2020 Forest Assessment Maps and Analysis

An Update

DNR
Indiana Department
of Natural Resources

Forest Issues

- Fragmentation
- Soil & Water
- Invasive Species
- Biodiversity
- Recreation
- Wood Products

Procedures

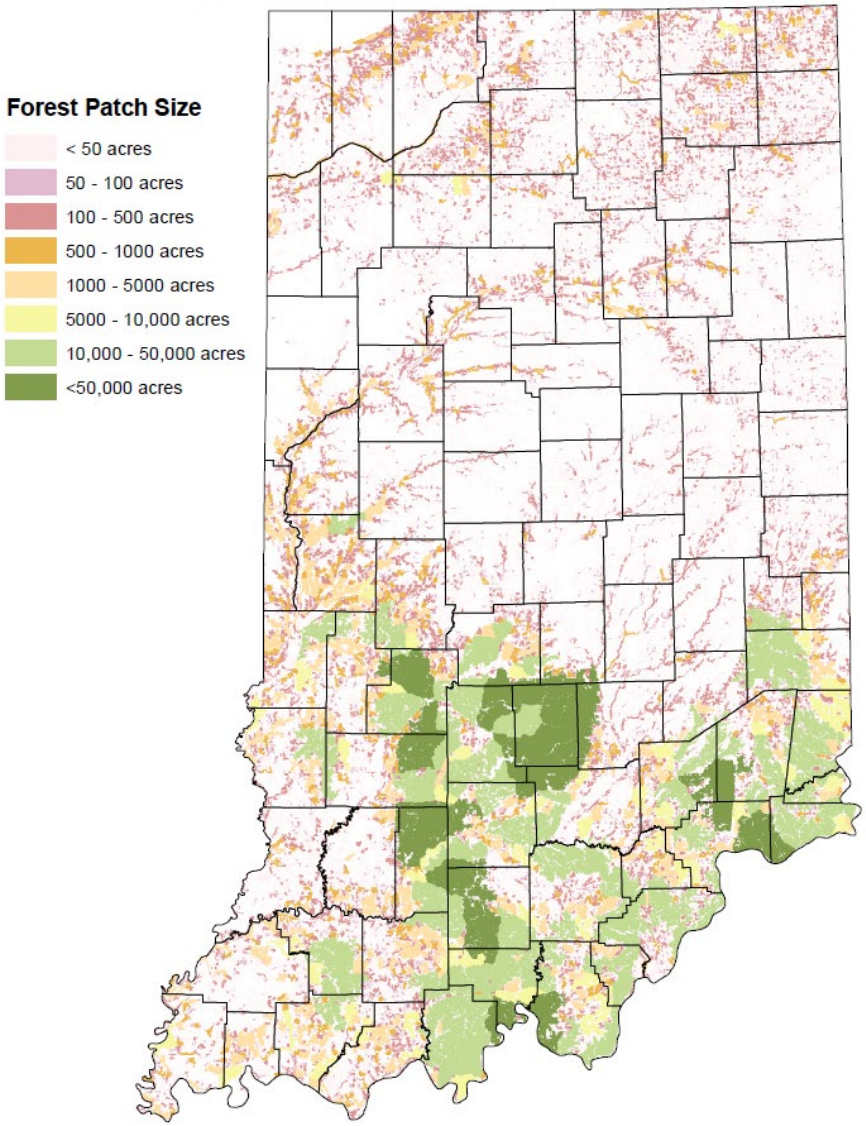
- Base Forest Cover layer from 2017 National Agricultural Statistics Survey (NASS)
- Removed pixels 15 m from highways
- USDA Cost Share boundaries were removed in 2010 but the data is no longer available

- Other state and federal data inputs as needed

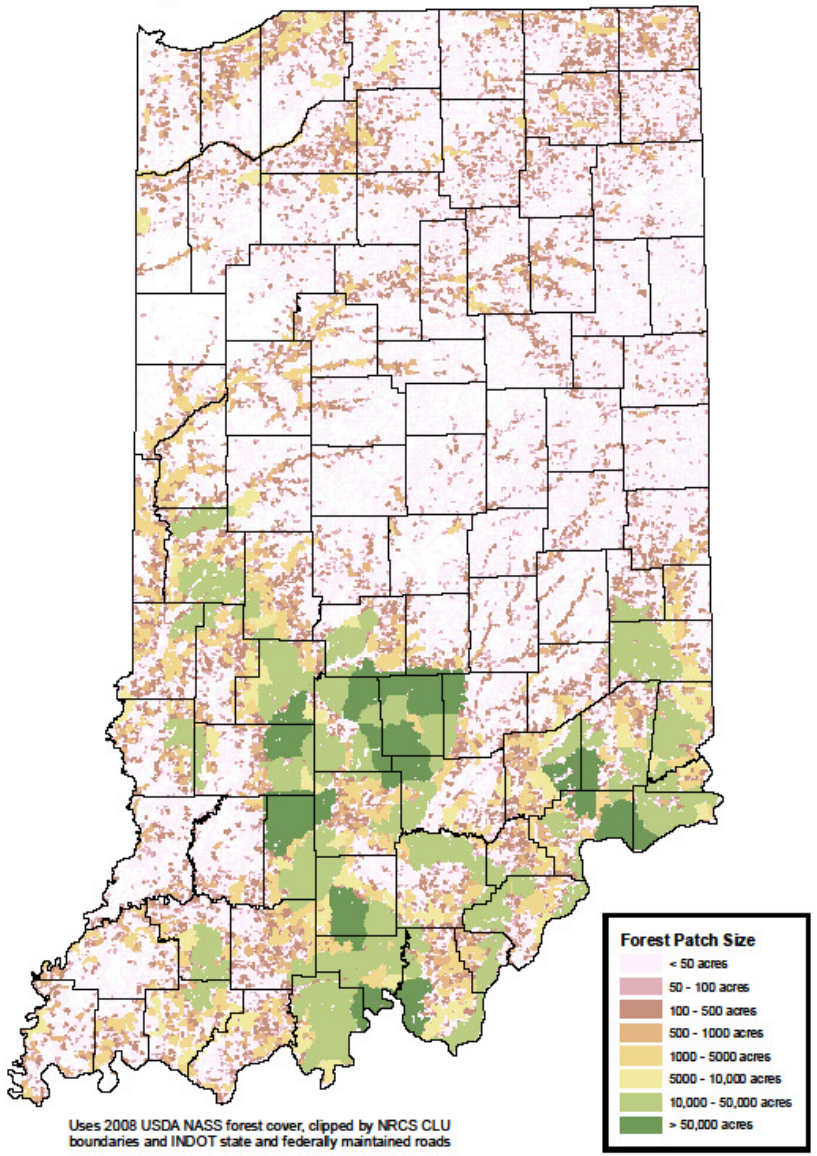
Fragmentation Components

- Forest Patch Size
- Roadless Forest Patches
- Projected Development
- Percent Forest Cover (1 km radius)
- Percent Forest Cover (10 km radius)

Fragmentation: Forest Patch Size

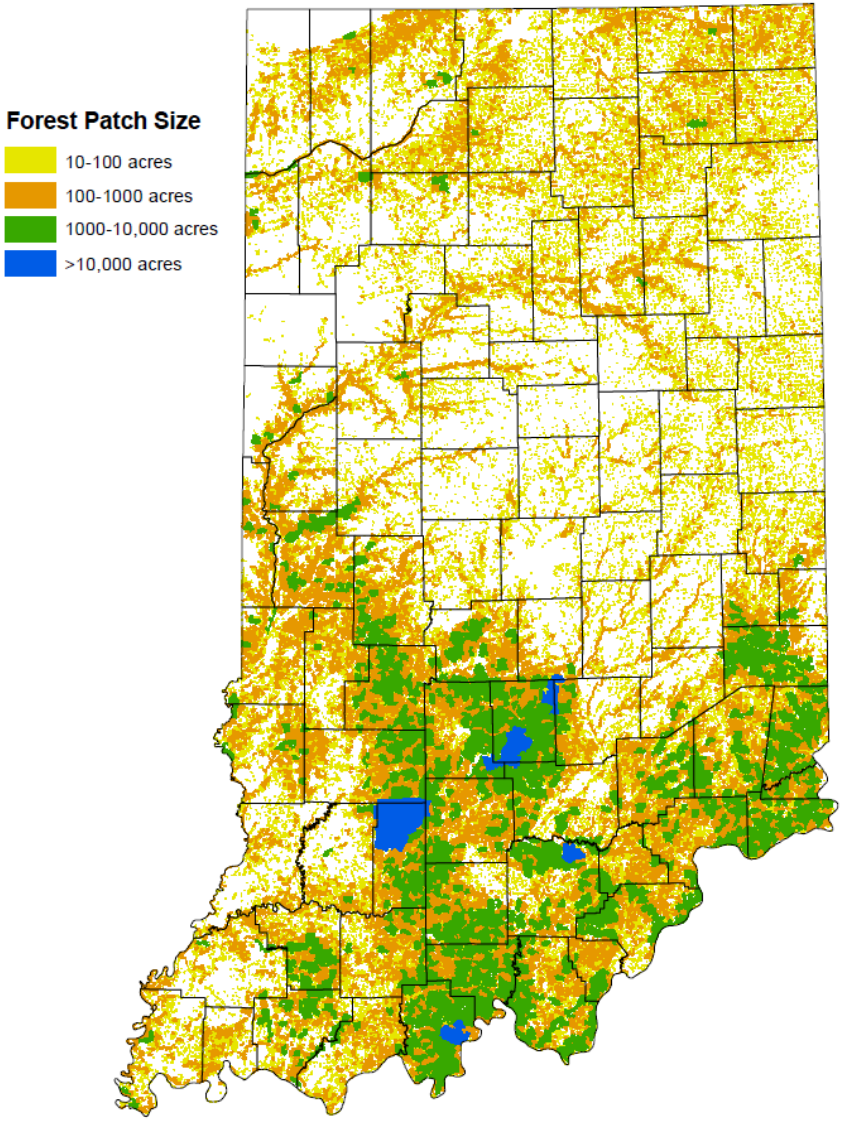


Fragmentation: Forest Patch Size

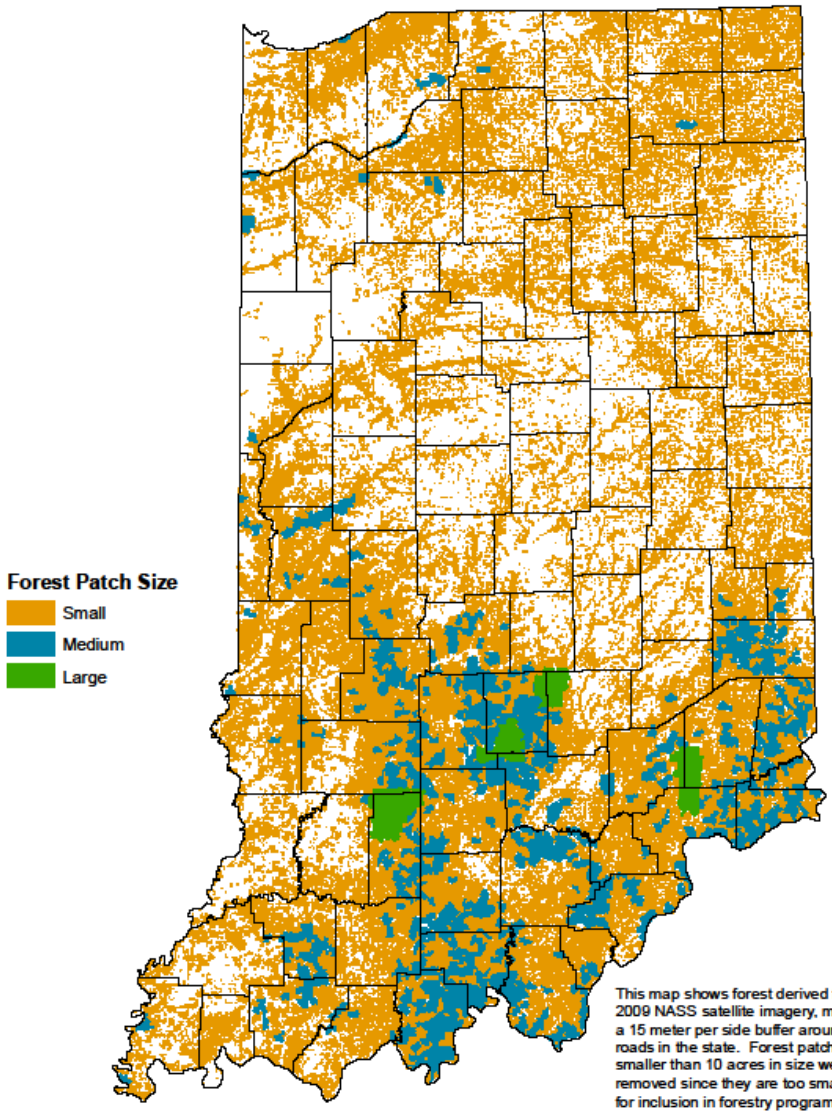


Uses 2008 USDA NASS forest cover, clipped by NRCS CLU boundaries and INDOT state and federally maintained roads

Roadless Forest Patches

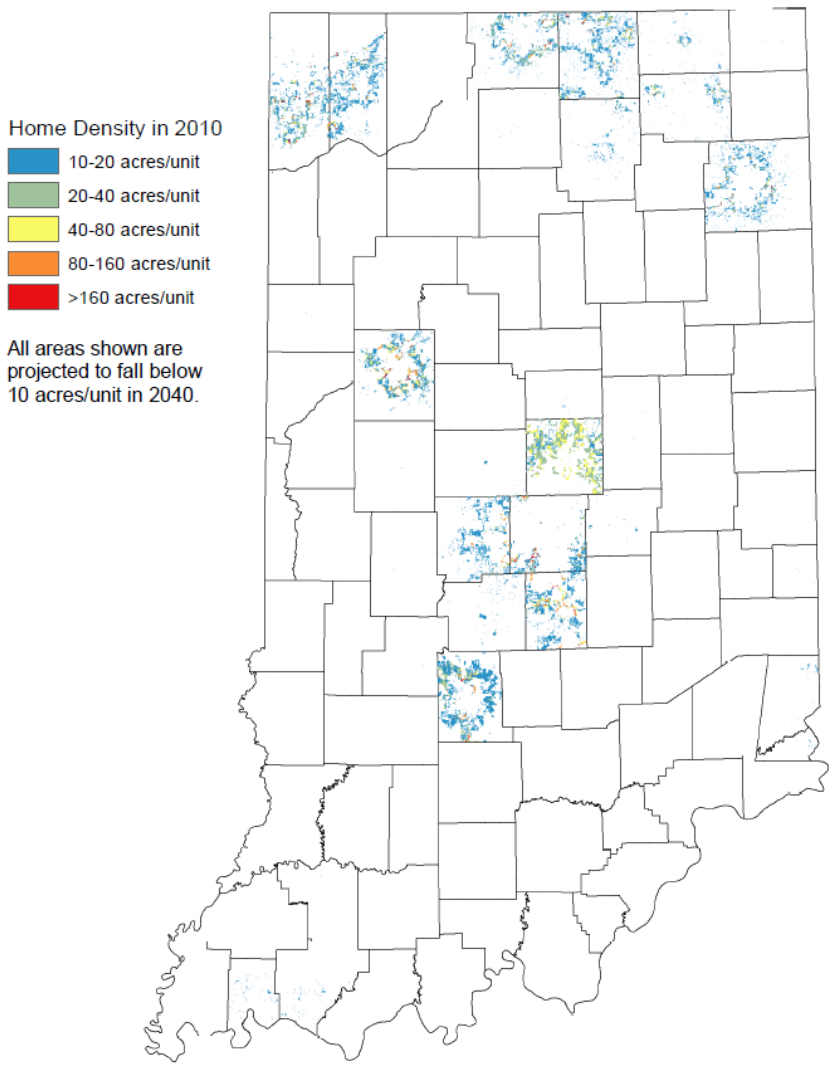


Roadless Forest Patches

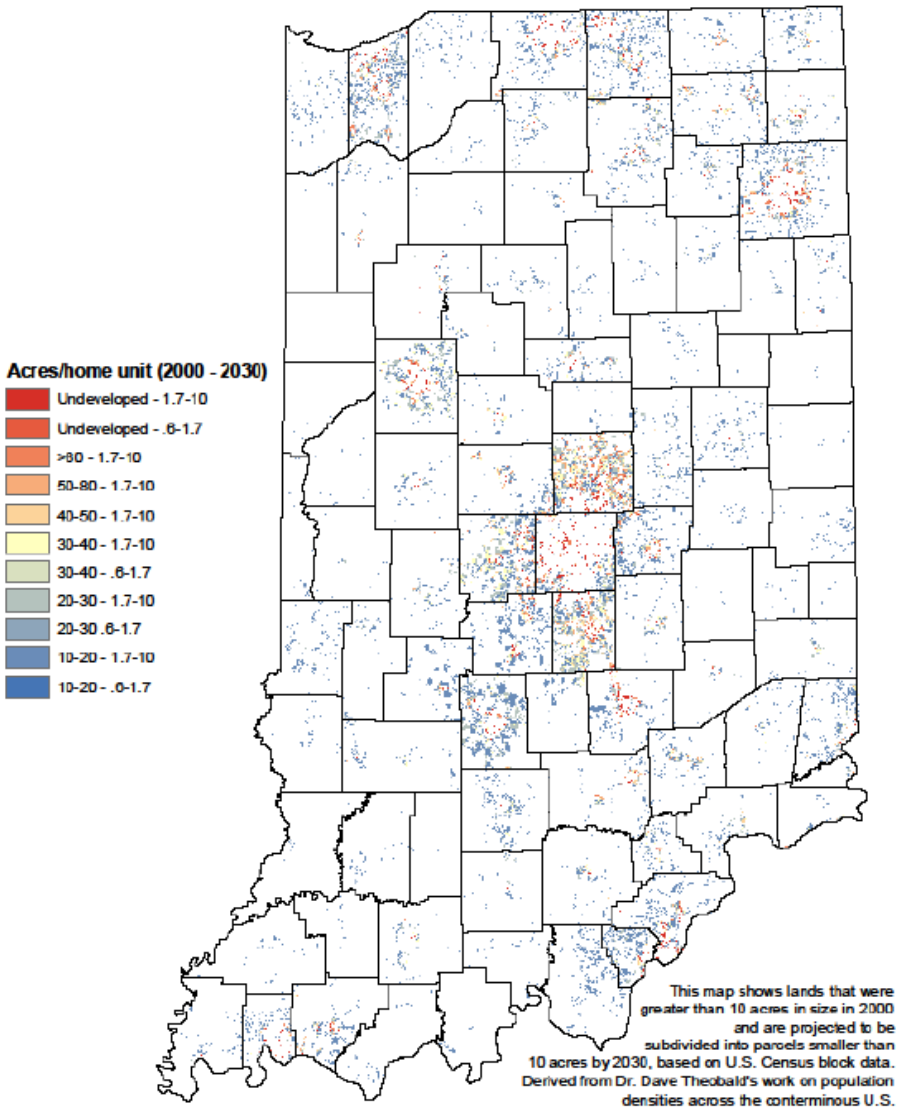


This map shows forest derived from 2009 NASS satellite imagery, minus a 15 meter per side buffer around all roads in the state. Forest patches smaller than 10 acres in size were removed since they are too small for inclusion in forestry programs.

