

CHAPTER 6

**SUSTAINABLE DESIGN ASSESSMENT**

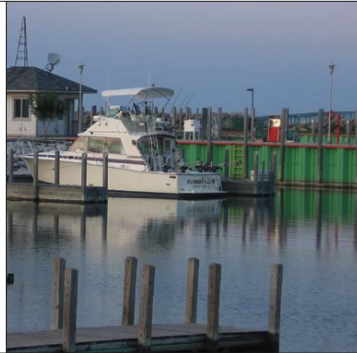


## **6. AMERICAN INSTITUTE OF ARCHITECTS SUSTAINABLE DESIGN ASSESSMENT TEAM REPORT**

### **6.1 INTRODUCTION**

With the support of the Integration Team, the Northeast Michigan Council of Governments applied for a Sustainable Design Assessment Team (SDAT) grant. Administered by American Institute of Architects' Center for Communities by Design, this process included an intensive 3-day site visit by a team of multidisciplinary professionals with experience in sustainability principals. The SDAT team provided input on five issues relevant to the future of northeast Michigan: sustainable vision; economic prosperity; sense of place; environmental resources; and land use. Their report served both to underscore the work of the other assessment teams and to frame the focal issue of access and eco/geo-tourism in a larger economic context.

The SDAT report is appended in its entirety in the following pages.



# Northeast Michigan SDAT

Envisioning a Sustainable Future  
for Northeast Michigan

A Sustainable Design  
Assessment Team Report

**Northeast Michigan**  
**October 3–5, 2006**



**AIA** Center for Communities by Design

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**Northeast Michigan**  
**October 3–5, 2006**

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## EXECUTIVE SUMMARY

Northeast Michigan is a region that has fallen from former pinnacles of economic success and sociocultural prosperity. The engines that powered commerce and generated wealth over the past 150 years are in decline and community spirit has begun to wither. Massive international transformations have marginalized a former way of life and, essentially, bypassed this region.

Recognition, however, begets opportunity. Political, social, and intellectual leaders have recognized this transformation and are beginning to ask the hard question, How does Northeast Michigan reinvent itself for the next century?

This report is part of an ongoing discussion and study. It presents the process undertaken by a team of professionals invited to work with the community, and it includes an attempt to match quantitative data on the past and present with qualitative perceptions of the present and desires for the future.

The report speaks to five significant elements that hold enormous potential for helping effect a viable future:

- Sustainable vision
- Economic prosperity
- Sense of place
- Environmental resources
- Land use

Overlying all of these elements is a single, primary theme: think regionally. To compete and succeed in the future, Northeast Michigan must think of itself as a coherent entity, composed of many diverse and varied parts but unified in its vision of how it fits into the global society of today and tomorrow.

Following this line of thinking, the region must create a sustainable vision for the future; a vision that can be viable in perpetuity. Such a vision derives from a revised understanding of economic prosperity. True wealth is renewable and rechargeable, and this region has abundant resources to help create such a vision. The primary basis for future wealth and vitality are both the myriad environmental resources available within



the region and the historic, present, and future “sense of place” that can describe one’s interventions. Taken together, these elements make it easy to envision a future that balances the natural and built environments into regional harmony and productivity. The means for achieving these goals and for activating the overarching theme of regionalism is a single unified regional land-use plan.

This document presents the five elements and a generalized discussion of how they apply to Northeast Michigan, and how they might be used to help generate a viable and sustainable future for this wonderful and beautiful part of the country. As such, it attempts to tie together the numerous ongoing efforts, both formal and informal, and create a framework for future efforts and activities.

A closing section offers some additional thoughts on how the community can best move forward to address the range of issues and recommendations covered in the report.

# INTRODUCTION

In January 2006 Northeast Michigan submitted a proposal to the American Institute of Architects (AIA) for a Sustainable Design Assessment Team (SDAT) to assist the region and its citizens in addressing key issues facing the community. The issues ranged from concerns about the inability of young people to find educational opportunities and jobs to the sense that the region was not properly optimizing its enormous wealth of natural resources and pristine environmental conditions.

The AIA accepted the proposal and, after a preliminary visit by a small group in August, the SDAT members arrived in Alpena, Mich., on October 3, 2006. For three days, the team members, working closely with local officials, community leaders, technical experts, and citizens, studied the community and its concerns. During those three days, the team came to understand the issues and used its expertise to frame a wide range of recommendations, which were presented to the community in a public meeting on October 5, 2006.

This report is a more detailed version of the findings and recommendations that were presented to the community on October 5.



## What is the SDAT Program?

The SDAT program is an interdisciplinary community assistance program that focuses on principles of sustainability. Launched in 2005, the program represents an exciting new chapter in the AIA's history of supporting communities with volunteer design expertise.

The SDAT program is modeled on the AIA's R/UDAT (Regional and Urban Design Assistance Team) program. While the R/UDAT program provides communities with specific design solutions, the SDAT program provides broad assessments to help frame

future policies or design solutions in the context of sustainability and helps communities plan the first steps of implementation. The SDAT program is based on an understanding of design as a process that

- Is integrative, holistic, and visual
- Is central to achieving a sustainable relationship among humans, the natural environment, and the place
- Gives three-dimensional form to a culture and a place
- Achieves balance among culture, environment, and economic systems

The SDAT program is grounded in the AIA design assistance team values, which call for a multidisciplinary approach, objectivity of the participating team members, and broad public participation.

### **Why is the SDAT Program Valuable?**

Many communities are immobilized by conflicting agendas, politics, personalities, or even the overabundance of opportunity. Many communities have not yet taken stock of their current practices and policies within a sustainability framework, while others have identified issues of concern but desire assistance in developing a plan of action to increase sustainability. The SDAT process ensures that alternative solutions are given a fair hearing and that options are weighed impartially. The SDAT process

- Informs the community of opportunities and encourages it to take action to protect local and regional resources
- Helps the community understand the structure of the place at various scales and contexts—from regional resources to the neighborhood scale
- Explores and articulates the larger contexts and interactions of ecological, sociological, economic, and physical systems
- Visualizes potential futures
- Recognizes and describes the qualities of a place by preserving the best elements of the past, addressing the needs of the present, and planning for the needs of future generations
- Identifies and describes choices and consequences



- Connects plans and actions
- Advances the principles of quality sustainable communities
- Helps the community define the roles of various stakeholders
- Develops a roadmap for the implementation of more sustainable policies and practices

The key to SDAT success is diversity and participation; the process involves multiple disciplines and multiple stakeholders. The SDAT process includes not only the expert team but also government agencies and officials, private businesses, schools and students, community members, and other parties as appropriate.

