

# FOREST CONSERVATION & STEWARDSHIP STRATEGY FORUM

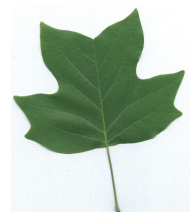
April 30 – May 1, 2010



“I think, in this business, with limited resources, and with, frankly, an overabundance of [important issues], we inescapably, have to make choices.

We have to make hard judgments about what investments will yield the biggest returns for conservation.

And that means we make choices about what strategies make the most difference.”



# 2010 Forest Planning Effort

- Will produce
  - Statewide Assessment of Forest Resources
  - Statewide Forest Resource Strategy
- To provide
  - A basis for management and policy
  - Opportunity to engage partnerships
  - Expand forestry understanding



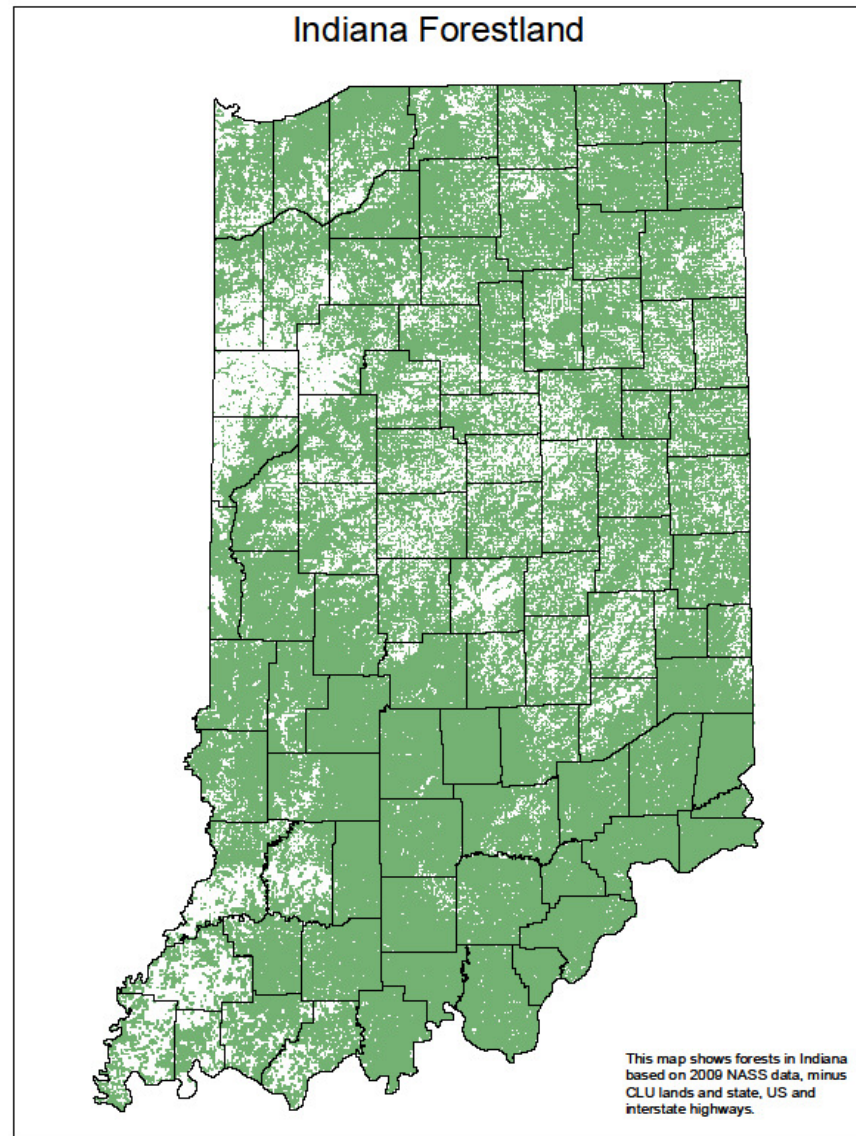
# Goals

- **Assessment**
  - Conditions of forest lands
  - Threats
  - Areas that are a priority
- **Strategy**
  - To develop "long-term strategies to address threats to forest resources in the state"

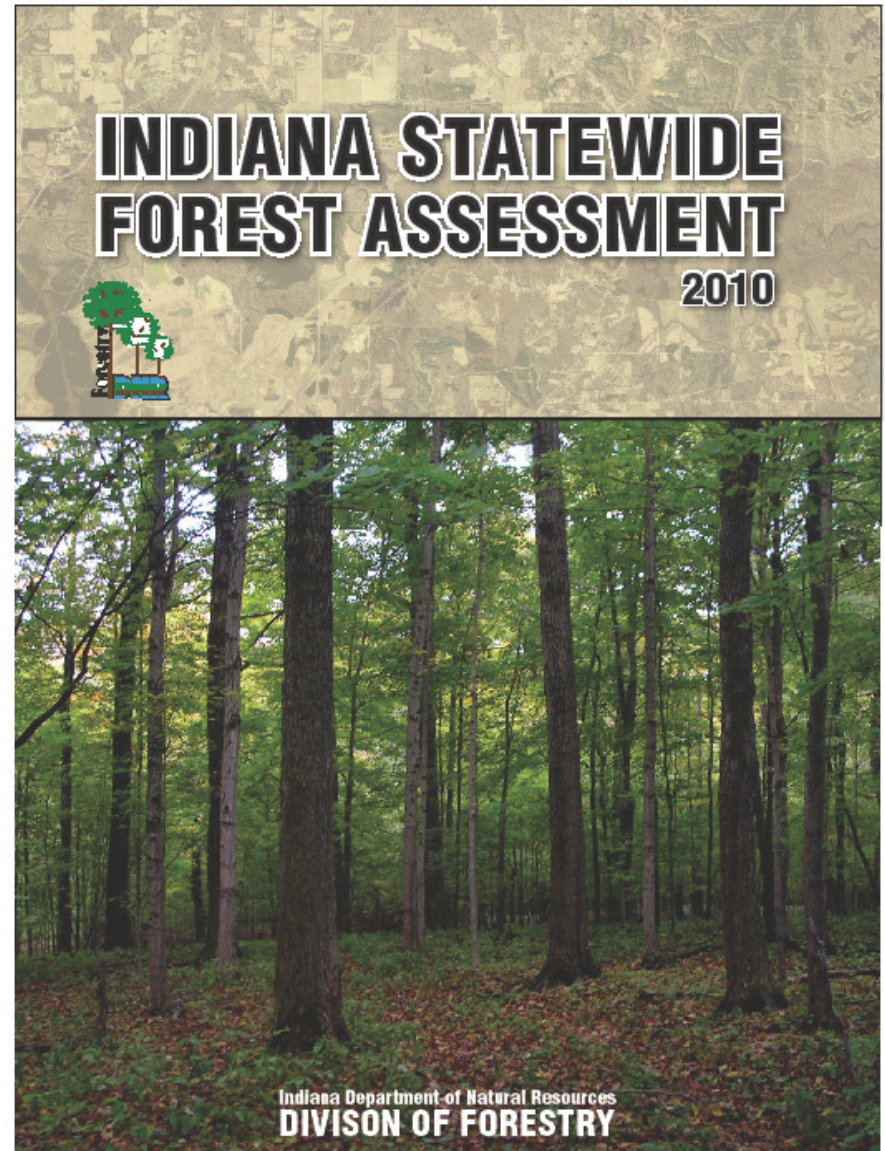
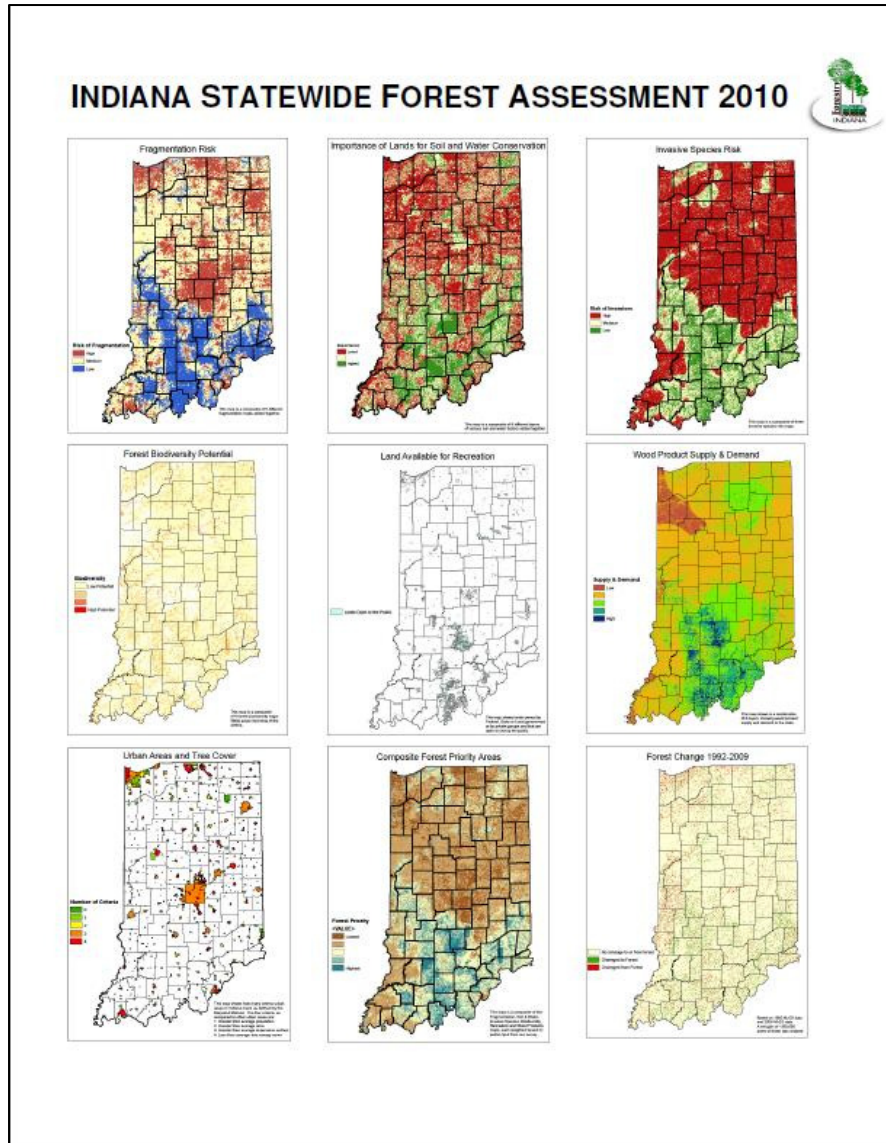


