

DEVELOPMENT SUITABILITY AND SCENARIO MODELING

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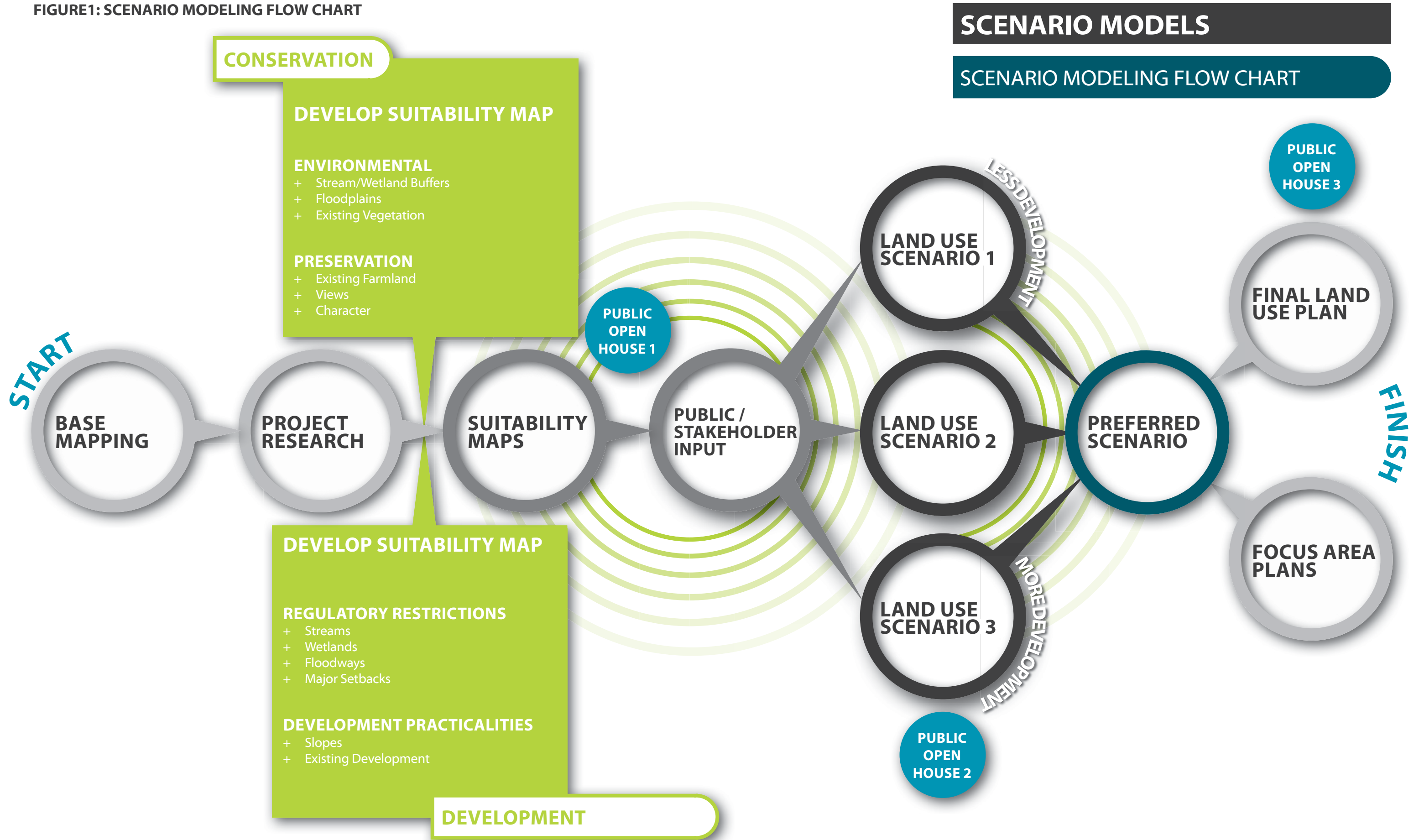
A SYSTEMATIC PROCESS

The Urbanizing Area Plan was developed through a comprehensive process geared toward understanding and anticipating the opportunities and constraints that will affect the course of development across the planning area over the next 35 years. This involved a combination of technical analysis using geographic information systems (GIS), local knowledge and informed planning judgement, all vetted through the public review process. Although GIS was used as a tool in the planning process, it is important to note the plan is more than the simple output of a computer model. This plan is not “data-driven”, but rather, “data-informed”.

Figure 1 illustrates the modeling process used to develop the Land Use Plan. The process began with base mapping; developing a comprehensive inventory of the existing physical development and environmental conditions, as well as planned development and infrastructure improvements. These various factors were categorized and prioritized in terms of their relative influence on suitability for future development or land conservation across the Urbanizing Area. The development and conservation factors were analyzed and combined to create a comprehensive development suitability map. The suitability map serves as a guide to illustrate where future development, redevelopment and investment within the planning area is most appropriate, consistent with the planning goals for the Urbanizing Area.

The planning team then compared the suitability map with the existing zoning map, land use and development patterns and currently adopted plans to understand how well the County’s current planning and development policies correspond. Existing zoning and development regulations and adopted land use plans were also analyzed to understand how well current policy will achieve the planning goals, while also accommodating projected growth over the planning period. The team then drafted an alternative development strategy to test against current zoning and plans. These options were translated into three land use development scenarios. The scenarios were compared to one another using a series of quantitative metrics to help the community understand the relative costs and benefits of each option and to make informed decisions about the preferred course the County should take to achieve the planning goals for the Urbanizing Area.

FIGURE 1: SCENARIO MODELING FLOW CHART



SCENARIO MODELS

SCENARIO MODELING FLOW CHART

START

FINISH

LESS DEVELOPMENT

MORE DEVELOPMENT

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DEVELOPMENT SUITABILITY

A wide variety of factors were considered to create a comprehensive development suitability map for the Urbanizing Area.

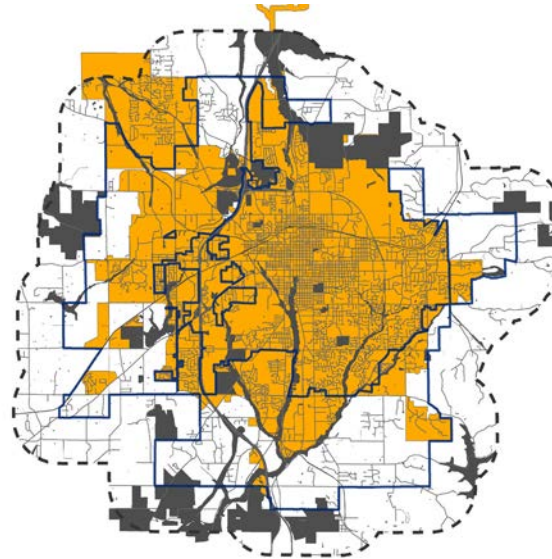
Factors that are relevant to land conservation:

- + Proximity to Stream Corridors
- + Forested Areas
- + Soils suitable for farming
- + Steep slopes (>15%)
- + Karst sensitivity areas
- + Environmental conservation overlay areas

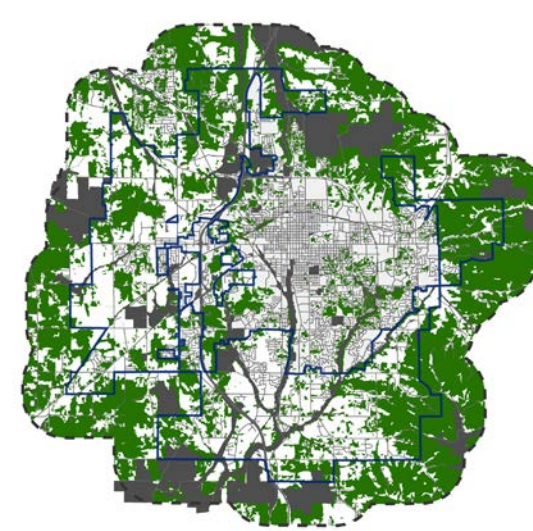
Factors that influence development:

- + Existing water service areas
- + Proximity to key intersections
- + SR 37 Intersections
- + Primary (Arterial to Arterial)
- + Secondary (Arterial to Collector)
- + Tertiary (Collector to Collector)
- + Existing sewer service areas
- + Proximity to key "Attractors"
- + Regional attractors
- + Major attractors
- + I-69 interchange influence area (1-mile buffer)
- + Proximity to major roadway corridors

