Forest Fragmentation and Conversion

Center for Urban Policy and the Environment
School of Public and Environmental Affairs
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Forest Conservation and Stewardship Strategy Forum
Indianapolis, Indiana
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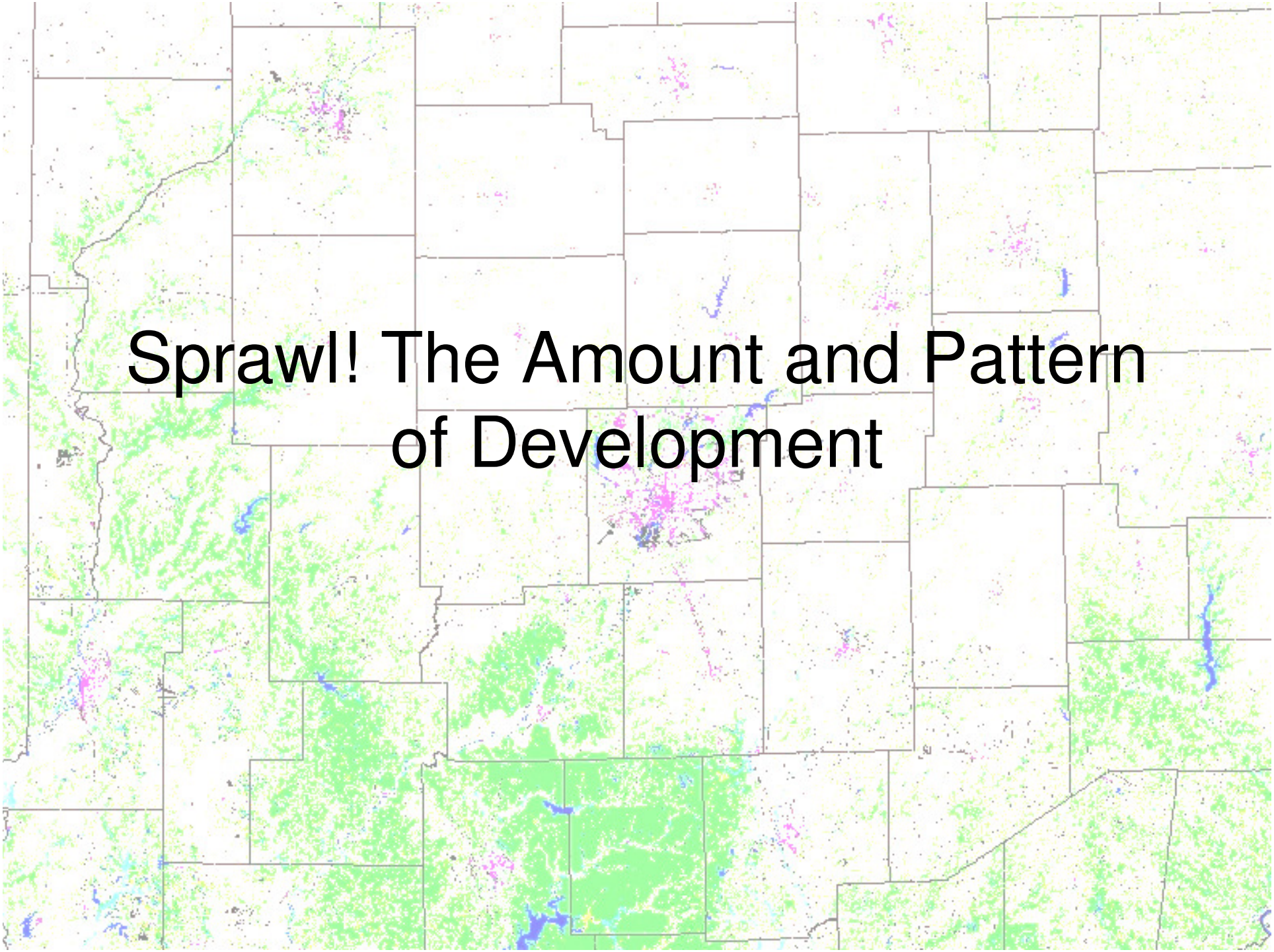