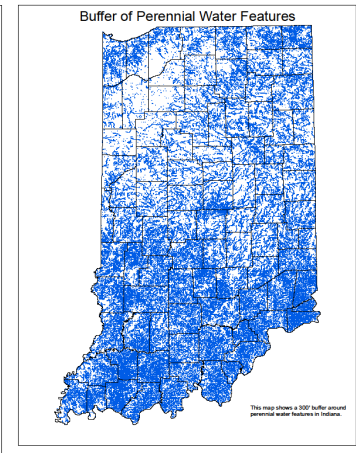
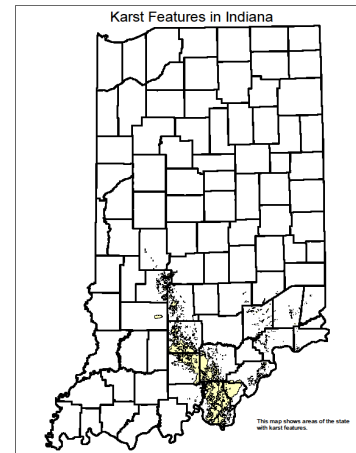
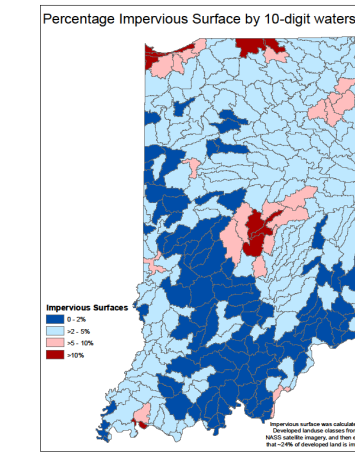
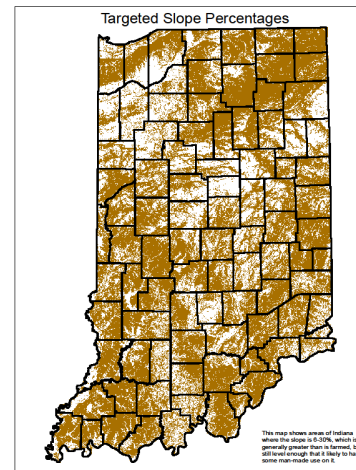
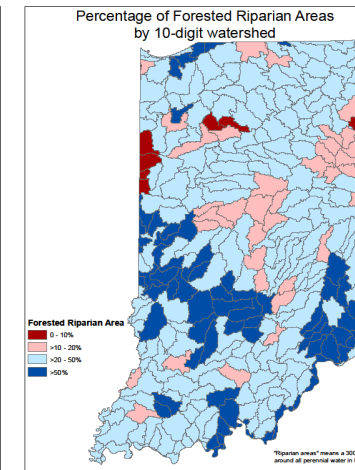
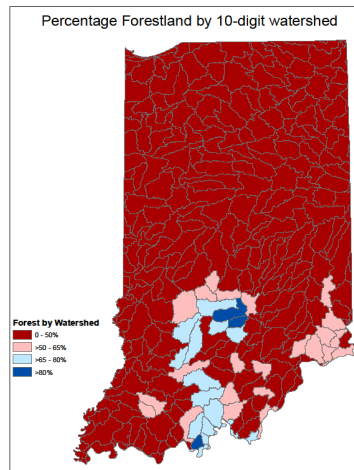
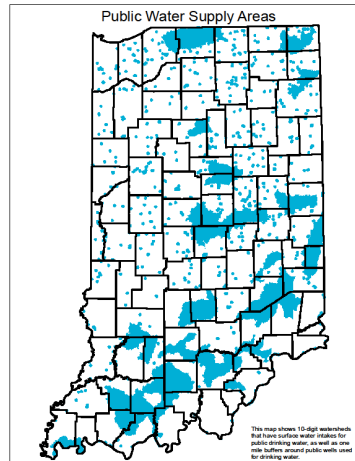
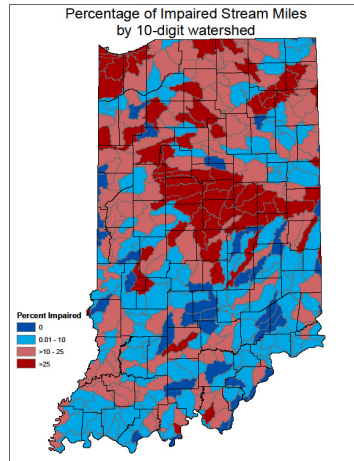
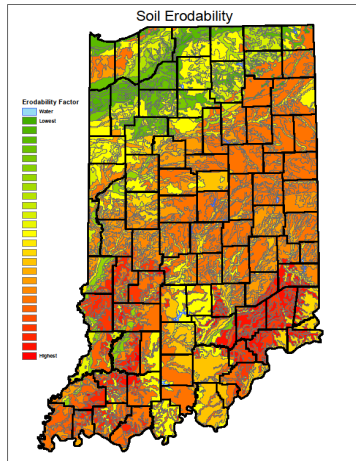
# Scope

- Statewide all ownerships
  - Private
  - Public
  - Urban
    - Forests
    - Street trees



# Assessment





## 9 layers

Soil erodibility

% impaired stream length in 10-digit watersheds

Wells and surface water intake

% forest cover by 10-digit watershed

% forest cover in riparian corridors

Slope

% impervious surfaces in 10-digit watersheds

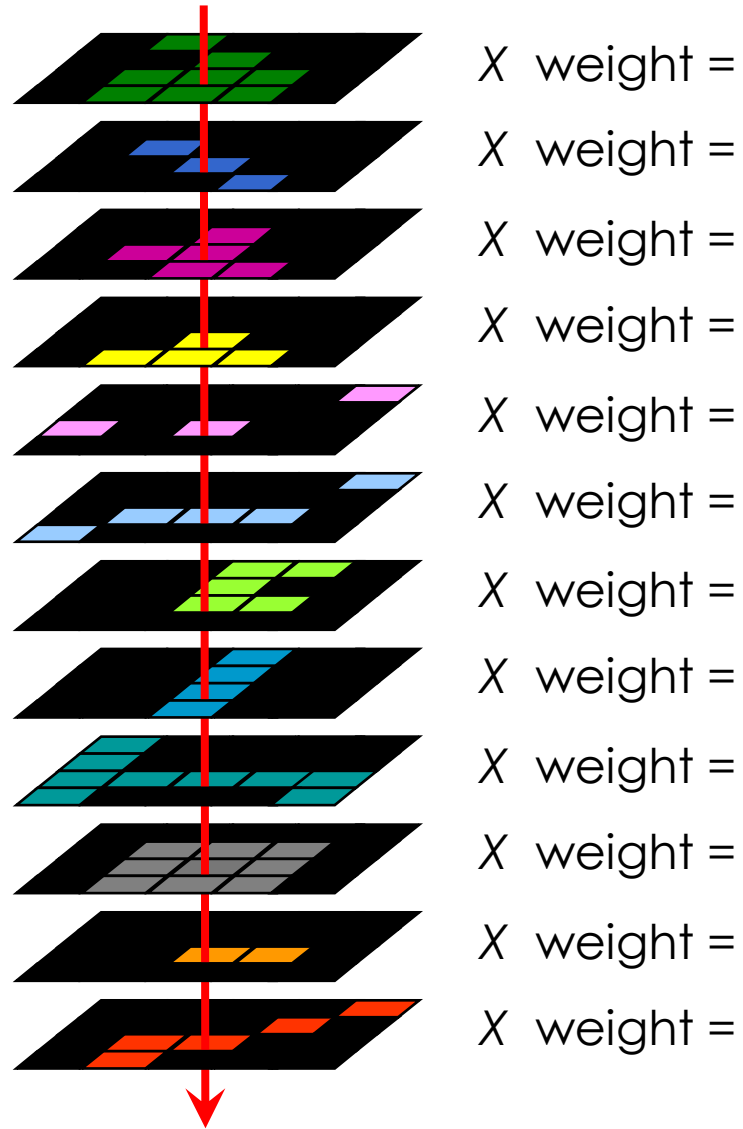
Karst region

Riparian corridors

# Model Visualization

The layers used in the analysis are all converted into layers of ones (represents that layer) and zeroes.

Then they are multiplied by the weight assigned from the on-line voting and added together, resulting in values ranging from 0 (lowest importance) to 1 (highest importance).



Maximum score = 1

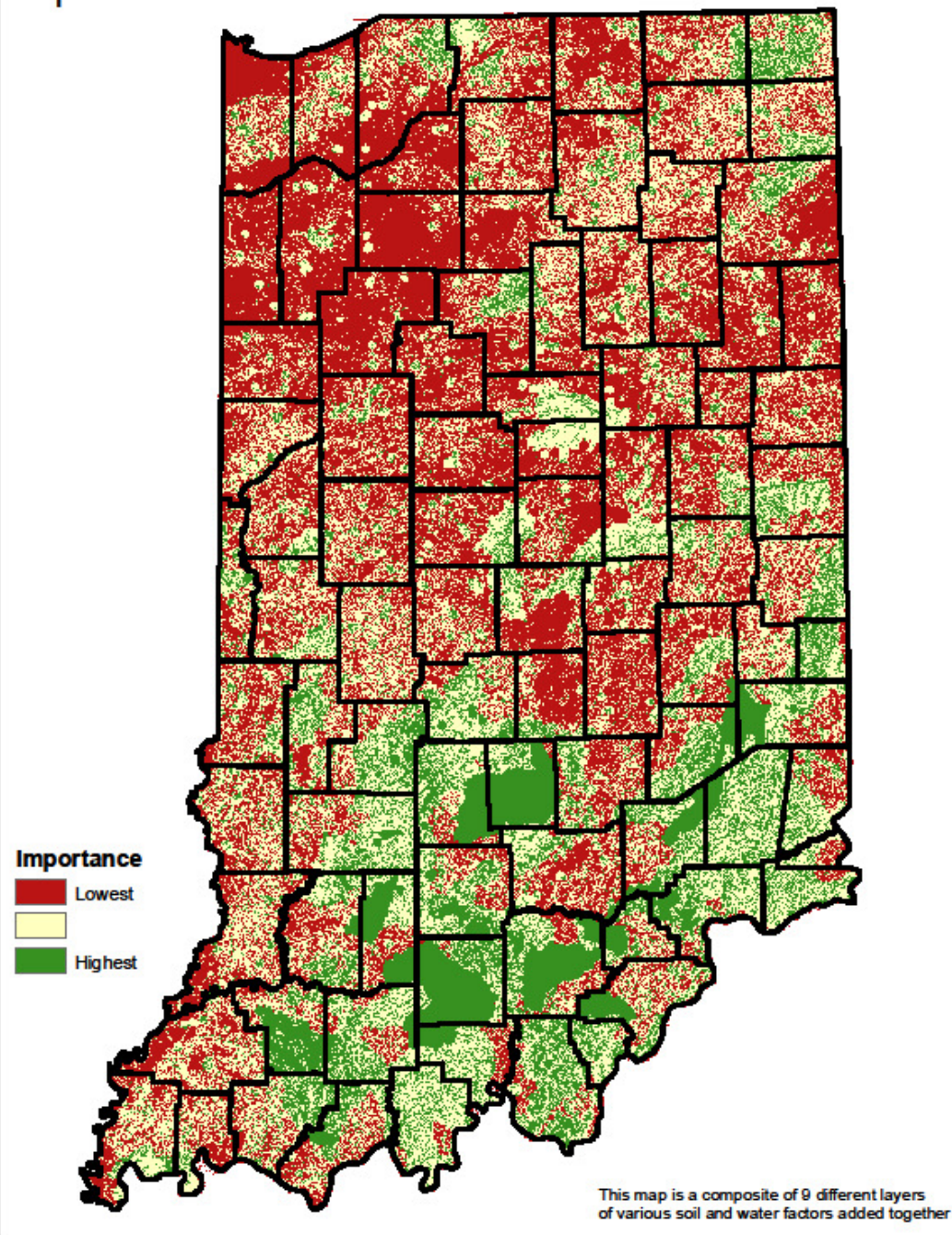


## Importance of Lands for Soil and Water Conservation

### Soil & Water

*Conservation and maintenance of soil and water resources*

- retaining or adding forests to protect from soil erosion
- retaining or adding forests to increase water quality

