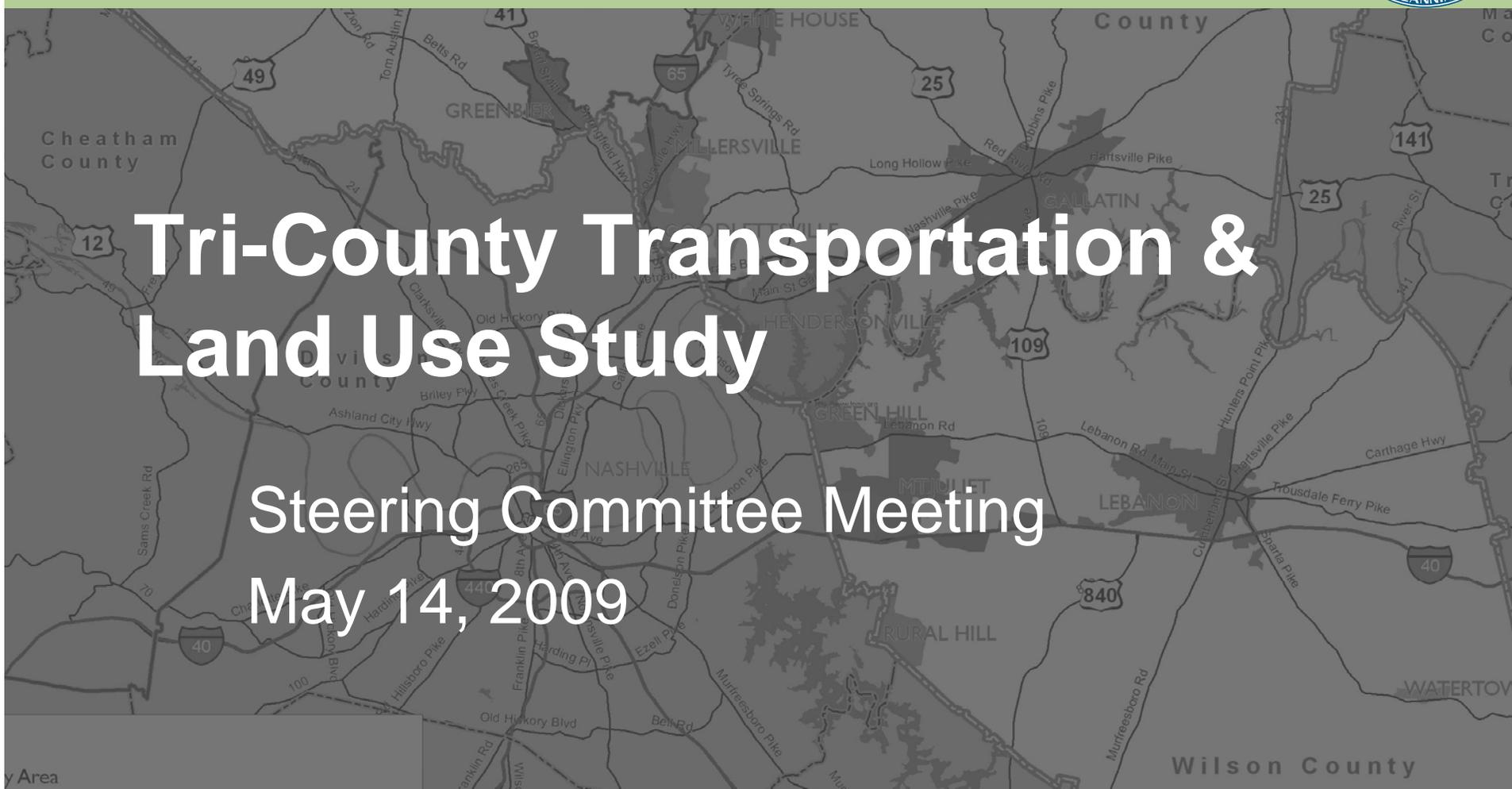




# Tri-County Transportation & Land Use Study

Steering Committee Meeting  
May 14, 2009



# Agenda



- **Recap of Study Goals and Objectives**
- **Update on CV Land Use Model: Business as Usual (BAU) Growth Scenario**
  - Pros vs Cons
- **Possible Alternative Growth Scenario Concepts**
  - Pros vs Cons
  - Discussion/Next Steps
- **Candidate Measures of Effectiveness**
- **Next Steps**

Legend:  
Nashville MPO Planning Boundary (Portion Shown)

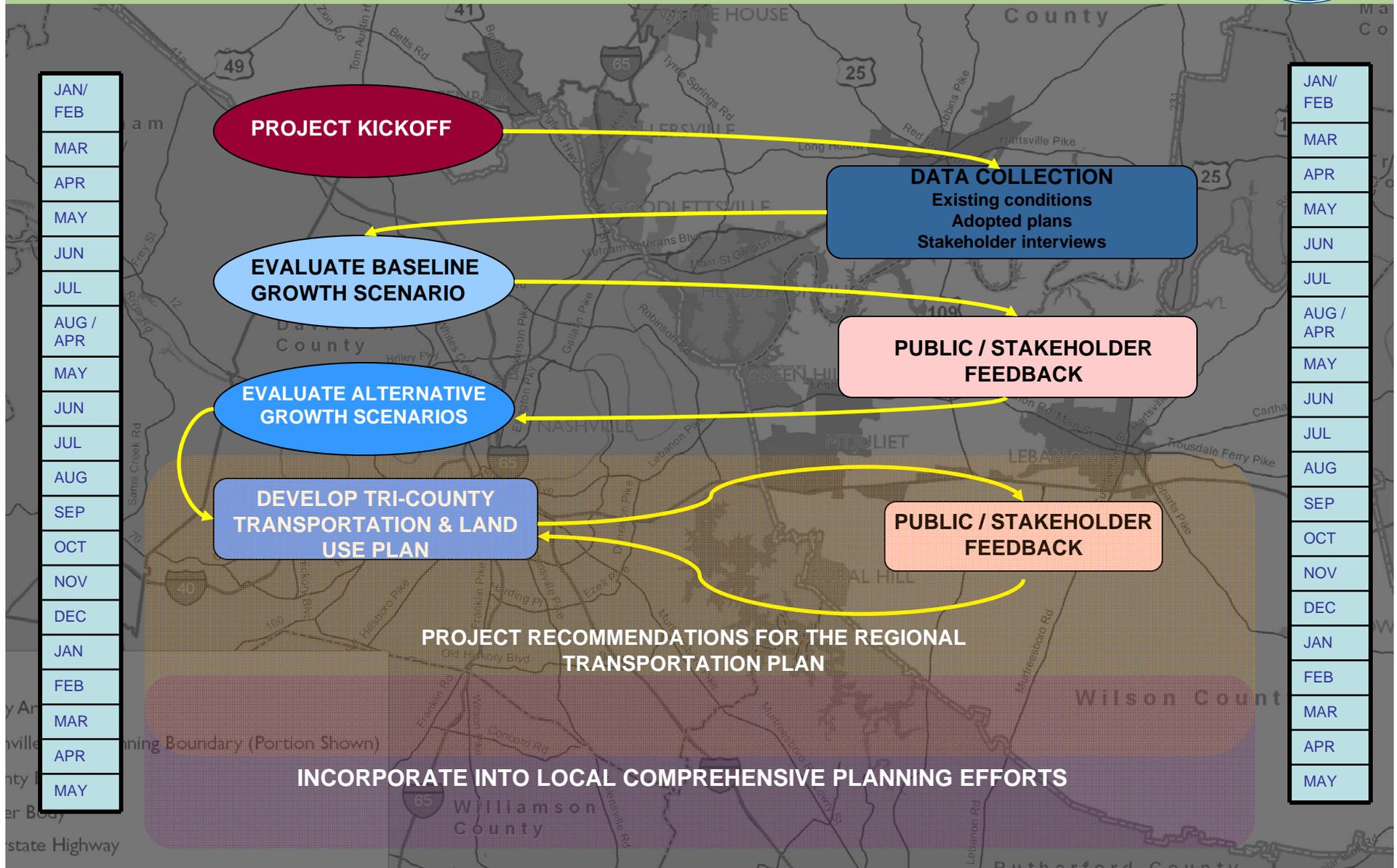
County Boundary

Water Body

State Highway



# Tri-County Study Process Update





# Project Purpose

- To bring local governments, citizens, and businesses together to talk about growth issues
- To create a forum for local leaders to consider growth plans of their neighboring communities for regional mobility and prosperity
- To generate ideas for the 2035 Regional Transportation Plan, scheduled for adoption in 2010





# Tri-County Regional Goals

- GOAL 1: Promote conservation of historic and cultural resources and support efforts in the study area related to these areas through plans, programs and policies.
- GOAL 2: Recognize and support the important role of agriculture in both the existing and future economy.
- GOAL 3: Preserve areas intended to retain a rural character or way of life and reinforce preservation through plans, programs, and policies.



# Tri-County Regional Goals

- GOAL 4: Enhance economic growth and opportunities in the study area to ensure that a high quality of life remains for population in the study area.
- GOAL 5: Strengthen and enhance existing urban centers through plans, programs and policies.
- GOAL 6: Identify and protect the most critical natural resources that exist.

y Area  
ville MPO Planning Boundary (Portion Shown)  
nty Boundary  
er Body  
state Highway

Williamson County

Wilson County

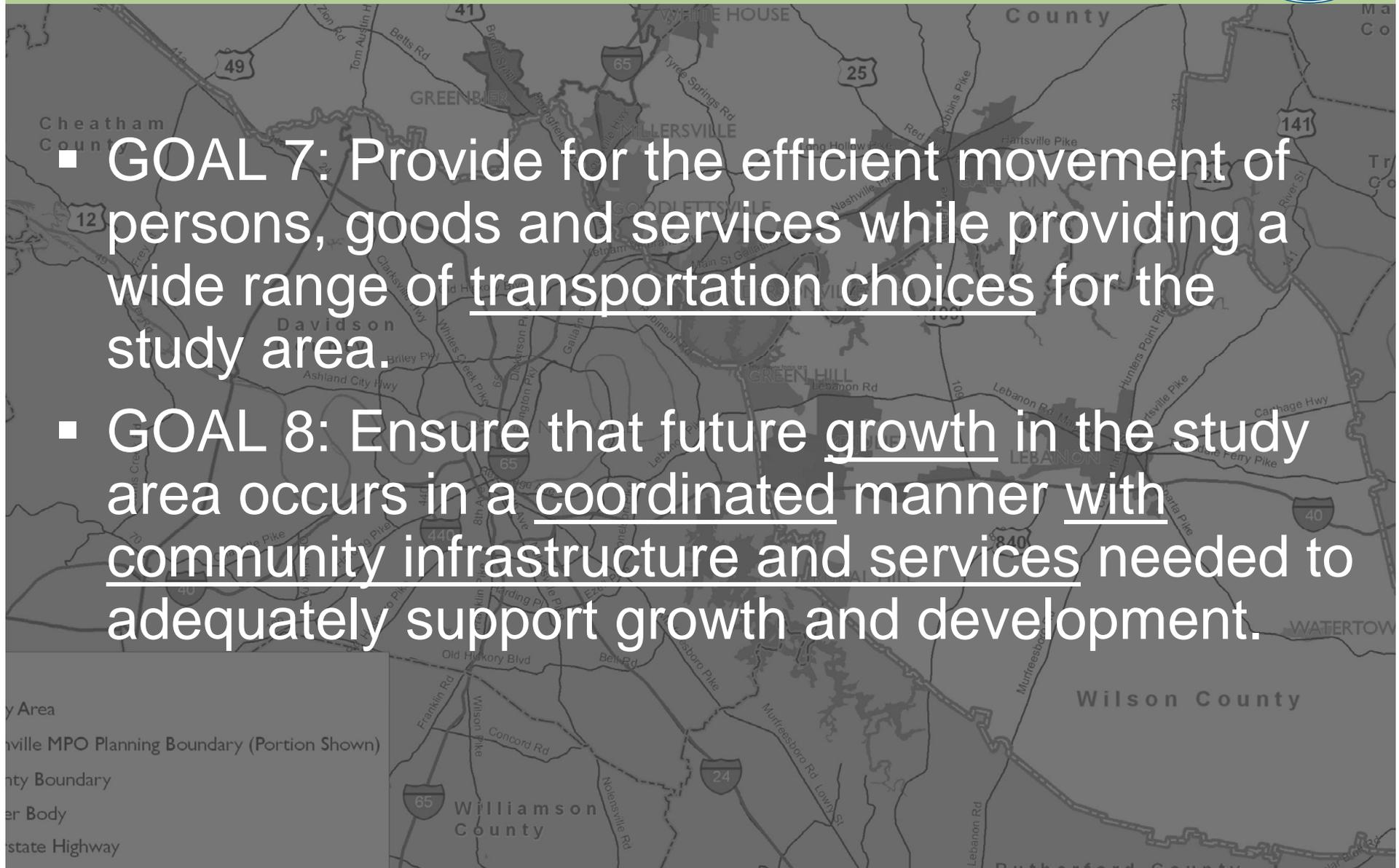
Rutherford County



# Tri-County Regional Goals

- GOAL 7: Provide for the efficient movement of persons, goods and services while providing a wide range of transportation choices for the study area.
- GOAL 8: Ensure that future growth in the study area occurs in a coordinated manner with community infrastructure and services needed to adequately support growth and development.

Study Area  
Nashville MPO Planning Boundary (Portion Shown)  
County Boundary  
Water Body  
State Highway

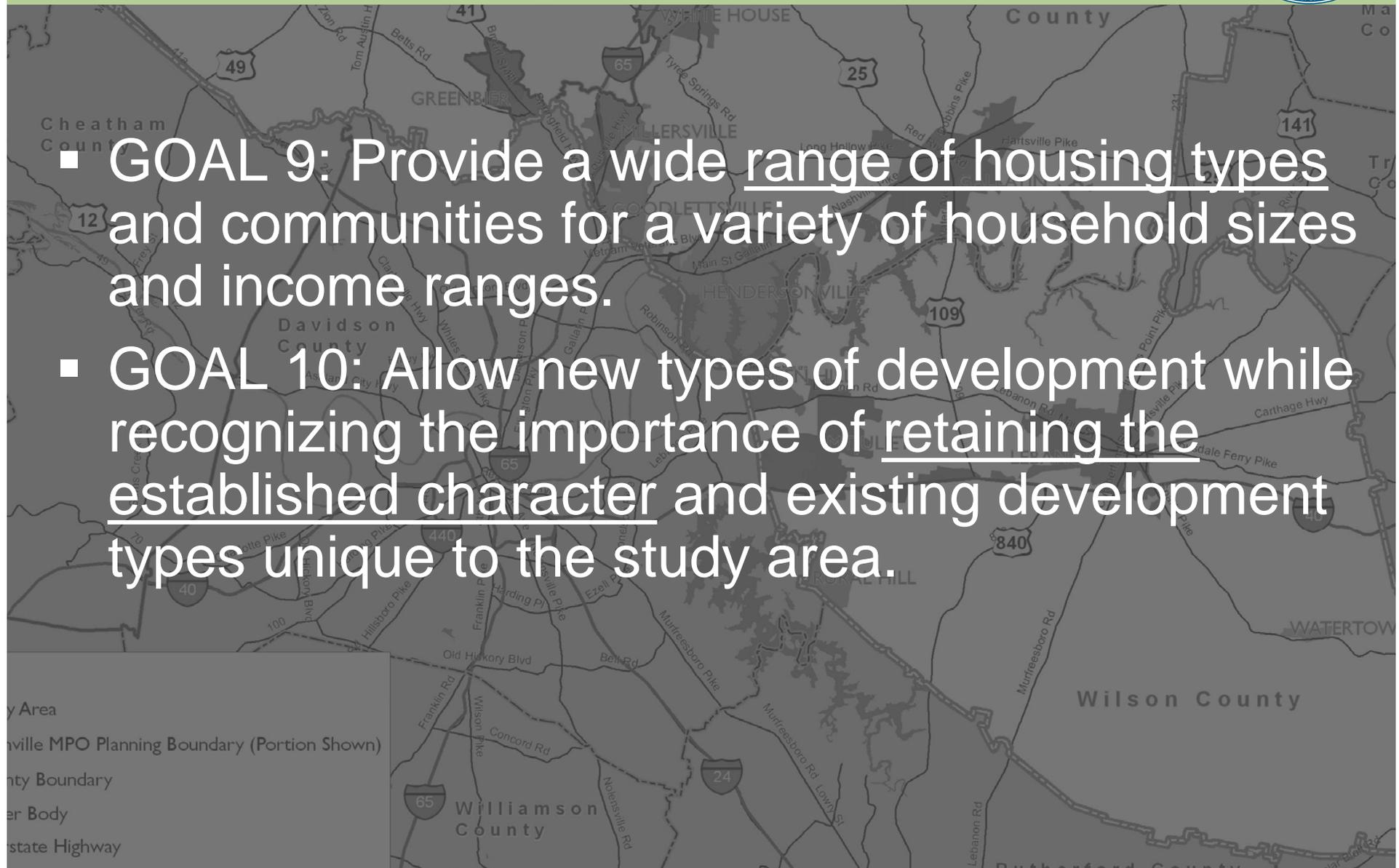




# Tri-County Regional Goals

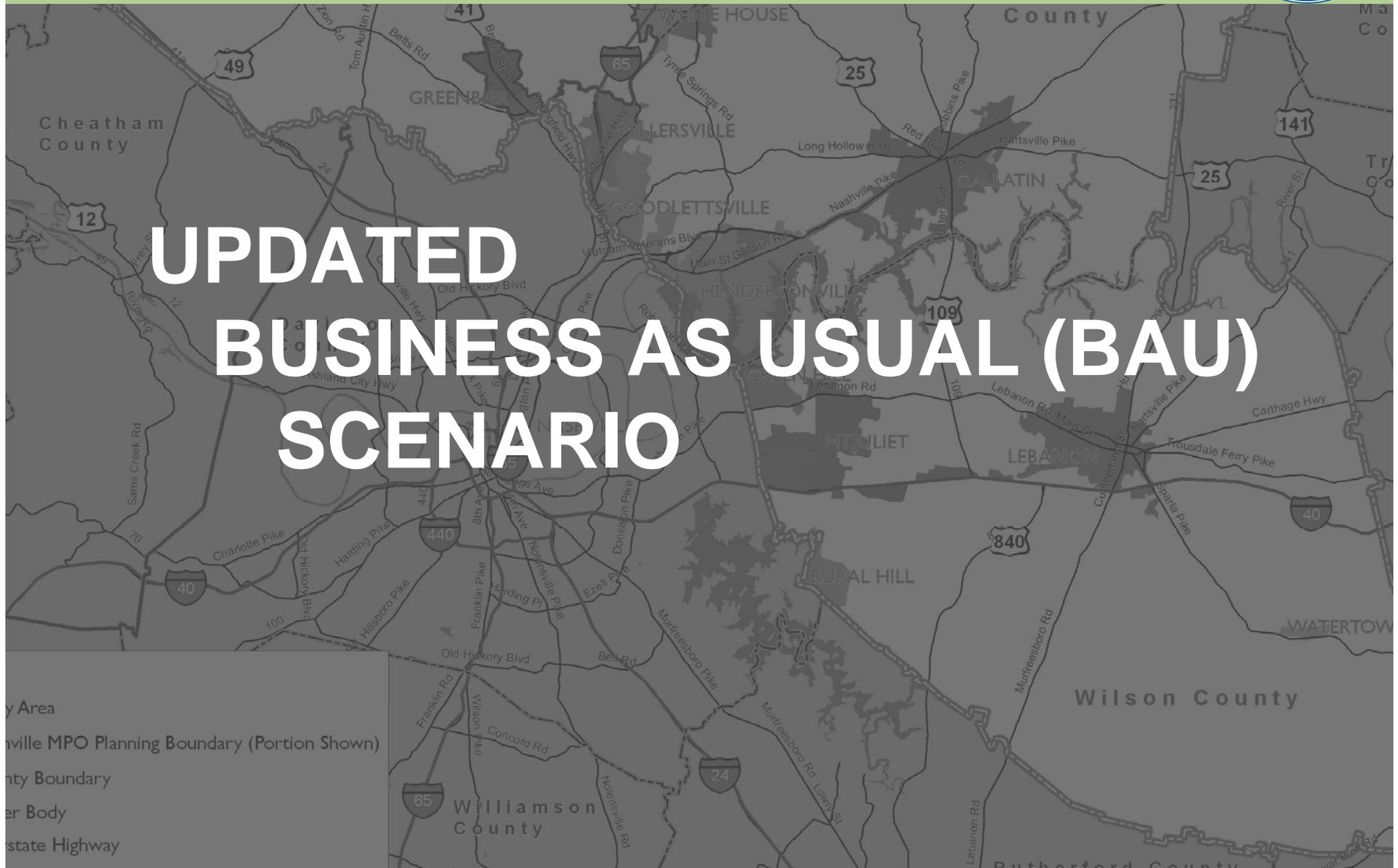
- GOAL 9: Provide a wide range of housing types and communities for a variety of household sizes and income ranges.
- GOAL 10: Allow new types of development while recognizing the importance of retaining the established character and existing development types unique to the study area.