Sprawl! The Amount and Pattern
of Development

Typical Features of Sprawl

(Michigan Society of Planning Officials 1995)

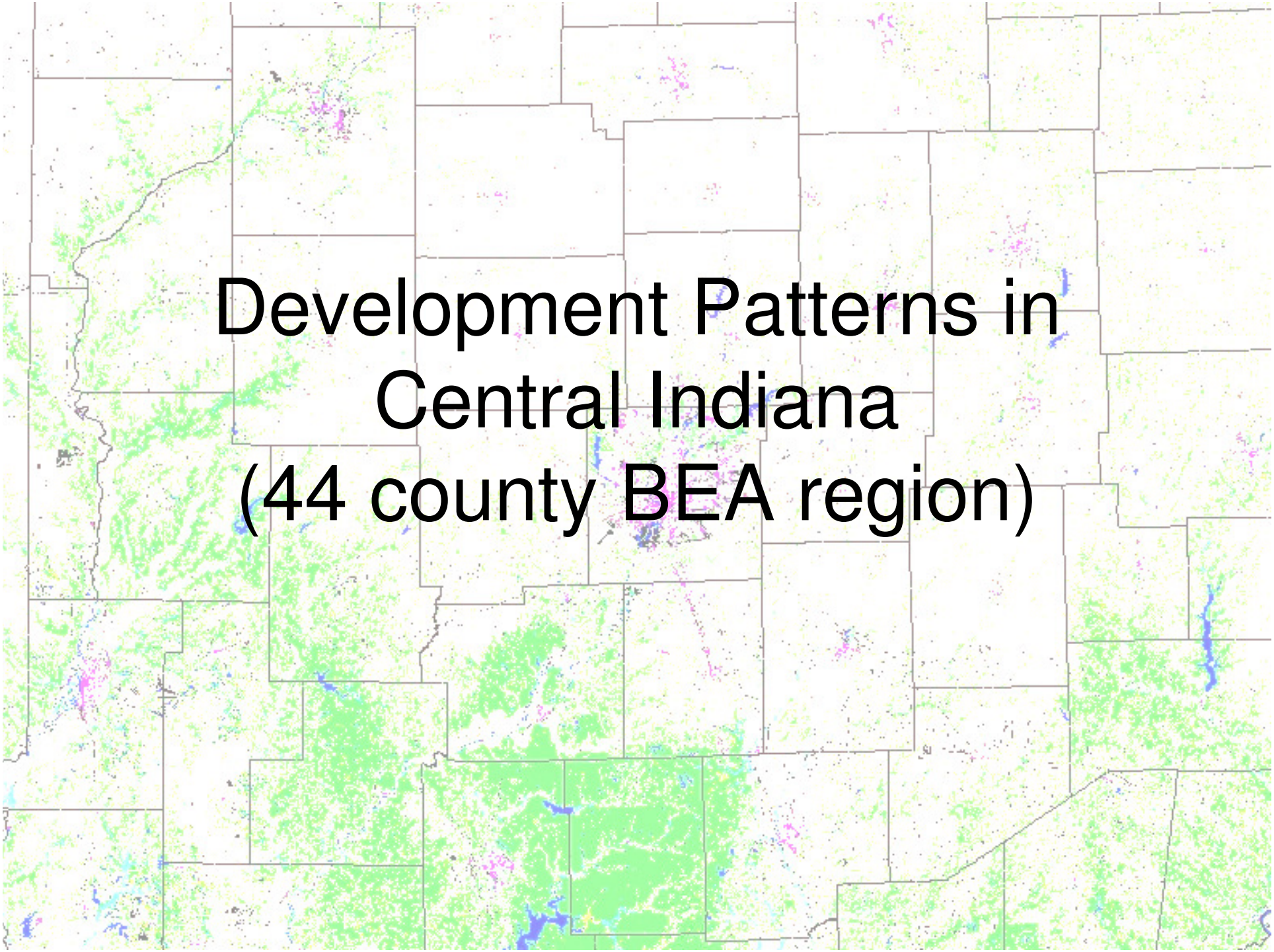
- Very low-density, new residential development
- Auto dependent
- Uneconomical for utility expansion/extension of public services
- Scattered rural subdivisions
- Strip residential development along county roads
- Diminished rural character and small-town atmosphere
- Suburbanization of landscape

