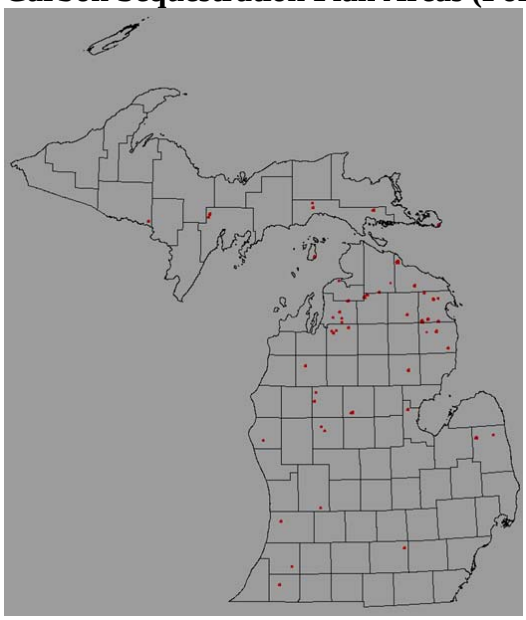
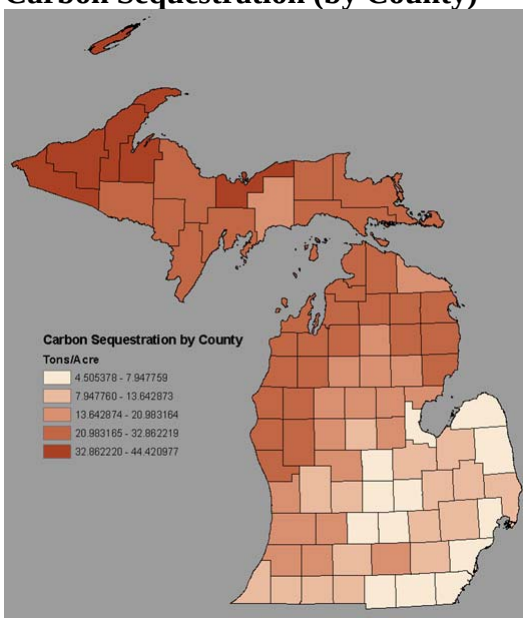
Details regarding 2008 Farm Bill Forest Resource Assessment GIS layers
These layers are in no particular order.

Carbon Sequestration Plan Areas (Forest Stewardship Plans)



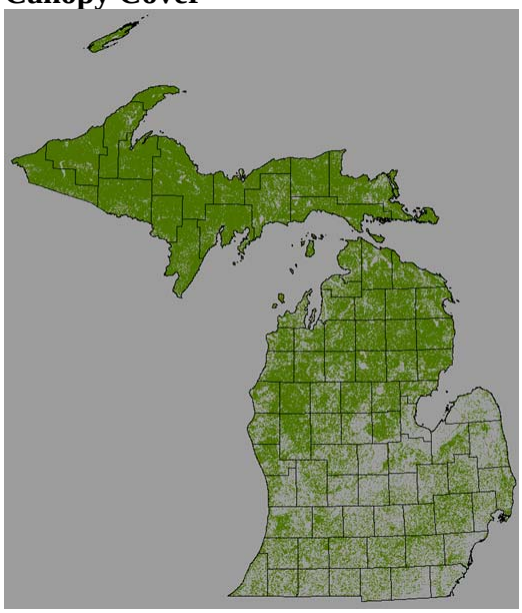
Layer created internally from Forest Stewardship database.
Very small polygons (as opposed to points)
Creation date: Nov. 2009

Carbon Sequestration (by County)



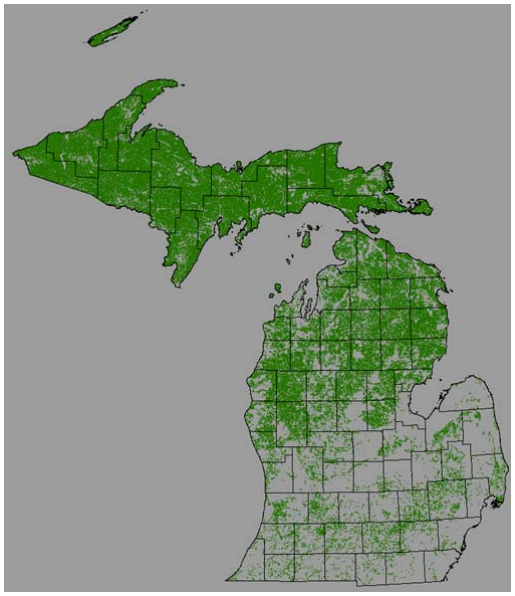
Layer created internally from USFS Evalidator Tool online.
County sized polygons (County scale)
Creation date: Nov. 2009 from 2004 FIA data

Canopy Cover



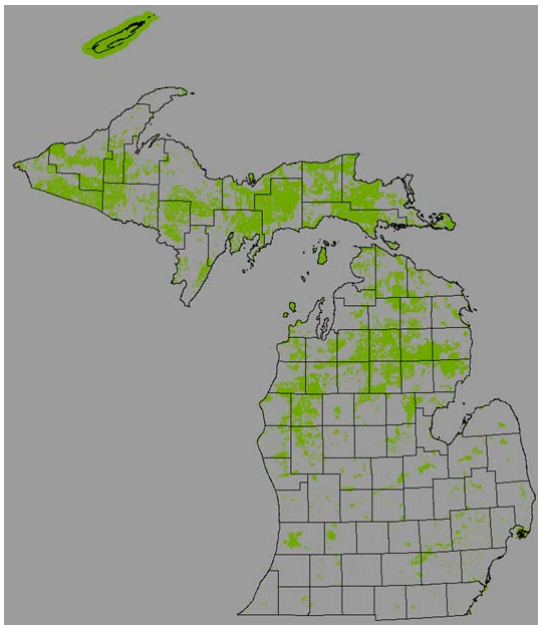
Layer created by USFS from Landuse/Land Cover data
Things to consider – 2001 vintage data
Raster data at 30 meter resolution
Creation date: unknown, from 2001 Landuse/Land Cover data

Forest Patch Size



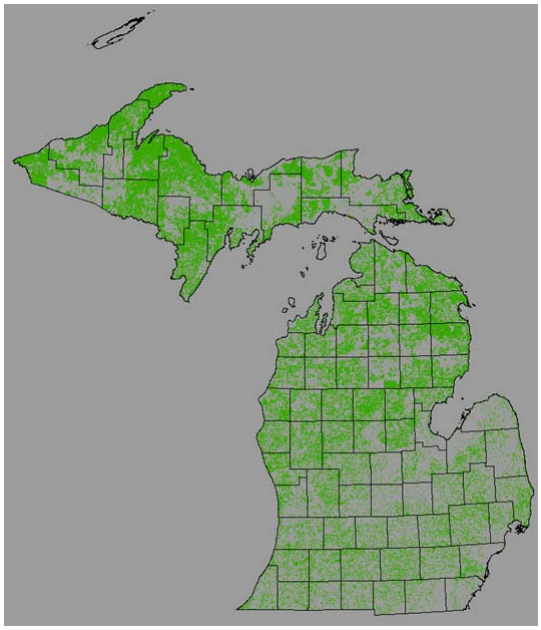
Layer created internally from extracting forest cover types from 2001 Landuse/Land Cover data and creating polygons to determine acreage and connectivity. Areas >= 500 acres for UP and NLP, areas >= 250 acres for SLP (Cleland ecoregion boundaries used to delineate NLP and SLP)
Things to consider – 2001 vintage data
Raster data at 30 meter resolution
Creation date: Nov. 2009 from 2001 Landuse/Land Cover data

Public Lands



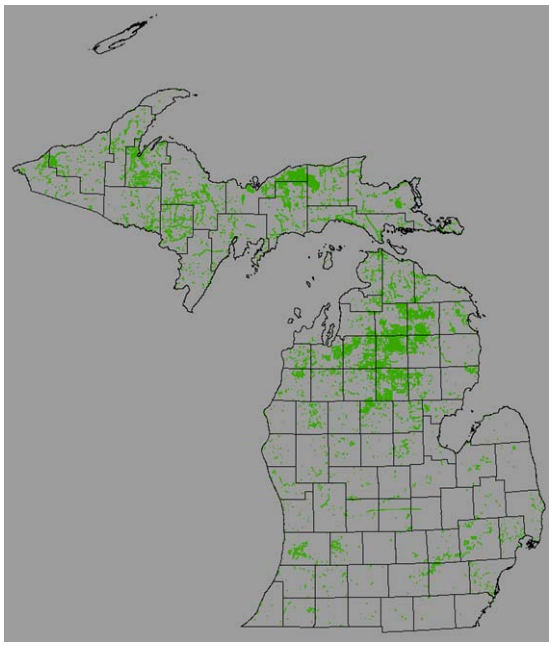
Layer created internally from combination of state land (State of Michigan source), federal land (USFS, NPS, and USFWS source), county and local land (CARL data, Ducks Unlimited source)
Polygon data
Creation date: Nov. 2009 from data of various vintages

