/elwood.htm. This paper by a University of Minnesota researcher investigates the social implications behind the applications of information technology.

Geostat, Geospacial and Statistical Data Center: http://fisher.lib.virginia.edu/ccdb/. Access to electronic versions of the 1988 and 1994 County and City Data Books; this service provides the opportunity to create custom printouts or customized data subsets.

GIS County User Guide, Huxhold, William and et. al. New York: Oxford University Press, 1997.

Land Information and Computer Graphics Facility: www.lic.wisc.edu. The University of Wisconsin conducted a pilot project in Dane County (the Shaping Dane Pilot Project) that demonstrated applications of geographic information systems to planning issues. Mapping included farmland priority zones based on the land evaluation and site assessment framework. Similar mapping and analysis has been performed in Dakota, Washington, and Winona counties in Minnesota.

Land Management Information Center at Minnesota Planning: www.lmic.state.mn.us.

MetroGIS DataFinder. www.datafinder.org. Describes nearly 100 different GIS datasets for the Twin Cities metropolitan area. Most of the datasets can be downloaded. The site also features a number of interactive maps. Users can link to their area of interest to see information about planning and development themes, political and administrative boundaries, transportation features and aerial photography. MetroGIS is a regional GIS data sharing consortium.

Metropolitan Council GIS Web site. See http://gis.metc.state.mn.us/. Features an online, interactive map of generalized land use information for the metro area. Table, charts and printable maps are also available. The site lists a number of large format maps that can be purchased online.

Minnesota Department of Natural Resources Data Deli at www.deli.dnr.state.mn.us.

Tools & Training Applications 2001. Minnesota Planning: www.mnplan.state.mn.us/commplan or call 651-296-6550. Shows counties and other local governments how to map and analyze state and local GIS data for planning.

GROWTH MANAGEMENT AND LAND USE

Blufflands Design Manual. Winona County—La Crescent Area Common Visions Project. Hurt, Robert J. St. Paul: Minnesota Department of Natural Resources, 1998.

Choices for Change: A Guide to Local Government Cooperation and Restructuring in Minnesota. Walter, Beth and Love, Patricia. St. Paul: Minnesota Extension Service, University of Minnesota, 1995. Intergovernmental agreements and boundary adjustments are discussed along with sample scenarios and options.

Citizen's Guide to Endangered Green Space. Sierra Club, Minnesota North Star Chapter, October 2000. Investigates causes and solutions to the loss of open spaces.

Green Development: Integrating Ecology and Real Estate. New York: John Wiley & Sons, Inc., 1998. This book goes beyond cluster developments and looks into the details of building design that complement the environment.

Growth Management Principles & Practices. Nelson, Arthur and Duncan, James. Chicago: Planners Press, 1995. Consideration is given to both urban and rural communities, along with special-area protection.

Historic Preservation: A Tool for Managing Growth. Griffith, G. Olympia, 1994. Washington State Growth Management Program: 206-753-4011. Preservation planning techniques are described along with a discussion on how this tool can be used to manage growth in any community.

Land Protection Options: A Handbook for Minnesota Landowners. Allmann, Laurie. Minneapolis: Nature Conservancy, 1996. Explains the tools landowners can use to protect their land, including conservation easements, land retirements, tax relief, cost-share, registry, deed restrictions, mutual covenants, leases, management agreements, donations, and land exchanges.

Land-Use Planning: The Ultimate BMP. Mitchell, Martha S.: www.forester.net/ec_0004_land.html. This insightful paper provides a historical context to water planning along with some helpful solutions to typical problems.

Lincoln Institute of Land Policy: www.lincolninst.edu/main.html. *The institute works to disseminate knowledge of critical issues in land use and tax policy through professional development courses, research and publications.*

Managing Maryland's Growth: Infill and Redevelopment, 2001. Publication #2001-05, Maryland Office of Planning: www.op.state.md.us or 410-767-4480. Addresses infill development, and offers model zoning codes and example ordinances from throughout the country.

Managing Maryland's Growth: Models & Guidelines, December 1998. Maryland Office of Planning: www.op.state.md.us or 410-767-4480. From assessing the geographic and social boundaries to actually setting the boundary itself, this document will help communities get started in growth management.

Managing Maryland's Growth: Smart Neighborhoods, September 2001. Publication #2001-04, Maryland Office of Planning: www.op.state.md.us or 410-767-4480. Addresses design characteristics of "smart" neighborhoods and offers model ordinances.

Rural By Design: Maintaining Small Town Character. Arendt, Randall and Brabec, Elizabeth et al. Chicago: Planners Press, 1994. Focuses on design standards that can be used to maintain a more natural, rural feel to a community. Street layout, mixed use ("living over the shop") and density exchanges (clustering) are explained in detail.

Rural Communities in the Path of Development: Stories of Growth, Conflict and Cooperation. San Antonio: January 25-27, 1995. Marx, J. and Salant, P. The Aspen Institute. 1996. Edge cities and other rapid growth problems are discussed. There is a section of recommendations.

St. Croix Valley Development Design Study. Metropolitan Council, January 2000. A resource book for local governments prepared by Calthorpe Associates showing six case study prototypes for managing growth and development by emphasizing walkable, mixed use development. It contains transferable ideas and sketch plans for revitalization and streetscape enhancements for small town downtowns, preserving and recreating village character for new development adjacent to existing small towns, walkable residential development in suburban settings, and rural cluster development. Available from the Metropolitan Council Data Center: data.center@metc.state.mn.us.

Shaping Your Future: A Guide to Designing an Urban Growth Area, Olympia. Washington Department of Community Development, 1990. A review of several communities that shows how to link urban growth areas to the workings of the comprehensive plan.

Strategies for Successful Infill Development. Congress for the New Urbanism. Washington, D.C.: Northeast-Midwest Institute, 2001. From assessing the community to implementing mixed use, this resource provides a quick overview of infill concepts, complete with case studies.

HISTORIC AND OTHER CULTURAL RESOURCES

Historic Preservation: A Tool for Managing Growth. Griffith, Greg. Olympia: Washington State Growth Management Program, 1994: 206-753-4011. This publication offers a short and direct outline of what an historic plan should look like.

Innovative Tools for Historic Preservation, Planning Advisory Service Report Number 438. Morris, Marya: National Trust for Historic Preservation, American Planning Association, 1992.

Preparing a Historic Preservation Ordinance, Planning Advisory Service Number 374, Roddewig, Richard J. Chicago: American Planning Association, 1983.

Preparing a Historic Preservation Plan, Planning Advisory Service Report Number 450. White, Bradford J. and Roddewig, Richard J. Chicago: American Planning Association, 1994. Outlines the purpose and elements of a good preservation plan and presents case studies of community implementation efforts.

Working Together: A Preservation Plan for Minnesota's Historic Properties 2000-2005. St. Paul: Minnesota Historical Society, 2000. See www.mnhs.org or call 651-296-5434. An overview of historic preservation efforts in Minnesota.

HOUSING

Accessing Housing Data in Saint Paul and Ramsey County, Minnesota. Kellner, Stephanie. Minneapolis: Center for Urban and Regional Affairs, 1997. This study emphasizes the need for a unified, neighborhood-level source of housing data. See www.npcr.org/reports/npcr1077/npcr1077.html.

Affordable Housing for the Region, Strategies for Building Strong Communities. A Report of the Mayors' Regional Housing Task Force. St. Paul: Metropolitan Council, November 2000. Looks at ways to provide

quality, affordable housing for people of all income levels and all stages of life. See www.metrocouncil.org/planning/housingreport.pdf.

Assessing your community's housing needs : a practical guide to preparing housing needs assessments under the GMA and CHAS requirements. Cogan, Sharpe. Olympia: Washington Department of Community Development, Housing Division, 1992.

Building Better Neighborhoods: Creating Affordable Homes and Livable Communities, Greater Minnesota Housing Fund, St. Paul, 2001. Provides a framework that focuses simultaneously on the home and yard, neighborhood and town. Lot size and other cost factors are compared and contrasted to this new model of development.

Greater Minnesota Housing Fund: www.gmhf.com/. The fund helps Minnesota communities outside of the Twin Cities metropolitan area with funding and technical assistance for creating affordable housing.

Housing Action Coalition of the Silicon Valley Manufacturers Group: www.svmg.org/htm/housing_land_f.htm. This group has developed criteria for the kinds of housing its members will support.

Housing Development Guide. Metropolitan Council, 1985. Contact the Metropolitan Council of the Twin Cities at 651-602-1140 or data.center@metc.state.mn.us.

Joint Center for Housing Studies: www.gsd.harvard.edu/jcenter/. Based at Harvard University, the center provides leaders in government, business and the nonprofit sector with knowledge and tools for formulating effective policies and strategies for housing.

Local Government Guide to the Internet: www.rural.org/lgg//Ch6_Housing.html. Along with housing contacts, this University of Kentucky site offers many links to planning related sites.

"Manufactured Housing: An Innovative Approach to Municipal Siting Standards." Arendt, Randall. *Maine Townsman*, Vol. 44, No. 7.

Minnesota Housing Finance Association: www.mhfa.state.mn.us/. Provides funding for a variety of housing needs; it also helps people fix up affordable apartments, single-family homes, shelters and supportive housing, and works cooperatively with others to revitalize older communities, build new housing and preserve the stock of federally assisted rental housing.

Minnesota Housing Partnership: www.mhponline.org/main/links.htm. This source for affordable housing information provides a comprehensive list of local, state and federal contacts along with many nonprofits.

Minnesota Manufactured Housing Association: www.mnmfghome.org/. Represents more than 350 builders, model home centers, community owners and developers, banks and suppliers to the manufactured home industry.

Reducing Land Use Barriers to Affordable Housing. Planning Series #10. Fehr, Stephen. Harrisburg: Pennsylvania Department of Community Affairs, January 1991. Explains some creative avenues to changing the zoning code to accommodate affordable housing options.

Regional Analysis of Impediments to Fair Housing: HUD Fair Housing Planning Guide. Wagner, Regina. Washington, D.C.: U.S. Department of Housing and Urban Development, 2001. Offers data and a thought-provoking discussion of the growing problem of the lack of affordable housing. The St. Paul-Minneapolis area was the study sight for this report, but the concepts apply to all communities.

Technical assistance for affordable housing and sustainability: www.homeasta.org or contact Jim Maunder at jimm@ncat.org or 866-367-6228. The National Center for Affordable Sustainability Technical Assistance, or HomeASTA, works with

community housing development organizations and builders that use appropriate technology and participate in HUDHOME programs. The center helps serve the needs of affordable housing developers by providing step-by-step recommendations on how to make single family home construction projects more sustainable in terms of resources, energy use and occupant health.

INDICATORS

Building a Win-Win World: Life Beyond Global Economic Warfare. Henderson, Hazel. San Francisco: Berrett-Koehler Publishers, 1996. Takes a look at new indicators that focus on sustainability for evaluating a community.