y Area  
Nashville MPO Planning Boundary (Portion Shown)  
County Boundary  
Water Body  
State Highway





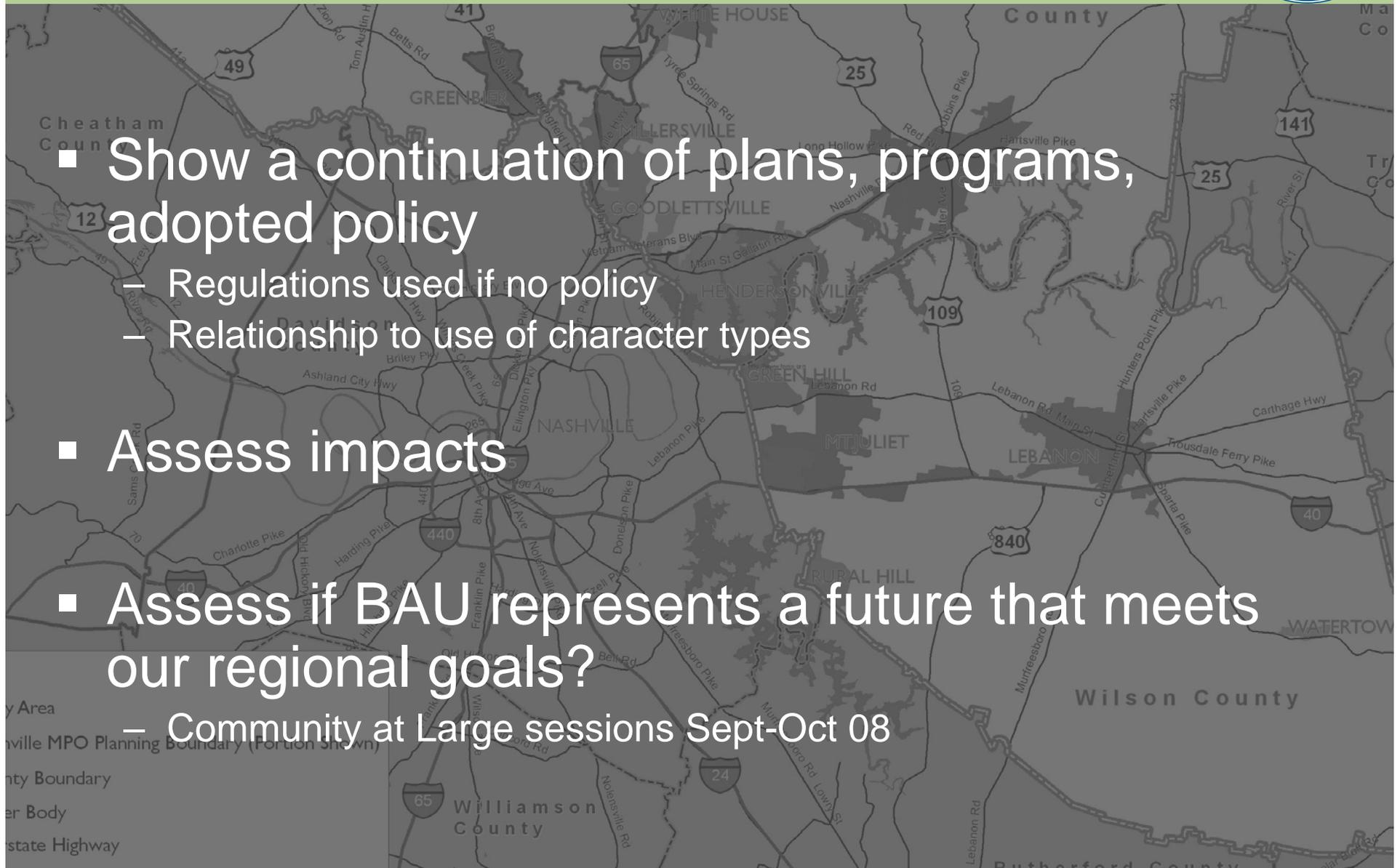
# UPDATED BUSINESS AS USUAL (BAU) SCENARIO



# Purpose of BAU in Tri-County Study



- Show a continuation of plans, programs, adopted policy
  - Regulations used if no policy
  - Relationship to use of character types
- Assess impacts
  - Assess if BAU represents a future that meets our regional goals?
    - Community at Large sessions Sept-Oct 08



# Results of Group Exercise – Report Card on BAU

Goals	Grade
Historic Conservation and Enhancement	B-
Viable Agriculture	B
Rural Preservation	C+
Economic Enrichment while Safeguarding Existing Public and Private Development	B-
Preserve Urban Centers	B
Protection of Natural Resources	B-
Efficient Transportation System	C
Ensure Availability of Services	B
Provide Housing Options	C+
Maintain Sense of Community and Sense of Place	B-

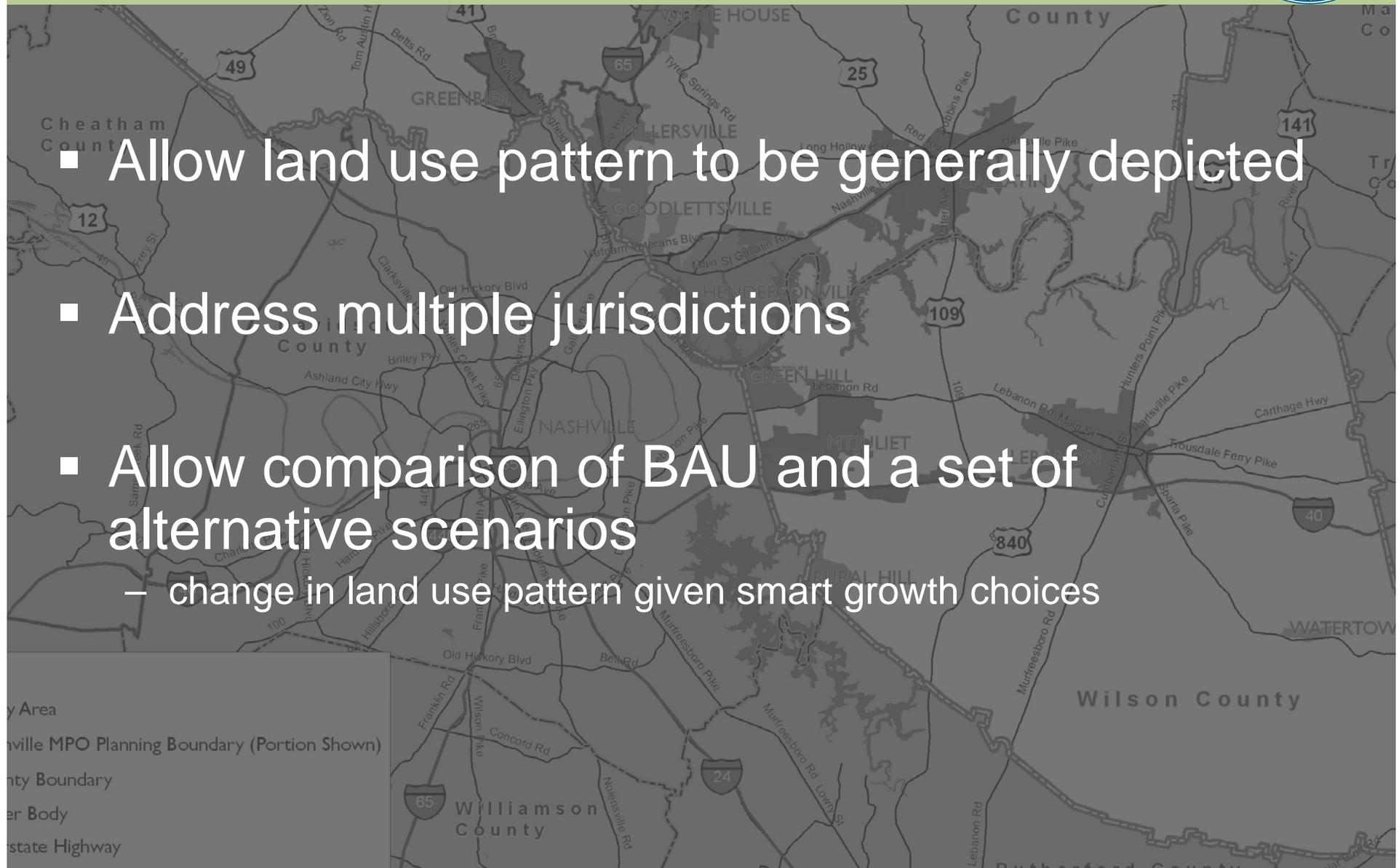




# Purpose of Character Types

- Allow land use pattern to be generally depicted
- Address multiple jurisdictions
- Allow comparison of BAU and a set of alternative scenarios
  - change in land use pattern given smart growth choices

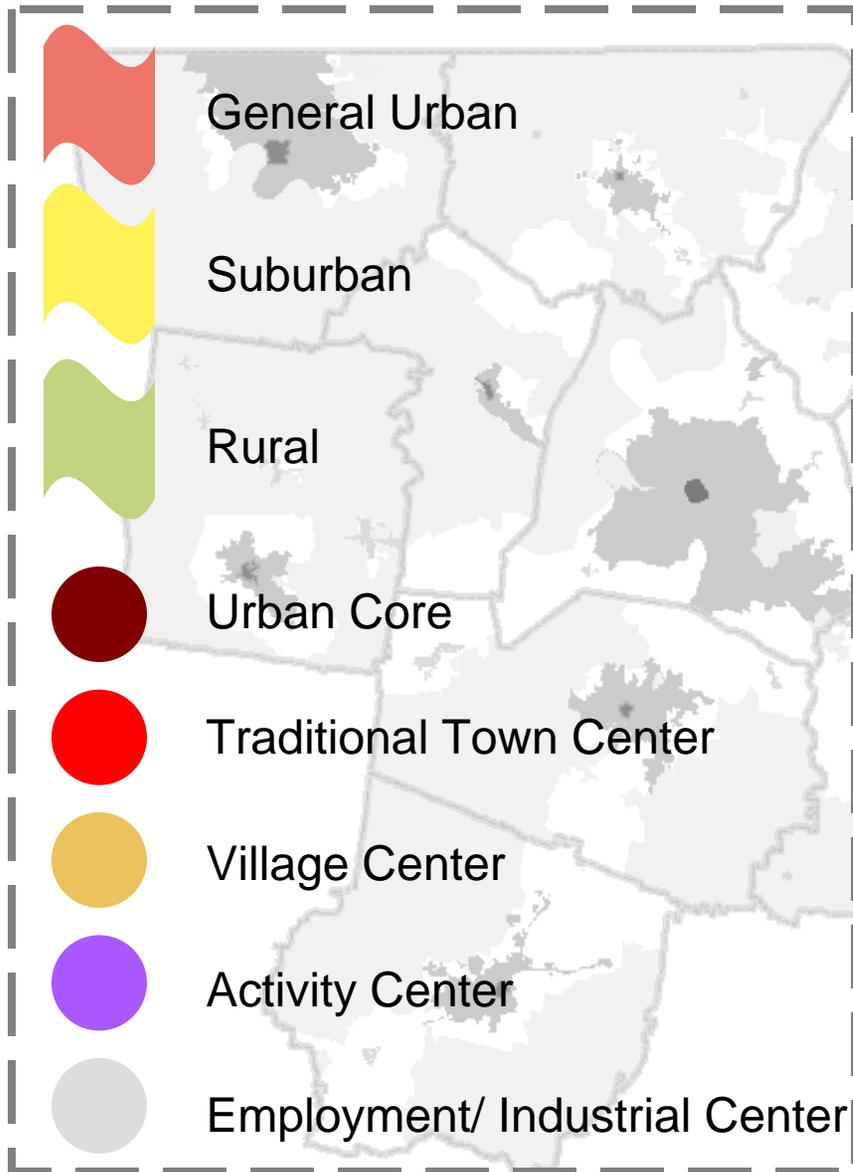
y Area  
Nashville MPO Planning Boundary (Portion Shown)  
County Boundary  
Water Body  
State Highway



# Character Area Types



BAU TYPES



Conservation



TOD

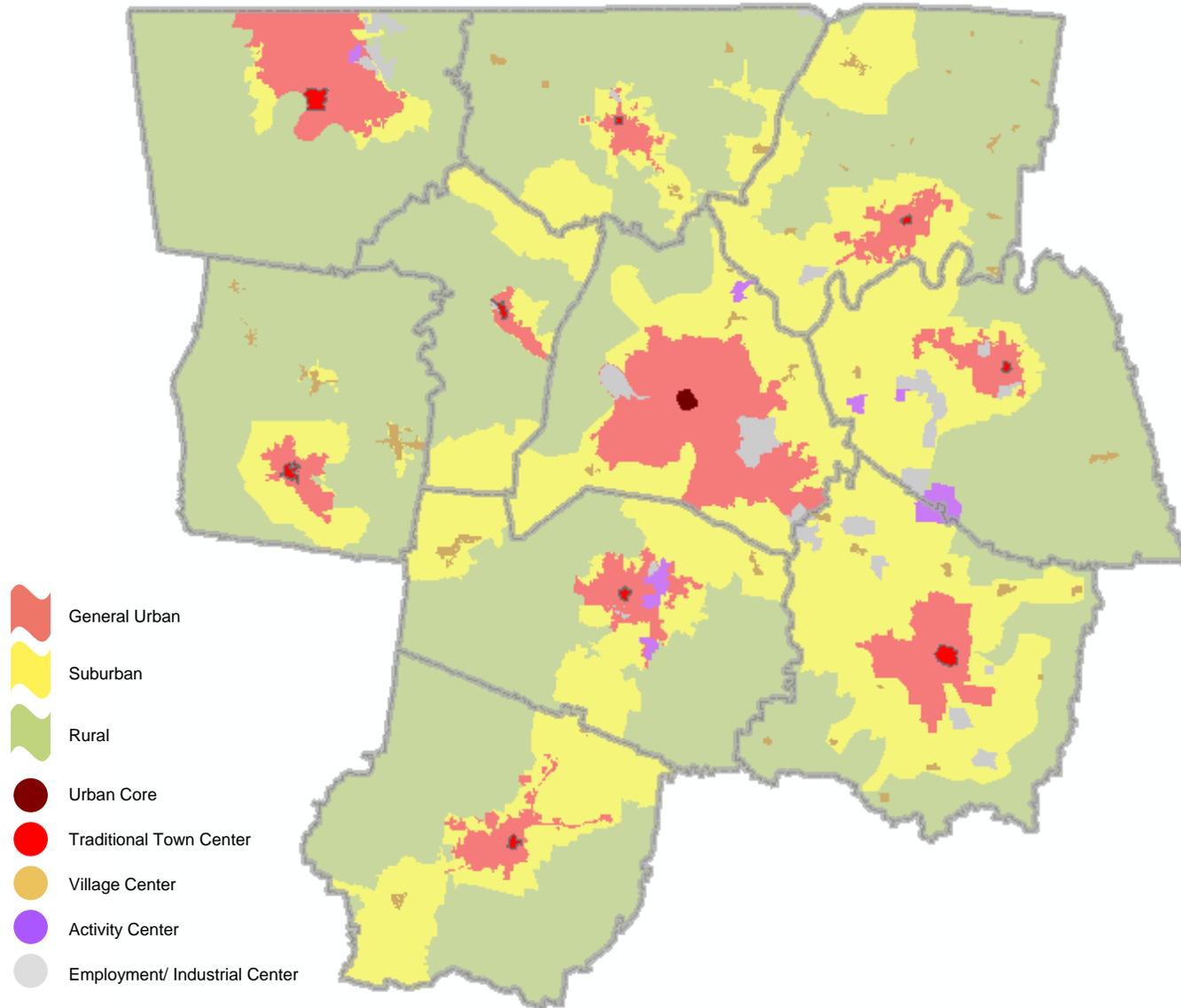
**General Urban**

- **Definition**
  - Areas where a variety of land uses occur at medium to high densities, having a well-connected pattern within the landscape
  - Areas generally within urban city limits, at county scale
  - Generally comprised of established residential neighborhoods found near historic core areas
- **Land Examples**
  - Franklin
  - Gallop
  - Markersboro
- **Existing Conditions**
  - Sevier GA
  - Cherokee SC
- **Land Use**
  - Residential
  - Medium to h
  - City, park &
  - Non-residential
- **Structure Metrics**
  - 3:3 Ratio
- **Street Pattern (Form)**
  - Connected street network in grid pattern
  - On-street parking
  - 750 feet for smaller (2-lane) collectors and arterials
  - 3,000 - 4,000 feet for larger (4-lane) collectors and arterials
- **Multi-modal Accommodations**
  - Typically sidewalks supplemented by multi-use trails
  - Bicycle accommodations
  - A moderate level of transit accommodations at

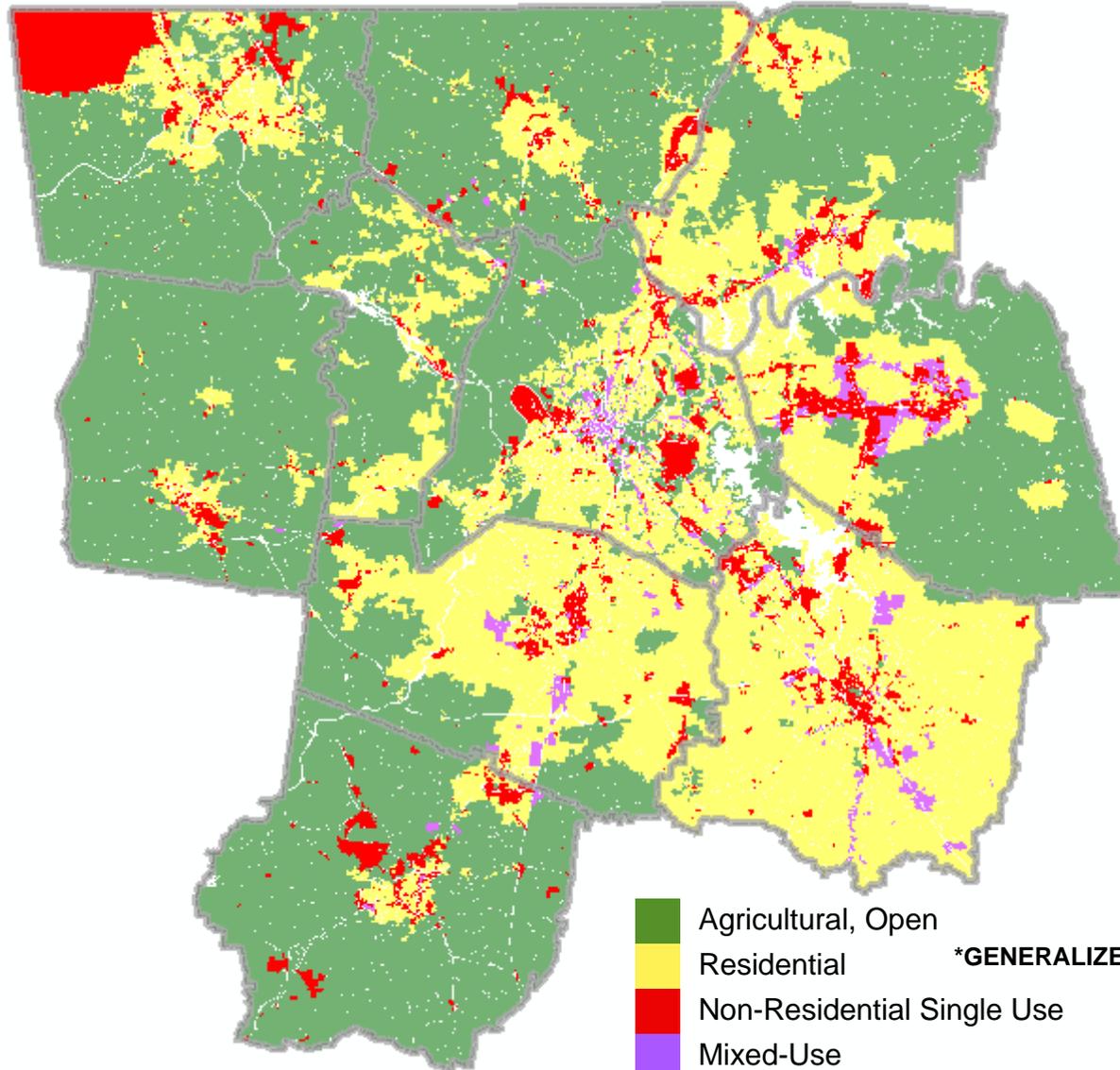
BAU Type	Color	Shape	Description	Examples	Notes
General Urban	Red	Wavy	...	Franklin, Gallop, Markersboro	...
Suburban	Yellow	Wavy	...	...	...
Rural	Light Green	Wavy	...	...	...
Urban Core	Dark Red	Circle	...	...	...
Traditional Town Center	Red	Circle	...	...	...
Village Center	Yellow	Circle	...	...	...
Activity Center	Purple	Circle	...	...	...
Employment/ Industrial Center	Grey	Circle	...	...	...
Conservation	Green	Wavy	...	...	...
TOD	Blue	Circle	...	...	...