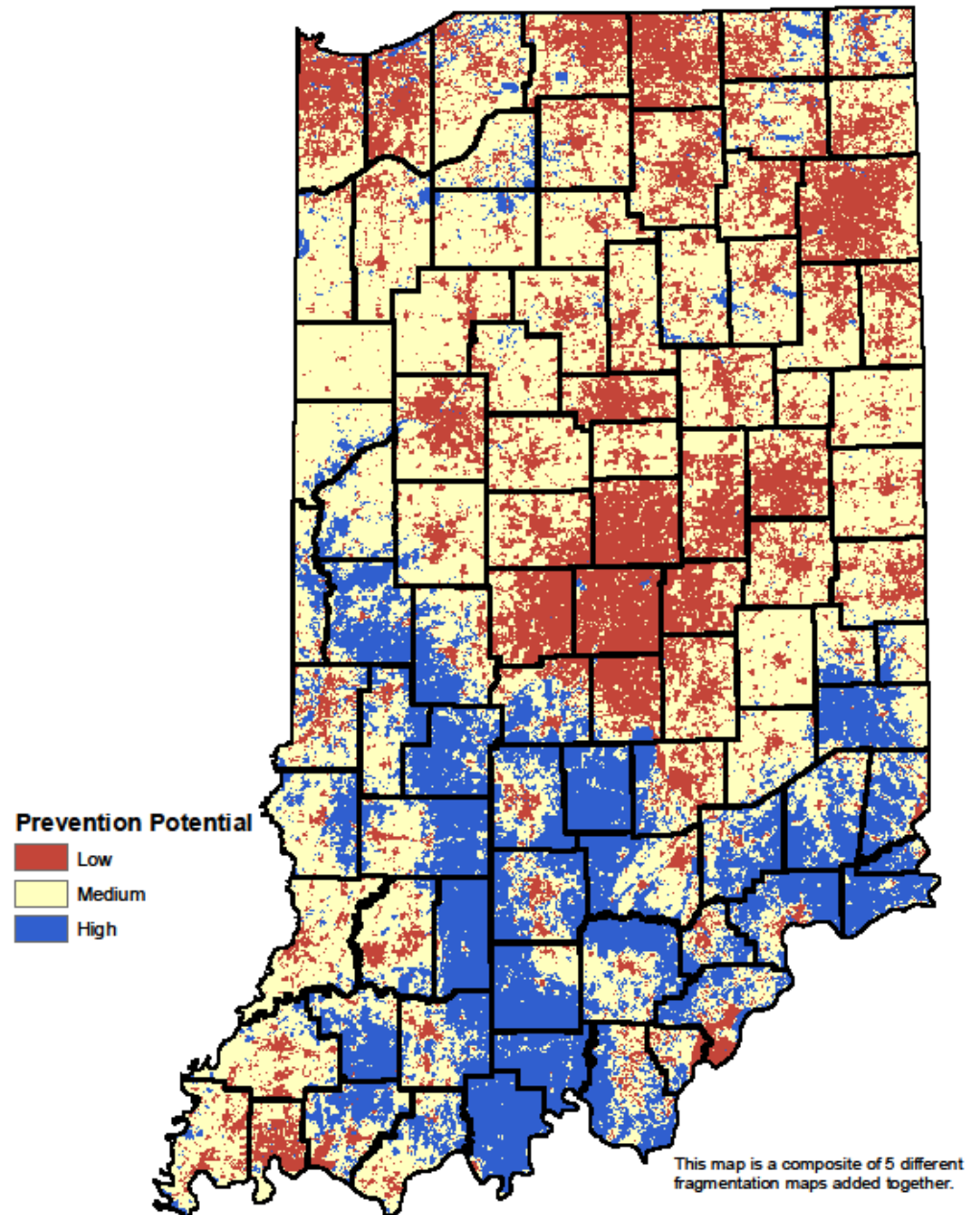


## Fragmentation

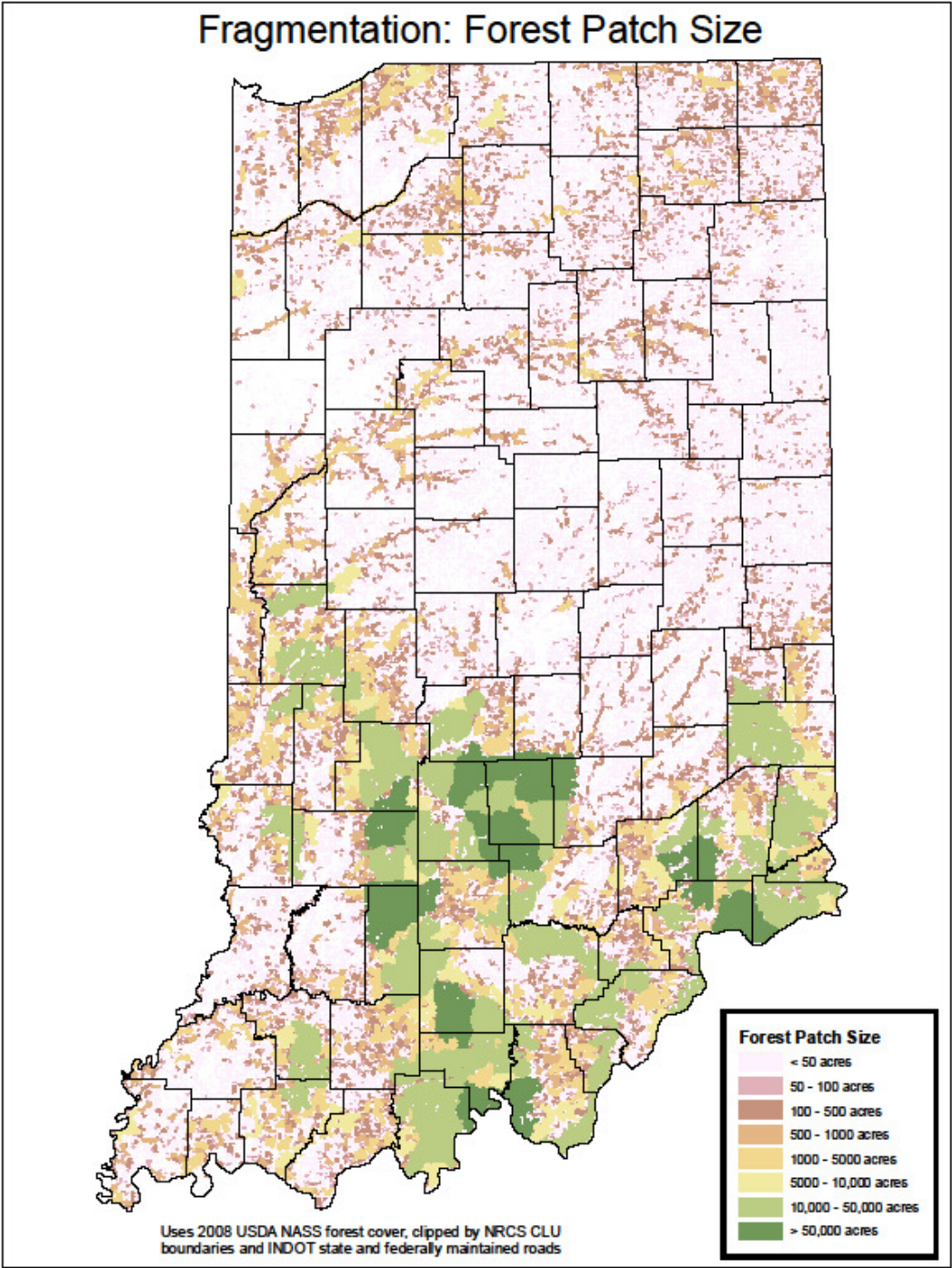
*Fragmentation and/or conversion of forests to another land use*

- breaking forests into smaller, unconnected patches
- converting forests to paved surface, residence, agriculture, water