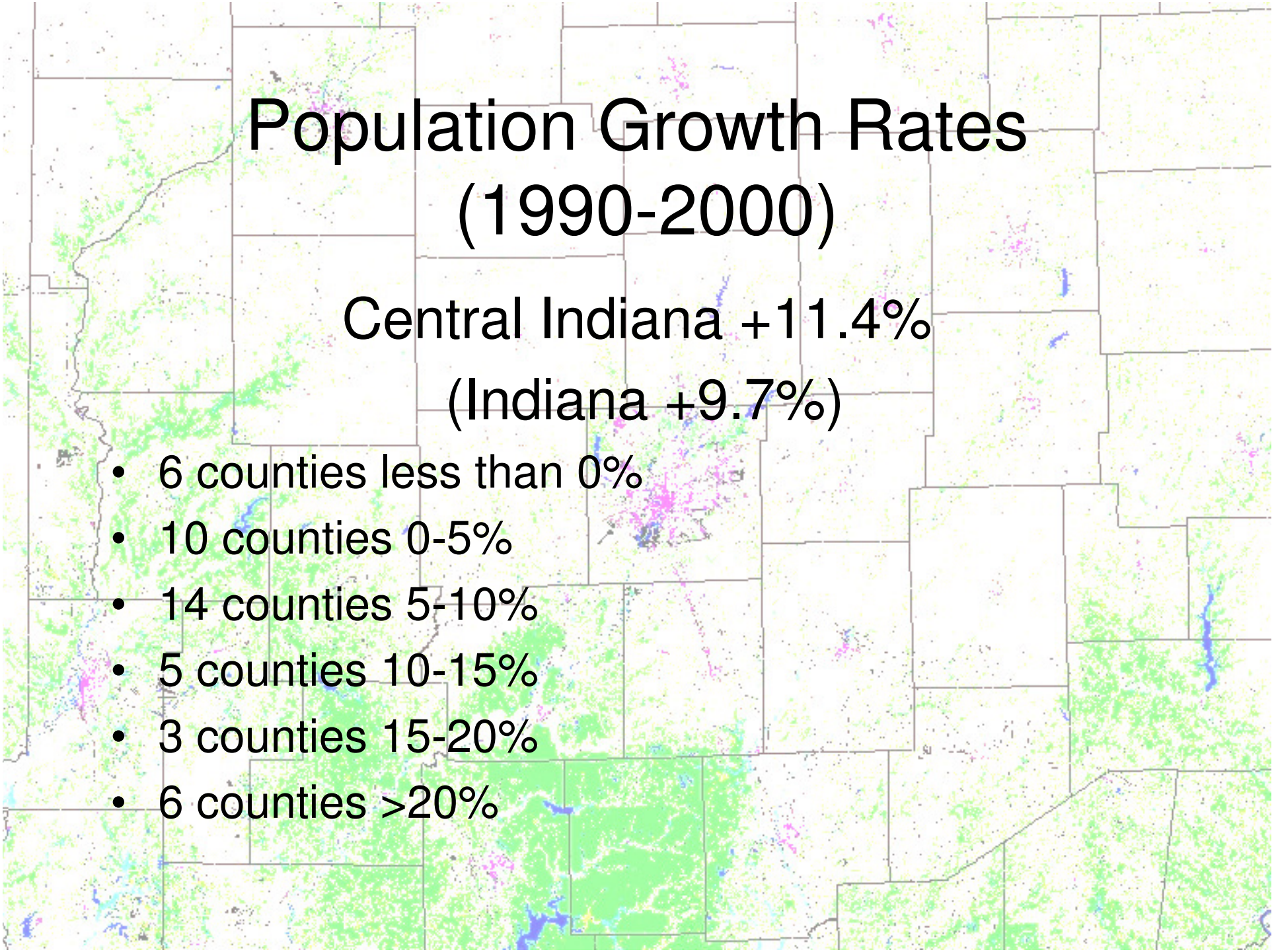
Typical Features of Sprawl

- Loss of community character
- Reduces shopping opportunities downtown
- Strip commercial development at the edges of town
- Land consumption
- Inefficient energy use
- High ratio of road surface to development served

Post WWII Development Patterns

- National statistics (Landes 1995)
