

Appendix A - Demographic Analysis



Demographic Analysis

The following pages include demographic profile summaries of the Greater Egypt regional area. The primary source of demographic data used in this report is the American Community Survey (ACS). It is administered by the U.S. Census Bureau to collect a wide range of demographic data. As of the writing of this report, the 2019 ACS data are the most current information available. The ACS replace the “long form” questionnaires formerly sent to a proportion of household during each decennial census. The ACS generally provides more current data than the decennial census because it is administered on an ongoing basis. The 2019 5-year ACS and 2013 5-year ACS estimates are used in this report. These estimates average data over five consecutive years.

TABLE 1: TOTAL POPULATION

	Total Population (2019)	Total Population (2013)	Percent Change
Franklin County, Illinois	38,923	39,470	-1.4%
Jackson County, Illinois	57,977	60,055	-3.5%
Jefferson County, Illinois	37,985	38,769	-2.0%
Perry County, Illinois	21,251	22,182	-4.2%
Williamson County, Illinois	67,102	66,606	0.7%
Greater Egypt	223,238	227,082	-1.7%
State of Illinois	12,770,631	12,848,554	-0.6%

The population trend in the Greater Egypt area shows an overall decline of 1.7% from 2013 to 2019 and declines in four of the five counties. Compared to Illinois, the Greater Egypt area is losing population at a faster rate.

TABLE 2: GREATER EGYPT AGE BREAKDOWN

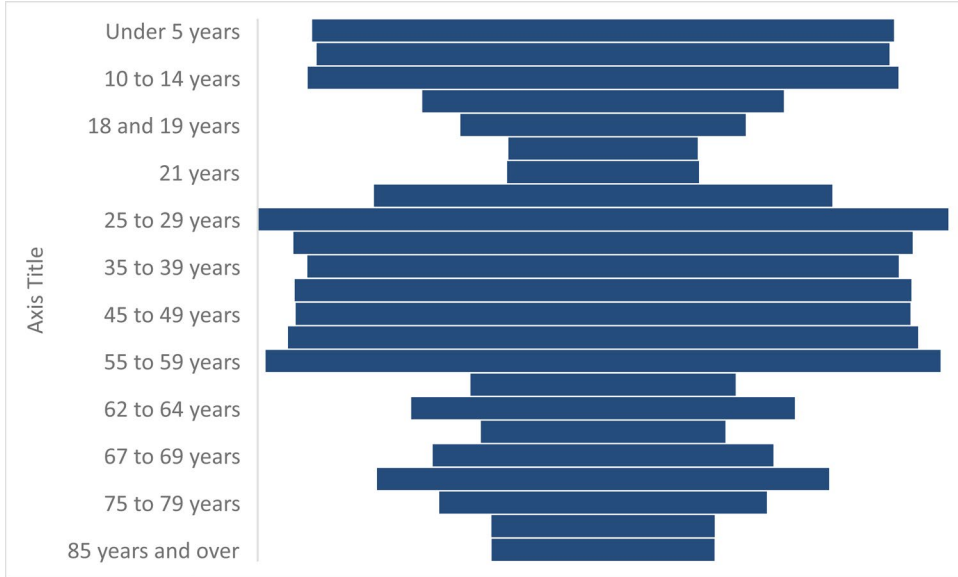


TABLE 3: AGE MIX

	Under 18	% Under 18	18-64	% 18-64	65+	% 65+
Franklin County, Illinois	8,618	22%	22,486	58%	7,819	20%
Jackson County, Illinois	10,646	18%	38,734	67%	8,597	15%
Jefferson County, Illinois	8,442	22%	22,469	59%	7,074	19%
Perry County, Illinois	4,039	19%	13,288	63%	3,924	18%
Williamson County, Illinois	14,682	22%	39,915	59%	12,505	19%
Greater Egypt	46,427	21%	136,892	61%	39,919	18%
State of Illinois	2,891,526	23%	7,936,571	62%	1,942,534	15%