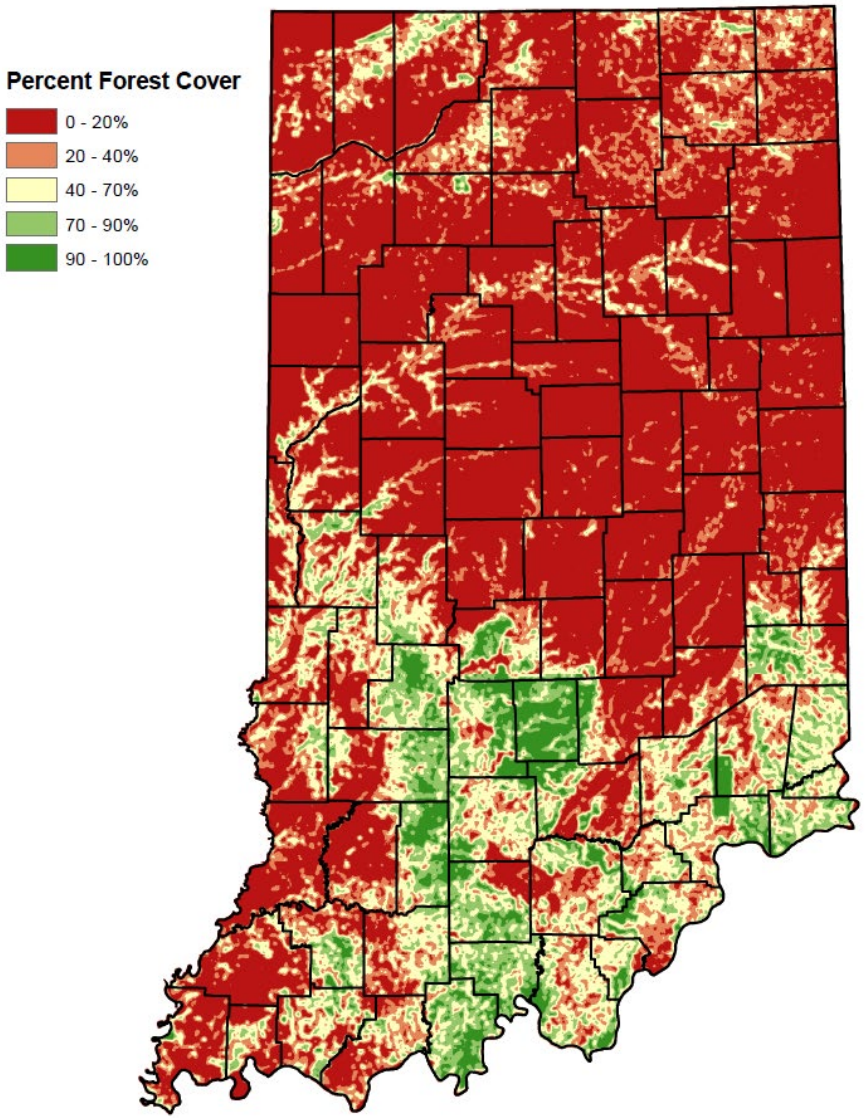
Projected Development Patterns to 2040



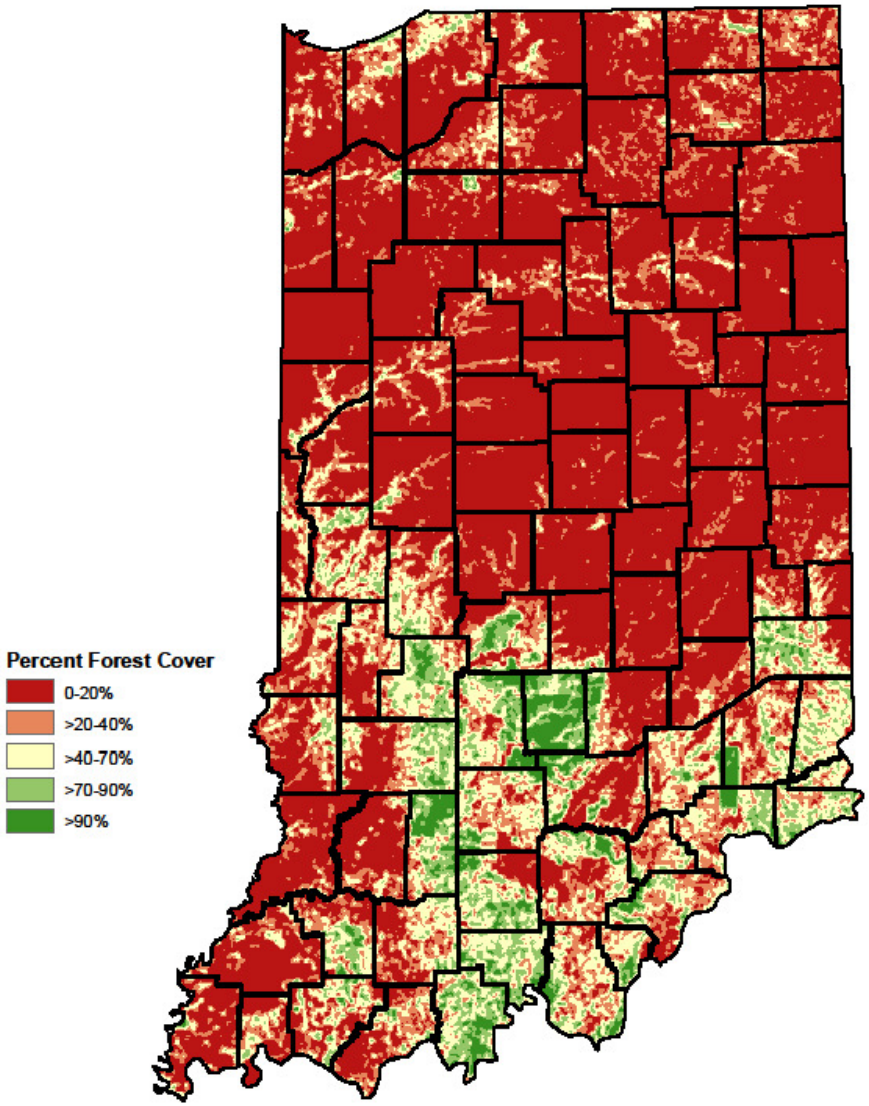
Projected Development Patterns to 2030



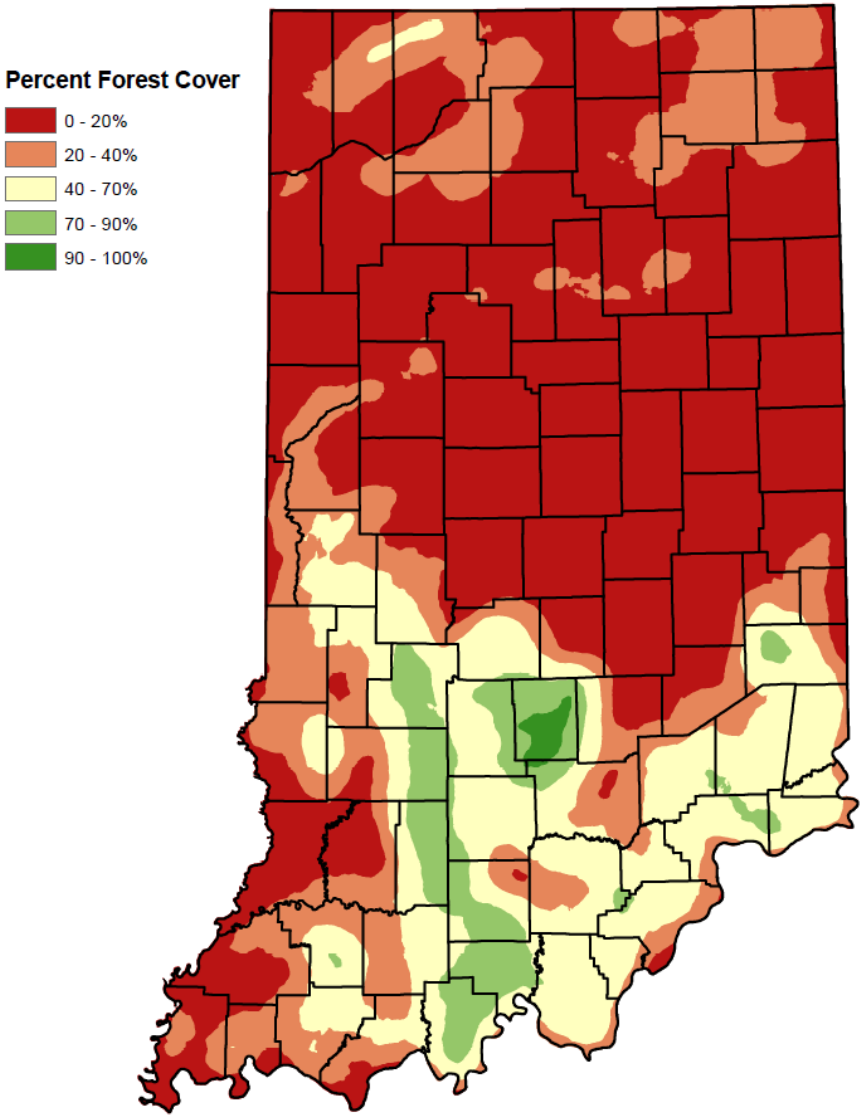
Percent Forest Cover in a 1 KM Radius



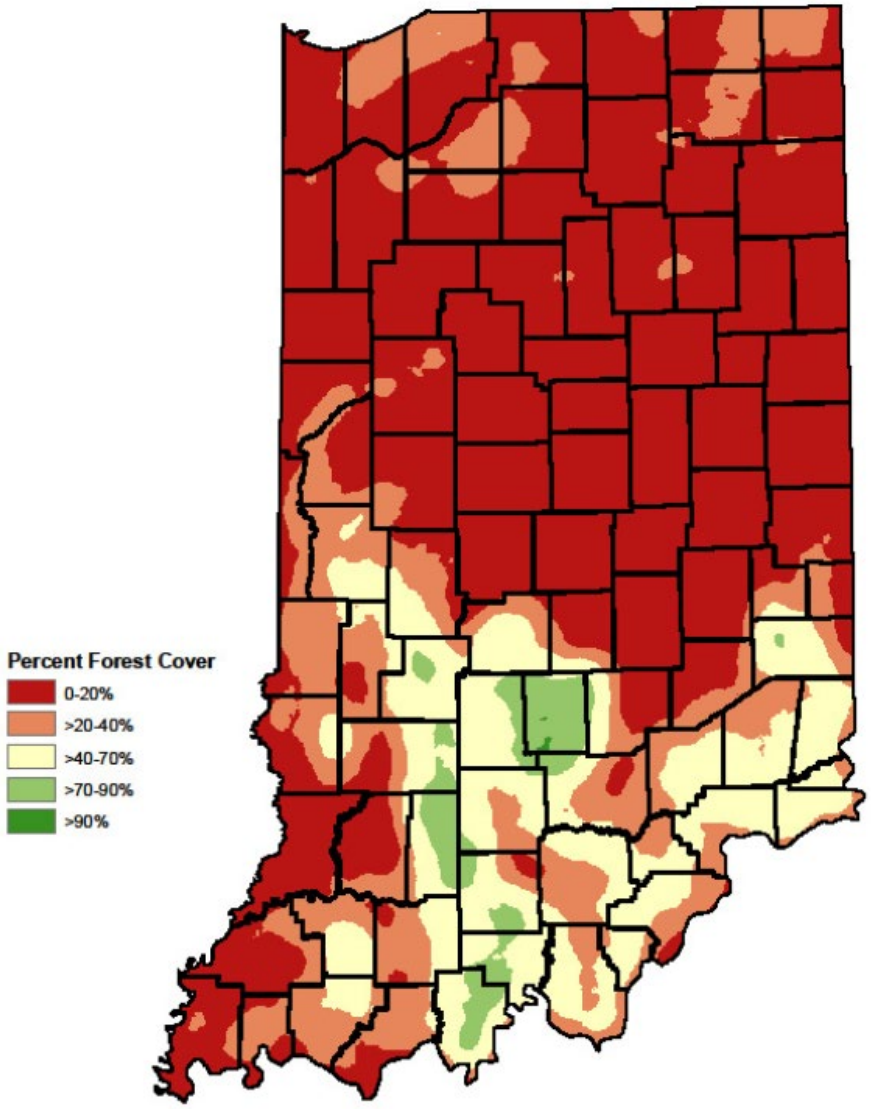
Percent Forest Cover in a 1 KM Radius



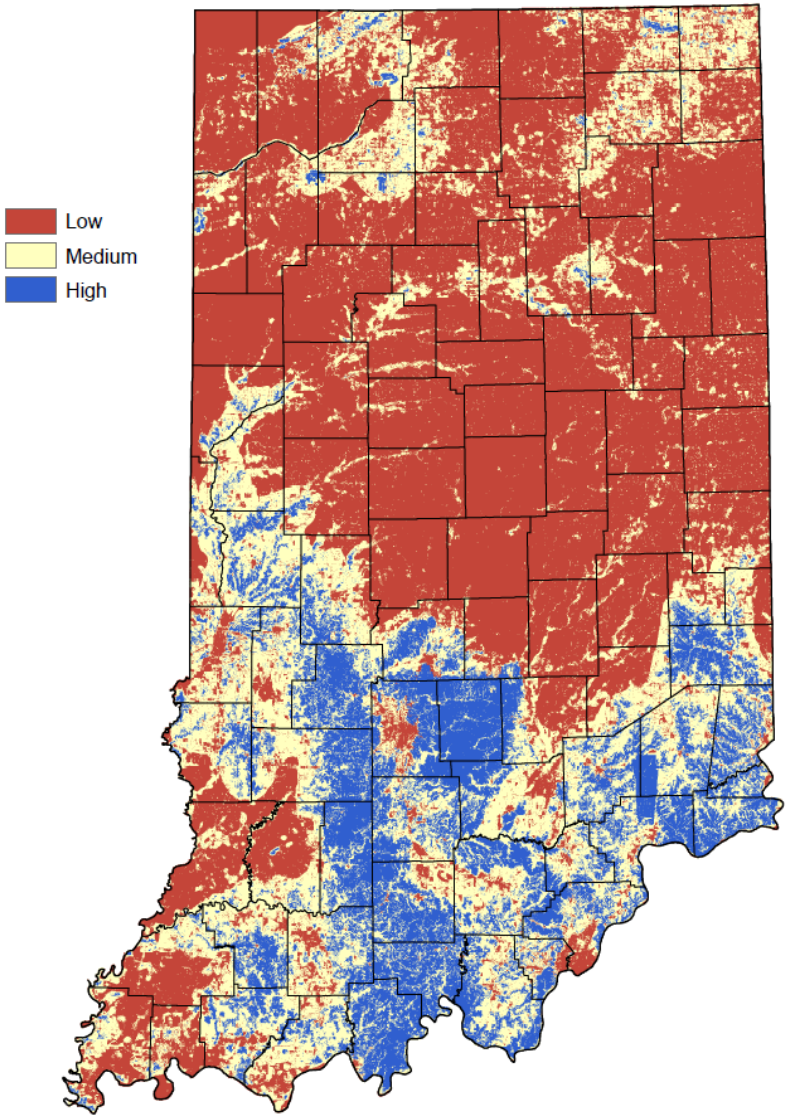
Percent Forest Cover in a 10 KM Radius



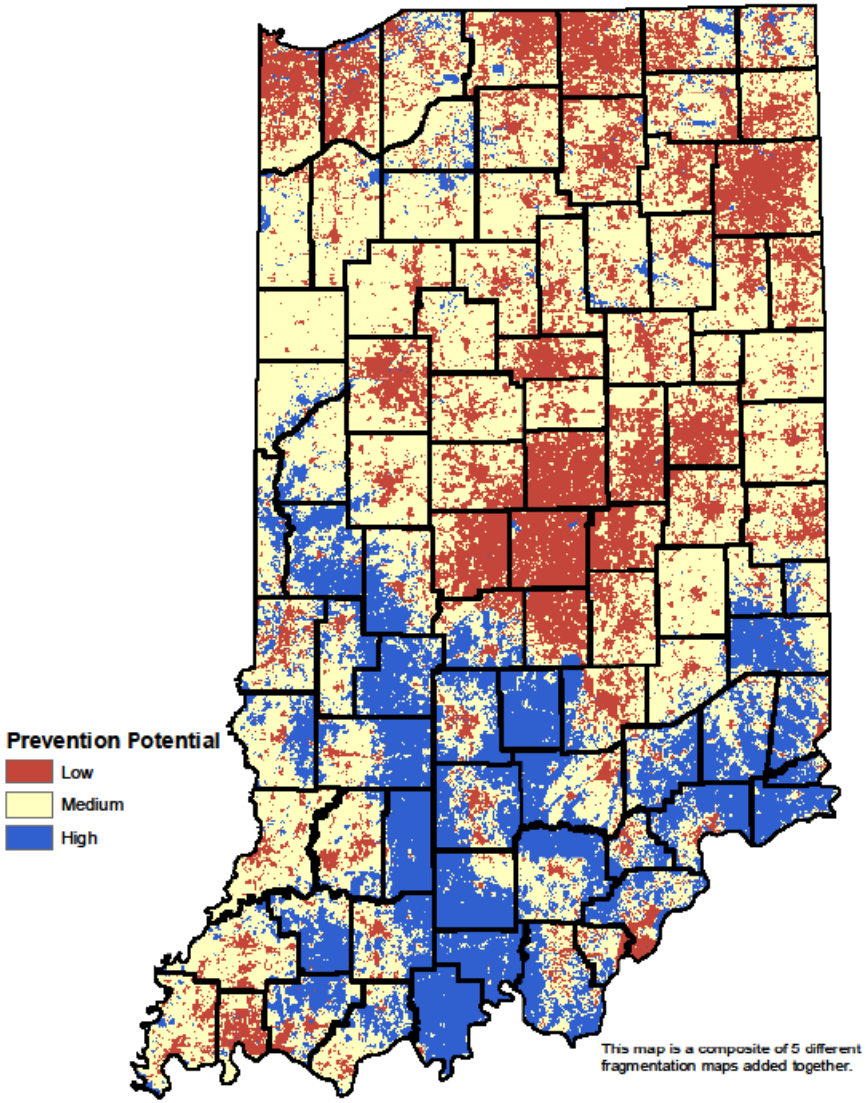
Percent Forest Cover in a 10 KM Radius



Potential to Prevent Fragmentation



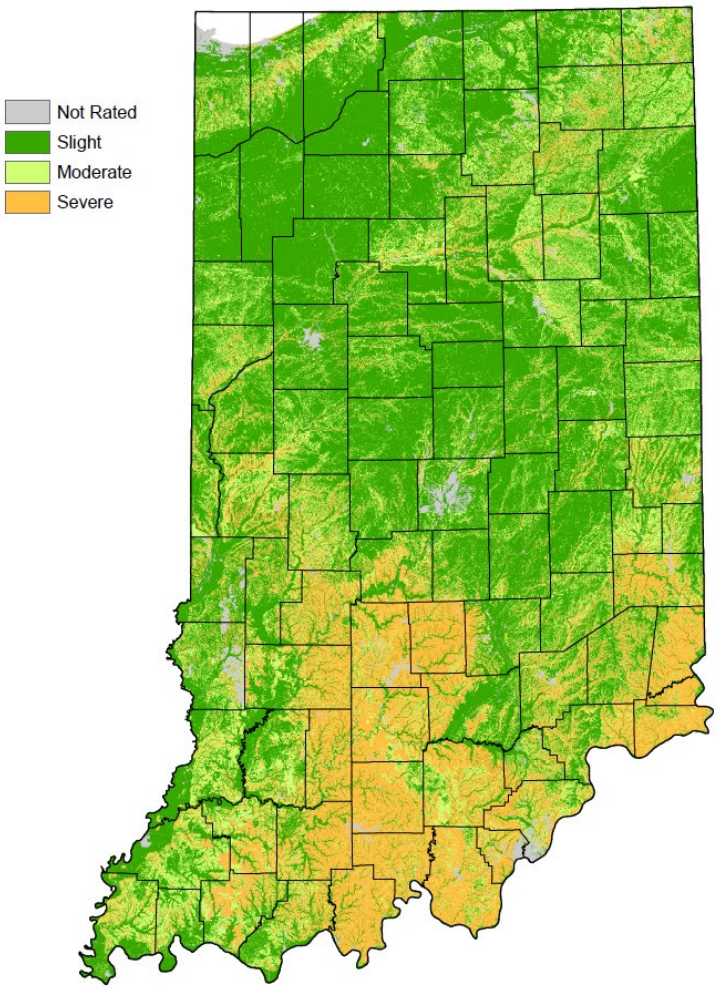
Potential to Prevent Fragmentation



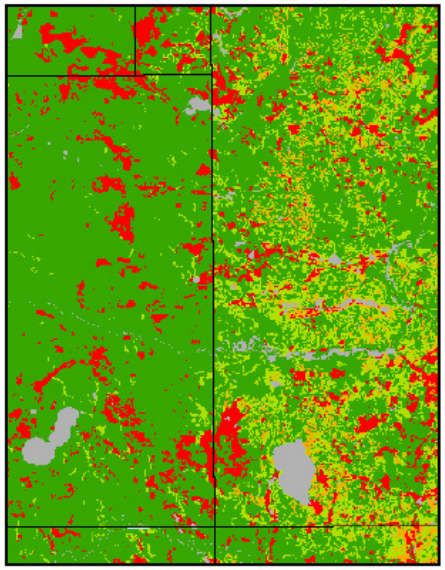
Soil & Water Components

- Erosion Potential
- Perennial Water Features
- Public Water Supply Areas
- Karst Features
- Stream Impairment
- Percent Forest by Watershed
- Forested Riparian Areas
- Impervious Surfaces
- Targeted Slope Percentages

Erosion Potential

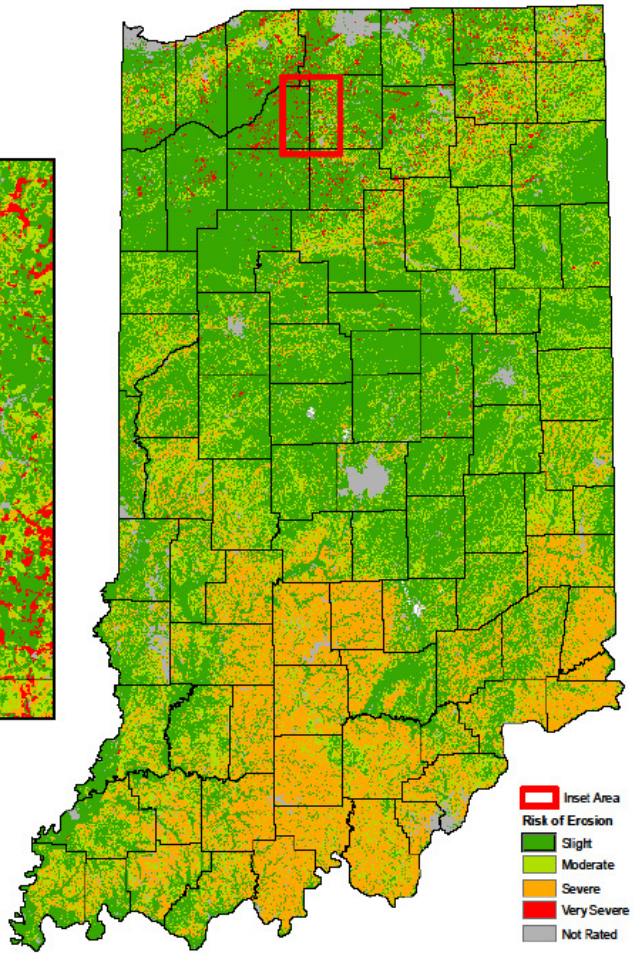


Inset Area
(enlarged to show detail)

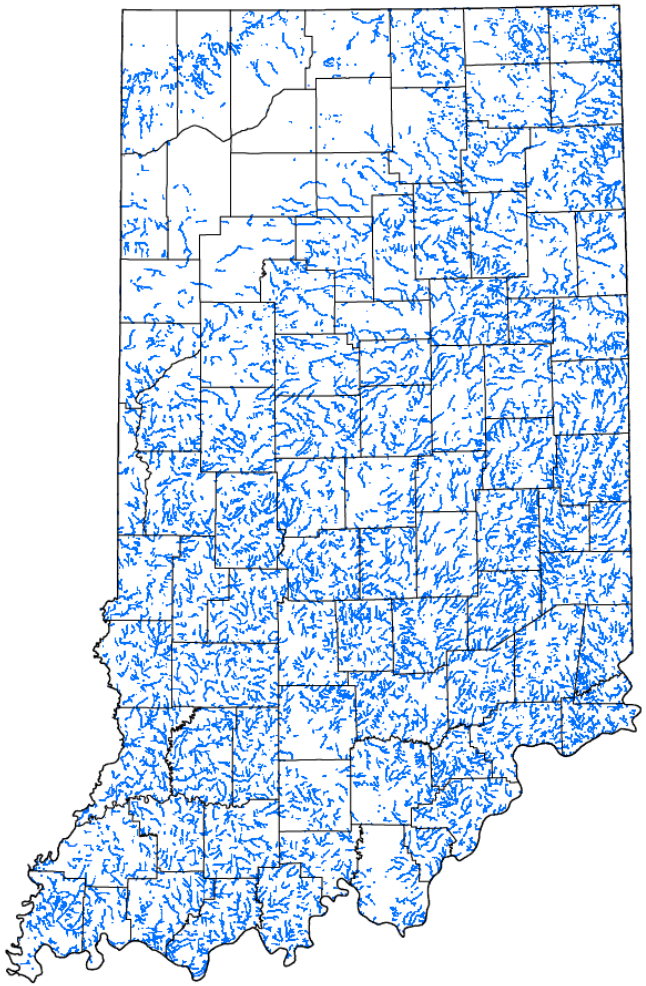


This map shows NRCS designations of soil erosion risk if a dirt road were built, with an inset showing part of north-central Indiana as an example.

Erosion Potential

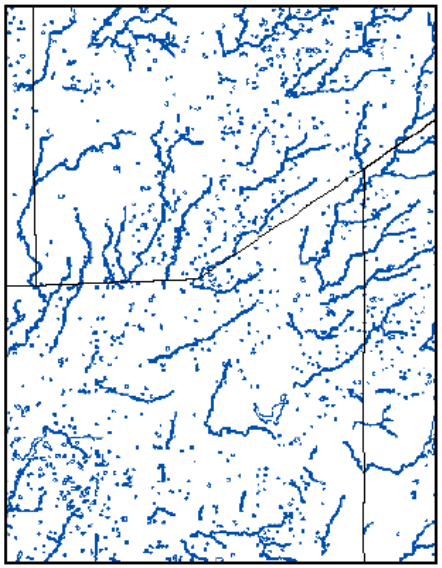


Buffer of Perennial Water Features

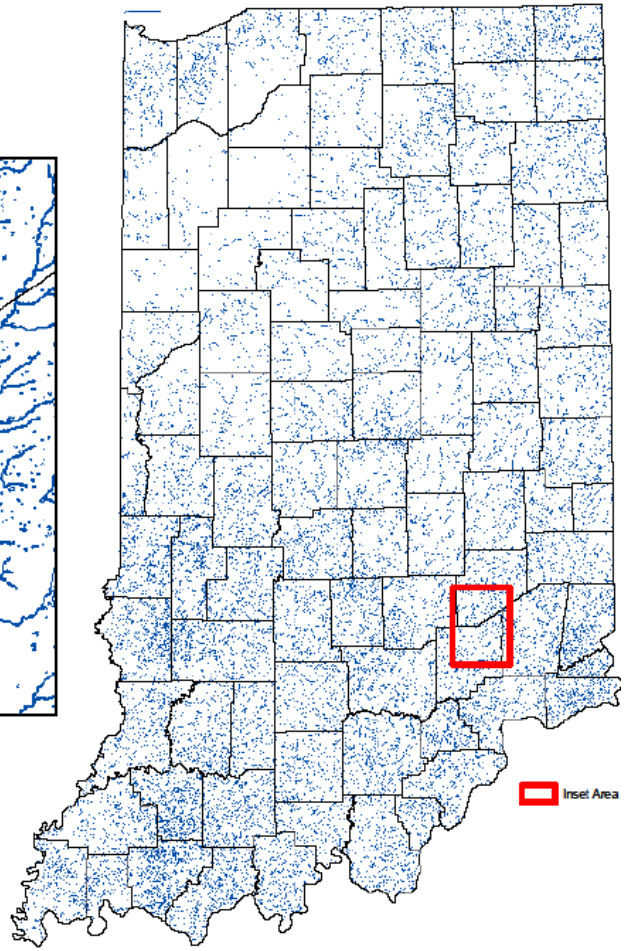


Buffer of Perennial Water Features

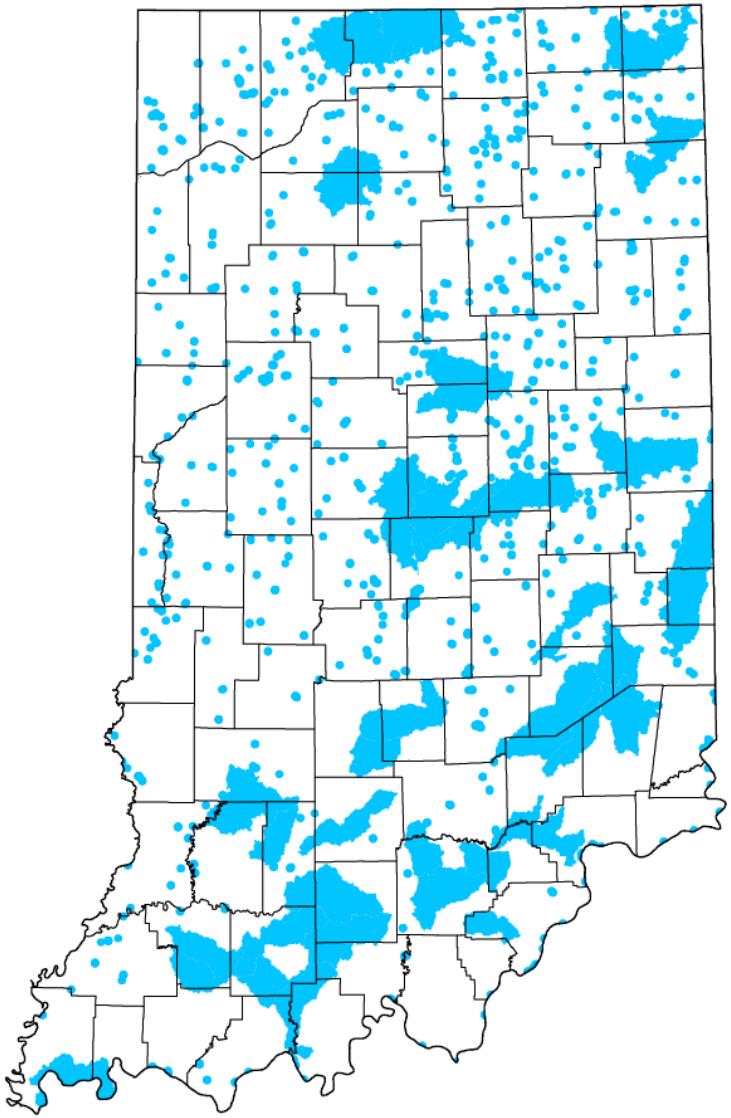
Inset Area
(enlarged to show detail)



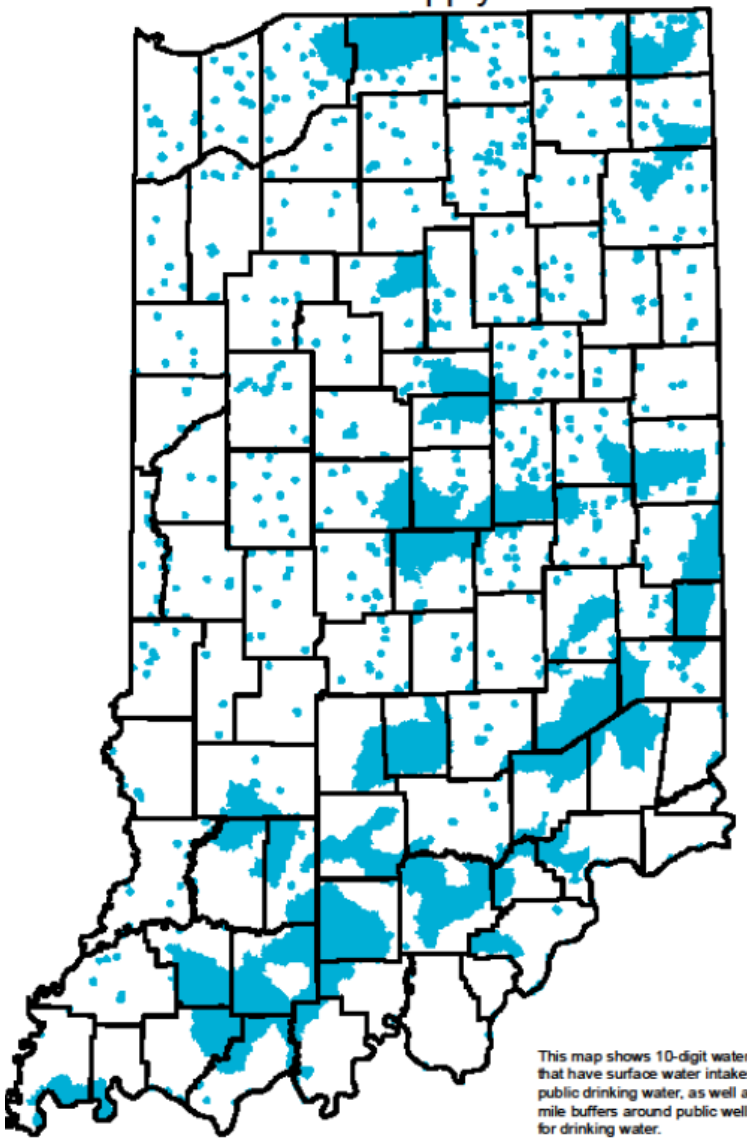
This map shows a 300' buffer around perennial water features in Indiana, with an inset showing part of south-eastern Indiana as an example