  - Land consumption = 2 * household formation
  - Auto use growing twice as fast as the population
  - Prime agricultural land, forests, and fragile natural systems being consumed at comparable rates


Development Patterns in
Central Indiana
(44 county BEA region)



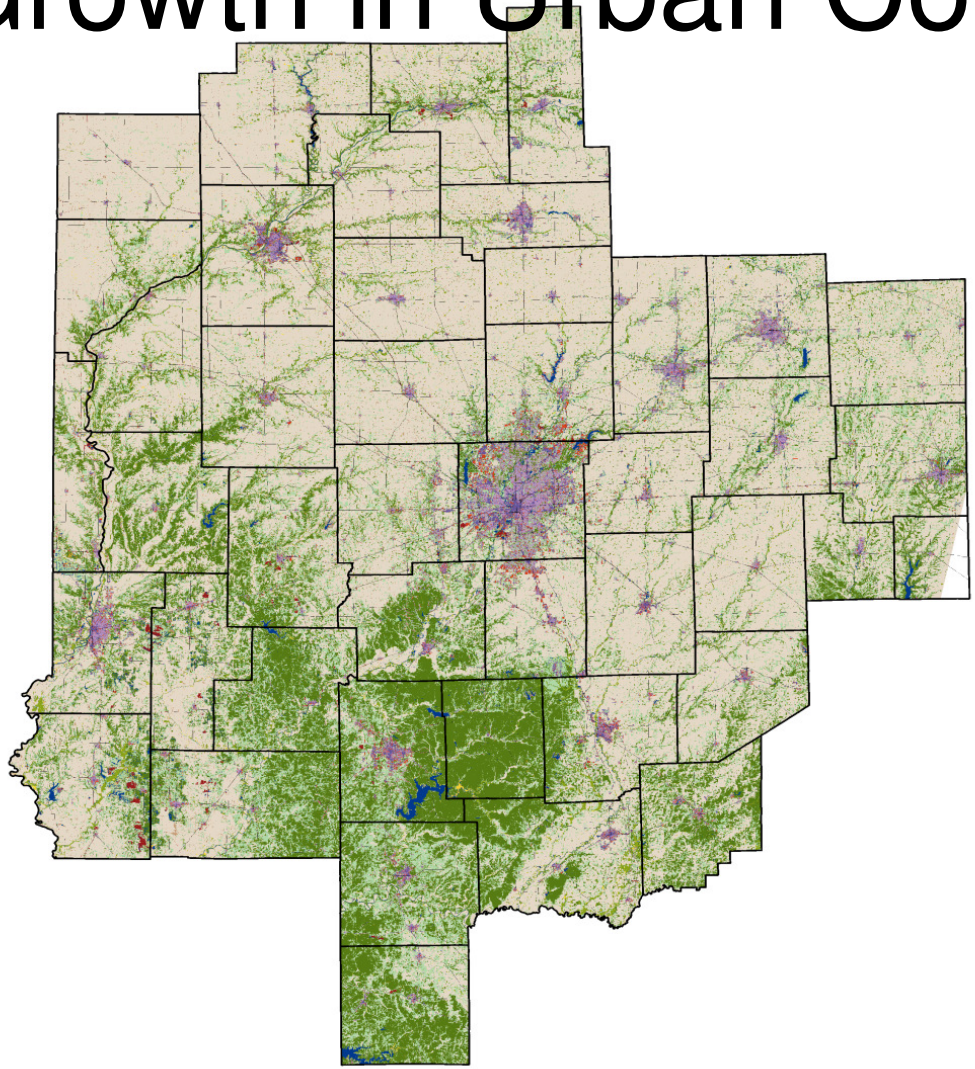
Population Growth Rates (1990-2000)