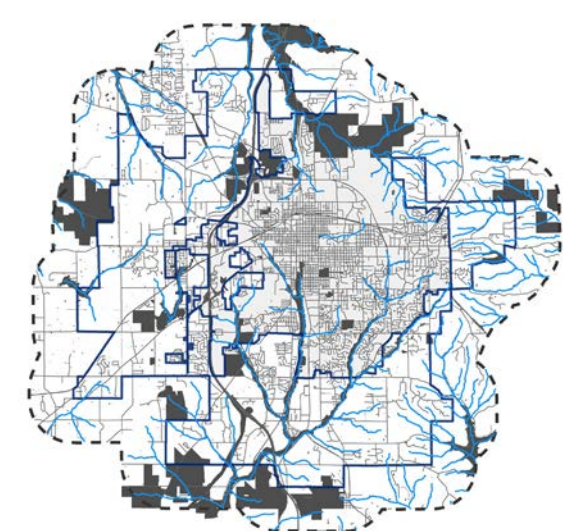
Existing Sewer Service Areas



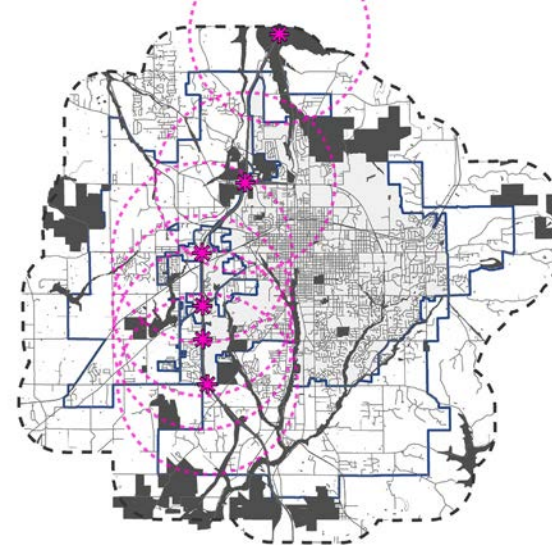
Forested Areas



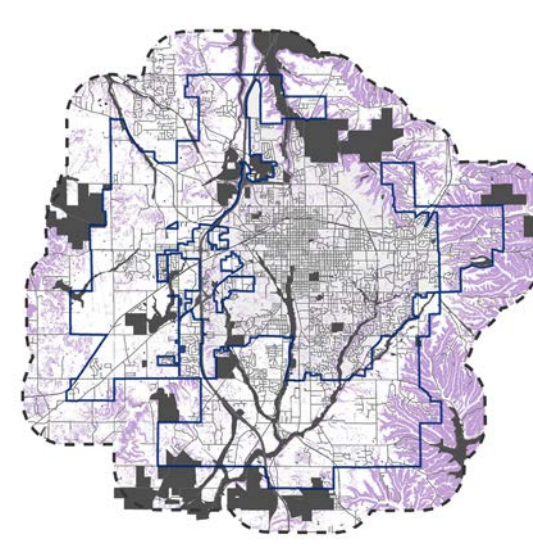
Proximity to Stream Corridors



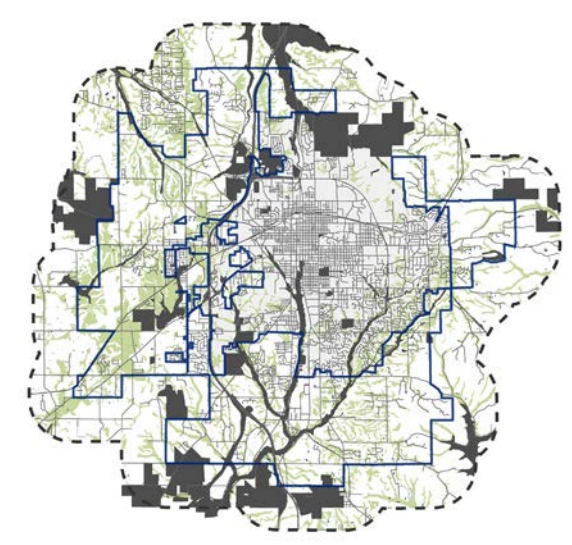
I-69 Interchange Influence Areas (1-mile buffer)



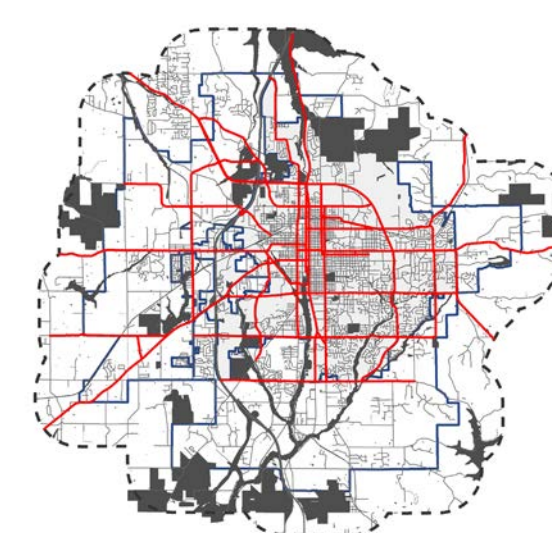
Steep Slopes (> 15%)