The Community Indicators Handbook : Measuring Progress Toward Healthy And Sustainable Communities. Tyler Norris Associates, Redefining Progress, and Sustainable Seattle. San Francisco: Redefining Progress, 1997. See www.rprogress.org. A source for identifying indicators: the process is laid out, data is explained, samples and case studies are given, and a list of organizations and contacts are noted.

Crossroads Resource Center: 612-869-8664 or kmeter@igc.apc.org. This Minneapolis-based agency conducts studies of economic assets, creates customized indicators to monitor progress toward goals of the community, and assesses skills of local residents. The firm also works with grassroots organizations to involve residents and to educate them on building regenerative communities.

Guide to Sustainable Community Indicators. Hart, Maureen. 1999. See: www.sustainablemeasures.com/. The guide explains both sustainability and indicators, and encourages the reader to begin to use indicators or to improve indicators already in use. Site offers a large listing of contacts and resources.

Indicators and Information Systems for Sustainable Development. Meadows, Donella. Hartford Four Corners, VT: Sustainability Institute, 1998. See www.sustainabilityinstitute.org/pubs/ or call 802-436-1277. A framework for developing indicators of sustainable development; outlines why indicators are important and how to go about selecting them.

Indicators of Sustainable Communities. Sustainable Seattle, 1998. Call 206-622-3522. From biological indicators to economical hardships such as homelessness this document provides an easy to read technical background to these issues.

International Institute for Sustainable Development: http://iisd.ca/measure/compindex.asp. Overviews initiatives on sustainable development indicators at the international, national and provincial/territorial/state levels.

Is Maryland Growing Smart? A Growth Indicators and Reporting System for Measuring Achievement of the Goals of Maryland's Smart Growth Policy. Hanson, R. and Freihage, J. Maryland Institute for Policy Analysis & Research, January 2001. A report on outcome indicators, including reducing sprawl, revitalizing older towns and saving tax dollars spent on sprawl, and how to identify and track them. See www.umbc.edu/mipar.

Leverage Points: Places to Intervene in a System, Meadows, Donella. Hartford Four Corners, VT: Sustainability Institute, 1999. See www.sustainabilityinstitute.org/pubs/ or call 802-436-1277. An exploration of what kinds of actions really make a difference in changing the behavior of a system.

Municipal Benchmarks, Assessing Local Performance and Establishing Community Standards. Ammons, David. Thousand Oaks, Calif.: Sage Publications, 1996. Provides a thorough overview of the functional components of a community, along with an explanation of how to measure its effectiveness with benchmarking.

Neighborhood Sustainability Indicators Guidebook, How to Create Neighborhood Sustainability Indicators in Your Neighborhood. Crossroads Resource Center, Minneapolis, February 1999. See www.igc.org/crossroads/guide.pdf or 612-869-8669. The first of its kind in the country, this publication is used to bring local citizens together to define sustainable development indicators in their communities.

North Central Regional Center for Rural Development: www.ncrcrd.iastate.edu/ or 515-294-7648. Based at Iowa State University, this is one of four regional centers that conduct rural development research and education to improve the social and economic well-being of rural people. The Web site includes an interactive workbook called *Measuring Community Success and Sustainability.*

Smart Signals, Economics for Lasting Progress. Environmental Quality Board at Minnesota Planning, St. Paul, 1999. Includes discussion on describing and measuring what counts for a healthy economy. See www.mnplan.state.mn.us/SDI/progressind.html and www.mnplan.state.mn.us/pdf/1999/eqb/ss1a_hea.pdf.

Sustainable Development in the United States, an Experimental Set of Indicators: A Progress Report. Washington, D.C.: U.S. Interagency Working Group on Sustainable Development Indicators, 1998. Explores indicators of sustainable development in the economy, environment and society.

INFRASTRUCTURE AND UTILITIES (SEE ALSO "ENERGY" AND "WATER, WASTEWATER AND STORM WATER")

Built Environment Center: http://sustainable.state.fl.us/fdi/edesign/resource/index.html. Offers information and services on urban and community development, buildings and facilities, infrastructure and open space in the built environment.

Capital Improvements Programming Handbook. Mayberry, Bruce. Manchester, NH: Southern New Hampshire Planning Commission, 1994. Outlines types of capital improvement projects and how to coordinate the development of a plan.

Infrastructure Support For Economic Development. Bamberger, Rita; Blazar, William; and Peterson, George. Chicago: American Planning Association Planners Advisory Service, Report 390, 1985. Argues for the importance of infrastructure stability in communities and its direct link to economic strength.

Utility Connection: www.utilityconnection.com/page7c.html. Provides links to more than 4,000 electric, gas, water and wastewater utilities, utility associations, organizations, news, magazines, utility financial resources, and related state and federal regulatory and information sites.

MARKET-ORIENTED PLANNING

Market-Oriented Planning: Principles and Tools for the 21st Century. Staley, Samuel R. and Scarlett, Lynn. Los Angeles: Reason Public Policy Institute, 1997. See www-pam.usc.edu/v1i1a5print.html. The paper shows how market forces can be intermixed with planning to result in more flexible and efficient plans.

The Sprawling of America: In Defense of the Dynamic City. Los Angeles: The Reason Foundation, 1997. Discusses seven principles for state and local governments that help with sustainable economic development.

MITIGATION

Basics of Community Mitigation, a Job Aid. Federal Emergency Management Agency, National Emergency Training Center, Emergency Management Institute, April 1998. This concise guide will help answer questions about mitigation and gives sufficient background information to start a mitigation program in a

community. Includes a checklist on what a mitigation plan should contain along with a helpful glossary.

Design Guidelines for Flood Damage Reduction. AIA Research Corporation for the Federal Emergency Management Agency, 1981. Environmental factors are evaluated in the design of structures.

Floodplain Management: A Handbook for Local Officials. Minnesota Department of Natural Resources, St. Paul, 1993.

The Home and Land Buyer's Guide to the Environment. Chalofsky, B. New Brunswick, New Jersey: Center for Urban Policy Research, 1997. Provides a broad background to hazards, from underground oil tanks to tree ordinances and other environmental hazards.

Minnesota Department of Public Safety: www.dps.state.mn.us/emermgt/mitigation/index.html. Information to help communities identify strategies to reduce or eliminate long-term risk to people and property from hazards and their effects.

Planning for a Sustainable Future, The Link Between Hazard Mitigation and Livability. Publication No. 364. Federal Emergency Management Agency, Washington, DC, 2000. A focus is given to sustainable development as a model for more disaster resistant communities. The idea is that if a community plans well, considering both its livability and disaster preparedness, then it will be a better community overall.

Planning for Post-Disaster Recovery and Reconstruction, Planning Advisory Service Report Number 483/484. Schwab, Jim; Topping, Kenneth; Eadie, Charles; Deyle, Robert; and Smith, Richard. Chicago: American Planning Association, 1998. The Planning Advisory Service presents a comprehensive overview of disaster planning, complete with a model ordinance for recovery and reconstruction.

Protecting Floodplain Resources: A Guidebook for Communities. Federal Interagency Floodplain Management Task Force, 1996.

Rebuilding for the Future: A Guide to Sustainable Redevelopment for Disaster-Affected Communities. U.S. Department of Energy, September 1994. The guide quickly outlines an approach for making a master plan while incorporating sustainable design choices. Real life problems are discussed and a case study from Soldiers Grove, Wisconsin, is included.

Rebuilding for a More Sustainable Future: An Operational Framework, Edition 1. Washington D.C.: Mitigation Directorate, Federal Emergency Management Agency, November 1, 2000. Designed for post-disaster response but also for reference during nondisaster time. This resource covers the topic of disaster recovery with livability in mind. The appendices outline programs and grant monies along with contacts and other guidance.

"Saving homes from wildfires: regulating the home ignition zone." American Planning Association, *Zoning News*, May 2001. Describes how land-use and building codes can be designed to mitigate potential wildfire hazards.

MULTIJURISDICTIONAL PLANNING

Intergovernmental agreements: www.mnplan.state.mn.us/commplan/laws/joint471.html. The Minnesota Joint Exercise of Powers Act, Chapter 471.59, allows two or more units of government—includes every city, county, town, school district, other political subdivision of this or another state—to cooperate on community issues.

Joint Center for Sustainable Communities: www.usmayors.org/USCM/sustainable/report.htm. Case studies on how communities are cooperating to reach common goals.

"Multijurisdictional Planning Information Packet." Local Planning Assistance Team at Minnesota Planning: www.mnplan.state.mn.us/commplan or 651-296-6550. One of a series of packets on planning-related topics that are filled with articles, case studies and background information on the topic.

SMART GROWTH/SUSTAINABLE DEVELOPMENT

Center for Excellence in Sustainable Development: www.sustainable.doe.gov/management/tensteps.shtml. Through this center, the U.S. Department of Energy offers 10 steps to local sustainable development.

Center for Livable Communities: www.lgc.org/center. Available are documents relating to infill development, land use, transportation and resource use. The center has also developed a set of land development guidelines known as *The Ahwahnee Principles*.

Communities by Choice: www.CommunitiesbyChoice.org. The site is designed to provide an online discussion forum for people interested in sustainable community development.

Getting to Smart Growth: 100 Policies for Implementation. Supports communities interested in adopting Smart Growth policies. International City/County Management Association, Smart Growth Network, March 2002.

Guidebook on Smart Growth: Planning More Livable Communities with Transit-Oriented Development. Metropolitan Council of the Twin Cities, 2000.

The Home Town Advantage, How To Defend Your Main Street Against Chain Stores...And Why It Matters. Minneapolis: Institute for Local Self-Reliance, 2000. See http://www.ilsr.org/pubs/pubsrules.html . Focusing on community strengths and main street cohesiveness is shown as a strategy to avoid chain store dominance.

Investing in Minnesota's Future: An Agenda for Sustaining Our Quality of Life. A Report to the Governor. St. Paul: Minnesota Round Table on Sustainable Development, May 1998. See www.mnplan.state.mn.us/SDI/roundtable.html#reports.

Izaak Walton League of America: www.iwla.org. A non-profit conservation organization, the league has written a number of guides for communities on issues relating to sustainability.

New Community Design to the Rescue: Fulfilling Another American Dream. Hirschhorn, J.S. and Souza, P. Washington, D.C.: National Governors Association, 2001. The concept of "new community design" is presented and supported with case studies about communities that have walkable distances to shops, vibrant neighborhoods and great transit options.

Next Steps Toward a Sustainable Future: www.nextstep.state.mn.us/index.cfm. Sustainable topics include agriculture, buildings, business, communities, ecosystems, education, energy, land use, transportation and water are presented.

A One Stop Guide for U.S. Local Governments. International Council for Local Environmental Initiatives. See http://www.iclei.org/la21/onestop.htm. Offers communities technical assistance, information on funding sources, publications and links to other sites.

The Practice of Sustainable Development. Porter, D.R, et al. Washington, D.C.: Urban Land Institute, 2000. Written by a team of experts who outline proven methods of site planning, designing and building sustainable communities.