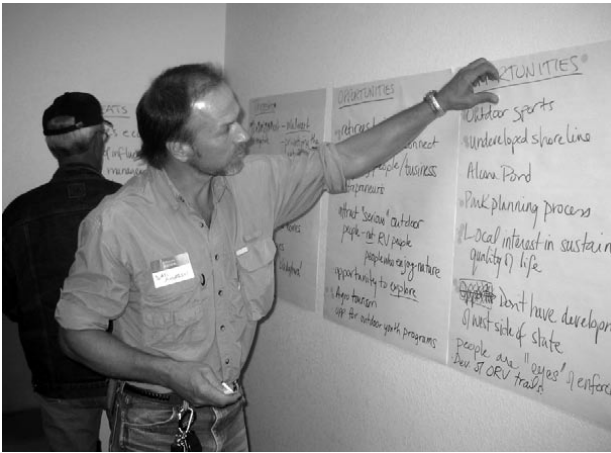
### **Who are the Key Participants in the SDAT Process?**

SDATs bring a team of respected professionals, selected on the basis of their experience with the specific issues facing the community, to work with community decision-makers to help them develop a vision and framework for a sustainable future. Team members volunteer their time to be a member of the SDAT. To ensure their objectivity, they agree to refrain from taking paid work for three years from the date of completion of the SDAT project. A distinct team is assembled for each project based on the project's unique features. The team consists of a leader, five to seven members, and a staff person from the AIA Center for Communities by Design.

The professional stature of the SDAT members, their independence, and the pro bono nature of their work generate community respect and enthusiasm for the SDAT process which, in turn, encourage the participation of community stakeholders. The passion and creativity that are unleashed by a top-notch multidisciplinary team of professionals working collaboratively can produce extraordinary results.

#### *Local Steering Committee*

The steering committee is the key organizing group for an SDAT project. It is responsible for assembling local and regional information, organizing the preliminary meeting and SDAT visit, and generating local media coverage during the entire project. After the SDAT visits, the steering committee typically evolves into a group that is dedicated to implementing the SDAT recommendations.



### *Local Technical Committee*

The local technical committee is the technical support group for the SDAT project, including local design professionals, environmental professionals, economists, and others whose skills and experience parallel those of the SDAT members and who bring with them detailed knowledge of local conditions, issues, and information resources. Their presence magnifies the effectiveness of the team.

### *Citizens*

In the end, the citizens of the community are the critical players, both for their insights and observations during the team visit and for their support for the new directions that emerge from the SDAT process.

On behalf of the Northeast Michigan SDAT and the American Institute of Architects, it is hoped this report will be a useful guide to Northeast Michigan as it charts its future for the coming years and for coming generations.

## A SUSTAINABLE VISION

Northeast Michigan has phenomenal assets. Its natural and built environment and its strong sense of community and fairness are second to none. Its three coastal communities, Harrisville, Alpena, and Rogers City; the region's working landscape; and the natural resources infrastructure that supports those assets are the basis on which to ensure regional sustainability. Focusing on these and other community assets will build economic prosperity that contributes to the environment and the sense of community will attract visitors who will contribute to the region.

### Key Assets and Recommendations

#### *Lake Huron and Thunder Bay*

Few regions of the country have such a beautiful and ecologically rich shoreline.

- Character-defining features: The combination of easy access to the water and, with the exception of those locations immediately adjacent to coastal communities, a generally undeveloped shoreline.
- Primary opportunities: New shoreline development outside existing coastal communities and marinas should be minimized, while providing adequate access and information about cultural (history, shipwrecks, and lighthouses) and ecological resources. Commercial and sport fishing, sailing, motor boating, kayaking, canoeing, diving, snorkeling, swimming, beach activities, or simply strolling along the water's edge can all thrive without new coastal development.



#### *Natural Resources*

The region's renewable resources (wildlife, wood, water, and wind) and mineral resources (limestone and gypsum) support natural systems and the economy and have the ability to do so indefinitely.

- Character-defining features: Resources of great scenic beauty and ecological value exist that contribute to the economy and sense of place.



- Primary opportunities: Valuable ecological resources and vistas should be preserved, but the focus should be on working landscapes. Development outside existing village centers and hamlets should be minimized and large-scale wind power generation should be developed as the newest working landscape.

### *Pastoral Landscape*

The countryside includes productive farmland which supports the economy and makes the region more attractive for residents and visitors.

- Character-defining features: Productive farmland, scenic beauty, small farms, and agricultural resources are often either sold or processed locally.
- Primary opportunities: Farmland from nonfarming-related development should be preserved and a focus on locally sold and processed agricultural products should be increased.

### *Coastal Cities and Villages*

Coastal cities and villages are special draws for residents and visitors.



- Character-defining features: A unique character exists that is not “Anywhere USA.” Strip development, which feels and looks like similar development in every other American community, is still limited. There is a great quality of life and sense of place.
- Primary opportunities: The three primary coastal communities should be enhanced: Alpena as the commercial and medical hub, Rogers City to rebuild some of its downtown vitality, and Harrisville as a village center. Most nonnatural resource jobs should be in these three coastal communities in sustainable niches.

The Sea Grant publication, *Northeast Michigan Integrated Assessment: Connecting Great Lakes Coastal Access, Tourism, and Economic Development*, asks

How can coastal access be designed, in a regional context, for sustainable tourism that stimulates economic development while maintaining the integrity of natural and cultural resources and quality of life?

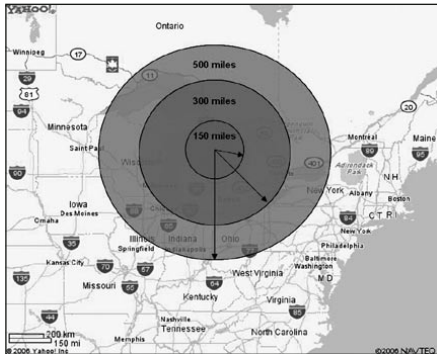
We suggest rephrasing and broadening the question:

How can great communities be designed, in a regional context, for sustainable economic development while maintaining the integrity of natural and cultural resources and quality of life?

Sustainable economic development and the creation of great communities enhances the natural and cultural environment and community. This then attracts visitors and their money. A focus on coastal access and tourism, however, creates conflict over limited coastal and inland resources. Regions that focus solely on tourism face a false choice of tourist-based economic development vs. preservation of a sense of place and a way of life.

