Green infrastructure, as we define it, comprises the capital-like base natural resources and amenities that are required for the current and future functioning of an economy and that are foundational to prosperity. Increasingly, this class of assets is being viewed as critical to future economic development, especially for a state, such as Michigan that has significant natural features. In the New Economy, economic activity is increasingly mobile, in search of amenities. So, to the extent to which natural amenities attract economic activity, they are considered to be a part of the essential mix of infrastructure needs for prosperity. Should we begin to think about the critical natural infrastructure that will form part of the basis for the New Economy?

Green infrastructure is attractive to most segments of the population (see Adelaja et al., 2009). Knowledge workers often prefer places with abundant and easily accessible green infrastructure. The age 65 and older demographic are strongly attracted to quiet landscapes with water, forest and open space amenities. The age 36 to 64 group like walkable communities with parks and other recreational opportunities. The age 24 to 35 demographic enjoy dense communities with integrated green infrastructure and recreational opportunities, such as biking, boating and sports. Is it possible to begin to manage these assets creatively to target the economic goals of our regions?

What is the role of green infrastructure in the New Economy? Green infrastructure can be positioned to selectively attract different segments of the population. Mobile assets place significant value on recreation and green infrastructure. Green infrastructure becomes part of the persona of a place, but it is hard to create such a persona if the fixed natural assets are not present to begin with. Michigan has abundant green infrastructure assets, except in some of our larger cities, where arguably, they are most needed.
Michigan has the second most diverse agricultural industry in the United States, and agriculture is often argued to be the second largest industry in the state (Peterson et al., 2008). Agro-tourism can, and does, help the economy in various regions within the state, including the Fruit Belt in the western Lower Peninsula. Agricultural land is concentrated along the southern border of the state, in the Thumb areas, in West and Central Michigan and the northwestern Lower Peninsula. Michigan specializes in various fruit crops, including apples, blueberries and cherries, which have high-value and can be marketed widely outside of the state and the country. Sugar beets, navy beans, Christmas trees, Easter lilies and a host of other specialty crops are grown along with wheat, corn, soy and potatoes. The absence of regional agricultural visions and plans in many parts of Michigan is a stumbling block to realizing the promise of agriculture and its economic potentials.

Agricultural Land Area

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.

Forest Land Area

Forested land supplies lumber, paper and furniture products, as well as the opportunity for recreational activities and a variety of other quality-of-life features. This natural resource can be sustainably managed to provide a host of intergenerational benefits. Hiking, camping and other outdoor activities in Michigan’s forests are popular with state residents and tourists, but the potential exists to create a greater draw of out-of-state residents and tourists if this asset is positioned well. Forest land has the potential for the development of cellulosic ethanol production, nutraceuticals and other emerging products. Increasingly, studies are demonstrating that forested land is an attractive asset in the lifestyles of key demographic groups. Forest land dominates much of the landscape in the Upper Peninsula and the northern Lower Peninsula.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
All Michigan communities either have Great Lakes shoreline, or are, at most, approximately a two-hour drive to one of the Great Lakes. Michigan has more freshwater shoreline than any other state in the country. Great Lakes shoreline is good for tourism, and property values along the coast are high because of residential, recreational and tourism demand. Every year, people from inside and outside of Michigan access the coast for recreation. Many people like to have their homes on or near the coast. The shoreline also provides access to international shipping for the import and export of goods. The Great Lakes are the largest concentration of freshwater in the world, comprising 20% of the world’s surface freshwater. Aligning this asset with other assets at the regional level can create opportunities for Michigan communities.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
Inland Lake Area