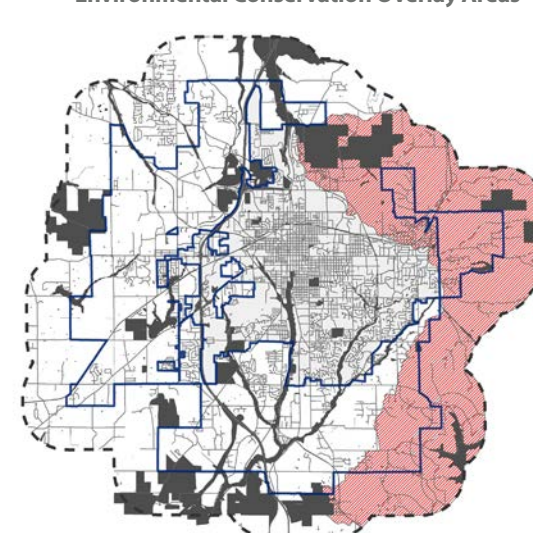
Soils Suitable for Farming



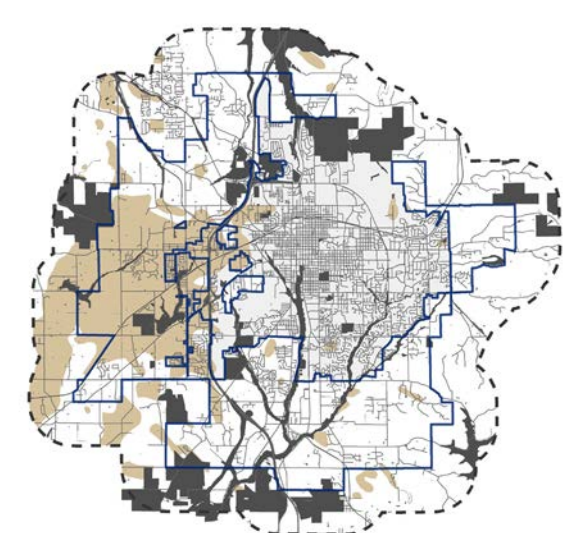
Proximity to Major Roadway Corridors



Environmental Conservation Overlay Areas



Karst Sensitivity Areas



DEVELOPMENT SUITABILITY

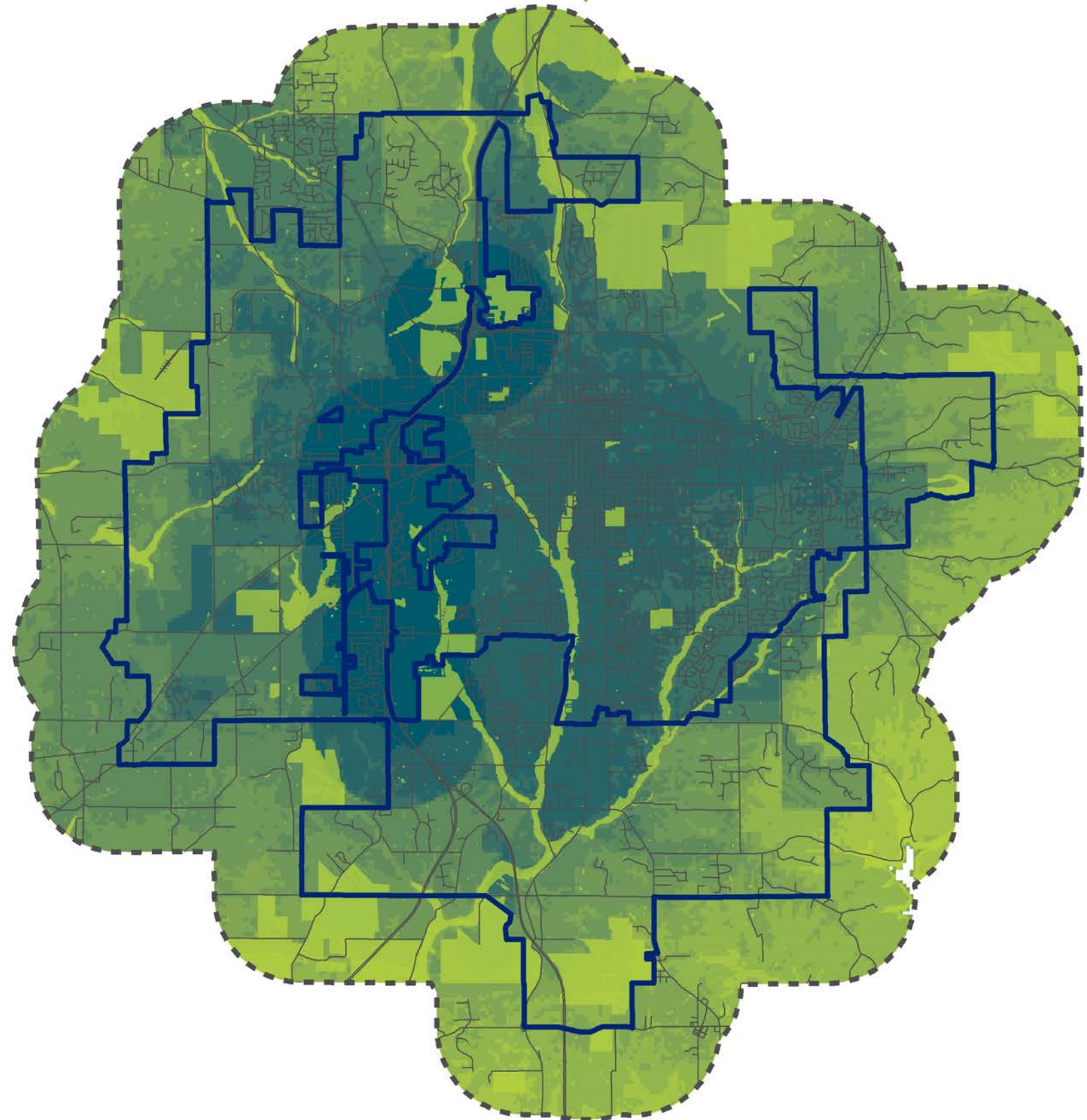
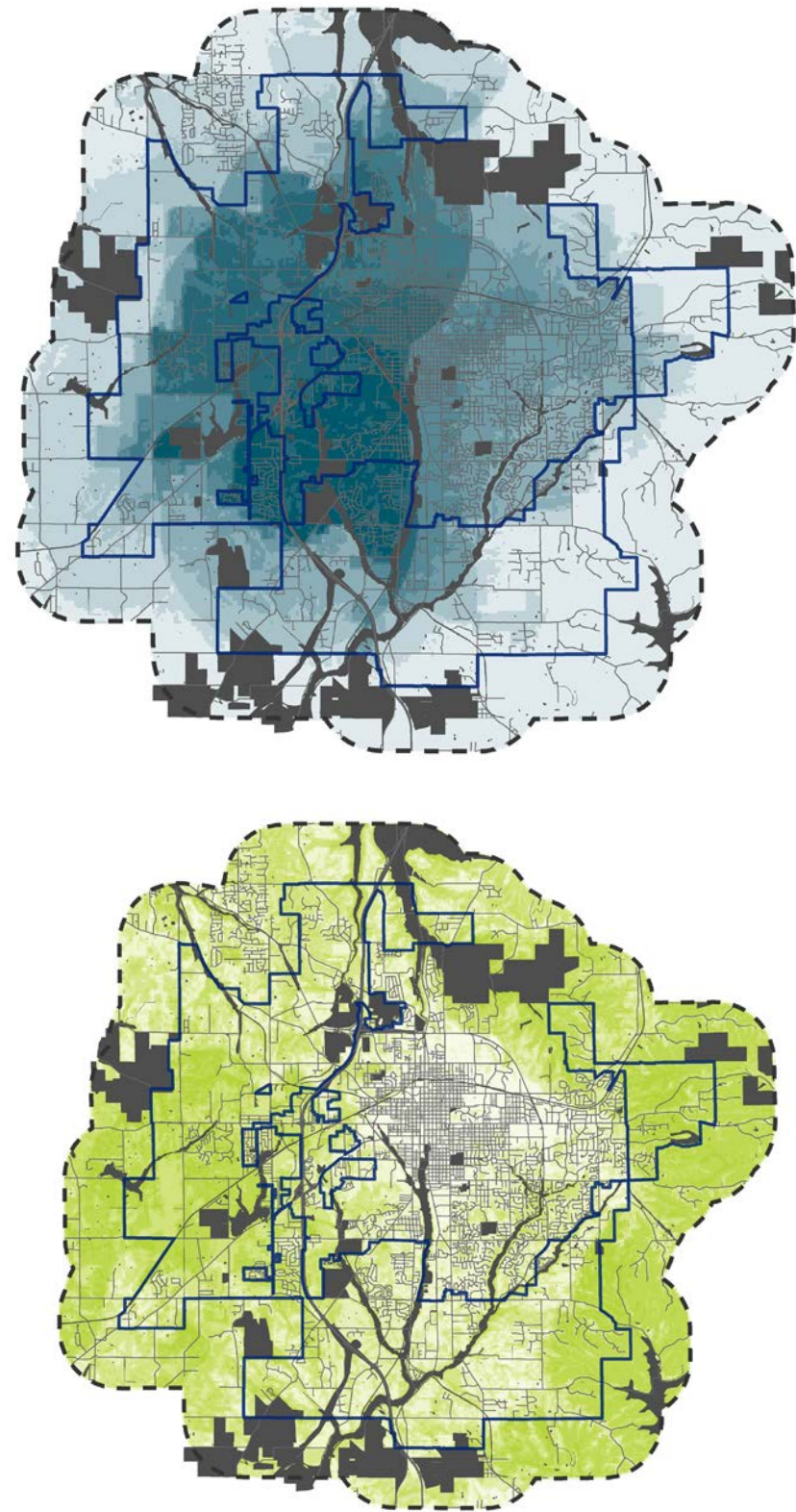
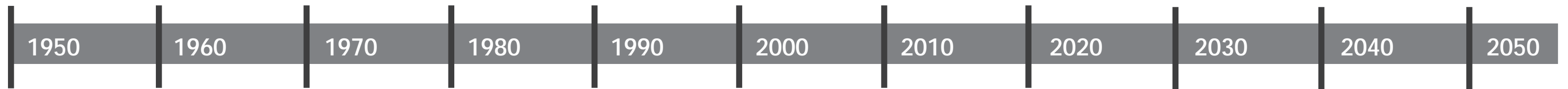


FIGURE 3.0: DEVELOPMENT SUITABILITY

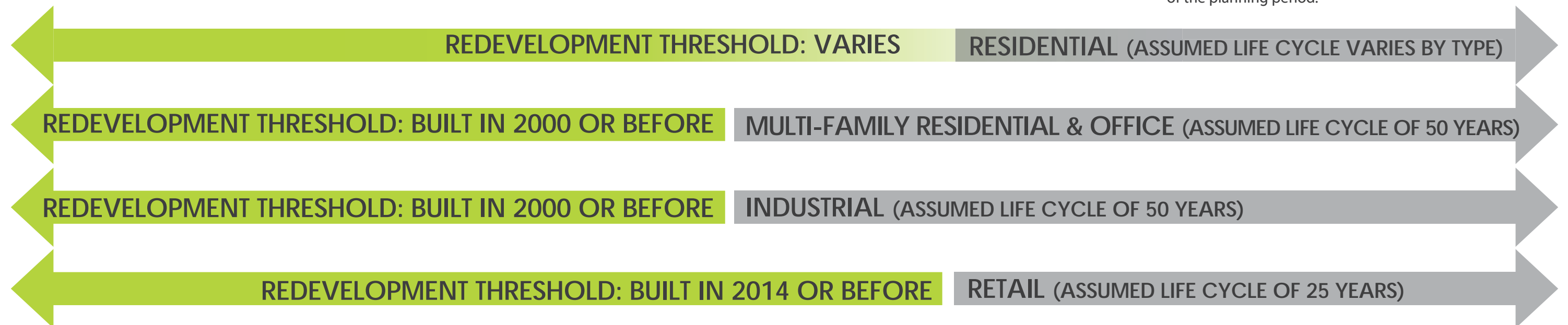
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EXISTING DEVELOPMENT STATUS

Most buildings, particularly those built in the post-WWII era, have a finite life cycle. The lifespan of a building depends on a variety of factors, including location, use, development form, construction quality and market forces. The suburban development pattern throughout the United States over the past 50 years has emphasized commercial and residential construction types that were not intended to stand the test of time in the same way that pre-war construction was. This is the result of a shift toward more utilitarian, "product"-oriented construction as well as the shift to decentralized, segregated land use patterns in which individual buildings are often constructed for very specific uses that are difficult to adapt as markets change. The result of this trend is the development of land in an inefficient, disorganized pattern - a series of buildings and parking lots and roadways with no "sense of place" to be preserved and celebrated by the community. This pattern has occurred across much of the Urbanizing Area. In particular, much of the commercial development within the planning area will reach the end of the typical lifespan for suburban retail and office buildings during the planning period for this plan.



Note: new projected development created through scenario modeling is assumed to have a life cycle through the extent of the planning period.