## ECONOMIC PROSPERITY

Northeast Michigan's economy has many strengths that will serve it well in the future. The natural resources upon which many jobs are based and upon which the region gets its sense of identity will, if husbanded carefully, be available indefinitely. The incredible lake shore environment, if not overdeveloped or threatened, will continue to make the region a draw for those interested in the outdoors, the quality of life, active vacations, and retirement. The coastal communities are exciting and unique communities.



The distance from major markets, interstate highways, and major airports all limit Northeast Michigan's attraction for many kinds of industry (e.g., weekend tourism, perishable items, distribution centers, and high-volume manufacturing centers). Millions of people, however, live within a 24-hour drive, making the region well suited for certain industries (e.g., value-added agriculture, tourism focused on visitors staying for a week or longer, and retirement living).

Nevertheless the economy is clearly the weakest link in the region's sustainability. Young people are voting with their feet and leaving, and the demographic profile is one of a rapidly aging community. Unemployment rates are lower than in many rural communities but median salaries are slightly higher. Both metrics, however, are significantly worse than the national average.

### Key Recommendations

Given the small size of the economy, small projects and economic changes can make a huge difference in the direction of Northeast Michigan.

#### *Develop a Shared Regional Expectation of the Future*

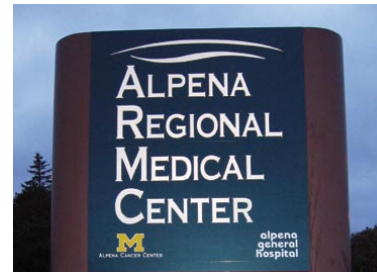
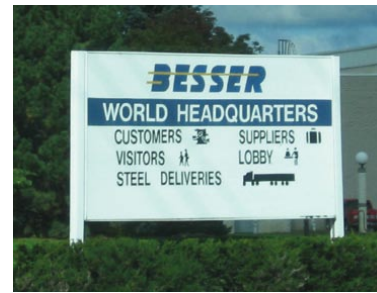
These efforts should build on the current *Sea Grant Northeast Michigan Integrated Assessment* as well as ongoing comprehensive planning in Alpena and elsewhere.

- Seek Michigan Department of Environmental Quality coastal zone management funding to examine economic development opportunities compatible with good coastal zone management practices.
- Hold an honest and realistic regional conversation about what the regional economy needs and address the tough issues. For example, given current trends, can the region accommodate a shrinking population of people under the age of 65 and in those areas inland from the coast?

*Develop Local Programs to Build the Economy*

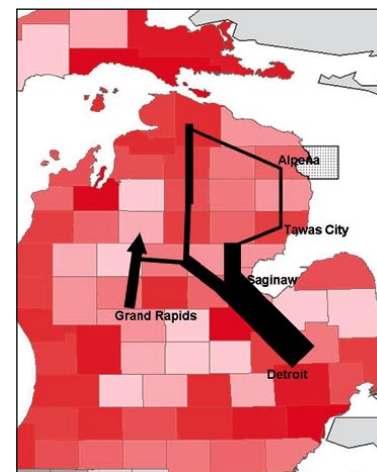
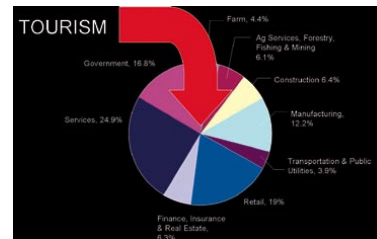
Most job creation in the region will be from businesses, people, and investors who are already in the region, not from outside interests, so the focus should be on those people.

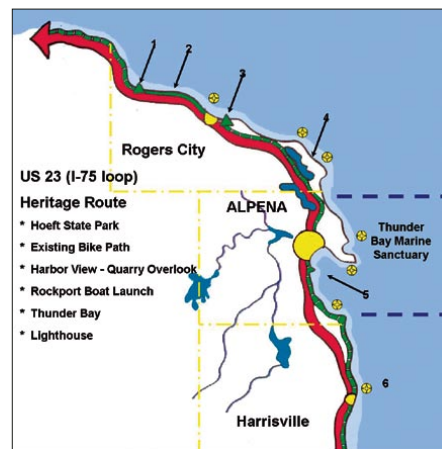
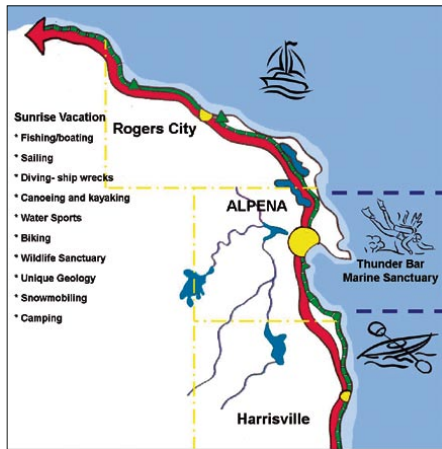
- Create a joint business-calling program. Existing staff at economic development agencies, university extension services, regional planning, and municipal governments should coordinate a business-calling program to ask every major employer and representative of every employment sector what they need to stay in business and expand.
- Develop local financial and information resources. Work with economic development staff, local banks, community development corporations, investors, and Alpena Community College to share information on financing, tax incentives, available property, and training resources. Encourage future entrepreneurs and train them to create and implement a business plan.
- Improve broadband Internet offerings in all three coastal communities.



*View Tourism as One Part of the Economic Mix*

- Expand the amount of business coming to existing year-round businesses. Otherwise, tourism will create low-paying, seasonal jobs that may go to outsiders, produce more vehicular traffic, potentially harm the area’s quality of life, and possibly create new competition for existing local businesses.
- Recognize that visitors who spend their money in restaurants and hotels and on entertainment in the three coastal communities provide new income streams to support local businesses and a way of life; new coastal development away from the community core can be harmful.
- Focus tourist efforts on those who are already driving on Interstate 75 (i.e., Heritage Loop) and might want a more scenic trip and on those who might come for a full-week vacation trip centered on the three coastal communities and the National Marine Sanctuary (“sunrise vacation”).





### *Identify Economic Niches*

- Retain those dollars the community is losing. All jobs are not the same. All economic niches are not the same. A dollar spent at the farmers market, for example, stays in the community and will be spent repeatedly. A dollar spent at Wal\*Mart or on the Internet leaves the community.
- Emphasize local sales to help farmers earn more money and add to regional sustainability. The agricultural sector is critical to the region's sense of place and supports its economy.
- Attract and retain retirees, and their money and community building, in existing coastal communities. Avoid sprawl and the construction of new retirement developments in order to build a sense of community.
- Harness wind resources as a sustainable industry. Industry that builds on regional natural, mineral, and agricultural resources and access to transportation on the lake are sustainable and consistent with the historic employment pattern.
- Place a greater emphasis on processing locally grown, harvested, and extracted materials that can build the economy and job market.
- Create medical-related jobs to retain the majority of health care dollars within the local economy and make the community attractive for retirees and others.