**SUMMARY OF CHARACTER TYPES**  
 By County Transportation and Land Use Study, Tennessee

# BAU Scenario: Character Area Types



# BAU Scenario: Future Land Use Policy



-  Agricultural, Open
  -  Residential
  -  Non-Residential Single Use
  -  Mixed-Use
- \*GENERALIZED CATEGORIES**

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state Highway

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age Hwy

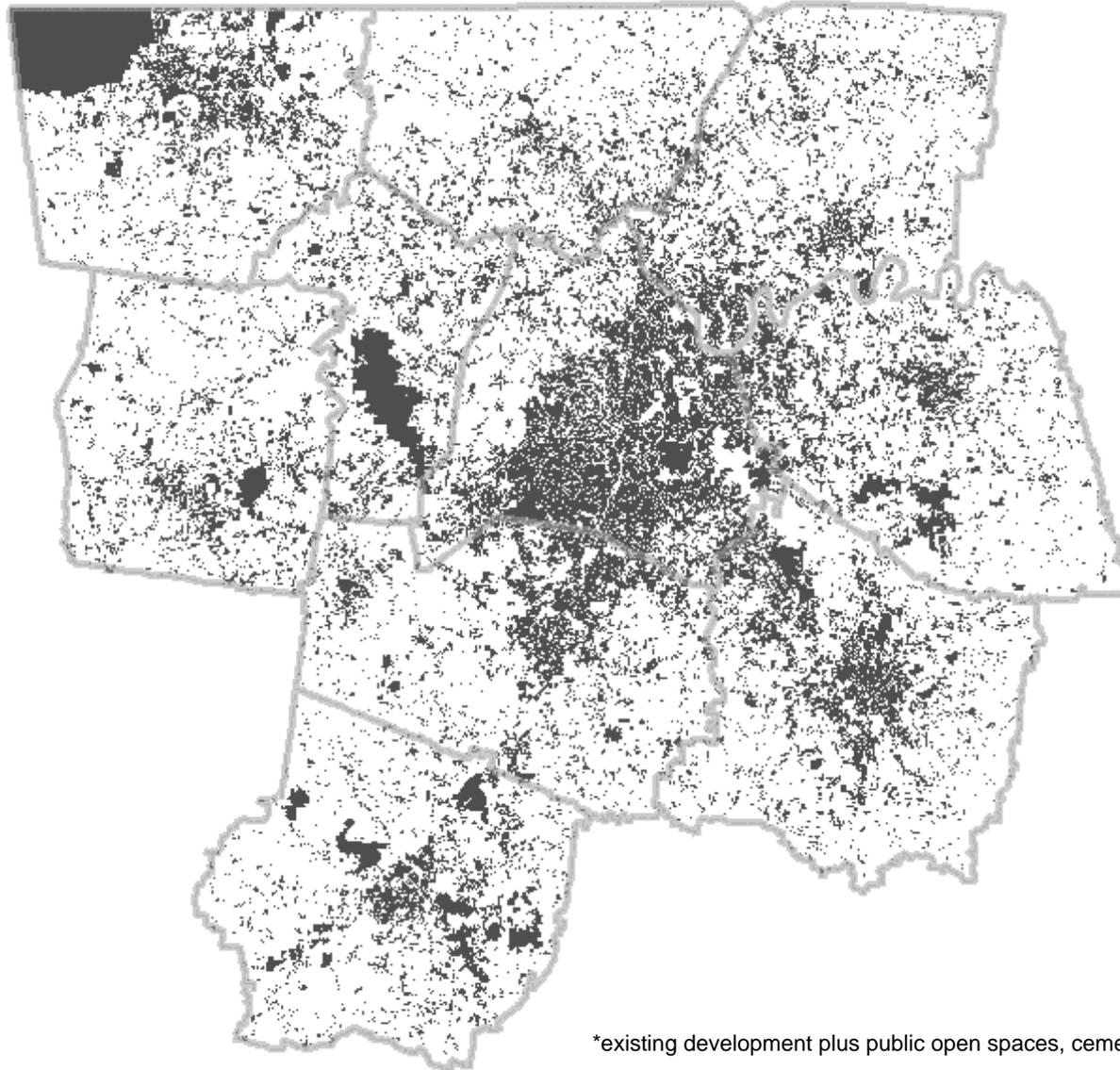
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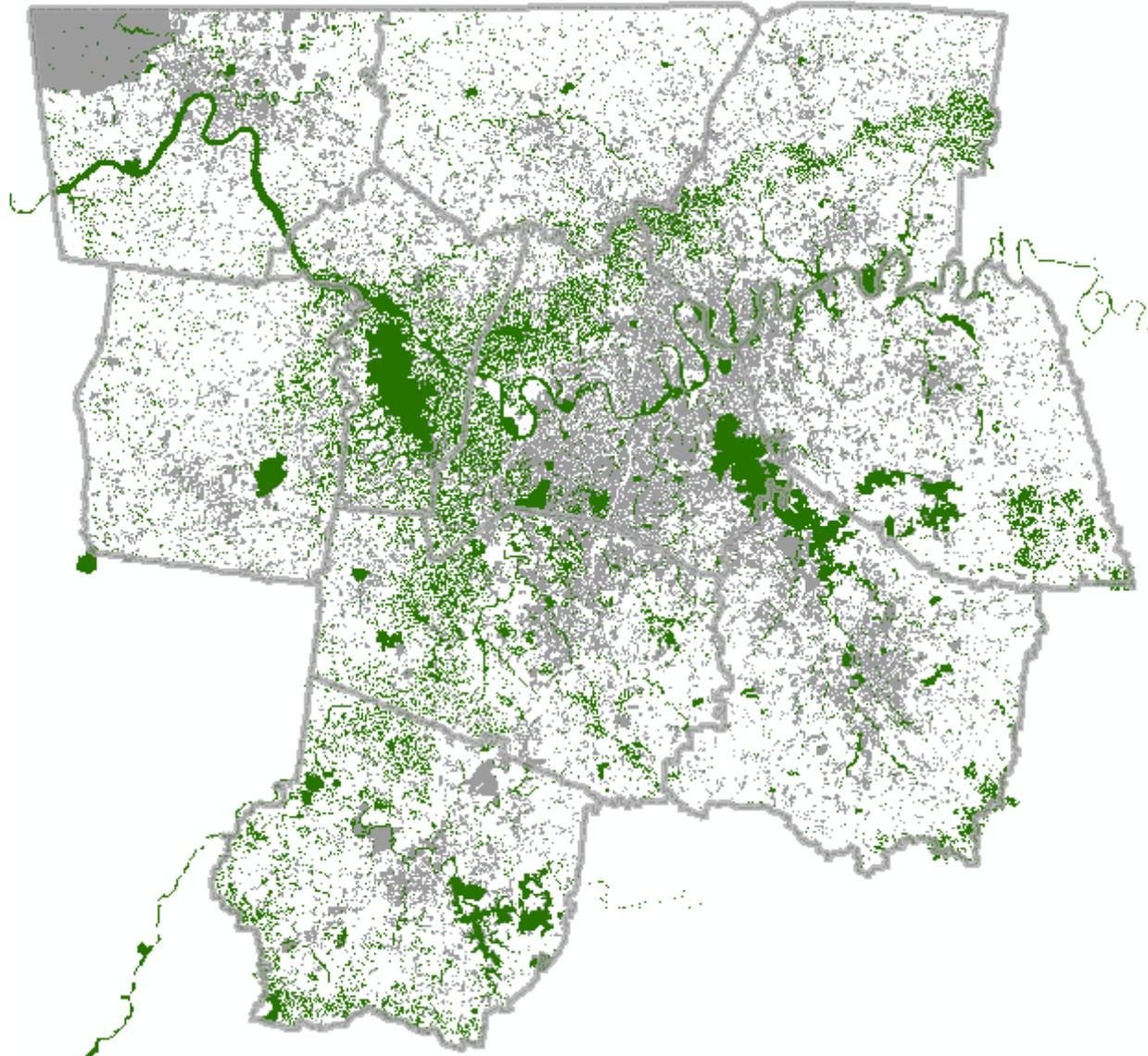
olar Body

# BAU Scenario: Existing Development

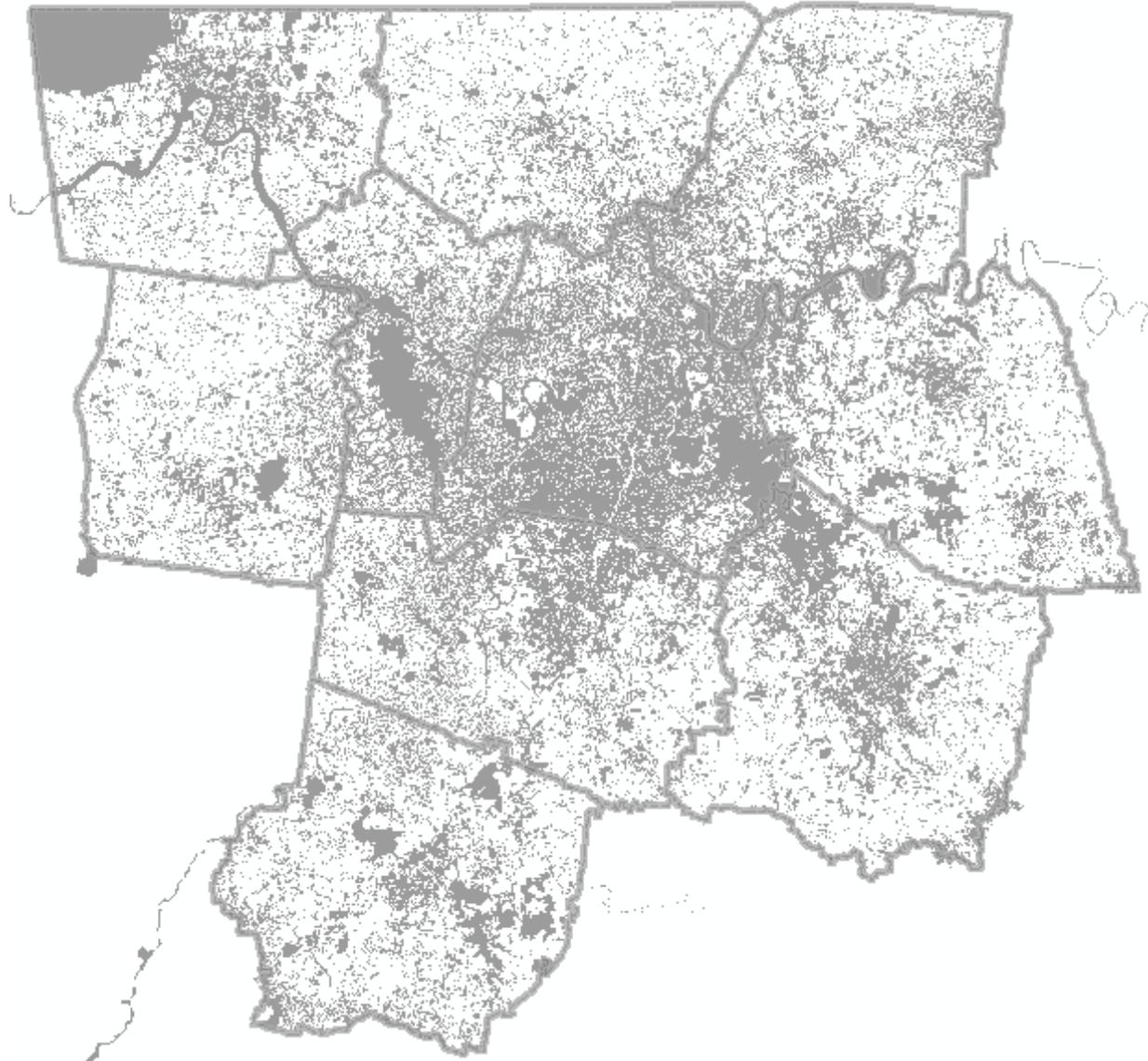


\*existing development plus public open spaces, cemeteries, and parks

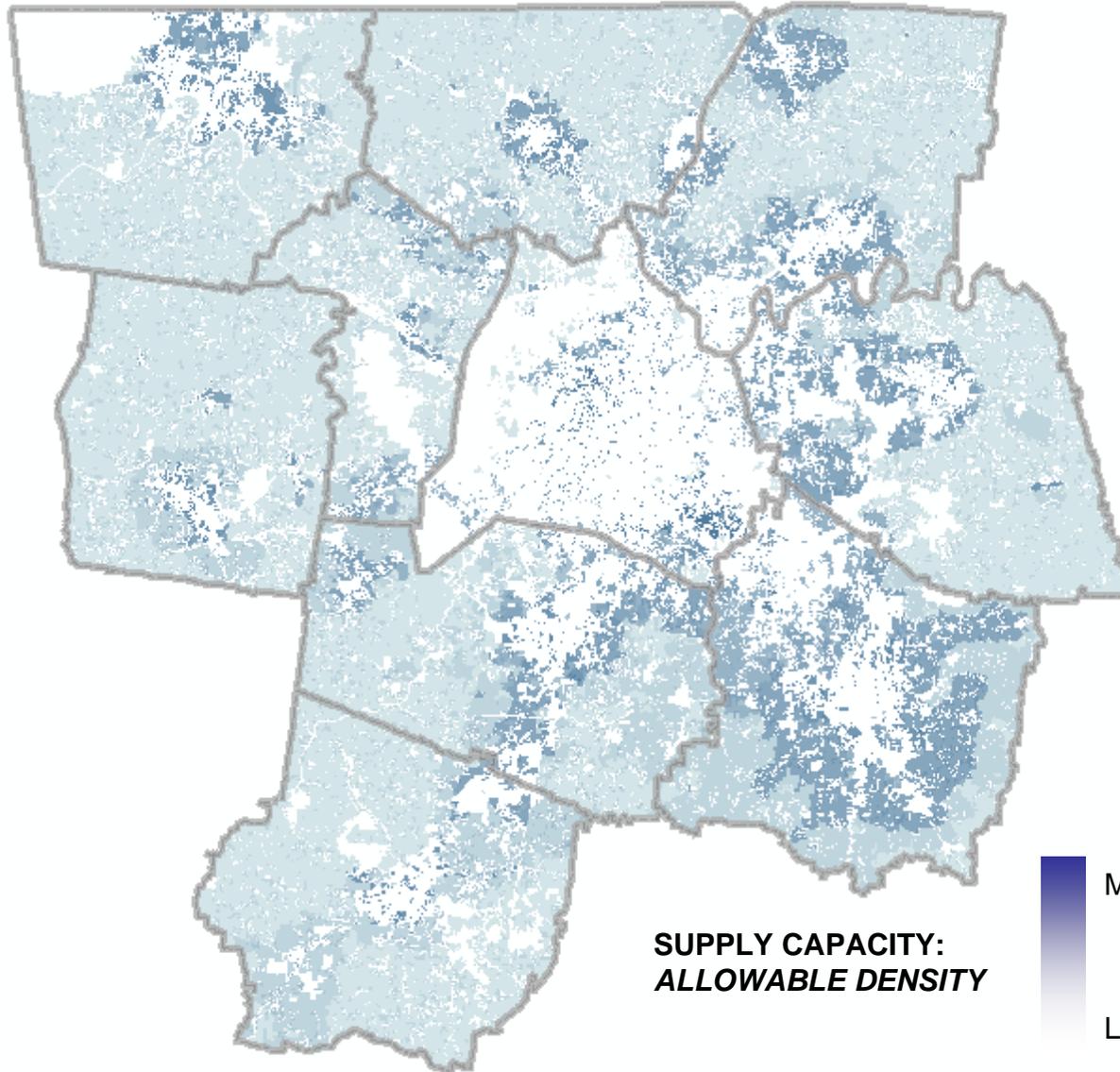
# BAU Scenario: Development Constraints



# BAU Scenario: Land Supply



# BAU Scenario: Land Supply



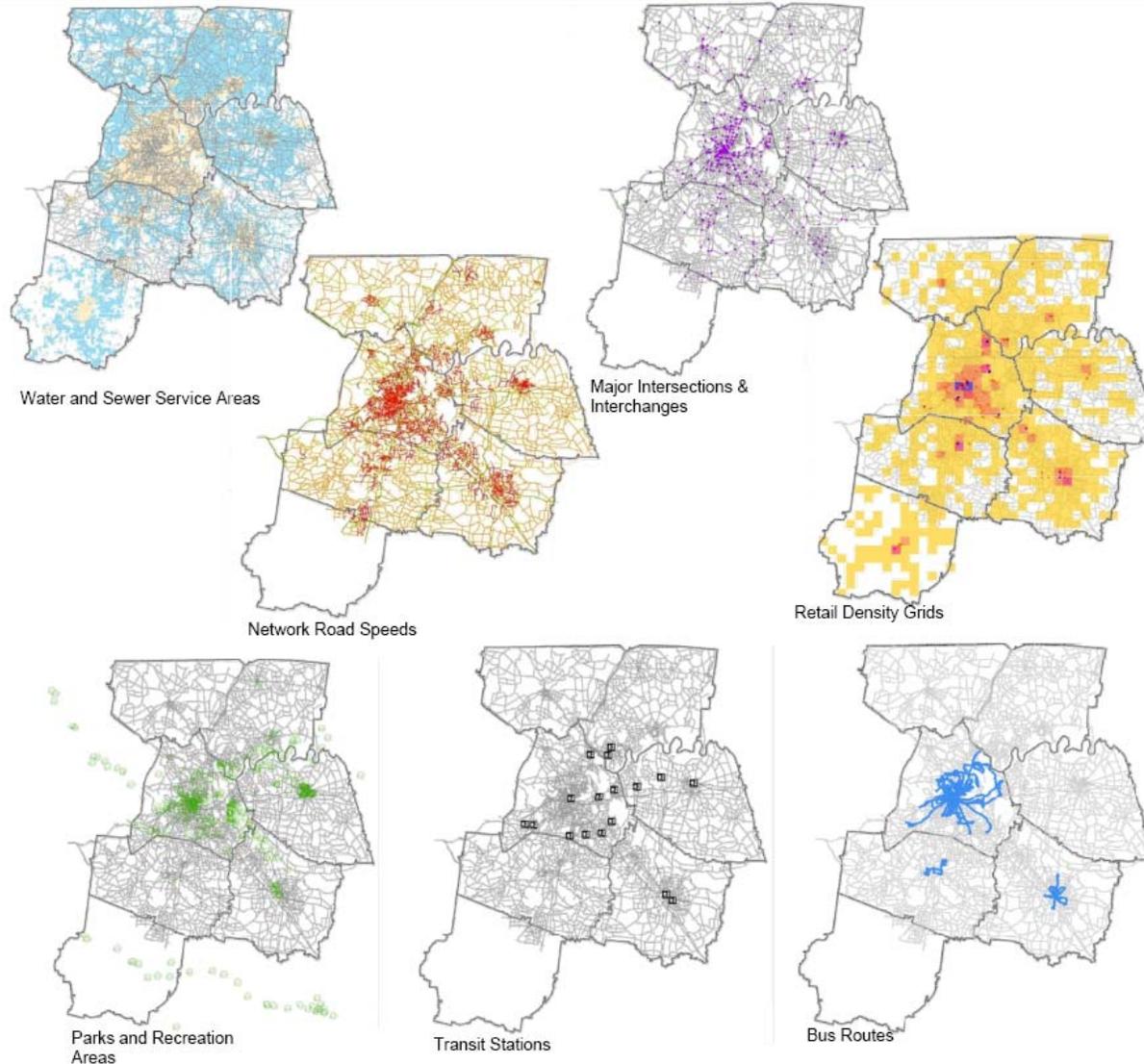
**SUPPLY CAPACITY:  
ALLOWABLE DENSITY**