Private Forestland



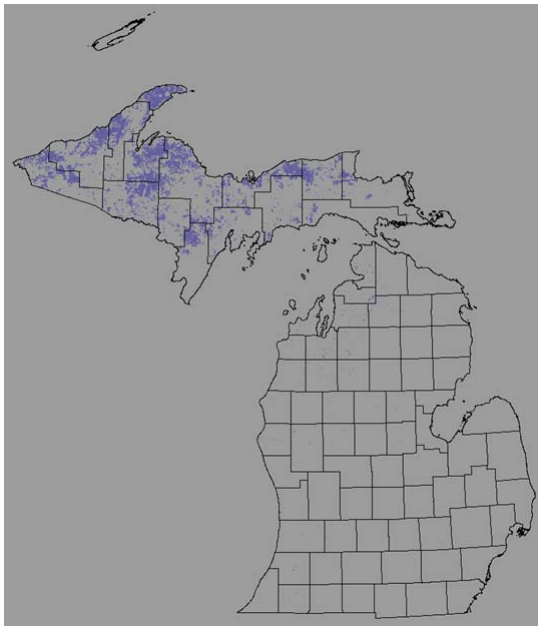
Layer created internally from extracting forest cover types from Landuse/Land Cover data and removing public land from outcome
Things to consider – 2001 vintage data
Raster data at 30 meters resolution
Creation date: Nov. 2009, from 2001 Landuse/Land Cover and Nov. 2009 Public Lands

Conservation Easements



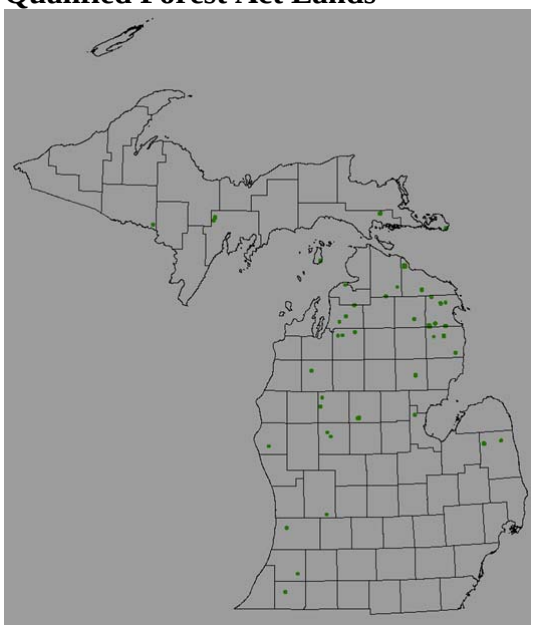
Layer created internally from combining DNR, DEQ, and TNC conservation easements
Polygon data
Creation date: Nov. 2009 from data of various vintages

Commercial Forests



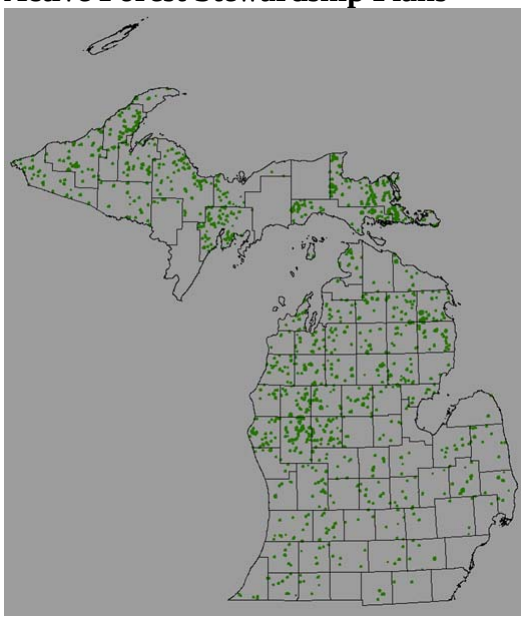
Layer created internally from Commercial Forests parcel mapping
Polygon data
Creation date: Nov. 2009

Qualified Forest Act Lands



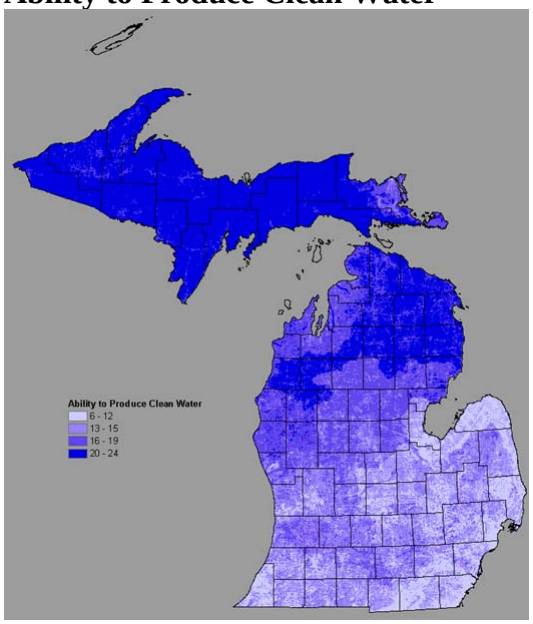
Layer created internally from Forest Stewardship database
Very small polygon data
Creation date: Nov. 2009

Active Forest Stewardship Plans



Layer created internally from Forest Stewardship database
Very small polygon data
Creation date: Nov. 2009

Ability to Produce Clean Water



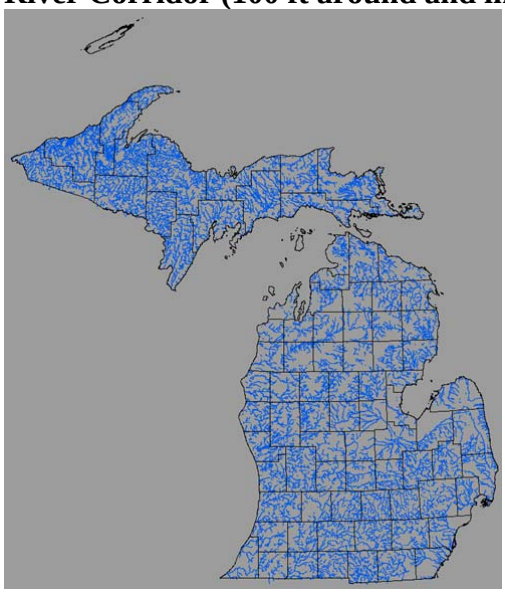
Layer created by USFS under Forests, Water, and People assessment. 6 layers combined, each layer given values from 1-4. Final output values range from 6-24 where 6 is lowest and 24 is highest ability. 6 layers are % forest land, % agricultural land, % riparian areas, % road density, % soil erodibility, and % housing density

Things to consider – data created at national scale as opposed to state scale, most islands are missing data, no way to qualify numeric values

Raster data at 30 meter resolution

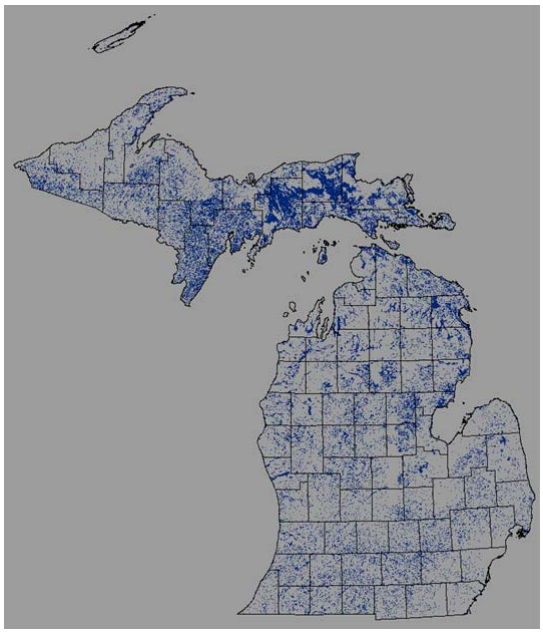
Creation date: unknown, but assessment was completed recently