### *Focus New Development on the Downtown Coastal Areas*

- Build a community to which visitors, retirees, and investors will flock. Build Anywhere USA and there is nothing to offer. No strip development anywhere has the character that Harrisville, Alpena, and Rogers City have already. Tourist infrastructure should not be new infrastructure; it's the places where everyone wants to visit and spend money.



Thunder Bay National Marine Sanctuary should be developed as a magnet to draw visitors. It provides a unique experience, built around the Great Lakes marine heritage and shipwrecks that does not exist anywhere else in the Great Lakes. The visitors center's status as a LEED-gold green building, adds to the environmental theme of the site. The sanctuary has the potential to become the single focal point of tourism in the entire Northeast Michigan region. With proper wayfinding, the cooperation of the sanctuary, and adjacent development, the sanctuary and the Fletcher Street papermills redevelopment can entice visitors to stay longer and explore other sustainable activities such as kayaking, canoeing, bicycling, hiking, and exploring downtown Alpena.



Alpena can best capitalize on its historic downtown, the National Marine Sanctuary, and Thunder Bay. This is the place to which retirees, visitors, and new residents who want a full range of city services, cultural resources, and a rich history will flock.



Harrisville can best capitalize on its identity as a strong lakefront village center. A visitor starting a road bicycle trip, a kayak trip, or a lighthouse tour might want to stay in

a Harrisville bed and breakfast, rent equipment from a local store, and eat in a local restaurant. No new business is likely to be created but existing businesses and a home with a bed and breakfast would have an economic gain.

Rogers City can best capitalize on its identity as a small lakefront community. A visitor kayaking or bicycling might want to stay in an existing hotel or a new bed and breakfast and spend money downtown. Existing businesses could rent bicycles and kayaks and sell food. Downtown Rogers City can certainly grow to accommodate more businesses within its downtown or simply focus on more business. The center is well suited for visitors who want to stay longer and retire in town.

**FLETCHER STREET BREWING COMPANY, ALPENA:  
A MODEL OF SUSTAINABLE DEVELOPMENT**

Sustainable development builds existing urban centers and community resources and contributes to a sense of place and community. The development of the former Fletcher Street papermills in the heart of historic downtown Alpena, near Lake Huron, into a brew pub will make a stronger, healthier community and support the rest of downtown.

Fletcher Street Brewing Company could never have been as interesting nor would it have contributed to downtown if had been developed outside a city or town center.

The brew pub is part of a larger sustainable development project developed by Alpena Marc LLC. The larger project started with the Thunder Bay Marine Sanctuary headquarters and visitors center and will eventually include housing, retail, and service. This project will make Alpena and Northeast Michigan a stronger region. The same project located outside of downtown (as is the model with most national park and national forest visitor centers and some marine sanctuaries) could have robbed downtown of its vitality.

In addition to the federal sanctuary investment, an investment of public money, for needed infrastructure and recreation improvements and brownfields cleanup, is leveraging a huge private investment in the overall project. In addition to providing a key downtown investment, the project will get a brownfield site with some hazardous waste releases cleaned up and back into productive use and will create recreation and trail opportunities.

Every dollar spent and every job generated from the project will spin off more dollars and jobs throughout the region than almost any alternative investment. Investing in downtown and bringing new jobs, money, and visitors to the existing urban center is by far the most

cost-effective and sustainable development model. The project is also an example of how one person, in this case the Alpena Marc's CEO, Jeff Konczak, can profitably help make Northeast Michigan sustainable.



## SENSE OF PLACE

Many elements come together to create a “sense of place” for residents and visitors for any particular place. Beyond the natural landscape and environmental features, there are a variety of built elements influencing the sense of place, including the network of public spaces such as parks, sidewalks, waterfronts, and public buildings, as well as the story of a place embodied in historical architecture. Relationships people experience with a place further enrich the sense of place. Those relationships can be defined by scale, safety, and ease of navigation.

Northeast Michigan has already begun to develop the opportunities of the unique Lake Huron shoreline and Thunder Bay features. Continuing the development of the public infrastructure can enhance those natural features that already exist. Gathering places, whether they are parks, plazas, or local libraries, bring the community together fostering pride and a richer identity. These spaces encourage community members to engage in their built environment, to use available resources, and, coincidentally, they can aid to establish important people/space relationships. Cities, villages, and townships have a unique opportunity to assist the development of these important built assets.

Existing vibrant public spaces include

- City and township parks
- Thunder Bay Marine Sanctuary
- Farmers market
- Marinas

On the other hand, existing connections to waterways and the lakefront are underused spaces or opportunities.

Alpena, Rogers City, and Harrisville are three unique urban centers along the Northeast Michigan lakeshore. They provide physical gateways for residents and visitors to engage with the community. They also possess the majority of the architectural resources in the area, which establish a sense of history and collective experience. These elements assist in creating an identity. Community members should strive to make design and planning choices that continually reinforce and develop their unique identity. As noted earlier in this report, none of these urban centers is Anywhere USA.





The quality of unique retail already found in the region should be supported and variety should be encouraged. Organizations such as a merchant’s association can foster positive growth through development of a shared vision. Design guidelines for downtown urban zones can also set a course for positive

growth and the development of good design, which reinforces the identity of a place. “Big box” development should be carefully evaluated to reduce the perception of living in or visiting Anywhere USA. Such “boxes” and chain retailers have a role to play within the regional economy but they should not be allowed to dominate or to diminish the role of traditional indigenous stores and shops.



Signage at the major routes into a community can create a physical gateway welcoming visitors and reinforcing identity to residents. It can immediately identify special characteristics of a place through graphic presentation. What do visitors see when they enter any of these urban centers? Are they welcomed? What are the subliminal cues they receive about the identity of this place and do they tell a positive story? Design does matter.



Gateways need not just be signage, however. More metaphorically, gateways are conduits

to connect people to the community. For instance the Thunder Bay National Marine Sanctuary is a gateway, drawing visitors in to see this national landmark. The sanctuary already is encouraged to serve as a gateway location for other visitor services as well. Communities are being challenged to look introspectively to understand where visitors go in their communities and where they spend their money in a community. Where are opportunities for new visitor gateways?

Also, it is important to realize that “visitors” may include those who are traveling from a smaller rural area, 50 miles or fewer, or those who are truly tourists traveling as part of a multiple-day excursion. Each of these types of visitors may have different needs. If communities first focus on enhancing their spaces for residents and local visitors, their unique, authentic identity will be magnified. Tourism can be a secondary outcome which can continue to be fostered.