Public Water Supply Areas

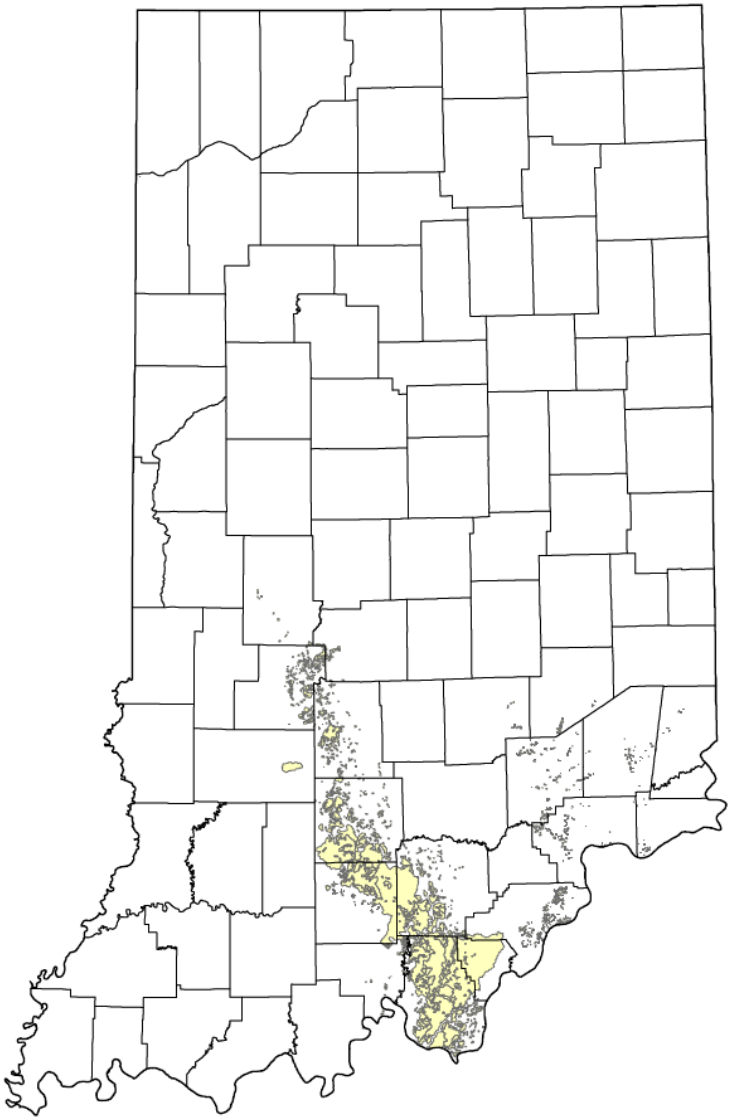


Public Water Supply Areas

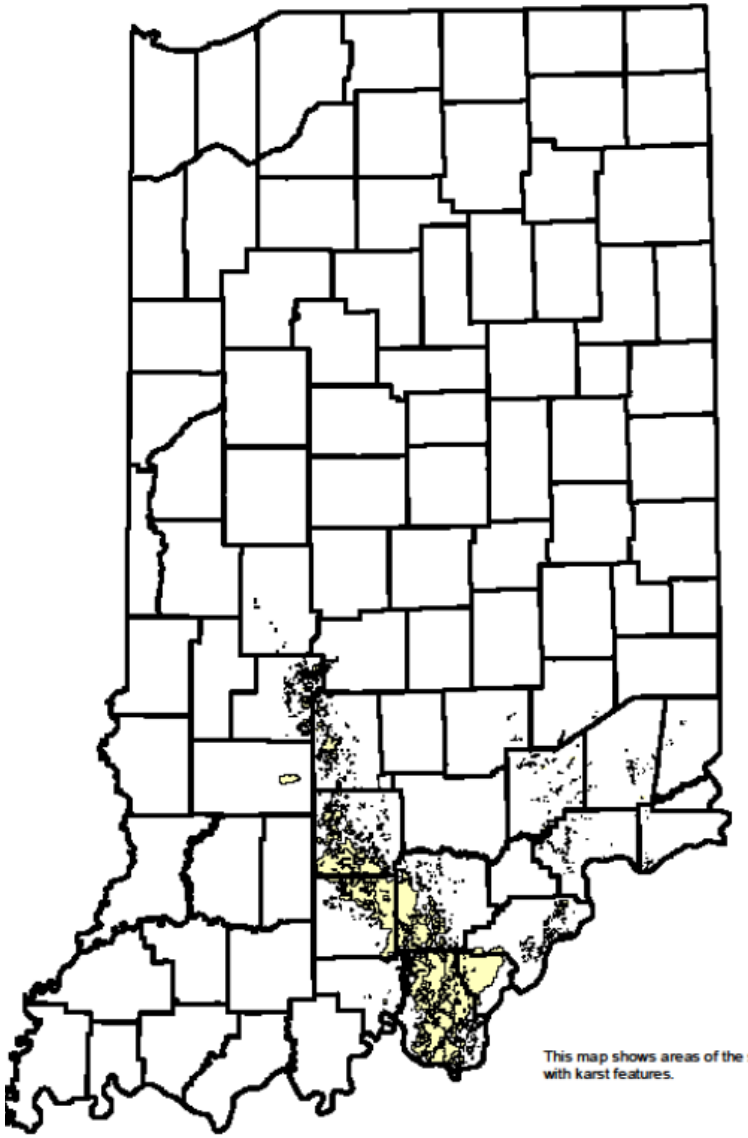


This map shows 10-digit watersheds that have surface water intakes for public drinking water, as well as one mile buffers around public wells used for drinking water.

Karst Features in Indiana

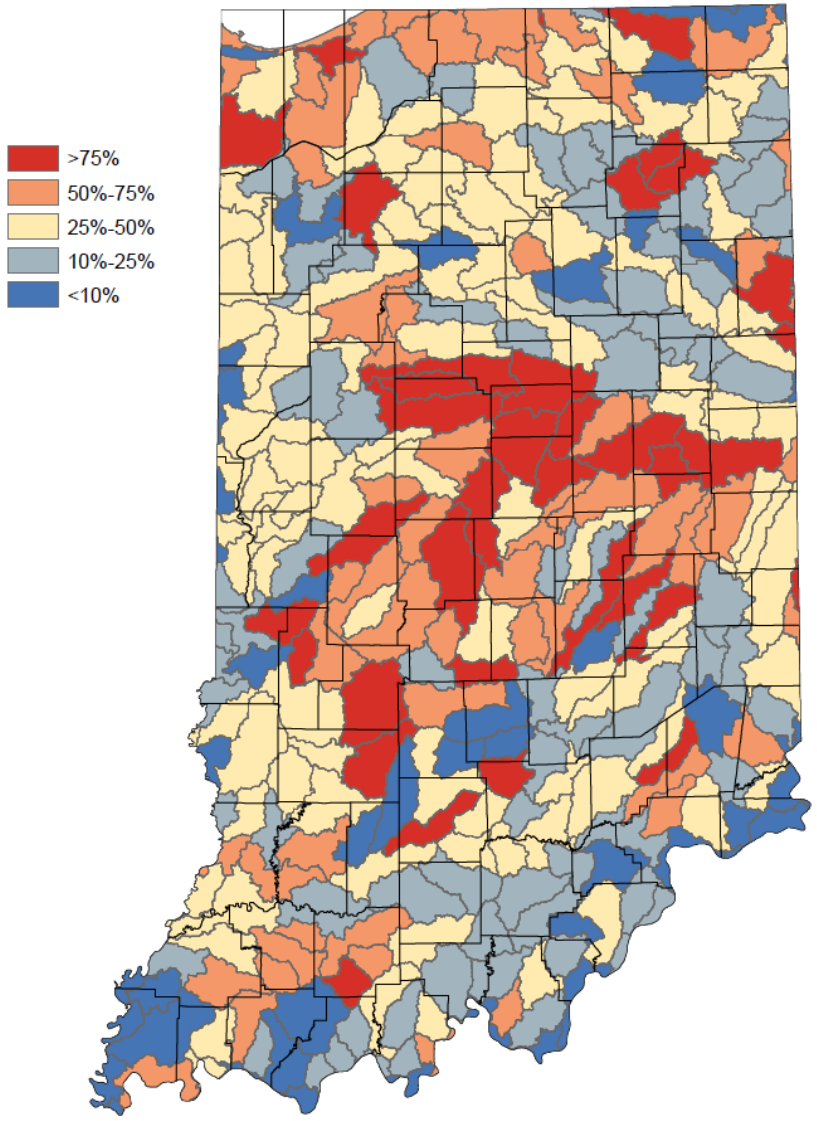


Karst Features in Indiana

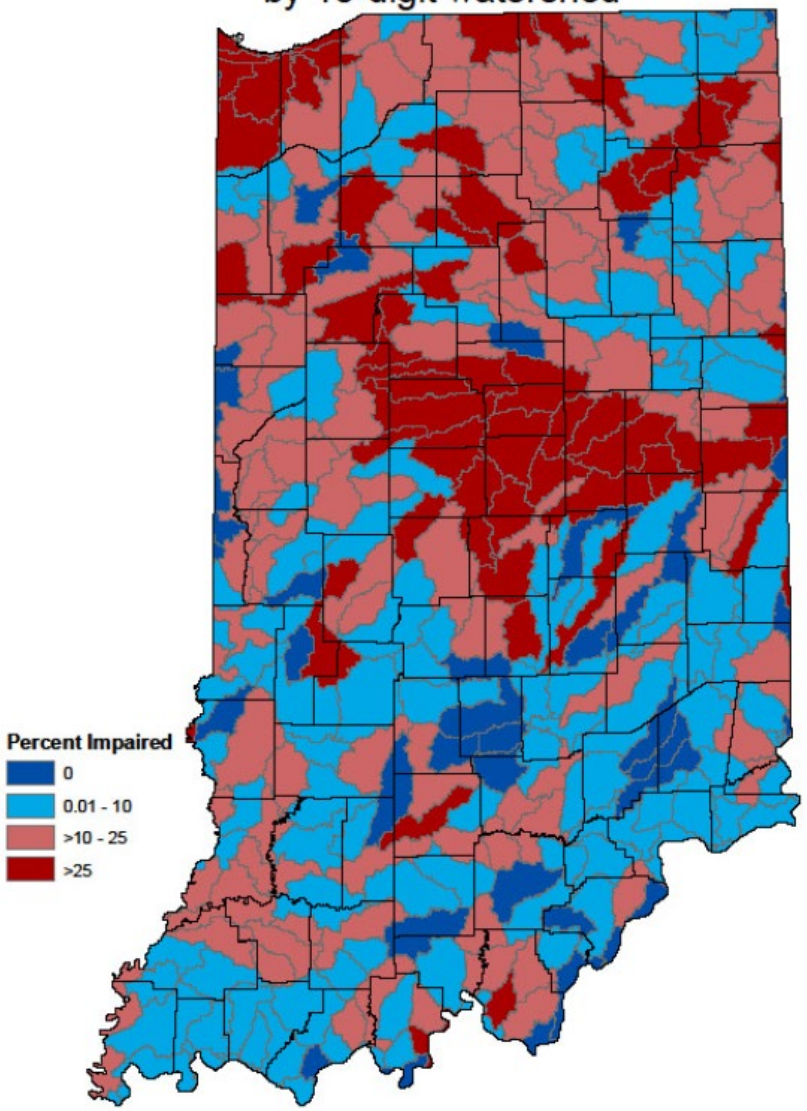


This map shows areas of the state with karst features.

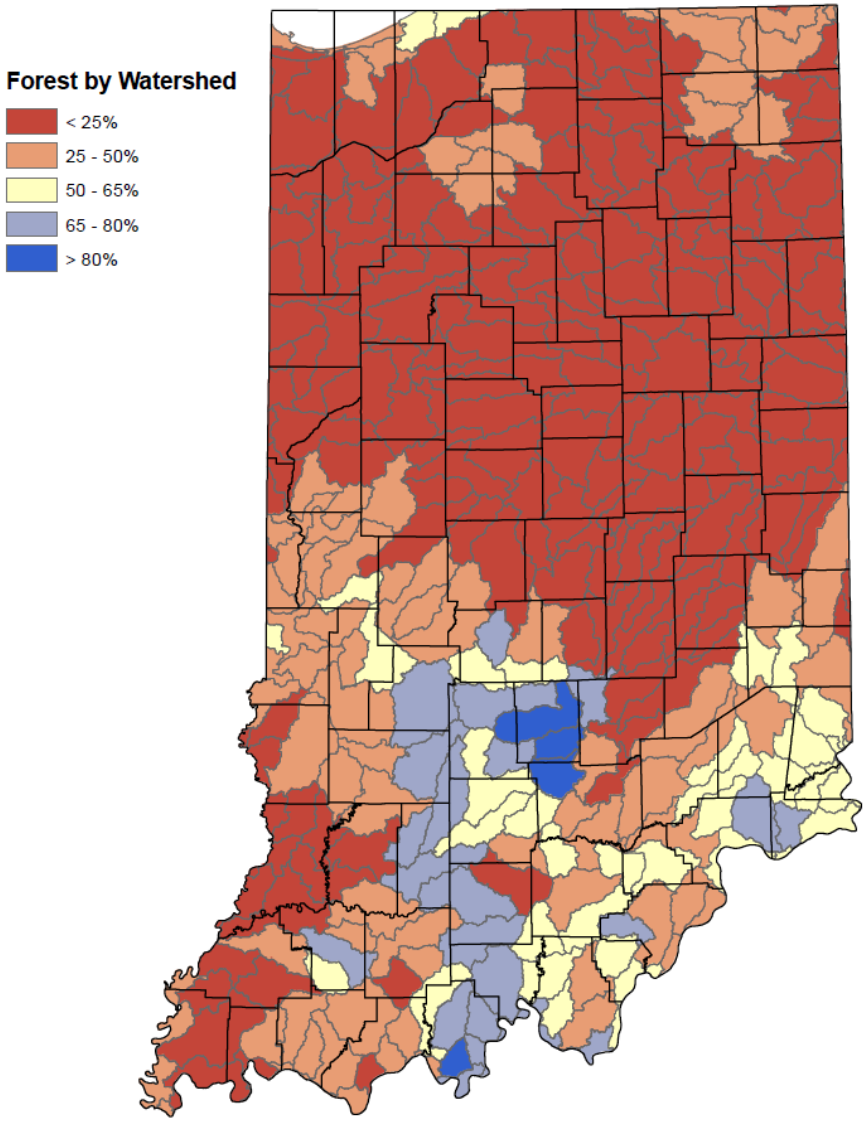
Percent Impaired Streams by 10-digit Watershed



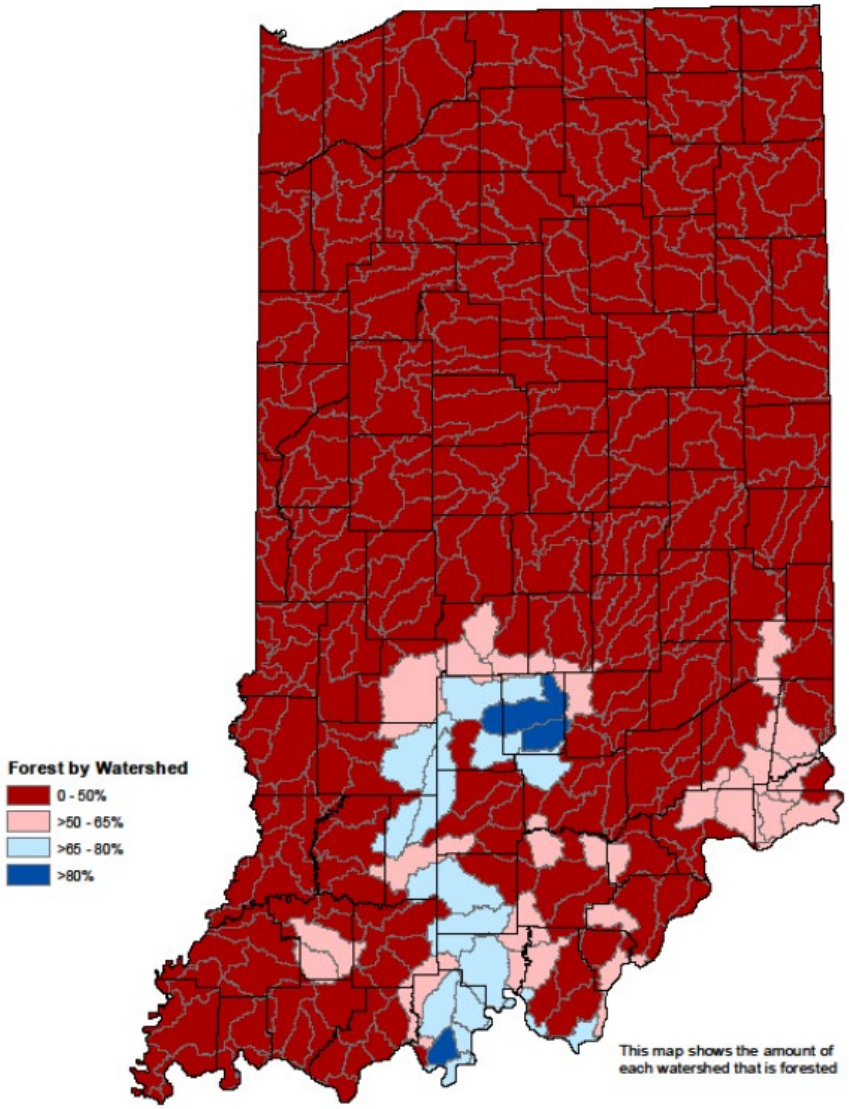
Percentage of Impaired Stream Miles by 10-digit watershed



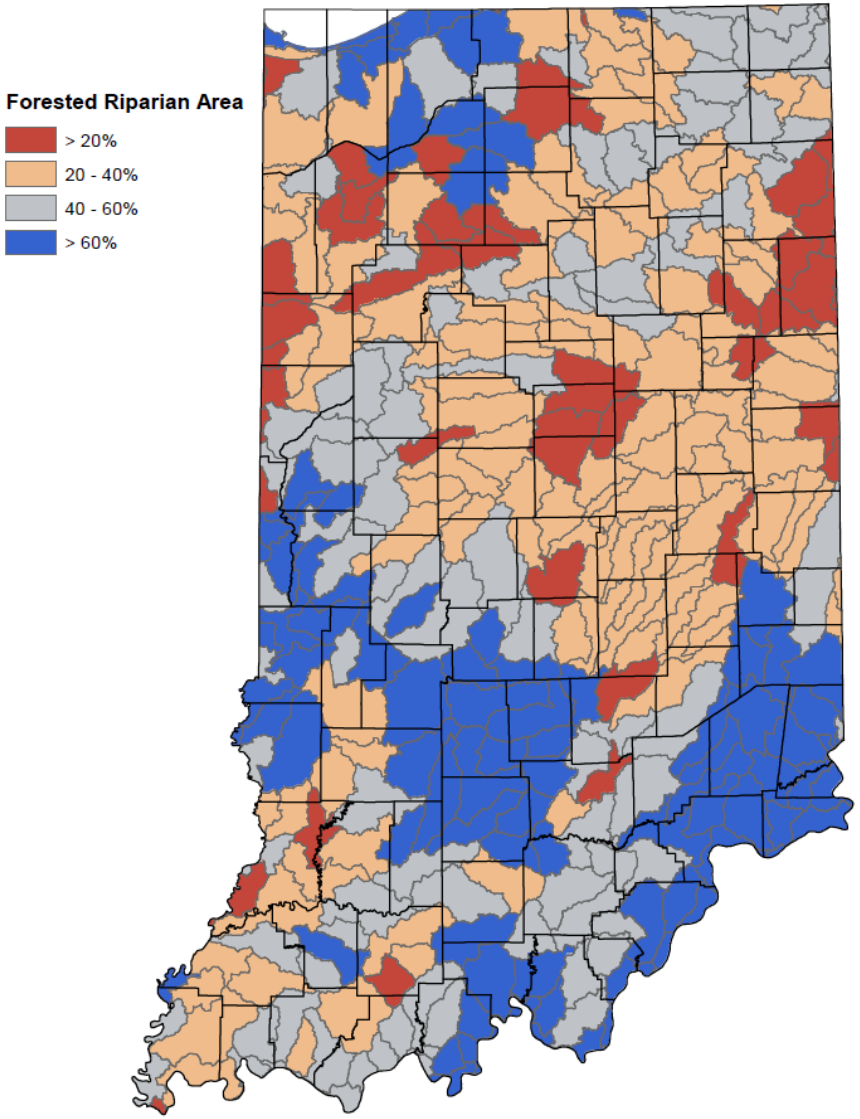
Percent Forestland by 10-digit Watershed



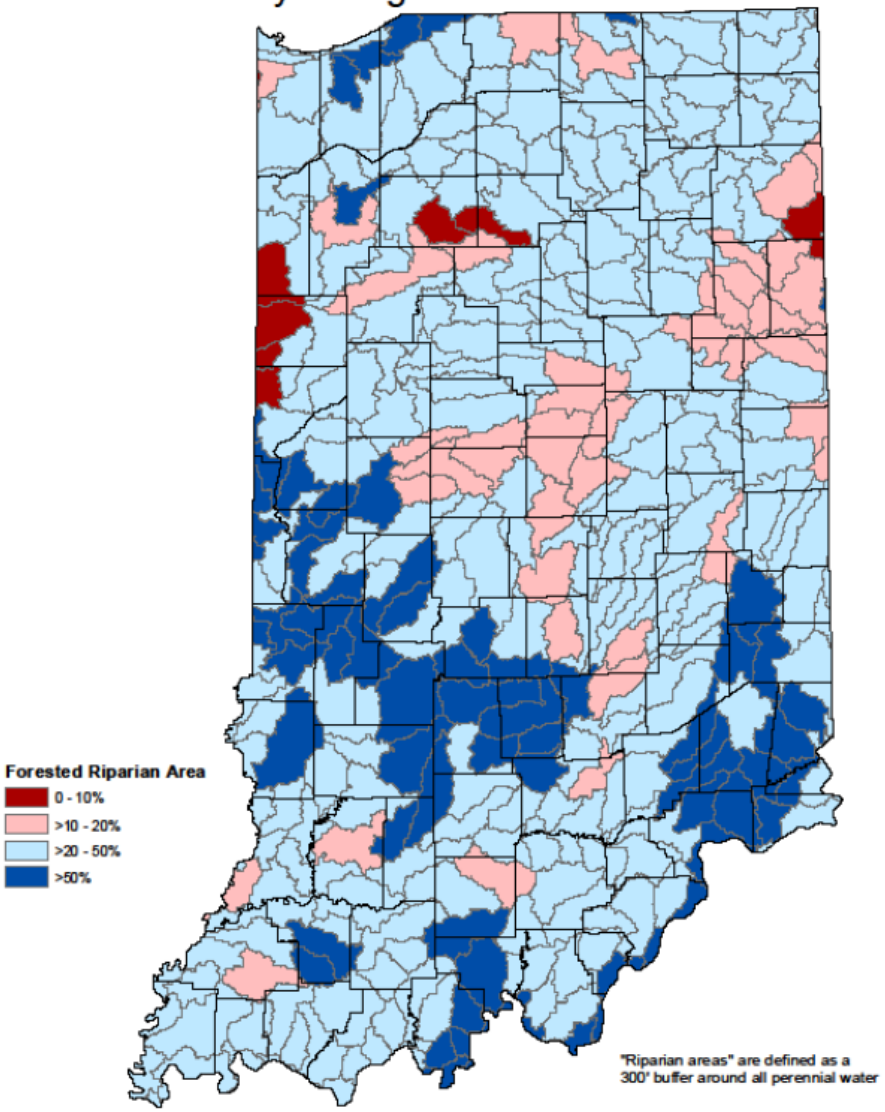
Percentage Forestland by 10-digit Watershed



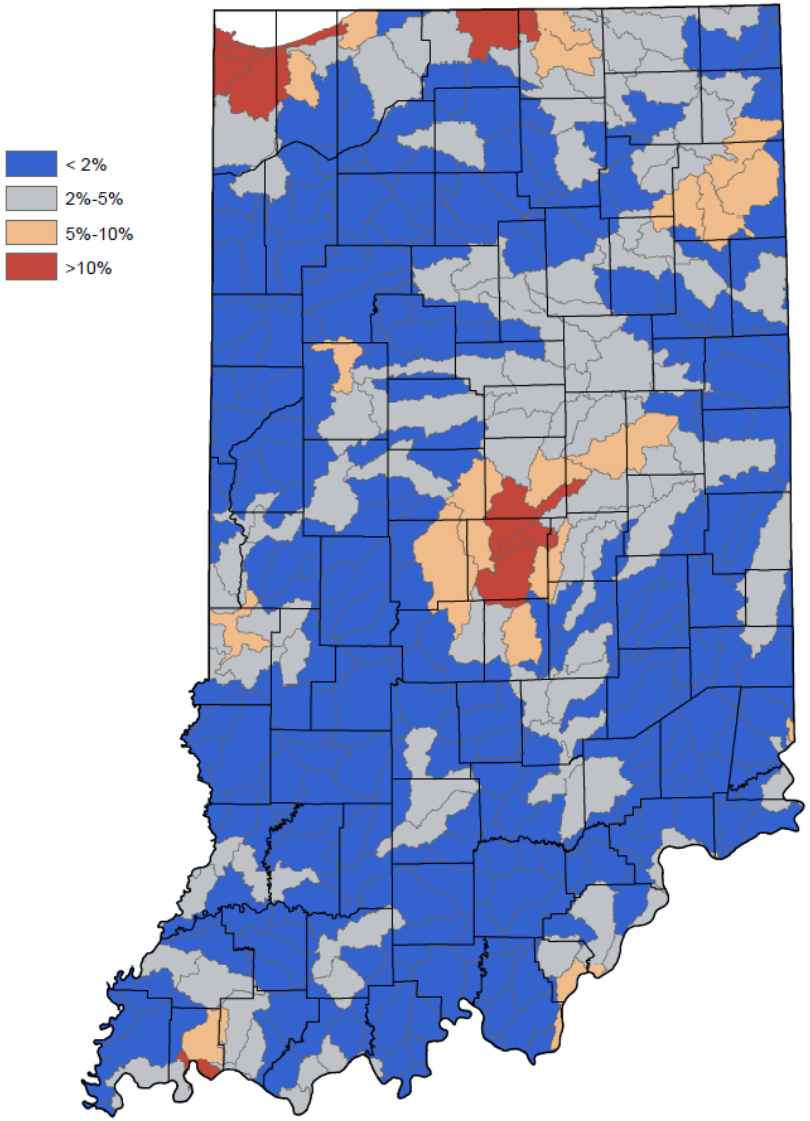
Percent Forested Riparian Areas by Watershed