## Potential to Prevent Fragmentation



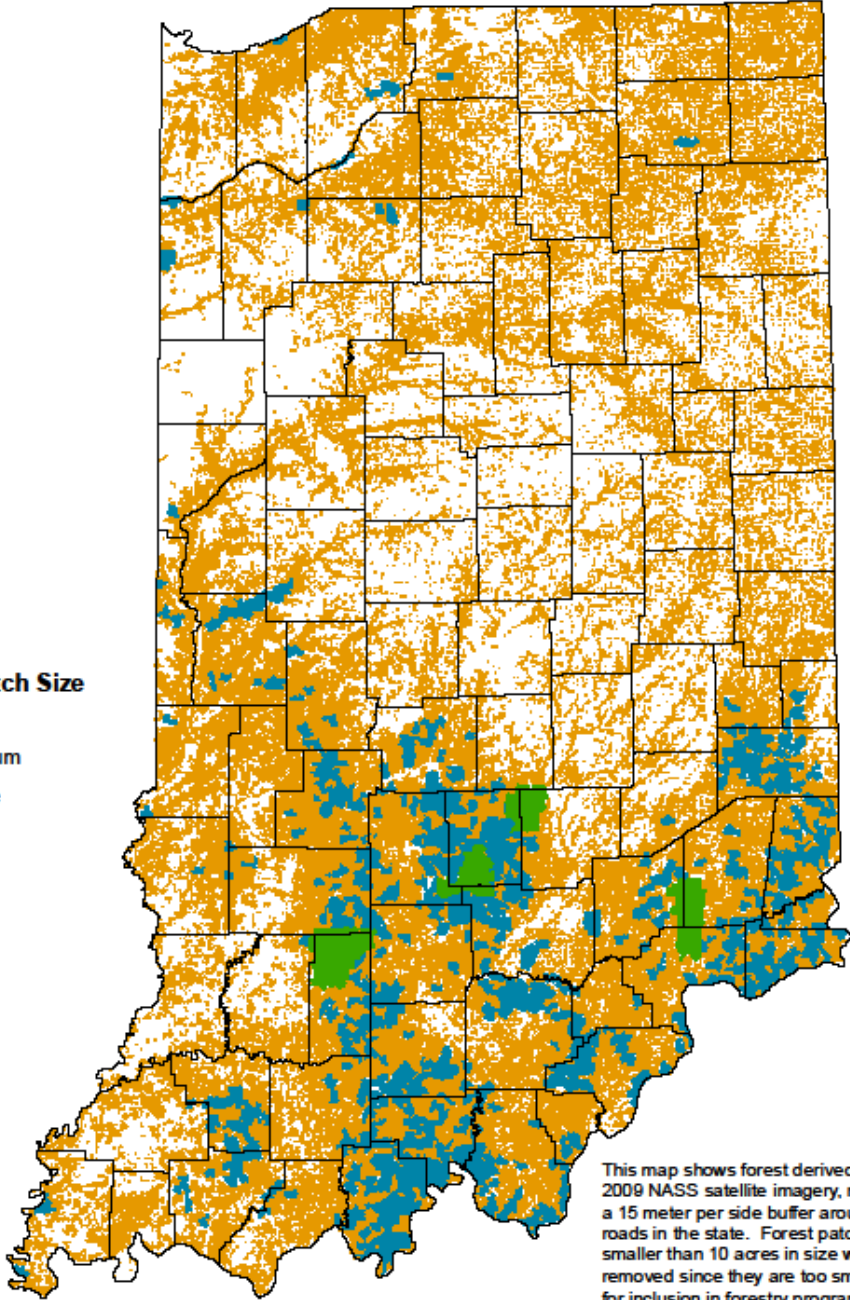
*Contiguous Forest Patches*



Roadless tracts

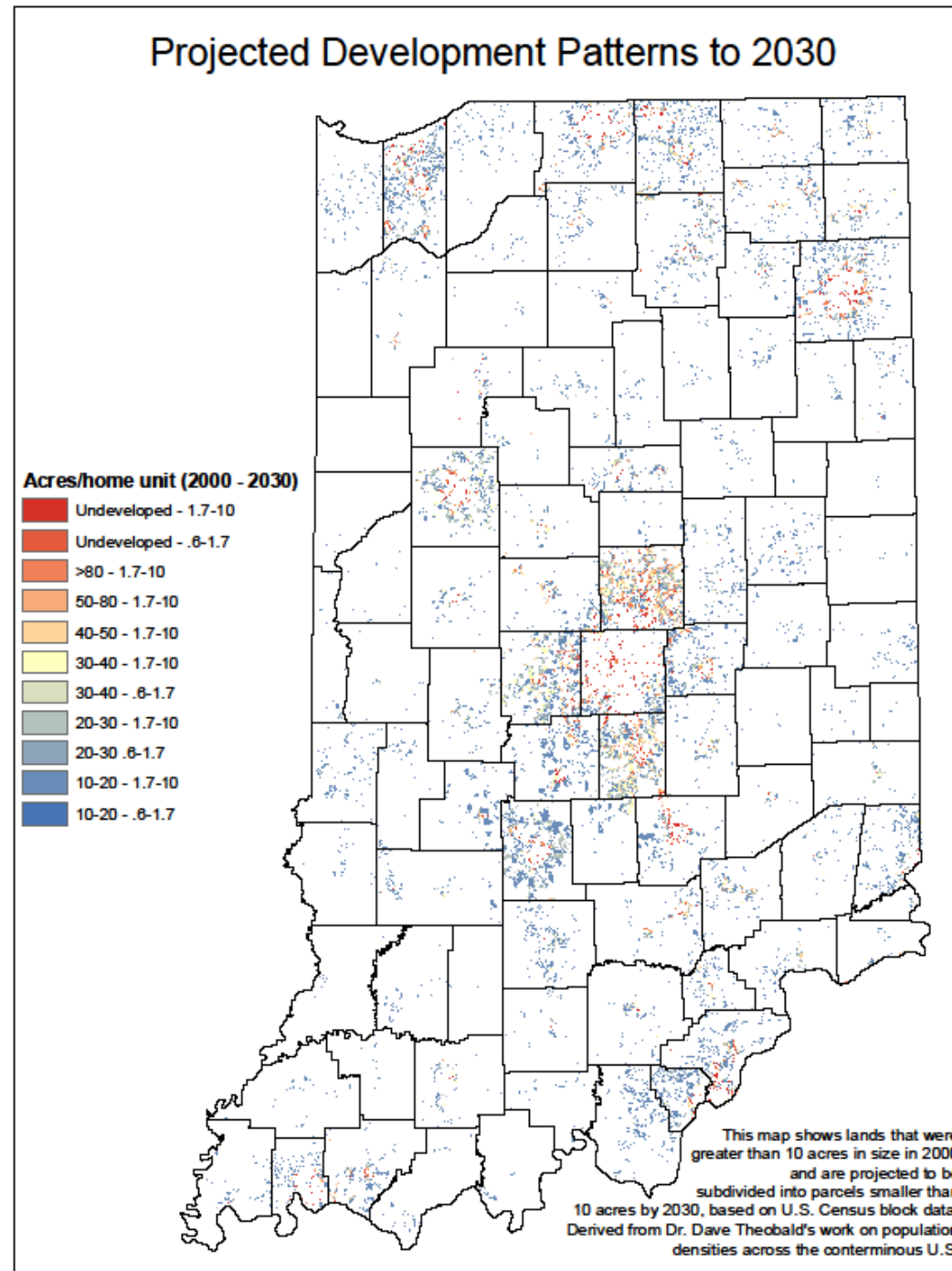
### Roadless Forest Patches

**Forest Patch Size**  
Small  
Medium  
Large

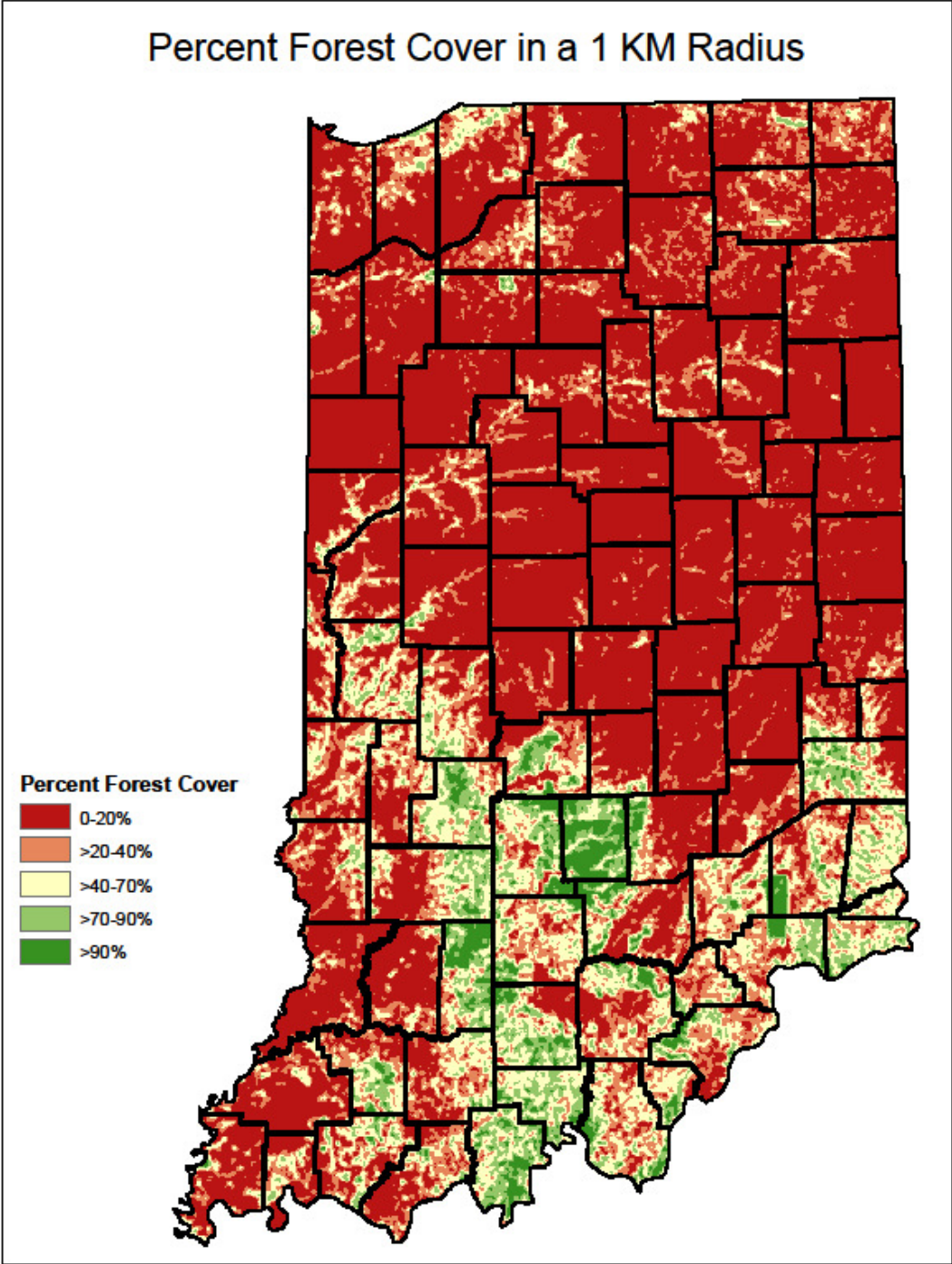


This map shows forest derived from 2009 NASS satellite imagery, minus a 15 meter per side buffer around all roads in the state. Forest patches smaller than 10 acres in size were removed since they are too small for inclusion in forestry programs.

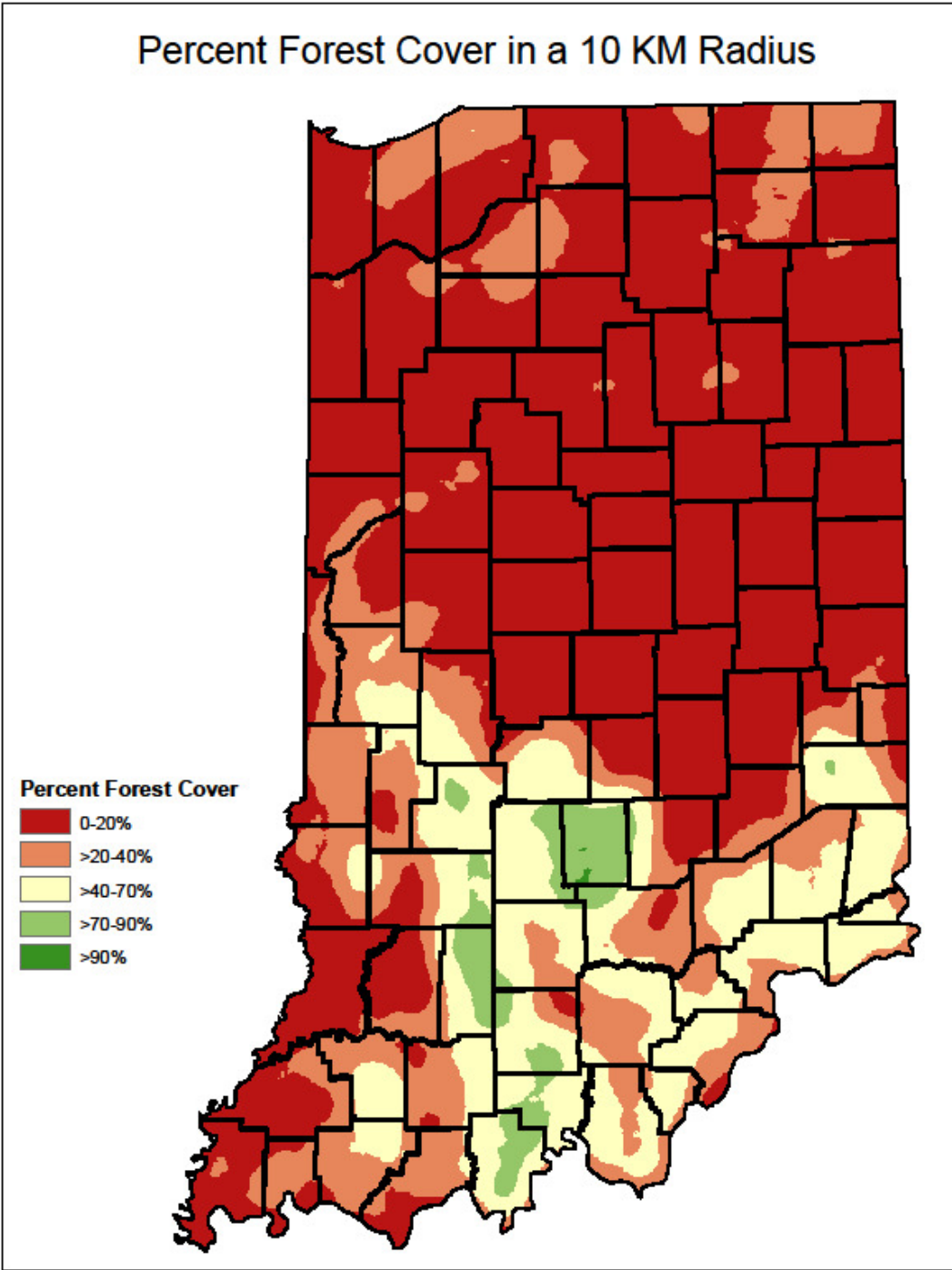
# Projected Development Patterns to 2030