Improving traffic relationships can enhance public spaces. Safe routes should be provided for bikes and skateboards as well as pedestrians and vehicles. The Michigan Department of Transportation (MDOT) has developed many programs to assist communities tackle their traffic problems along state routes. MDOT can be used as a resource and catalyst for changing existing traffic patterns.



Protecting the existing historic assets in a community preserves the embodied history that creates a unique place. The built environment tells the story of a community. It can generate community pride and identity as well as tourism. Opportunities to establish a local historic district should be evaluated. Both national and state registration opportunities may exist allowing the advantage of national and state tax credits and grants.



The AIA Center for Communities by Design has developed a set of 10 principles for design to enrich a community's sense of place:

### **Design on a Human Scale**

Compact, pedestrian-friendly communities allow residents to walk to shops, services, cultural resources, and jobs and can reduce traffic congestion and benefit people's health.

### **Provide Choices**

People want variety in housing, shopping, recreation, transportation, and employment. Variety creates lively neighborhoods and accommodates residents in different stages of their lives.

### **Encourage Mixed-Use Development**

Integrating different land uses and varied building types creates vibrant, pedestrian-friendly, and diverse communities.

**Preserve Urban Centers**

Restoring, revitalizing, and infilling urban centers takes advantage of existing streets, services, and buildings and avoids the need for new infrastructure. This helps to curb sprawl and promote stability for city neighborhoods.

**Vary Transportation Options**

Giving people the option of walking, biking, and using public transit, in addition to driving, reduces traffic congestion, protects the environment, and encourages physical activity.

**Build Vibrant Public Spaces**

Citizens need welcoming, well-defined public places to stimulate face-to-face interaction, collectively celebrate and mourn, encourage civic participation, admire public art, and gather for public events.

**Create a Neighborhood Identity**

A sense of place gives neighborhoods a unique character, enhances the walking environment, and creates pride in the community.

**Protect Environmental Resources**

A well-designed balance of nature and development preserves natural systems, protects waterways from pollution, reduces air pollution, and protects property values.

**Conserve Landscapes**

Open space, farms, and wildlife habitat are essential for environmental, recreational, and cultural reasons.

**Recognize that Design Matters**

Design excellence is the foundation of successful and healthy communities.

## ENVIRONMENTAL RESOURCES

Environmental resources is an all-encompassing term that focuses on the health, abundance, and connectivity of an area's land productivity and environmental conditions. For the coastal lake regions of Northeast Michigan, it will be important to focus on several key priorities:

- Renewable energy
- Energy conservation
- Sustainable agriculture

The three-county region of the study area is fortunate to have 157 miles of lake frontage, 964 miles of rivers and streams, and more than 200,000 acres of farmland (as reported in 1997 studies). The study area also has many challenges: polluted air and water from industry, a sagging economy, aging farmers, and perceived and real disconnection to national markets.

### Renewable Energy

#### *Wind*

Michigan is ranked 14th in the United States by the U.S. Environmental Protection Agency for potential for wind energy production. The study area in Northeast Michigan has a great ability to take advantage of this potential due to relatively flat topography and exposed coastal and offshore areas. Tapping into these resources can increase the economic activity and increase energy independence of the region.



Wind energy production in the United States is still in its infancy; therefore, businesses have many choices for where to invest. Businesses are investing in areas that have known resources and that will not have a legal or political battle to confront. Two actions items that can increase the potential of business investment:

- Apply to the Michigan Anemometer Loan Program (MALP). The MALP is a 12-month program to further establish state wind data and promote wind power generation.<sup>1</sup> Program staff installs equipment, monitors conditions, and reports findings of wind conditions for an area. The program is looking for applications in Northeast Michigan, the only region in Michigan not participating in the program thus far.

<sup>1</sup> Michigan Anemometer Loan Program, <http://web1.msue.msu.edu/wind/>.

- Create a wind energy overlay district. A wind energy overlay district identifies specific areas within an agricultural district best situated for the development of wind energy facilities. This will ensure that investors will be able to launch a wind project in the area without redistricting or rezoning procedures.



### *Solar*

Michigan receives 89 percent of the solar radiation per year that Florida receives. This is enough to meet 30–70 percent of the average residential space heating and hot water needs.<sup>2</sup> Diversifying community energy resources not only can save money in operational costs but can increase monies coming into a region through state and federal incentive and grant programs.

- Collaborate with the Hillman Mill Project. Take advantage of the region’s existing demonstration facilities to learn about local solar potential. The Hillman Mill Project is a project of Northern Innovative Communities, a grassroots organization dedicated to assisting the people of northern Michigan in creating economically viable, socially equitable, and ecologically sound projects that foster sustainable communities.<sup>3</sup> The project includes a state grant funded 10-kilowatt photovoltaic demonstration array. Combining this with the Great Lakes Maritime Heritage Center, which is on track to become a gold-certified LEED building, could be part of a green building/renewable energy tour.<sup>4</sup>
- Take advantage of state and federal incentives and grants. Create a relationship with the Michigan Energy Office so that your communities may take advantage of its incentive programs. For example, homeowners can claim up to \$2,000 for installing a solar electric or solar hot water system and public and nonprofit organizations can apply for Community Energy Project Grants for a variety of small demonstrations (up to \$6,000) and also larger photovoltaic electric demonstrations (up to \$50,000).

<sup>2</sup> National Renewable Energy Laboratory, <http://rredc.nrel.gov/solar/pubs/redbook/>.

<sup>3</sup> Hillman Mill Project, [www.northcountrypride.org/gristmill/](http://www.northcountrypride.org/gristmill/).

<sup>4</sup> Great Lakes Maritime Heritage Center, <http://thunderbay.noaa.gov/welcome.html>.



## **Energy Conservation**

Communities that embrace energy conservation increase economic security, environmental value, and quality of life while maintaining similar ends. Individuals and organizations that are direct consumers of energy want to conserve energy in order to reduce energy costs and promote environmental values. Industrial and commercial users also want to increase efficiency and maximize profit. Clearly, energy conservation increases a community's capacity for sustainable living.

One of the most effective ways communities can increase energy conservation, and also one of the most simplest, is by upgrading insulation, windows, and doors. This not only increases the energy efficiency of homes and businesses; it also increases property values. Federal incentives for consumers and/or homebuilders can help to achieve upgrades while adding an income stream to the local economy.