Most Michigan residents are within an hour’s drive of a one-square-mile or larger inland lake. Michigan's inland lakes are used for recreation, and many people have homes on the lakes for the beauty and ease of access. Greater inland lake area often translates into better fishing and other recreational opportunities. There is significant potential to promote such opportunities in the context of specific places and regions. Inland lakes cluster at the edge of the northeastern Detroit Metro area, along the northwestern and southwestern Lower Peninsula and in many parts of the Upper Peninsula. Preservation of their water quality is essential for long-term management.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
People are attracted to inland lake shoreline as locations for their homes. Inland lakes are a Fixed Asset and enhance the local economy by providing access for residents and tourists. Many lakes have irregular shorelines, which greatly increases the length of the shoreline and the number of potential homes along them—especially in southeastern Michigan. With more than 10,000 inland lakes, Michigan, like other northern lake states, is abundant in this recreation-rich asset. Michigan communities could better market inland lakes as destinations, along with the surrounding Great Lakes.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
Michigan has more than 300 named rivers, while some states are limited to a few. Many families prefer to locate their homes on the riverfront and, as a result, such properties are of relatively high-value. Michigan has 36,350 miles of rivers and streams. Some of the best-known rivers in the state are the Au Sable, Two-Hearted, Flint, Muskegon and Tahquamenon. Rivers also provide opportunities for various types of outdoor recreation, thereby enhancing the experience of nearby residents and tourists. Rivers are fairly well-distributed in the state among rural and urban areas. Many rivers in urban areas are not as accessible because of pollution and other degradation. Enhancing and promoting riverfront areas can make both urban and rural places more attractive to prospective residents and tourists and provide a nice setting for those already living in and enjoying the area, especially when done regionally. It is important to keep the rivers clean, so as to not degrade their natural functions and the recreational and tourist opportunities that they can provide.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
Marinas connect people to Michigan’s water splendor by providing boating access to Michigan’s Great Lakes, inland lakes and rivers. When planned for in the context of other assets and a social and economic vision, marinas can be useful in enhancing the positioning of our communities as places where people want to live and visit.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
Open space includes various land cover types, such as agriculture, forests, grasslands and so forth. It is immediately apparent from this map that open space is evenly distributed throughout Michigan. In fact, the state is a leader in the country in this respect. How we best utilize this asset, while also protecting its intrinsic value, is a discussion worth having as we consider new economic strategies in our regions. Where is open space lacking and how can it be enhanced? How do we align preservation goals with the visions for place and regional persona? Planning at the regional level can help achieve more than is being achieved by communities working independently.

Sources:
Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.
Parks and preserved land provide recreational opportunities and access to nature. Urban parks have a different character than rural parks, but can provide those who live in cities a nice place to commune, exercise and enjoy the outdoors. Michigan has one of the largest portfolios of state-owned land in the nation; the largest east of the Mississippi. Significant preserved and parks land exists in the northern Lower Peninsula and the Upper Peninsula, as well as pockets around such urban areas as Detroit and Grand Rapids.

Making Michigan’s parks and preserved land destination points for out-of-state visitors will enhance the state’s position in tourism and can entice people to move to the state. This is difficult, since the competition comes from national destination parks, such as Yellowstone, the Great Smoky Mountains, Acadia, the Grand Canyon and Yosemite. Michigan’s parks are truly unique, and if well-positioned, could pull in larger numbers of national and international visitors than they have historically. Access is key to achieving this goal, and creating more parks in and near urban areas is one way the goal could be accomplished. Branding and promotion are also important.

Sources:

Michigan Center for Geographic Information, “Minor Civil Divisions, dissolved version 7b” [Shapefile], 2007. Available at: http://www.mcgi.state.mi.us/mgdl/.

Parks and Preserved Land

Square Meters

- 0 - 5,741
- 5,742 - 18,261
- 18,262 - 38,875
- 38,876 - 72,758
- 72,759 - 126,864
- 126,865 - 250,262
- 250,263 - 490,473
Summary

Green infrastructure assets were considered to be relevant largely for the purpose of production in the Old Economy. The role of green infrastructure in the New Economy is not so much as an ingredient for production, but as a quality-of-life feature that attracts knowledge infrastructure and other portable assets that are increasingly important in economic development. Michigan is rich in green infrastructure assets, especially in rural parts of the state. Such assets can form the basis for critical industries, such as tourism, agriculture and renewable energy development. That Michigan is rich in these assets and provides a comparative and competitive advantage to other places is encouraging. The challenge to state and regional policy makers is how to leverage their knowledge of green asset endowments in mounting a strategy for regional and state prosperity.