*Percent Forest Cover in  
a 1KM Radius*



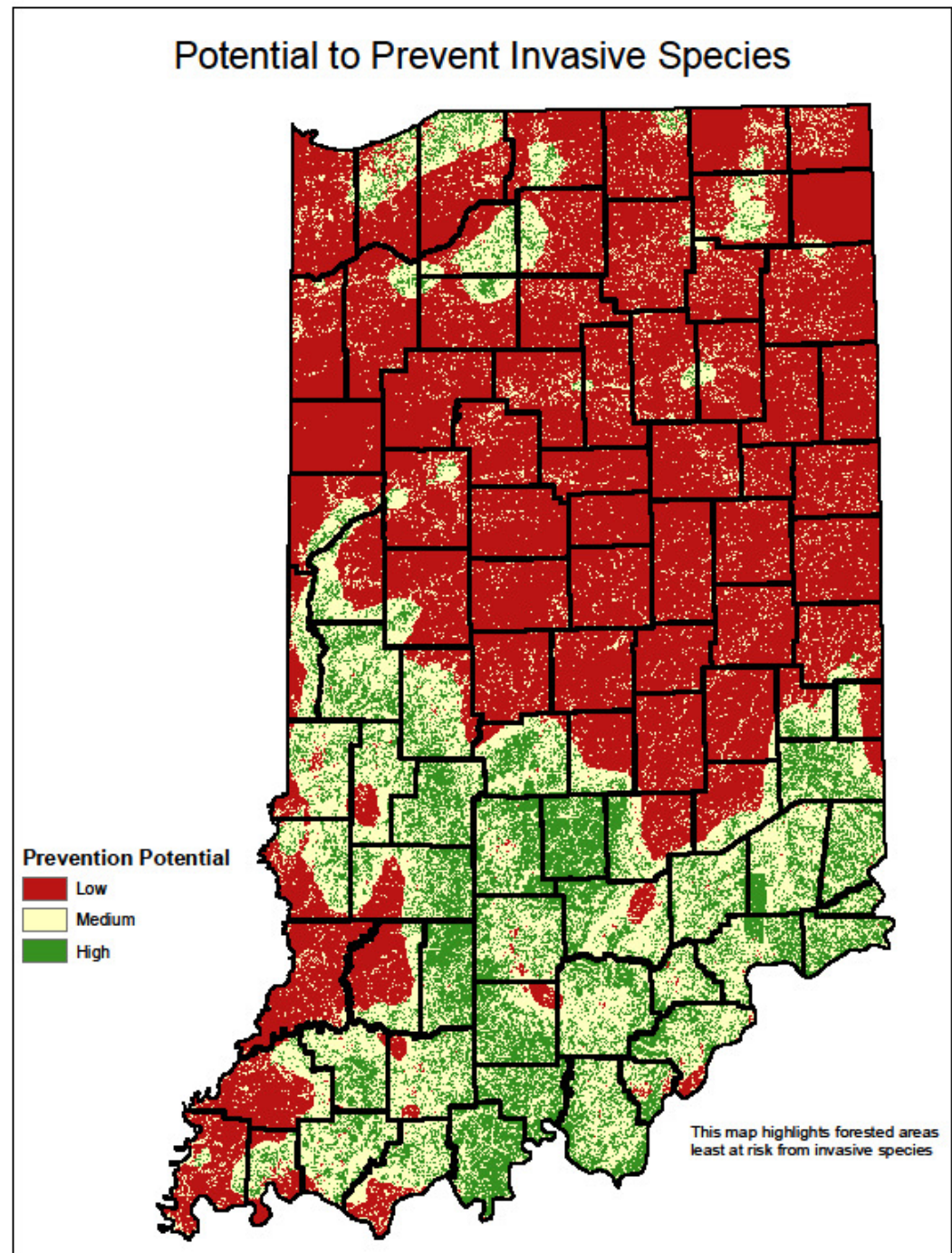
*Percent Forest Cover in  
a 10KM Radius*



## Invasives

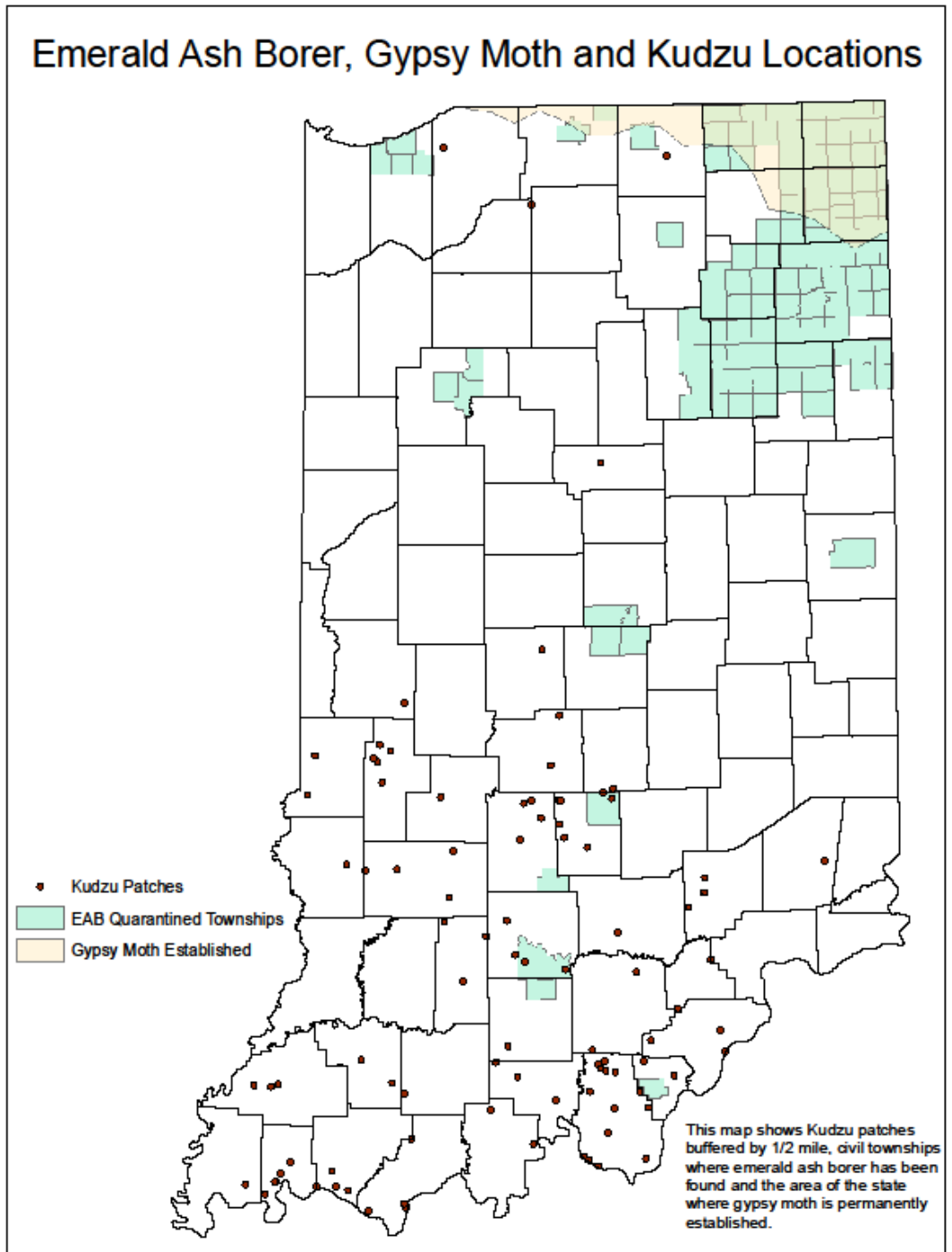
*The spread and control of  
invasive species*

- managing the impact of  
invasive plants
- controlling the spread of  
invasive plants