- Take advantage of state and federal incentives and grants. The Michigan Department of Labor and Economic Growth's Energy Office sponsors the Energy Star Home Grant Program to promote the construction of Energy Star-rated homes in Michigan. Licensed residential homebuilders can apply for up to \$8,000 to help construct and market an Energy Star-rated home. The grant period will run from March 1 through December 30, 2007.
- Organize publicity of residential tax credits. Existing homes are eligible for a series of efficiency measures. Taxpayers can take a percentage credit of material costs up to \$200 for windows and storm windows, \$500 for doors and storm doors, \$500 for insulation or roofs, and \$300 for highly efficient heating, cooling, and water heating equipment.

Many of these improvements are already being done in the community, but not everyone is taking advantage of these financial incentives. As stated earlier in the report, small changes can make large impacts to the study area communities.

## **Sustainable Agriculture**

It is also essential to recognize the positive environmental impacts and services performed by small scale and sustainable agriculture, including protecting biodiversity and wildlife habitat, cleansing and purifying water, and providing open space and improving the quality of life. Northeast Michigan grows little of its own food and is

almost wholly dependent on food imported from elsewhere. A short growing season and winter conditions are perceived as fundamental limitations to food self-sufficiency. Thus, existing area agriculture is currently commodity-based and export-oriented, always dependent on markets outside the area or region.

Continuing to focus on commodity production or on just one or two crops appears unlikely to achieve the goal of sustained economic vitality for area farmers and processors. Commodity production, however, can be an effective part of a complete sustainable agricultural portfolio. Suggested actions to be taken include

- Examining holes in the current commodity production and supply chains. Identify where products need intermediate processing, sorting, and/or cleaning. Are there economies of scale that can be reached by creating cooperatives? Examples of cooperatives include grain elevators, fuel depots (alternative or otherwise), distribution networks, small-scale food processing, and quick-freeze or drying operations.
- Diversifying agriculture components. Diversification into niche enterprises will benefit local producers and processors. Consider a suite of agricultural enterprises to provide the breadth and resilience needed for sustainability. A key constraint for most producers is lack of inclination or skill in processing and marketing. An additional constraint is the limited market represented by the 50,000 inhabitants of the three-county region; demand for novel products may be saturated by a limited community.

To address these constraints while capitalizing on the strengths of Northeast Michigan agriculture, it is recommended that the region



- Capture, establish, and support new market demand for Michigan products by increasing exposure and accessibility through the growing “buy local” movement.
- Ensure a value-chain approach that rewards primary producers and processors. For example, co-ops and individual producers/processors ensure value-added benefits make their way back to the producer and processor more effectively.

- Focus on local, branded products such as Sunrise Coast logo cheese, raspberry jam, and grass-fed beef. Expand these products and encourage connections with other distributors to increase market reach.
- Think outside the box. Examine nontraditional value-added products using commodity excess, e.g., potatoes into potato chips. Better yet, combine local heritage with food entrepreneurs, e.g., potatoes to Thunder Bay Vodka.



### *Expanding Local Markets*

Ultimately the most efficient way to feed people is to feed them with local ingredients. This saves fuel costs and other distribution costs. Local markets mean support for local agriculturalists and farmland is preserved because it is being used. However, the most important reason to capture a local market is to create deep relationships between those who eat food and the people and place their food comes from. Options for the region include

- Using state or regional organizations to help facilitate the process and reduce the complications for producers/processors to get their products into the marketplace. For example, Michigan Food and Farming Systems has a Marketline service, a free Web site linking farmers seeking to add or expand marketing opportunities to food buyers. Chefs, produce managers, processors, dieticians, caterers, school food service directors, and others find Marketline to be an easy way to source local, fresh foods.
- Helping to kick start institutional purchasing by setting up a meeting with institutional buyers such as the regional medical center, large restaurants, and school districts and local farmers. Successful projects around the state have started by just getting these people into the same room. A little Michigan wine and cheese often helps!

### *Keeping Farmers Young*

Younger farmers are attracted to boutique farming using sustainable methods and farms that use direct marketing to local consumers. This reemergence of farmer connection in the community can provide a measure of food security and encourage personal interaction at farmers markets and agricultural fairs. A concerted effort could be made to attract young farmers to lease or buy local farmland and receive mentoring from long-time farmers. Michigan State University is becoming an organic farming leader by training many emerging farmers through its successful 48-week Community Supported Agriculture (CSA) program, proving that (similarly shown in the Renewable Energy: Solar section) Michigan gets a significant amount of solar gain that can be effectively harnessed.

It is recommended that the region

- Organize CSA groups to share the risk and the harvest. CSAs are subscription farms where members pay in advance for a weekly share of a farm's fresh produce.
- Recruit, train, and mentor young farmers. This includes actively connecting young farmers with those on their way to retirement.

# LAND USE

## **An Argument for Regional Land-Use Planning**

Based on the previous discussions for the potential for economic development and growth in the region, it is apparent that the landscape and character of the region is one of the most important characteristics that make it a special and marketable “place.” To hold onto this sense of place, the region needs to act as a whole with constant goals and policies. A regional land-use plan could be a powerful tool toward this end and would be a significant step toward preserving and enhancing the unique character of Northeast Michigan.

### *Benefits of a Regional Land-Use Plan*

- It would create a coordinated development plan for the region across all municipalities
- It would create coordinated zoning and land use ordinances for municipalities that have limited resources to create their own plans and enable them to stay ahead of development pressures
- It would create coordinated utility and service plans so that municipalities could maximize their resources budgets
- It would create a legal basis for fighting sprawl and unwanted development that take away from the character of the region



When observing a cross-section of the region, certain specific natural features and land types become apparent. Flood plains, agricultural lands, and low-lying areas are along the coast, and there are centers of development. This pattern is directly connected to the environmental and cultural framework of the region. For example, farms exist on rich soils with low property value and development occurs adjacent to good vehicular