Central Indiana +11.4%

(Indiana +9.7%)

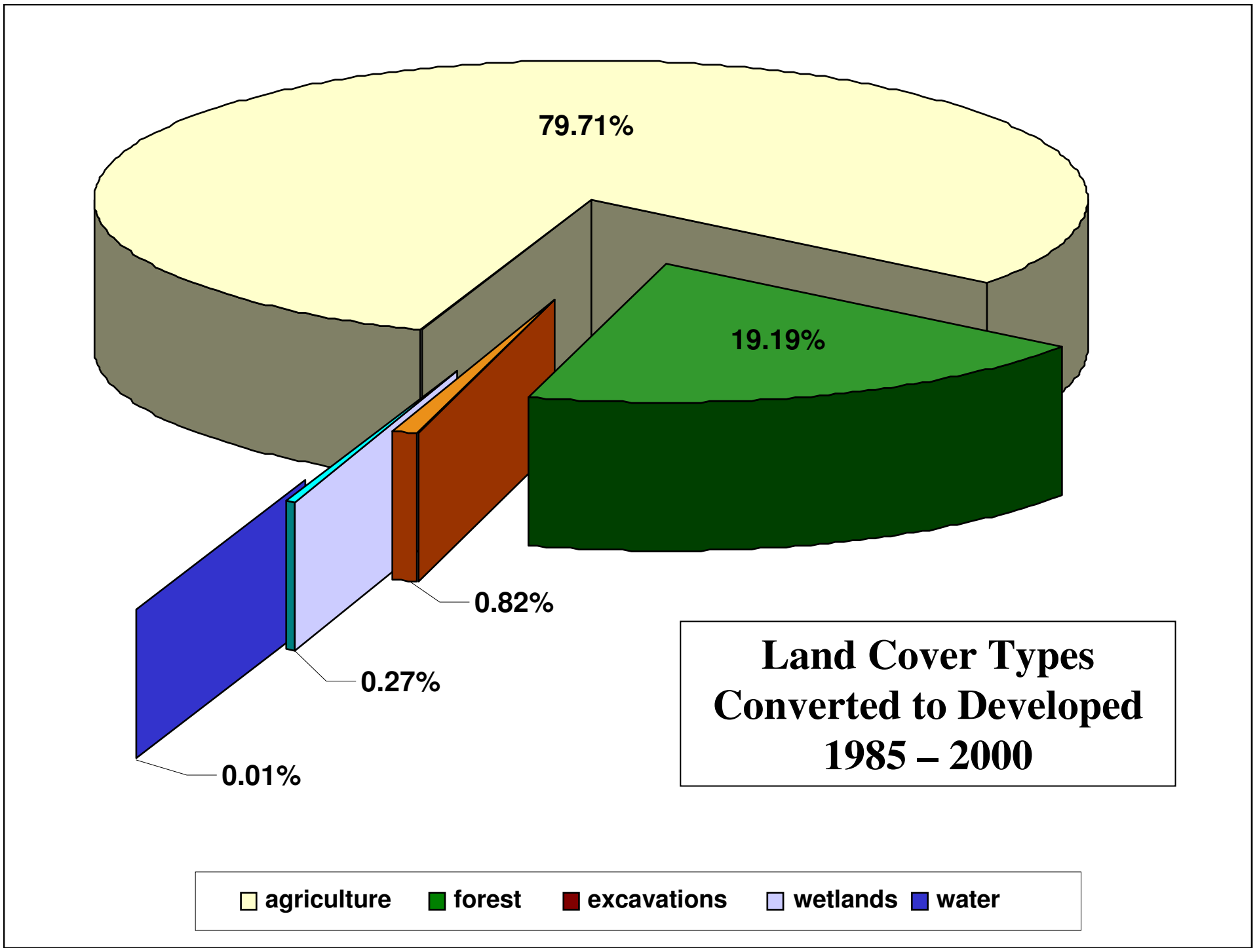
- 6 counties less than 0%
- 10 counties 0-5%
- 14 counties 5-10%
- 5 counties 10-15%
- 3 counties 15-20%
- 6 counties >20%