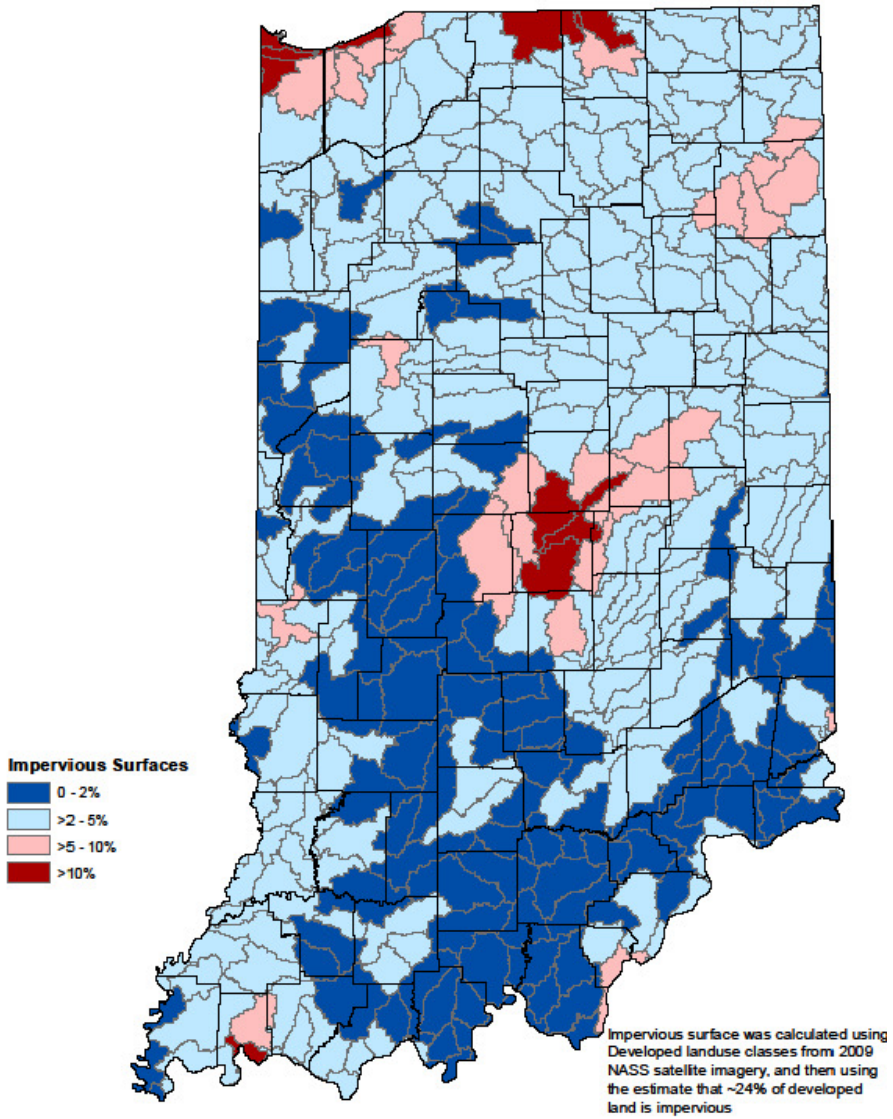
Percentage of Forested Riparian Areas by 10-digit Watershed



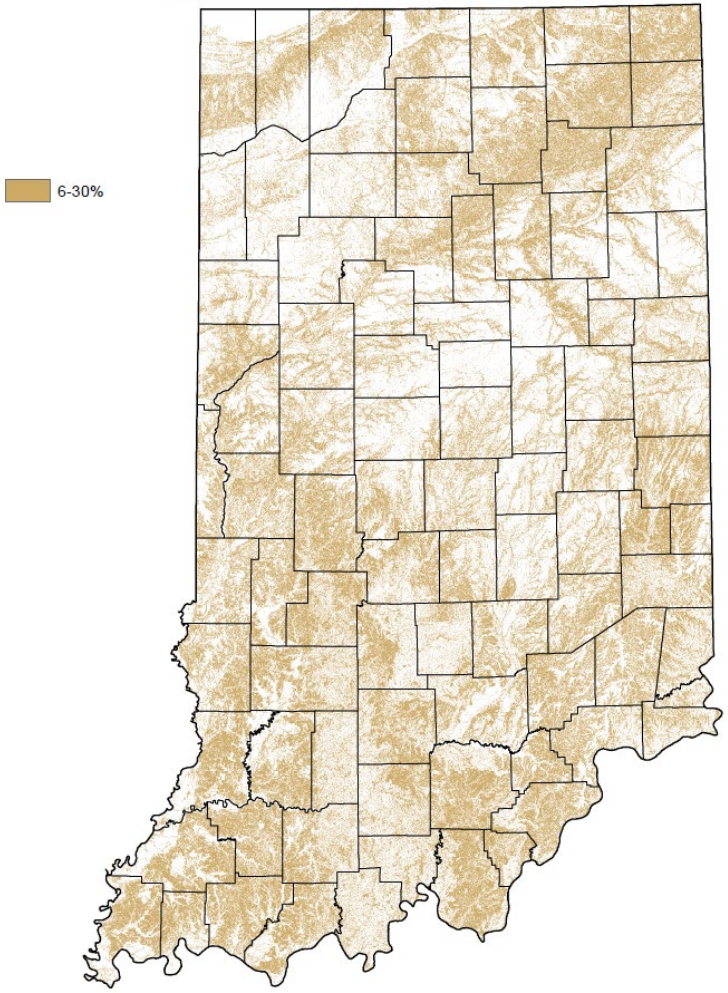
Percent Impervious Surface by 10-digit Watershed



Percentage Impervious Surface by 10-digit Watershed

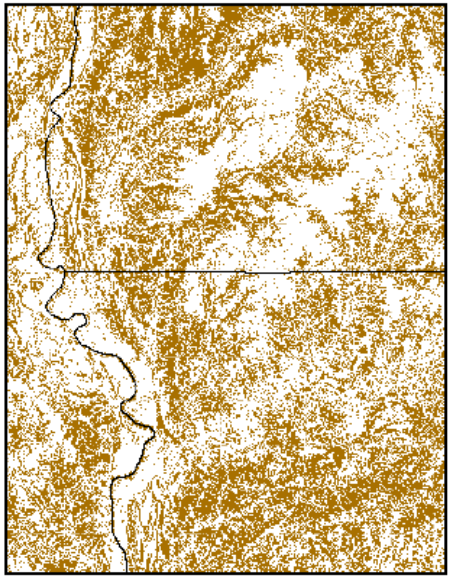


Targeted Slope Percentages

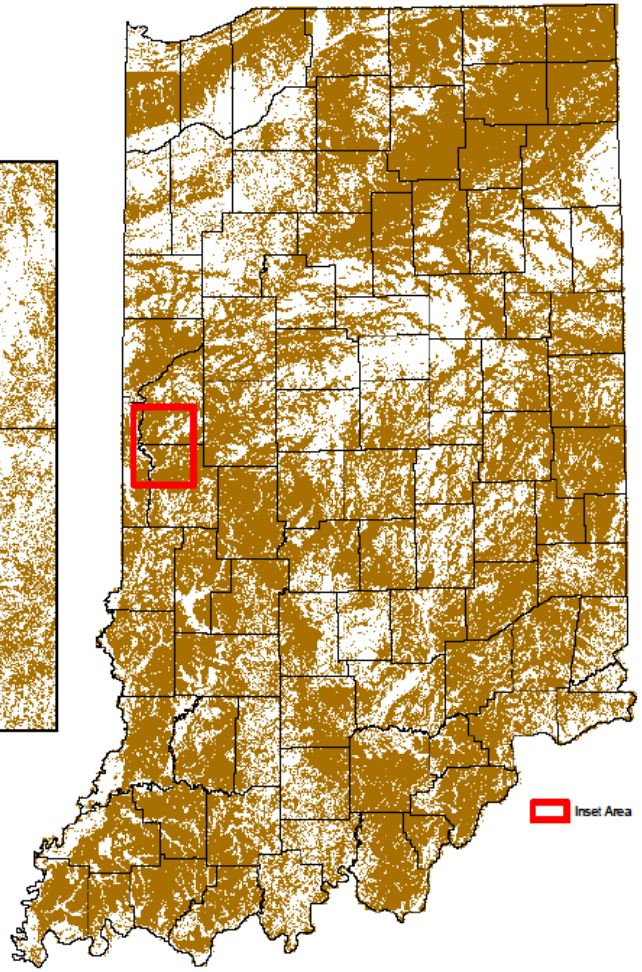


Targeted Slope Percentages

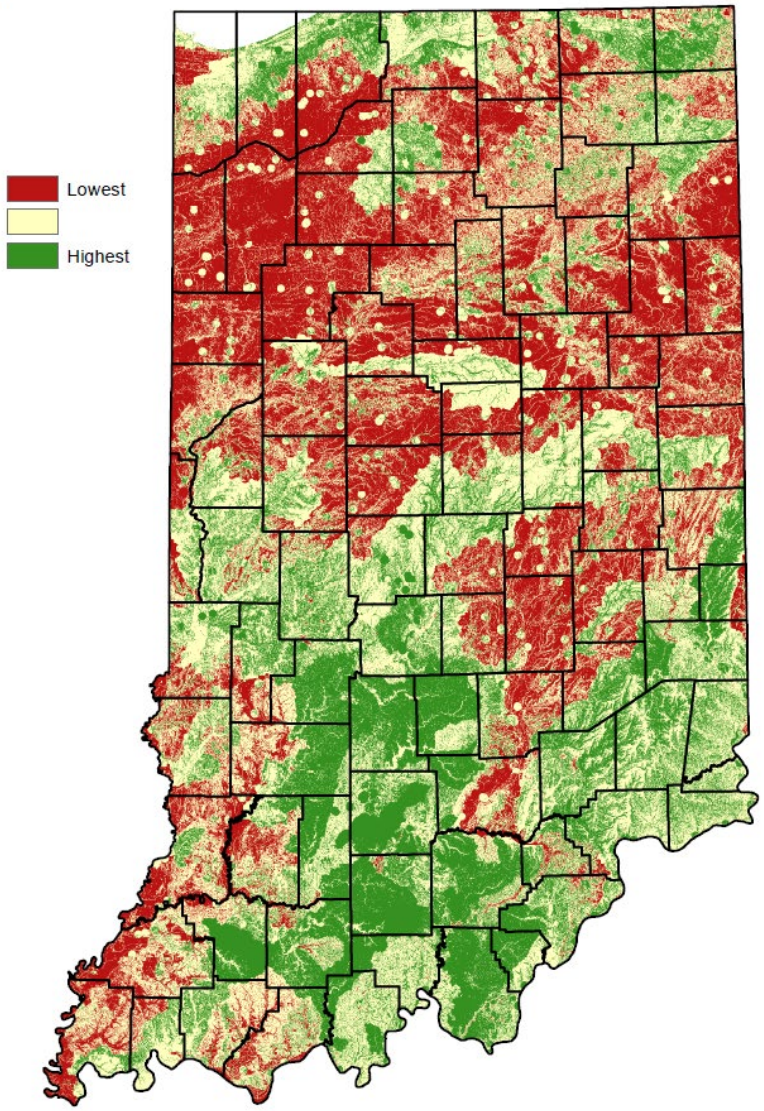
Inset Area
(enlarged to show detail)



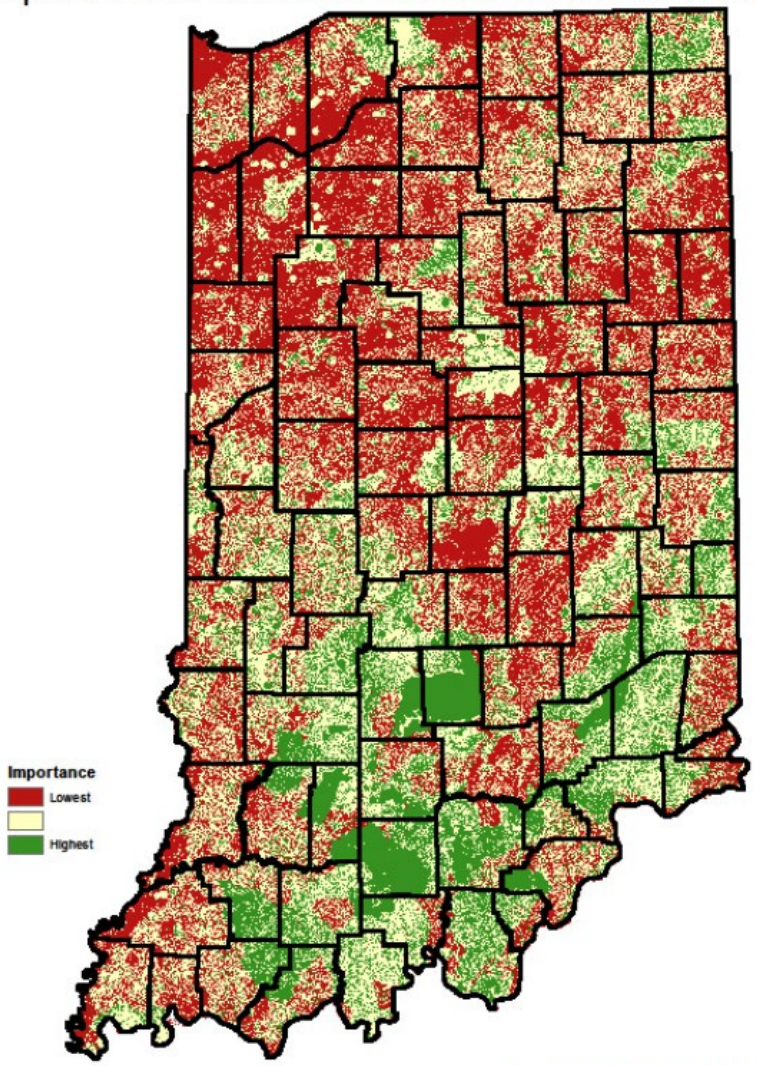
This map shows areas of Indiana where the slope is between 6-30%, which is generally steeper than is ideal for agriculture, but still level enough that it is likely to have some man-made use on it. An inset showing the west-central part of the state along the Wabash river is included to show detail.



Importance of Lands for Soil and Water Conservation



Importance of Lands for Soil and Water Conservation

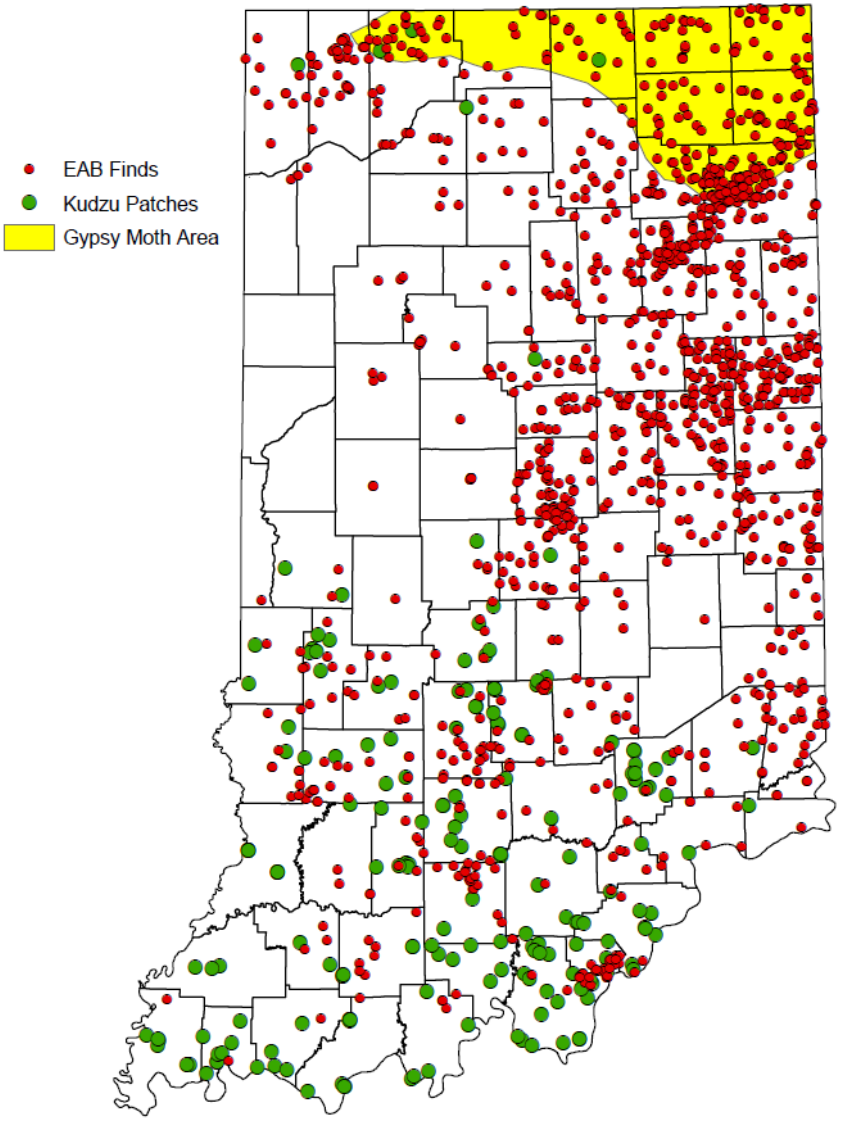


This map is a composite of 9 different layers
of various soil and water factors added together

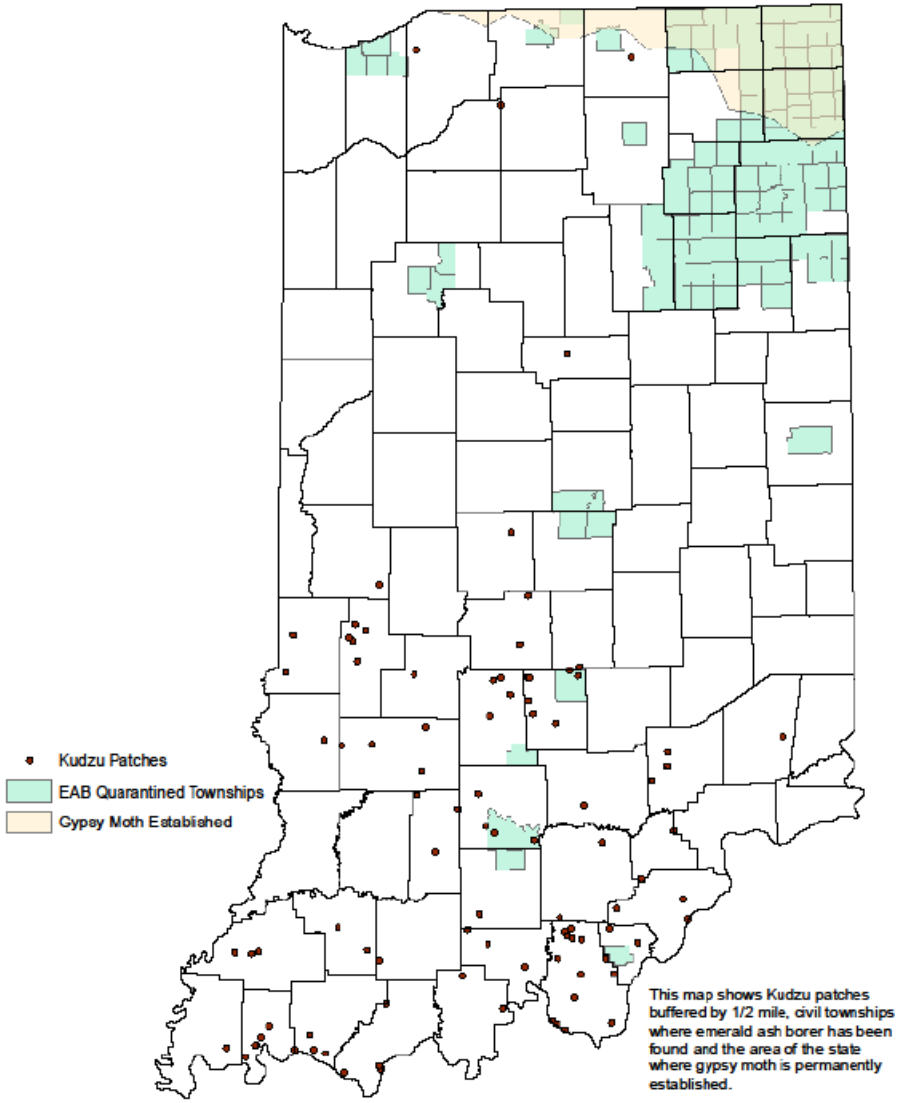
Invasive Species Components

- Emerald Ash Borer (EAB)
- Gypsy Moth
- Kudzu
- Forest Corridors
- Home Density

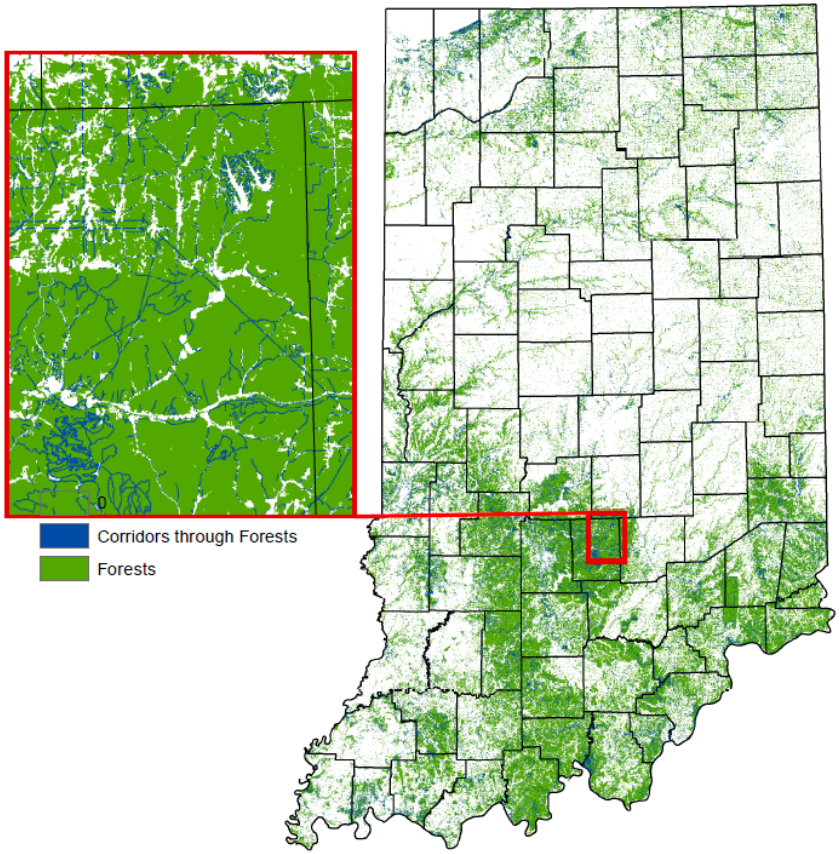
Emerald Ash Borer, Gypsy Moth, and Kudzu



Emerald Ash Borer, Gypsy Moth and Kudzu Locations

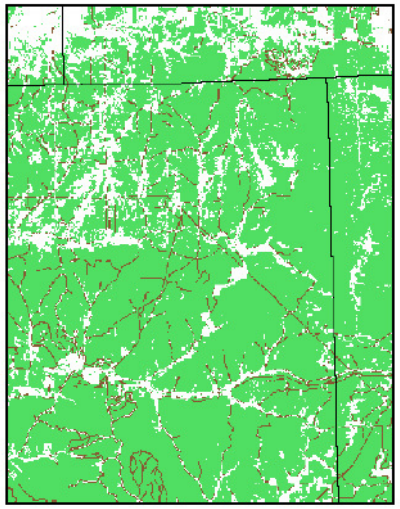


Maintained Corridors through Forests

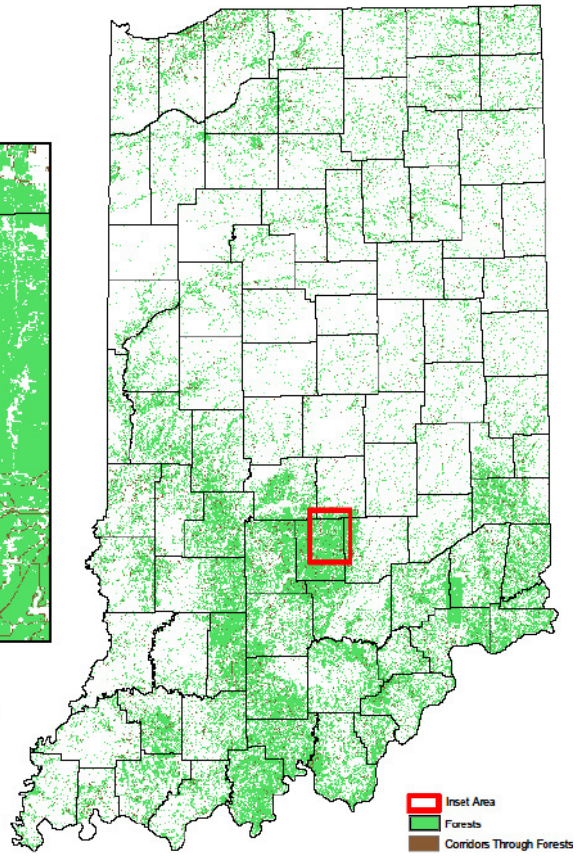


Maintained Corridors Through Forests

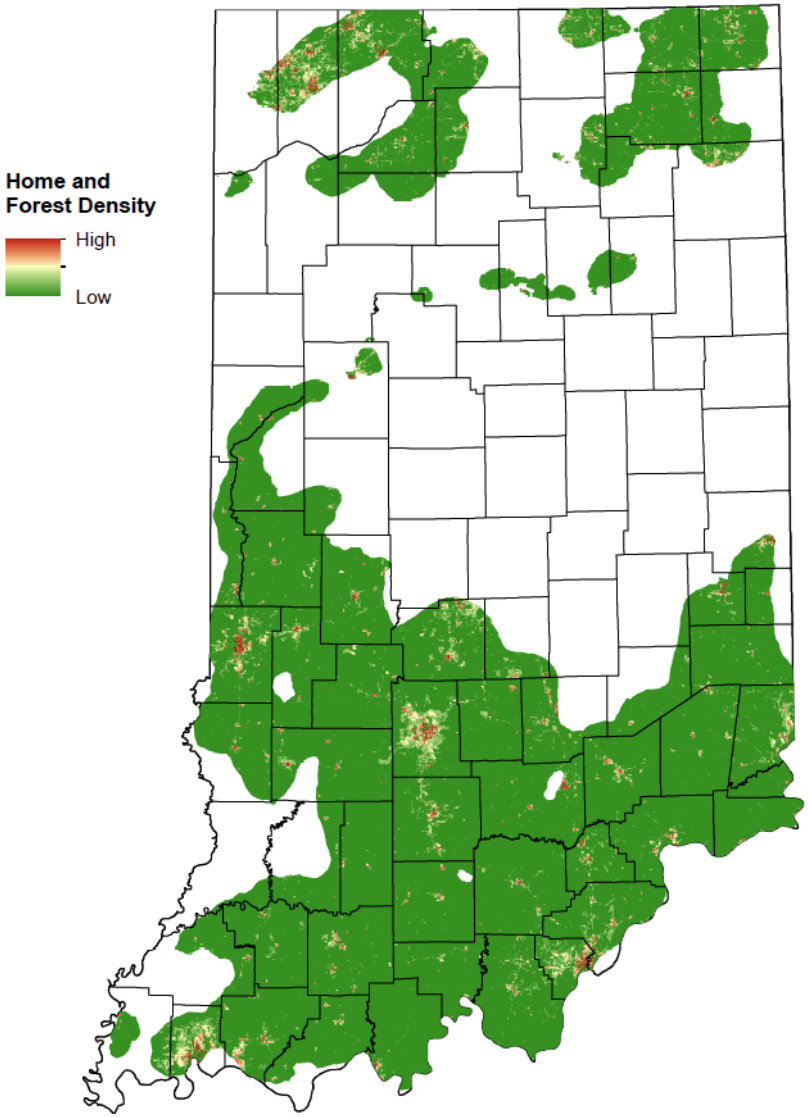
Inset Area
(enlarged to show detail)



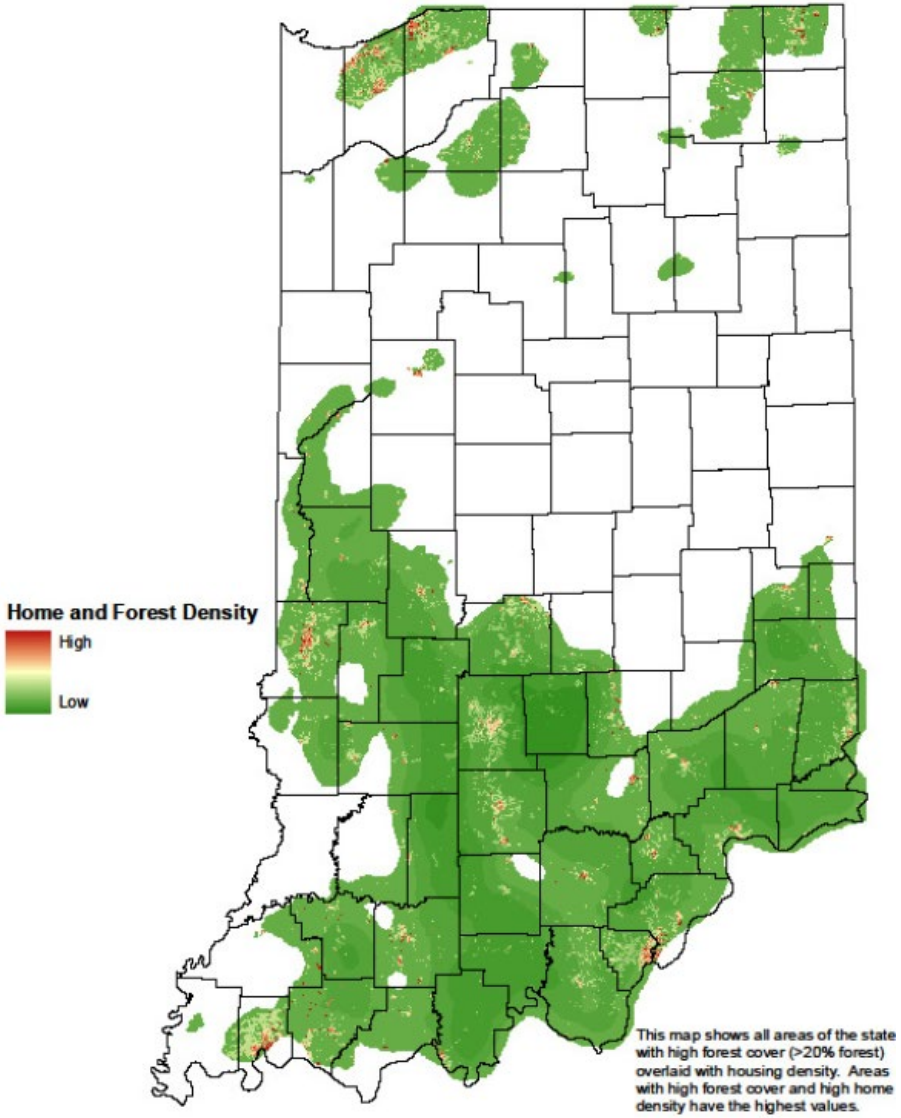
This map shows corridors (roads, railroads, powerline and pipeline easements, and trails) that pass through forests in Indiana. An inset of the Brown County Hills area is included to better show detail.