River Corridor (100 ft around and including perennial rivers)



Layer created internally from Hydrology layer perennial rivers and buffering by 100 feet
Things to consider – Hydrology layer has not been repositioned to match digital imagery like the roads layer has, is not Riperian corridor as no criteria has been agreed on for Michigan yet
Polygon data
Creation date: 2007, no changes to Hydrology layer since 2007

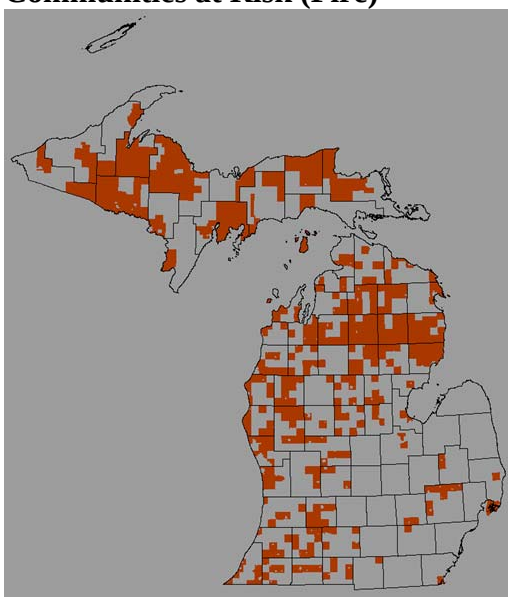
Wetlands



Layer created by DEQ and CSS from combination of 1978 MiRIS Wetlands, NWI Wetlands, and Ssurgo hydric soils. If at least two of the three layers agreed on a wetlands polygon, it was used for this layer
Things to consider – issues of accuracy with all 3 layers involved
Polygon data

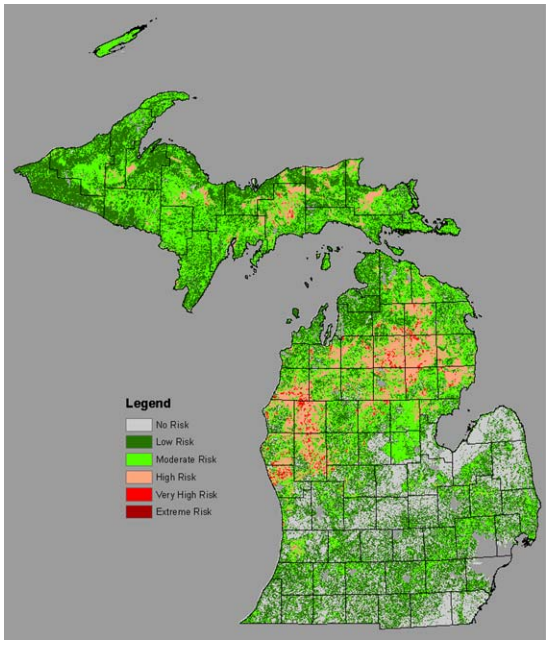
Creation date: Nov. 2009, DEQ/CSS data created in 2007

Communities at Risk (Fire)



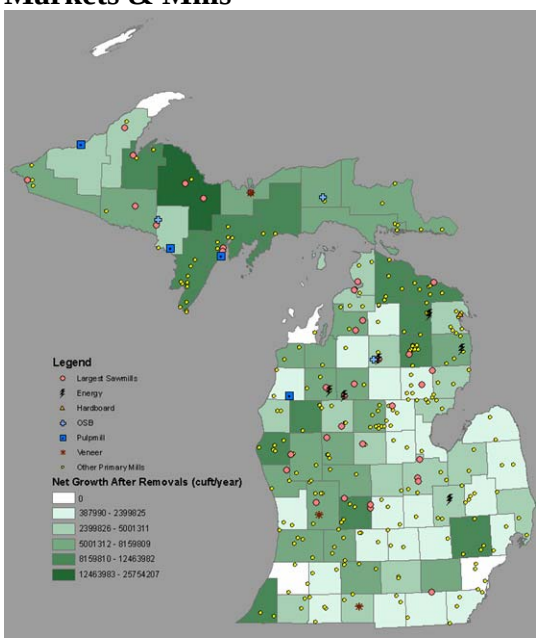
Layer created by MSU & DNR based on fire occurrence data and fire response by township data
Polygon data by Township (Township scale)
Creation date: Nov. 2009

Wildfire Risk



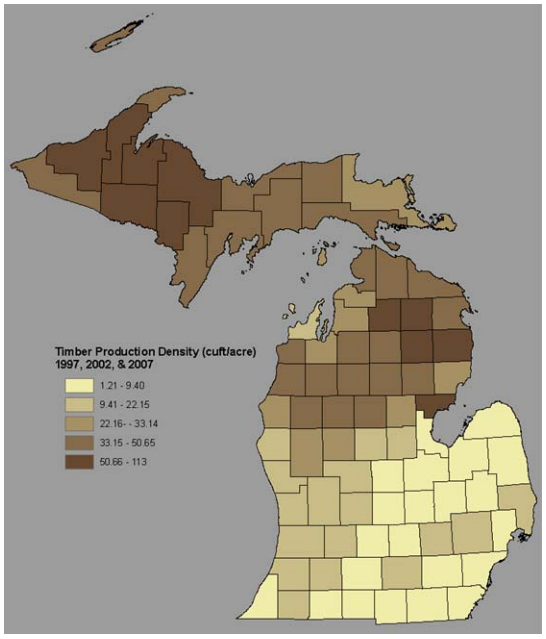
Layer created by USFS by combining vegetation type and fuel models
Things to consider – data was created at a national scale as opposed to state scale
Raster data at 30 meter resolution
Creation date: unknown, modified recently (2009)

Markets & Mills



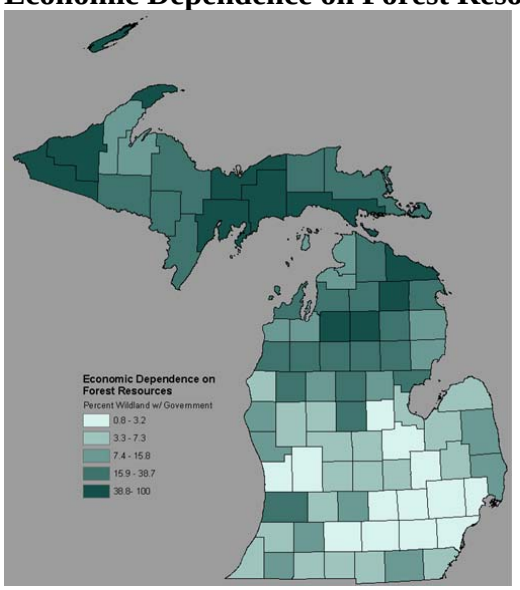
Created internally as a combination of mill locations (based on Mill database managed by DNR) and net growth after removals (cuft/year)
Polygon data by County for Net Growth After Removals, Point data for Mills
Creation date: Nov. 2009, based on 2008 growth and removal values

Timber Production



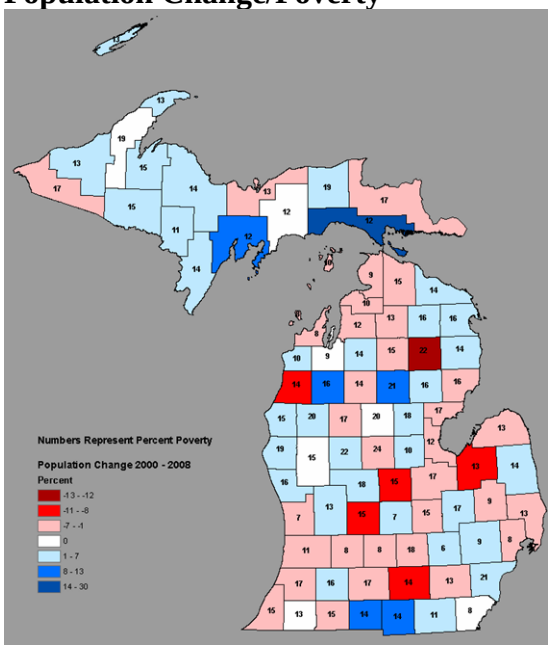
Layer created internally from USFS Timber Products Output (RPA) online application, 1997, 2002, and 2007 combined values (only 3 years available digitally)
Polygons data by County (County scale)
Creation date: Nov. 2009