Recommendations for Achieving Sustainable Communities: Science and Solutions. A Report from the Second National Conference on Science, Policy and the Environment. National Council for Science and the Environment, Washington, D.C., December 2001.

The St. Croix Valley Development Design Study. Prepared for the Metropolitan Council by Calthorpe Associates, January 2000. This sketchbook provides the principles and generic concept plans for accommodating development and redevelopment based on the principles of walkable, transit-friendly neighborhoods and smart growth. The development situations and generic sketch plans are intended to be

transferable to other locations with similar development challenges and opportunities. See www.metrocouncil.org/planning/stcroixvalley/stcroixdev.htm.

Smart Growth: Myth and Fact. O'Neill, David. Urban Land Institute, 1999. See http://www.uli.org/DK/uli_BookStore_fst.html. A packet of 10 pamphlets.

Smart Growth Online. Smart Growth Network. See http://www.smartgrowth.org/Default.asp. The SGN works to encourage development that serves the economy, community and the environment.

The Sustainability Institute: www.sustainabilityinstitute.org/ . Provides information, analysis and practical demonstrations that can foster transitions to sustainable systems at all levels of society.

Sustainable America, a New Consensus for Prosperity, Opportunity and a Healthy Environment for the Future. President's Council on Sustainable Development, February 1996. Outlines sustainable strategies for communities across America.

Sustainable Development: The Very Idea, a Primer. Nordstrom, Rolf. St. Paul: Minnesota Sustainable Development Initiative, Minnesota Environmental Quality Board, April 1998, www.mnplan.state.mn.us/SDI/#vision.

Sustainable Lakes Planning Workbook: A Lake Management Model. Brainerd, Minnesota: Minnesota Lakes Association, 2000. Provides worksheets and planning models that help develop visions and goals of watershed protection and lake management.

Sustainable Schools Minnesota, High Performance Schools for Higher Performing Students; A Pre-Design Guide on School Design, Construction and Operation for School Board Members. LHB Engineers and Architects Factor 10, LLC. 2001. Creative options for school design that results in better learning and a better environment.

Towards a Sustainable America, Advancing Prosperity, Opportunity and a Healthy Environment for the 21st Century. Washington, D.C.: President's Council on Sustainable Development, May 1999. Case studies and data show how sustainable methods can be used to address climate change, environmental management, rural issues and community development.

SOLID WASTE

Assessment of the Effect of MSW Management on Resource Conservation and Greenhouse Gas Emissions. St. Paul: R.W. Beck, Inc. and Ecobalance, 1999. Obtain a copy by calling the Office of Environmental Assistance at 800-877-6300. Full life cycle analysis and other techniques regarding municipal solid waste management and the potential for reducing the generation of greenhouse gases are discussed.

Minnesota Office of Environmental Assistance: www.moea.state.mn.us or 612-296-3417. An excellent source of information about sustainability for communities in Minnesota and across the country. The office also produces a monthly electronic newsletter on sustainability issues for the Minnesota Sustainable Communities Network.

Minnesota Solid Waste Policy Report. Office of Environmental Assistance: www.moea.state.mn.us/policy/99policy.cfm. Provides an analysis of the status of the state's solid waste system and makes recommendations regarding Minnesota's waste management policies, system improvements and research. See also a listing of local contacts on waste issues at www.moea.state.mn.us/lc/county.cfm.

Reduction of Packaging in Waste, Minnesota Statutes, Section 115A.5501: www.revisor.leg.state.mn.us/stats/115A/5501.html. Outlines goals for reducing waste from packaging in Minnesota. Or see www.pca.state.mn.us/waste/sw_mnrules.html.

TRADITIONAL NEIGHBORHOOD DESIGN

From neighborhood to home: a TND delivery system. McLaughlin, R. Minneapolis, September 2000. Traditional Neighborhood Design, TND, is outlined and supported with architectural standards, urban standards and plan guidelines.

A Model Ordinance for a Traditional Neighborhood Design. Madison: University of Wisconsin, December 2000. See www.wisc.edu/urpl/facultyf/ohmf/projectf/tndord.pdf. Document outlines goals and a view of what an ordinance should look like to generate a positive outcomes for the community.

Narrow Streets Database: www.sonic.net/abcaia/narrow.htm. Innovative communities across the United States that have adopted reduced street width standards.

New Urbanism: Comprehensive Report & Best Practices Guide. New Urban News. Ithaca, NY: New Urban Publications Inc., 2001. This work describes the alternatives to single-use subdivisions, shopping centers and office parks. The report includes 26 sections and provides many case studies and analysis for developing human-scale neighborhoods.

Traditional Neighborhood Design. St. Paul: HomeStyles Publishing and Marketing, Inc., 1997. Outlines design characteristics.

Traditional Neighborhood Design: www.tndhomes.com/home.html. Provides pictures, articles and design specifications.

Traditional Neighborhood Development. Columbus: City of Columbus, May 2001. www.columbusinfobase.org/_private/library/html/tnd.htm. Offers possible zoning ordinance guidelines for Traditional Neighborhood Design.

Walkable Communities, Inc.: www.walkable.org/. This nonprofit corporation was organized to help communities become more walkable and pedestrian friendly.

TRANSPORTATION

Access Management Manual, Minnesota Department of Transportation, St. Paul, January 2002.

Center for Transportation Studies, University of Minnesota: www.cts.umn.edu. Provides information on transportation-related news, events and research, including publications that may be downloaded. Includes the ability to search for transportation publications in many Minnesota libraries.

Office of Transportation Data and Analysis: www.dot.state.mn.us/tda. Provides information on data and data products available, both online and as paper copies. Information includes traffic volume maps, traffic forecasts maps and construction project logs. MnDOT's home page is at www.dot.state.mn.us.

Transportation for Livable Communities Network: www.tlcnetwork.org/. Provides a forum for discussion on issues such as traffic calming and a variety of land use planning topics. It also offers contacts and publications.

U.S. Department of Transportation: www.fta.dot.gov/ntl/planning/index.html. Information ranging from TEA-21 to public participation in transportation planning; also provides access to the National Transit Library.

Victoria Transport Policy Institute: www.vtpi.org/. Ideas on parking, mass transit, bike trails, traffic calming and other land use issues.

Your Community's Transportation System, A Transportation Element Guidebook. Washington Department of Community Development, Growth Management Division, Olympia, 1993. Works through the visioning process, funding, and implementation strategies for transportation plans.

VISIONING AND GOAL-SETTING (SEE ALSO "CITIZEN PARTICIPATION")

Community Strategic Visioning Programs. Walzer, Norman, ed. Westport, Connecticut: Praeger, 1996.

The Community Visioning and Strategic Planning Handbook. National Civic League. Denver: Alliance for National Renewal, 1996.

Community Visioning: Citizen Participation in Strategic Planning. Woodman, Jason. Washington, DC: Management Information Service, 1994.

Community Visioning, Strategic Planning Programs: State of the Art. Walzer, N. Ames, Iowa: North Central Regional Center for Rural Development, 1995. Call 515-294-8321. Rural development issues are outlined along with the visioning process—includes case studies from other states.

Goals and Goal Setting. Rouillard, Larrie. Menlo Park, Calif.: Crisp Publications; Lanham, MD: Distribution to the U.S. trade [by] National Book Network, 1998.

Goal Setting in Local Government. Geen, Robert. Washington, D.C.: Management Information Service, 1995.

Harnessing the Power of Vision: Ten Steps to Creating a Strategic Vision and Action Plan for Your Community. Cooperative Extension Service. Little Rock: University of Arkansas, 1995. Call 501-671-2072. Filled with flow charts and a step by step outline of visioning strategies, this booklet will get a community thinking about its future.

Sample vision statement: www.ci.greensboro.nc.us/comp_plan/VisionStatement.htm. Greensboro, North Carolina, has outlined a comprehensive vision statement, including ideals for sustainable growth.

Visions For a New American Dream. Nelessen, A. Chicago: American Planning Association, 1993. The focus is on design strategies that will make the vision of a livable community a reality. Includes sample ordinance criteria.

WATER / WASTEWATER / STORM WATER

Compostable toilets: www.ecological-engineering.com/maCTs.html. Massachusetts recently approved the use of compostable toilets.

Environmental Quality Board at Minnesota Planning: www.mnplan.state.mn.us/eqb/water/waterplanningefforts.html. Lists local, state and federal contacts that are involved in water resource planning.

The Handbook for Comprehensive Local Water Planning Under Minnesota Statutes, Chapter 110B. Minnesota State Planning Agency, 1987. Contact Board of Water and Soil Resources at 888-234-1133 for reprints. Document includes technical and general guidance for water planning.

Minnesota Urban Small Sites BMP Manual: Stormwater Best Management Practices for Cold Climates. Prepared by Barr Engineering Company. St. Paul: Metropolitan Council Environmental Services, 2001. See www.metrocouncil.org/environment/Watershed/bmp/manual.htm. Provides information on tools and techniques to assist Twin Cities municipalities and WMOs in guiding development and redevelopment. The manual includes detailed information on 40 BMPs aimed at managing stormwater pollution for small urban sites in a cold-climate setting.

Minnesota Watermarks: Gauging The Flow Of Progress 2000-2010. Environmental Quality Board at Minnesota Planning, St. Paul, 2000. See www.mnplan.state.mn.us/eqb/watermarks.html . Sets goals for protecting water resources in Minnesota.

Model ordinance for individual sewage treatment systems: www.mnplan.state.mn.us/SDI/ordinances.html. Minnesota Planning's model

ordinance guidebook helps users to understand the planning implications of such systems.

Model ordinance for stormwater management. Minnesota Board of Water and Soil Resources at 651-296-3767 or 888-234-1133. Also, Minnesota Planning/Environmental Quality Board model sustainable development ordinance for stormwater management: www.mnplan.state.mn.us/SDI/ordinances.html or call 651-297-1257 or 800-657-3794.

Protecting Water Quality in Urban Areas, Best Management Practices for Dealing with Storm Water Runoff from Urban, Suburban and Developing Areas of Minnesota. Minnesota Pollution Control Agency, St. Paul, March 1, 2000. Comprehensive source for managing storm water runoff, with suggestions on policies and plans.

Regulating stormwater management activities: www.pca.state.mn.us/water/stormwater.html. The Minnesota Pollution Control Agency administers the National Pollutant Discharge Elimination System.

Regulation of wastewater systems: www.pca.state.mn.us/water/water_mnrules.html. The Minnesota Pollution Control Agency regulates wastewater systems of a certain size and assists communities in the regulation of small individual sewage treatment systems. Learn about their water-related rules and a variety of programs for individual sewage treatment systems at www.pca.state.mn.us/programs/ists.html . Also see the rule for individual sewage treatment systems at www.revisor.leg.state.mn.us/arule/7080 .