More Density

Less Density



# BAU Scenario: Suitability Factors

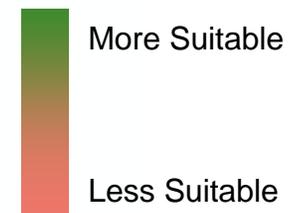
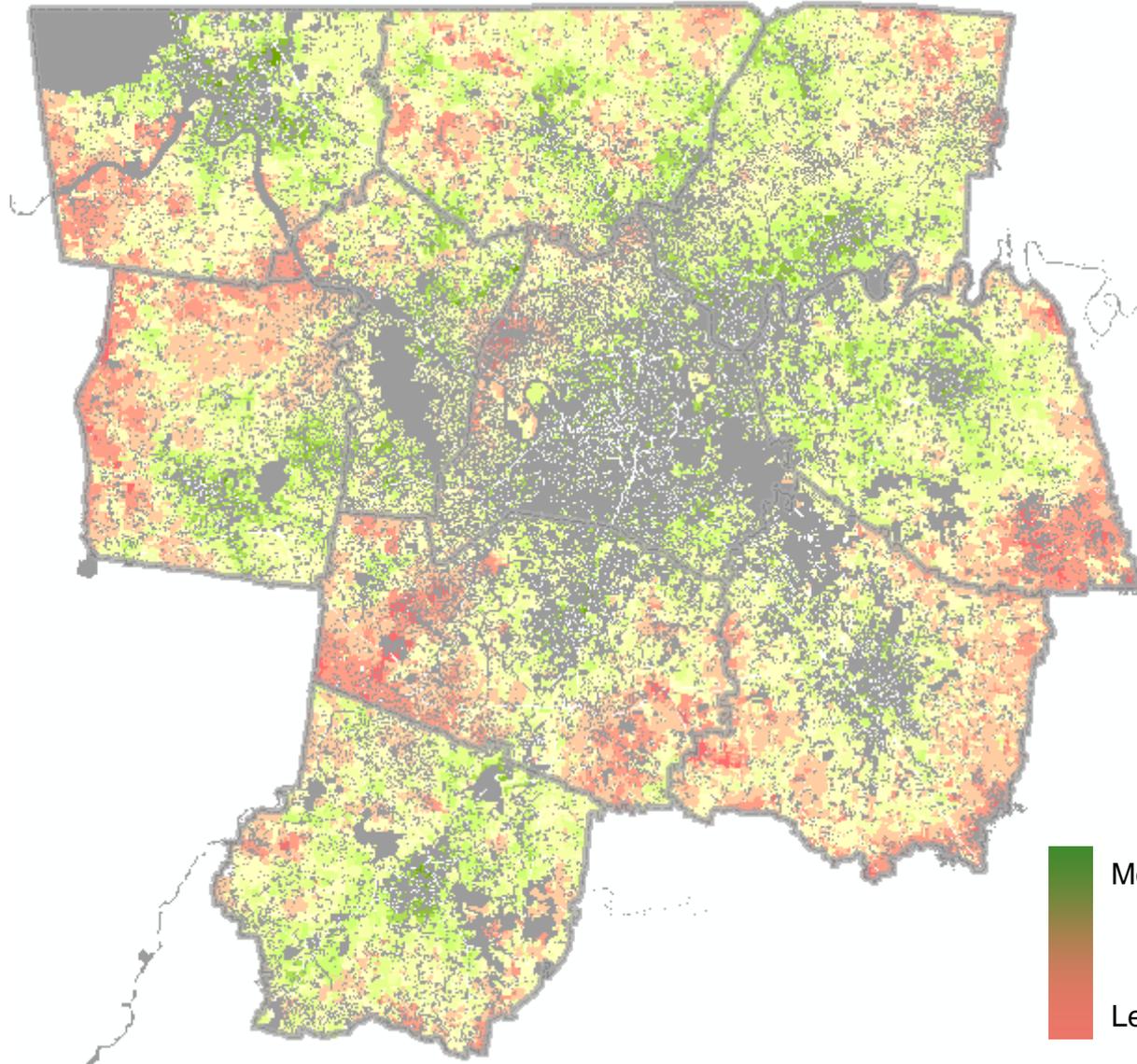


Not Shown: Hospitals, Slopes and Environmental Features, Base Year Land Values

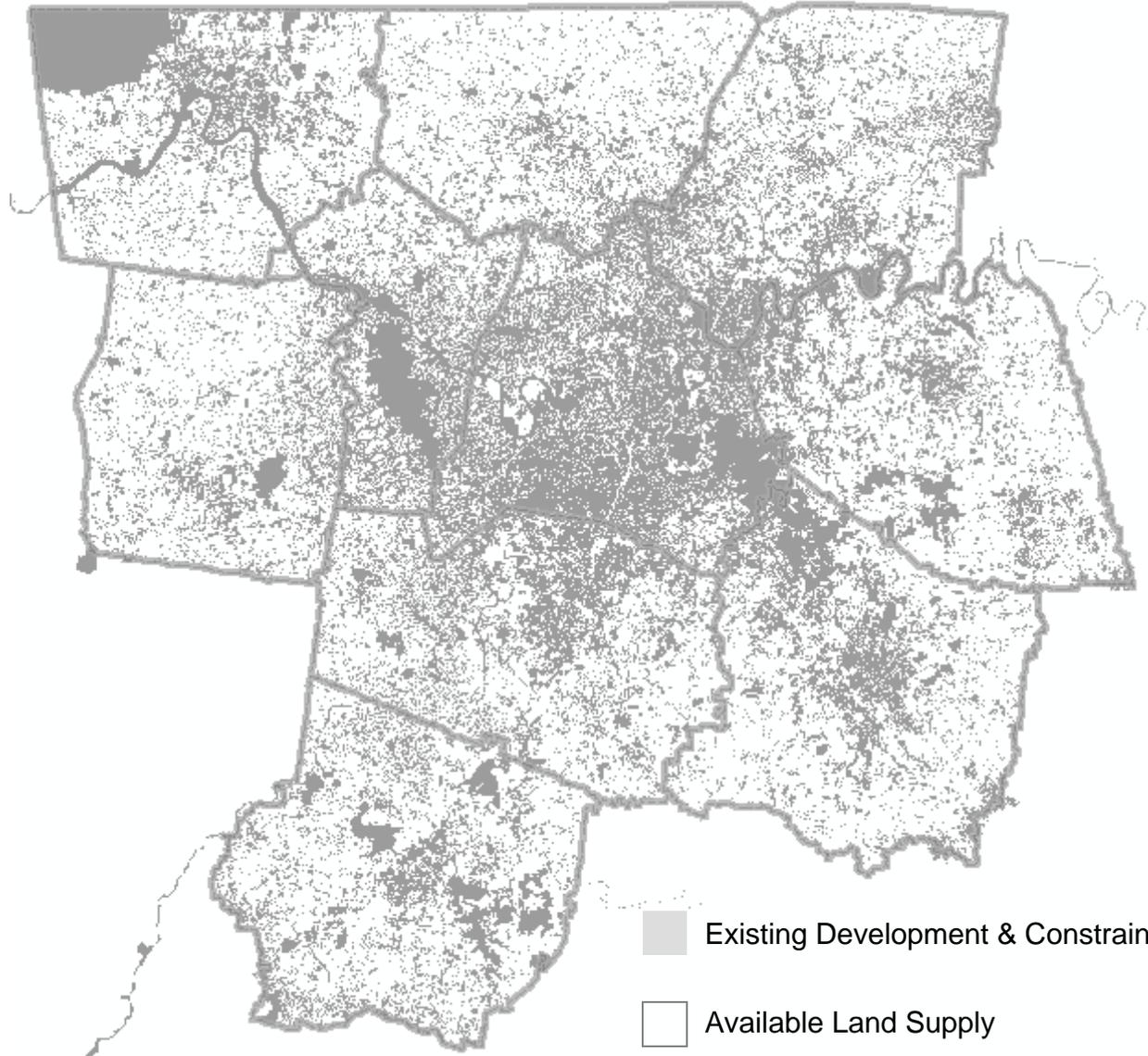
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Solar Energy