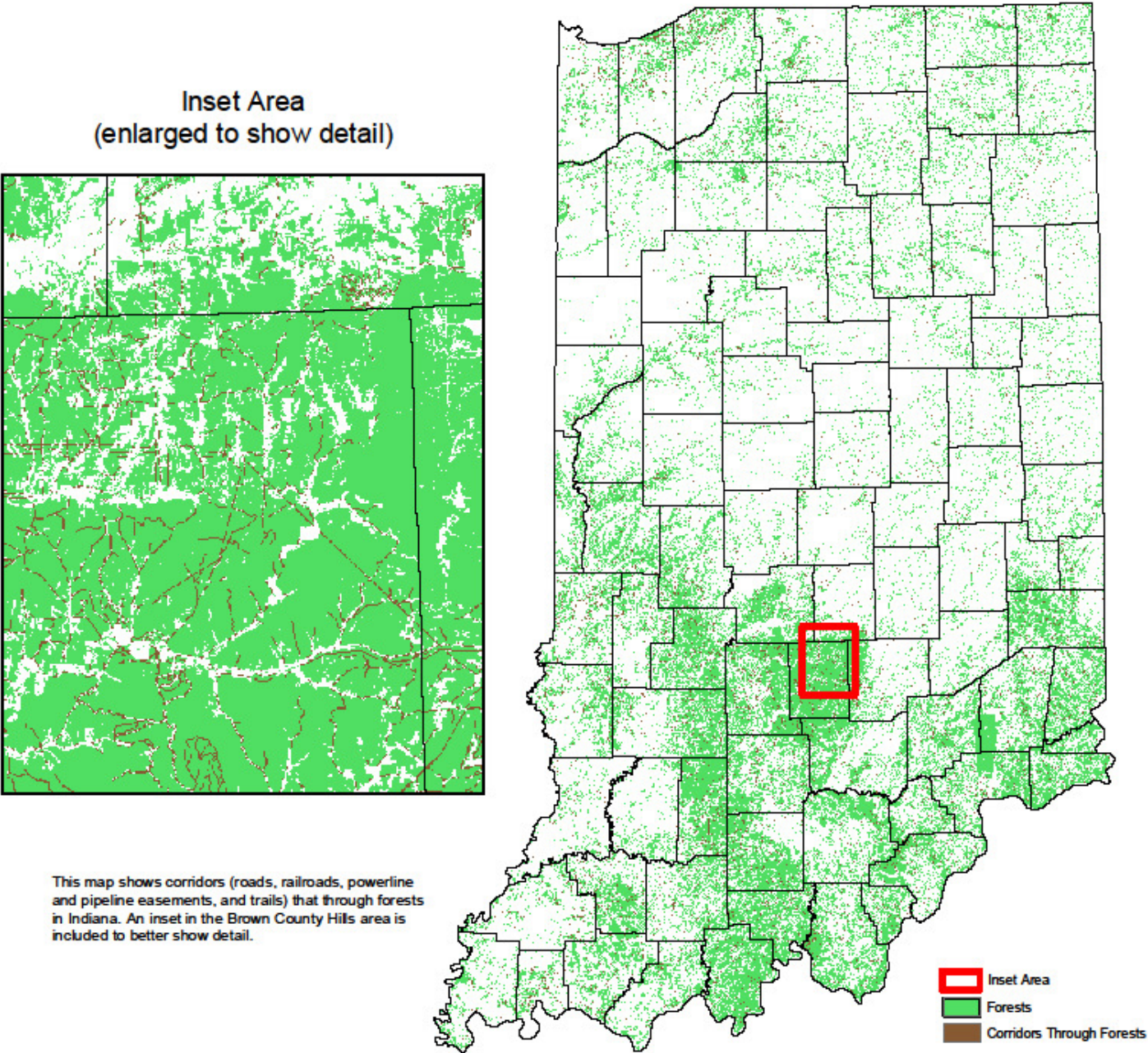


*Known statewide invasives occurrence*

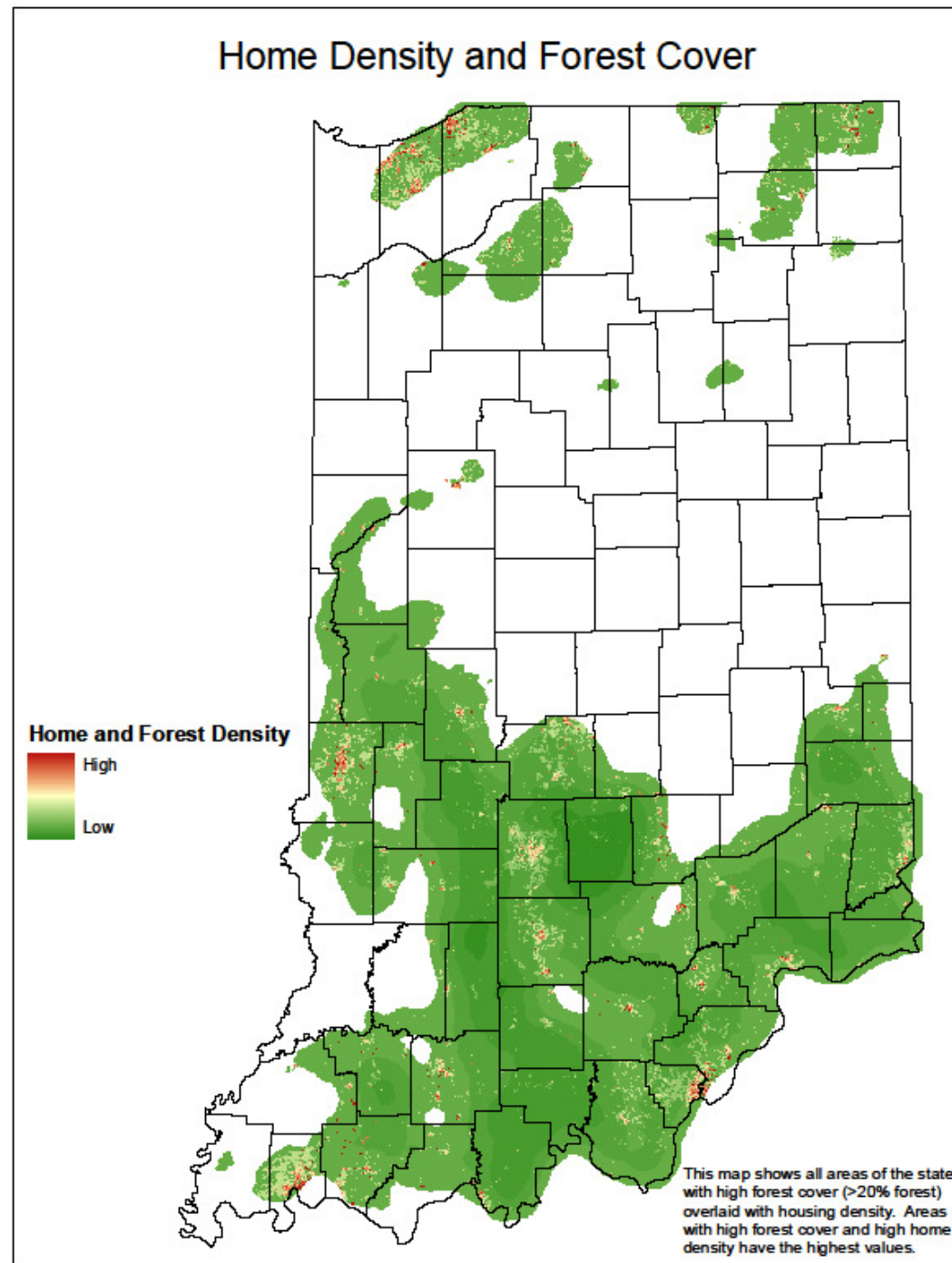


*Forest corridors*

### Maintained Corridors Through Forests



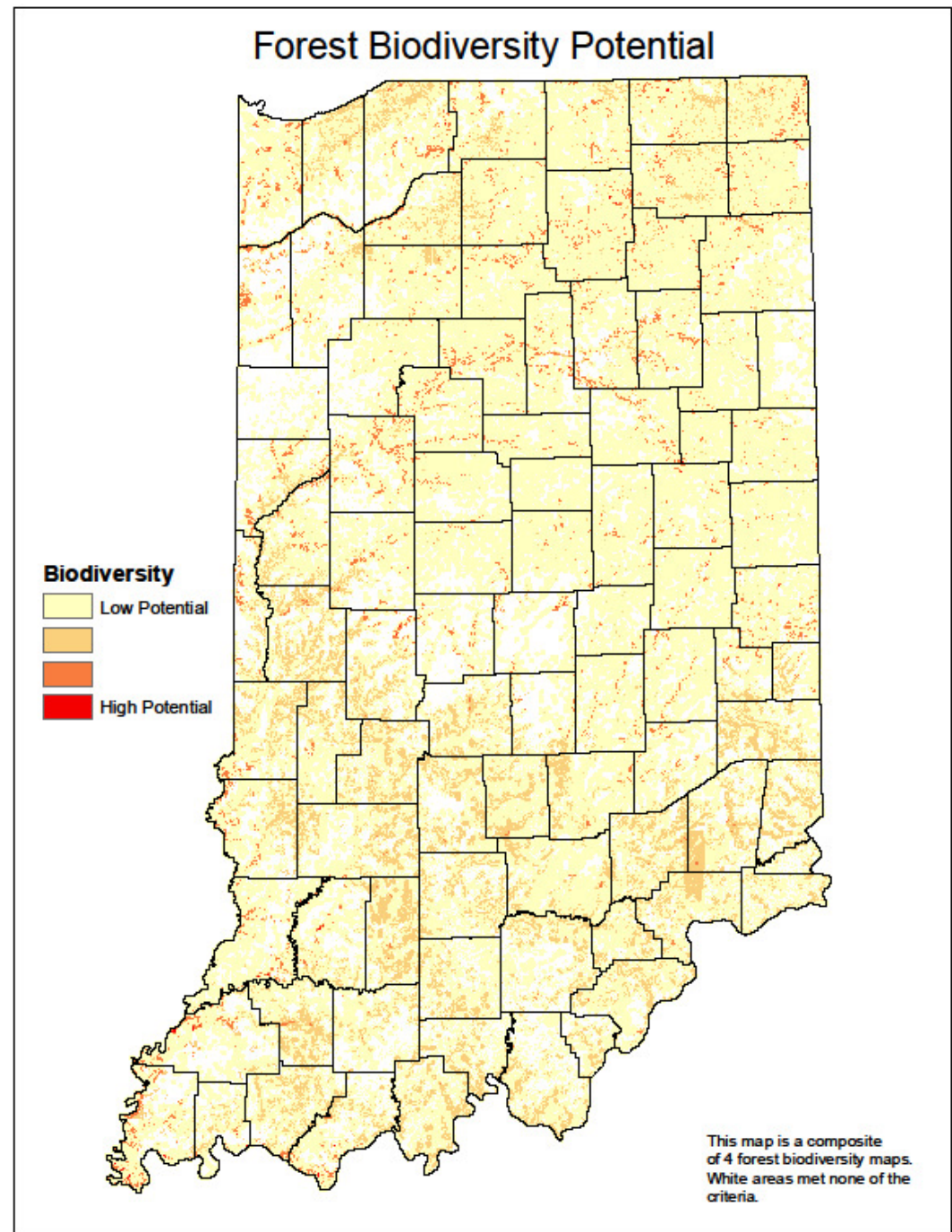
*High home density and  
high forest cover*