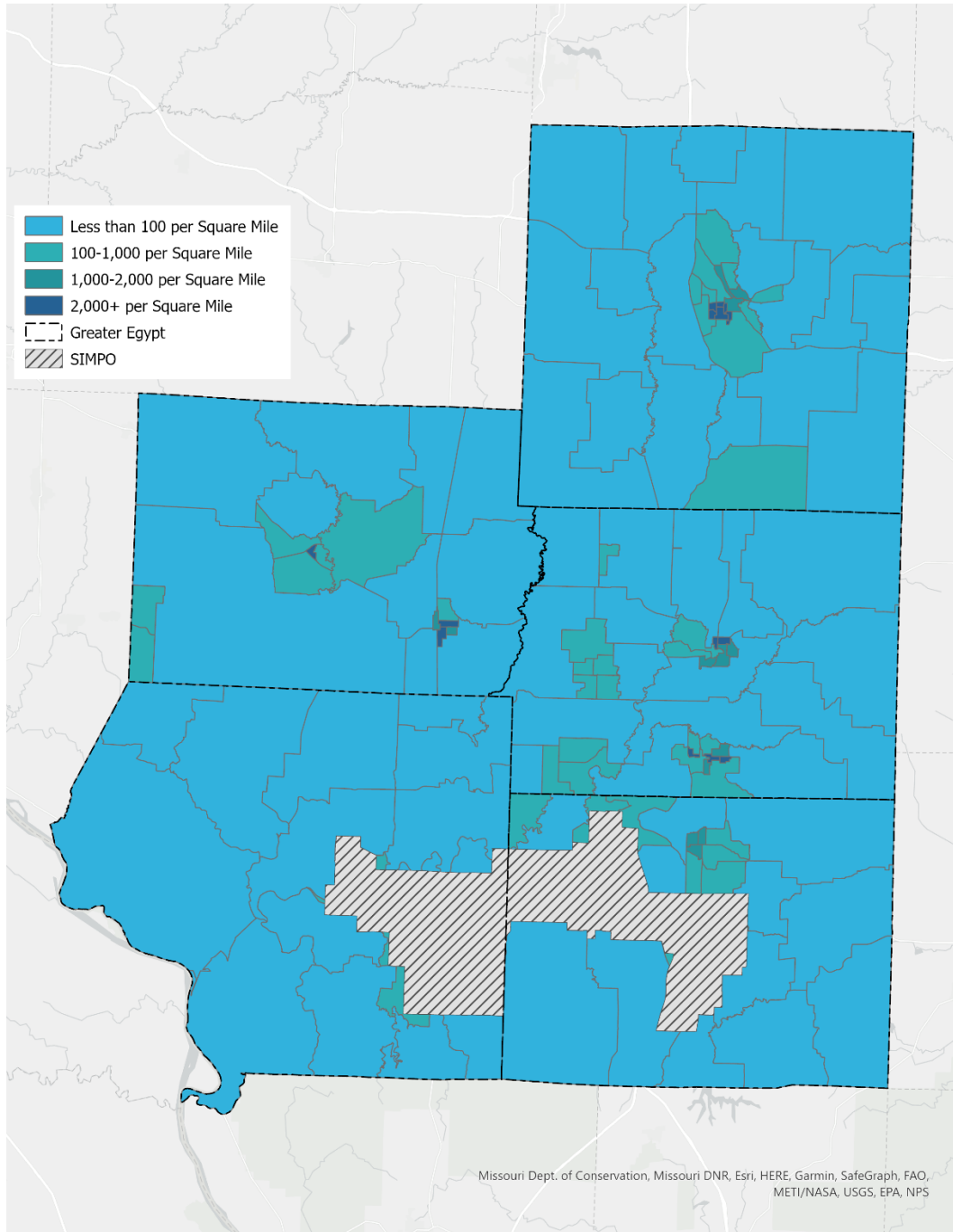
The population age mix for Greater Egypt is similar to Illinois as a whole. However, Greater Egypt already has a larger 65+ population and a large number who will be aging into the retirement population within the next ten years. The aging population combined with overall population decline shows that special consideration should be given to this age group as it relates to their transportation needs.

Furthermore, the population with a disability is significantly higher throughout the five-county area than the state. This again illustrates that consideration must be given to the transportation challenges and needs of the population.

TABLE 4: DISABILITY STATUS

	With a disability	No disability
Franklin County, Illinois	17.68%	82.32%
Jackson County, Illinois	12.24%	87.76%
Jefferson County, Illinois	15.94%	84.06%
Perry County, Illinois	17.11%	82.89%
Williamson County, Illinois	15.59%	84.41%
Greater Egypt	15.14%	84.86%
State of Illinois	9.11%	90.89%

FIGURE 1: POPULATION DENSITY



Racial composition varies both within the Greater Egypt region and compared to the state. The non-white percent of the population is significantly lower in Greater Egypt than in Illinois (12.8% compared to

28.5%). Also of importance is the Black population throughout the region which varies from 15% in Jackson county to less than 1% in Franklin county.

TABLE 5: RACIAL COMPOSITION

	Franklin County, Illinois	Jackson County, Illinois	Jefferson County, Illinois	Perry County, Illinois	Williamson County, Illinois	Greater Egypt	State of Illinois
White alone	96.9%	76.3%	87.3%	88.4%	90.7%	87.2%	71.5%
Black or African American alone	0.9%	15.0%	8.4%	9.1%	4.3%	7.6%	14.2%
American Indian and Alaska Native alone	0.2%	0.3%	0.2%	0.1%	0.2%	0.2%	0.3%
Asian alone	0.5%	3.4%	1.2%	0.7%	1.2%	1.6%	5.5%
Native Hawaiian and Other Pacific Islander alone	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%
Some other race alone	0.3%	1.9%	0.2%	0.3%	1.0%	0.9%	5.9%
Two or more races:	1.1%	3.0%	2.7%	1.5%	2.6%	2.3%	2.6%