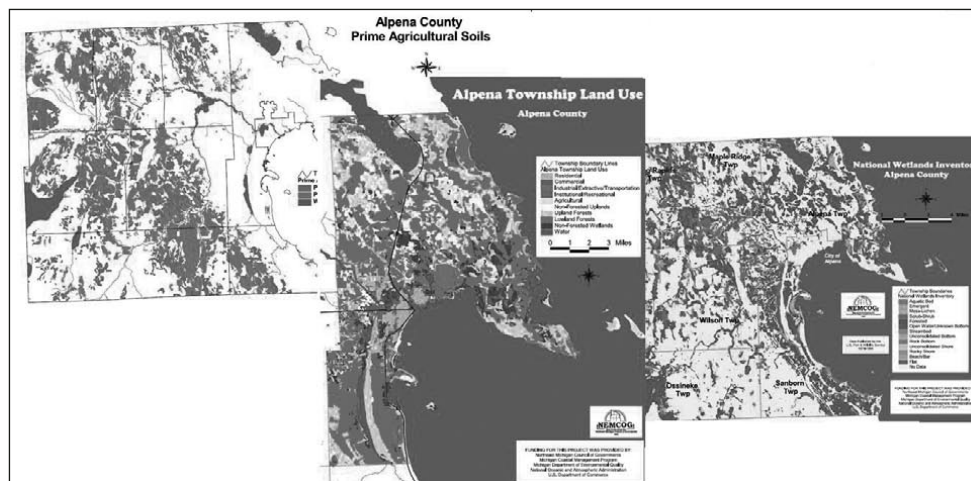
access and scenic amenities such as the lake. To preserve and enhance this character and to limit unwanted development in the future, a regional land-use plan should consider the following goals:

- Focus development in cities and villages to reduce suburban sprawl
- Keep working landscapes productive
- Preserve and enhance coastal access and views for all visitors and residents
- Manage inland natural areas for habitat and environmental resource protection

### Creating a Regional Land-Use Plan

The first task in developing a regional land-use plan may be to define what the region is. There are certain policies that would be beneficial to all communities along the Sunrise Corridor of U.S. 23. On the other hand, working with too large of an area could make it difficult to gain consensus. In general, communities with similar physical features and economic interests and communities that depend on cooperation with one another would be candidates for inclusion in the plan.

The second, and perhaps most crucial, step would be to develop an inclusive process by gathering input and feedback from all stakeholders, major property owners, and municipalities and creating an action team made up of representatives from each major municipality.



The third step would be to analyze the data that exist related to natural resources, prime agricultural lands, land ownership, development patterns, and vehicular access. These data will be the benchmark for a discussion about the region's values for future development and character.

Finally, through this process, create a series of land use types and associated policies that can be adopted by each municipality to form a cohesive land-use plan for the region. Depending on support for the effort, the range of policies can vary to meet the interests of the stakeholders. On one end, the shared policies could be broad and more along the lines of consensus goals and guidelines. On the other end, the shared policies could be in the form of a shared zoning code that has legally binding requirements to shape development and land use. In relatively rural areas such as Northeast Michigan, a shared set of policies and perhaps shared regulatory body could take much of the administrative burden off over-taxed municipalities.

### A Sample Regional Land-Use Plan

To help illustrate and frame the discussion of what a regional land-use plan might look like, the following plan has been created to represent a series of possible land-use types and the policies that could be implemented with each to ensure their sustainability in the future. The pattern of land use shown on the map is a simplified representation of a possible regional land-use plan. In other words, this is one way to break down the region at the most general level.



#### *Working Landscapes*

(may include prime farm lands and forested areas)

Potential concepts:

- Require low-density development with limited services
- Divest public-owned lands that do not contribute to natural resource protection and/or recreational opportunities
- Maintain private ownership in farmsteads
- Encourage managed forestry production





### *Coastal Corridor*

(may include areas adjacent to the U.S. 23 corridor)

Potential concepts:

- Require low-density development with restrictions on percentage of development frontage
- Provide limited public services
- Require visual impact mitigation
- Preserve views to the lake



### *City/Village/Hamlet Centers*

Potential concepts:

- Encourage compact, mixed-use development
- Provide a high level of public services and amenities
- Provide a mix of housing types
- Develop as nodes along U.S. 23 corridor



### *Sensitive Resources*

(includes wetlands, habitat corridors, and stream corridors)

Potential concepts:

- Provide regionally attractive recreation opportunities
- Restrict future residential and commercial development
- Encourage public acquisition
- Encourage stewardship of privately owned lands



## **Other Items to Consider**

### *The U.S. 23 Sunrise Side Coastal Highway Management Plan*

The recommendations brought forward with the Sunrise Side plan are a great start to help produce a more coherent regional identity. Some of the recommendations the SDAT thought should be given priority are

- A coherent signage and wayfinding plan from I-75 as well as on the U.S. 23 corridor
- A series of visual impact mitigation guidelines for private and public lands
- The nonmotorized activities such as a bike plan that would extend the user groups to the corridor

The team also thought there is the opportunity to think about the corridor as a way to extend infrastructure to the region, especially high-tech infrastructure such as fiber optics.

### *State Land Management*

In the short format of the SDAT, it was not possible to establish specific recommendations for the publicly owned lands in the region. However, the team has the following recommendations on how to approach their evaluation:

- Focus resources based on actual need by determining what areas need what facilities for specific user groups
- Manage land to specific user groups locally and regionally and create a plan to respond to future growth while managing today's actual needs
- Manage lands to protect resources based on sensitivity

## MOVING FORWARD

The discussions presented here and the ideas and potentials they generate represent a framework for addressing the future of the Northeast Michigan region. Not every idea suggested in this document is fully applicable to the region, nor is it anticipated that each and every recommendation will be applied as described.



The keys to the rejuvenation of Northeast Michigan are found in the five broad categories, and are already embodied in the central element upon which this SDAT report is grounded: think regionally.

Northeast Michigan is a region whose fundamental economic and social foundations have been shaken. The economy that helped this area thrive over the past 150 years has disappeared. The social and cultural vitality that attended this prosperity is withering. The challenge before the communities is to work together; to build upon existing resources; to carefully assess available strengths and contrast them with the demands of a new regional, national, and international market; and to devise a coherent program for matching strengths to demands in a renewable fashion.

### **Sustainable Vision**

Is there a vision for the region as a whole that can not only reverse current declines but provide the basis for renewed and renewable vitality, moving forward, in perpetuity?

### **Economic Prosperity**

Can the region move away from the extractive economies of the past century to a more balanced and renewable source of income that not only builds up on existing assets but, at the same time, replenishes these assets, even as they help create wealth?

### **Sense of Place**

Is there a way of accentuating the existing natural and built features of the region, thereby further highlighting the uniqueness of Northeast Michigan in distinct contrast to many other regions in the country that are similarly trying to address macroeconomic and sociocultural transitions?

## Environmental Resources

The history of Northeast Michigan describes society's attempt to gain access to indigenous environmental wealth, primarily through extraction and processing of these resources. Can a program be established that similarly uses these resources to create wealth while, at the same time, replenishing and nourishing the very resources themselves?

## Land Use

Can the communities of Northeast Michigan think regionally, not simply at the conceptual level, but at the detailed level of creating formal policies and programs for addressing future growth and change in a way that streamlines administrative issues, unifies an overarching strategy, and creates a distinct and achievable vision of the future?