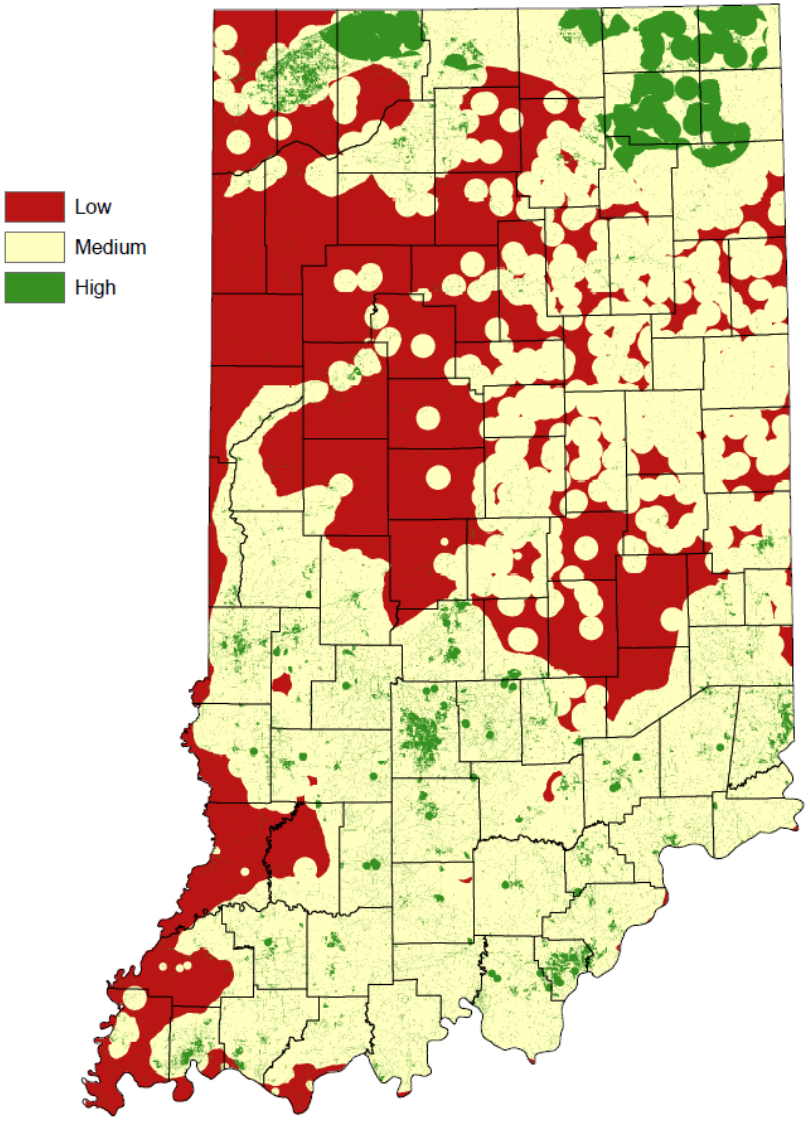
Home Density and Forest Cover



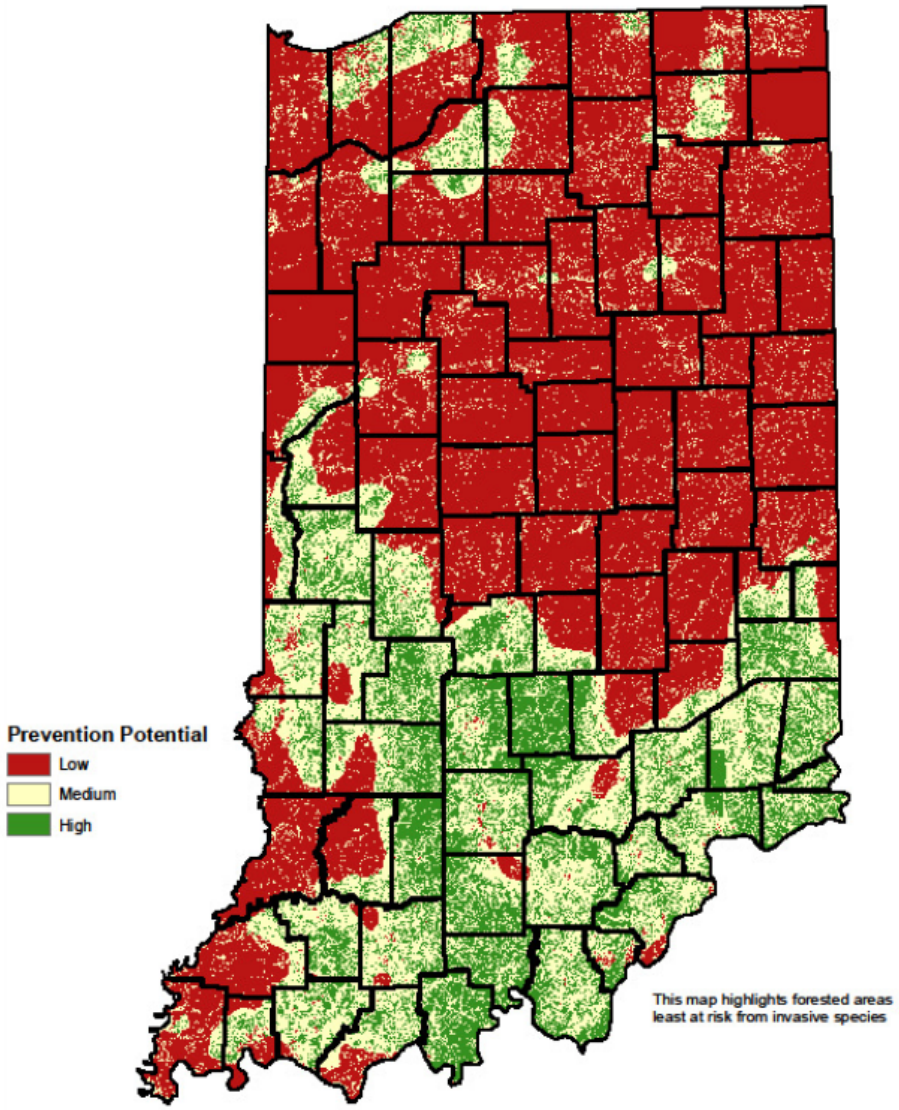
Home Density and Forest Cover



Potential to Prevent Invasive Species



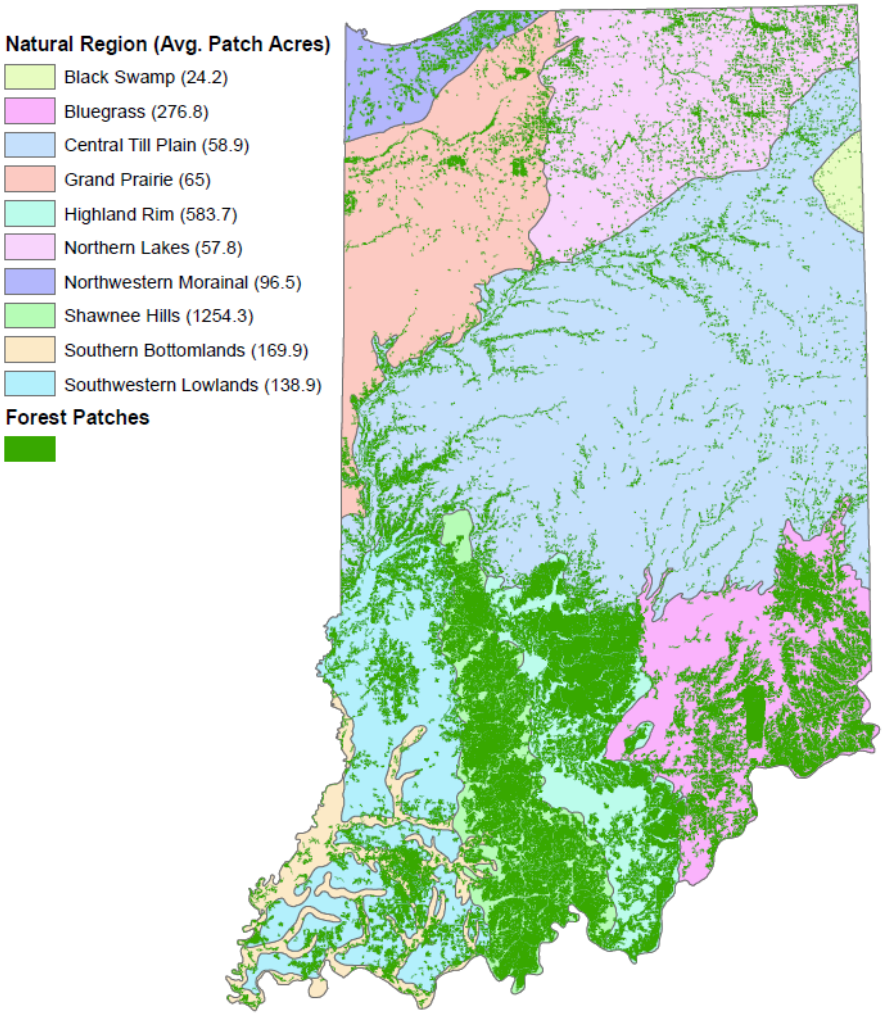
Potential to Prevent Invasive Species



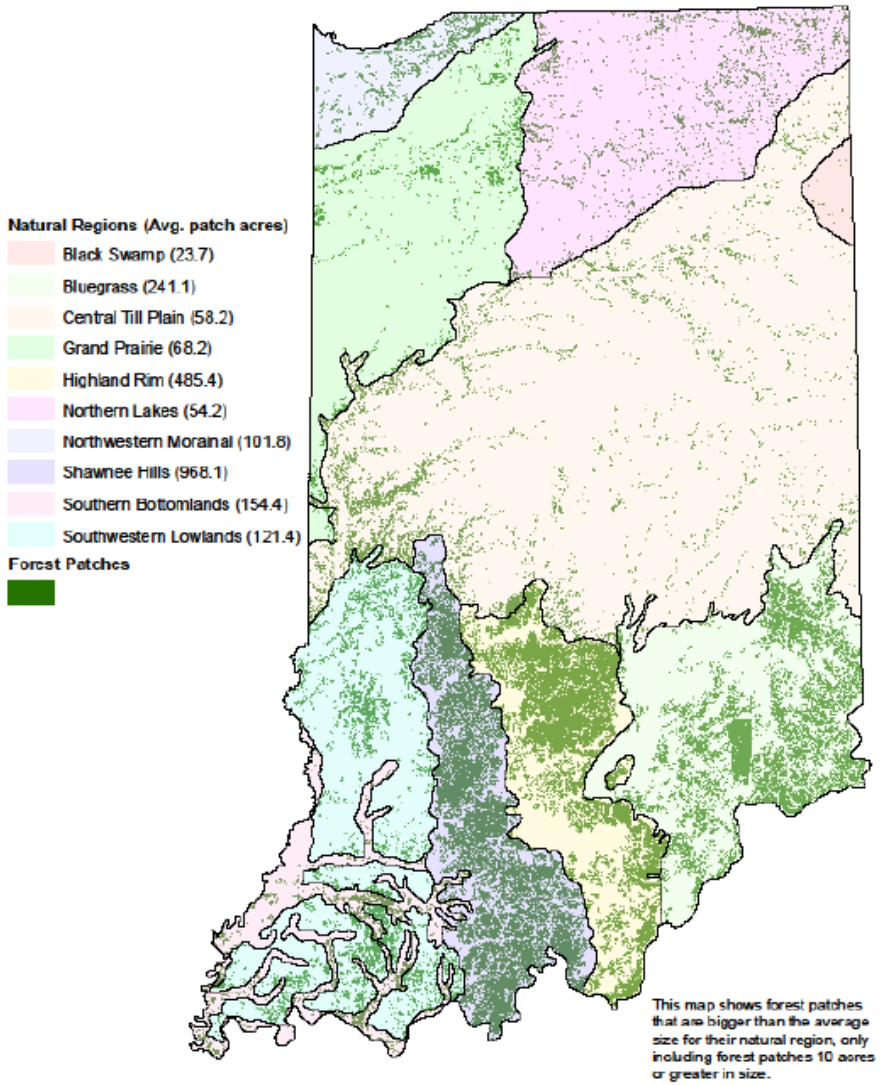
Biodiversity Components

- Above Average Forest Patches by Natural Region
- Buffered Wetlands
- Rare Forest Communities
- Large Forest Patches in Areas of Low Forest Cover

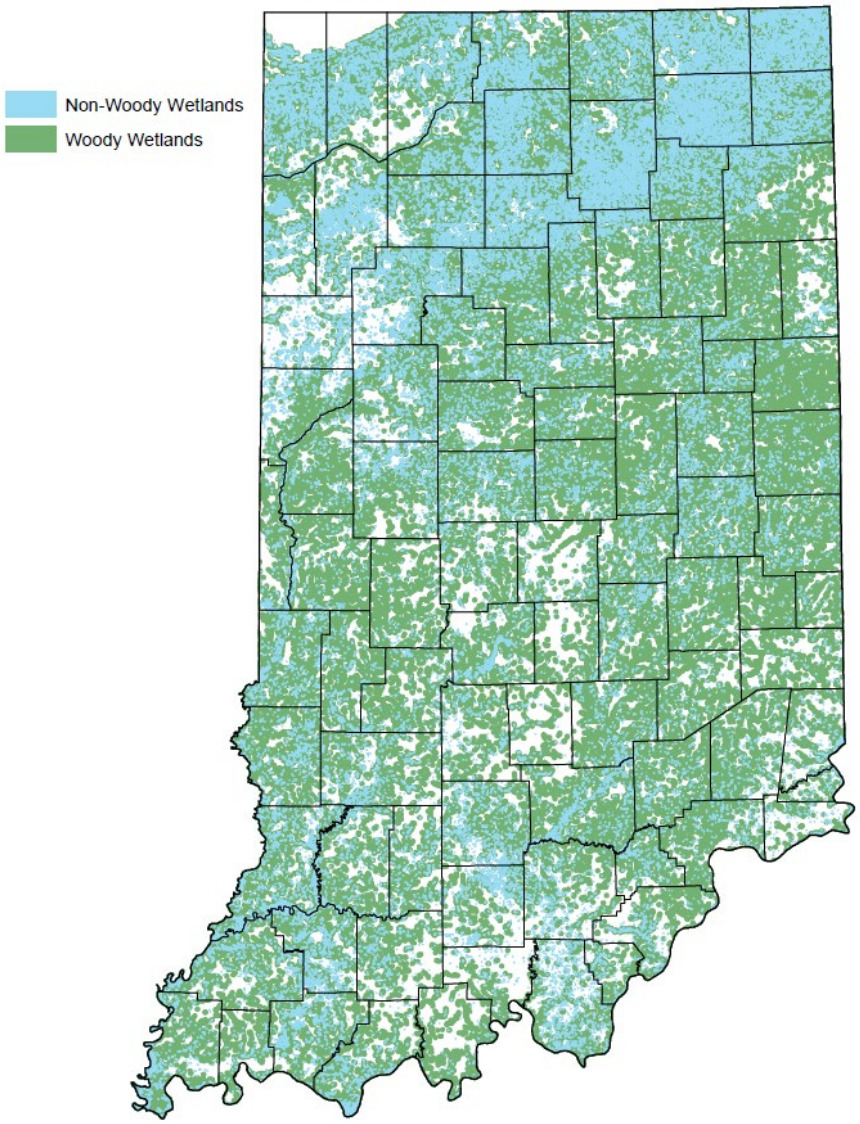
Above Average Forest Patches by Natural Region



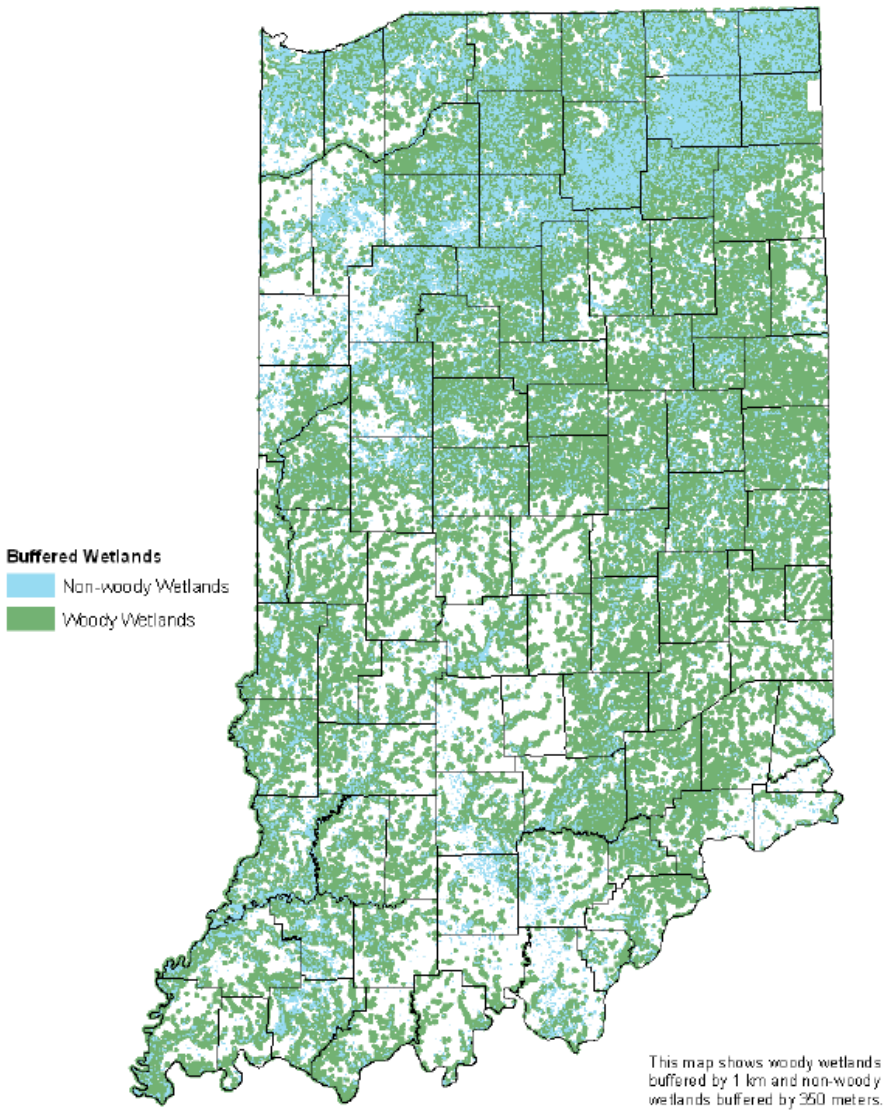
Above Average Forest Patches by Natural Region



Buffered Wetlands

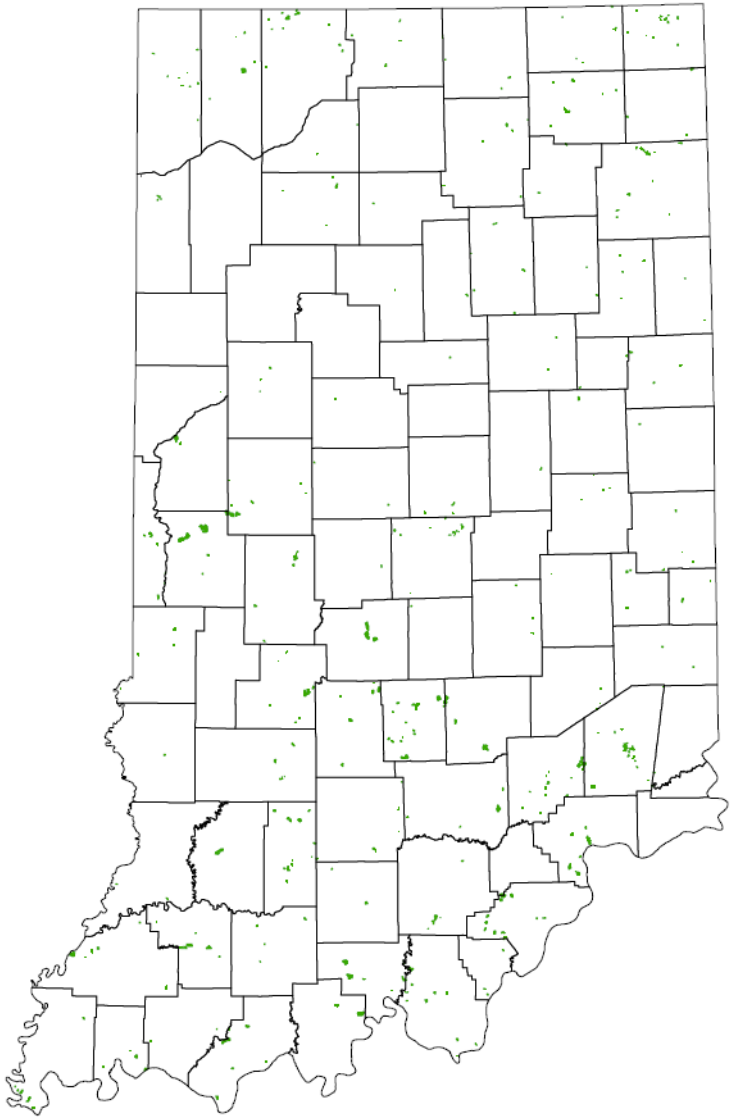


Buffered Wetlands

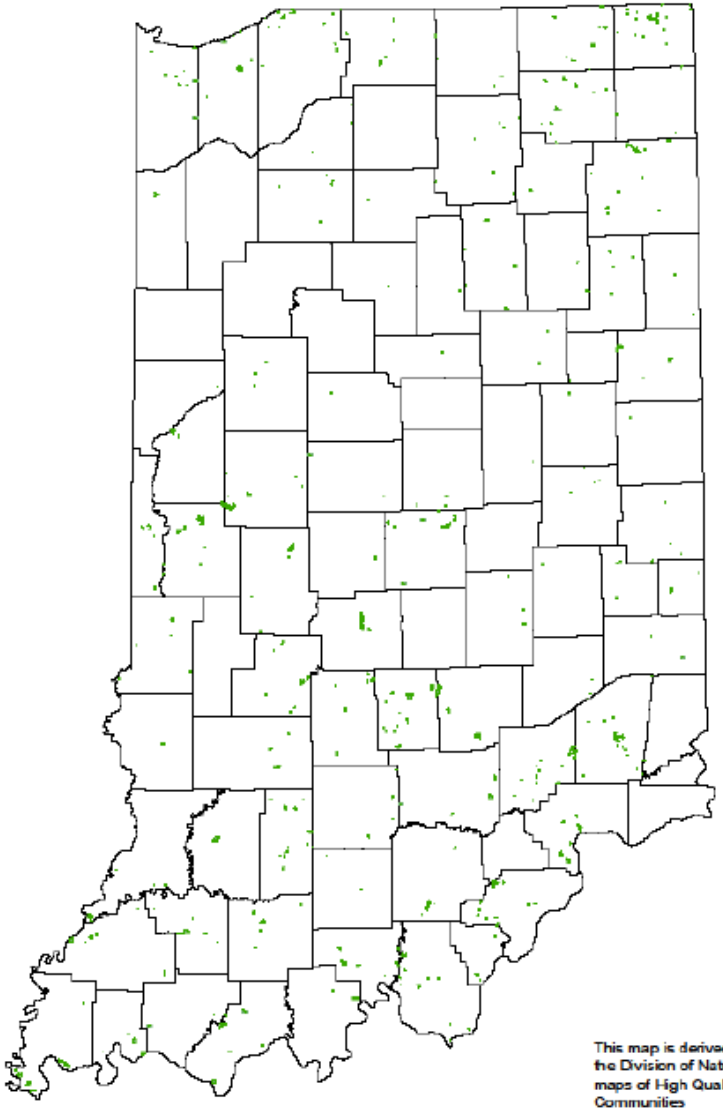


This map shows woody wetlands buffered by 1 km and non-woody wetlands buffered by 350 meters.