Economic Dependence on Forest Resources



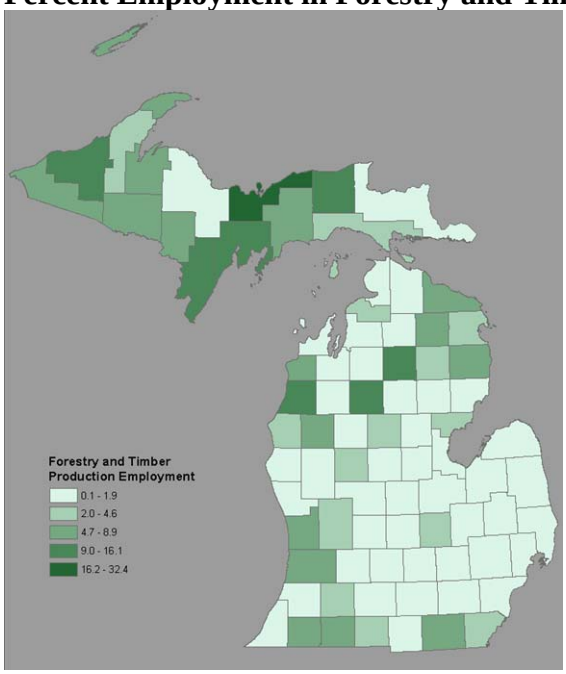
Layer created from USFS analysis based on 1990 Census data (2000 Census analysis was not completed)
Things to consider – Outdated data
Polygon data by County (County scale)
Creation date: Nov. 2009, based on 1990 Census data

Population Change/Poverty



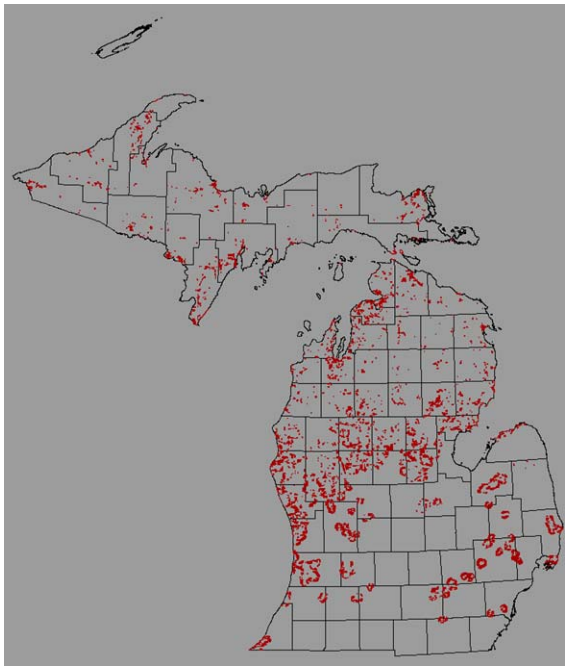
Combination of population change from 2000-2008 Census data (colored counties) and percent poverty from 2008 Census (numbers on County polygons)
Things to consider – 2008 Census data is not from official Census
Polygon data by County (County scale)
Creation date: Nov. 2009, based on 2000 and 2008 Census data

Percent Employment in Forestry and Timber Production



Created internally from 2008 Census employment values
Things to consider – 2008 Census is not an official Census
Polygon data by County (County scale)
Creation date: Nov. 2009 from 2008 Census data

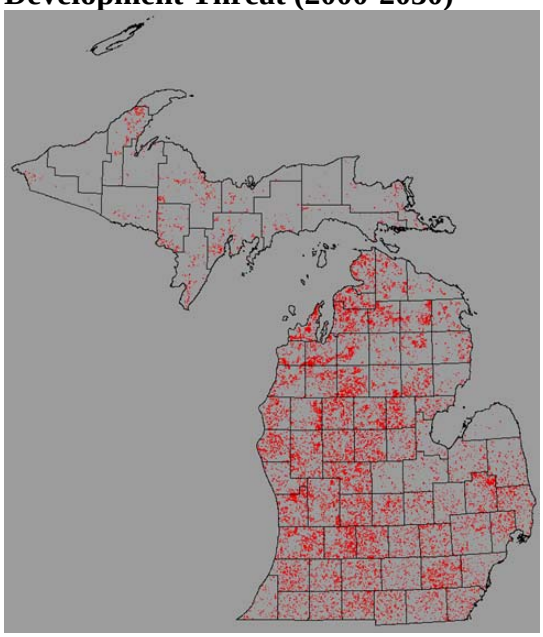
Wildland Urban Interface



Created by the University of Wisconsin as a national dataset
Things to consider – data was created at a national scale as opposed to a state scale
Polygon data

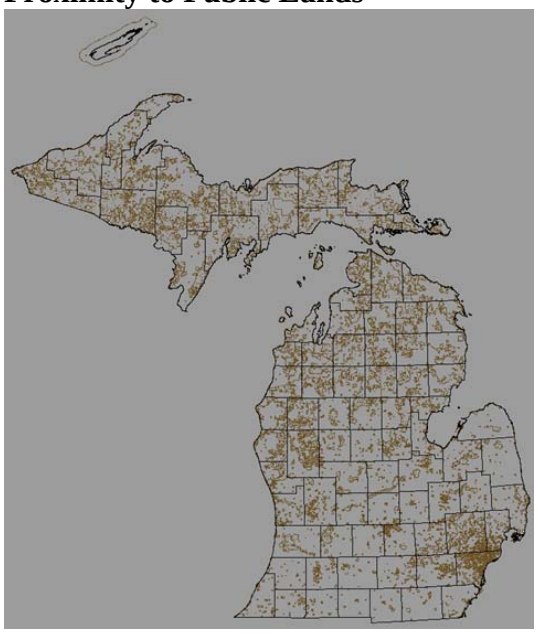
Creation date: unknown, based on 2000 data

Development Threat (2000-2030)



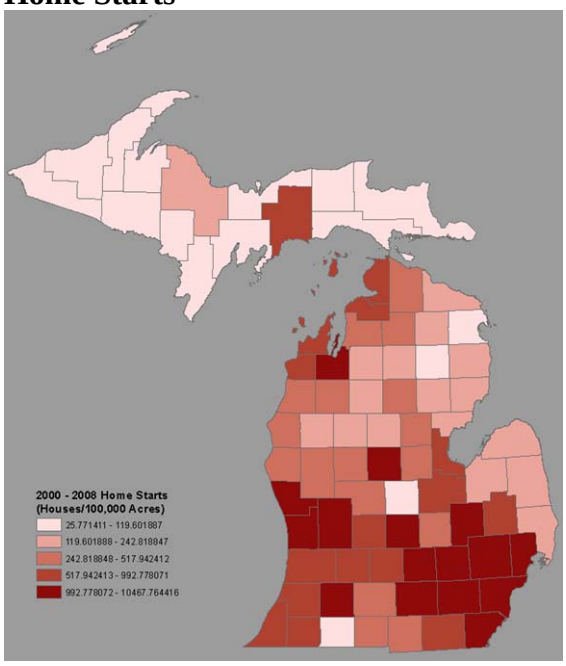
Created by Dr. David Theobald from Colorado State University as a national dataset
Things to consider – data was created at a national scale as opposed to state scale, 2030 data is projected, 2003 vintage data
Raster data at 30 meter resolution
Creation date: 2003

Proximity to Public Lands



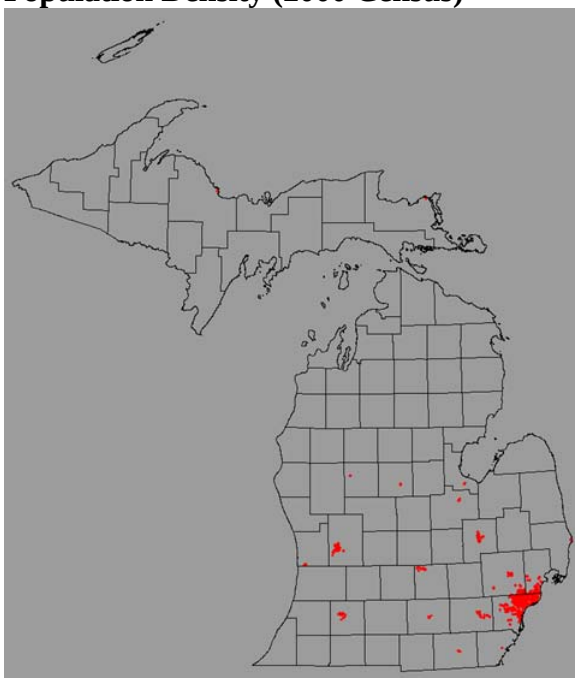
Created internally by buffering public lands by ½ mile
Polygon data
Creation date: Nov. 2009