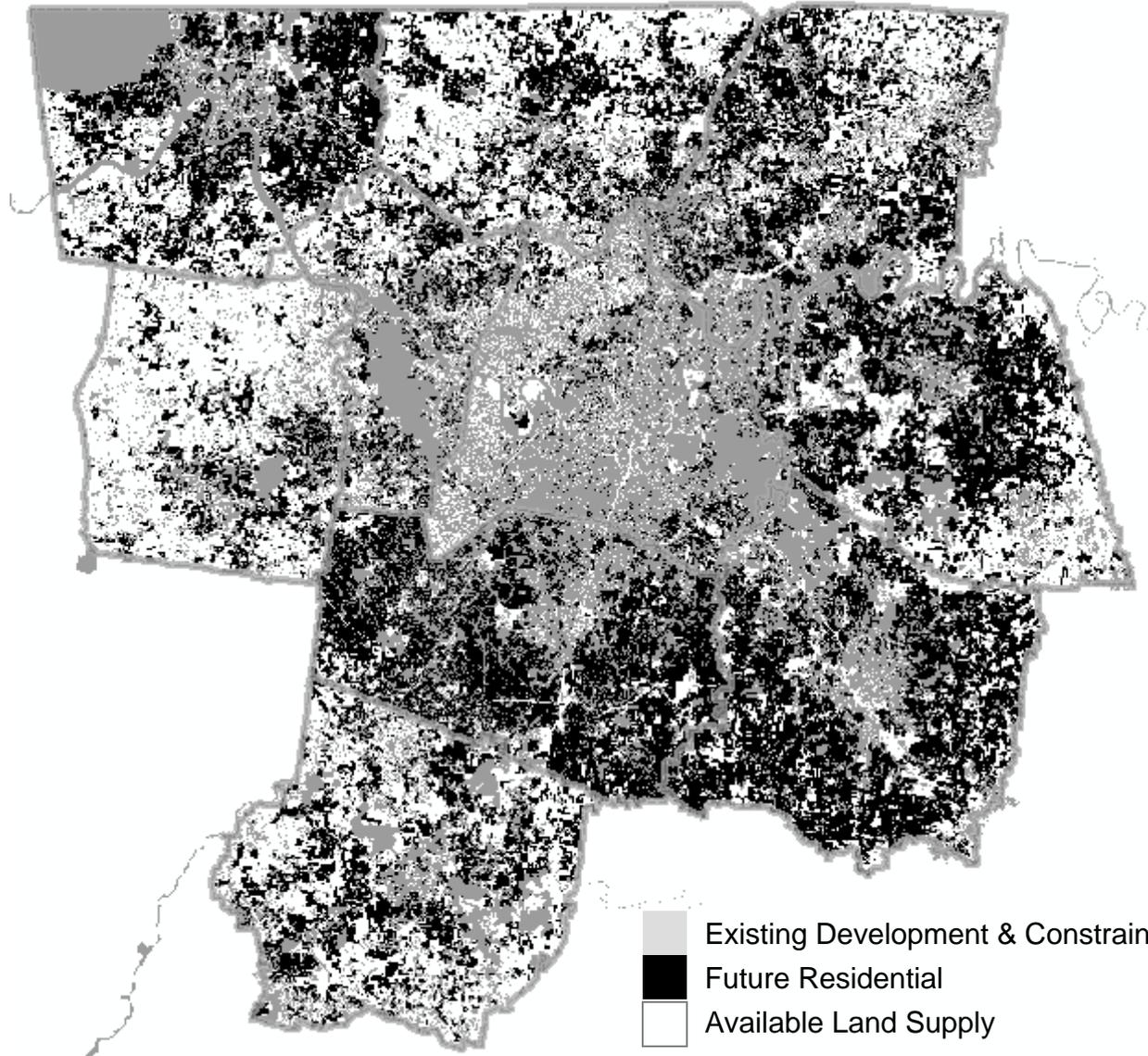
# BAU Scenario: Development Suitability



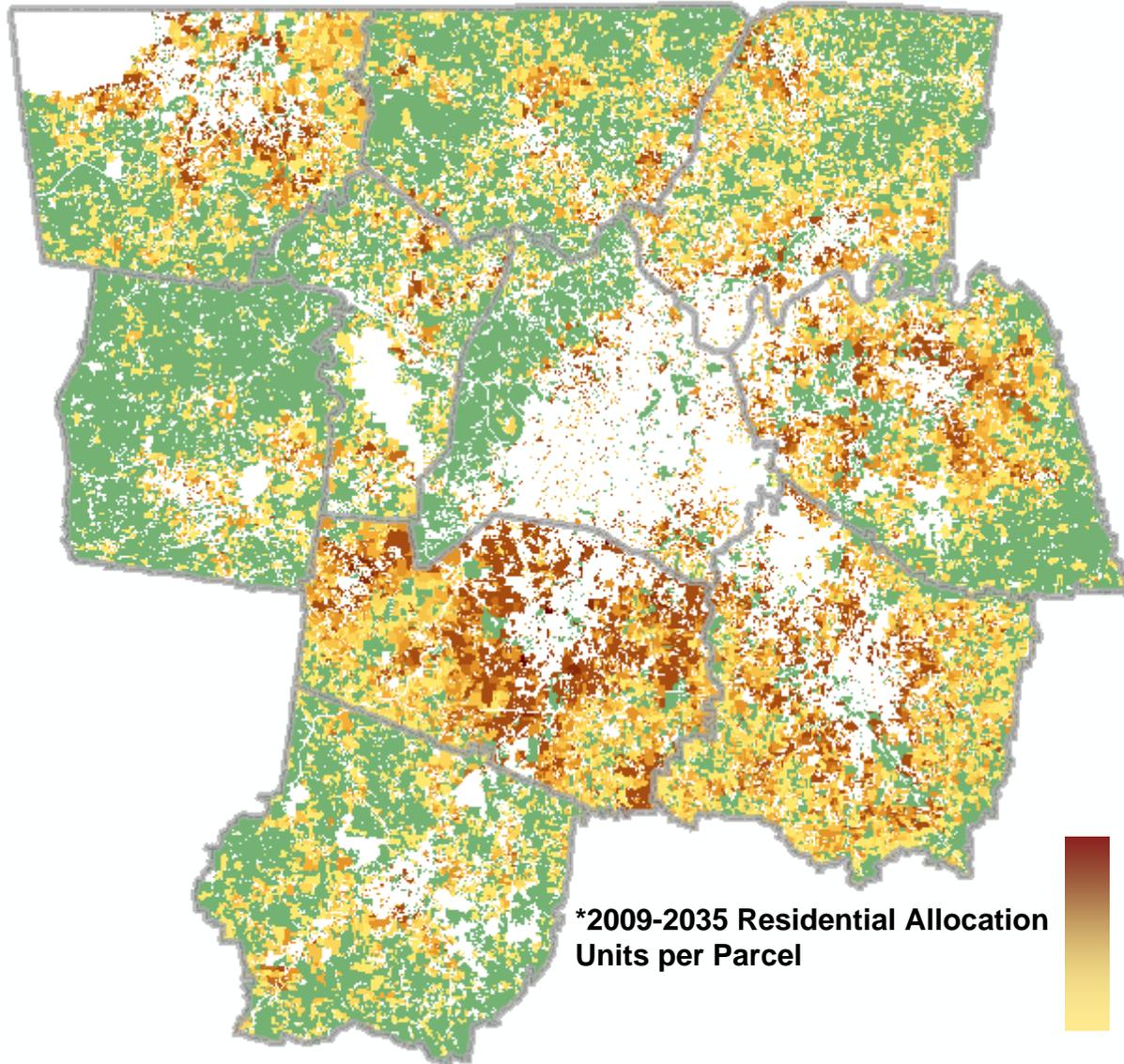
# BAU Scenario: Residential Allocation



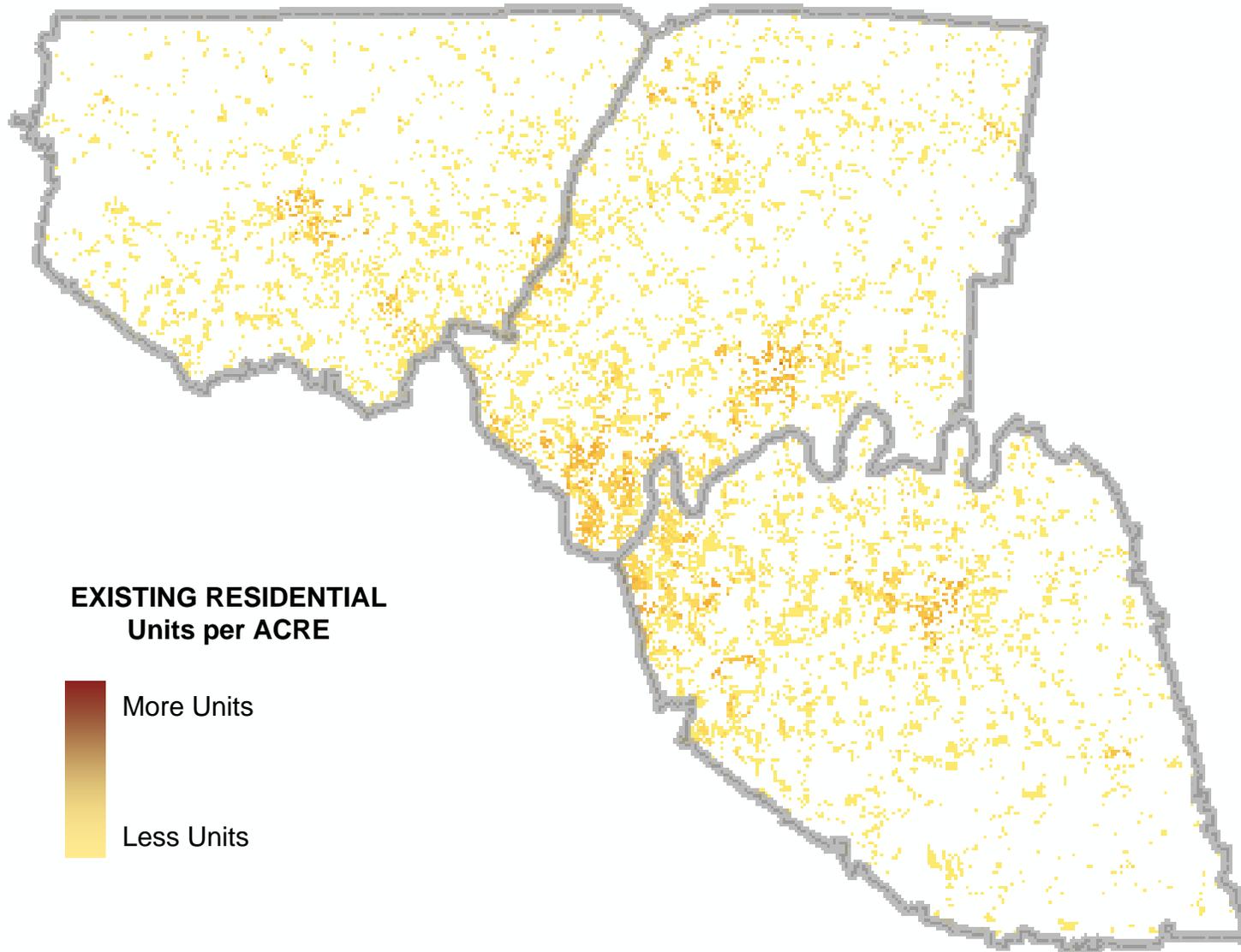
# BAU Scenario: Residential Allocation



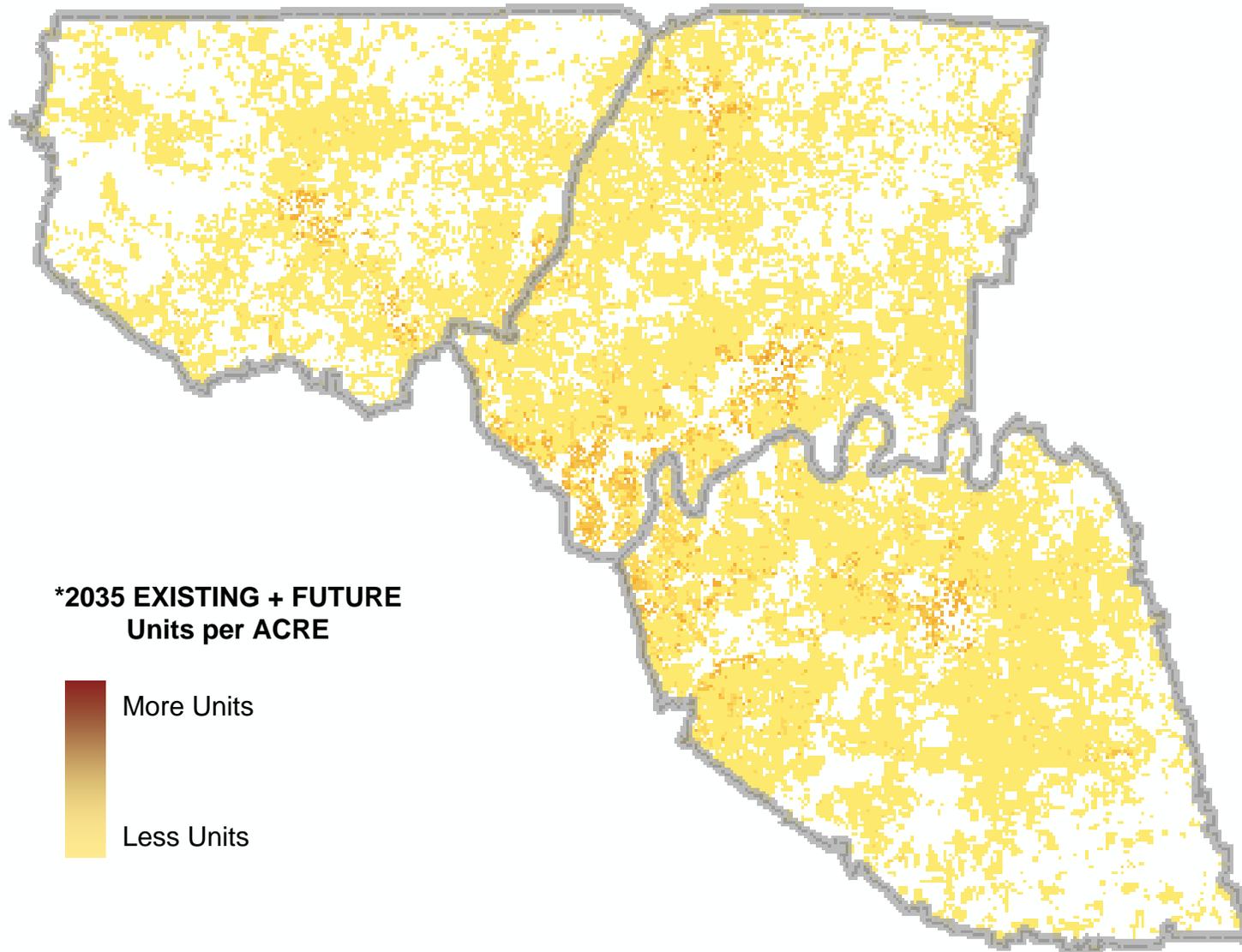
# BAU Scenario: Residential Allocation



# BAU Scenario: Residential Density



# BAU Scenario: Residential Density



**\*2035 EXISTING + FUTURE  
Units per ACRE**



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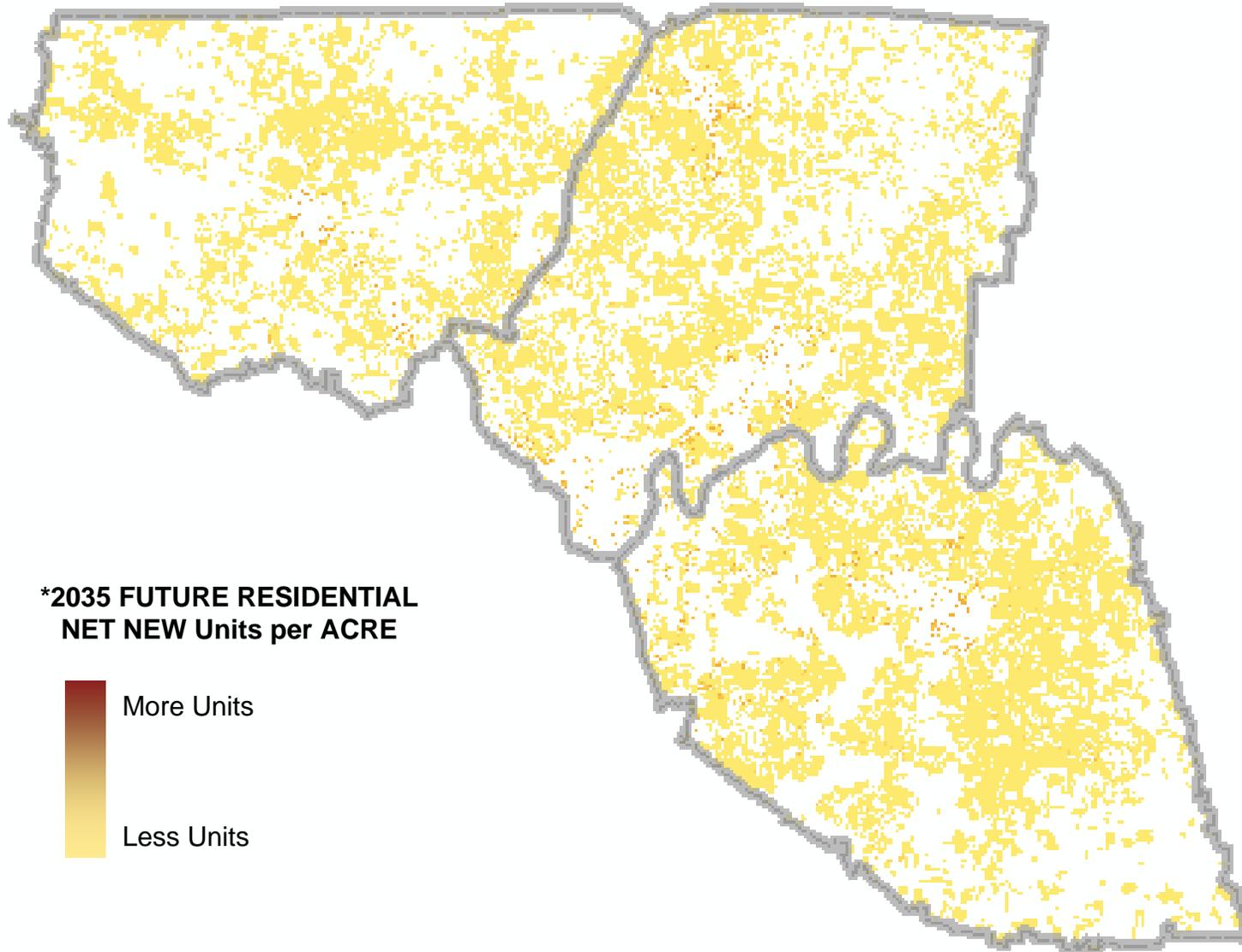
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# BAU Scenario: Residential Density



**\*2035 FUTURE RESIDENTIAL  
NET NEW Units per ACRE**



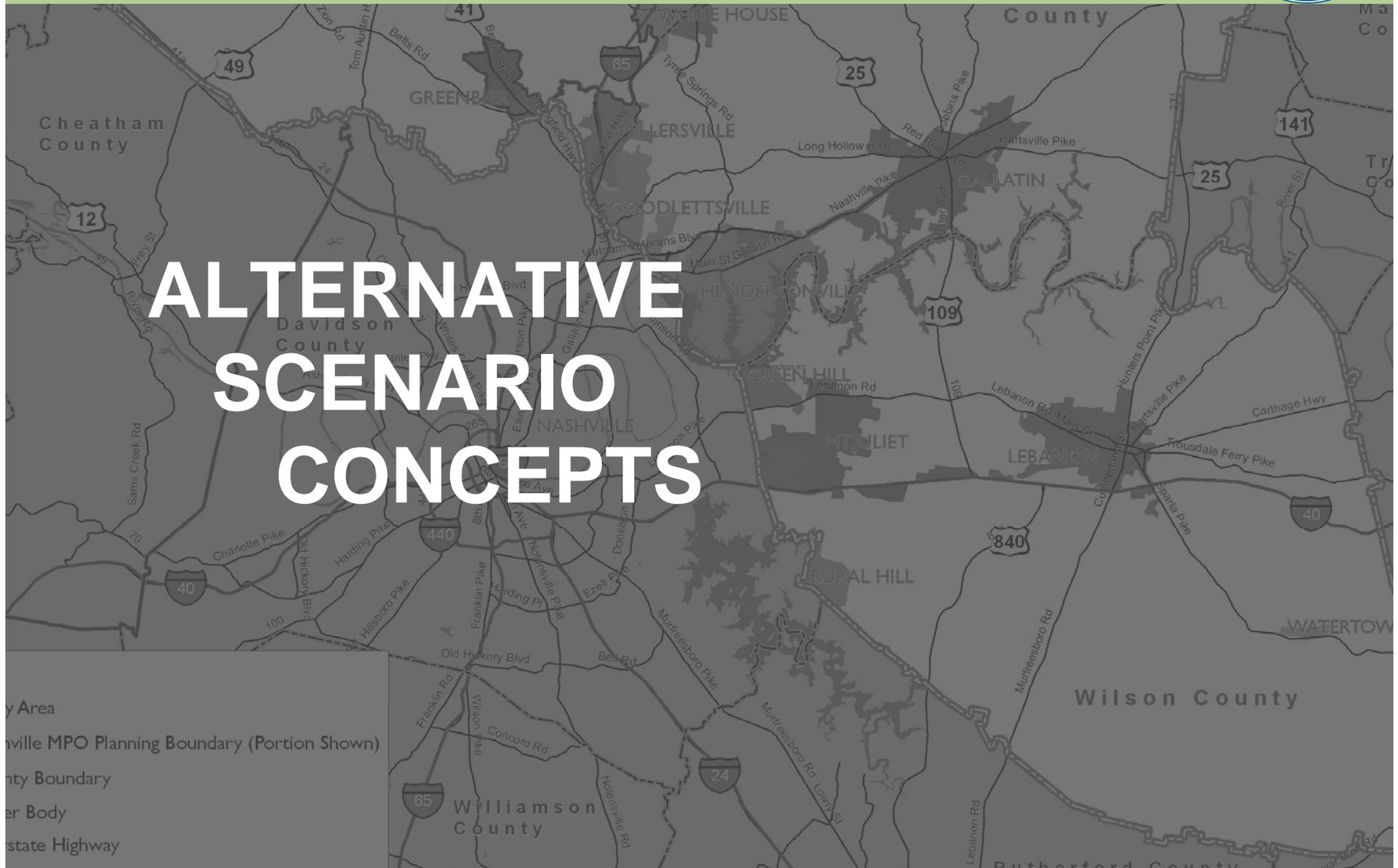


# Pros vs Cons: BAU

	Pros	Cons
<b>BAU</b>	<p>future growth planned within defined urban growth boundaries</p> <p>cities and towns have plans to enhance urban centers</p> <p>established sense of community and place</p>	<p>utility policies allow an undesirable pattern of growth outside cities and towns, leads to higher costs for infrastructure and services</p> <p>“bedroom” communities with limited housing choices, lack balanced tax base</p> <p>lack of overall vision for protecting agriculture, open space, environmental assets</p> <p>low density, dispersed growth along corridors limits potential for viable transportation options</p>



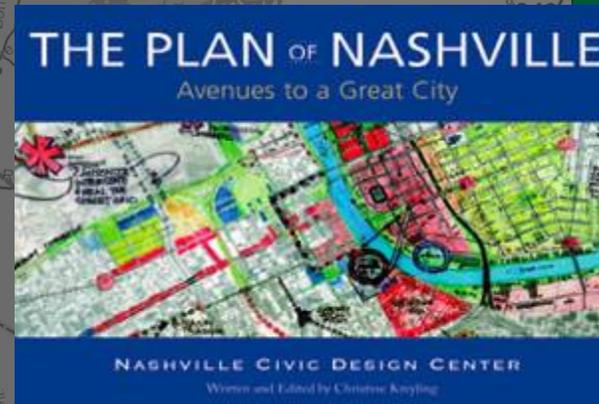
# ALTERNATIVE SCENARIO CONCEPTS



- Area
- Nashville MPO Planning Boundary (Portion Shown)
- County Boundary
- Water Body
- State Highway

# Across the Region

- Pierce Report (1999)
- Regional Planning Summit Proceedings (1999)
- Cumberland Region Tomorrow
  - Report to the Region (2003); Lincoln Institute of Land Policy Report (2006)
  - Quality Growth Toolbox (2006)
- TDOT PlanGo (2005)
- Nashville Civic Design Center
  - The Plan of Nashville



# Across the Region

- Tennessee Growth Readiness
- Cumberland River Compact
- AIA 150 Blueprint for America

— Visioning workshops in Lebanon, Robertson County

**TENNESSEE GROWTH READINESS PROGRAM**

**Water Quality Matters**

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**THE AIA 150 BLUEPRINT FOR AMERICA  
VISIONING WORKSHOP FOR ROBERTSON COUNTY**

ON PRESERVING RURAL OPEN SPACE AND REVITALIZING HISTORIC TOWN CENTERS  
SUMMARY REPORT

A Partnership of Robertson County, City of Springfield, AIA Middle Tennessee, Cumberland Region Tomorrow, the Greater Lebanon Regional Council, the Nashville Civic Design Center and the University of Tennessee College of Architecture + Design

April 27-28, 2007  
Held at First United Methodist Church in Springfield, Tennessee



Springfield Historic Courthouse Square



Historic Barn Structure in Robertson County

This report was produced by T. K. Davis, Associate Professor at the University of Tennessee College of Architecture + Design and Design Director at the Nashville Civic Design Center.

**THE AIA 150 BLUEPRINT FOR AMERICA  
ASSESSMENT AND VISIONING WORKSHOP FOR LEBANON**

LEBANON'S TOWN CENTER AND ITS NEIGHBORHOODS  
STRENGTHENING VISIONABLE OPPORTUNITIES AND THREATS  
AND THE POTENTIAL OF TRANSIT-ORIENTED DEVELOPMENT IN LEBANON

**FINAL REPORT**

A Partnership of AIA Middle Tennessee, Cumberland Region Tomorrow, the Greater Lebanon Regional Council, the Nashville Civic Design Center, and the University of Tennessee College of Architecture + Design



Lebanon's Historic Town Square



The Plaza City Car

This report was produced by T. K. Davis, AIA, Design Director at the Nashville Civic Design Center and Associate Professor at the University of Tennessee College of Architecture + Design.





# Across the US

## THE CHOICE



**REGION 2040**  
*Decisions for Tomorrow*  
 2040 Growth Concept

The Project 2040 Growth Concept was adopted on December 11, 1998. It is the Project 2040, 95-021, as last amended on the following dates:

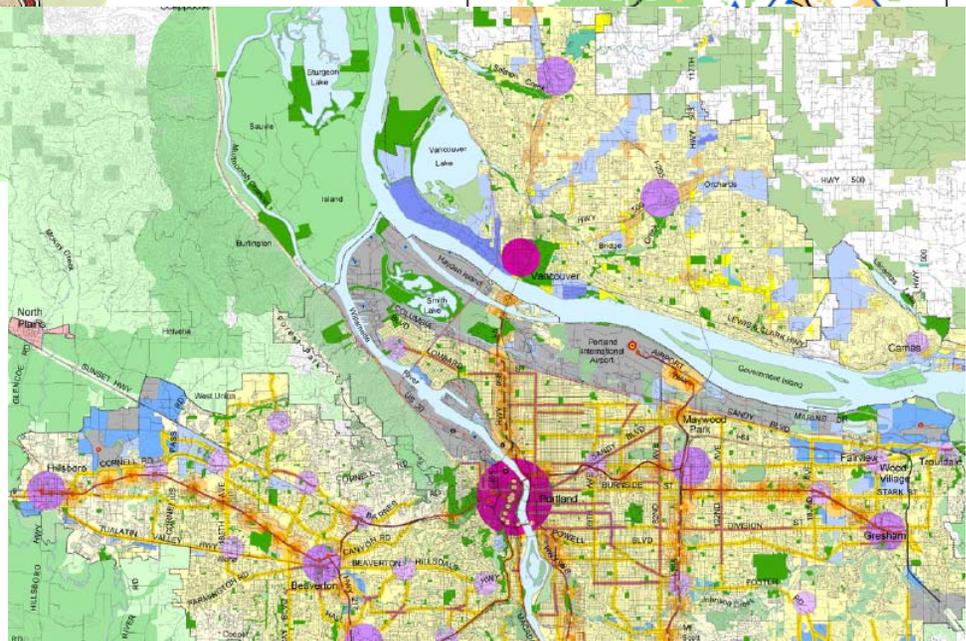
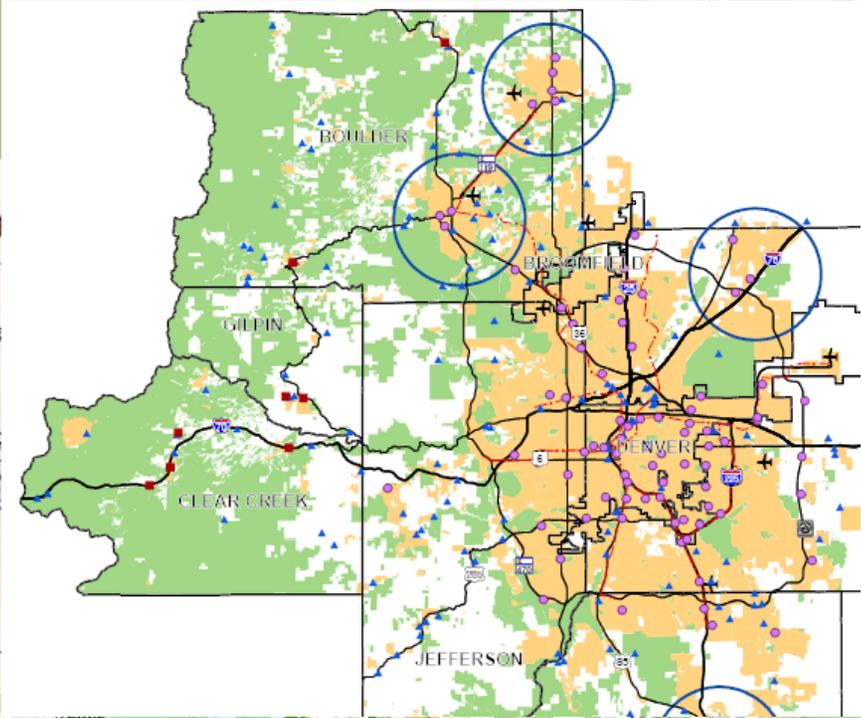
Ordinance No. 98-021	March 1999
Ordinance No. 97-004	July 14, 1997
Ordinance No. 97-004	October 1, 1997
Ordinance No. 97-004	July 1, 1997
Ordinance No. 96-075	December 13, 1996
Ordinance No. 94-011	December 1, 1994

### Choice A - Green Areas

Central Florida's natural setting is world-renowned and precious to all of us. Within an hour's drive, Central Floridians can enjoy the beach, canoeing or hiking at a natural spring or trail, or riding a bike on the most challenging hills in the state. Preserving access to the outdoors and maintaining the many "globally" significant animals, plants and critical ecosystems in our region is crucial.

#### What will this future look like?

- Additional environmentally sensitive lands (2,483 sq. miles) are preserved to maintain connectivity between key environmental areas in the region.
- The additional environmental lands will create many new spaces for outdoor recreation, wildlife and ground water recharge.