FIGURE 2: POPULATION DOT DENSITY BY RACE

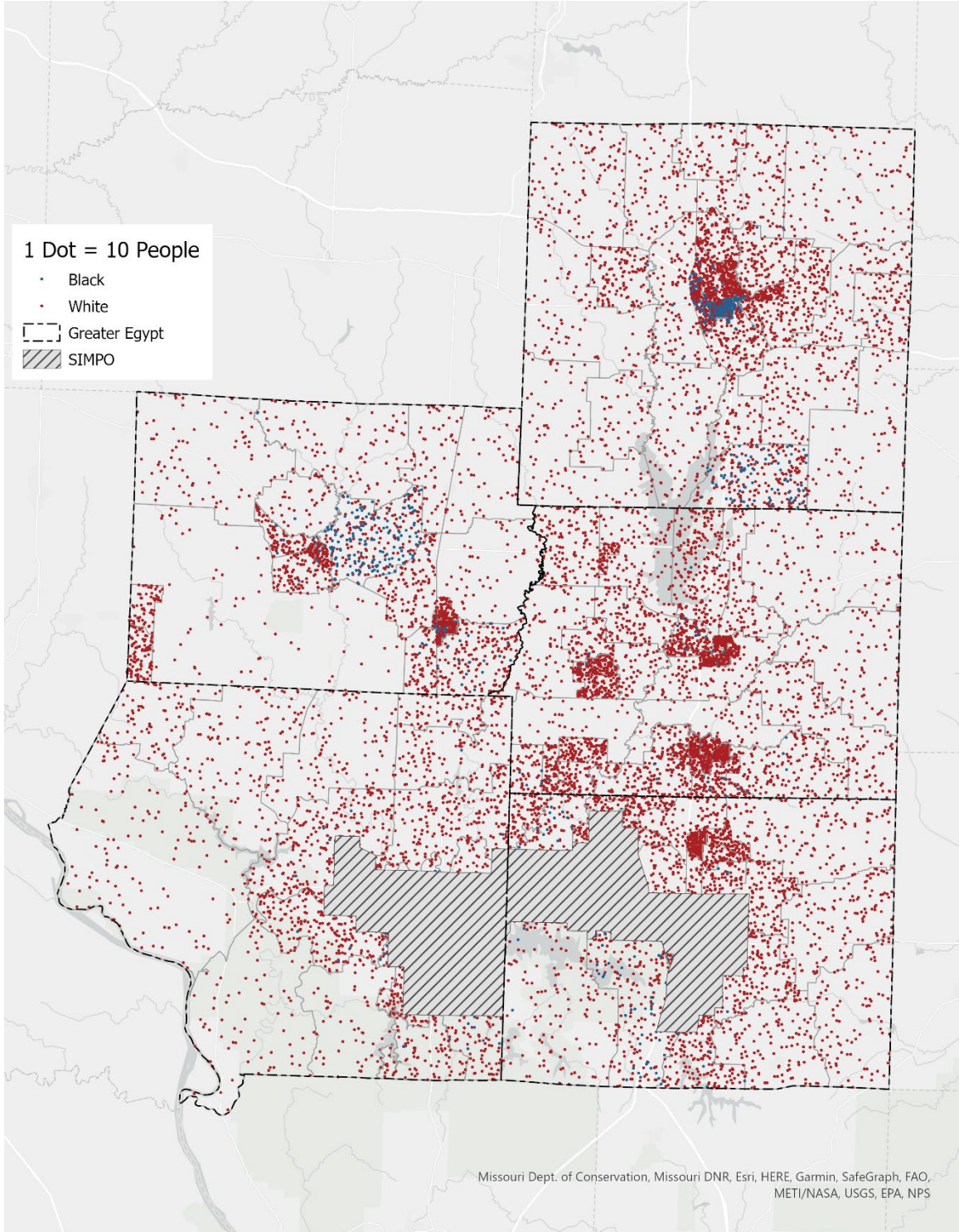


FIGURE 3: NON-WHITE POPULATION

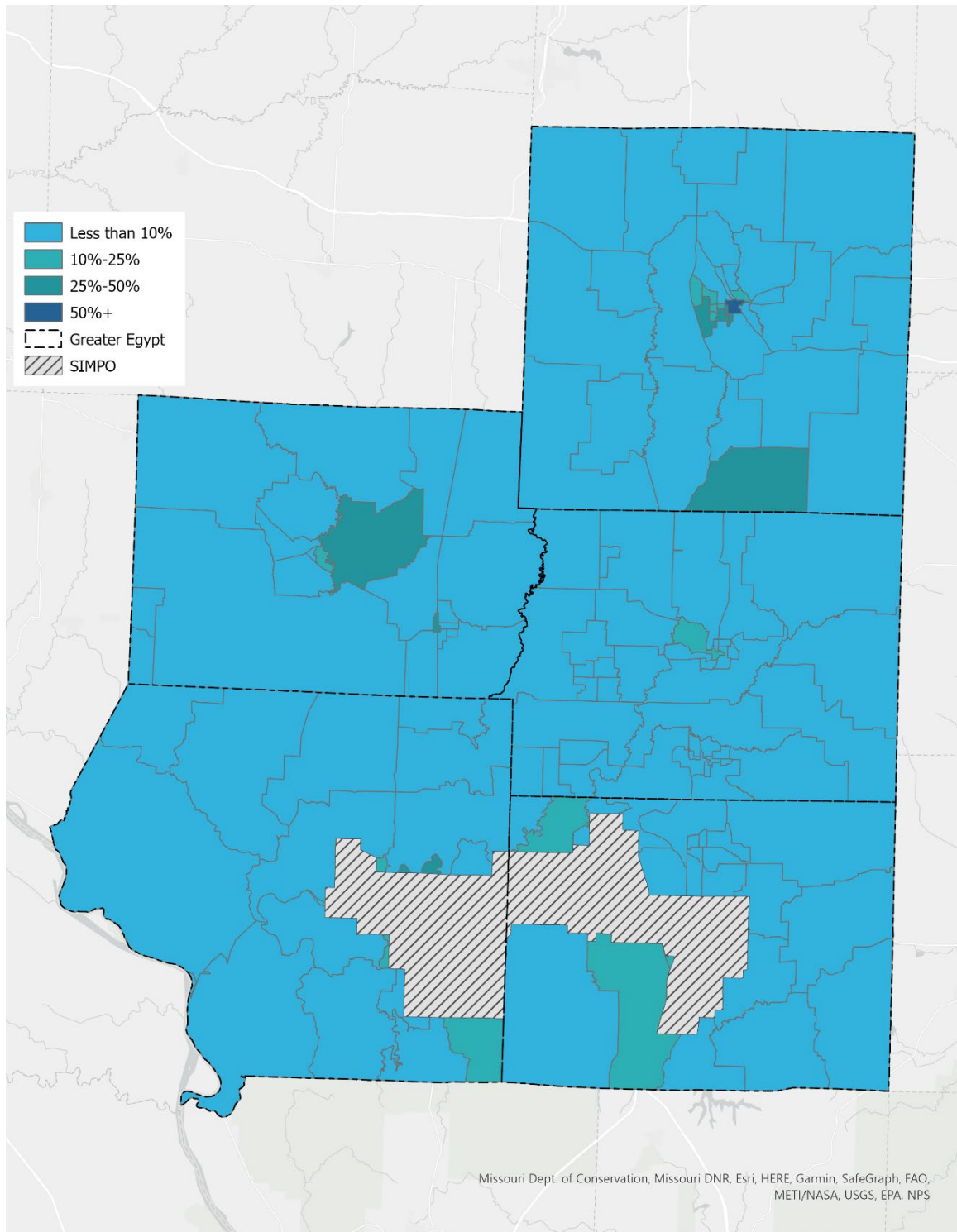


FIGURE 4: NON-WHITE HOT SPOTS

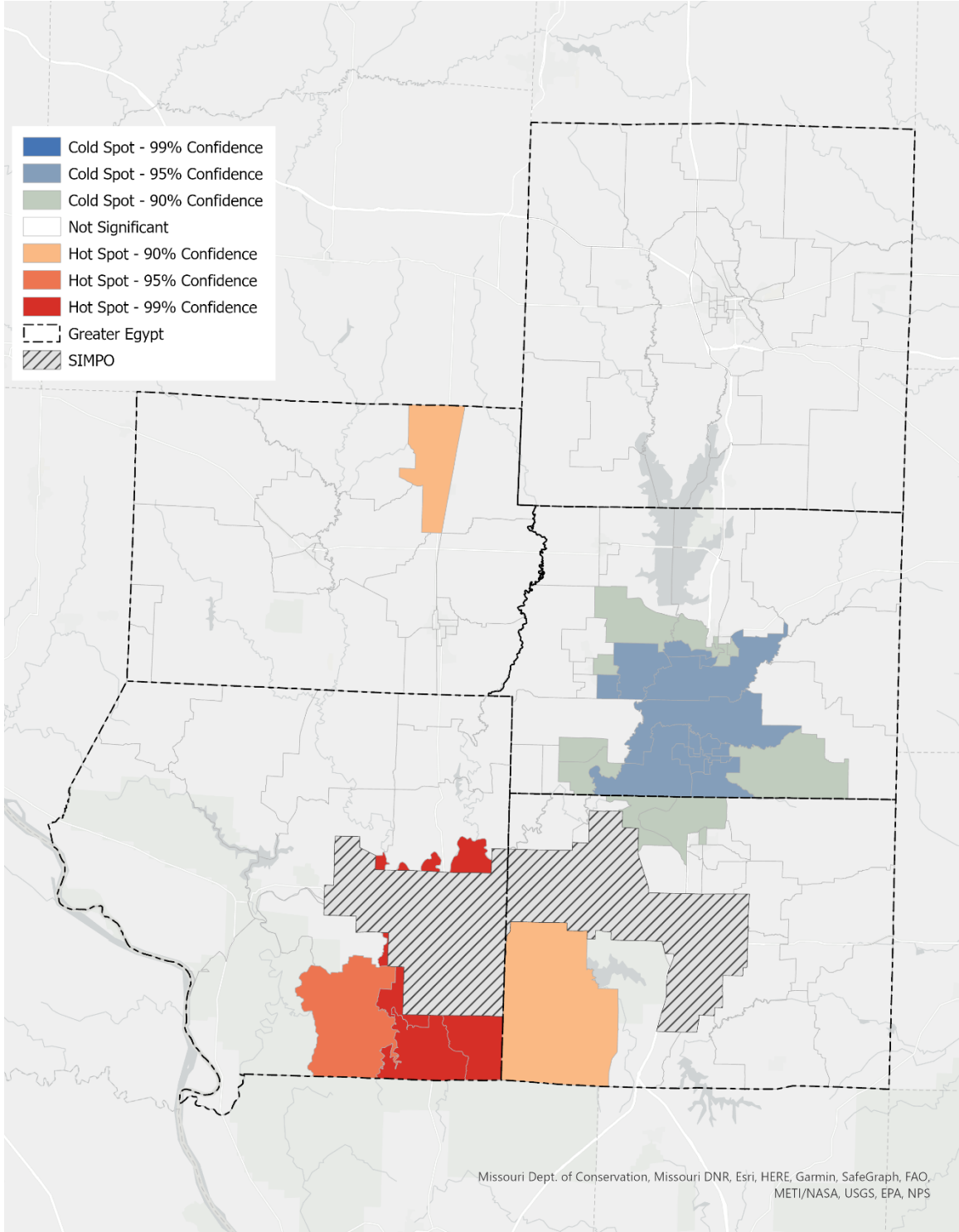


TABLE 6: HOUSEHOLD COMPOSITION & HOUSING TENURE

	Total households	Average household size	Total families	Average family size	Owner-occupied housing units	Renter-occupied housing units
Franklin County, Illinois	16,235	2.37	9,861	3	74.20%	25.80%
Jackson County, Illinois	23,883	2.26	12,278	2.98	51.50%	48.50%
Jefferson County, Illinois	14,985	2.37	9,810	2.93	73.20%	26.80%
Perry County, Illinois	8,433	2.21	5,661	2.65	75.40%	24.60%
Williamson County, Illinois	27,029	2.41	16,953	3.01	70.10%	29.90%
Greater Egypt	90,565		54,563			
State of Illinois	4,866,006	2.54	3,059,067	3.23	66.00%	34.00%