Home Starts



Created internally from 2000 and 2008 Census data, divided values by County acreage
Things to consider – 2008 is not an official Census year
Polygon data by County (County scale)
Creation date: Nov. 2009

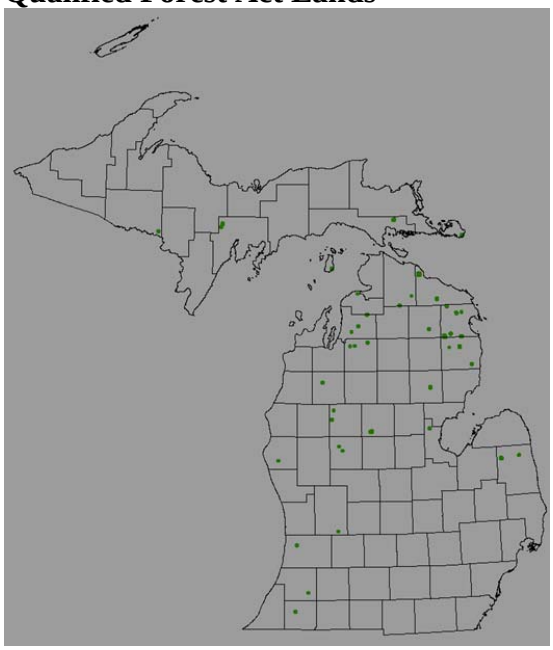
Population Density (2000 Census)



Created internally from 2000 Census data, extracted areas with a population >= 8,000/m²
Things to consider – 2000 vintage data
Polygon data

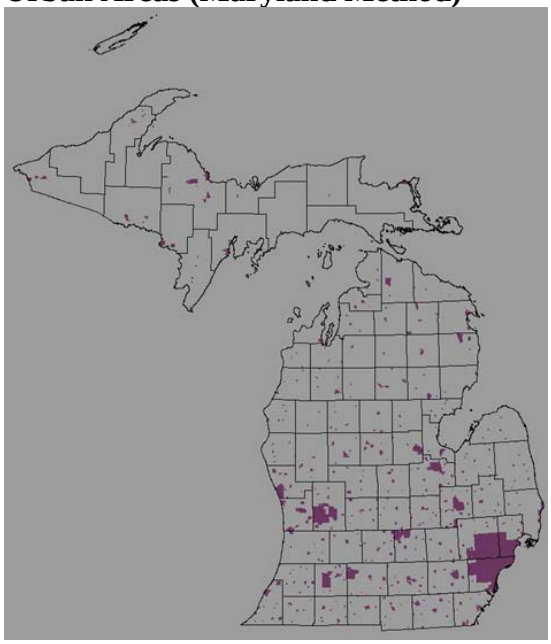
Creation date: Nov. 2009

Qualified Forest Act Lands



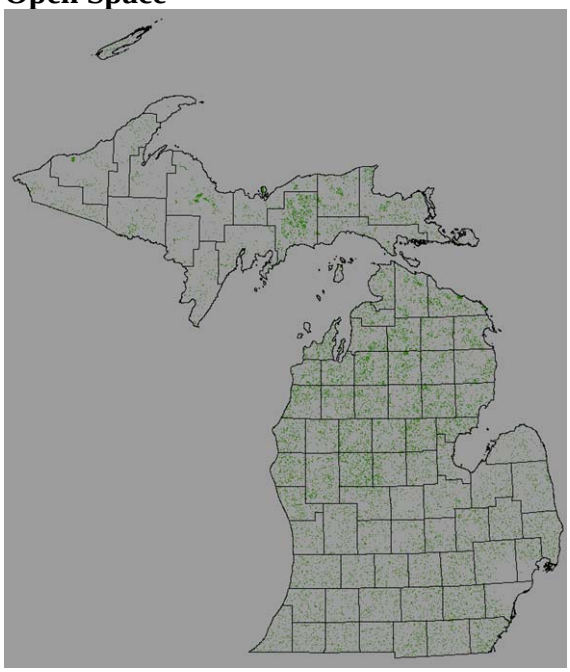
Created internally from Forest Stewardship database
Very small polygon data
Creation date: Nov. 2009

Urban Areas (Maryland Method)



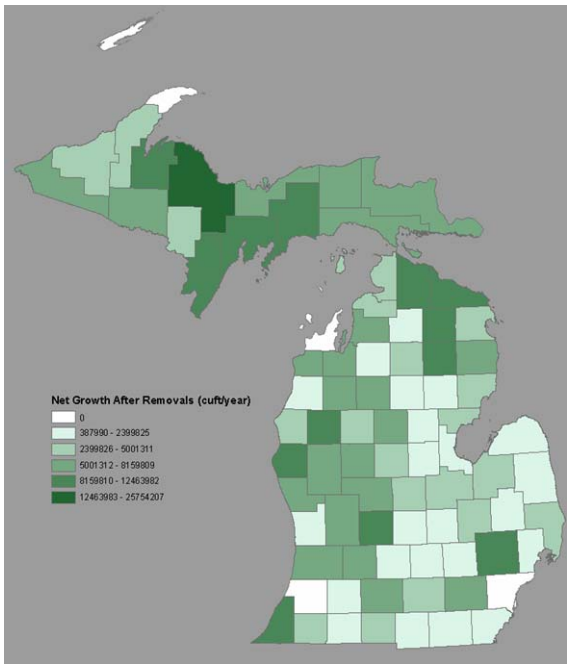
Created by the Maryland DNR using > average population density, > average urban areas (size), > average impervious surface, and < average tree canopy, to extract areas that could use more trees or green space. Average values were different for each state.
Polygon data
Creation date: 2007

Open Space



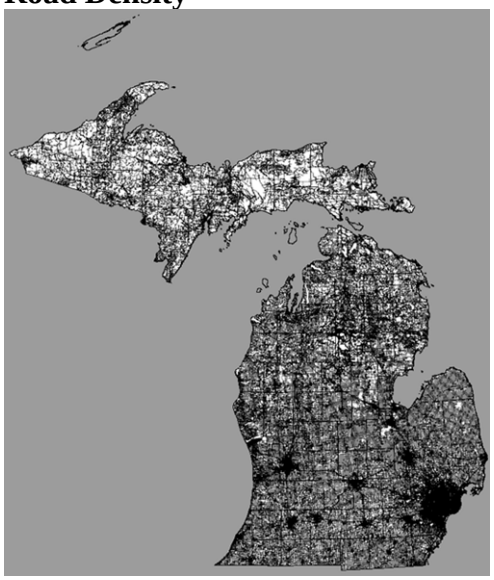
Created internally from 2001 Landuse/Land Cover data
Things to consider – 2001 vintage data
Raster data at 30 meter resolution
Creation date: Nov. 2009

Net Growth After Removals



Created internally from 2008 Census data
Things to consider – 2008 is not an official census year
Polygon data by County (County scale)
Creation date: Nov. 2009

Road Density

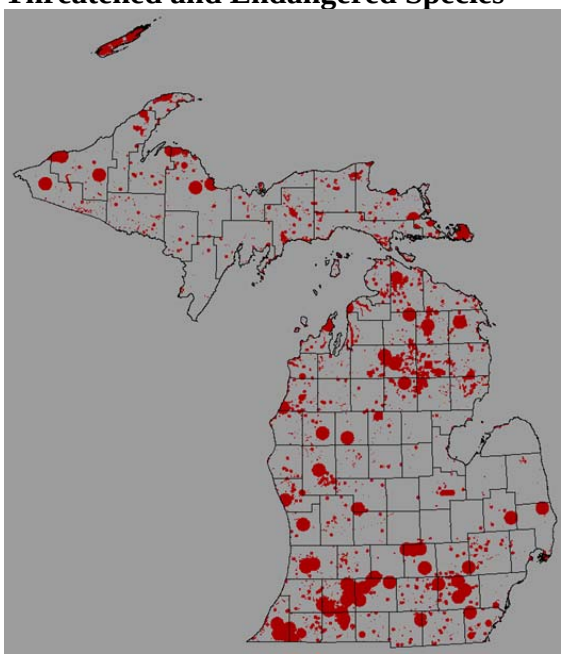


Created by USFS from US Department of Transportation roads data
Things to consider – Only 4 levels of density (cannot be adjusted), roads layer does not include many forest roads or two-tracks, created at a national scale as opposed to state, used national roads dataset instead of Michigan roads data, used 2002 vintage data
Raster data at 30 meter resolution
Creation date: unknown, used 2002 US DOT roads data

