

Picture Michigan Tomorrow

Translating land use modeling into things that matter to Michigan's future

Why Picture Michigan Tomorrow?

The MSU Land Policy Institute with funding from the W.K. Kellogg Foundation's People and Land program has launched a new initiative, Picture Michigan Tomorrow. The heart of this new initiative is developing new models of Michigan's land use future to raise understanding of what the state will look like in the future. More than just using computer modeling to paint pictures, we are committed to translating those pictures into things that are important to people.

Part of this process is taking a closer look at Michigan's future with the goal of articulating the economic, ecological and social problems related to land use in more accessible terms, with less jargon, and fewer abstract concepts. The future of land use in Michigan is the key to the state's future economic health, quality of life, and ecological sustainability.

The core objective of Picture Michigan Tomorrow is to develop land use forecasts using computer modeling, then, more importantly, to translate those forecasts into things people care about. This is at its heart a strategic planning and outreach initiative, which will strive to deliver clear pictures of Michigan's land use future to the state's stakeholders. Picture Michigan Tomorrow Project will build a robust, scalable, econometric model of future land consumption in Michigan. This model will incorporate the history of land use change, the primary drivers of land use change in Michigan, and new aerial imagery to forecast the future land use patterns. The outputs will be both spatial and statistical forecasts, scaleable to the municipal level. Those forecasts will then be used to develop detailed reports on the impacts of land use change to federal, state, and local decision makers. The decision makers will also be able to look at multiple planning scenarios to evaluate the impact of policy changes. This effort will form a foundation for understanding land use change in Michigan and a hierarchical planning and visualization tool for local, regional, and state planners, well as provide data and analysis to the research community.



MSU Land Policy Institute

| Picture Michigan Tomorrow | |
|--|--|
| Michigan State University Land Policy Institute Soji Adelaja, Director www.landpolicy.msu.edu E-mail: mail@landpolicy.msu.edu Address: 317 Manly Miles Bldg. East Lansing, Michigan 48823 | Leadership Team Soji Adelaja, LPP Bill Rustem, PAL Jessica Moy, RSGIS Stuart Gage, CEVL Larry Leefers, Forestry |

“The 37 million acres that are Michigan is all the Michigan we will ever have...”

- Michigan Governor

Picture Michigan Tomorrow

Translating land use modeling into things that matter to Michigan's future

What's new about Picture Michigan Tomorrow

This effort differs from past predictive efforts in several ways:

- The Michigan Aerial Imagery Partnership (MAIP) — a partnership of seven state agencies and the MSU Land Policy Institute and Remote Sensing & GIS Research and Outreach Services - was recently established to acquire critical statewide aerial imagery for the first updating of statewide land cover/land use data since 1978. This imagery will give Michigan comprehensive current land use data as a base line for modeling the future.
- PMT is building a stronger, more accurate, flexible model than in previous efforts. This modeling environment will allow decision makers and researchers to explore “What if..?” question in a manner not currently available.
- Picture Michigan Tomorrow is a “soft walled” initiative, the data and modeling environment will be easily accessible to researchers and policy makers in an effort to truly impact Michigan's future with science based strategic planning.
- This initiative is also actively seeking collaboration with researchers and land use professionals to build a collaborative rather than competitive environment. This approach will yield the maximum for Michigan's future as well as project partners.

The Core of Picture Michigan Tomorrow is the commitment to translate scientific efforts into good land, economic, fiscal, and environmental decision making.



“The condition of our water is a direct reflection of our use of the land.”