Rare Forest Communities

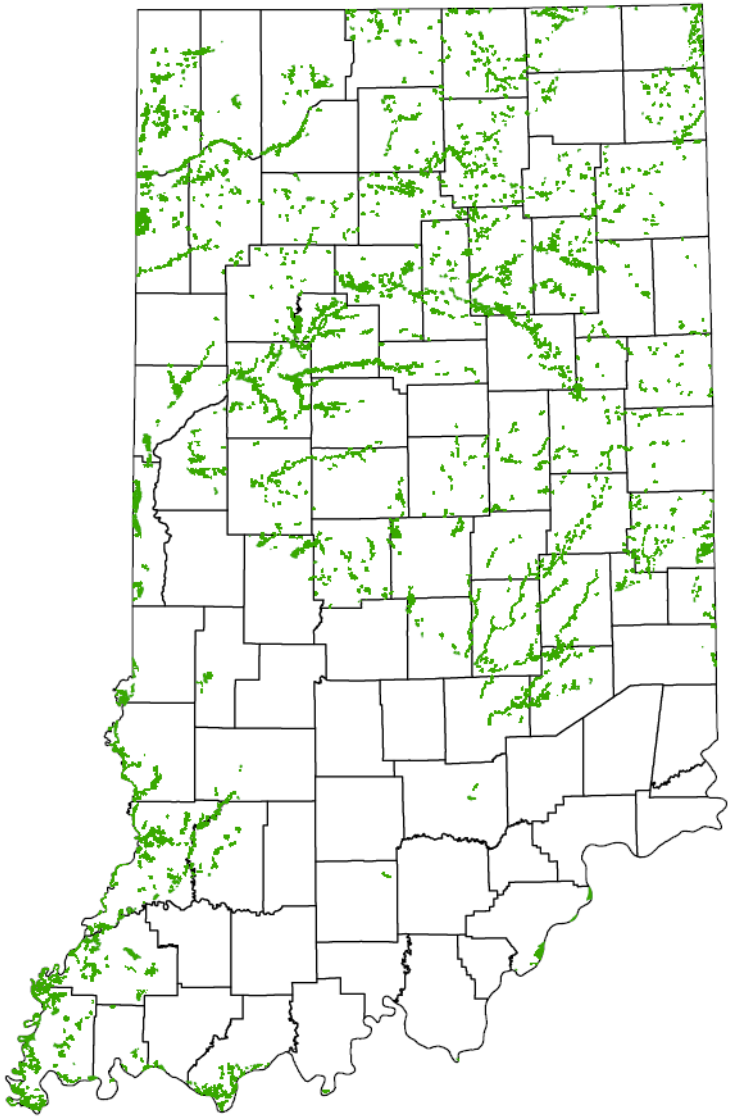


Rare Forest Communities

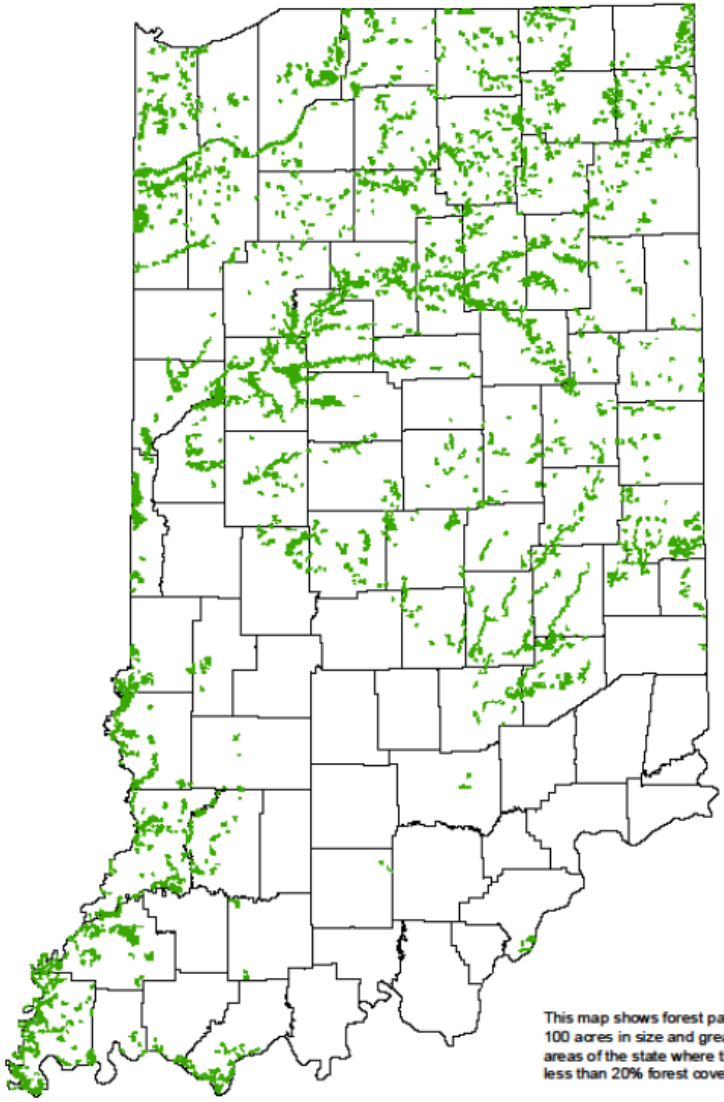


This map is derived from the Division of Nature Preserves maps of High Quality Natural Communities

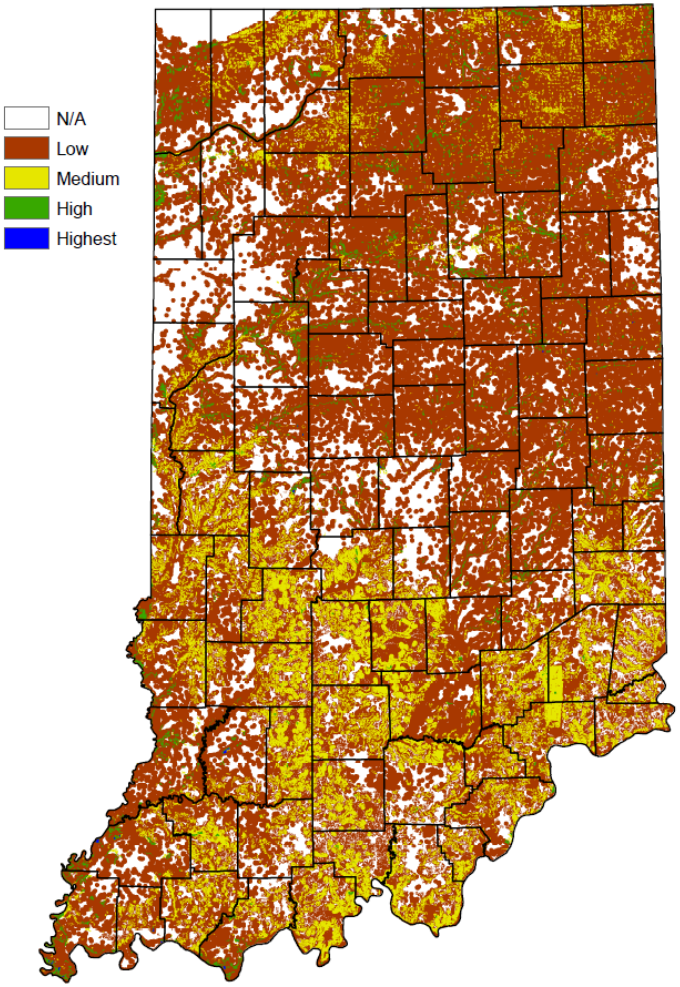
Large Forest Patches in Areas of Low Forest Cover



Large Forest Patches in Areas of Low Forest Cover

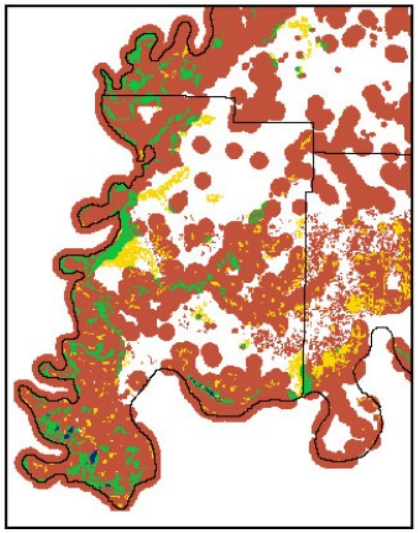


Forest Biodiversity Potential

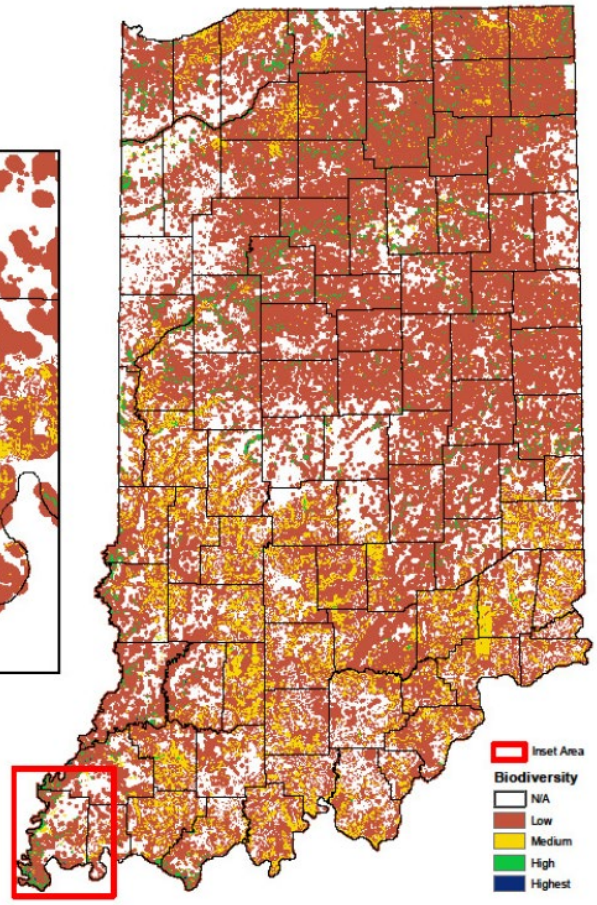


Forest Biodiversity Potential

Inset Area
(enlarged to show detail)



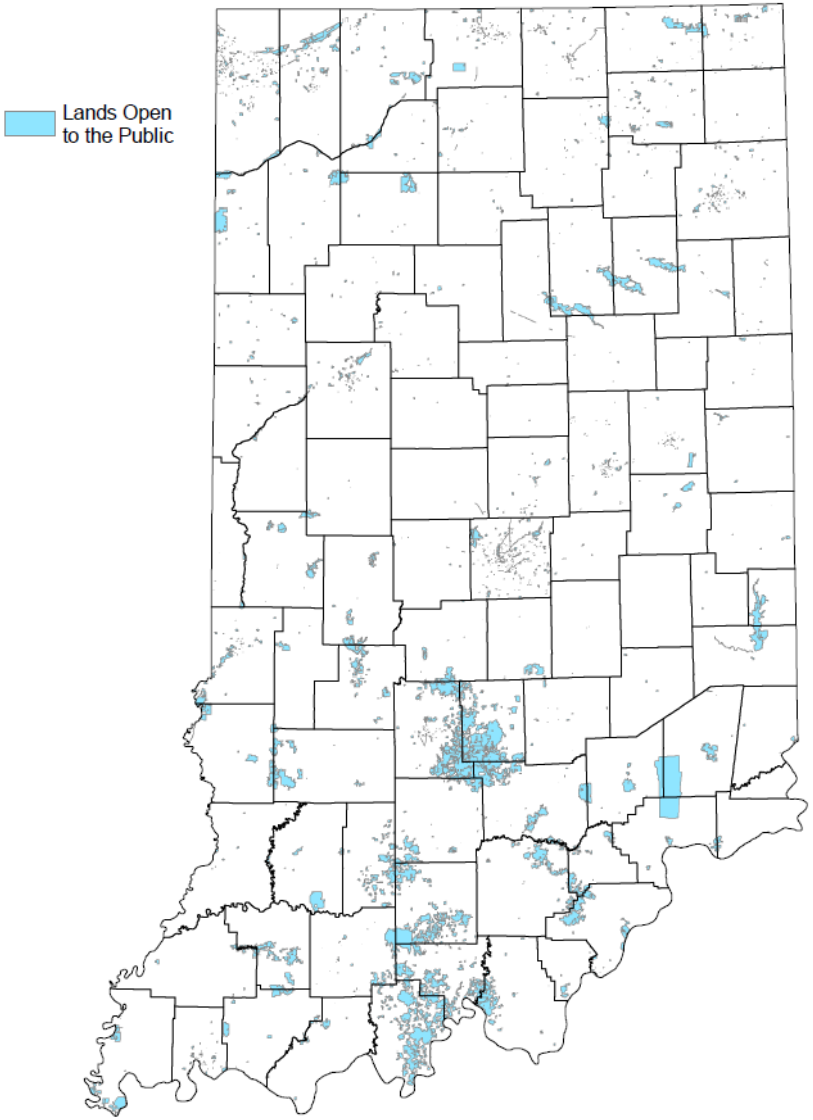
This map is a composite of 4 forest biodiversity maps. White areas met none of the 4 criteria. The southwest corner of the state is shown in the inset for better detail.



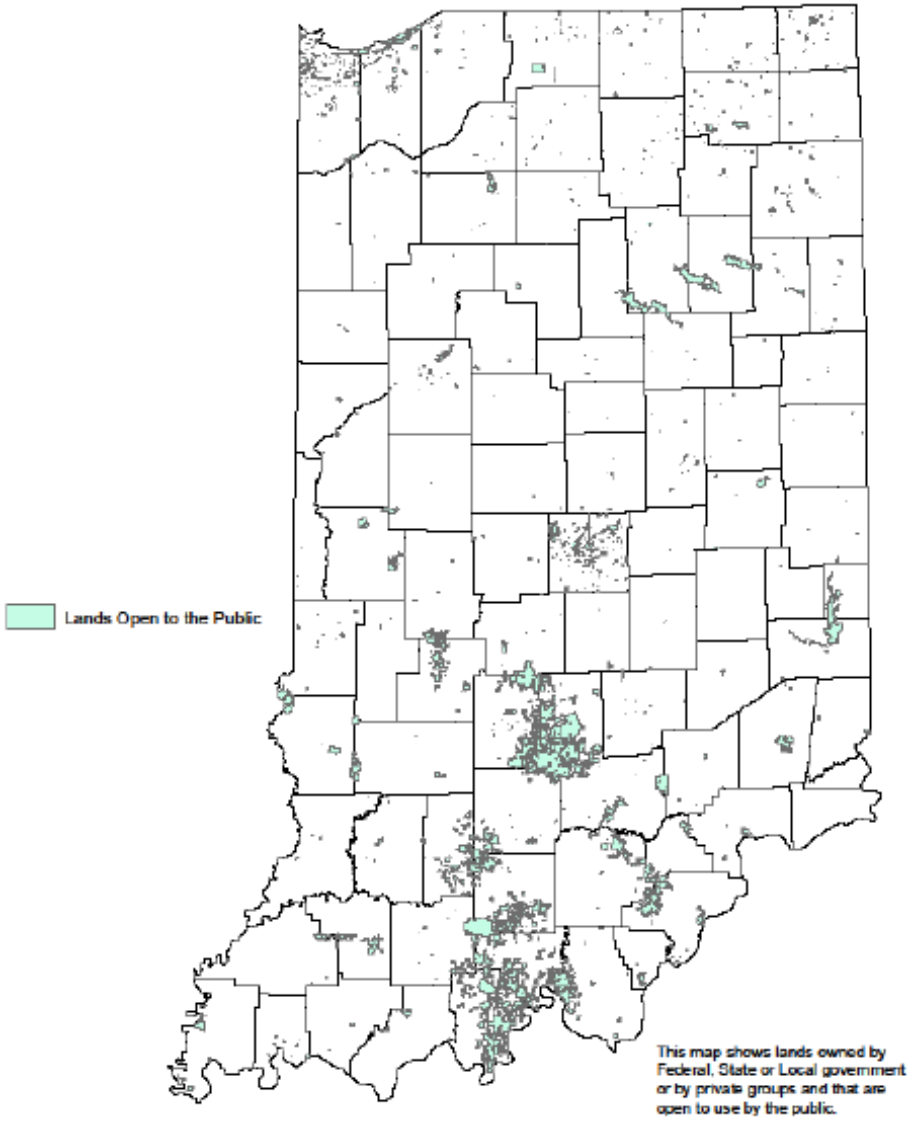
Recreation Components

- Land Available for Recreation

Land Available for Recreation



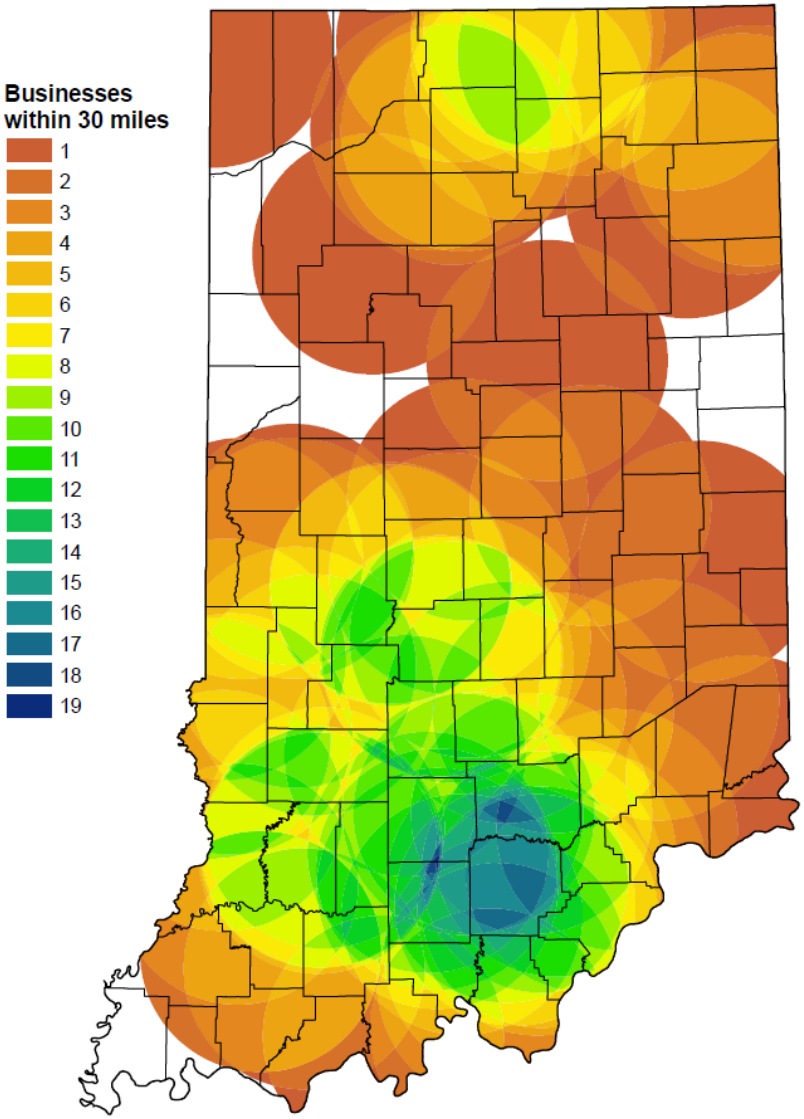
Land Available for Recreation



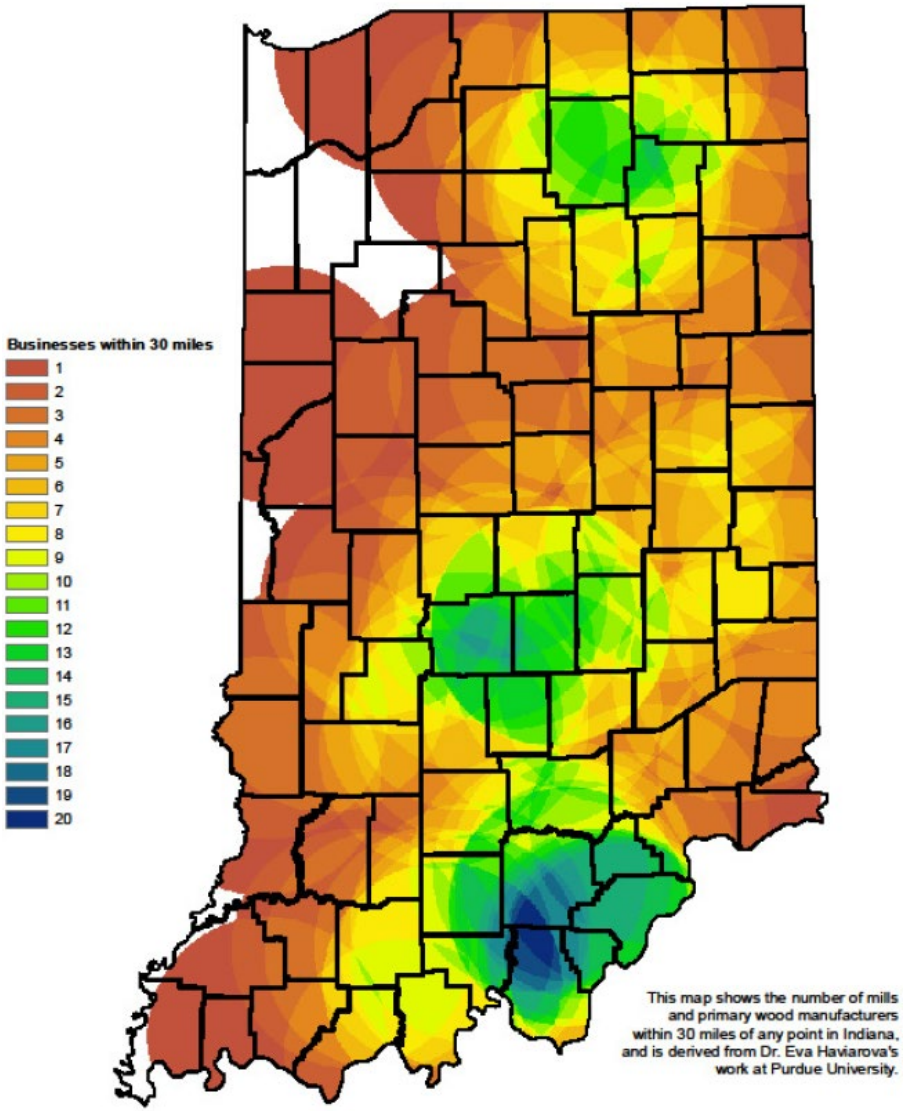
Wood Products Components

- Access to Mills and Primary Manufacturers
- Above Ground Forest Biomass per Acre
- State and Federal Lands with Active Harvesting
- Classified Forest and Wildlands

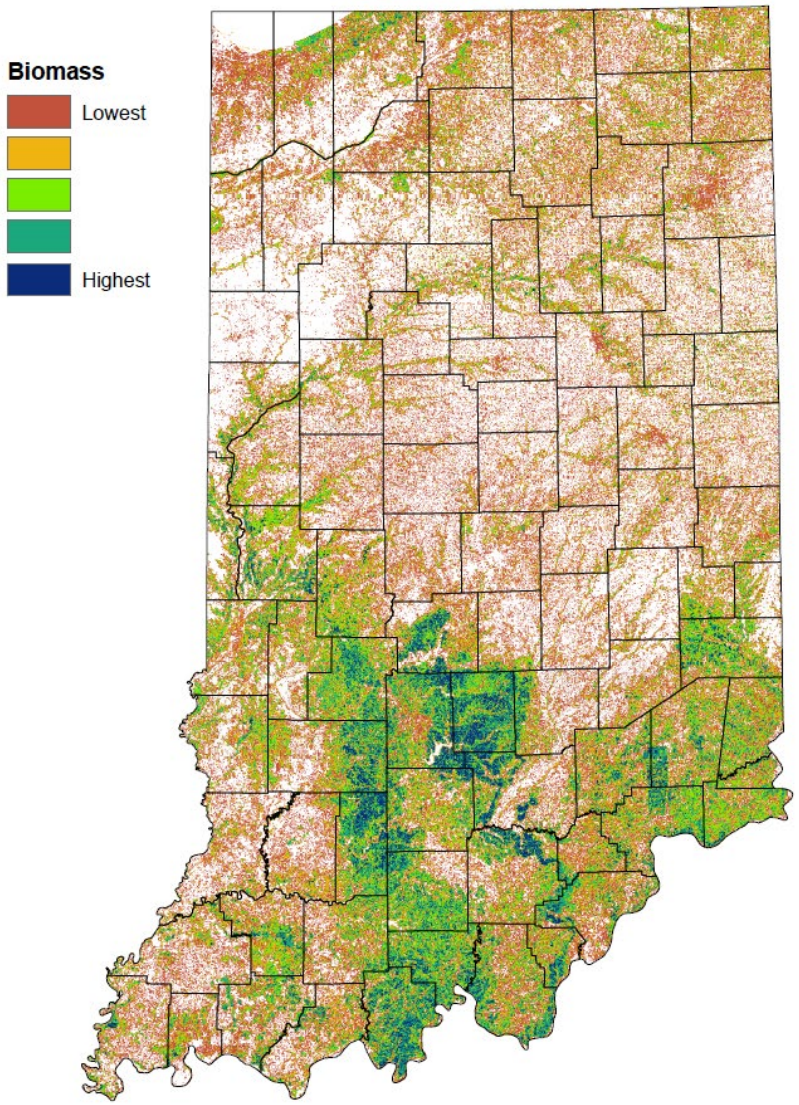
Access to Mills and Primary Manufacturers