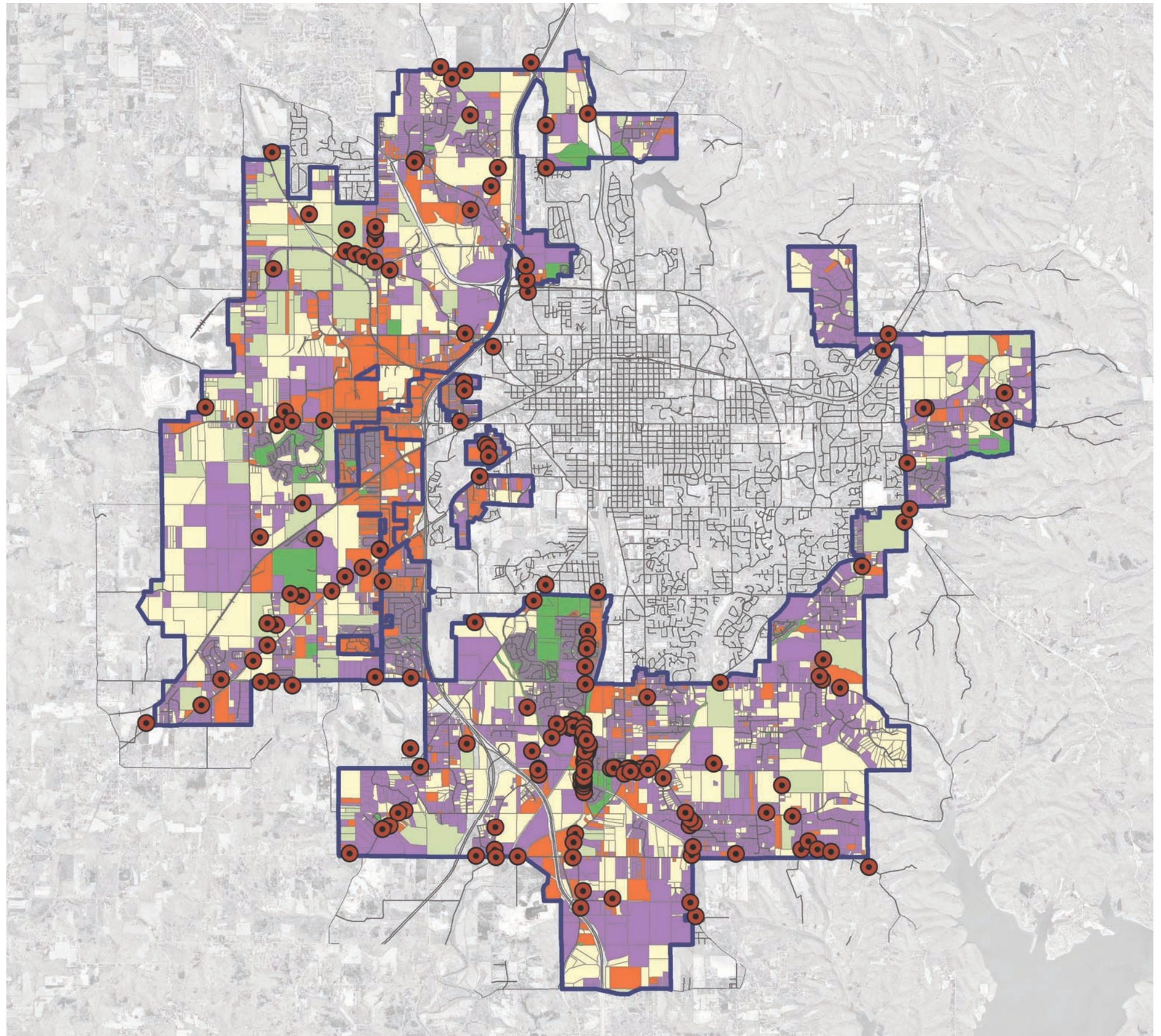


Portions of the Urbanizing Area, particularly to the west of SR 37 along the Curry Pike corridor, have also developed with a patchwork of residential subdivisions, apartment complexes and mobile home parks. Some of these, particularly larger, established single-family neighborhoods, will likely last for many decades. However, in some locations, individual single-family homes and small subdivisions along arterial corridors and in close proximity to planned I-69 interchanges, will face redevelopment pressure due to increased traffic and land values. Likewise, many multi-family developments, operated as commercial investments, are more likely to have a similar lifespan to suburban commercial buildings.

The adjacent map illustrates existing development status and reinvestment potential. Reinvestment areas were identified by analyzing a variety of factors:

- + Building age and use
- + Improvement to land value ratio
- + Location along an arterial corridor

Reinvestment can occur in a number of ways, including infill development and intensification, rehabilitation and retrofitting of existing structures, and complete demolition of existing structures and full site redevelopment. All of these approaches are expected to occur within the Urbanizing Area. The identification of reinvestment potential areas on Map 3.X is not intended to be an exhaustive inventory; in other words, there may be additional properties that did not meet the criteria listed above, but which nonetheless may be ripe for reuse or redevelopment. Likewise, a property may be highlighted, but could remain economically viable for many years. The purpose of the analysis is to identify emerging opportunity areas for further investigation as part of the planning process. Areas with significant groupings of undeveloped or potentially “underdeveloped” property warrant special consideration for the role they will play in future growth scenarios for the Urbanizing Area. At the same time, care must be taken to ensure that historic structures, which add value and character to the community, are preserved and respected as new development occurs.



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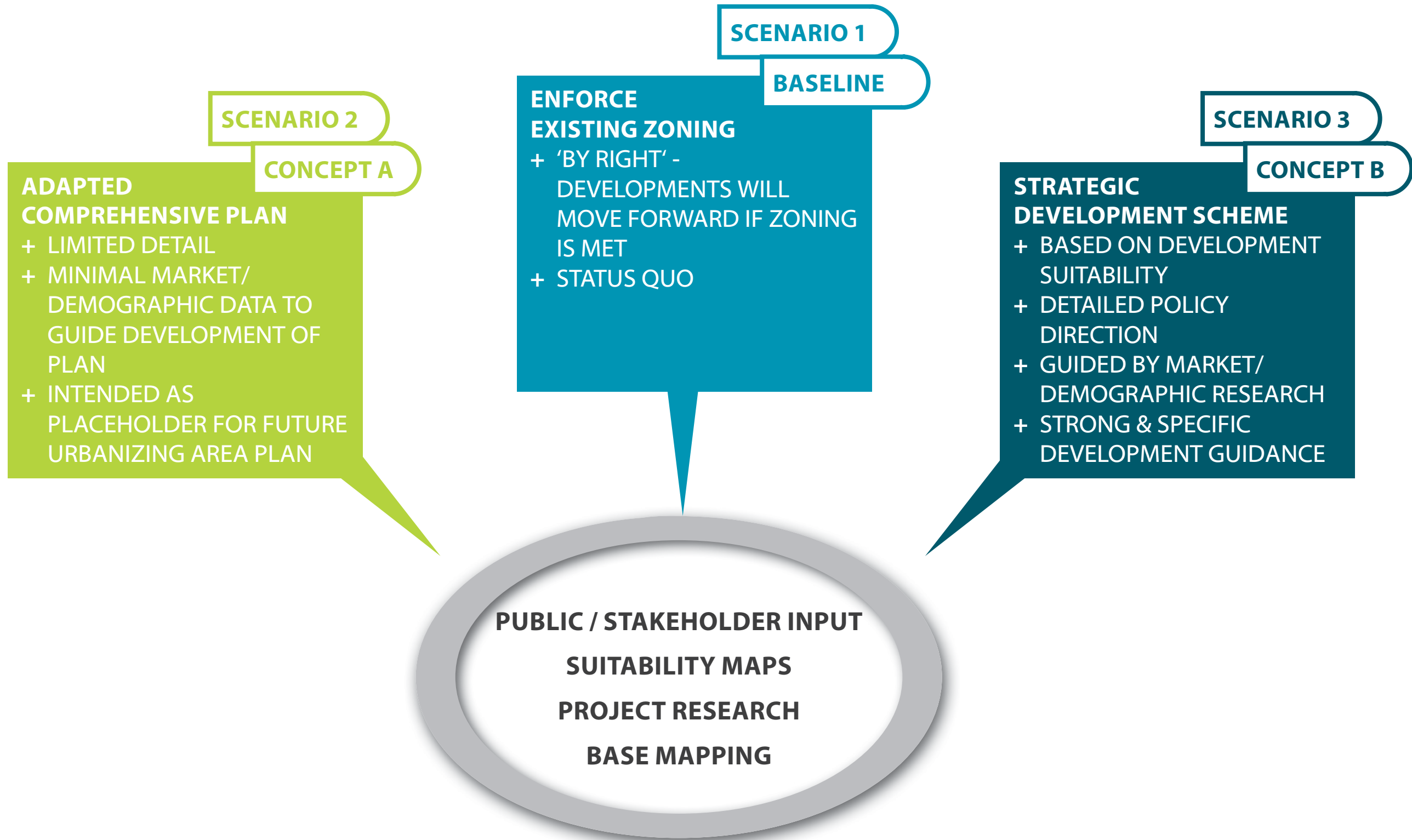
SCENARIO CONCEPTS OVERVIEW

As part of the Urbanizing Area planning process, three scenarios were created with varying types, distributions and intensities of land use. These alternative visions of growth for the planning area provided a basis for examining the relative impacts of different development patterns and policies. The purpose of the scenario modeling process is to develop a preferred plan and associated polices that will achieve the community's long range goals. Each of the scenarios includes a series of assumptions about how intensely land is developed (e.g. efficiency of site development, Floor Area Ratio, residential density) and the relative percentages of different types of uses within broader land use categories. The tables on this page outline the land use, employment density and household size assumptions used for the Urbanizing Area Plan analysis.

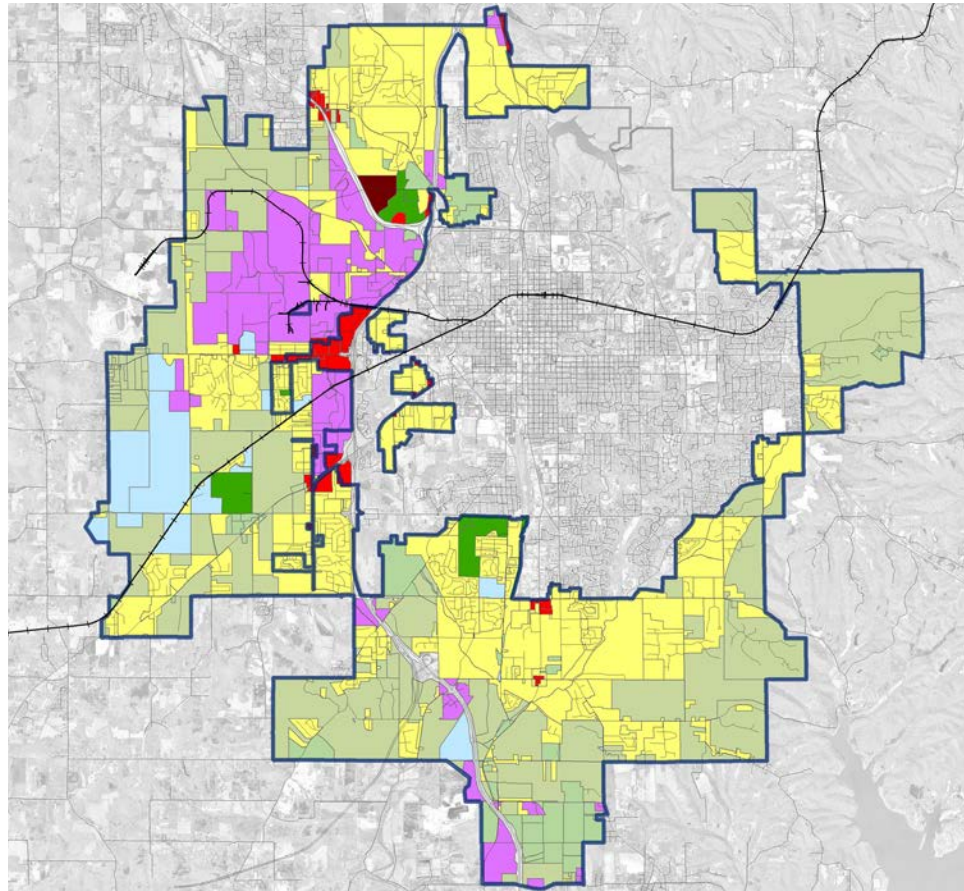
USE	EMPLOYEES PER 1,000 SQ. FT.
OFFICE	3.33
RETAIL	2.00
INDUSTRIAL	0.50
INSTITUTIONAL	1.00