Impervious Surface

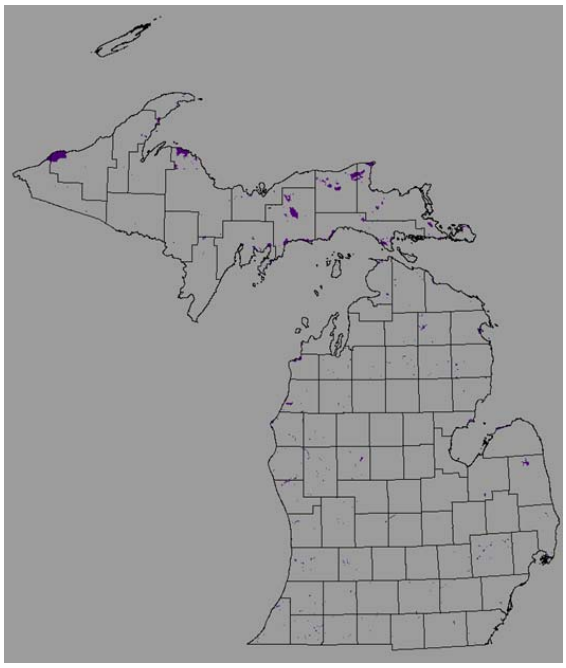
Created by USFS from US Department of Transportation roads data and 2001 Landuse/Land Cover data
Things to consider – Does include parking lots and buildings, created at national scale as opposed to state scale, used national roads dataset instead of Michigan roads data, used 2001 vintage data
Raster data at 30 meter resolution
Creation date, unknown, used 2001 Landuse/Land Cover data

Threatened and Endangered Species



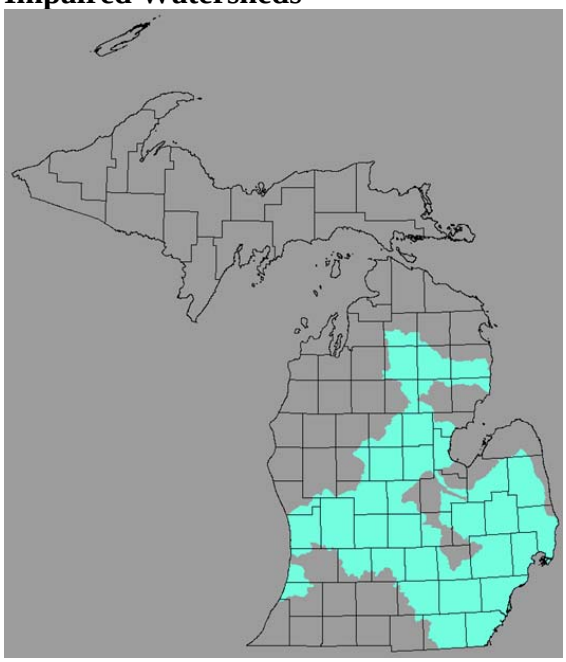
Created internally from Michigan Natural Features Inventory Element Occurrence data extracting most accurate data based on MNFI specified criteria
Issues to consider – some areas are represented as perfect circles if extent is unknown
Polygon data
Creation date: Nov. 2009

Rare Communities



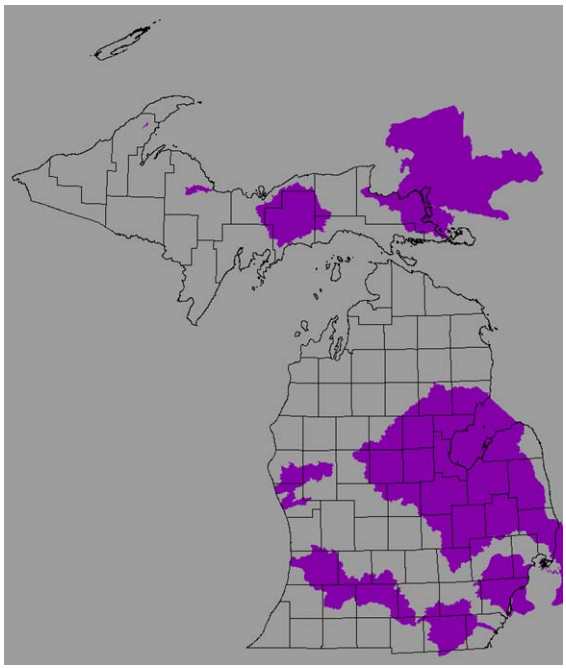
Created internally from Michigan Natural Features Inventory Element Occurrence data
Polygon data
Creation date: Nov. 2009

Impaired Watersheds



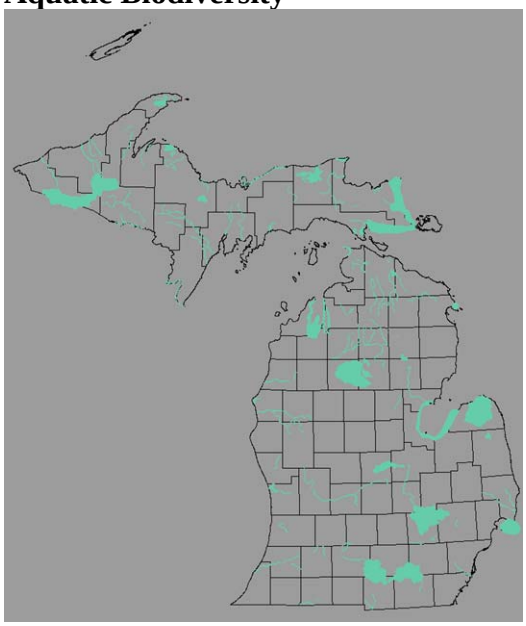
Created internally from DEQ/EPA designated impaired water bodies
Things to consider – May not capture all impaired watersheds as only those that overlapped impaired water bodies were included
Polygon data
Creation date: Nov. 2009

Areas of Concern



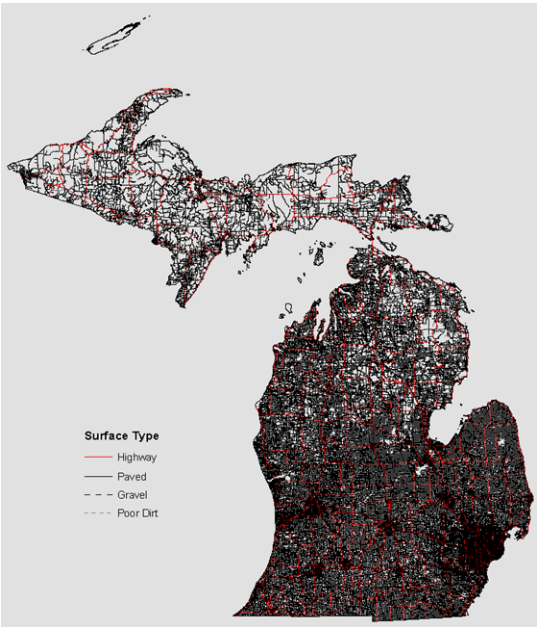
Created through the Great Lakes Restoration Initiative Areas of Concern program
Polygon data
Creation date: unknown, policy adopted in 2001

Aquatic Biodiversity



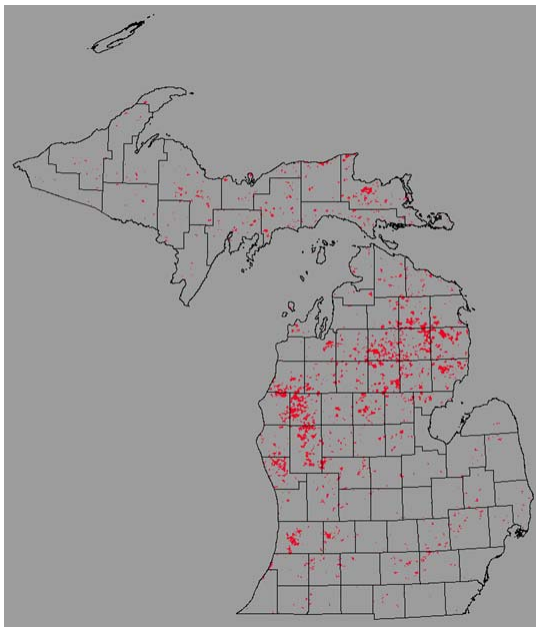
Created by The Nature Conservancy as a refinement to the Great Lakes Ecoregion Aquatic Portfolio Sites
Polygon data
Creation date: 2003