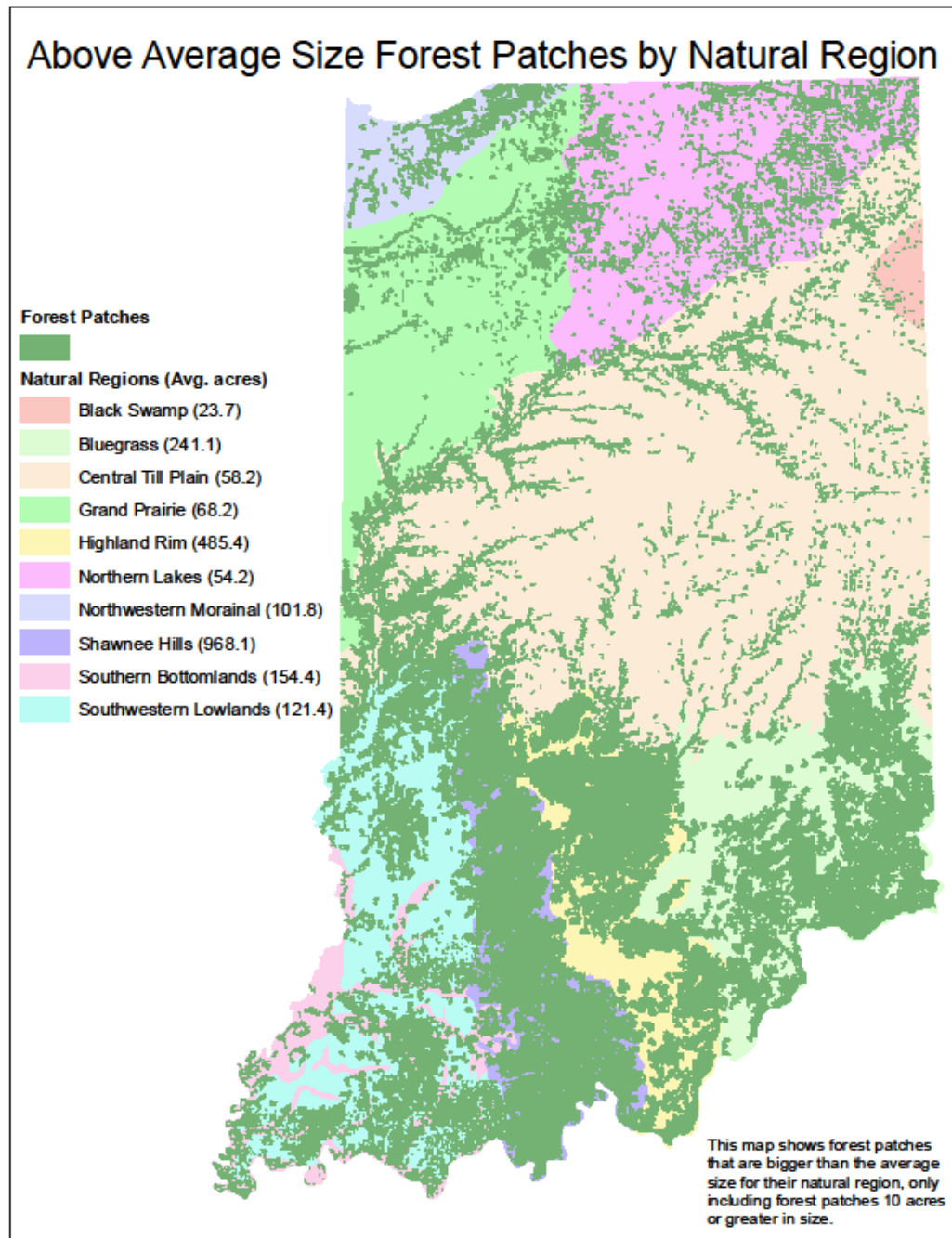
## Biodiversity

*Conservation of biodiversity (including plant and wildlife habitat)*

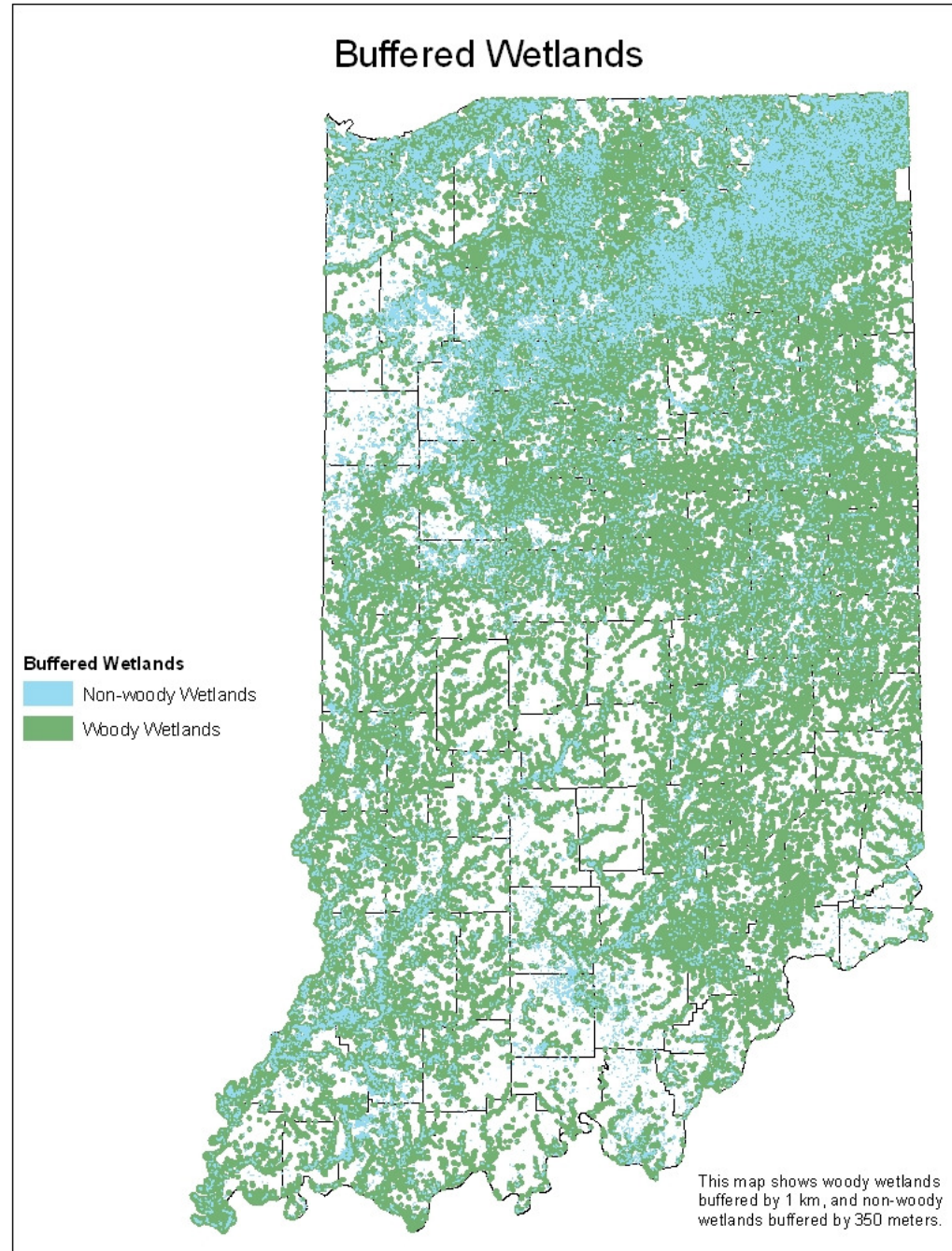
- Retention of viable plant and animal communities
- Keeping common species common



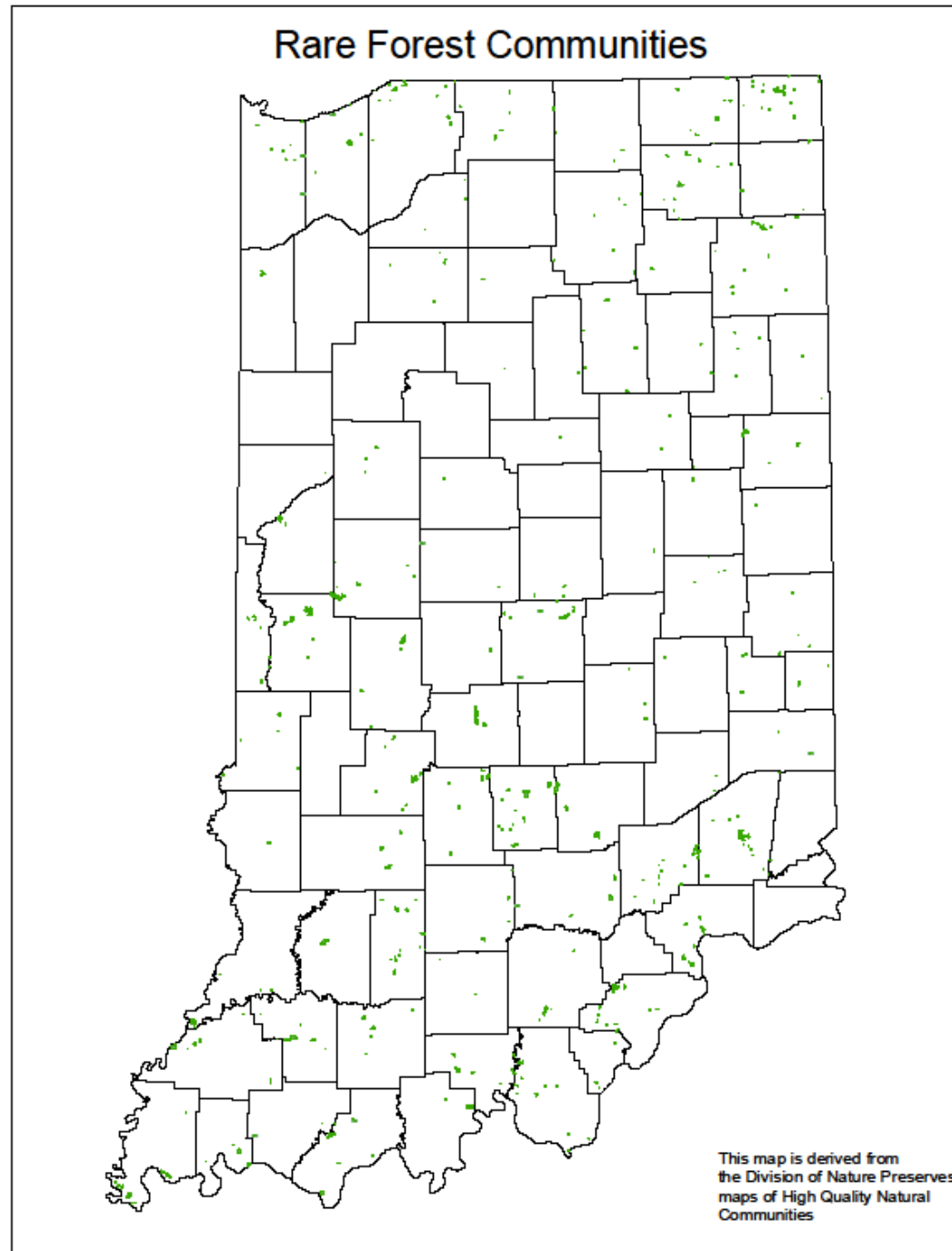
*Larger than average  
contiguous forests by eco  
region*



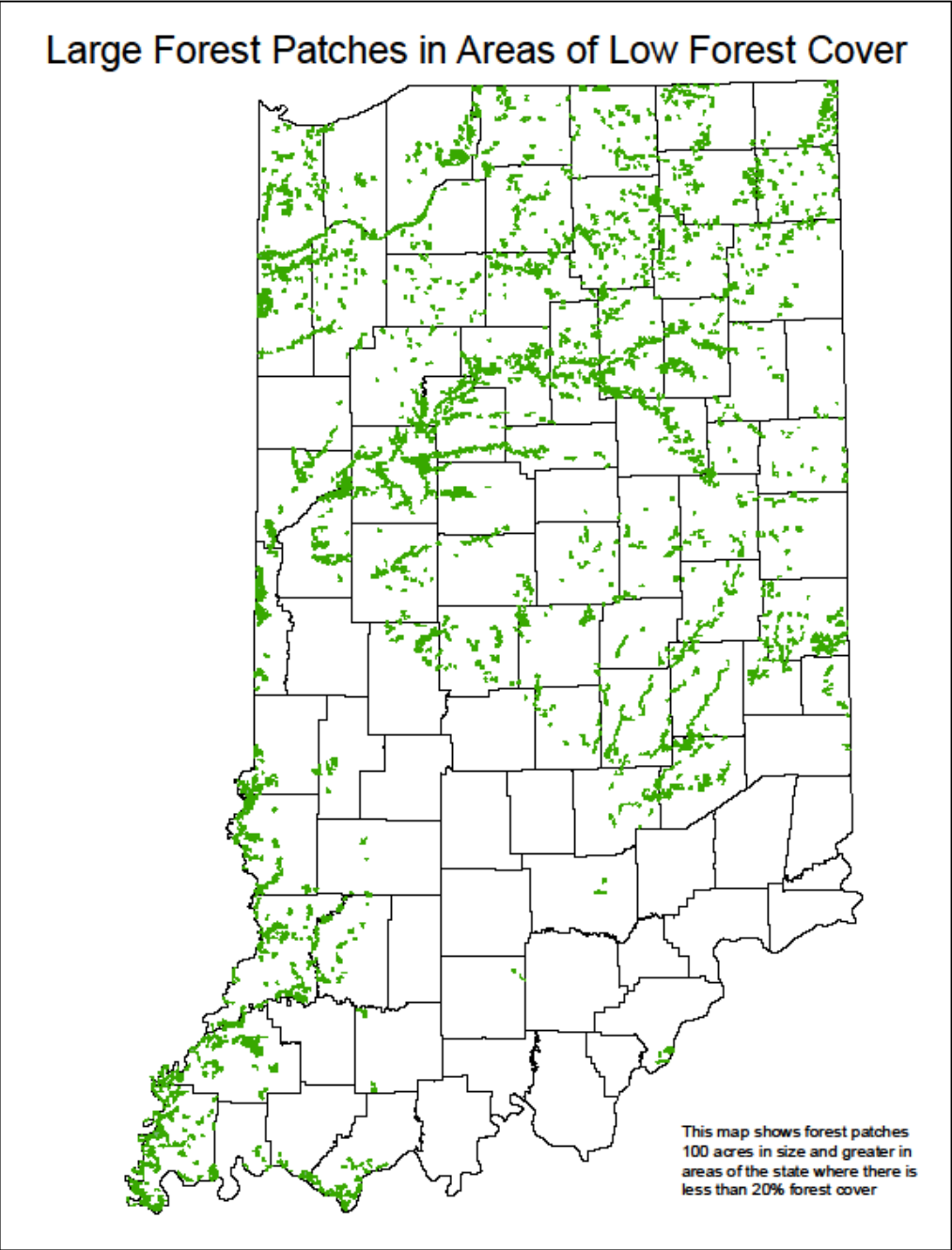
## Wetlands with buffers



*Imperiled  
natural  
community  
types*



*Large forest patches  
within low forested areas*





# Assessment Stakeholder Survey Results

May 15 - June 1, 2009

**Survey Monkey: ~1,200 Resource Professionals, Landowners**

## Indiana forest issue

Relative importance	
"First" most important	Selected as 1st, 2nd or 3rd most important