HOUSING TYPE	PERSONS PER HOUSEHOLD
SINGLE FAMILY	2.5
MULTI-FAMILY	1.4

LAND USE CATEGORY	SITE EFFICIENCY	FAR	DENSITY	% RESIDENTIAL	% SINGLE FAMILY	% MULTI-FAMILY	% NON-RESIDENTIAL	% OFFICE	% RETAIL	% INDUSTRIAL	% INSTITUTIONAL
OPEN SPACE	1.00	-	-	-	-	-	-	-	-	-	-
RURAL LIVING	1.00	-	0.1 DU/AC	100%	100%	-	-	-	-	-	-
CONSERVATION RESIDENTIAL	0.30	-	4 DU/AC	100%	100%	-	-	-	-	-	-
EMPLOYMENT CENTER	0.80	0.40	-	-	-	-	100%	40%	5%	40%	5%
MANUFACTURED HOME PARK	0.80	-	5 DU/AC	100%	100%	-	-	-	-	-	-
LARGE LOT RESIDENTIAL	0.80	-	1 DU/AC	100%	100%	-	-	-	-	-	-
SMALL LOT RESIDENTIAL	0.80	-	4 DU/AC	100%	100%	-	-	-	-	-	-
TOWNHOME COMMUNITY	0.80	-	10 DU/AC	100%	-	100%	-	-	-	-	-
MIXED RESIDENTIAL	0.80	-	6 DU/AC	100%	70%	30%	-	-	-	-	-
SUBURBAN MULTI-FAMILY	0.80	-	16 DU/AC	100%	-	100%	-	-	-	-	-
NEIGHBORHOOD COMMERCIAL	0.80	0.25	-	-	-	-	-	30%	70%	-	-
SUBURBAN COMMERCIAL	0.80	0.20	-	-	-	-	100%	20%	80%	-	-
HIGHWAY COMMERCIAL	1.00	0.20	-	-	-	-	100%	10%	90%	-	-
SUBURBAN OFFICE	0.80	0.50	-	-	-	-	100%	90%	10%	-	-
MIXED USE NEIGHBORHOOD	0.85	1.00	16 DU/AC	50%	-	-	50%	50%	20%	15%	15%
AIRPORT	1.00	0.05	-	-	-	-	100%	-	-	25%	75%
CIVIC/INSTITUTIONAL	1.00	0.25	-	-	-	-	100%	-	-	-	100%
QUARRY	1.00	-	-	-	-	-	100%	-	-	100%	-



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SCENARIO 1

A. EXISTING ZONING (GENERALIZED)

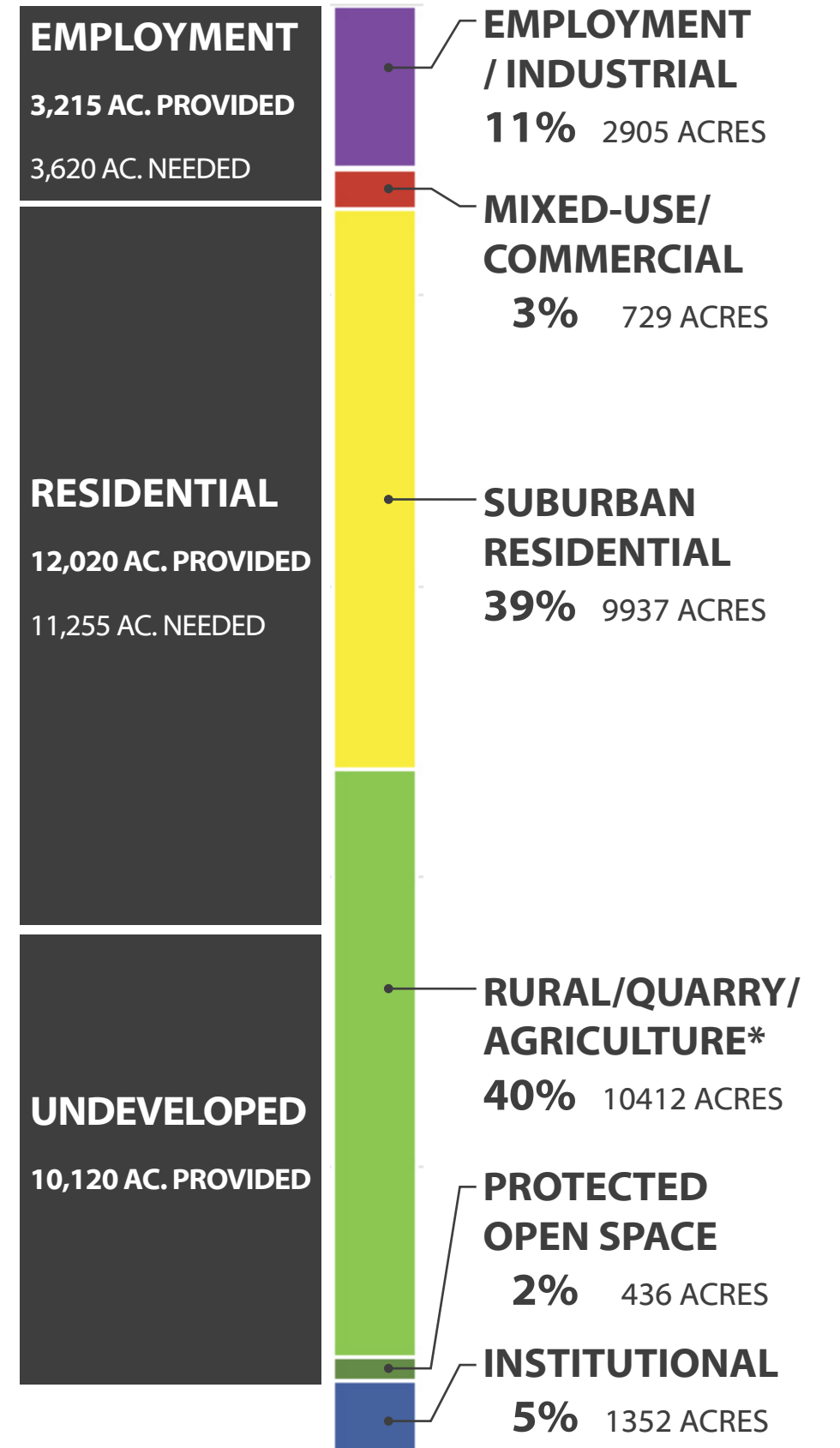
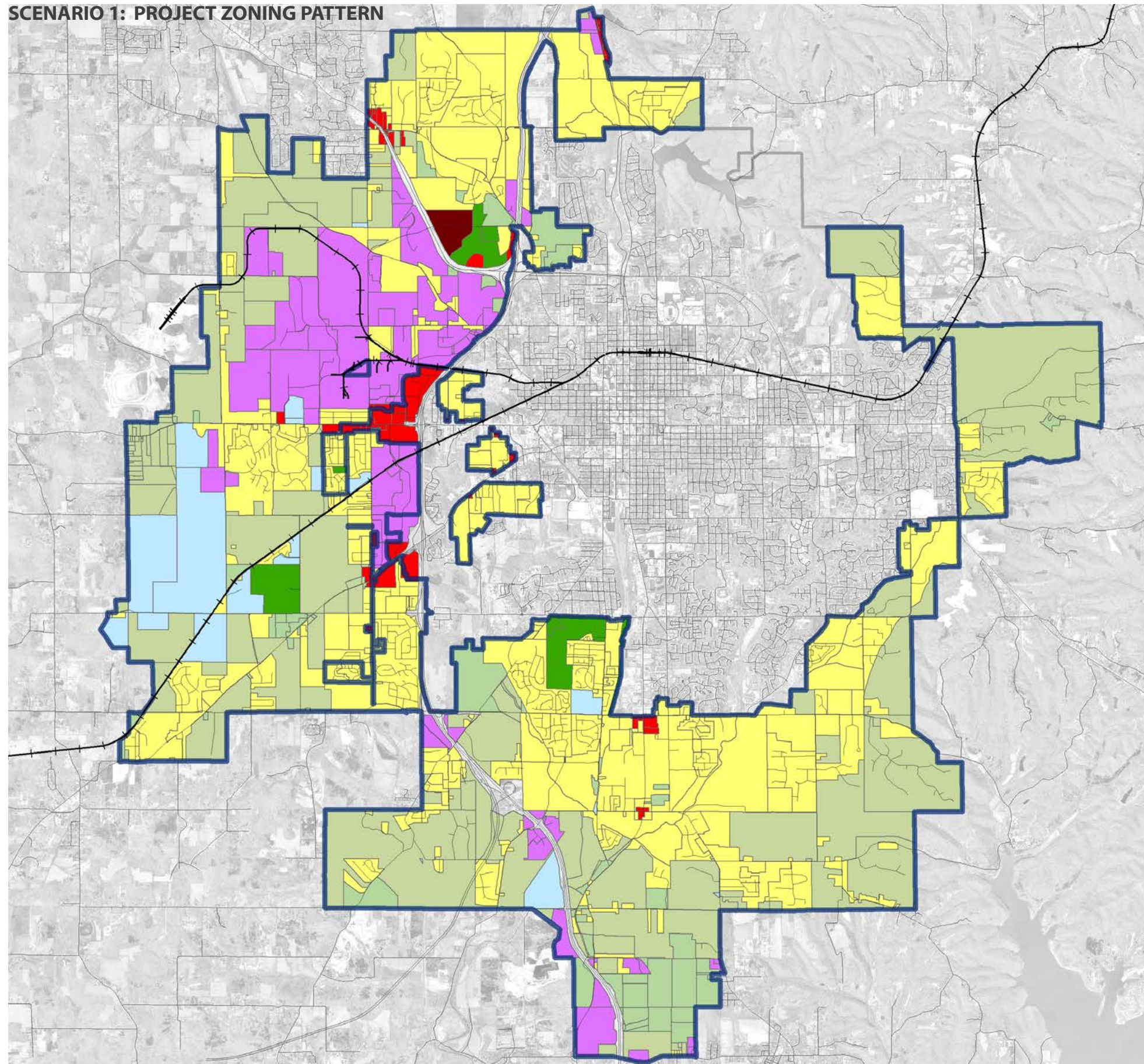
Scenario 1 is based on the existing zoning patterns of the Urbanizing Area. The current zoning map was generalized into broad categories of land use, including employment, suburban residential, suburban commercial, mixed use, civic/institutional, parks/open space, and rural.