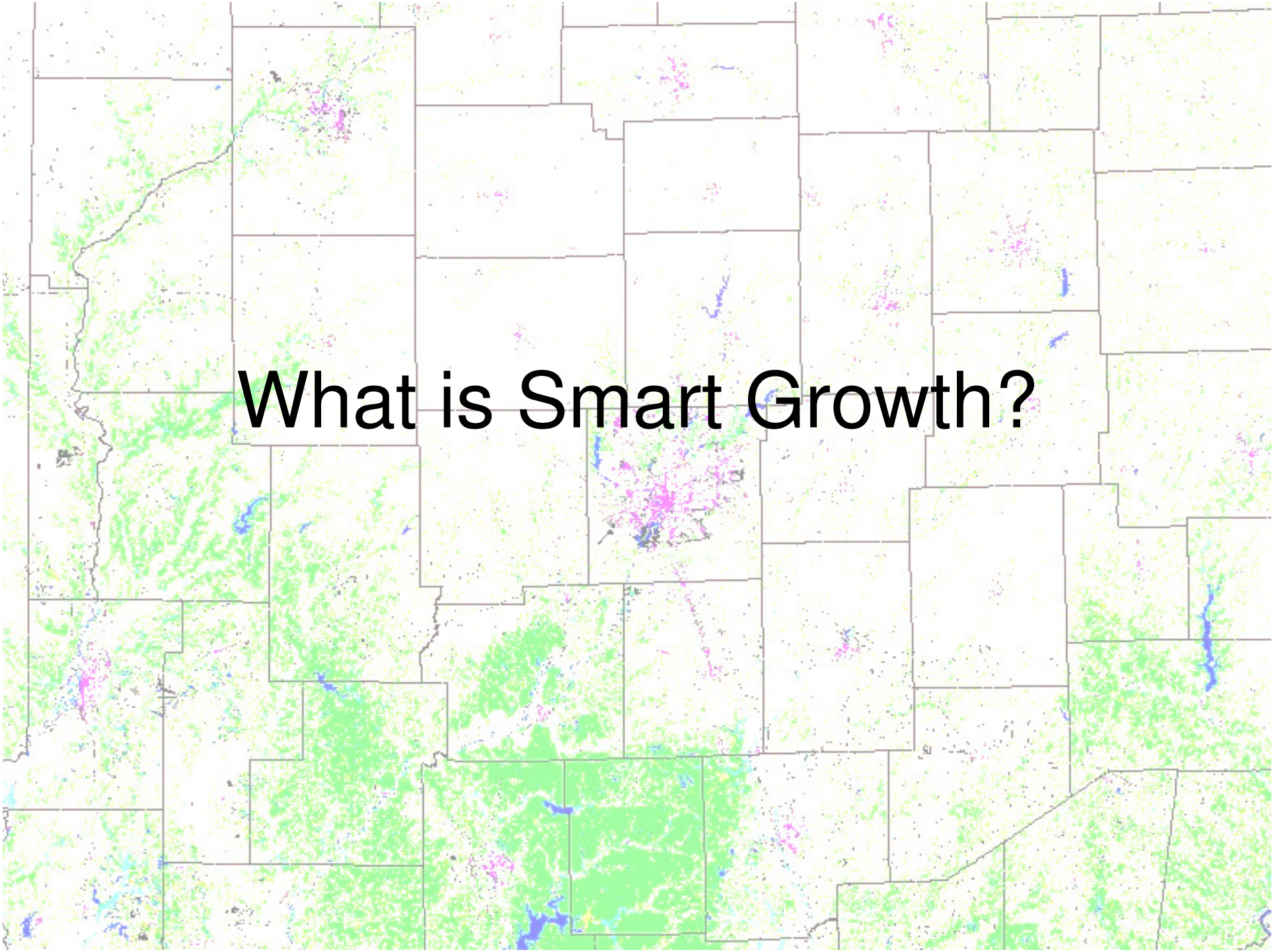
Growth in Urban Cover



Population vs. Urban Cover

County	Annual Pop Growth 1990-2000	Annual Growth in Urban Cover 1993-2000
Hamilton	5.3%	8.8%
Hendricks	3.2%	7.8%
Johnson	2.7%	4.7%
Fayette	-0.2	1.3%
Miami	-0.2	1.4%
Central Indiana	1.1%	2.5%


79.71%
19.19%
0.82%
0.27%
0.01%
Land Cover Types
Converted to Developed
1985 – 2000
agriculture
forest
excavations
wetlands
water


What is Smart Growth?

Components of Smart Growth (Maryland Office of Planning 1997)

- Development is concentrated in suitable areas
- Sensitive area are protected
- In rural areas, growth is directed to existing population centers and resource areas protected
- Resource conservation is practices
- Economic growth is encouraged and regulatory mechanisms are streamlined

Forces Against Change

- Short-term benefits accrue to households; long-term costs accrue to society
- “Prairie” philosophy: land is unlimited and meant to be developed
- Cost of development are not made explicit (build now, pay later)
- Value the free use of land; property rights
- Plan commissions, builders, and consumers reinforce historic patterns (3-legged stool)

General Public Favors Sprawl

- Dilutes congestion while accommodating unlimited use of the automobile
- Distances new development from the fiscal and social problems of older core areas
- Provides heterogeneous economic mix
- Fosters neighborhoods in which housing will appreciate
- Fosters neighborhoods in which schools provide both education and appropriate socialization of youth
- Requires lower property taxes to pay for local and school district operating expenses


Forestlands and Community
Planning

Planning vs. No Planning

- Summer 2009
  - 82 counties with plan commissions
  - 10 counties without plan commissions, mostly in SW Indiana

Values

- Have not generally convinced the public of the value of having and protecting a number of natural resources, including forestlands
- This is reflected in the way that most communities manage (or don't manage) natural resources

Comprehensive Plans

- Create the vision for land use in communities
- Non-binding but necessary to have land use regulation
- Typically natural resources get only cursory attention
- Collect information on floodplains, steep slopes, soil suitability for septics, and wetlands

Comprehensive Plans

- Over the last few years, there has been more focus on farmland. Forestland typically is lumped in.
- Seldom are there specific goals and objectives related to managing and preserving forestlands and other natural resources.

Land Use Regulations

- Forestlands typically are not treated separately from agricultural land with respect to establishing zones.
- Forest and agricultural land still treated as holding zones for development. Scattered housing allowed in these zones.