# Alternative Scenario Concepts

## ■ Four alternative scenario “themes”

- Conservation
- Compact Development
- Centers and Corridors
- Centers

## ■ Themes used to develop concepts

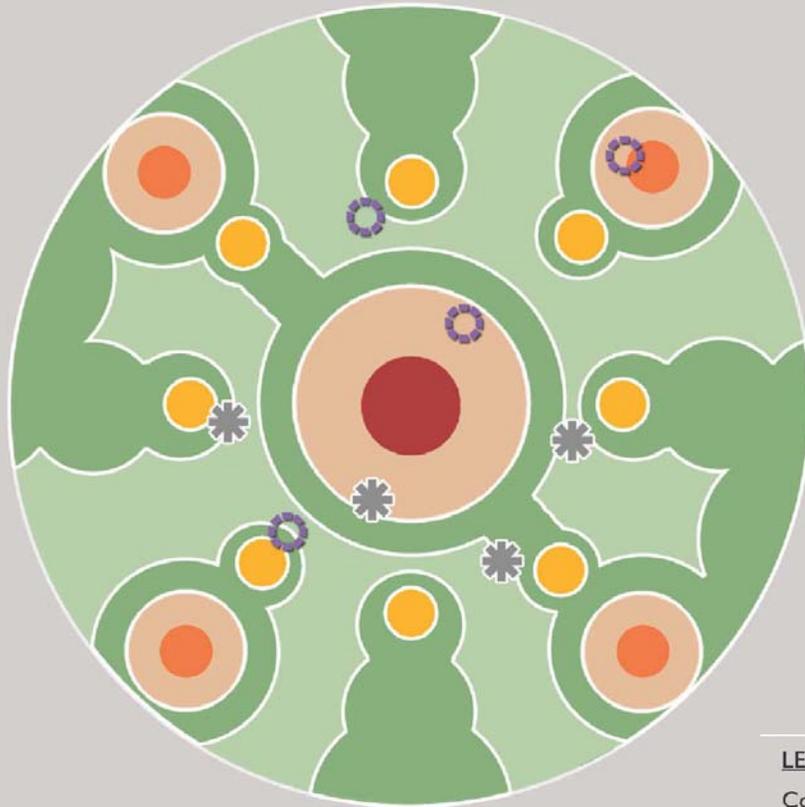
- Concepts “exaggerated” to show emphasis toward a particular smart growth choice



# Conservation



conservation



- Emphasis on set asides including open space and environmental assets forming contiguous greenbelts that may extend within and surround a regional center, growth is concentrated within remaining areas not set aside

## LEGEND

Conservation



Special Use



Rural



Special Activity Centers



Centers

-Urban Core



-Traditional Town Centers



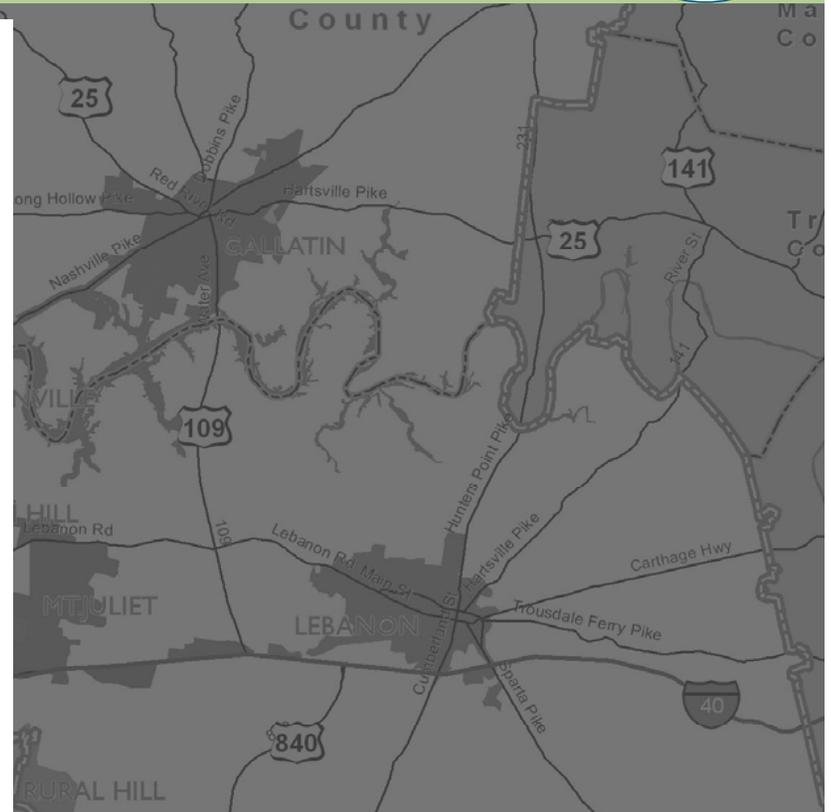
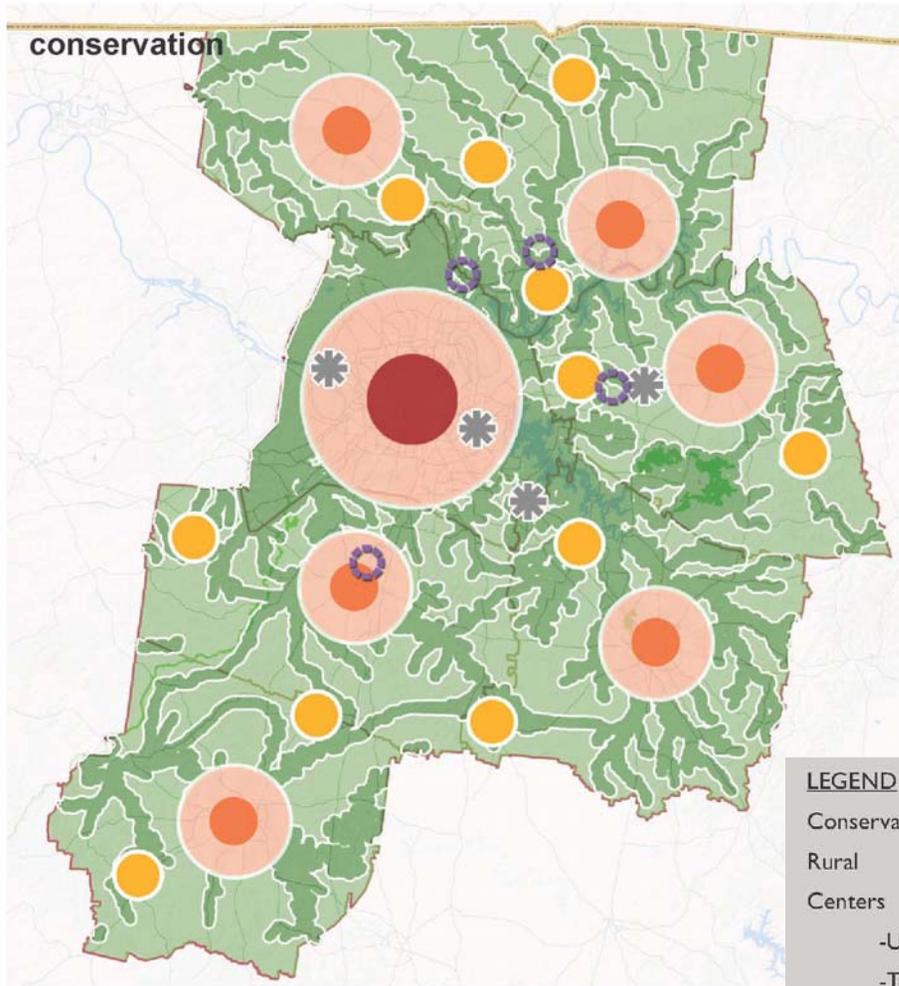
-Village Centers



General Urban



# Conservation



## LEGEND

Conservation



Rural



Centers

-Urban Core



-Traditional Town Centers



-Village Centers



General Urban



Special Use



Special Activity Centers



County Boundary  
 County Body  
 State Highway



# Pros vs Cons: Comparing Alternatives

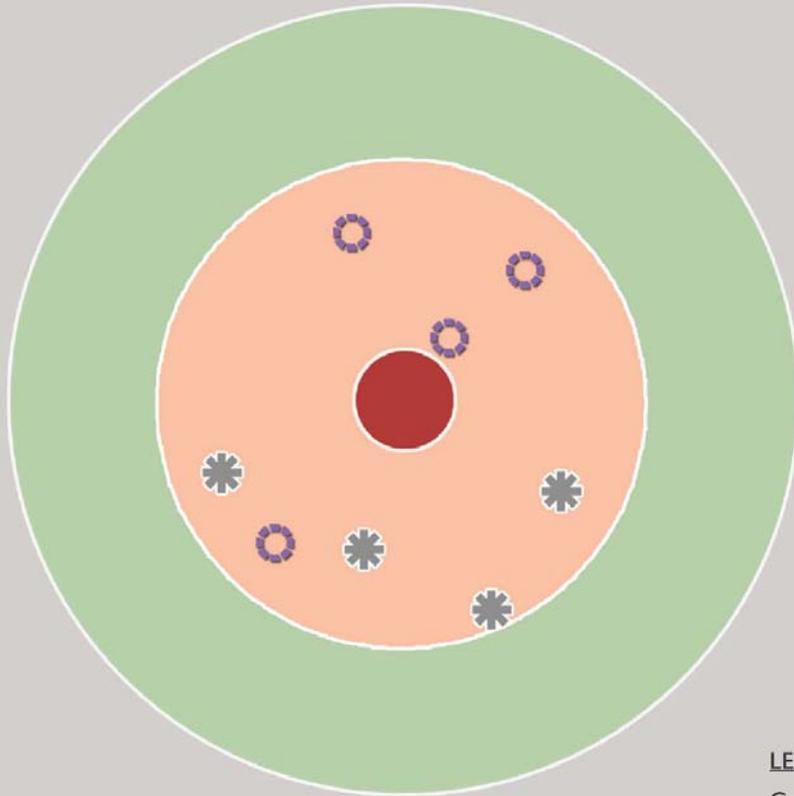


	Pros	Cons
<b>Conservation</b>	designating agriculture, open space, environmental assets first ensures areas are protected at the start from encroaching and future growth	growth may continue to spread across the landscape in an undesirable pattern between areas conserved  private property rights issues if land owners restricted from ability to convert land to more intensive uses (residential or commercial uses)  higher infrastructure costs if undesirable pattern of growth occurs between areas conserved

# Compact Development



compact development



- Urban growth boundary or service boundary, concentrated growth around regional center



## LEGEND

Conservation / Rural



Centers



-Urban Core



General Urban

Special Use



Special Activity Centers

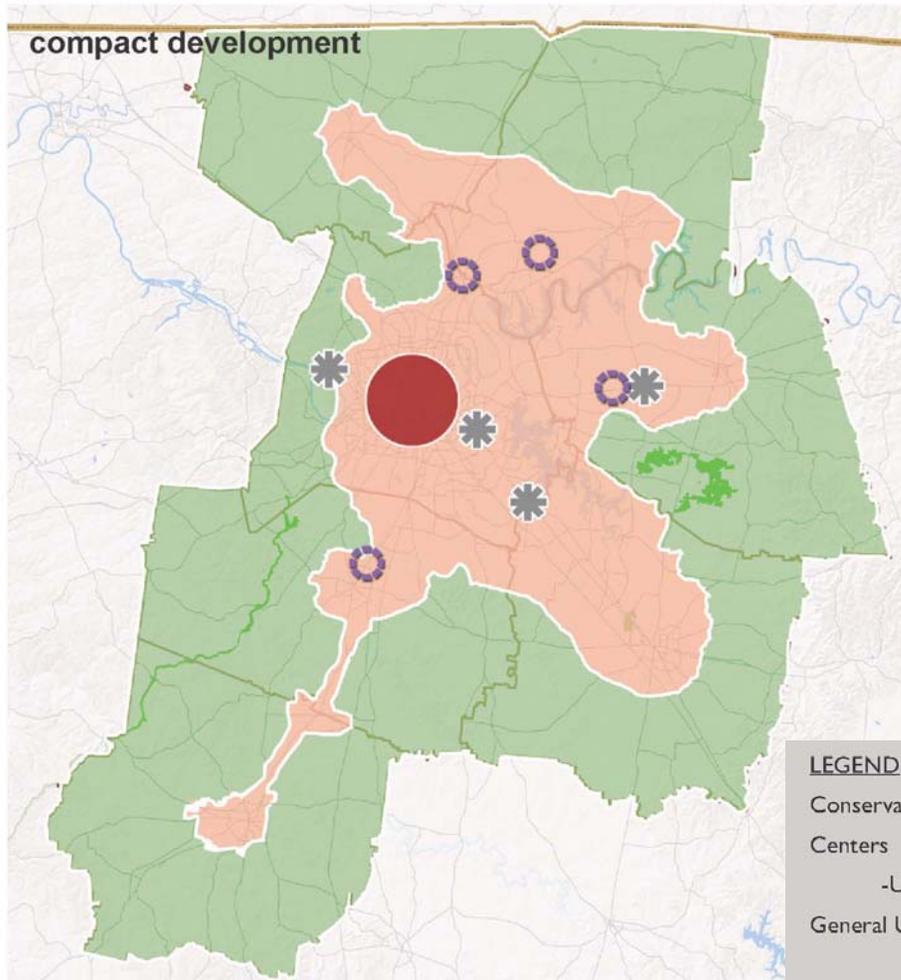


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Rutherford County

# Compact Development

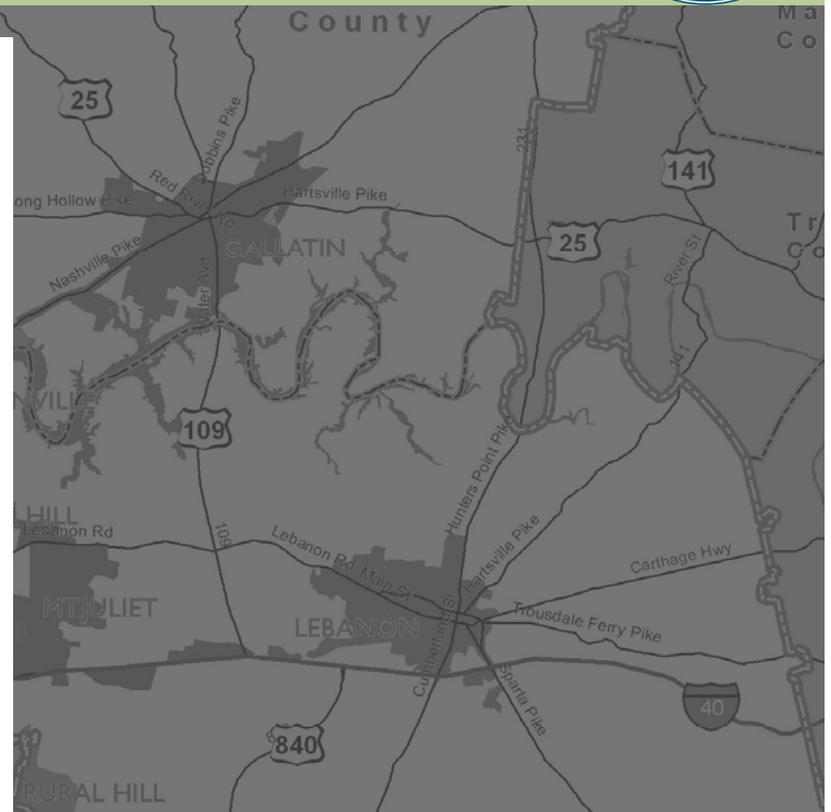


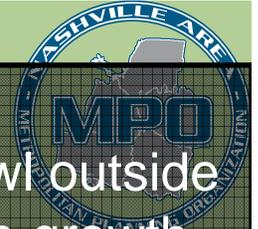
## LEGEND

- Conservation / Rural Centers
- Urban Core
- General Urban



- Special Use
- Special Activity Centers

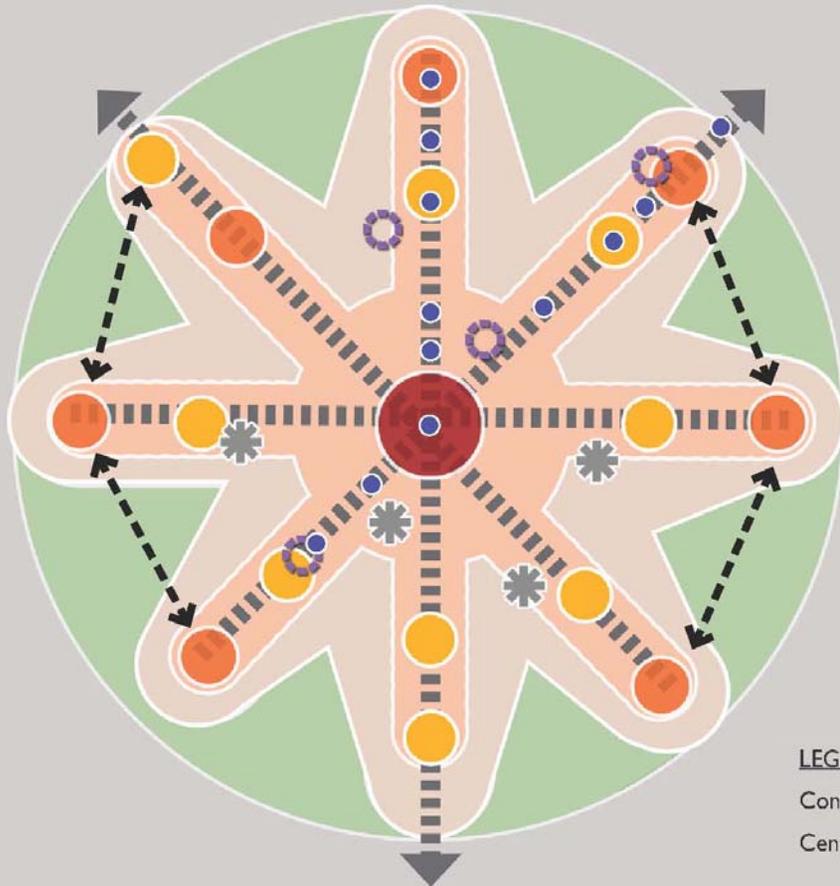




<b>Compact Development</b>	concentrated growth reinforces established regional center, economic benefits	could lead to leapfrog development and sprawl outside specified area for urban growth in nearby municipalities
efficient use of infrastructure and services as growth is designated near existing infrastructure and services	efficient use of infrastructure and services as growth is designated near existing infrastructure and services	open space treated as a remnant as defined boundary, determined first, separates urbanized area from the countryside
opportunity for coordinated services	opportunity for coordinated services	private property rights issues for land owners outside of boundary restricted from ability to convert land to more intensive uses
can protect countryside from sprawl	can protect countryside from sprawl	reduced land availability adds pressures
potential impacts to established neighborhoods resulting from targeted infill and redevelopment at higher densities		potential impacts to established neighborhoods resulting from targeted infill and redevelopment at higher densities

# Centers and Corridors

centers and corridors



- Growth concentrated into regional, urban and outlying village centers with remnant countryside areas forming greenbelts surrounding centers



**LEGEND**

Conservation / Rural



Centers

-Urban Core



-Traditional Town Centers



-Village Centers



-TOD



Corridors

-General Urban



-Suburban



Special Use



Special Activity Centers



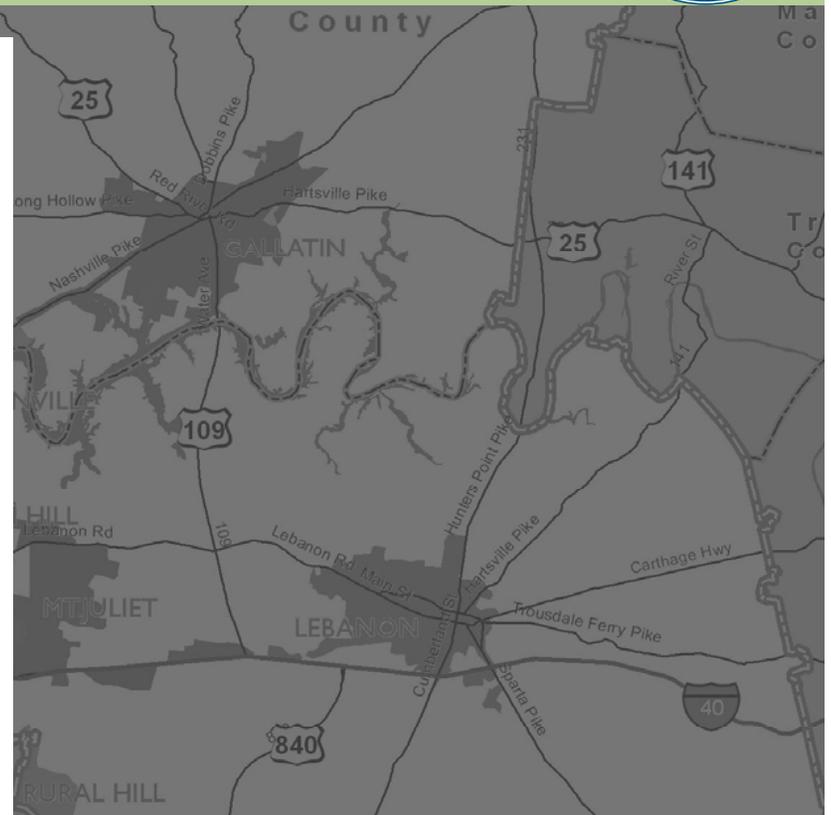
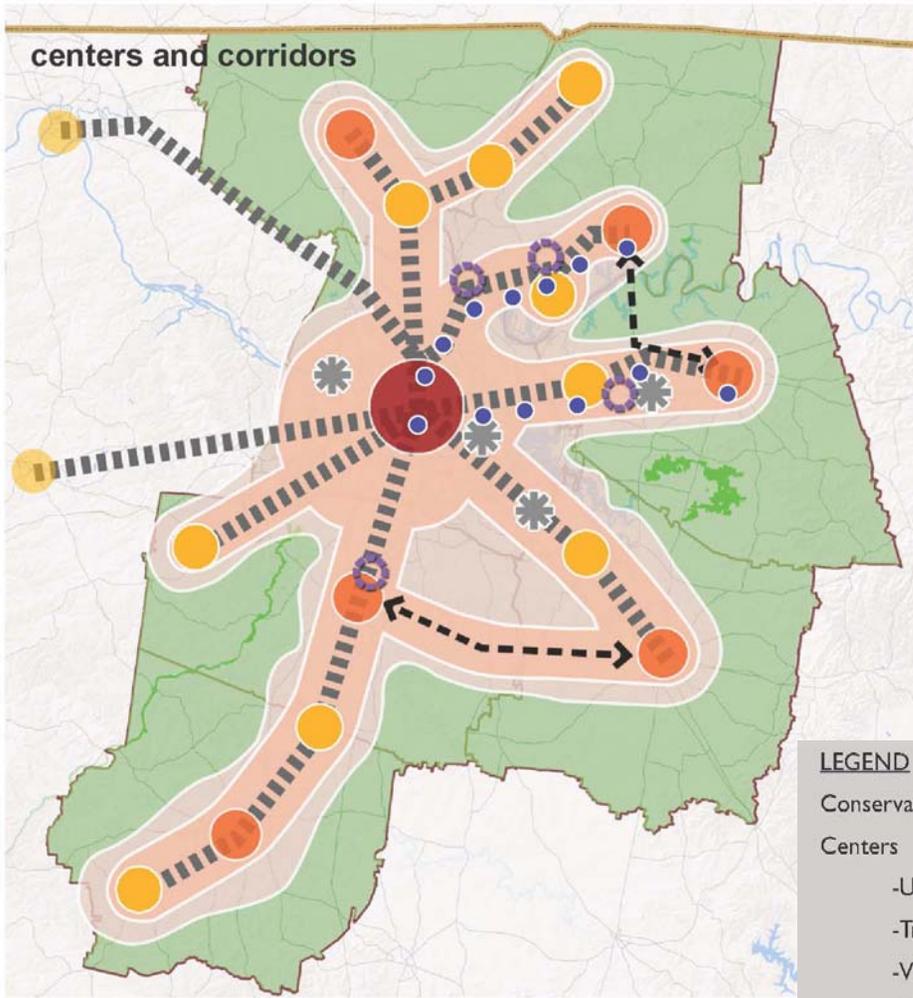
Primary Linkages