Employment areas are largely concentrated in the northwest portion of the planning area between SR 46 and Third Street, Curry Pike and Vernal Pike. The Liberty Drive corridor between SR 37 and Curry Pike is also zoned for employment. Smaller areas of land and individual parcels are zoned for employment uses along portions of SR 37 and in relatively isolated areas.

The predominant form of residential development permitted under current zoning classifications is low-density and suburban in character. This includes a large number of single family subdivisions as well as isolated apartment complexes and mobile home communities. Residentially zoned land wraps around the City of Bloomington to the north and south. The former Areas Intended for Annexation also fall within this category. The scenario modeling process indicated that based on an assumption of continued residential development in the current low-density development pattern, additional land would need to be zoned to suburban residential uses to accommodate projected residential growth.

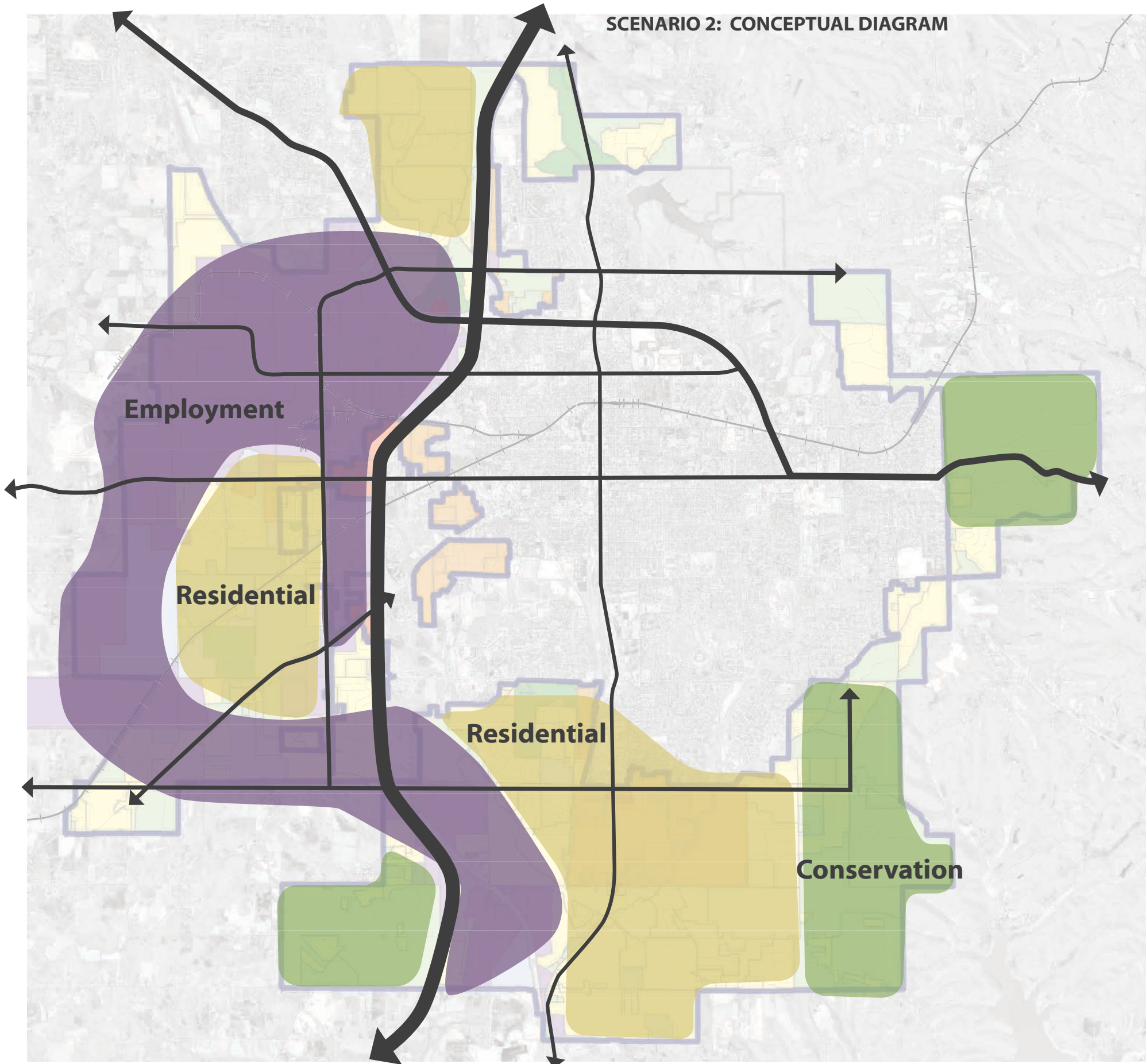
The predominant form of commercial development currently permitted in the Urbanizing area is also suburban in character. Much of this land is actually located in the incorporated City of Bloomington, to the west of SR 37 at the

SCENARIO 1: PROJECT ZONING PATTERN



* Assumes 20% of rural/agriculture will be developed at zoning compliant rural density

SCENARIO 2: CONCEPTUAL DIAGRAM



SCENARIO 2

A. ADAPTED COMPREHENSIVE PLAN

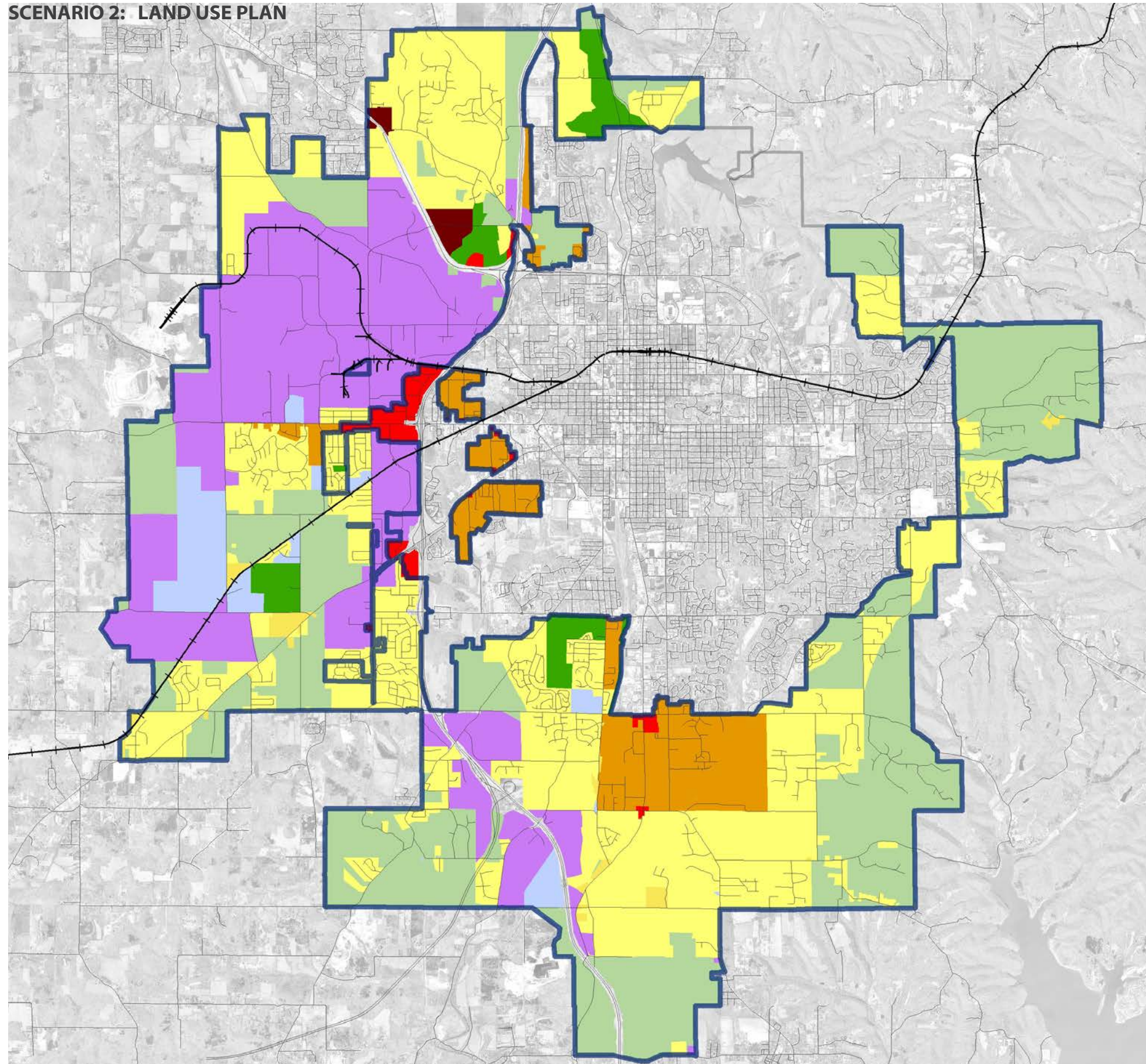
Scenario 2 is modeled closely on the interim land use plan for the Urbanizing Area as included in the 2012 Monroe County Comprehensive Plan. The scenario focuses employment in the northwest portion of the planning area, between SR 46 and Third Street, extending beyond Hartstraight Road. Additional employment areas are shown surrounding the airport, in the Liberty Drive and SR 45 corridors and along portions of SR 37 near the planned I-69 interchanges in the southwest portion of the planning area.