Residential Cluster Development: Alternative Wastewater Treatment Systems. Anderson, J.L. and Gustafson, D.M. University of Minnesota Extension Service, St. Paul, 2000. See www.extension.umn.edu/index.html. Provides wastewater treatment options for residential systems.

Stormwater management: www.pca.state.mn.us/water/stormwater.html. The Minnesota Pollution Control Agency regulates certain stormwater management activities.

Stormwater Manager's Resource Center: www.stormwatercenter.net/. Designed specifically for stormwater practitioners, local government officials and others who need technical assistance on stormwater management issues.

Water Laws.Com: www.waterlaw.com/aboutps2.html. Provides information on water law, policy and commentary. The Water Ventures section features the Lake Shaokatan-Yellow Medicine River Watershed Project in Minnesota.

Water in small communities: www.epa.gov/owm/smallc.htm. This U.S. Environmental Protection Agency site provides opportunities for small communities to protect their water resources and includes a link to many Native American water protection programs.

Water Resources Management Policy Plan. Metropolitan Council, 1996.

ZONING AND OTHER CONTROLS

Better Site Design: A Handbook for Changing Development Rules in Your Community. Ellicott City, Maryland: Center for Watershed Protection, 1998. Outlines 22 principles for better site design including parking, street widths, setbacks, runoff and buffers.

Building Codes: www.ncsbcs.org. National Conference of States on Building Codes and Standards, mission statement is to "provide technical services, education and training to our members to enhance the public's social and economic well-being through safe, durable, affordable, accessible, and efficient buildings."

County and municipal zoning ordinances: www.lawlibrary.state.mn.us/mnlr.html#ord. This Minnesota Law Library site provides insight on how other communities are addressing land use controls.

From Policy to Reality: Model Ordinances for Sustainable Development. Minnesota Planning, St. Paul, September 2000. See www.mnplan.state.mn.us/SDI/ordinances.html or call 651-297-1257. Offers a package of model ordinances that Minnesota communities can use in charting their futures.

Land use law: www.law.cornell.edu/topics/land_use.html. Cornell Law School, Legal Information Institute, provides reference to a broad range of land use law issues, including the Historic Preservation Act and the Environmental Policy Act.

Model Subdivision Regulations. Freilich, Robert and Shultz, Michael. Chicago: American Planning Association, 1995. A comprehensive overview of the subdivision process from the application process to impact fees.

GLOSSARY

Action plan: That part of a comprehensive plan that spells out in some detail how the plan's vision or goals are to be achieved. This includes a description of the responsible party, the specific actions to be taken and the time frame for completing the action. The time frame of the plan is usually between one and five years.

Affordable housing: Under federal, state and metropolitan housing programs, affordable housing is defined as ownership housing costing no more than 30 percent of the median household income in the area where it is located. Under the Livable Communities Act, administered by the Metropolitan Council, it is defined as ownership housing costing no more than 30 percent of the median household income for families with less than 80 percent of the metropolitan-area income. For rental units, it is defined as units renting for no more than 30 percent of household income for families with 50 percent or less of the median income.

Aquifer: A geological formation such as sand and gravel, fractured rock or caverns that stores and transports ground water.

Aquifer recharge area: The land surface area that transmits surface and rain water through absorption into aquifers.

Benchmark: A performance monitoring standard that allows a community to periodically measure the extent to which the goals and policies of its comprehensive plan are met.

Benchmarking: The process by which a community evaluates indicators, data and performance against established benchmarks to identify its progress toward its planning goals.

Boundary changes: Changes in the legal status and area of jurisdiction of a local community. This may be accomplished through annexation of all or a portion of a township, consolidation of two adjacent municipalities or detachment of part of a community and annexation by another community. Proposals for boundary changes are governed by state law.

Brownfield: An abandoned, idled or under-used industrial or commercial facility where expansion or redevelopment is complicated by real or perceived environmental contamination.

Capital improvement plan: A long-range schedule or budget, usually five years in length with annual updates, for capital expenditures. It includes a listing of capital projects, priorities, estimated costs, identification of methods of financing and a time schedule for completion. Capital improvements can include public land, facilities and buildings such as sanitary and storm sewer facilities, water systems, roads and highways, sidewalks, and parks and open space. A capital improvement plan is one of the major tools for implementing comprehensive plans.

Central business district: The retail and commercial/service center of a city.

Citizens: As used in this guide in discussing citizen participation programs, the corporations, government agencies, interest groups and individuals of a community.

Cluster development or housing: A development/design technique that concentrates buildings in specific areas on a site to allow the remaining land to be permanently dedicated for common open space or to preserve historical, cultural or environmentally sensitive features.

Community-supported agriculture: A system of support for participating farmers by members of a community who contract at the beginning of a season to buy a share of the produce grown.

Comprehensive plan: The official public document adopted by a community as the policy guide for decisions about its future development and redevelopment. It consists of a vision for the community, background data, goals, policy statements, standards and programs for guiding the physical, social and economic development of a community. A comprehensive plan usually includes, but is not limited to, a land use plan, transportation

plan, public facilities plan, housing plan, parks and open space plan, environmental protection plan and implementation strategies. The time frame for a plan typically ranges from 15 to 25 years.

Consistency requirement: The concept that the zoning ordinance should be consistent with the comprehensive plan. This conforms with established planning theory and practice that official controls, such as zoning ordinances and subdivision regulations, are the tools to implement the comprehensive plan. In the seven-county Twin Cities metropolitan area, under the Metropolitan Land Planning Act, local governments cannot enact official controls or fiscal devices that conflict with the comprehensive plan. Most important, courts are tending to hold zoning ordinances that are inconsistent with an adopted comprehensive plan to be invalid.

Crop equivalency rating: A standard rating of the productivity of soils for agricultural production.

Design standards: A set of guidelines on the appearance and aesthetics of buildings or improvements that governs construction, alteration, demolition or relocation of a building or improvement, including land improvements.

Density bonus: Granting a developer additional square footage or additional housing units beyond that authorized in the zoning ordinance in exchange for the provision or preservation of an amenity at the same site or at another location.

Easement: A grant by a property owner of a right for a specific use of the property or a defined part to a second party. It may be temporary or permanent, is legally recorded and goes with the land. It can be donated or purchased.

Eco-industrial development: Often planned for industrial parks, a system of interconnected businesses that use each other's byproducts to enhance operational efficiencies.

Ecoregion: An area with interdependent ecosystems, natural boundaries and land uses.

Ecosystem: An interacting system formed by a biotic community and its physical environment.

Ecosystem-based management: A collaborative process that relies on partnerships and interdisciplinary teamwork to sustain Minnesota's ecosystems and the people and economies they support.

Eminent domain: The authority to take private property for a public purpose upon payment of just compensation.

Flood plain: The area adjoining a water course that has historically been covered by high water, usually defined by a calculated 100-year flood.

Floor-to-area ratio: The total floor area of a building on a lot divided by the area of the lot.

Functional class: Identifies a public roadway according to its purpose and hierarchy in the local or statewide highway system.

Goal: A statement that describes, usually in general terms, a desired future condition. Goals are often about long-term expectations rather than short-term concerns.

Gray water: Bath, dish or process water with limited suspended solids and not containing human, animal or industrial wastes.

Greenfield: Farmland and open areas where there has been no residential, commercial or industrial activity.

Growth management: The use by a community of a range of techniques to determine the amount, direction, rate and type of growth desired and to channel that growth into designated areas.

Indicator: Information that is a sign, symptom, product or index of the state of the larger system. In comprehensive planning, indicators are measurements that provide citizens with clear information about a community's past trends and current realities.

Infrastructure: Public facilities and services needed to support and sustain industry, residence, commerce and all other land use activities. It includes transportation, water and sewer, energy, telecommunications, recycling and solid waste disposal, parks and other public spaces, schools, police and fire protection, and health and welfare services.

Land use map: A map, usually officially adopted, that geographically and specifically locates existing and future land uses such as residential, commercial, industrial and institutional (public areas and buildings) that have been established in the land use plan.

Land use plan: A basic element of a comprehensive plan that designates the present and future location, form, class and extent (size) within a planning jurisdiction for residential, commercial, industrial and institutional (public areas and buildings) use or reuse. The land use plan includes a map and a written description of the different land use areas or districts. The land use plan serves as the guide for official land use decisions.

Level of service: A qualitative measure describing traffic conditions along a given roadway or at a particular intersection, including travel speed and time, freedom to maneuver, traffic interruptions, and comfort and convenience as experienced and perceived by motorists and passengers. Six levels are defined from A to F, with A representing the best conditions and F the worst.

Life cycle housing: A housing supply designed to meet the needs of individuals and families as they go through different stages of life so they can, if they wish, remain in the same community throughout their lives.

Local government: In the context of this guide, local government may be a city, township or county.

Meets and bounds: The process of describing a parcel of land by identified reference points and measurements, and compass directions from point to point.

Monument: In surveying, an iron pipe, stone cairn or other object marking a specific land point.

Municipality: In this publication, a municipality is any home rule or statutory city and any town as defined in comprehensive planning law (Minnesota Statutes, Section 462.352).

Nonpoint source pollution: Pollution that arises from diffuse sources such as agricultural runoff, urban area impervious surface runoff and vehicle emissions.

Objectives: These are similar to goals but much more specific. They are attainable, measurable and are to be achieved within a stated period of time.

Official controls: Ordinances and regulations that control the physical development of a city, county or township, and implement the goals and objectives of a comprehensive plan. Official controls may include zoning ordinances, subdivision regulations, site plan regulations, sanitary codes, building codes and official maps.

Official map: A legal document that permits cities, counties and townships to protect sites for future roads, rights-of-way and other public use if based on the comprehensive plan.

Official newspaper: A newspaper of general circulation, designated by a governmental unit for the publication of its official meetings, notices and statements of accounts.

Orderly annexation: A proactive process authorized by law that enables a city and township to work together to determine the future incorporation of township territory into the city before problems become imminent. It provides predictability regarding boundary changes. State law authorizes joint planning for a broad area identified by the participating governments to assist them in identifying future land uses and determining when and where future annexations will occur and city services will be needed.

Ordinance: A term for a law or regulation officially adopted by a lesser unit of government such as a county board, township board or city council.

Planning agency: Advisory to the city council or town board, the planning agency may be either the planning department or the planning commission, which may include municipal officials among its membership (Minnesota Statutes, Section 462.352).

Planning commission: An appointed body that is the legal entity through which planning is carried out. It is advisory to the city council, town board or county board. In cities and towns, it may be called the planning agency (Minnesota Statutes, Section 462.352).

Plat: A recorded document prepared by a registered surveyor or engineer that defines property lines with their monuments, attendant roadways, power and phone lines and other easements, common elements and so on. It also may contain covenants and restrictions that encumber the properties created by the plat.

Policy: A course of action or specific rule of conduct to be followed in achieving goals and objectives.

Point pollution: A discrete, identified source of pollution, such as a wastewater discharge outlet or smokestack.