Secondary Linkages



# Centers and Corridors



## LEGEND

Conservation / Rural



Centers

-Urban Core



-Traditional Town Centers



-Village Centers



-TOD



Corridors

-General Urban



-Suburban



Special Use



Special Activity Centers



Primary Linkages



Secondary Linkages





## Centers and Corridors

emphasis of concentrated growth along corridors, centers supports multiple transportation modes

may allow continued growth in an undesirable pattern between centers and corridors and impacts to countryside

housing types that accompany centers and corridors development pattern provide greater housing choices

open space treated as a remnant as defined boundary, determined first, separates urbanized area from the countryside

efficient use of infrastructure and services as growth is designated near existing infrastructure and services  
opportunity for coordinated services

Nashville MPO Planning Boundary (Portion Shown)

County Boundary

Water Body

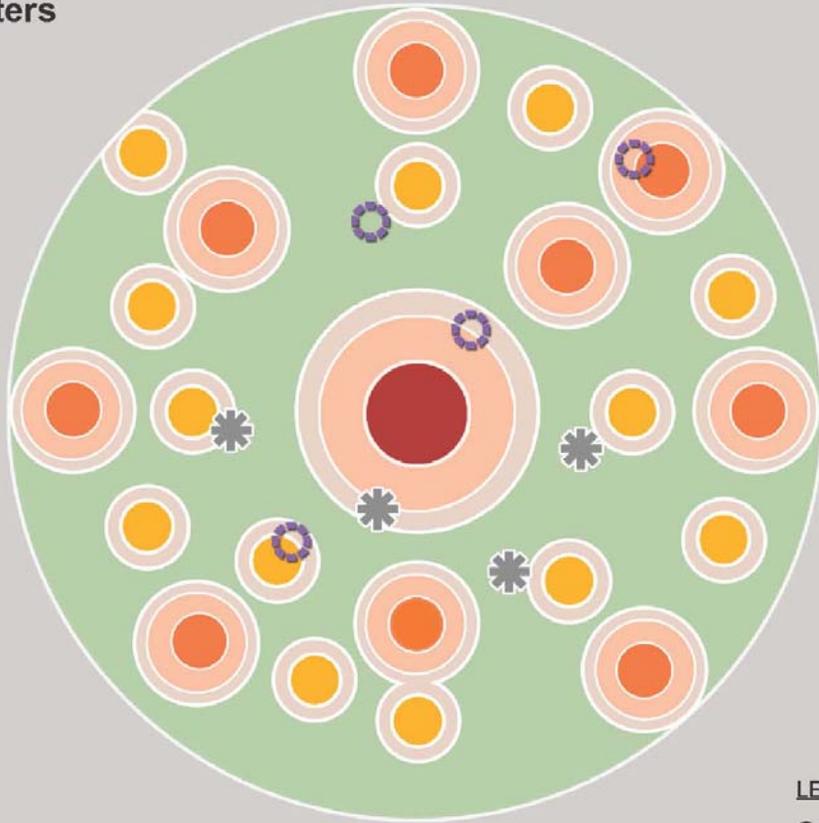
State Highway



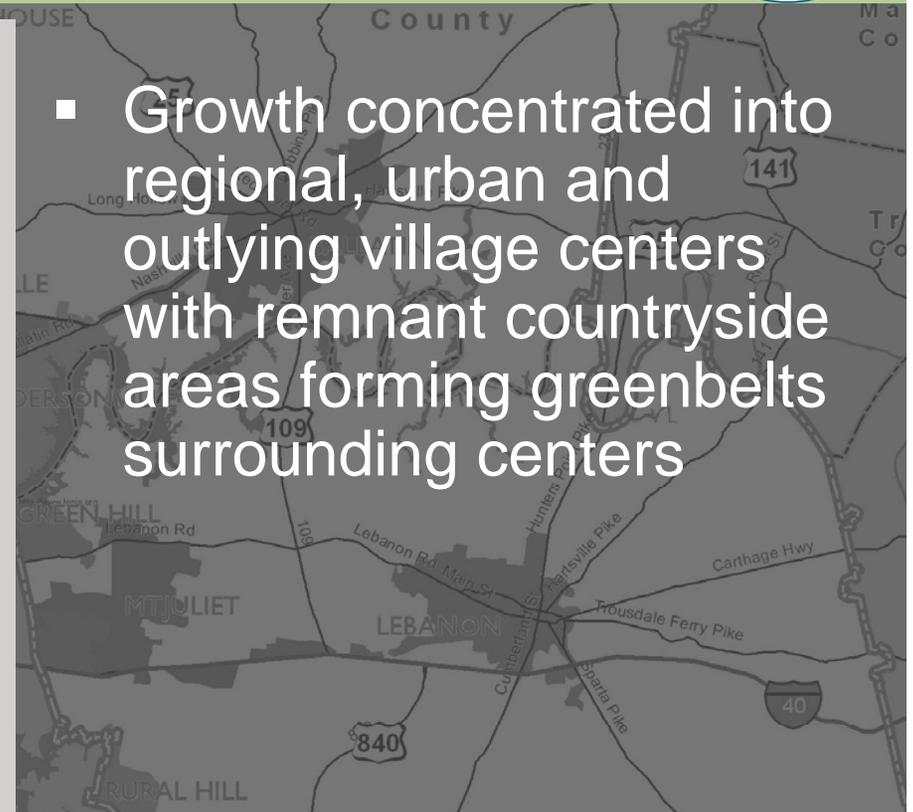
# Centers



centers



- Growth concentrated into regional, urban and outlying village centers with remnant countryside areas forming greenbelts surrounding centers



**LEGEND**

Conservation / Rural		Future Centers	
Centers		-Traditional Town Centers	
-Urban Core		-Village Centers	
-Traditional Town Centers		Future General Urban	
-Village Centers		Future Suburban	
General Urban		Special Use	
Suburban		Special Activity Centers	

ville MPO Planning Boundary (Portion Shown)

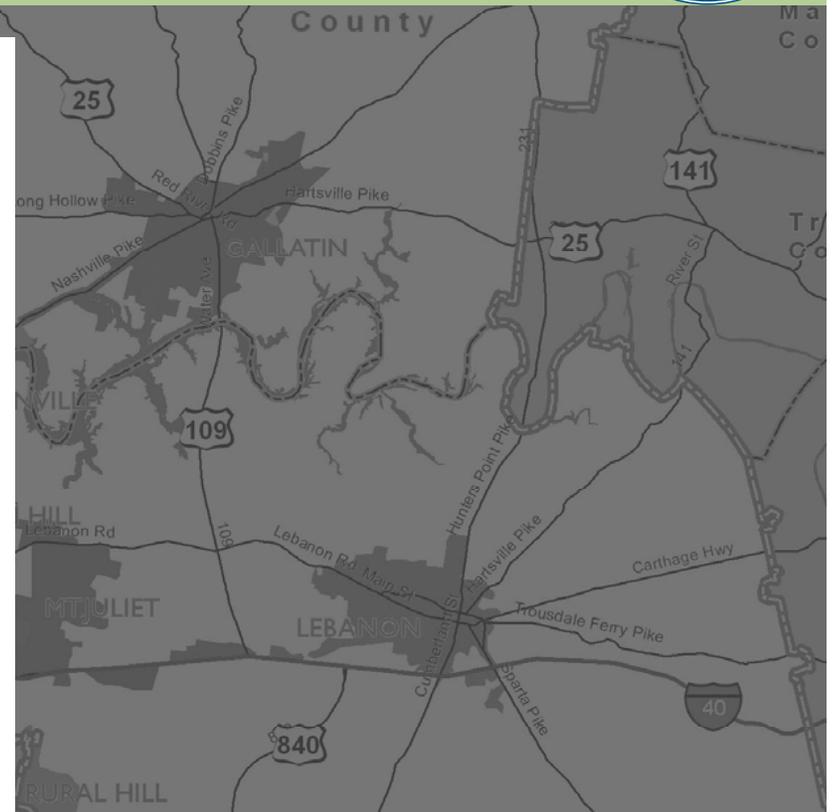
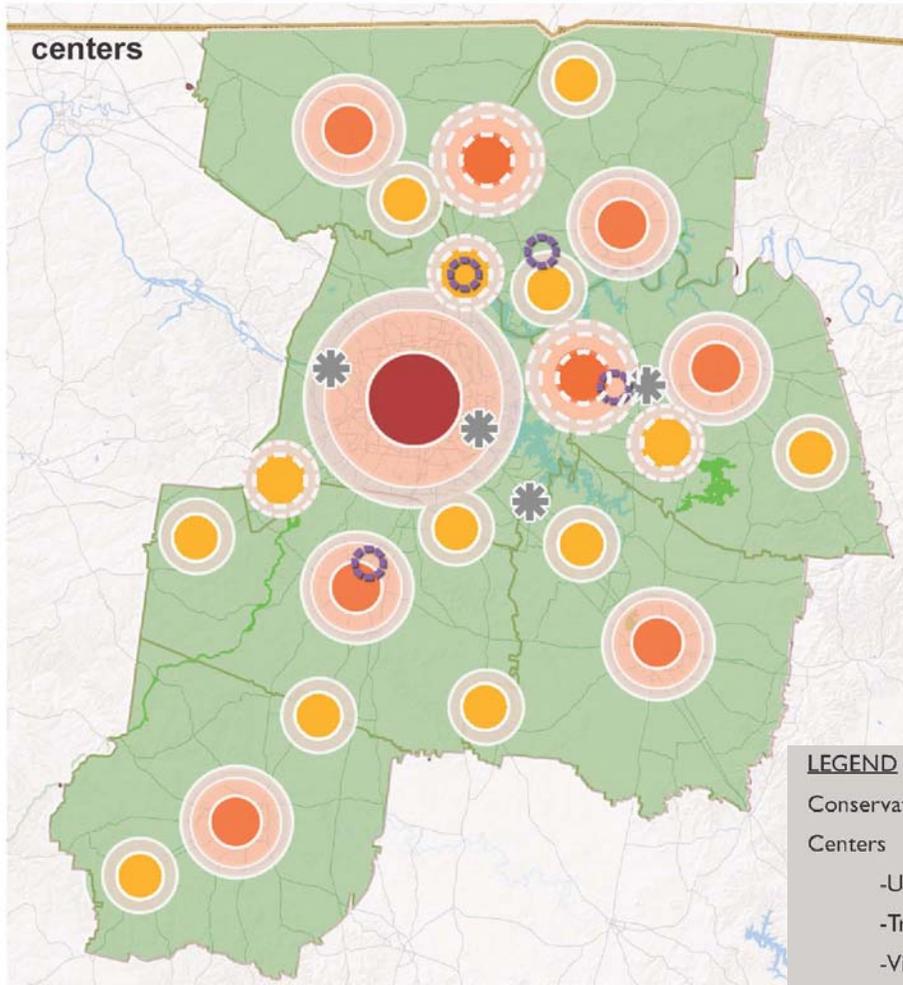
nty Boundary

er Body

state Highway



# Centers



## LEGEND

Conservation / Rural



Centers



-Urban Core

-Traditional Town Centers



-Village Centers



General Urban



Suburban



Future Centers

-Traditional Town Centers



-Village Centers



Future General Urban



Future Suburban



Special Use



Special Activity Centers





## Centers

serves places with unique or individual identities, character

competition among centers in a region

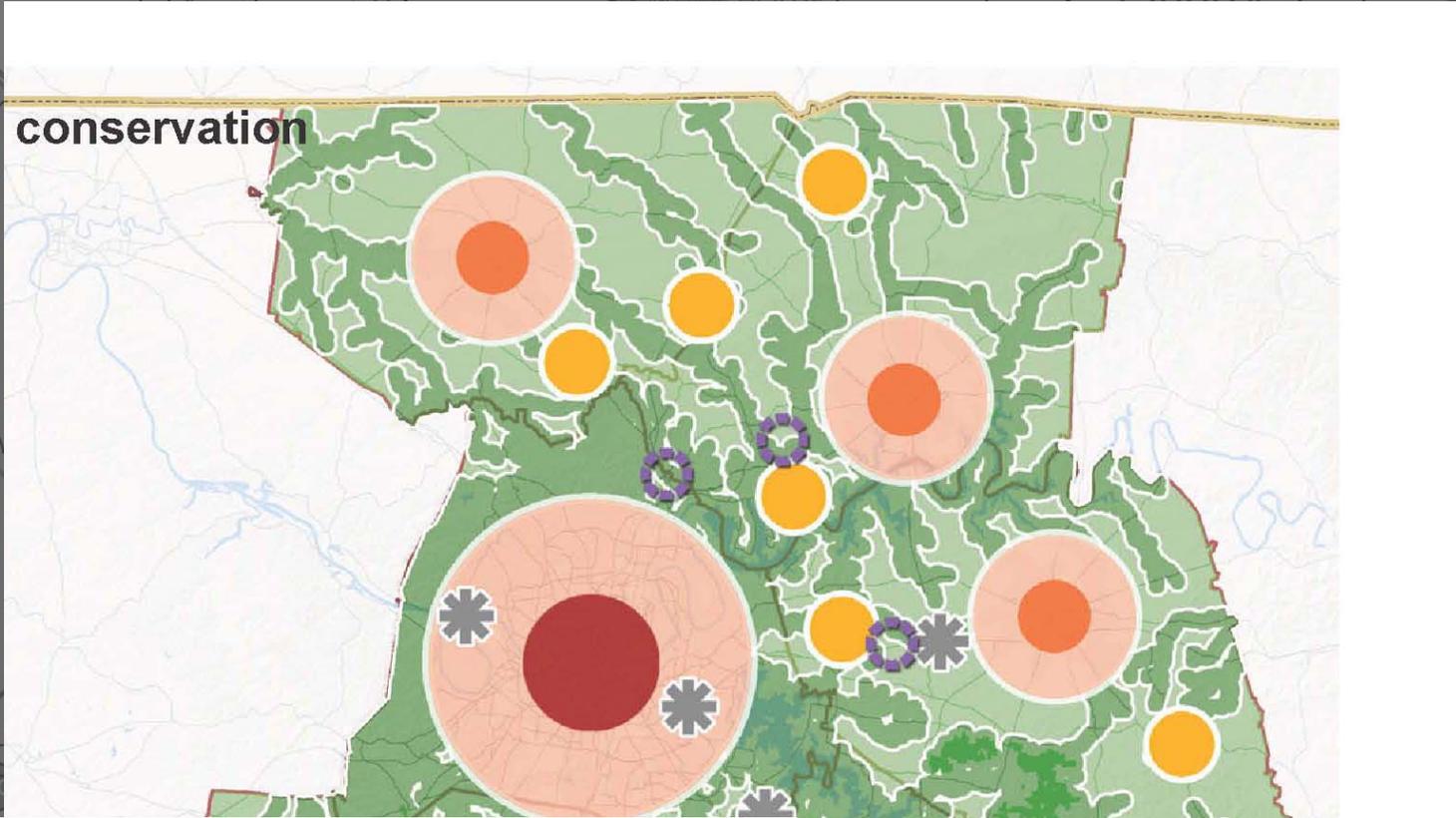
duplication of services for multiple centers, can lead to higher costs for infrastructure

some outlying centers become “bedroom” communities, lack balanced tax base

while linkages exist, may not adequately support multiple transportation options within a region as centers are segregated from regional and other centers

open space treated as a remnant as each center first defines its boundary separating urbanized area from the countryside