Road Locations



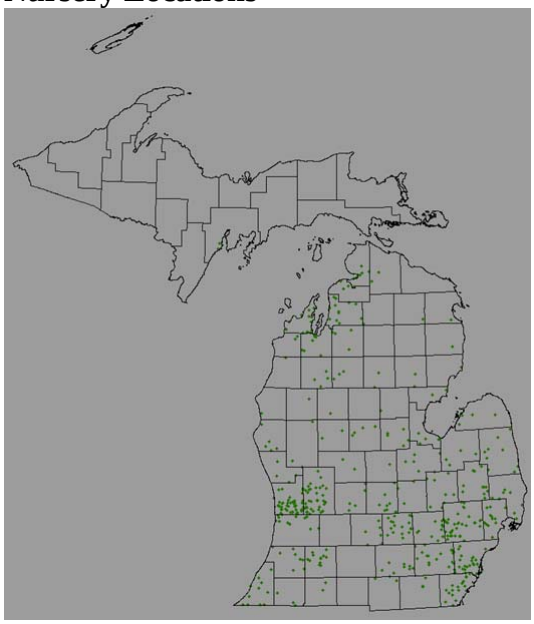
Created internally from Michigan's Framework roads dataset with forest roads and two-tracks included
Things to consider – Some roads may still be missing in some areas, surface types may not be accurate
Linear data
Creation date: Nov. 2009

Forest Health Risk



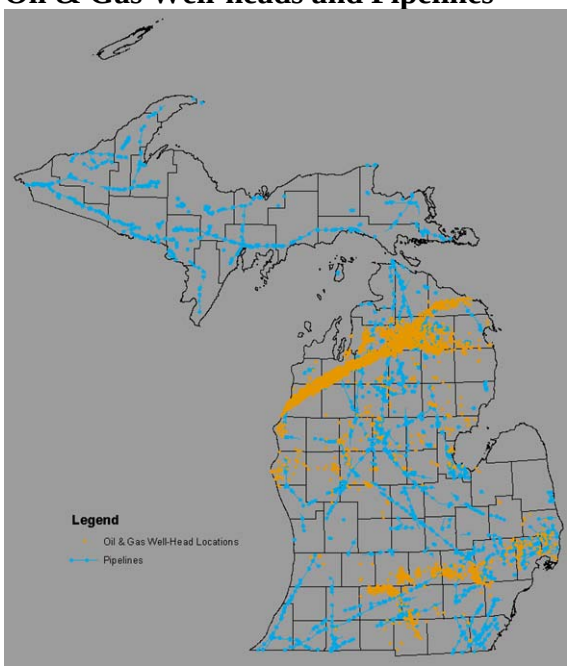
Created by USFS from National Insect and Disease Risk Mapping project
Things to consider – islands may be excluded from analysis, national scale data as opposed to state scale
Raster data at 30 meter resolution
Creation date: 2006

Nursery Locations



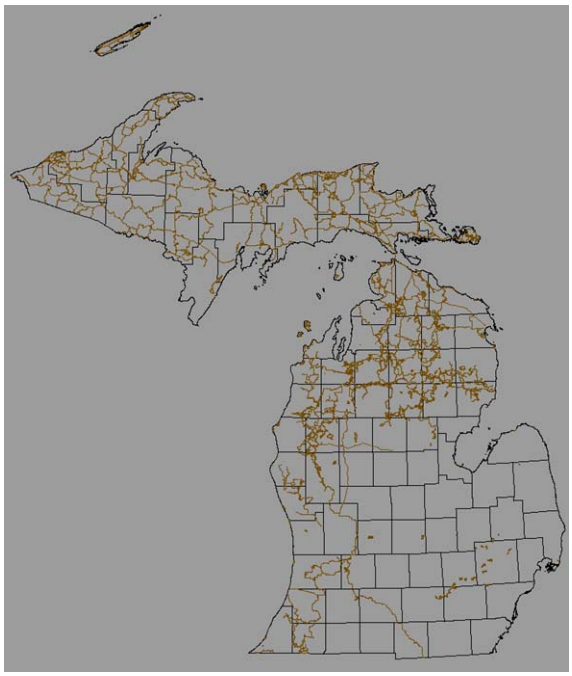
Created internally from Michigan Department of Agriculture database
Point data
Creation date: Nov. 2009

Oil & Gas Well-heads and Pipelines



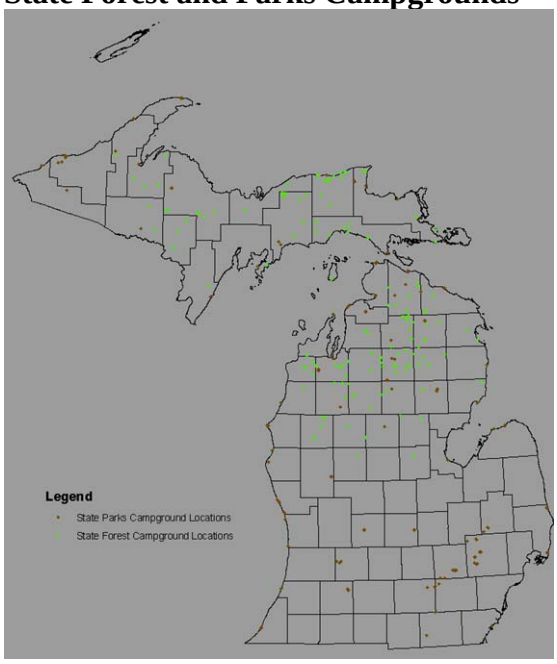
Created internally from Oil & Gas Well database and 1978 MiRIS Utilities
Things to consider – 1978 vintage data for pipelines
Point (well-heads) and Line (pipelines) data
Creation date: Nov. 2009

Recreational Trails



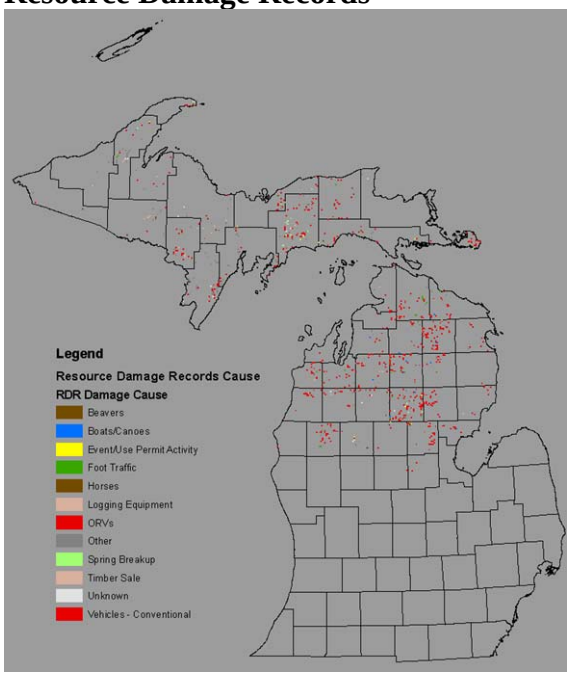
Created internally from DNR trails, NPS trails, and USFS trails
Things to consider – may not include all pathways
Linear data
Creation date: Nov. 2009

State Forest and Parks Campgrounds



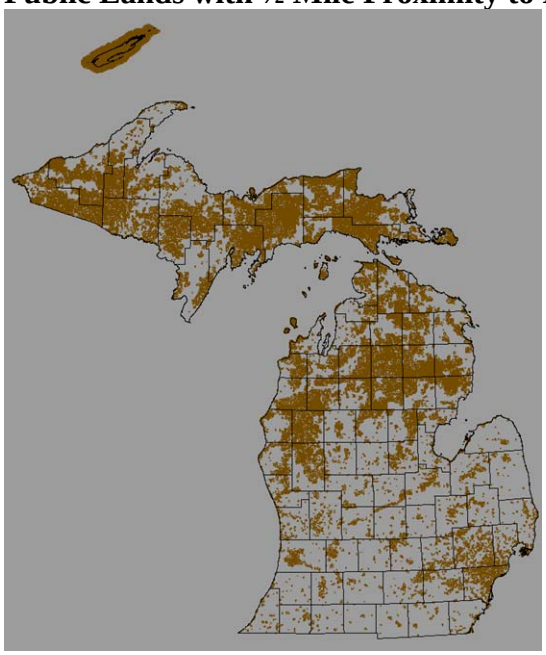
Created internally from DNR State Forest and State Parks campgrounds
Things to consider – Does not include any federal or private campgrounds yet
Point data
Creation date: Nov. 2009