Principle: A general rule of conduct to be followed in achieving goals and objectives.

Purchase of development rights: The acquisition by government or nonprofit entity of rights to develop a parcel of land. Development rights are held in the public interest. The landowner receives the difference in price between the fair market value and the protected, lesser use and retains all the rights of this lesser use. This is useful in protecting agricultural land, historic sites and sensitive environmental areas.

Revenue bonds: Bonds issued by a community that are to be paid off with a designated revenue source other than the general taxing powers and revenues of the community.

Site design standards: See **design standards**.

Strategy: An action or collection of actions for achieving goals and objectives.

Sense of community: The common feeling or attitude people share about a community or place they identify with and relate to. A place with a "sense of community" is a place that naturally brings people together as a community.

Sense of place: See **sense of community**.

Septic tank system: A waste disposal system using biological actions in a holding tank and a dispersal area or drain field to treat and dispose of human wastes; also known as individual septic tank systems.

Stakeholders: Those individuals, groups and interests directly affected by a comprehensive planning process or proposed developments.

Strategic planning: A disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does and why it does it. A strategic plan usually includes a vision statement, assessment of both the organization's external and internal environment, identification of the strategic, long-term issues facing an organization or community and development of strategies and implementation programs in the form of an action plan to deal with the strategic issues. The distinguishing features of a strategic plan are that it is focused, long-range and action-oriented.

Subdivision: The division of a tract or parcel of land into two or more lots, either by platting or meets and bounds description for sale or development.

Subdivision regulations: Regulations and standards enacted by a community to control the proposed subdivision of land into lots or parcels. The standards may include procedures for subdivision review and approval (preliminary and final plats), design standards, improvements required (streets, sanitary and storm sewers, water supply, etc.) and dedication of land for parks and open space, streets, and so on. Like the zoning ordinance, it is a major device for implementing a comprehensive plan.

Sustainable development: Development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment upon which people and economies depend. It is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Minnesota Statutes, Section 4A.07).

Tax increment financing: A public financing tool whereby revenue bonds are issued to pay for the improvement of, or provision of, new public infrastructure in a defined area necessary to support and encourage its development. The community assumes the debt obligation. The assessed value of property in the defined area is frozen for a specific period for the general revenue purposes of the community, and the additional taxes generated by the increased valuations in the district created by the development are used to amortize the bonding. A "but for" test is generally required; namely, no development and tax base increase would occur without the community subsidizing this infrastructure cost.

Traditional neighborhood design: Community design typical of communities built in the first part of the 20th Century and considered to be more "people-oriented" and "human" in scale. Characteristics may include narrow streets oriented to pedestrian and bicycle use, compact development patterns and mixed land uses, and the use of front porches and other features to encourage the interaction of residents.

Transfer of development rights: A transfer of rights to develop land from one parcel to another, resulting in greater densities than allowed under current zoning. Primarily a transaction between private landowners, but the community must clearly define zoning and transaction criteria. Technique can be used to protect historic, agricultural and open space areas. Useful in areas where there is an active real estate market and where development is occurring at a brisk pace.

Transit-oriented development: Development specifically oriented along transit lines and stations, with higher densities of development in areas with stations.

Vision: A description of a realistic and credible desired future for a community or organization. A vision is a key part of a strategic planning process.

Watershed: The physical land area that naturally drains into a lake, river or stream system.

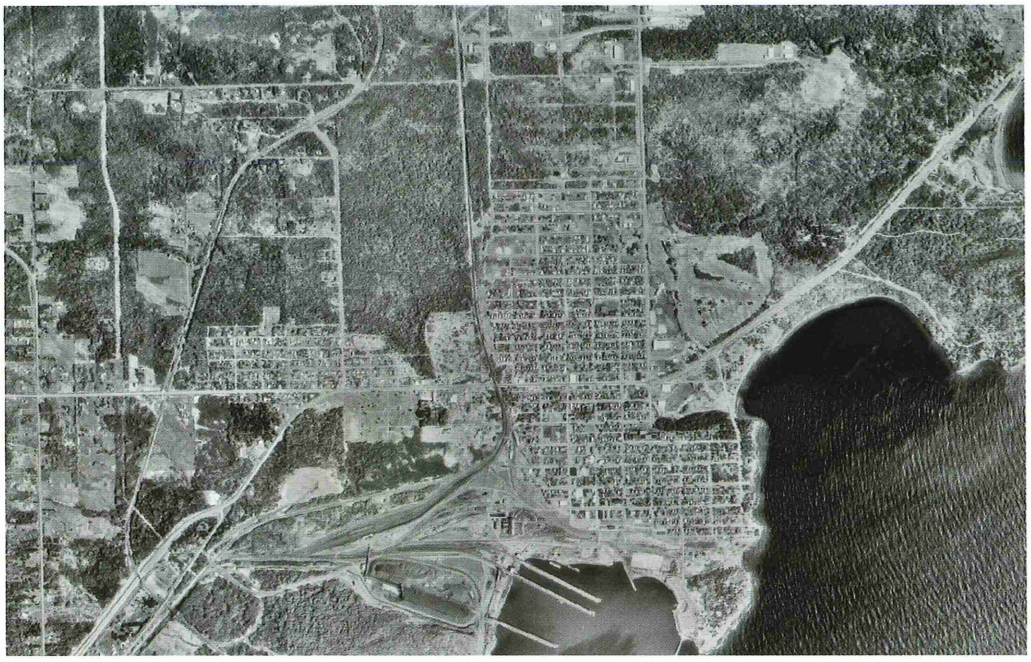
Wetland: An area inundated or saturated by surface or ground water at a frequency sufficient to support vegetation types adapted to wet soil conditions. Wetlands include bogs, fens, marshes and swamps.

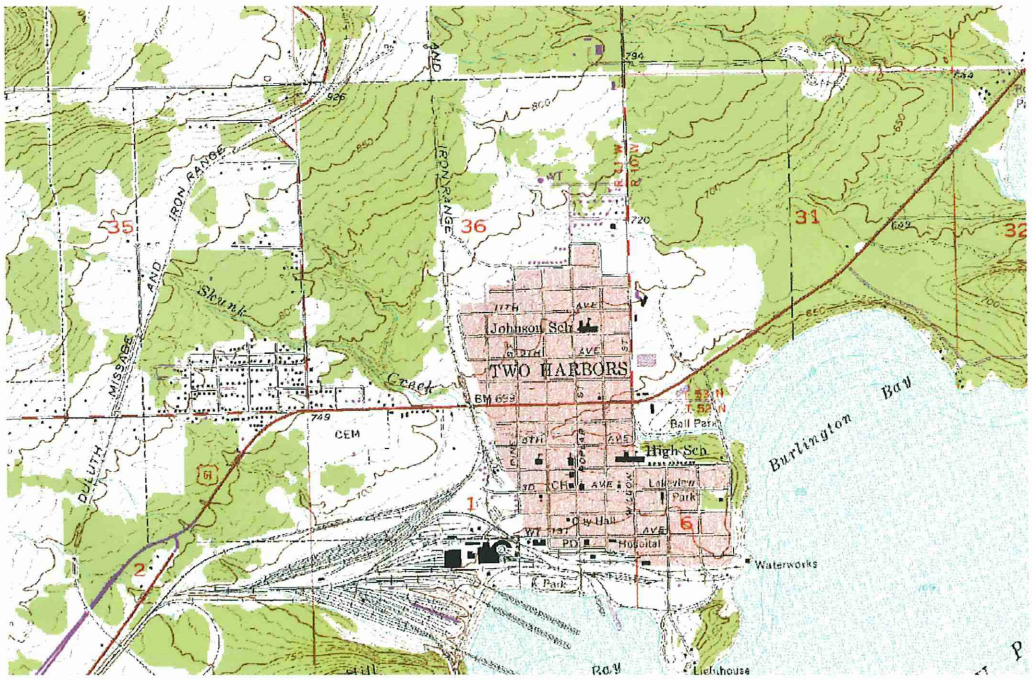
Zoning: The division of a community (city, township or county) by local legislative regulation into areas or zones that implement the comprehensive plan.

Zoning map: A map that identifies and defines a community's various zoning district boundaries and the uses permitted by zoning ordinance within those boundaries. See also land use map.

Zoning ordinance: The legally established text for implementing the vision, goals and policies of a comprehensive plan. Zoning regulates the use of land within the community's jurisdiction: that is, lot sizes, setbacks and the height and bulk of buildings and such; permitted and conditional uses within the established zones; prohibited uses; performance standards; and procedures for zoning review and approval of requests for variances from the ordinance. A zoning ordinance has two components: a zoning text and a zoning map.

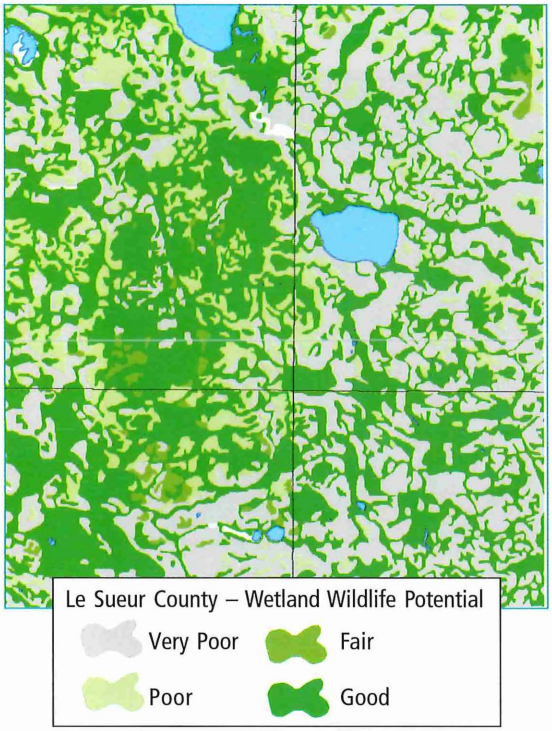
AIR PHOTOS AND TOPOGRAPHIC MAPS PROVIDE THE FRAMEWORK FOR A COMMUNITY ASSESSMENT