Average household size and average family size is similar throughout the region and compared to all of Illinois. Differences in housing tenure are significant though. In four of five counties, the percent of owner-occupied housing units surpasses the percent for Illinois. However, owner-occupied housing rates are significantly lower in Jackson County.

TABLE 7: LABOR FORCE PARTICIPATION & EMPLOYMENT

	Franklin County, Illinois	Jackson County, Illinois	Jefferson County, Illinois	Perry County, Illinois	Williamson County, Illinois	Greater Egypt	State of Illinois
Total:	22,265	38,387	20,580	10,795	38,350	130,377	7,695,978
In the labor force:	71.1%	67.0%	77.8%	74.7%	75.3%	72.5%	79.6%
Employed:	93.1%	91.5%	92.9%	94.2%	94.6%	93.2%	95.2%
Unemployed:	6.9%	8.5%	7.1%	5.8%	5.4%	6.8%	4.8%
Not in labor force:	28.9%	33.0%	22.2%	25.3%	24.7%	27.5%	20.4%

Comparing the region to all of Illinois, labor participation is lower (72.5% compared to 79.6%) and the unemployment rate is higher (6.8% compared to 4.8%). Labor participation and unemployment in Jackson County show a much more challenging job market.

TABLE 8: INDUSTRY MIX

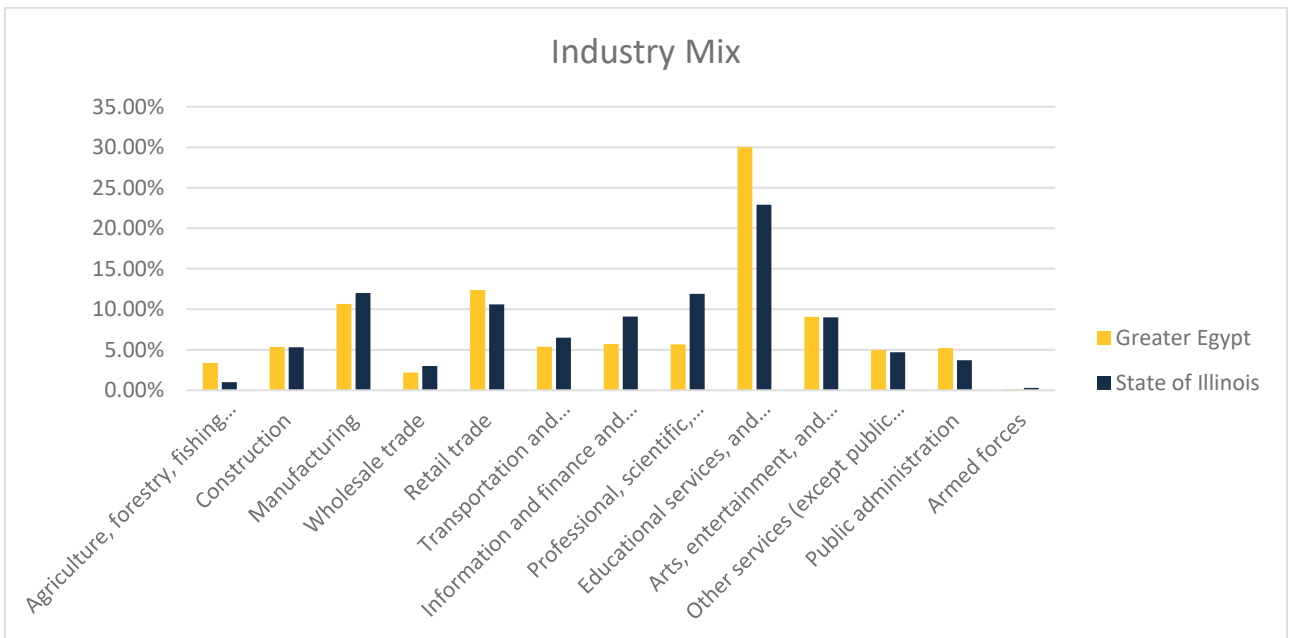


TABLE 9: INCOME

	\$1 to \$9,999 or loss	\$10,000 to \$14,999	\$15,000 to \$24,999	\$25,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$64,999	\$65,000 to \$74,999	\$75,000 or more
Franklin County, Illinois	14.20%	10.30%	16.70%	13.40%	16.60%	12.50%	4.60%	11.80%
Jackson County, Illinois	21.60%	11.20%	17.60%	11.50%	15.00%	8.60%	3.70%	10.80%
Jefferson County, Illinois	13.40%	8.20%	15.00%	16.00%	18.30%	12.20%	4.30%	12.50%
Perry County, Illinois	12.60%	6.60%	15.50%	15.70%	15.40%	18.30%	5.10%	10.70%
Williamson County, Illinois	12.60%	7.30%	15.60%	14.10%	16.50%	14.40%	4.90%	14.70%
Greater Egypt	15.37%	8.92%	16.20%	13.76%	16.33%	12.52%	4.45%	12.46%
State of Illinois	11.40%	6.10%	13%	13.10%	15.20%	12.70%	5.10%	23.30%