<b>Fragmentation</b> and/or conversion of forests to another land use	189	507
Conservation and maintenance of <b>soil and water</b> resources	199	425
The spread and control of <b>invasive species</b>	127	421
Conservation of <b>biodiversity</b>	150	364
Counterproductive government forest conservation related policies	75	249
Availability of land for public recreation	142	234
High cost of forest ownership and low incentives to retain	49	226
Conservation of forests that protect drinking water supplies	51	206
Overpopulation of white-tailed deer	47	194
Inadequate public education about forests	38	166
Sustaining Indiana's forest product industry	49	160
Lack of active management on forests	38	146
Sustainable regeneration of oak woodlands	29	138
Inadequate youth education about forests	18	94
Lack of healthy woodlands and trees in urban areas, including city parks, street and yard trees	16	90
The control of forest fires	36	73
The loss of fire dependent plant communities and habitats	13	67
Other	24	61
Forests not managed for carbon storage	6	45

# Identifying what we don't know

- All county parcel data (have 65/92)
- Tax rates on forestland
- Statewide zoning restrictions
- Forestland sale prices by parcel or at least township
- Perennial vs. annual agricultural vegetative cover
- Comprehensive state-level surveys for invasive species
- Stand age and forest type
- Understory and midstory survey – oak distribution
- Forest biodiversity connectivity and dispersal corridors
- Productive capacity (site index)
- Active management of forests, timber harvests
- Forest ownership demographics
- Estate tax income from properties >10 acres
- Ecological impact of deer herbivory



# After the Forum

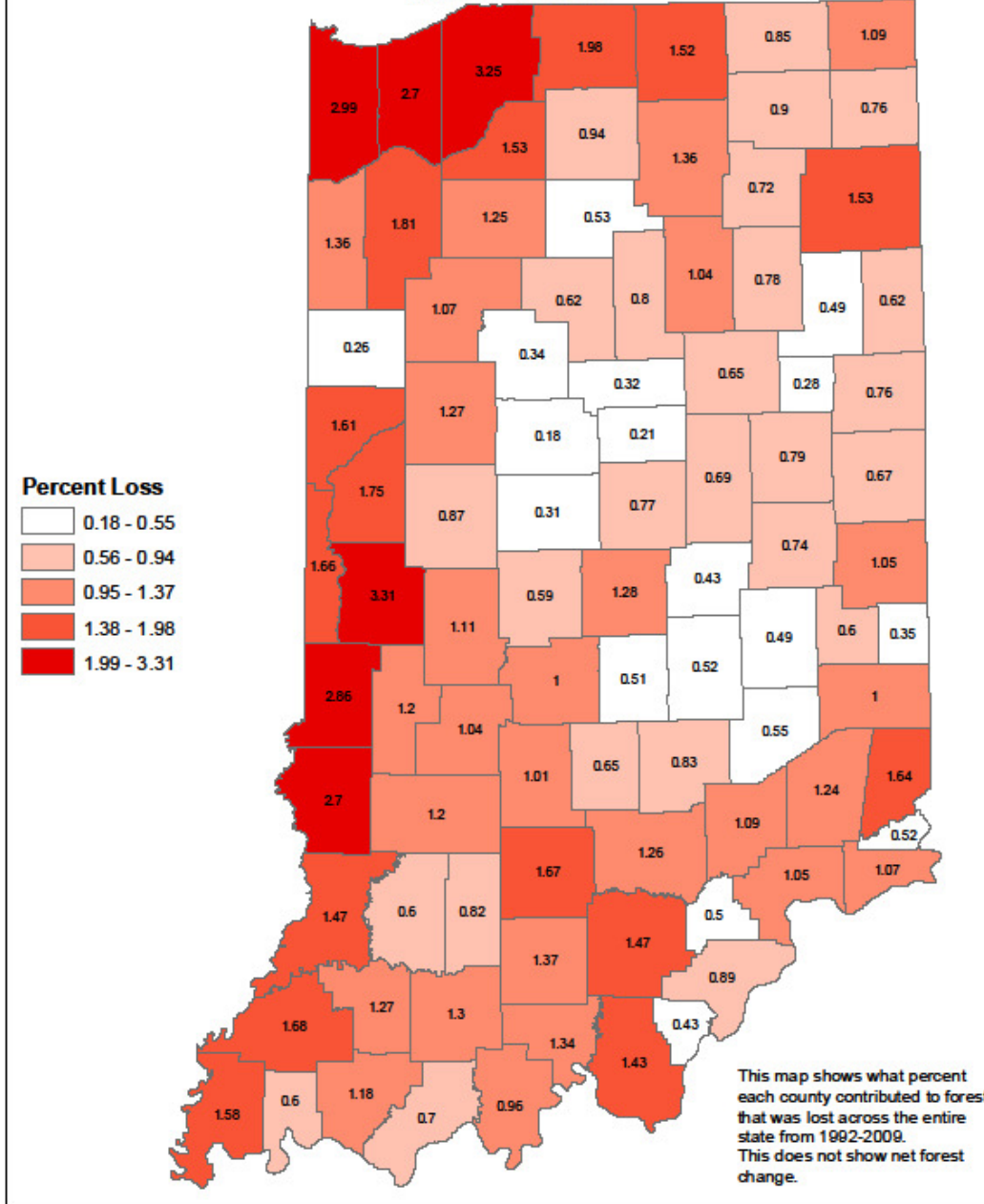
- Submit input, comments, guidance
  - [stateassessment@dnr.in.gov](mailto:stateassessment@dnr.in.gov)
  - <http://www.in.gov/dnr/forestry/5436.htm>
- When it is released
  - Review the Draft Statewide Forest Strategy
  - Provide written comment, feedback
- Be aware of partnership opportunities
  - Federal grants

# Questions?

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Indiana Division of Forestry  
[cgonso@dnr.in.gov](mailto:cgonso@dnr.in.gov)



## Percent Total Forest Loss By County 1992 - 2009

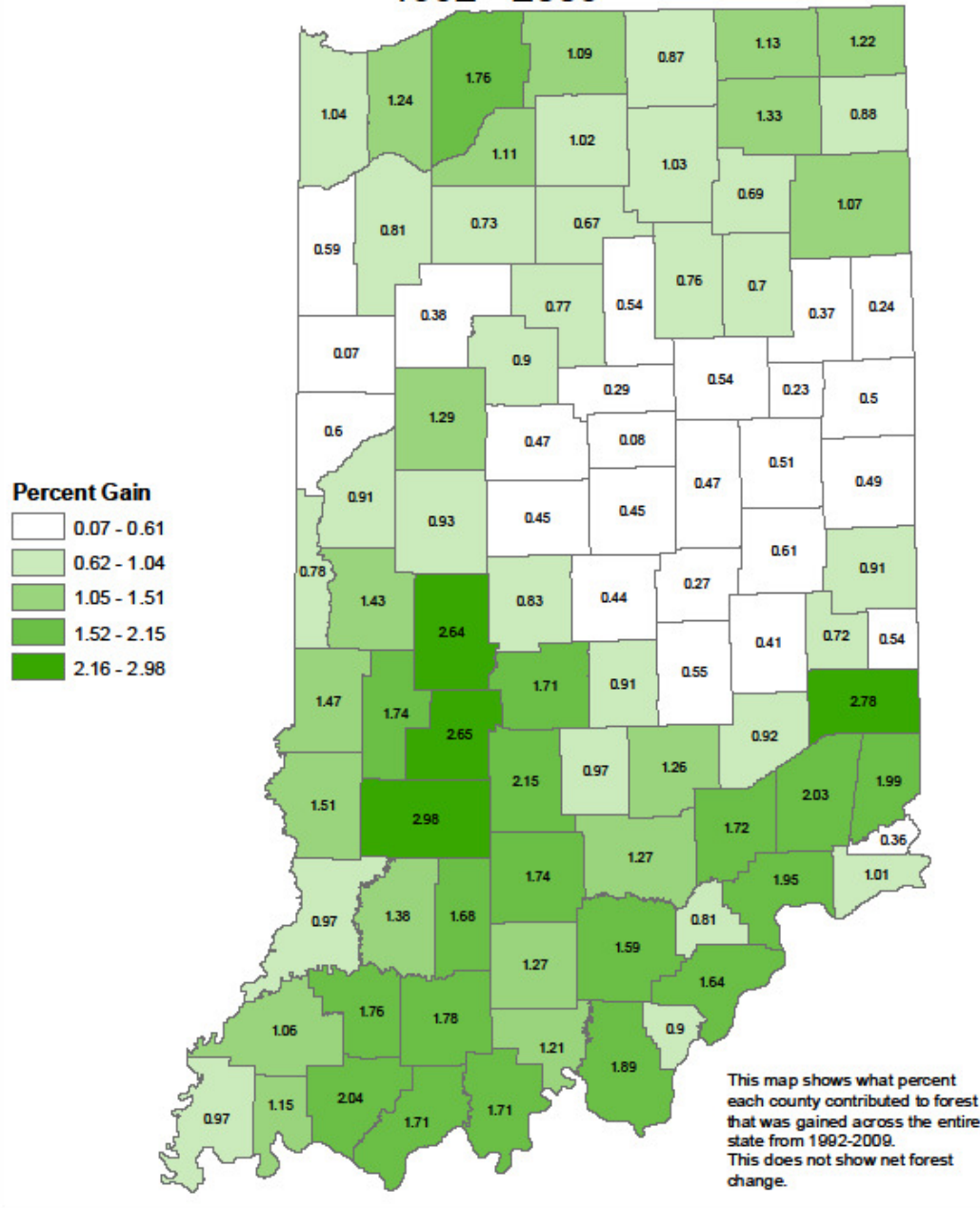


Satellite image analysis tells us...

Acres of land that were forest in 1992 but weren't in 2009:

924,680

## Percent Total Forest Gain By County 1992 - 2009



Satellite image analysis tells us...

Acres of land that weren't forest in 1992 but were in 2009:

1,272,820