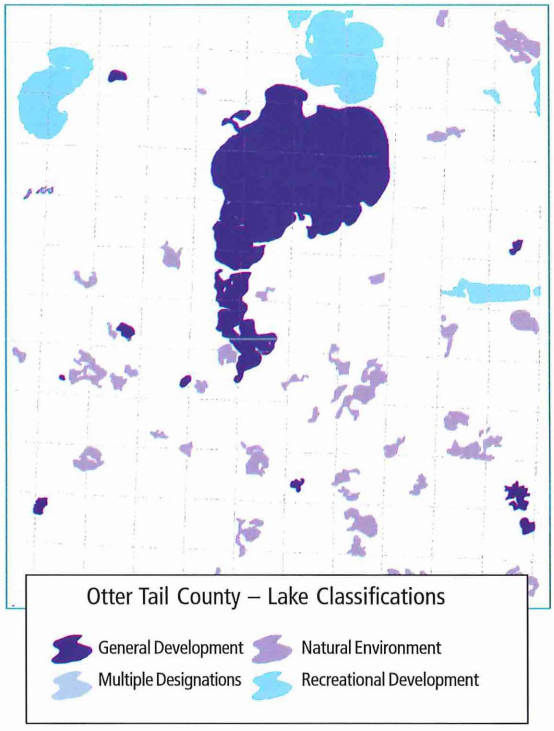


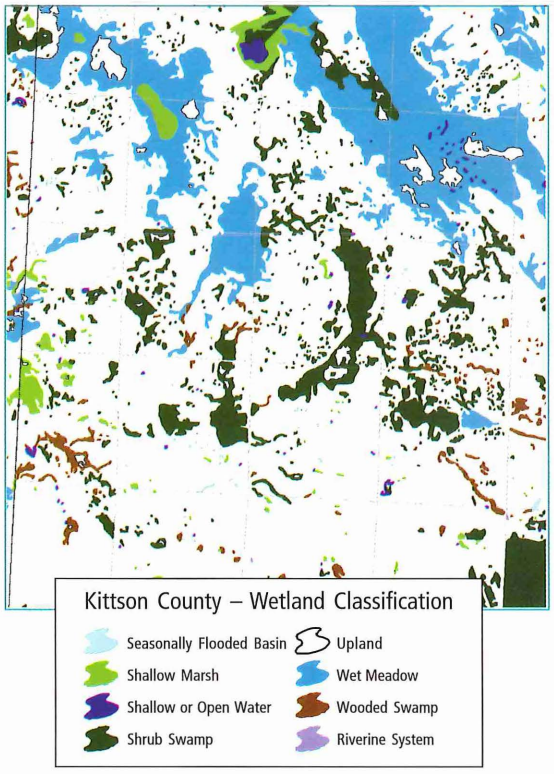


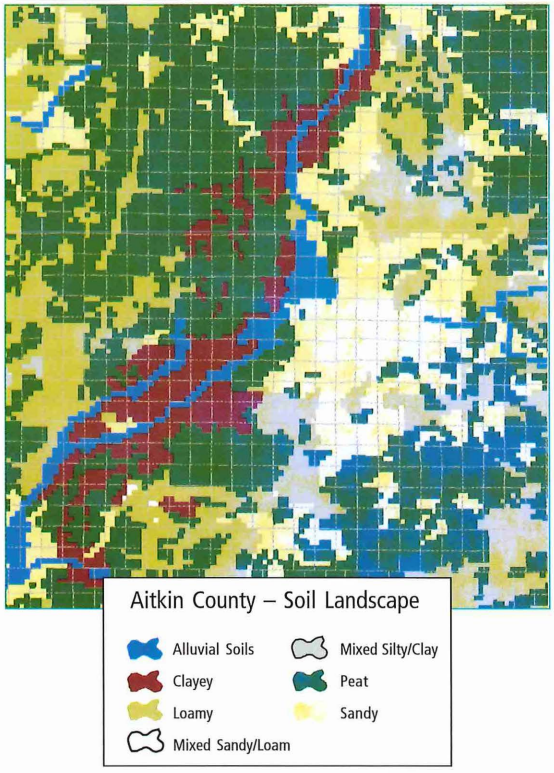
Housing, ore docks, a golf course, schools and other community landmarks are easily seen with digital orthophoto quadrangles and digital raster graphics accessible with EPPLviewer and EPIC, Minnesota Planning's user friendly GIS software. Two Harbors, Minnesota

STATE DATA SETS HELP COMMUNITIES IDENTIFY AND EVALUATE THEIR ASSETS



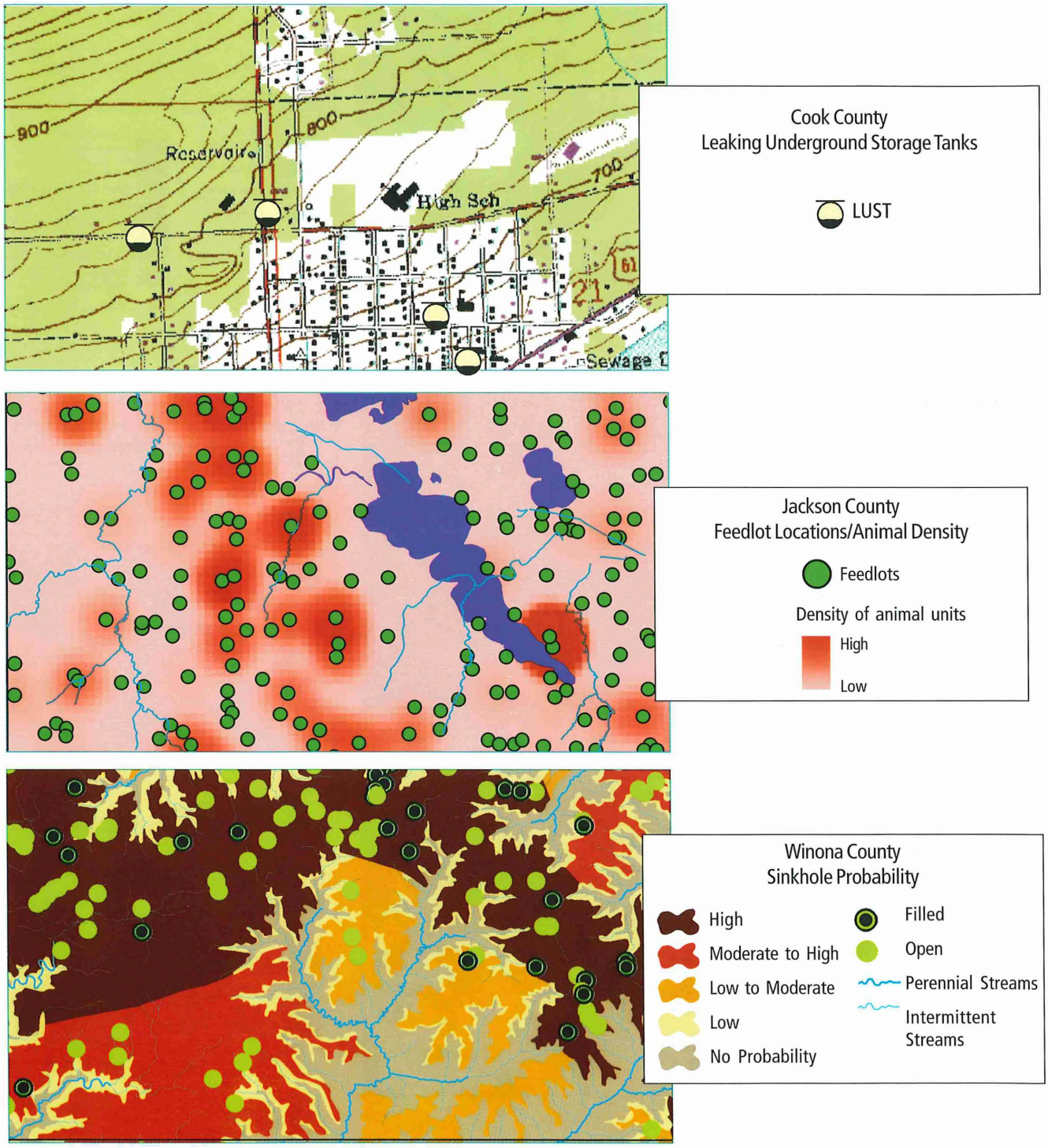






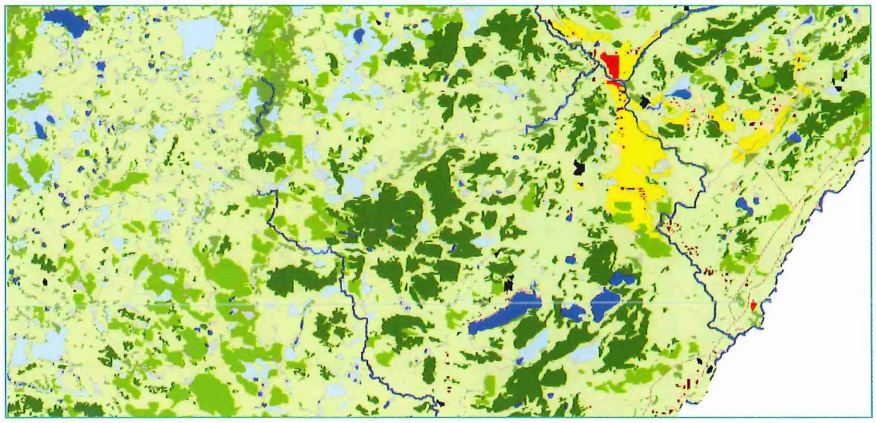
Lake and wetland classifications and evaluations give insights into a water body's use and value, as well as the land uses that would complement it. Soils information is key to nearly all land use decisions.

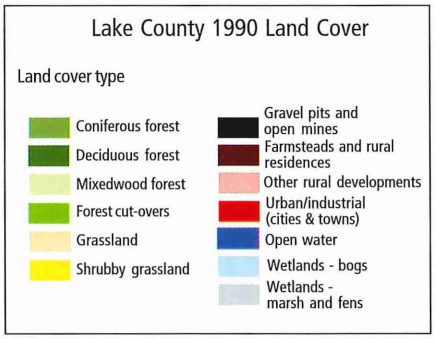
GIS HELPS REVEAL THE EXTENT AND CHARACTER OF CHALLENGES FACING A COMMUNITY

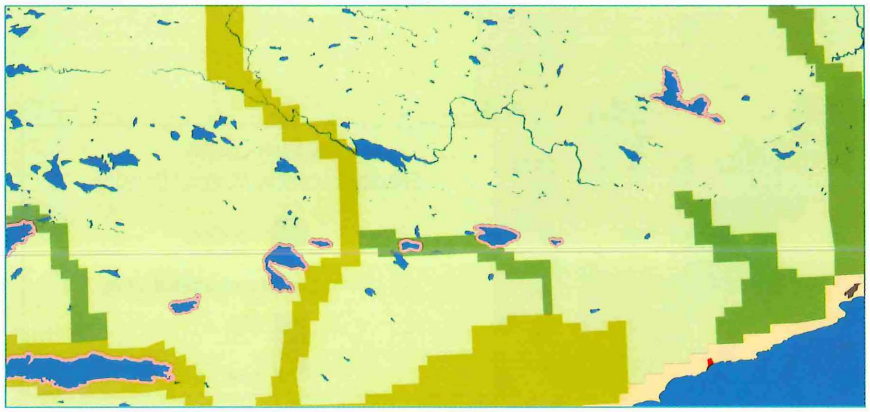


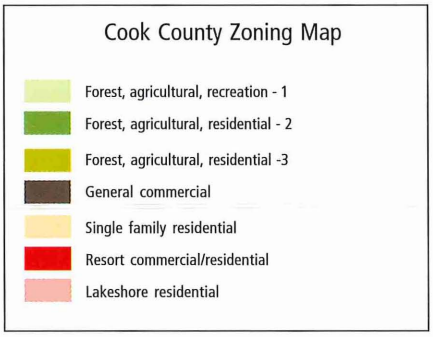
Natural and man-made features, and their relation to each other, should be evaluated. Leaking underground storage tanks can affect current and future development plans, concentrated feedlot operations might be incompatible with certain other land uses and sinkholes provide a direct conduit for pollutants to reach ground water.