TABLE 10: POVERTY STATUS

	Below 100 percent of the poverty level	100 to 149 percent of the poverty level	At or above 150 percent of the poverty level
Franklin County, Illinois	9.50%	9.40%	81.20%
Jackson County, Illinois	19.60%	9.60%	70.80%
Jefferson County, Illinois	8.30%	6.80%	84.90%
Perry County, Illinois	8.20%	5.30%	86.50%
Williamson County, Illinois	6.60%	6.60%	86.80%
Greater Egypt	10.93%	7.78%	81.31%
State of Illinois	5.60%	5.30%	89.10%

Poverty levels are significantly higher in the region than in all of Illinois (10.93% compared to 5.6%). The poverty level in Jackson County is a notable outlier at 19.6%.

FIGURE 5: HOUSEHOLD INCOME

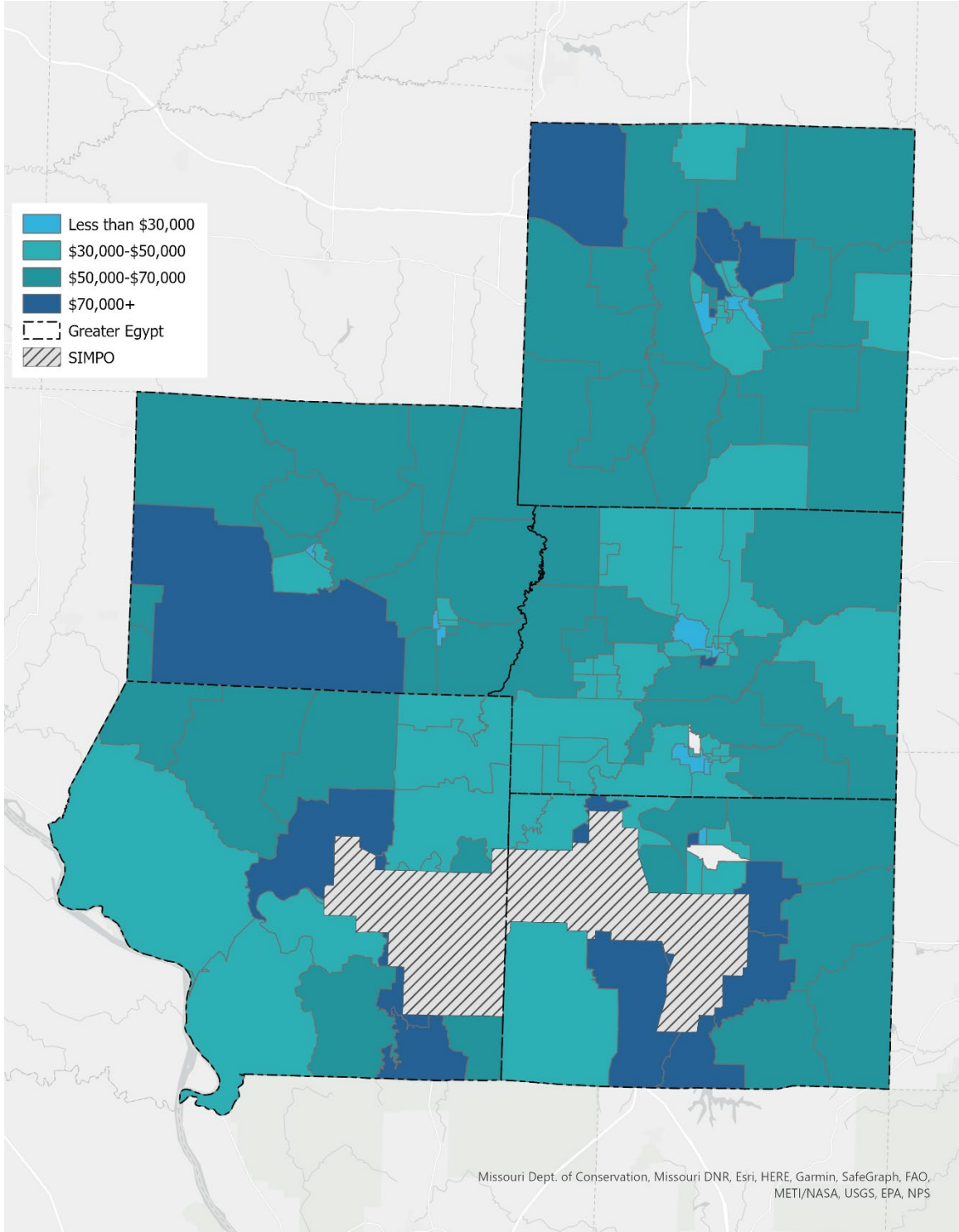


FIGURE 6: HOUSEHOLD INCOME HOT SPOTS

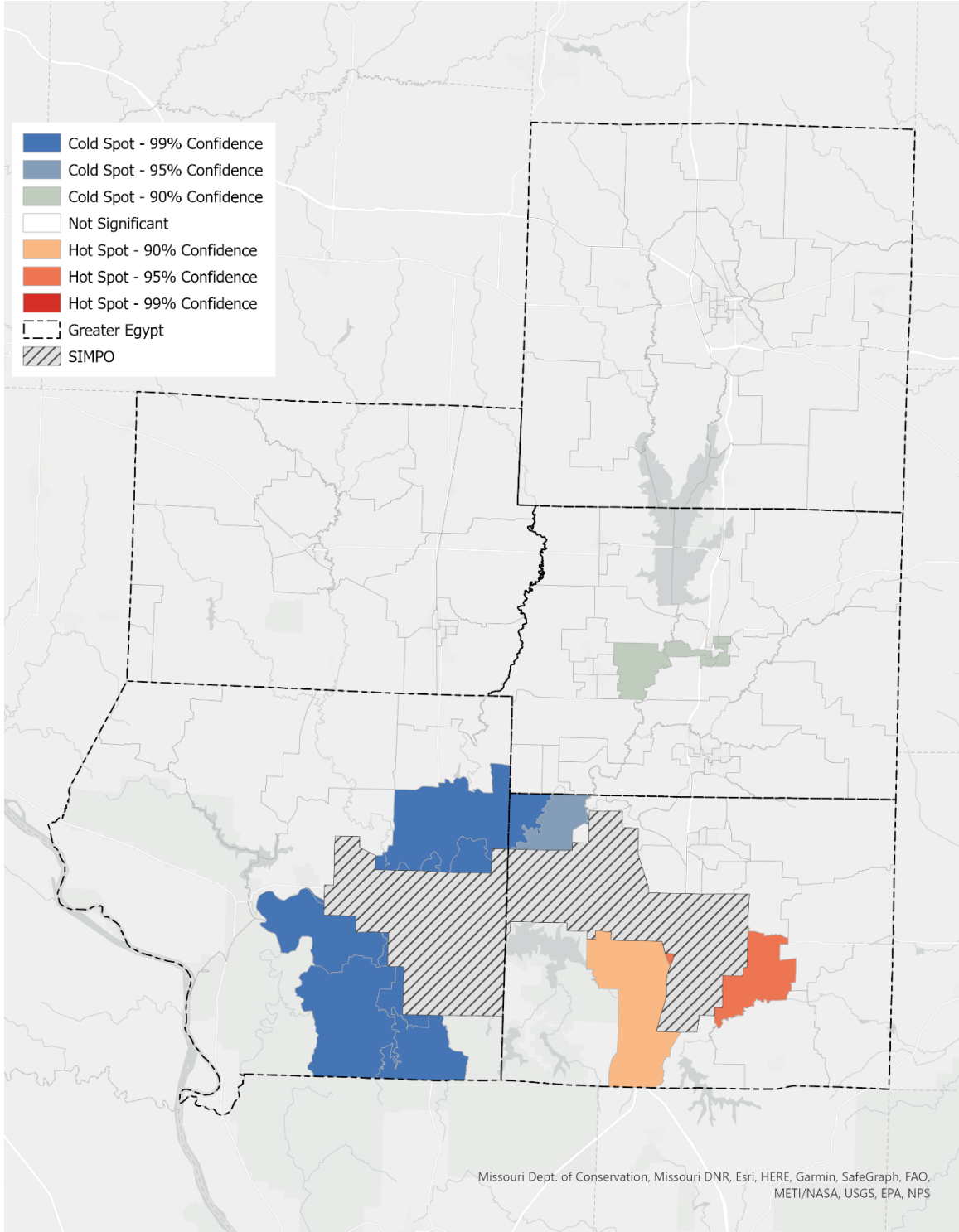
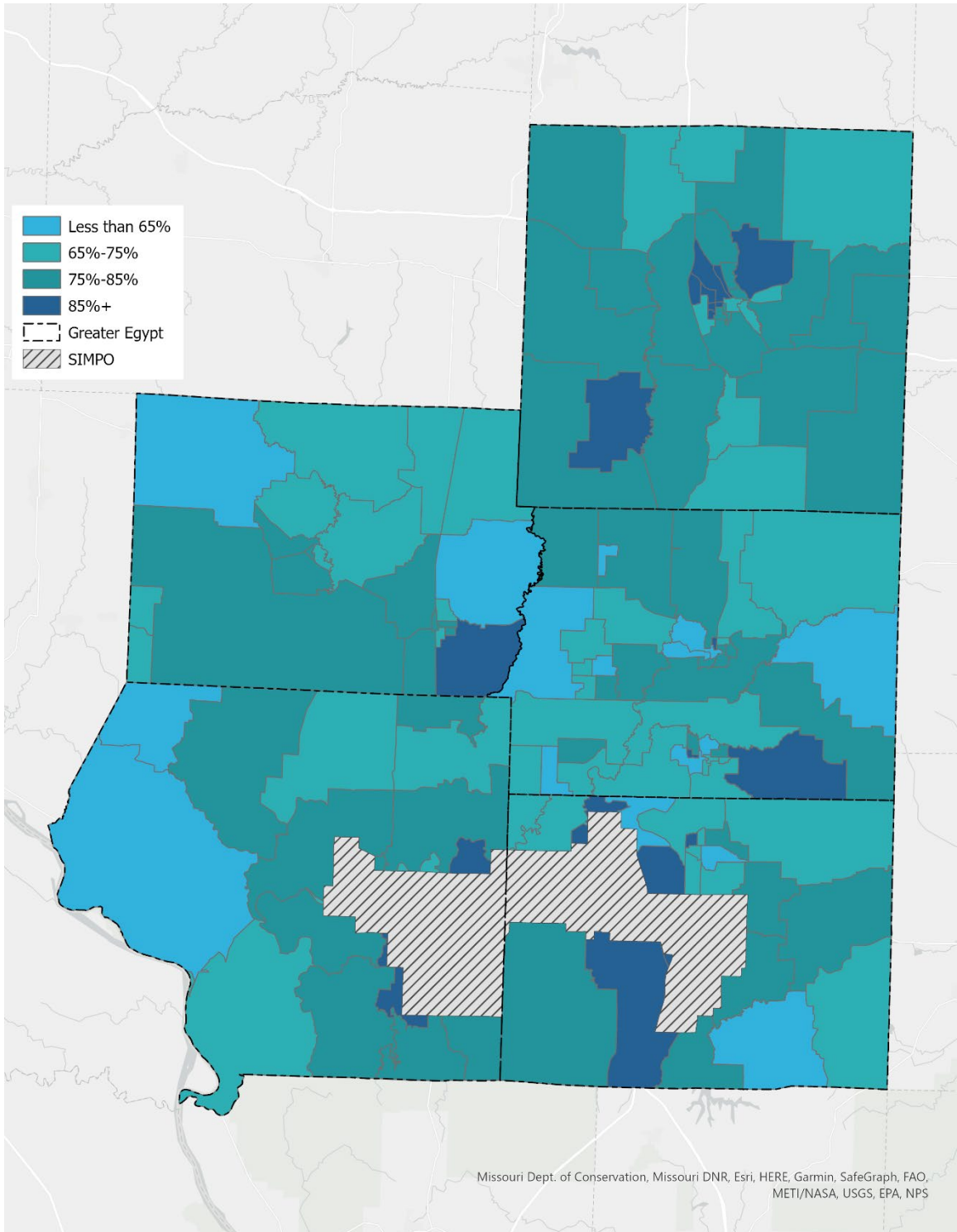