# Conservation



## LEGEND

Conservation



Rural



Centers

-Urban Core



-Traditional Town Centers



-Village Centers



General Urban



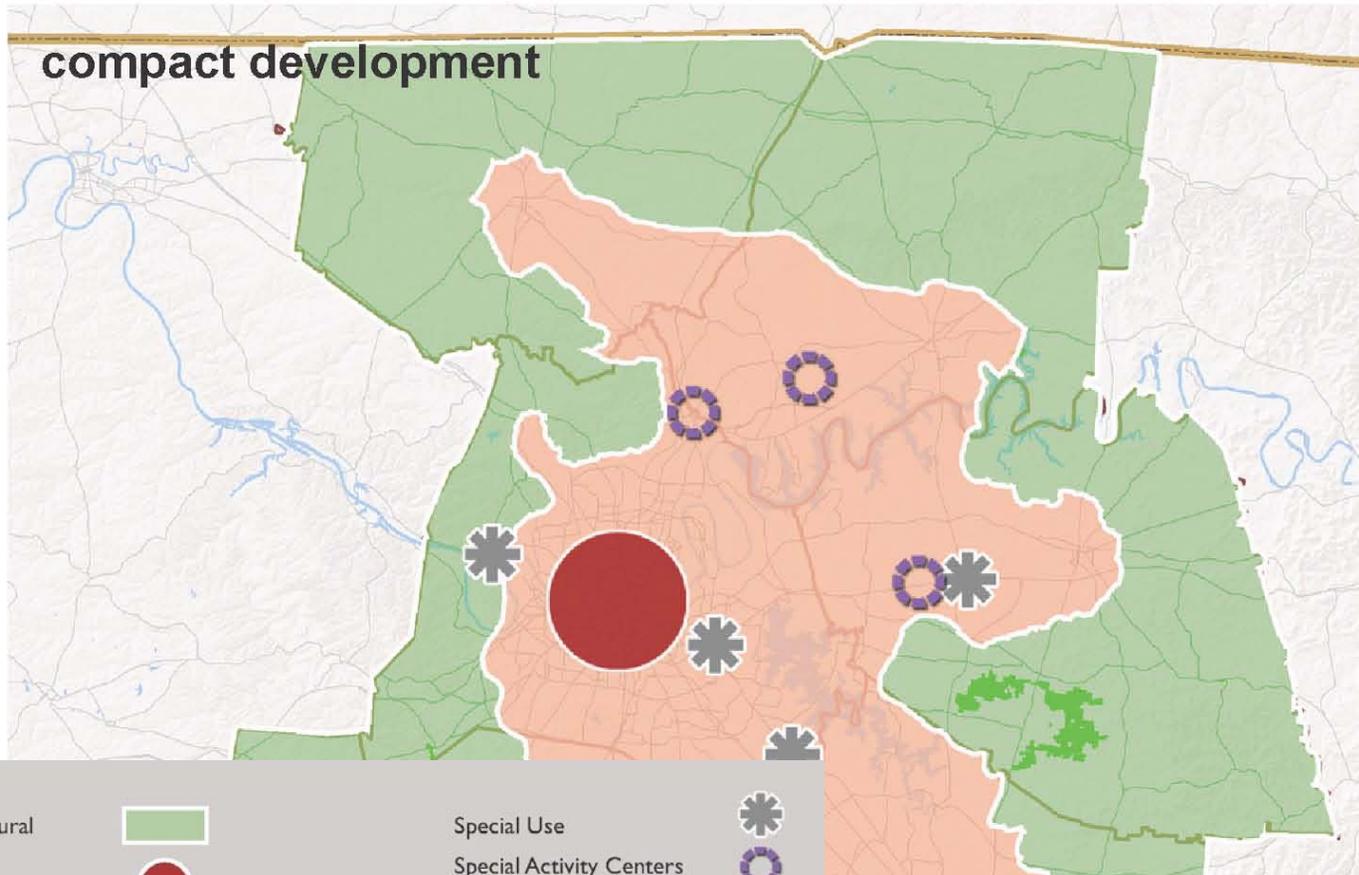
Special Use



Special Activity Centers



# Compact Development



## LEGEND

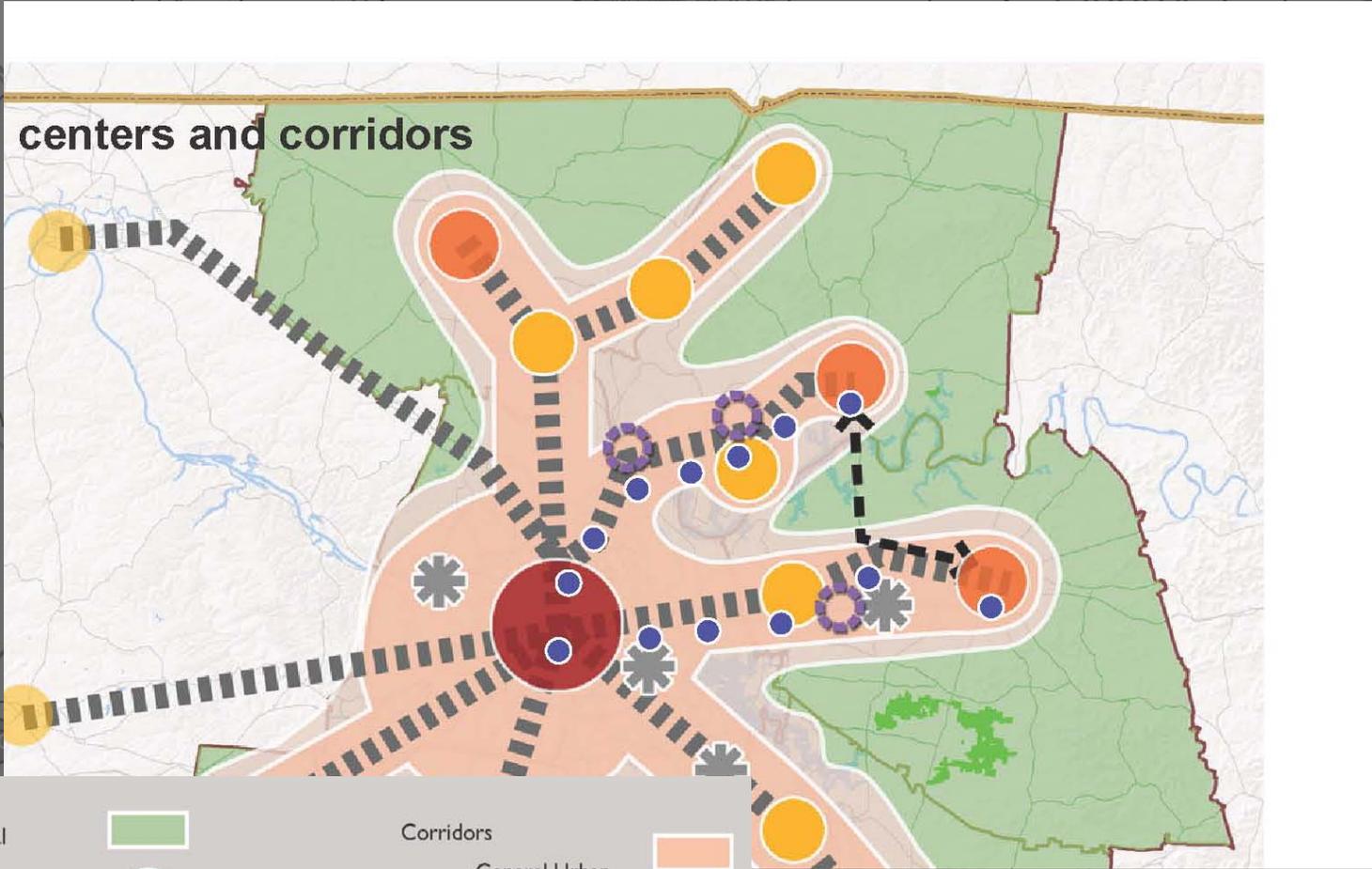
Conservation / Rural  
Centers  
-Urban Core  
General Urban



Special Use  
Special Activity Centers



# Centers and Corridors



## LEGEND

Conservation / Rural



Centers

-Urban Core



-Traditional Town Centers



-Village Centers



-TOD



Corridors

-General Urban



-Suburban



Special Use



Special Activity Centers



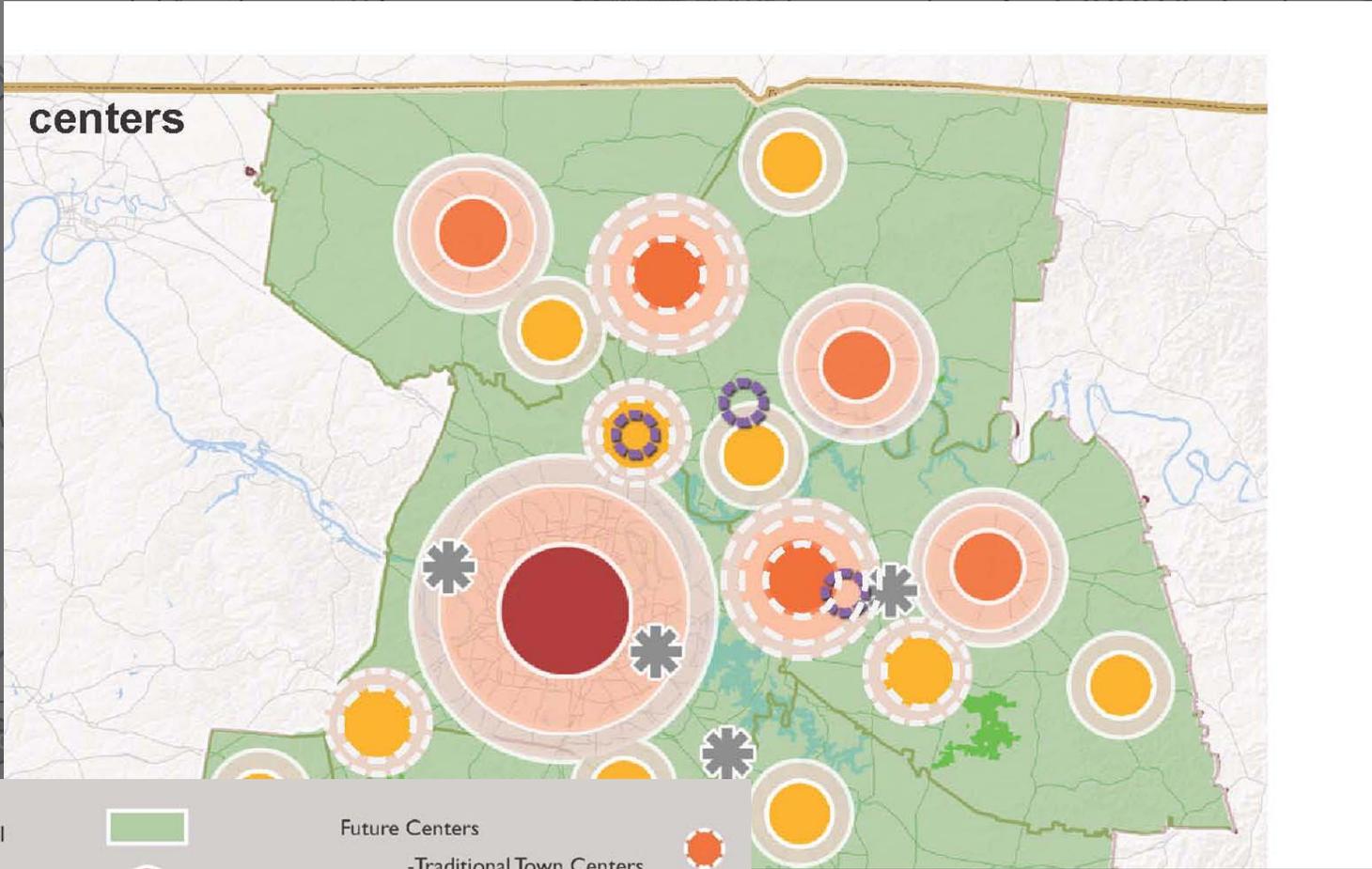
Primary Linkages



Secondary Linkages



# Centers



## LEGEND

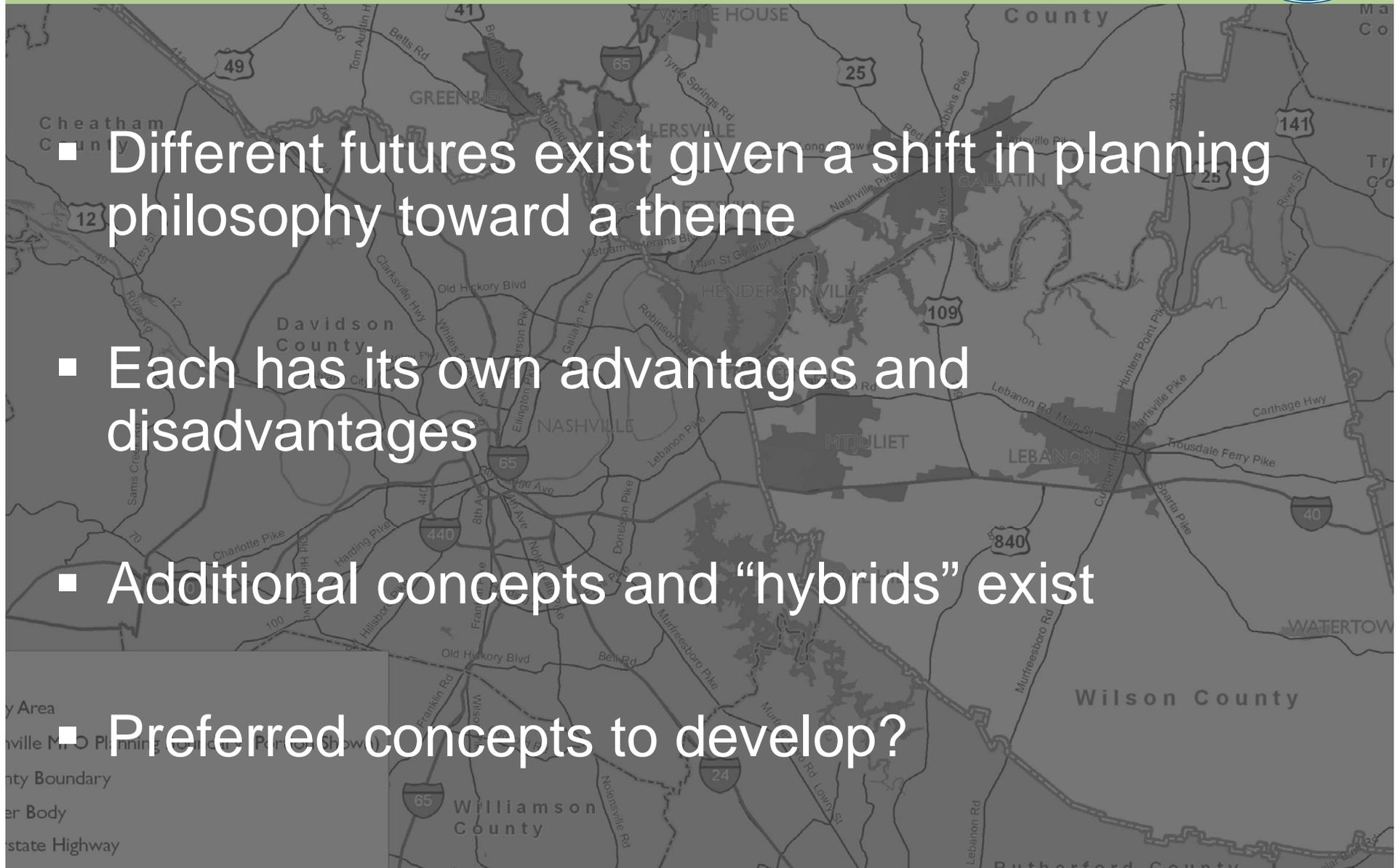
- |                              |  |                           |  |
|------------------------------|--|---------------------------|--|
| Conservation / Rural Centers |  | Future Centers            |  |
| -Urban Core                  |  | -Traditional Town Centers |  |
| -Traditional Town Centers    |  | -Village Centers          |  |
| -Village Centers             |  | Future General Urban      |  |
| General Urban                |  | Future Suburban           |  |
| Suburban                     |  | Special Use               |  |
|                              |  | Special Activity Centers  |  |

# Comparing Alternatives



- Different futures exist given a shift in planning philosophy toward a theme
- Each has its own advantages and disadvantages
- Additional concepts and “hybrids” exist
- Preferred concepts to develop?

y Area  
Nashville MPO Planning Council (Show)  
County Boundary  
er Body  
state Highway





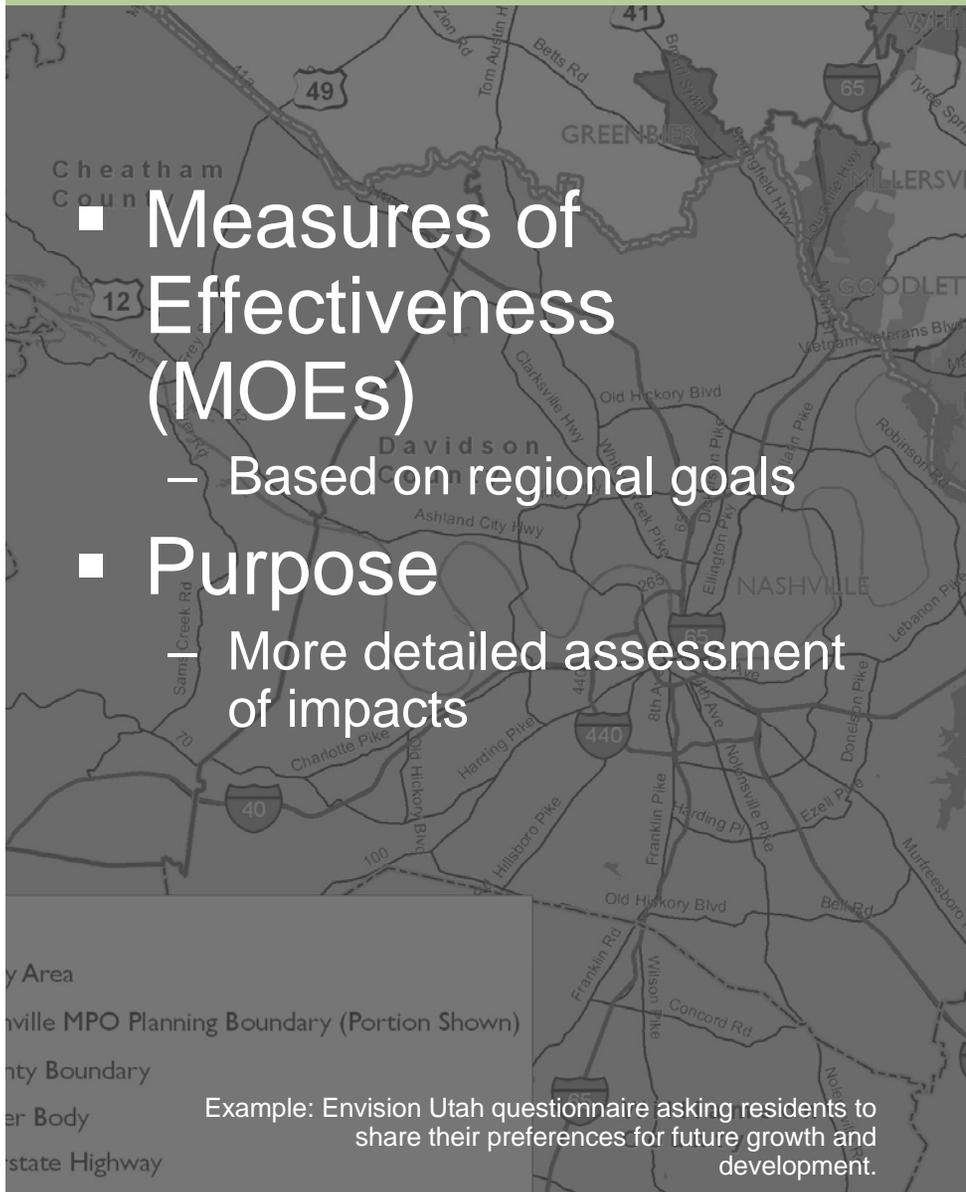
# GOALS AND RECOMMENDED MEASURES





# Recommended Measures

- Measures of Effectiveness (MOEs)
  - Based on regional goals
- Purpose
  - More detailed assessment of impacts



Example: Envision Utah questionnaire asking residents to share their preferences for future growth and development.

## Growth Choices for the Year 2020

Consider the issues. Please indicate your preferences according to the instructions below. Do not indicate your personal preferences for the kind of future you want for yourself, but rather what you think would be best for the region as a whole.  
 Instructions: 1) Fill in the oval within the scenario you like best according to each topic. 2) Then rank each topic according to how important it is to you by filling in the corresponding box in the left-hand column. 3) 1=most important, 5=least important (as few topics may receive the same ranking)

Rank	Topic	Scenario A	Scenario B	Scenario C	Scenario D
01 02 03 04 05	Example	CAT	DOG	HORSE	FISH
01 02 03 04 05	Transportation Choices				
01 02 03 04 05	Infrastructure Cost 1998-2020	\$\$\$\$\$	\$\$\$\$\$	\$\$\$	\$\$\$!
01 02 03 04 05	Air Quality (Index, average)	4	2	1	1
01 02 03 04 05	Total Water Demand	114 billion gallons	111 billion gallons	104 billion gallons	101 billion gallons
01 02 03 04 05	Walkable Communities (Index, average)				
01 02 03 04 05	Average Size of Single-Family Lot	.37 acre	.35 acre	.29 acre	.27 acre
01 02 03 04 05	Single Family Homes vs. Condos, Apts. & Townhomes	77% Homes, 23% Condos, Apts. & Townhomes	75% Homes, 25% Condos, Apts. & Townhomes	66% Homes, 34% Condos, Apts. & Townhomes	62% Homes, 38% Condos, Apts. & Townhomes
01 02 03 04 05	Amount of New Land Consumed: 1998 - 2020	409 sq mi	323 sq mi	126 sq mi	85 sq mi
01 02 03 04 05	Agricultural Land Consumed: 1998 - 2020	174 sq mi	143 sq mi	65 sq mi	43 sq mi

Choose a Scenario: Given the priority you have assigned to these categories, decide how they should be used to create a desirable quality of life in 2020 and beyond. The scenario descriptions in this newspaper full-out will tell you what scenarios are feasible in the Greater Nashville Area. You may select one of the scenarios as described, or choose a point somewhere between the two you like best. You may also choose an option outside the range we have identified, if you feel that either Scenario A or Scenario D should be taken further in some respect.

Scenario A      Scenario B      Scenario C      Scenario D

# Recommended Measures



Goal Addressed	Measure	Unit of Analysis	Calculation
<b>Socio-Economic Impacts</b>			
	Population Density	Persons/ Acre	Allocated Population / Acres Developed
	Employment Density	Employees/ Acre	Allocated Employment / Acres Developed
No. 9	Housing Type Mix	Dus	% Single-Family / % Multifamily Dus

y Area  
 ville MPO Planning Boundary (Portion Shown)  
 nty Boundary  
 er Body  
 state Highway



# Recommended Measures



Goal Addressed	Measure	Unit of Analysis	Calculation
<b>Environmental Impacts</b>			
No. 3	Urban Footprint	Acres	No. of acres coded urban/suburban vs. BAU scenario
No. 2	Agricultural Land Consumed	Acres	No. of acres coded urban/suburban w/ prime AG soils
<b>Potential Revenue Generation</b>			
No. 4	Property Tax Generation	Dollars	Land Value x Millage Rate



# Recommended Measures

Goal Addressed	Measure	Unit of Analysis	Calculation
<b>Impacts to Community Facilities and Services</b>			
No. 7	Congestion on Major Corridors	Minutes	Summary Statistic -- Average Delay
	Average Trip Length	Minutes	Summary Statistic -- Average Trip Length
No. 8	Demand for Potable Water (Inside Service Areas)	MGD	New Dus & Non-Res. S.F. x GPD Generation Rates
No. 8	Demand for Potable Water (Outside Service Areas)	MGD	New Dus & Non-Res. S.F. x GPD Generation Rates

# Recommended Measures



Goal Addressed	Measurement	Unit of Analysis	Calculation
No. 8	Demand for Sanitary Sewer (Inside Service Areas)	MGD	New Dus & Non-Res. S.F. x GPD Generation Rates
No. 8	Demand for Sanitary Sewer (Outside Service Areas)	MGD	New Dus & Non-Res. S.F. x GPD Generation Rates
No. 8	Demand for New Schools	Students	New Dus & Non-Res. S.F. x Student Generation Rates
No. 8	Demand for Parkland	Acres	New Dus & Non-Res. S.F. x Current Service Delivery Rate



# NEXT STEPS



y Area  
Nashville MPO Planning Boundary (Portion Shown)  
County Boundary  
Water Body  
State Highway