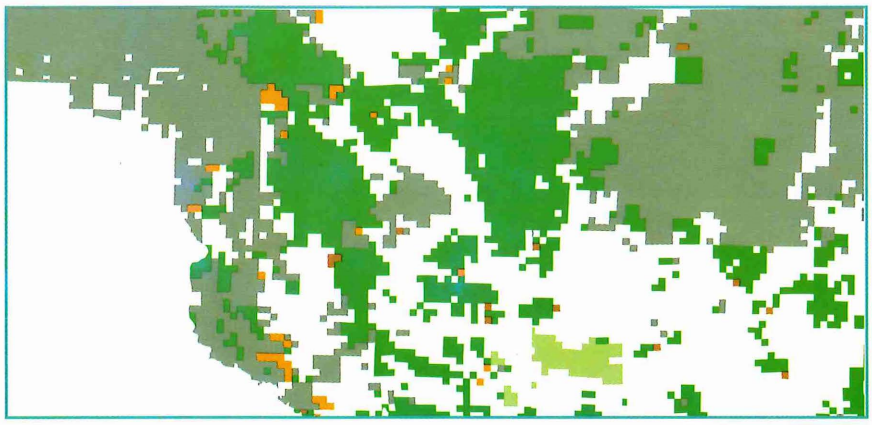
LAND USE PATTERNS PROVIDE INSIGHTS INTO THE ASSETS AND CHALLENGES OF MOST OTHER COMPREHENSIVE PLANNING TOPICS

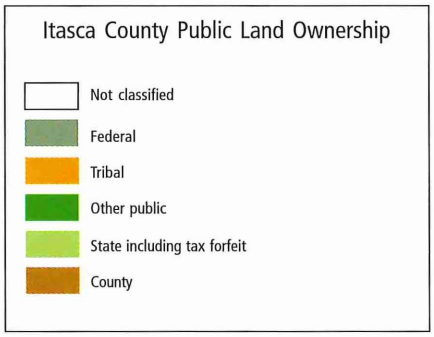






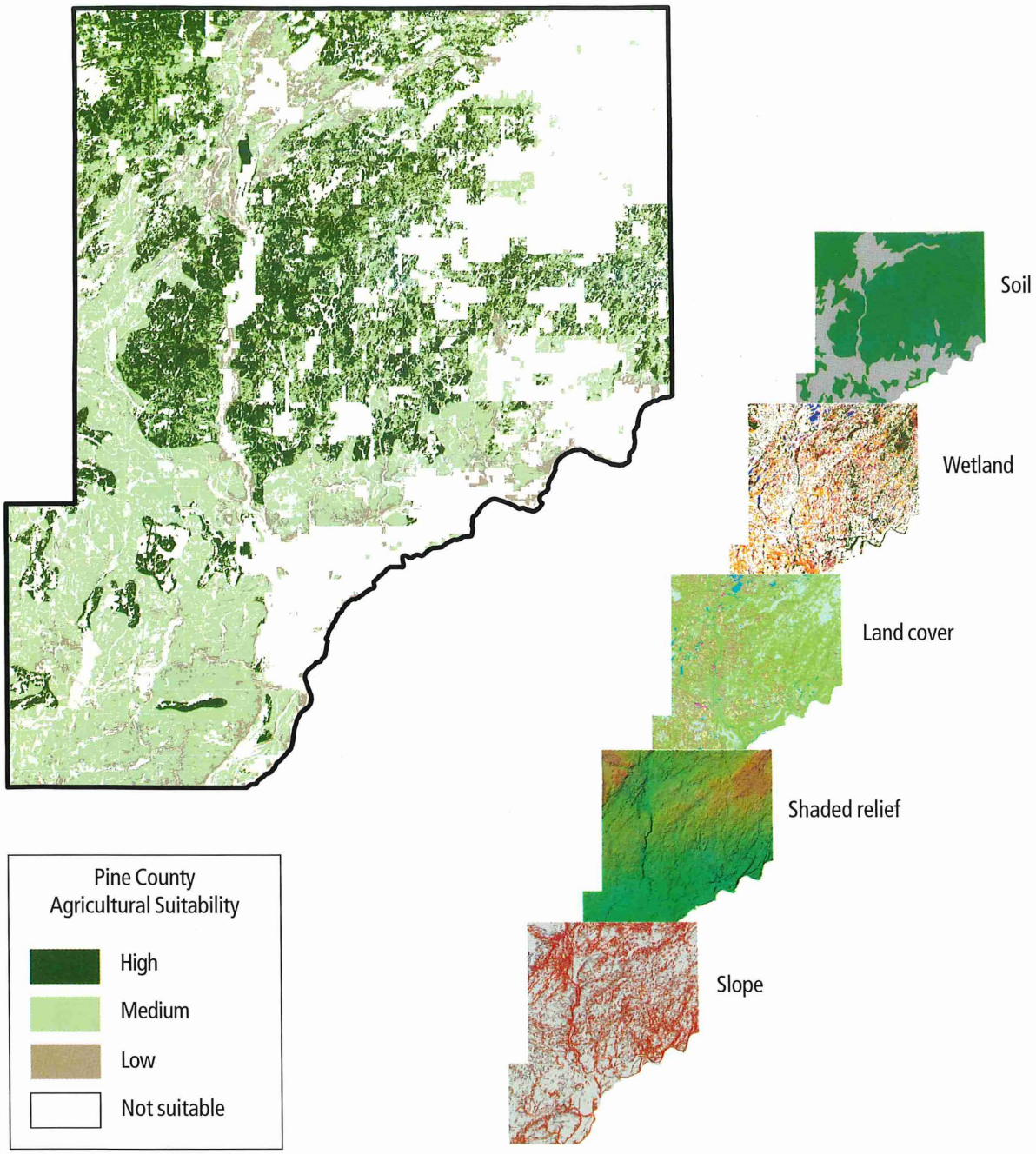






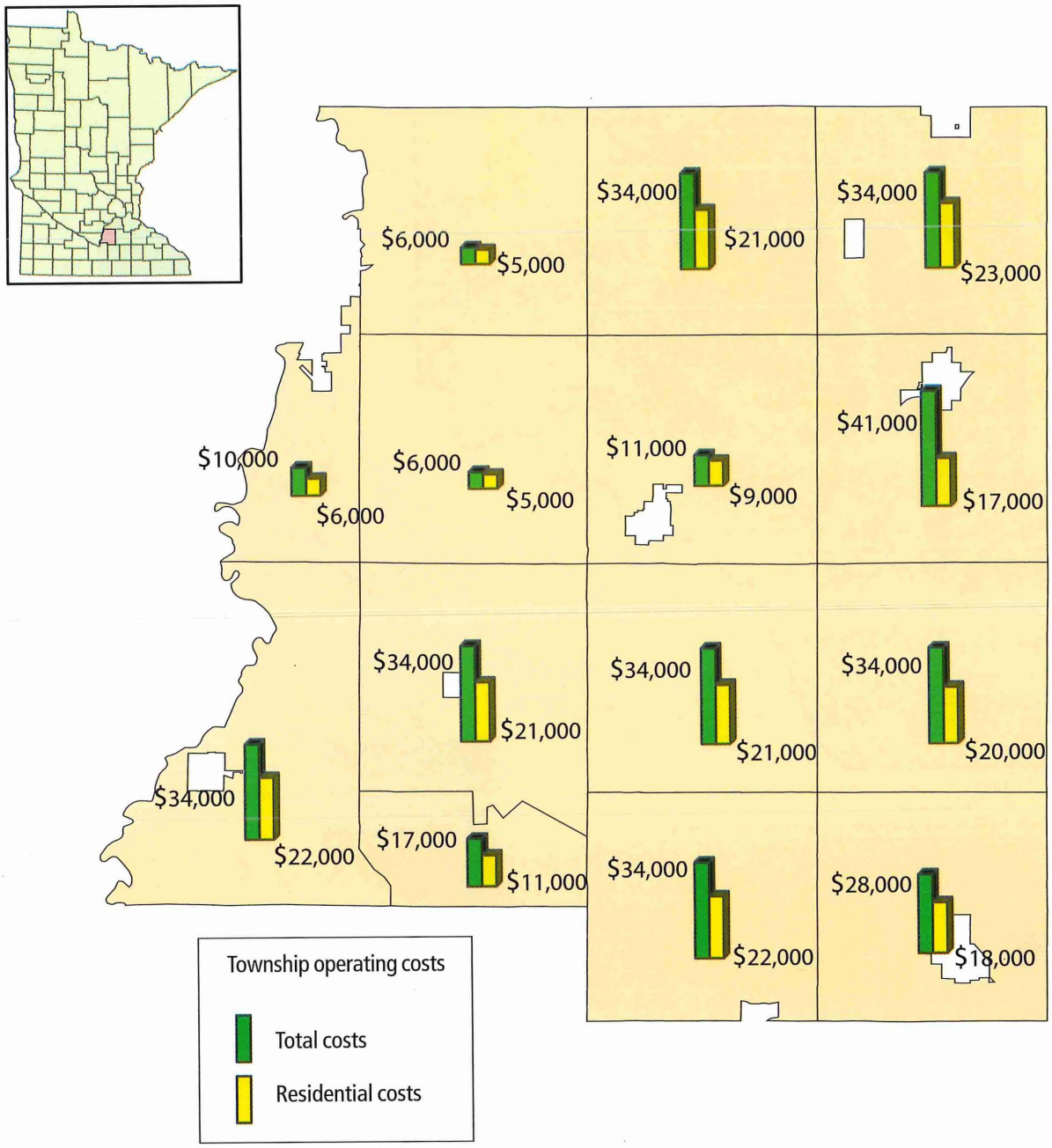
Land cover shows what exists, while zoning shows where the community is currently headed. Land ownership shows where large blocks of land are held by governments, corporations or private individuals, and influences strategies for land use change.