The answers to all five of these generalized questions are clearly in the affirmative. In the past decades, Northeast Michigan began to enter a period of significant decline. Working together, this decline can be stopped and reversed. A variation of the prosperity that blessed this region in the past can be formulated and achieved. This short document represents one small piece of this effort at regional rejuvenation. As such it discusses a generalized future in terms of these five key elements, sketching out options and ideas for achieving a viable future for the region. The discussion of each element in this document includes a wide variety of recommendations and potential future actions. In some combination, these actions and programs represent an achievable long-term vision for success. The challenge, going forward into the future, is to determine the appropriate combination of efforts and to work collaboratively and collectively toward implementing the programs and activities essential to not only reversing current declines but to lead Northeast Michigan back to prominence and sustainable vitality.



## Appendix: SWOT Analysis

The Northeast Michigan SDAT led participants through a structured analysis of the region's strengths, weaknesses, opportunities, and threats (SWOT). A SWOT analysis is a technique for collecting qualitative information about current conditions and future potentials associated with a defined situation. The technique originated in organizational management associated with businesses and corporations but has been successfully applied to a wide variety of situations.



The SDAT met with community representatives in Rogers City, Alpena, and Harrisville. Each meeting adhered to the same format and each included a structured SWOT exercise. At the end of the SWOT discussions, participants were asked to review all of the strengths, weaknesses, opportunities, and threats that had been listed. The lists often ran to more than 20 distinct items per category.

Each participant was then asked to highlight two items in each category that he or she thought were the most important issues with respect to the overall situation in northeastern Michigan. In this way, the SDAT was able to not only see the full range of issues and concerns, but also was able to hone in on those issues that are seen by the local constituents as the most important.

The results of the three SWOT workshops were combined and are summarized below.

### Strengths

Strengths are those elements and attributes of the current situation that make it successful or viable or which have the latent potential to do so.

#### *Community*

- Quality of life (4)
- History (3)
- Heritage/culture (2)
- No traffic (1)

- Safety/lack of people (1)
- Sense of community (1)
- Walkable community (1)
- Lack of regulation (1)
- Skate parks (2)
- Community college (1)
- Airport (1)

Other significant items that were nominated by more than one person but were not ranked as most important:

- Schools (2)
- Library (2)
- Northern Lights Arena (2)

#### *Environment*

- Clean water, air, rivers, and lake (14)
- Woods, forests, and water (11)
- Natural resources (12)
- Beauty of nature (6)
- Public waterfront (1)
- Recreational opportunities (6)
- Marine sanctuary (1)
- Scuba diving (1)

Items that were nominated by more than one person but that were not ranked:

- Boating (3)
- Fishing (2)

#### *Economy*

- Agriculture (3)

## **Weaknesses**

Weaknesses are those attributes or characteristics of the current situation that take away from its viability or otherwise hamper the overall success of the region.

### *Community*

- Not a destination (2)
- “Penned in”–too many people (2)
- Declining school population (2)
- No technical infrastructure–Internet and cable (2)
- Infrastructure (1)
- Resistance (fear) of change (5)
- Negativity (2)
- Lack of public awareness of strengths and uses (1)
- Lack of higher education opportunities (3)
- Night life is lacking or limited (2)
- Limited cultural opportunities (1)

### *Environment*

- Tuberculosis in deer herd/quarantine (4)
- Enforcement of (alleged) park abuses (2)

### *Economy*

- Lack of family-supporting jobs, especially for young people (8)
- Underdeveloped tourist destination (7)
- Lafarge and other industries on the shore (5)
- Underemployment (5)
- Fishery decline (4)
- Lack of opportunities for young people (3)
- Lack of jobs (2)

- Low income/wages (2)
- Decline in corporate involvement (1)
- Need medical service/community (1)

The discussion of weaknesses is dominated by the real and perceived problems with the local economy and, by extension, its impacts on the local community life. One element of this discussion highlights the fact that even within the region there are clear distinctions among the different communities. Many attendees at one of the workshops felt quite strongly that one of the problems with the current situation is that there are too many people, tourists and residents, and that the region is losing its distinctly rural feeling.

### **Opportunities**

Opportunities are those elements or potentials within the region that are currently underdeveloped but which, if tapped, present the capacity for future success.

#### *Community*

- Development of tourist attractions (5)
- Local interest in sustaining quality of life (4)
- NOAA and sanctuary (3)
- Maritime heritage (2)
- Cruise ship (2)
- Year-round tourism development (not just for summer) (2)
- Equal development of east and west sides (2)
- People are the “eyes” of enforcement (1)
- Senior-related services and housing (1)
- Entrepreneurial spirit (1)
- Amusement, i.e., water park (1)
- Bike path at Squaw Bay (1)
- Tourism outreach (1)

### *Environment*

- Outdoor sports (11)
- Eco-tourism (4)
- Undeveloped shoreline (3)
- Attract “serious” outdoor people, not RV people (2)
- Opportunities to explore (1)
- State park planning process (1)
- More use of public lands (1)

### *Economy*

- Value added agricultural products (5)
- Agro-tourism (4)
- Retirees bring skills and experience, connect with young people/business entrepreneurs (3)
- Industry based on regional resources (3)
- Brochures for marketing (graphics project) (2)
- Develop state lands; work with local government (2)
- Affordable housing to fill (2)
- Using deep water ports (1)

Opportunities can be found almost equally within all three of the primary categories. The community can build upon its new and existing cultural resources, as well as upon the myriad natural resources that dominate the region. The economy can be diversified to build up on its existing agricultural heritage as well as other regional resources.



## **Threats**

Threats are those elements or potentials impacting the current situation which can, if not addressed, hinder the ability to move forward successfully or lead to the worsening of the current situation.

### *Community*

- Lack of regional cooperation (6)
- Drug/alcohol problems among young people (6)
- Lack of political clout (3)
- Not being selective with development (2)
- Complacency (2)
- Changes in retail that don't support downtown (1)
- TV, video, computers, and Internet (1)
- Declining school enrollment (declining population) (1)

### *Environment*

- Invasive species (4)
- Lake levels/quality (1)

### *Economy*

- Michigan economy (10)
- Misdevelopment (Wal\*Mart, privatizing the waterfront) (9)
- Lack of influence and input in land management (8)
- Lack of government funding (6)
- Corporations/big business (6)
- Fuel prices (3)

Threats are attributed primarily to exogenous economic factors, the state's economy, and the nature of large-scale national development, as well as to the continuing deterioration of the community's social fabric. This category reveals an underlying sentiment that some of the current situation may be beyond the control of the local inhabitants.

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