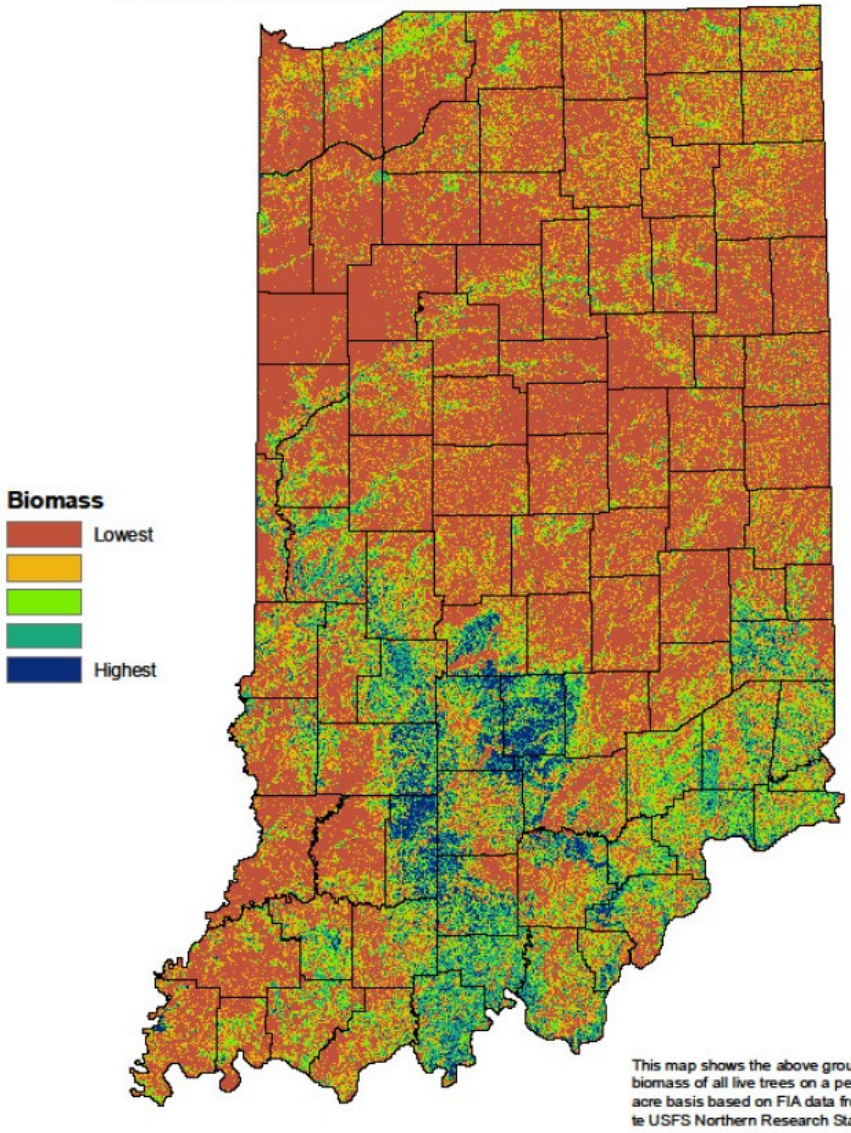
Access to Mills and Primary Manufacturers



Above Ground Biomass per Acre

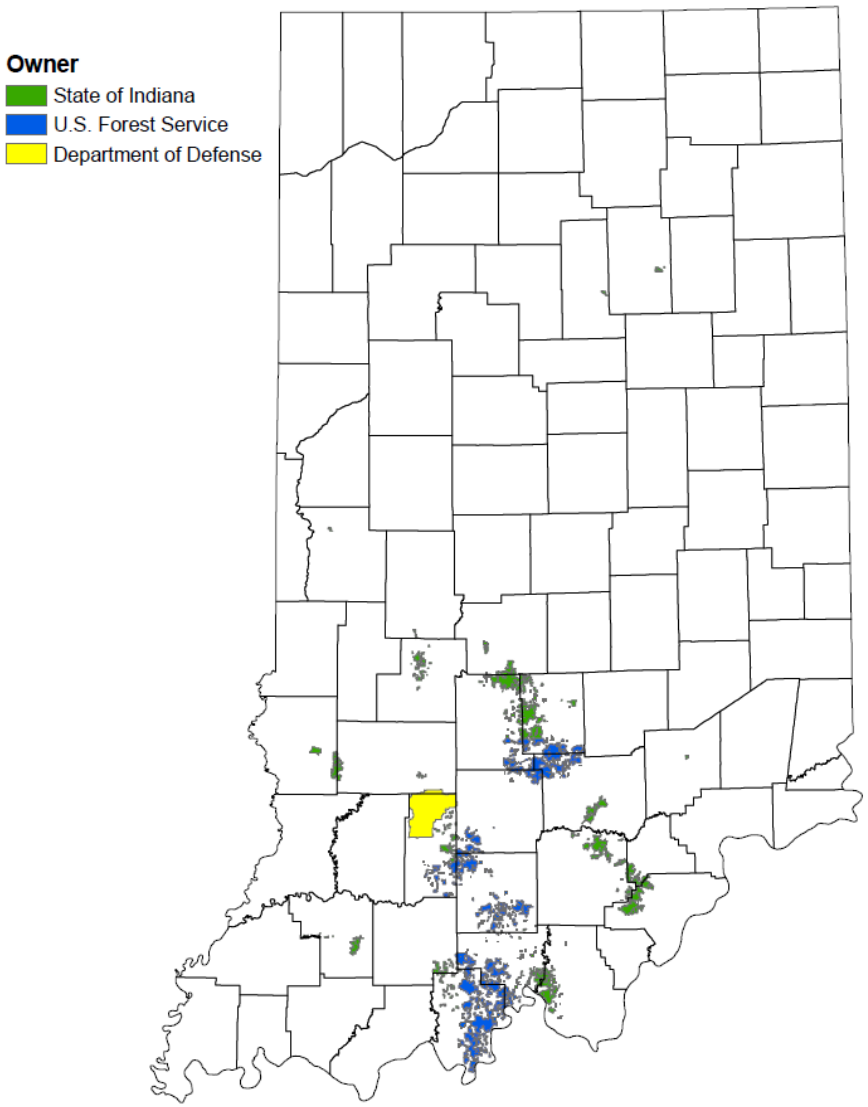


Above Ground Forest Biomass Per Acre

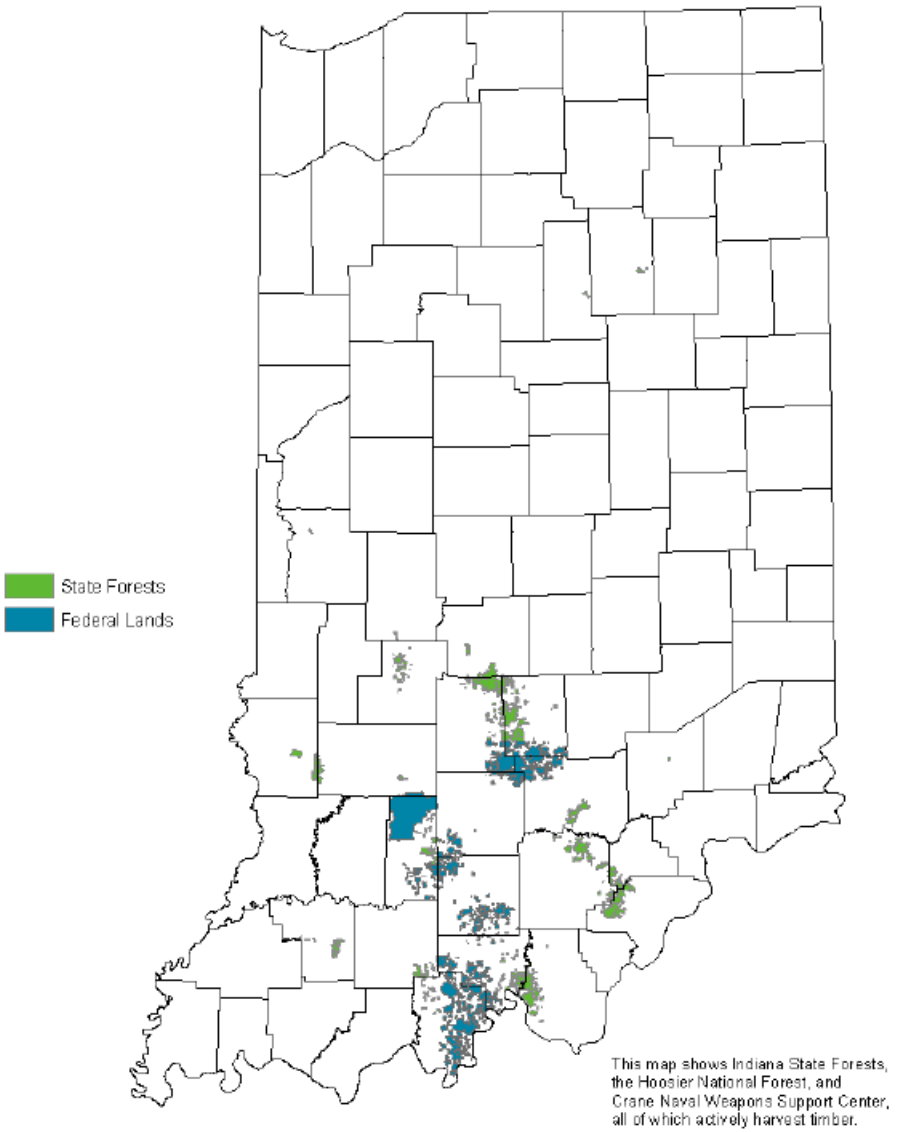


This map shows the above ground biomass of all live trees on a per acre basis based on FIA data from te USFS Northern Research Station

State and Federal Lands with Active Harvesting



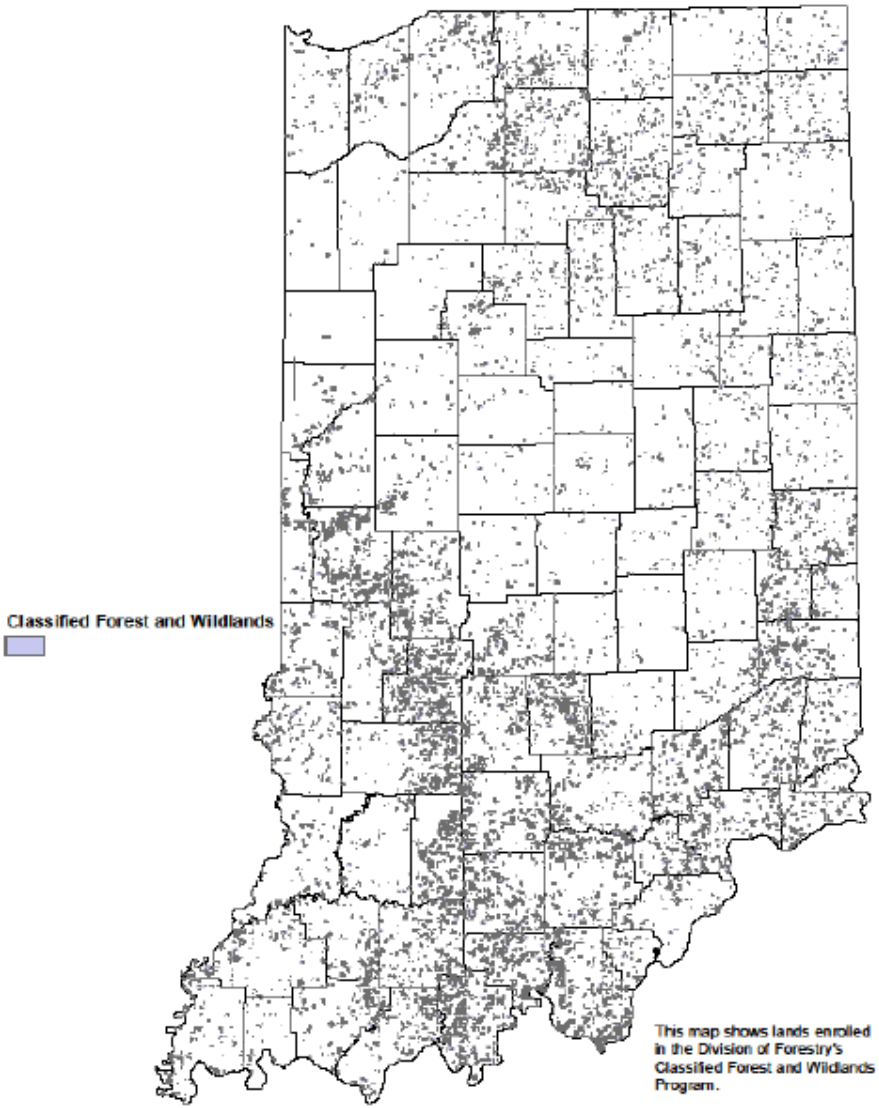
State and Federal Lands With Active Harvesting



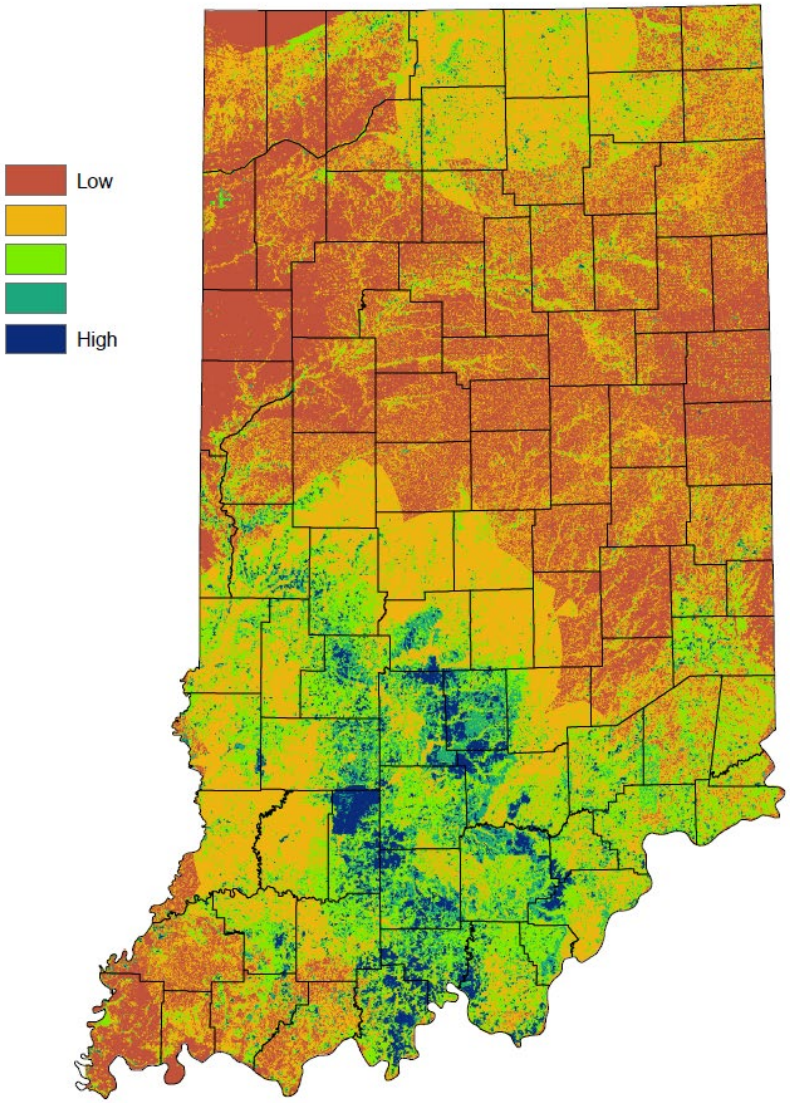
This map shows Indiana State Forests, the Hoosier National Forest, and Crane Naval Weapons Support Center, all of which actively harvest timber.

Classified Forest and Wildlands

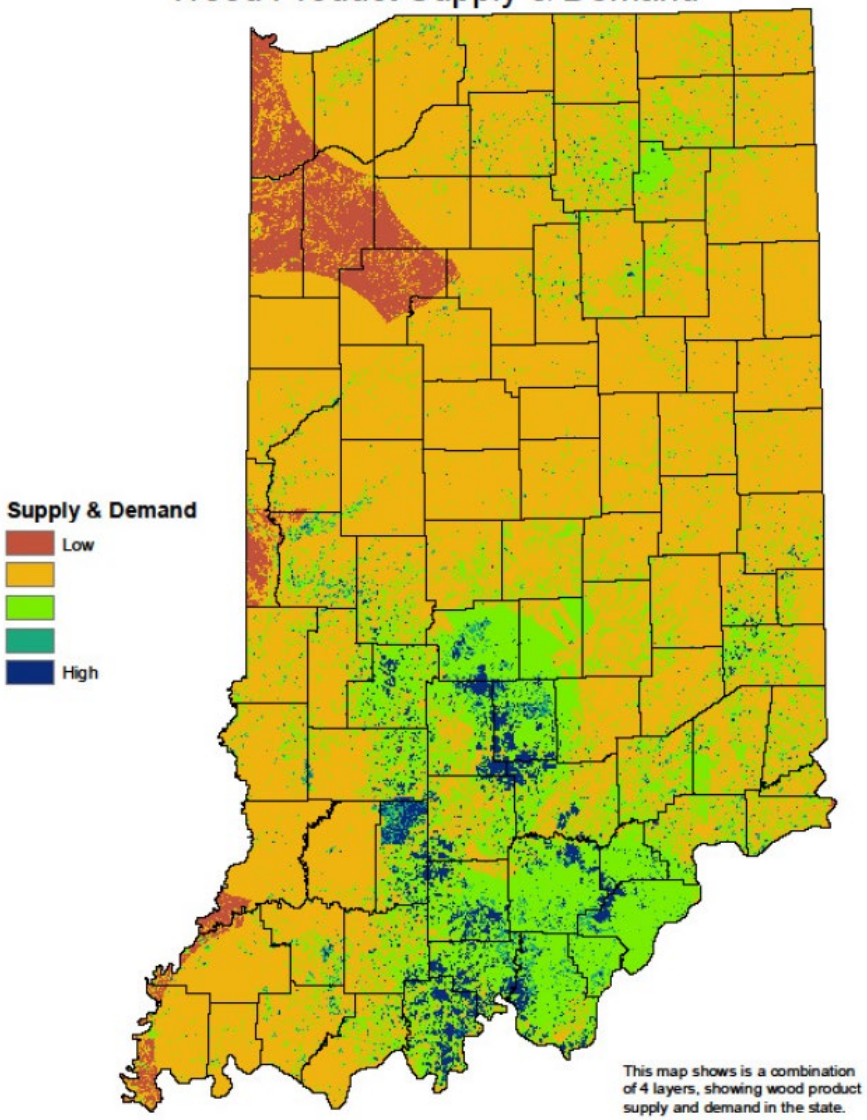
Classified Forest and Wildlands



Wood Product Supply & Demand



Wood Product Supply & Demand



This map shows is a combination of 4 layers, showing wood product supply and demand in the state.

2010 Composite

From June 2009 survey:

24% Fragmentation

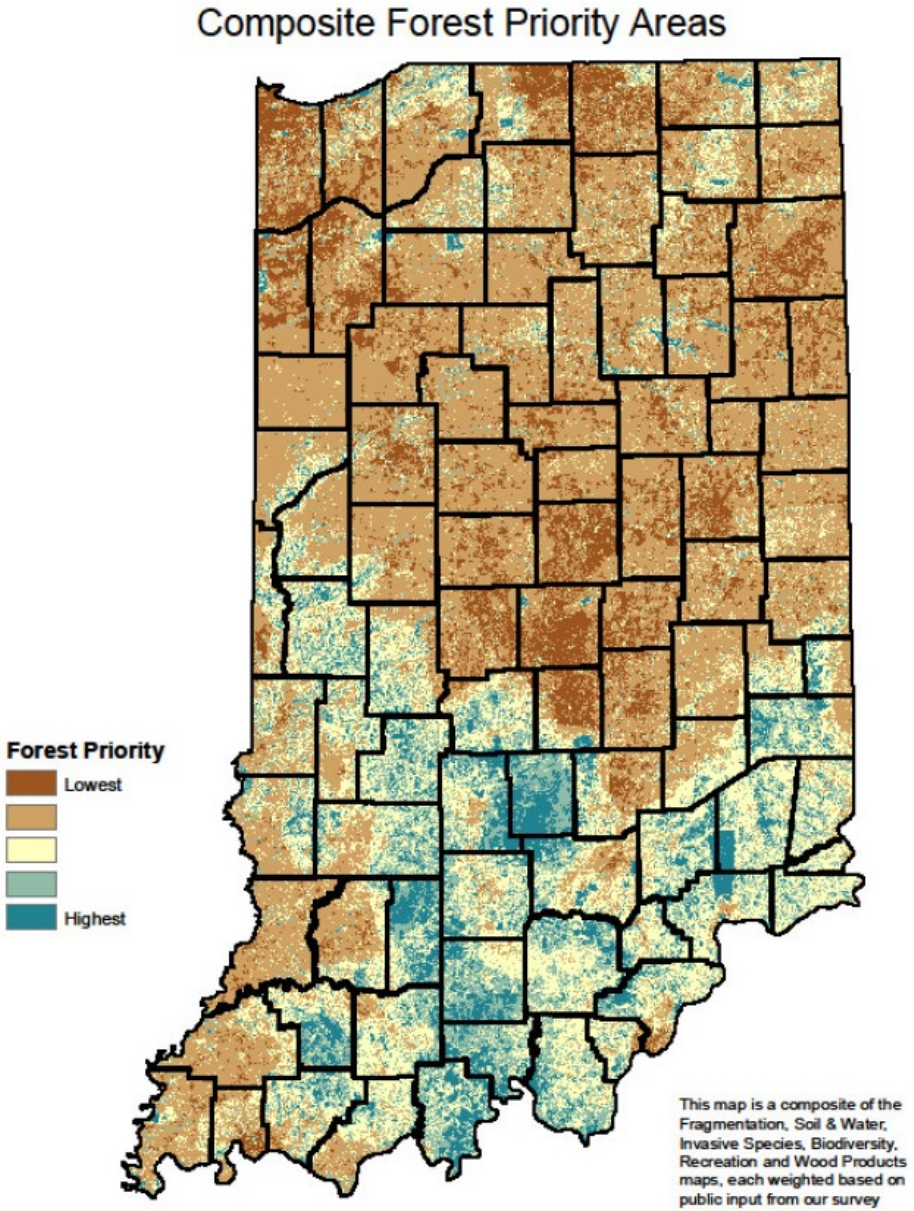
20.1% Soil & Water

19.9% Invasives

17.2% Biodiversity

11.1% Recreation

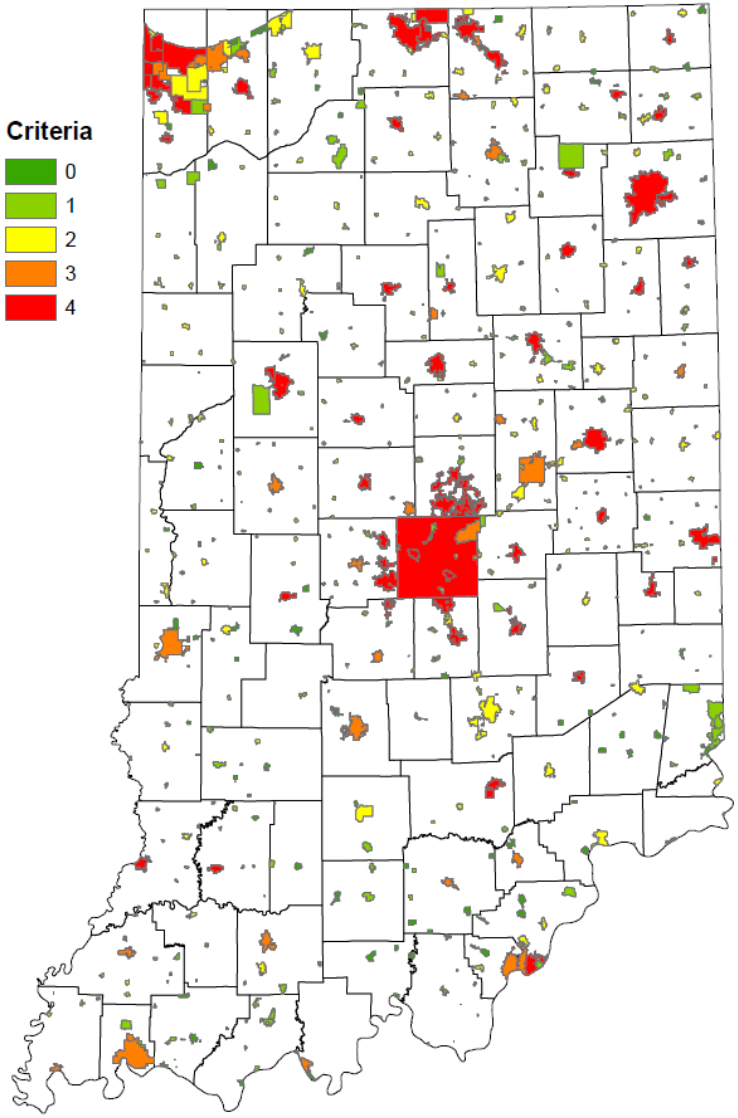
7.6% Wood Products



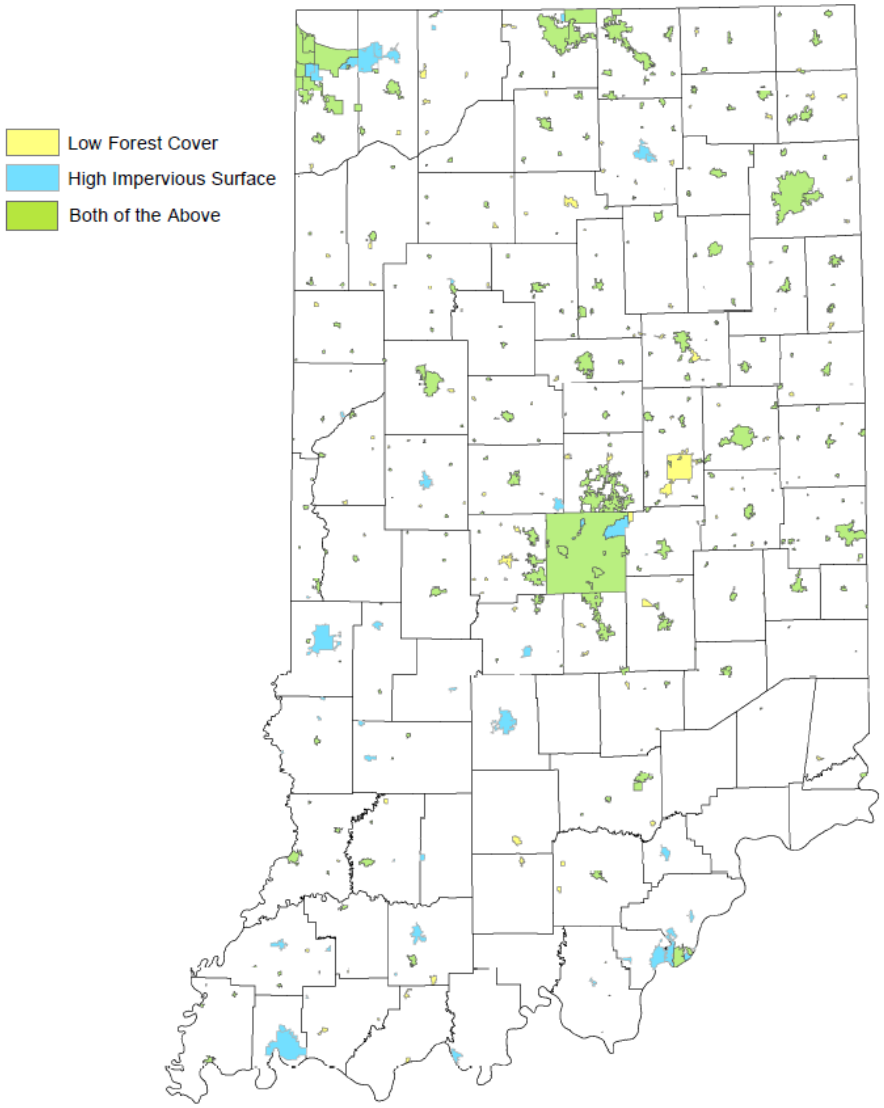
Urban Areas Criteria

- Greater-than-average area (2145 acres)
- Greater-than-average population (6500 people)
- Greater-than-average impervious surface (59%)
- Less-than-average tree canopy cover (14.4%)