GIS GIVES COMMUNITIES AN OVERALL PICTURE OF LANDS MOST SUITABLE FOR AGRICULTURE



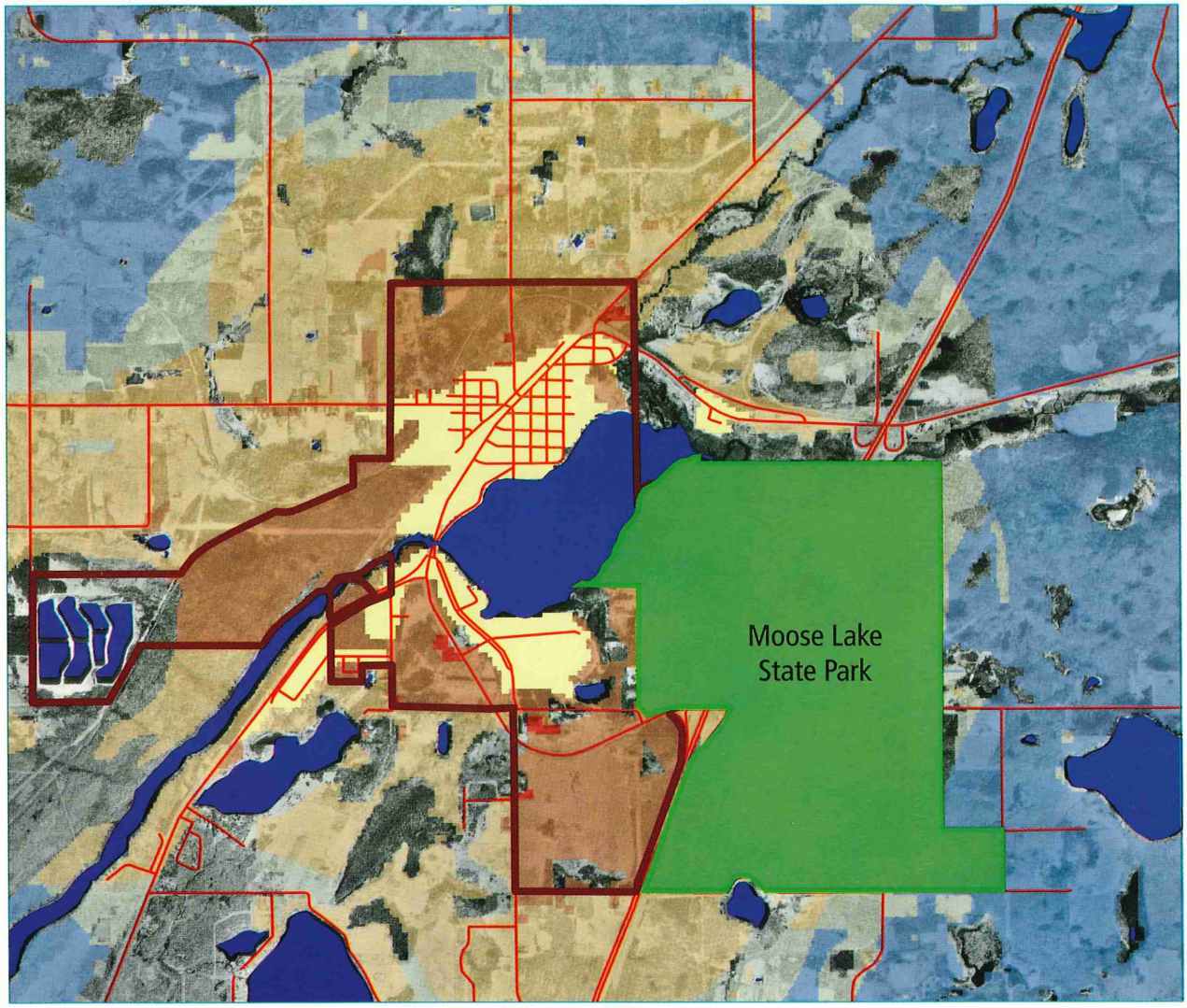
Many factors influence agricultural suitability, including soil fertility, slope, current land cover and location of lakes and wetlands. Communities can use GIS to combine factors and produce maps to stimulate discussions about which areas are most appropriate for growth and long-term agriculture. Minnesota Planning's EPIC software makes this task easy.

WITH GIS COMMUNITIES CAN ANALYZE THE COSTS OF SERVICES



Residential services can consume a large portion of a township's total operating costs, and more people and houses generate demand for more services. The Minnesota Department of Agriculture's DIAMaTR model helps communities evaluate the costs of development to counties, cities, townships, schools and water and sewer utilities.

COMMUNITIES CAN EVALUATE ALTERNATIVE GROWTH SCENARIOS USING GIS

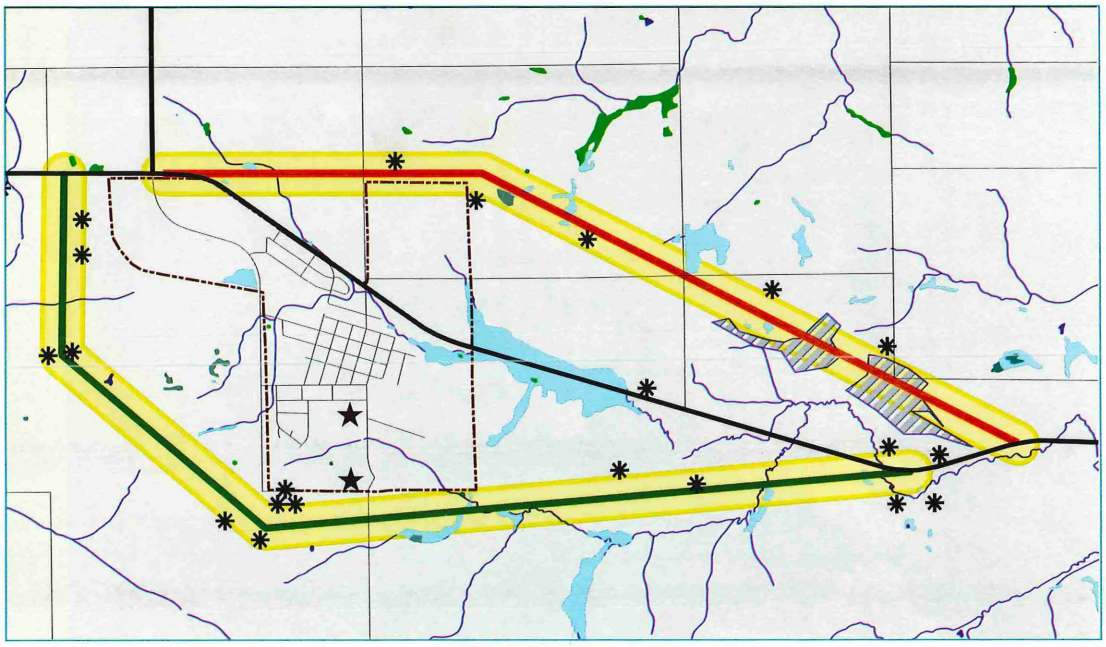


City of Moose Lake
Probable Urban Growth Area

- Not Probable
- Low
- Moderate
- Highest
- City Boundary
- Urbanized
- State Park
- Lake
- Roads

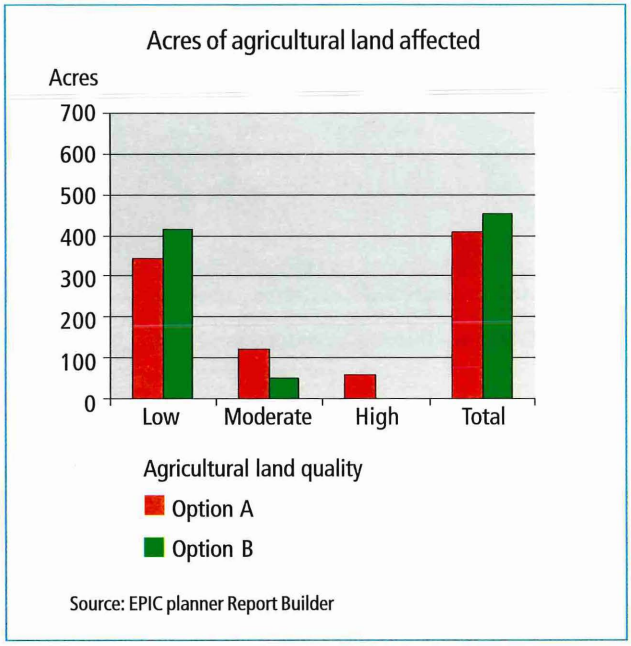
Many factors influence where people choose to live and how a community grows. Some areas are too steep or too wet. Some have been set aside as parks and recreation areas. Some have the roadway access, sewer service and amenities that attract development. With Minnesota Planning's EPIC planner, communities can combine constraints, preferences and desires to map where growth might go and generate discussion about where people want it to go.

GIS HELPS COMMUNITIES TALLY IMPACTS AND WEIGH PROPOSALS



Bypass Options

- A
- B
- County roads
- City streets
- Streams
- School
- Rural dwellings
- City boundary
- Shallow marsh
- Shallow or open water
- Shrub swamp
- Wet meadow
- Wooded swamps
- 500 ft. impact buffer
- Steep slopes



Source: EPIC planner Report Builder

Traffic increases and roadway expansion needs might lead a community to consider a highway bypass of the downtown. EPIC planner allows communities to test options by drawing them on a map and tallying the features that could be affected. Option B would impact 1.8 acres of wetlands, 11 rural residential dwellings and 467 acres of agricultural land. While Option A would impact only .73 acres of wetlands, 5 rural residential dwellings and 403 acres of agricultural land, it passes through 2 acres of steep slopes, complicating construction.

Statutory Authority

This document was prepared at the direction of the Minnesota Legislature in Minnesota Statutes, Section 4A.07, subdivision 2, as follows:

> "Sustainable development for local government.
>
> *"Planning guide.* The office of strategic and long-range planning must develop and publish a planning guide for local units of government to plan for sustainable development, based on the principles of sustainable development adopted by the environmental quality board with advice of the governor's round table on sustainable development. The office must make the planning guide available to local units of government within the state."

Principles of sustainable development for Minnesota

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.

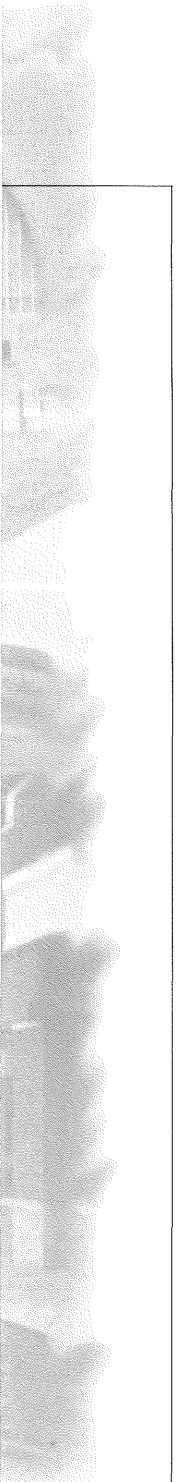
Stewardship. Stewardship requires the recognition that we are all caretakers of the environment and economy for the benefit of present and future generations. We must balance the impacts of today's decisions with the needs of future generations.

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.

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.

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. [Minnesota Round Table on Sustainable Development, 1998.]

The cost to Minnesota Planning for preparation of this report was $68,000.



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