Land Use Regulations

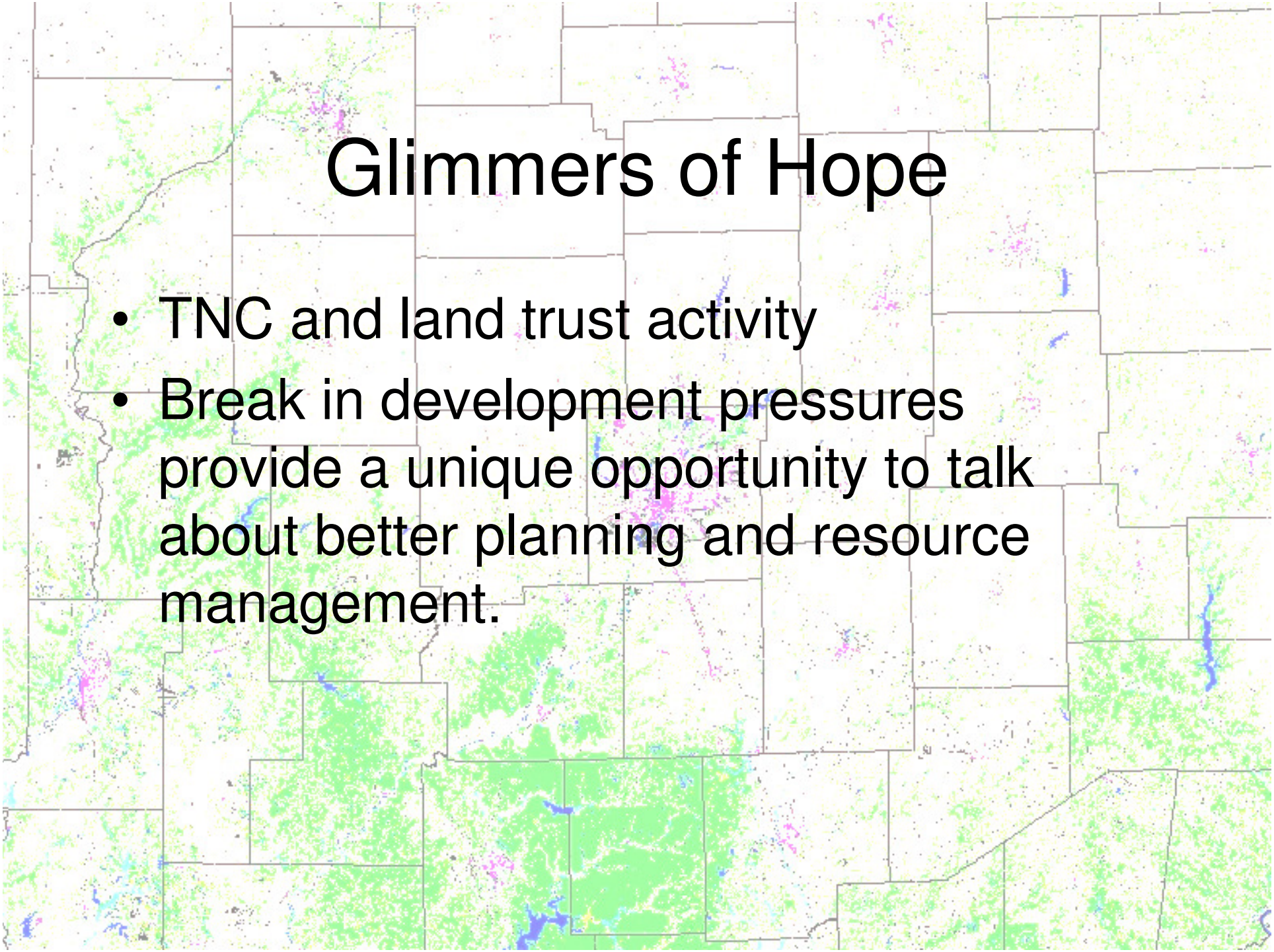
- Combination of amount of land zoned for residential development and the realities of subdivision regulation leave much too much land with an green light for sprawling residential development.
- Elected officials and plan commissions often thwart good regulations by rezoning or providing variances.

Other Factors

- Invasives
- Private ownership
- High cost of ownership/low incentives to retain
- Changing property tax system
- No compensation for eco-system services
- Ownership fragmentation
  - Farm succession

Glimmers of Hope

- Smart growth efforts in NW Indiana
- Planning in SW Indiana (I-69 Community Planning Program)
- Natural resources were a major focus of comp plan discussions in Johnson Co.
- Tippecanoe County forest preservation
- Starke County efforts



Glimmers of Hope

- TNC and land trust activity
- Break in development pressures provide a unique opportunity to talk about better planning and resource management.