- Aldo Leopold

Picture Michigan Tomorrow

Translating land use modeling into things that matter to Michigan's future

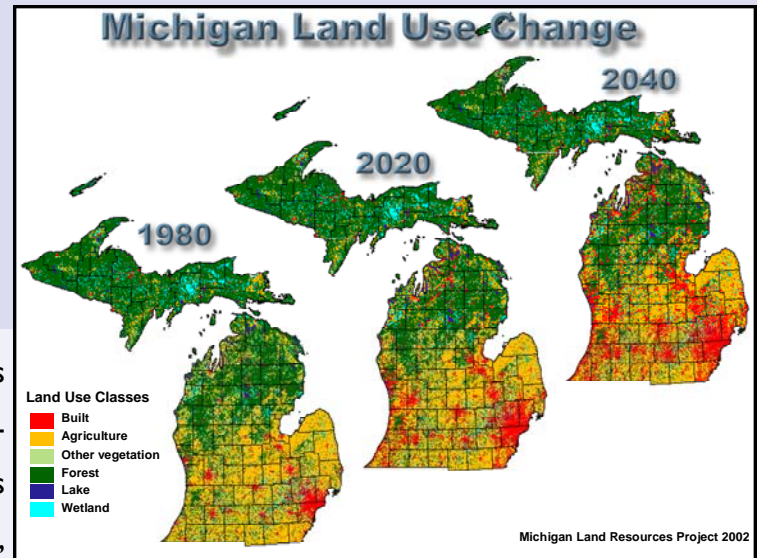
Past Efforts and Successes in Land Use Modeling in Michigan

In 2001, a team of researchers from Michigan State University, in conjunction with Public Sector Consultants and the Planning and Zoning Center,

developed the Michigan Land Resource Project, with funding from the W.K. Kellogg and the Frey Foundation. A land consumption model was developed for the state of Michigan. These projections show a potential scenario of land development.

This project contributed to the work of The Michigan Land Use Leadership Council, and spurred follow up projects like the Michigan Tipping Point Project (<http://www.cevl.msu.edu/pages/lulc/peopleland.htm>) funded by People and Land. The Tipping Point Project looks at what shifts are upcoming in Michigan's economy due to land use change.

Remote Sensing & Geographic Information Science Research and Outreach Services (RS&GIS) has a long and distinguished history of involvement in land cover/land use issues throughout the State of Michigan. The MSU Remote Sensing Project (the precursor to RS&GIS) began as a NASA- funded research project – Project for the Use of Remote Sensing in Land Use Policy Formulation. MSU's Remote Sensing and GIS outreach service has developed protocols and procedures for land use and land cover change analysis, and outreach delivery. The standardized land cover/land use update procedures developed by RS&GIS are now being employed by other organizations performing land cover/land use updates. RS&GIS teaches biannual workshops on aerial image interpretation and its application to land cover/land use updating.



***“The conservation of natural resources is the fundamental problem. Unless we solve that problem it will avail us little to solve all others.”
- Theodore Roosevelt***

Picture Michigan Tomorrow

Translating land use modeling into things that matter to Michigan's future

The Picture Michigan Tomorrow Project Team

Soji Adelaja, Principal Investigator, John A. Hannah Distinguished Professor in Land Policy. Director, MSU Land Policy Institute

Bill Rustem, Co-Principal Investigator, Kellogg Foundation People and Land

Charles McKeown, Co-Principal Investigator, Picture Michigan Tomorrow Project Coordinator, MSU Land Policy Institute

Jessica Moy, Co-Principal Investigator, Director Remote Sensing and Geographical Information Science Research and Outreach Center

Stuart Gage, Co-Principal Investigator, Professor MSU Entomology. Director, Computational Ecology and Visualization Laboratory MSU.

Larry Leefers, Co-Principal Investigator, Professor MSU Forestry

Manuel Garcia, Participating Investigator, Computational Ecology and Visualization Laboratory, MSU

David Lusch, Participating Investigator, Research Specialist, Remote Sensing and Geographical Information Science Research and Outreach Center

Mary Beth Lake, Participating Investigator, Associate Director, MSU Land Policy Institute

MSU Land Policy Institute

| Picture Michigan Tomorrow | |
|--|--|
| Michigan State University Land Policy Institute Soji Adelaja, Director www.landpolicy.msu.edu E-mail: mail@landpolicy.msu.edu Address: 317 Manly Miles Bldg. East Lansing, Michigan 48823 | Leadership Team Soji Adelaja, LPP Bill Rustem, PAL Jessica Moy, RSGIS Stuart Gage, CEVL Larry Leefers, Forestry |



“Land use is often considered a topic that covers a complicated maze of interrelated issues—and it is. The complexity of land use issues makes them hard to understand, but it is important to try because land use decisions shape the communities we live in and our opportunities for the future.”
-Michigan's Land Michigan's Future. Final Report of The Michigan Land Use Leadership Council