Mixed residential development, referred to as "Urban Residential" in the interim plan, is shown primarily to the south of Bloomington, within the former Areas Intended for Annexation, and along the south side of Third Street, west of Curry Pike.

More conventional suburban residential developments are shown where that development type currently exists and on additional land surrounding existing subdivisions. Rural transition areas are shown primarily along the outer edges of the planning area and in the area surrounding Karst Farm Park.

The North Park development is designated as a mixed use center. Existing suburban-style commercial areas are assumed to remain. These are primarily located in the incorporated City of Bloomington to the west of SR 37 near the Third Street and Second Street interchanges. Small commercial nodes are also located south of Bloomington along South Walnut Street.

SCENARIO 2: LAND USE PLAN



EMPLOYMENT

6,185 AC. PROVIDED
3,620 AC. NEEDED

EMPLOYMENT / INDUSTRIAL
22% 5586 ACRES

COMMERCIAL
2% 601 ACRES

MIXED RESIDENTIAL
7% 1733 ACRES

RESIDENTIAL

11,880 AC. PROVIDED
11,255 AC. NEEDED

SUBURBAN RESIDENTIAL
33% 8587 ACRES

RURAL/QUARRY/ AGRICULTURE*
30% 7818 ACRES

UNDEVELOPED

6,900 AC. PROVIDED

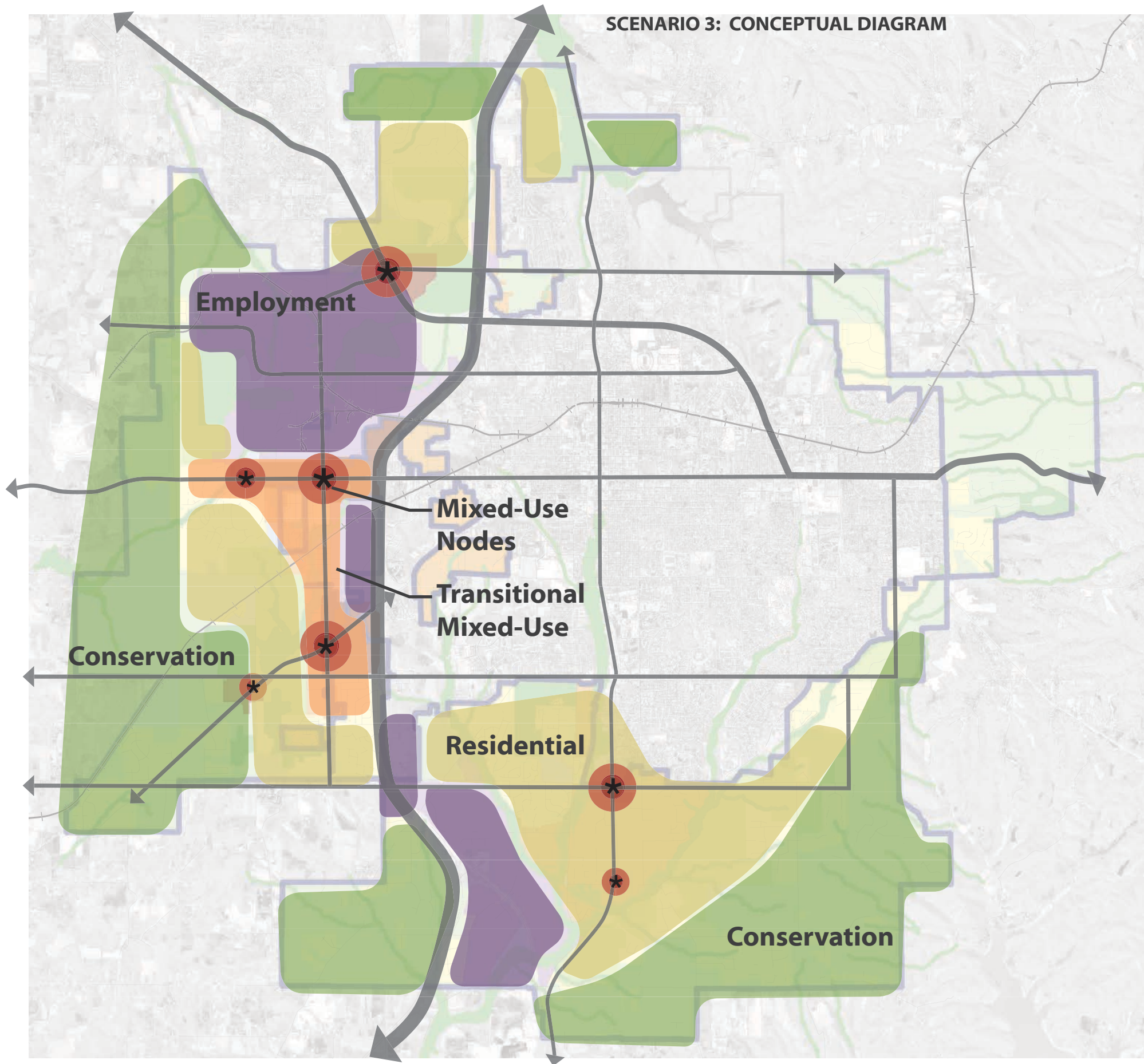
PROTECTED OPEN SPACE
3% 649 ACRES

INSTITUTIONAL
3% 800 ACRES

* Assumes 20% of rural/agriculture will be developed at zoning compliant rural density

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SCENARIO 3: CONCEPTUAL DIAGRAM



SCENARIO 3

A. STRATEGIC DEVELOPMENT

Scenario 3 builds on some of the concepts first introduced in the County's interim land use plan for the Urbanizing Area, such as incorporating mixed residential development, but this scenario is intended to provide a more strategic approach to land use patterns throughout the entire urbanizing area.