Urban Areas and Tree Cover



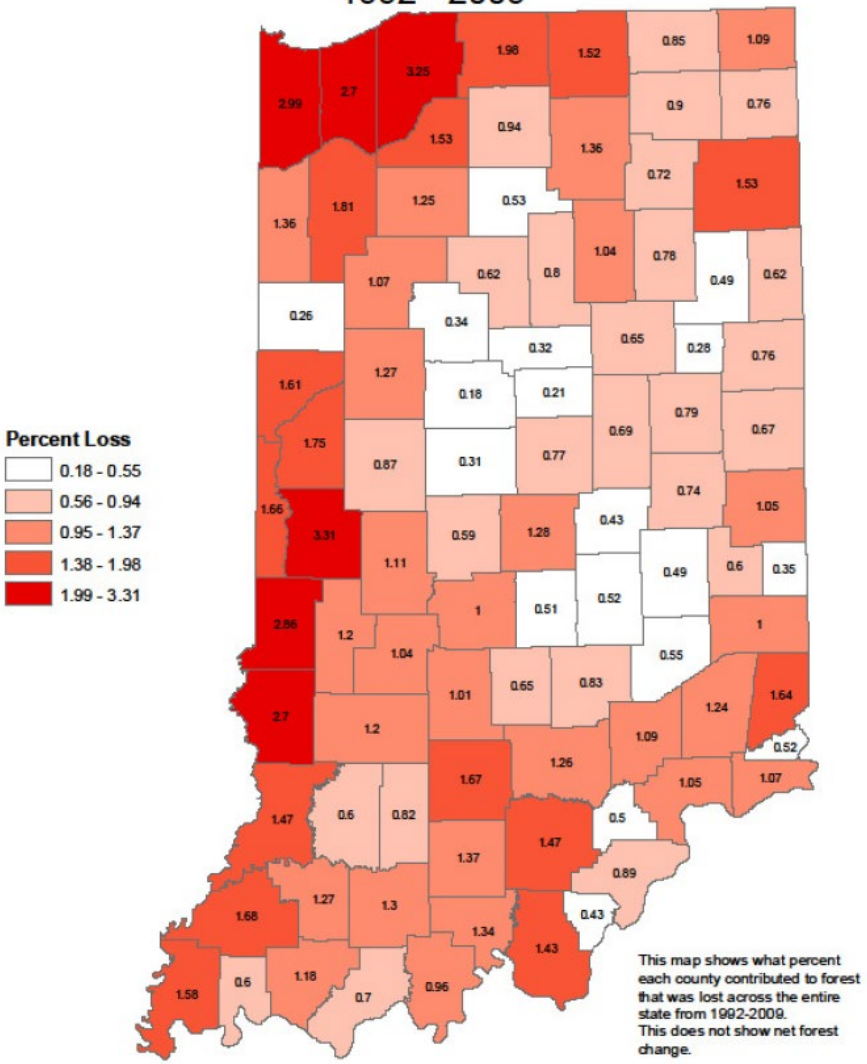
Urban Forest Cover & Impervious Surfaces



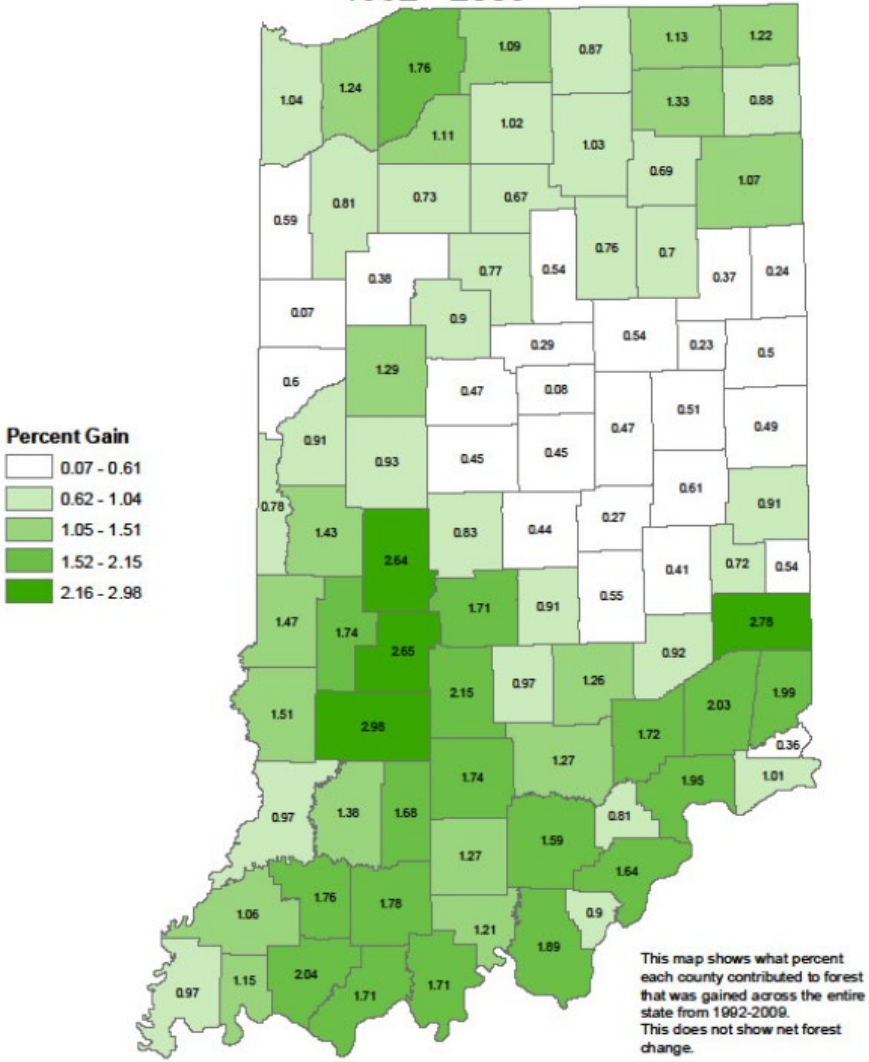
Maps not used for Compositing

- Lands with limitations on conversion
- Percent of households with a person > 65 years
- Deer Collisions
- Urban Areas and Tree Cover

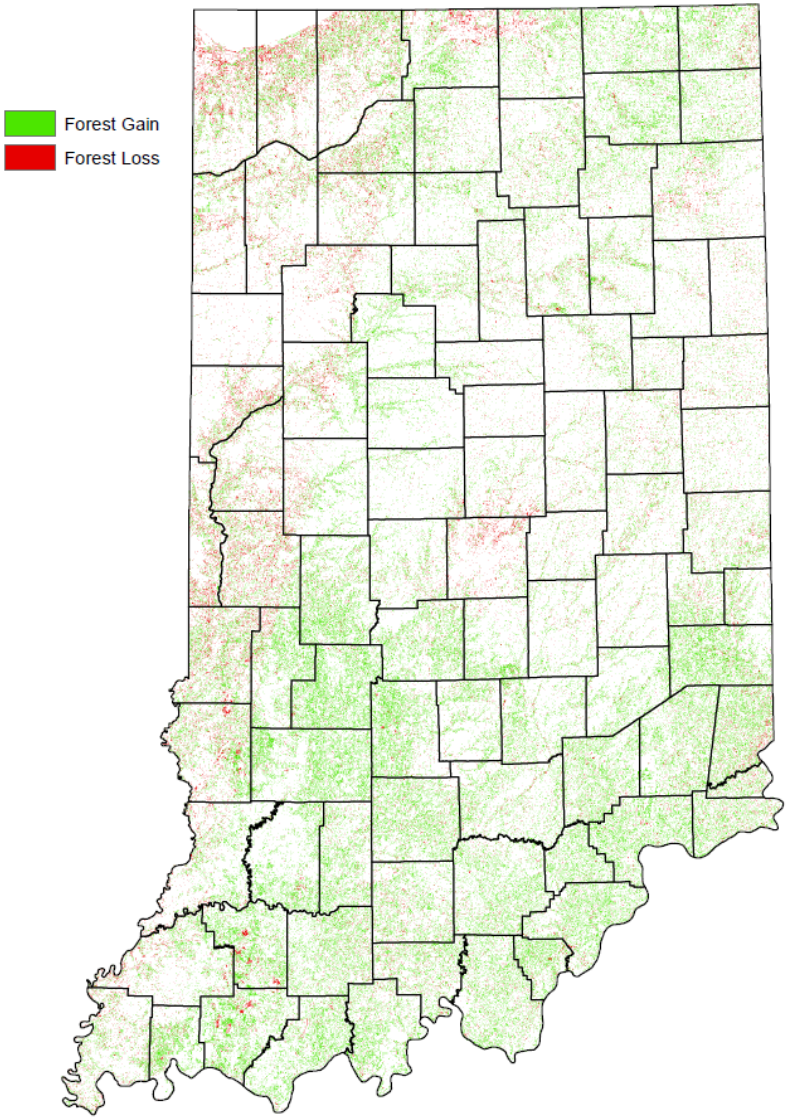
Percent Total Forest Loss By County
1992 - 2009



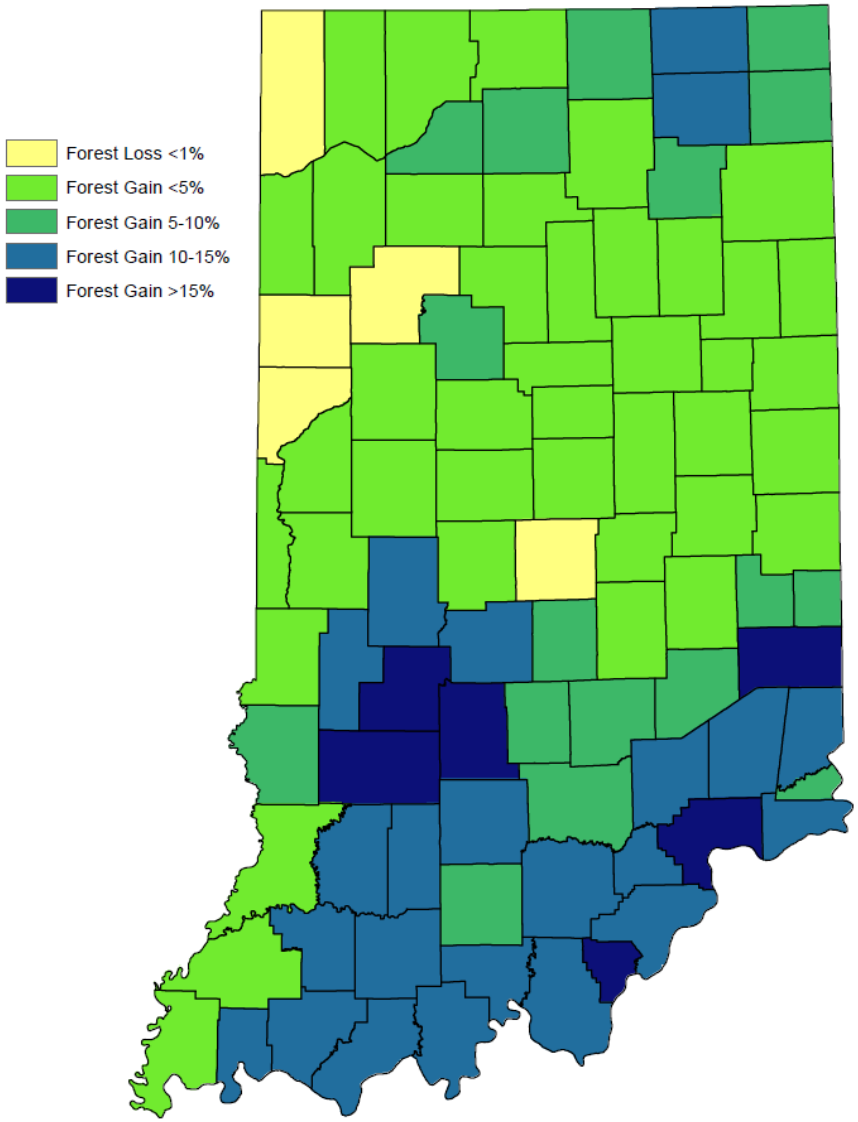
Percent Total Forest Gain By County
1992 - 2009



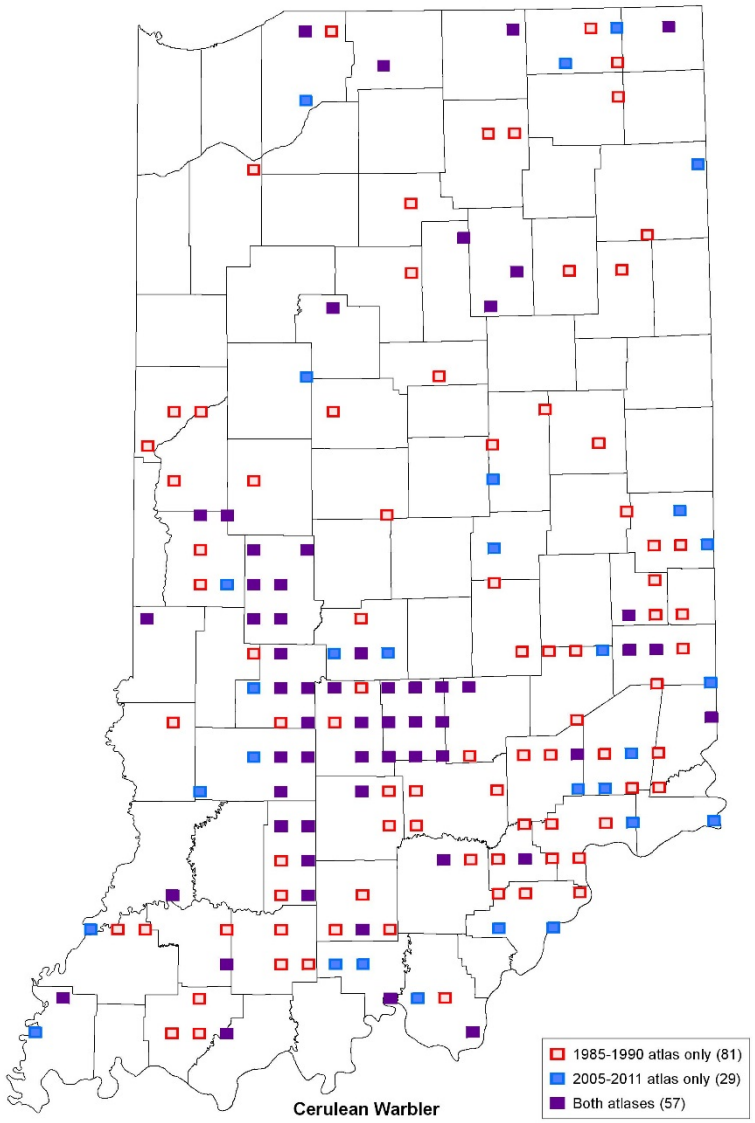
Forest Gain and Loss 1992-2017



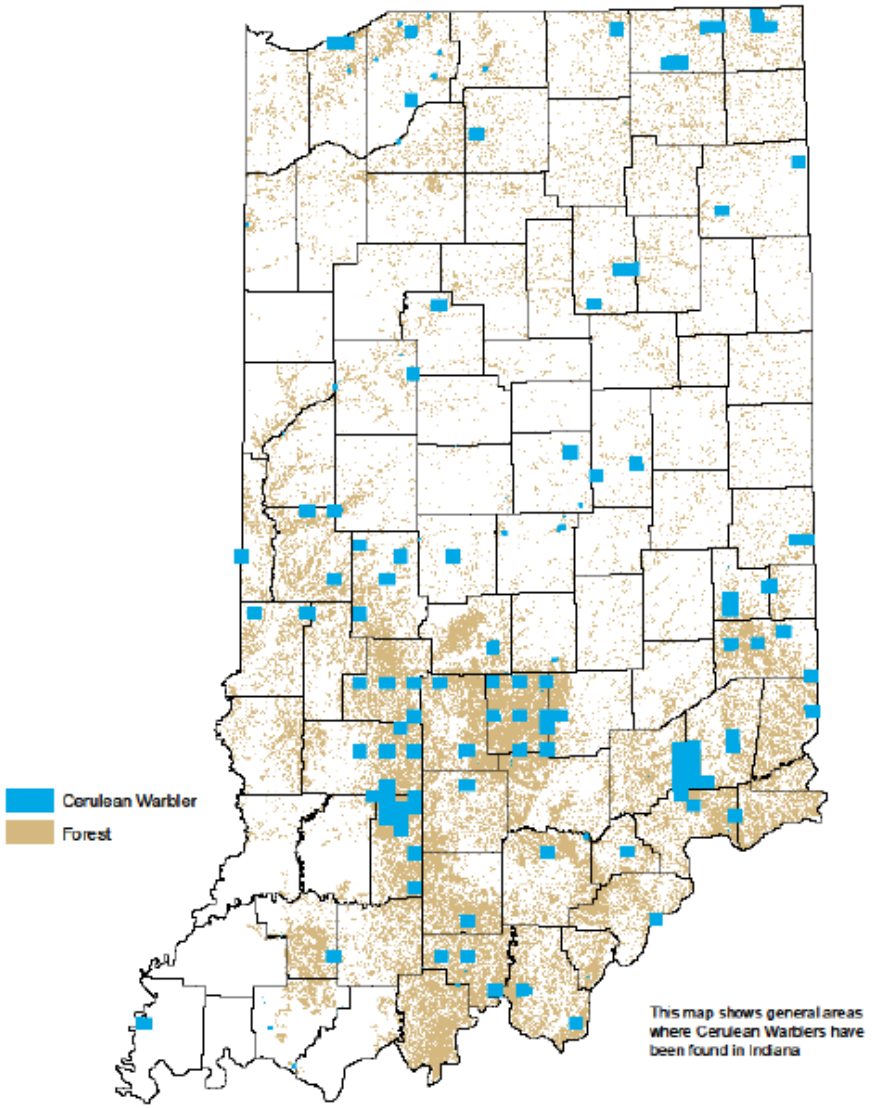
Net Landscape Change 1992-2017



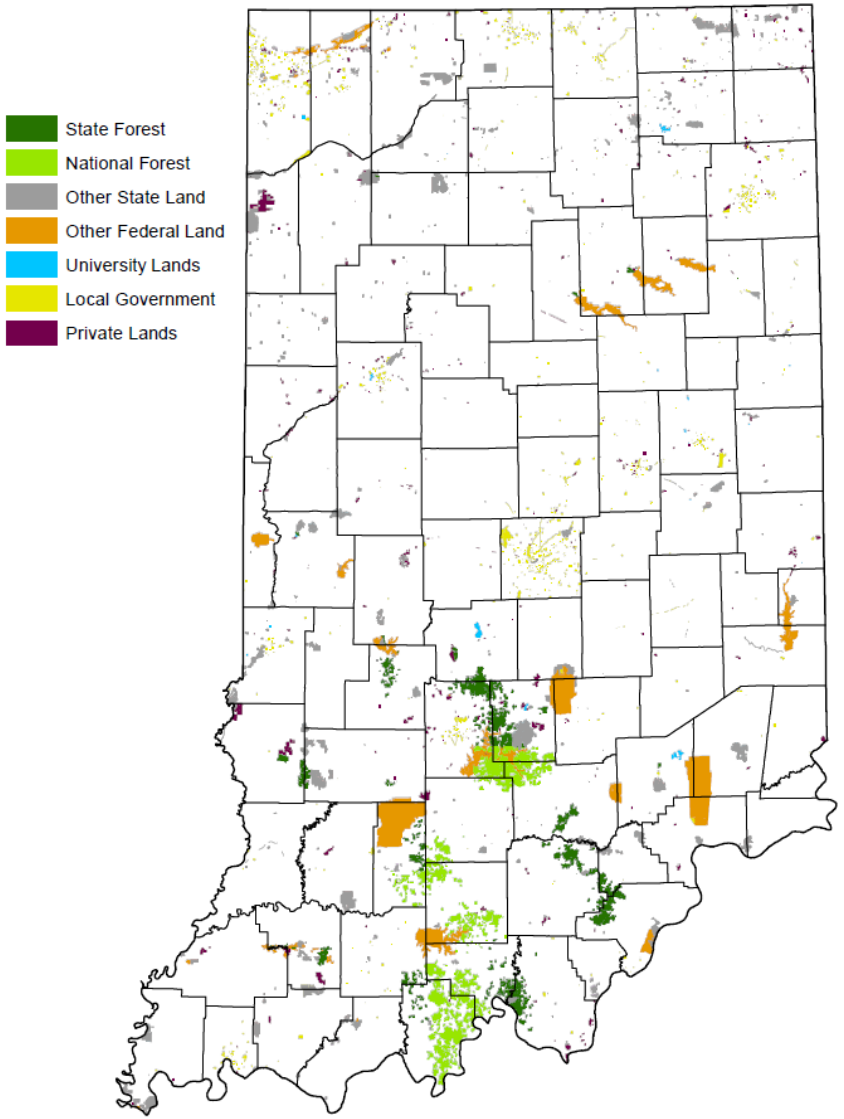
Cerulean Warbler Sightings



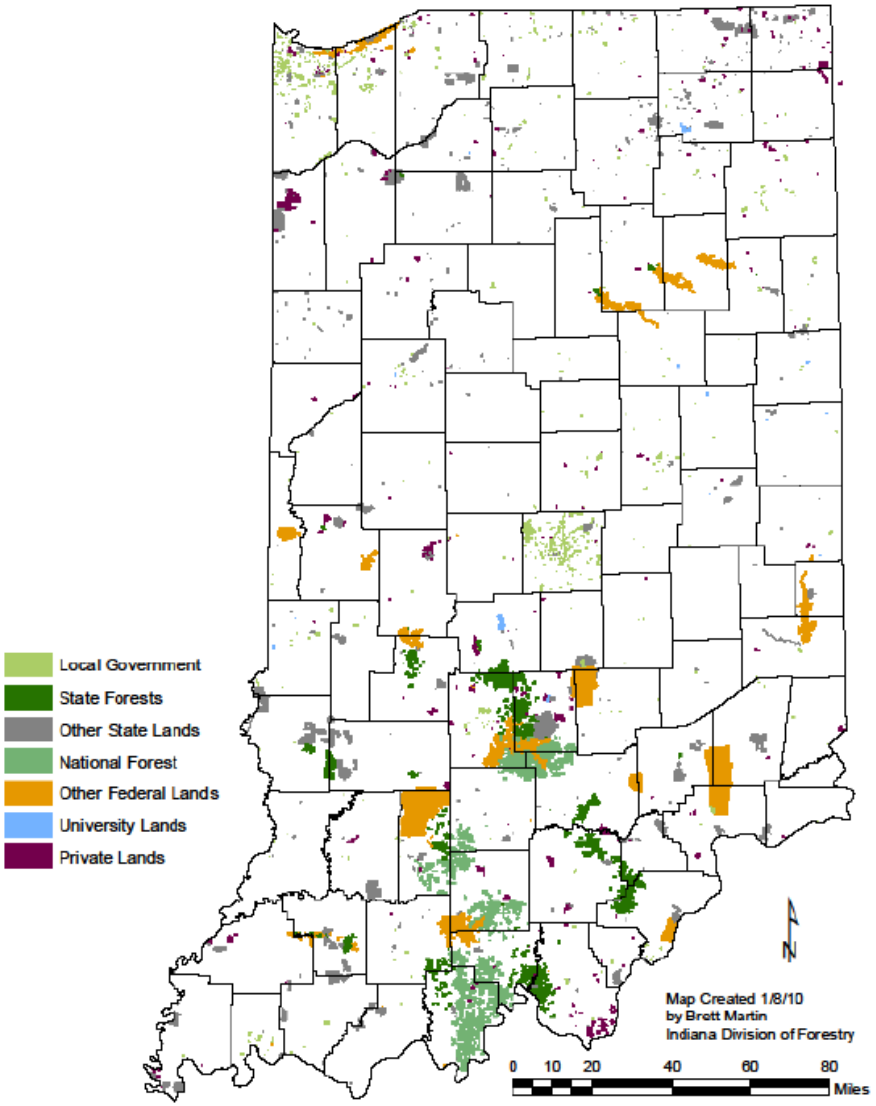
Cerulean Warbler Sightings



Lands with Limitiations on Conversion



Lands with Limitations on Conversion

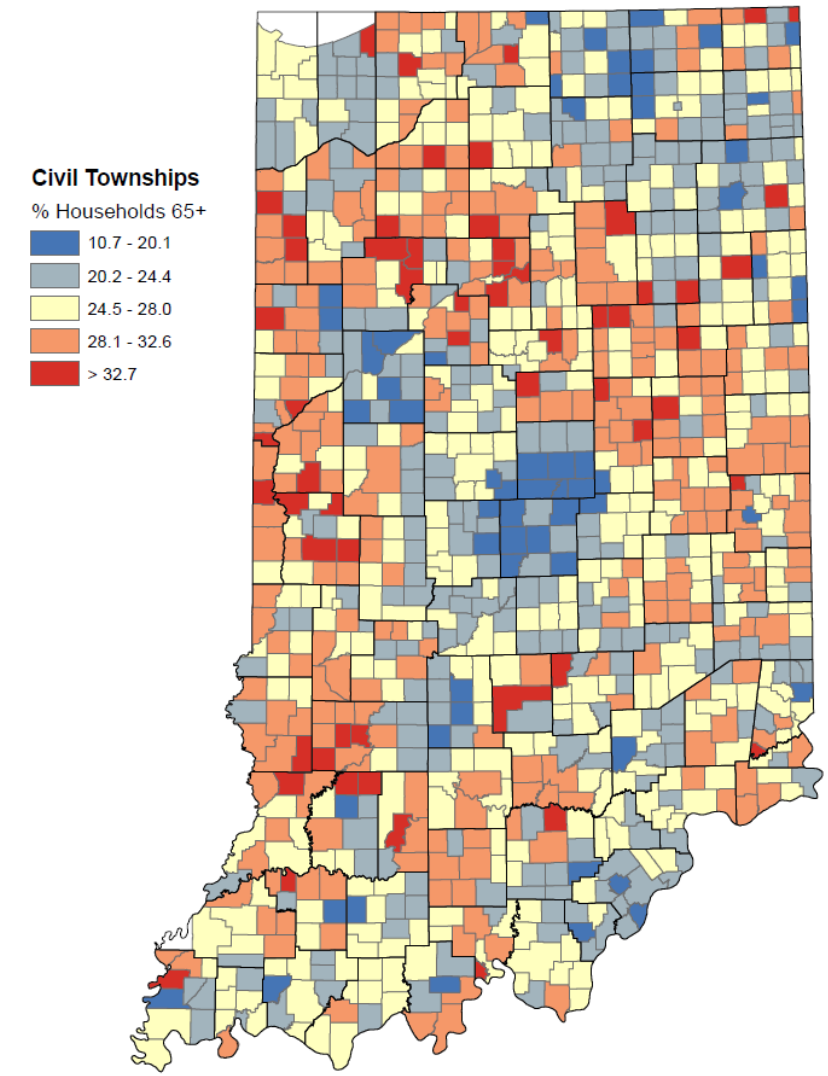


Deer Collisions in 2017

Deer Collisions in 2008

GPS locations of Indiana State Police responses to deer collisions during 2008

Percent of Households with a Person 65 Years or Older



Percent of Households with a Person 65 Years or Older