Resource Damage Records



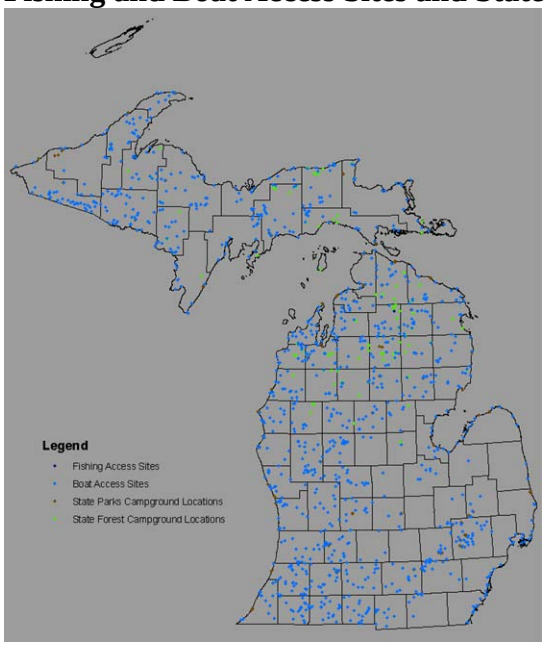
Created internally from DNR Resource Damage Records database
Things to consider – Most entries are on state land
Point data
Creation date: Nov. 2009

Public Lands with ½ Mile Proximity to Public Lands



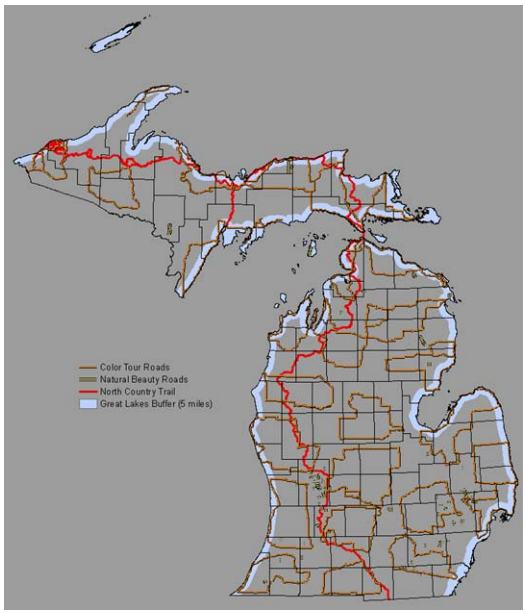
Created internally by combining Public Lands and Proximity to Public Lands Polygon data
Creation data: Nov. 2009

Fishing and Boat Access Sites and State Campgrounds



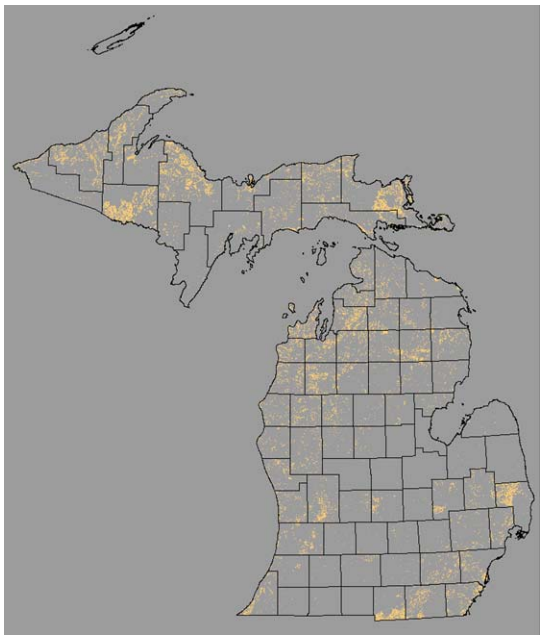
Created internally with Statewide Boat Access Site, Fishing Site from Forest Compartment Reviews, and State Forest and Parks Campgrounds
Things to consider – Fishing access sites are far from complete, campgrounds do not include federal or private campgrounds yet
Point data
Creation date: Nov. 2009

Scenic Areas



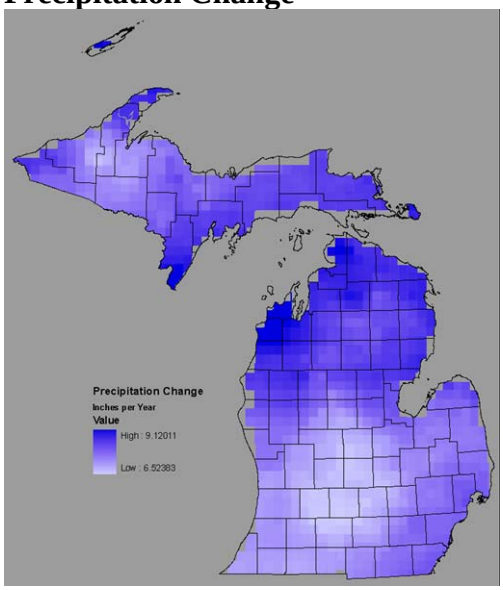
Created internally combining North Country Trail, Michigan Color Tour Roads, MDOT designated Natural Beauty Roads, and a 5 mile shoreline buffer
Polygon (5 mile shoreline buffer) and Line (North Country Trail, Natural Beauty Roads, and Color Tour Roads
Creation date: Nov. 2009

Erosion Potential



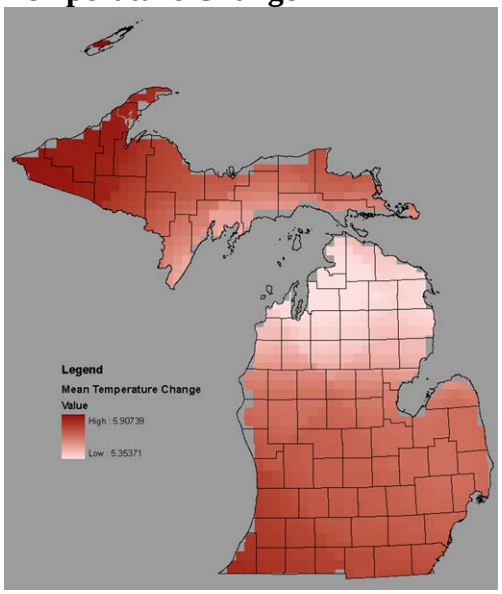
Created internally from NRCS Ssurgo soils data, extracting severe K factor soils (run-off rate) and severe wind erosion with at least a 12% slope
Things to consider – county data is not consistent
Polygon data
Creation date: Aug. 2009

Precipitation Change



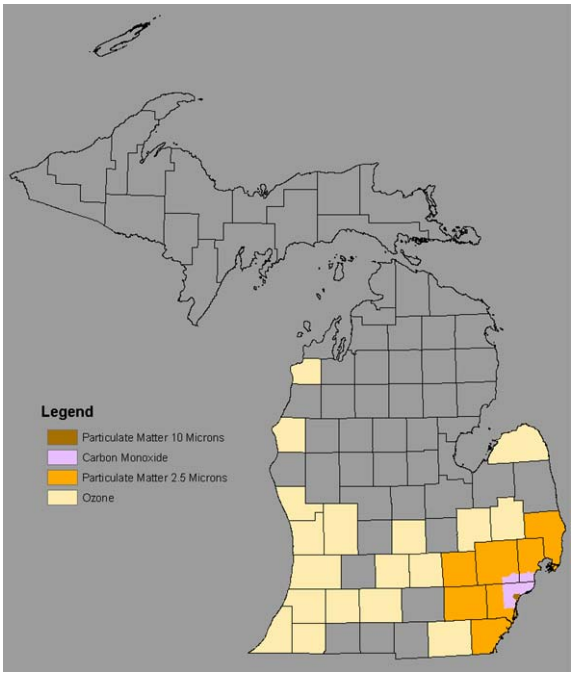
Created by University of Washington and The Nature Conservancy
Things to consider – data created at a national scale as opposed to state, 30 km resolution, projected years from 2040 to 2090, much of shoreline and islands are missing (due to coarse resolution)
Raster data at 30 kilometer resolution
Creation date: 2009

Temperature Change



Created by University of Washington and The Nature Conservancy
Things to consider – data created at a national scale as opposed to state, 30 km resolution, projected years from 2040 to 2090, much of shoreline and islands are missing (due to coarse resolution)
Raster data at 30 kilometer resolution
Creation date: 2009

Gases and Particulate Matter



Created by the Environmental Protection Agency
Things to consider – County scale data for Ozone and Particulate Matter 2.5 as opposed to specific areas affected
Polygon data
Creation date: unknown, from 2006 EPA standards

Tax Rates on Forestland
(Map still to come)

Created internally from …..