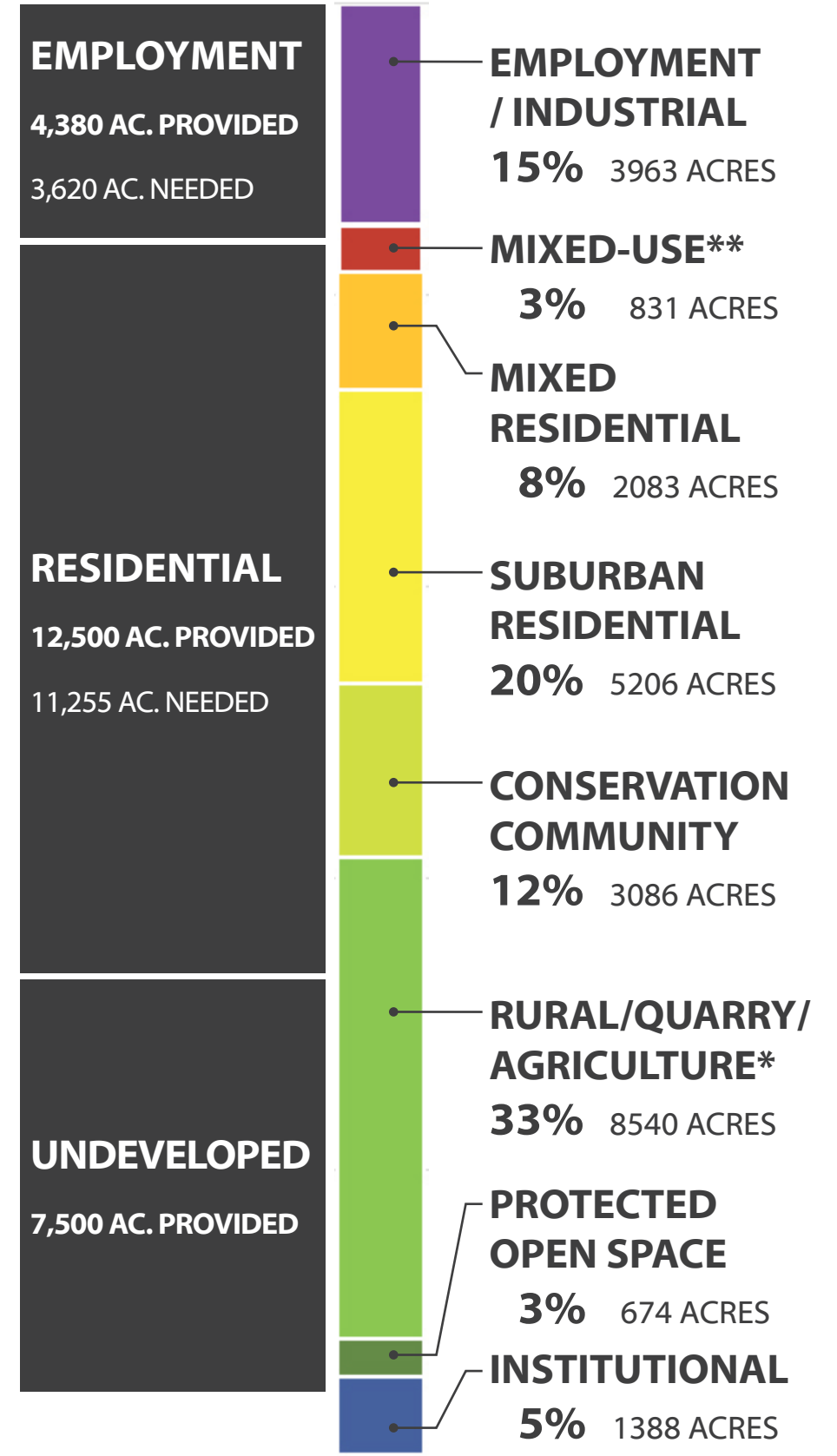
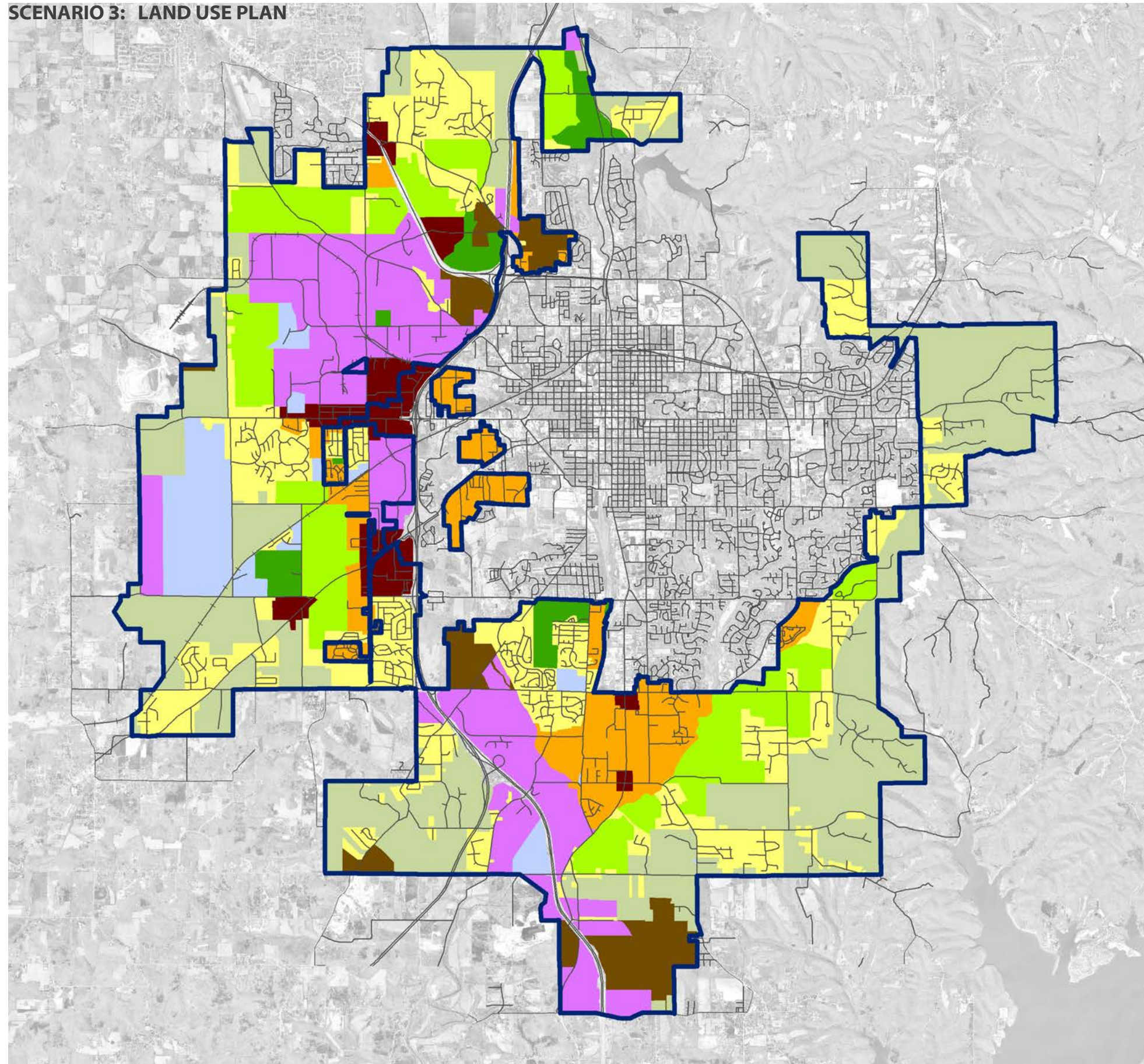
Like the other scenarios, a large employment area is provided in the northwest portion of the planning area between SR 46 and Third Street. This incorporates some additional land not currently zoned for employment, but does not extend employment areas up to or past Hartstraight Road, as depicted in Scenario 2. The Liberty Drive corridor, between SR 37 and Curry Pike, remains an employment area. Additional land along SR 37 in the south portion of the study area is also designated for employment uses. The intent of this pattern is to focus employment areas in close proximity to existing utility and/or transportation infrastructure.

Mixed residential uses are provided to the south of Bloomington, similar to Scenario 2. However, Scenario 3 concentrates this land use type within existing sewer service areas and uses Jackson Creek and Clear Creek as natural boundaries. The former Areas Intended for Annexation are also shown as mixed residential. In addition, existing residential land to the west of Curry Pike is included in this category, under the assumption that future infill and redevelopment will take on a more organized residential development pattern.

Suburban residential areas in this scenario represent existing subdivisions assumed to remain through the planning horizon. Along the edges of more intensive development types, and infilling between existing subdivisions, the scenario anticipates a conservation residential development pattern that would preserve large amounts of open space, integrated into a continuous greenway system. The outer-most edges of the planning area transition to low-density rural development types.

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SCENARIO 3: LAND USE PLAN



* Assumes 20% of rural/agriculture will be developed at zoning compliant rural density
 ** Assumes 50/50 split employment/residential for mixed-use

METRICS & INDICATORS

SCENARIO MODELING INDICATORS

A. EFFICIENT USE OF INFRASTRUCTURE / LAND PRESERVATION

One of the primary goals for the Urbanizing Area Plan is to use existing infrastructure efficiently. One way to measure this is to compare the “development footprint” of each land use scenario. This is measured as the amount of land area allocated to existing development, infill and redevelopment, and greenfield development. In each scenario, the majority of land area (85%) is dedicated to existing development. Roughly 15% is dedicated to new development. In Scenarios 1 and 2, approximately 5% of land provides infill and redevelopment opportunity, and 10% is dedicated to greenfield development. For Scenario 3, the proportions are reversed, with a higher amount of infill development and lower amount of greenfield development.

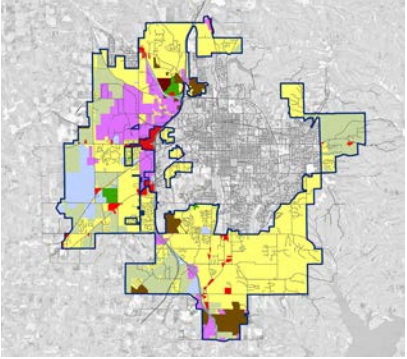






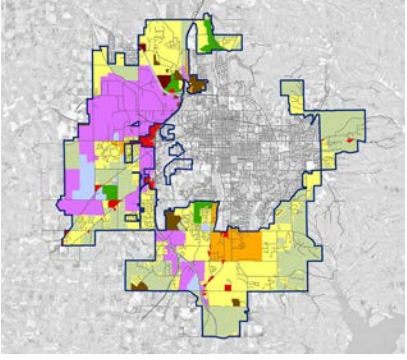



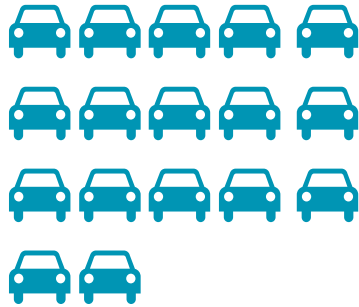


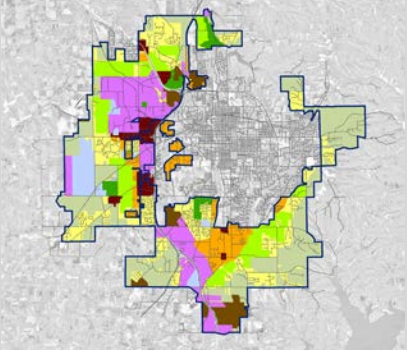






B. HOUSING CHOICES / QUALITY OF LIFE

Each scenario was also compared for the degree to which they provide a diversity of choice in housing types. Scenarios 1 and 2 are dominated by auto-oriented suburban development types, with lower amounts of walkable residential neighborhoods and rural living options. Scenario 3 is the reverse, with over 60% of projected development occurring in walkable neighborhoods and only 20% in conventional suburban development types.

C. SENSE OF PLACE

Community character or “sense of place” is a difficult concept to measure. One way to quantify sense of place is by comparing the amount of mixed use development provided in each scenario. Scenarios 1 and 2 provide approximately 5% of new development within mixed use areas, while Scenario 3 accommodates 20% of projected growth in mixed use neighborhoods.

PRELIMINARY SCENARIO MODELING INDICATORS

	EFFICIENT USE OF INFRASTRUCTURE / LAND PRESERVATION		HOUSING CHOICES / QUALITY OF LIFE			SENSE OF PLACE
	% INFILL/REDEVELOPMENT	GREENFIELD LAND CONSUMED	RURAL LIVING	AUTO SUBURBAN	WALKABLE NEIGHBORHOOD	MIXED USE PROXIMITY (1/4 MILE)
SCENARIO 1 	 <p>5 %</p>	 <p>11 %</p>	 <p>4 %</p>	 <p>84 %</p>	 <p>13 %</p>	 <p>5 %</p>
SCENARIO 2 	 <p>5 %</p>	 <p>10 %</p>	 <p>1 %</p>	 <p>57 %</p>	 <p>43 %</p>	 <p>6 %</p>
SCENARIO 3 	 <p>10 %</p>	 <p>5 %</p>	 <p>16 %</p>	 <p>22 %</p>	 <p>62 %</p>	 <p>21 %</p>

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