TABLE 11: VEHICLES PER HOUSEHOLD

	No vehicle available	1 vehicle available	2 vehicles available	3 or more vehicles available
Franklin County, Illinois	2.70%	19.50%	39.60%	38.30%
Jackson County, Illinois	5.20%	29.00%	36.10%	29.70%
Jefferson County, Illinois	2.90%	20.50%	40.10%	36.50%
Perry County, Illinois	2.90%	13.60%	38.10%	45.40%
Williamson County, Illinois	2.40%	18.20%	46.40%	33.00%
Greater Egypt	3.31%	21.24%	40.75%	34.71%
State of Illinois	5.20%	22.90%	40.90%	31%

FIGURE 7: HOUSEHOLDS WITH BROADBAND ACCESS



Appendix B - Transportation Analysis



Transportation Analysis

The Greater Egypt region is home to a vast transportation network that provides connections to school, work, services, and recreation. The transportation network also provides businesses and shippers with connections to bring their products to market. This network connects the five-county region and numerous municipalities and population centers. Figure 1 shows the incorporated areas within Greater Egypt and figure 2 shows the urban areas in the region.

FIGURE 1: GREATER EGYPT INCORPORATED AREAS

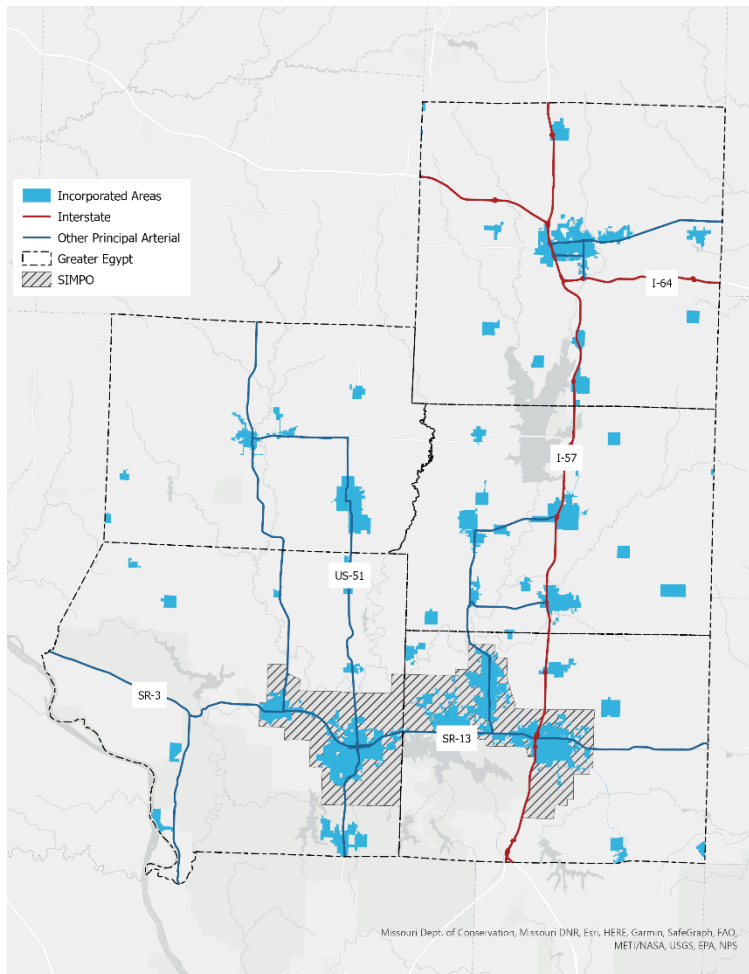
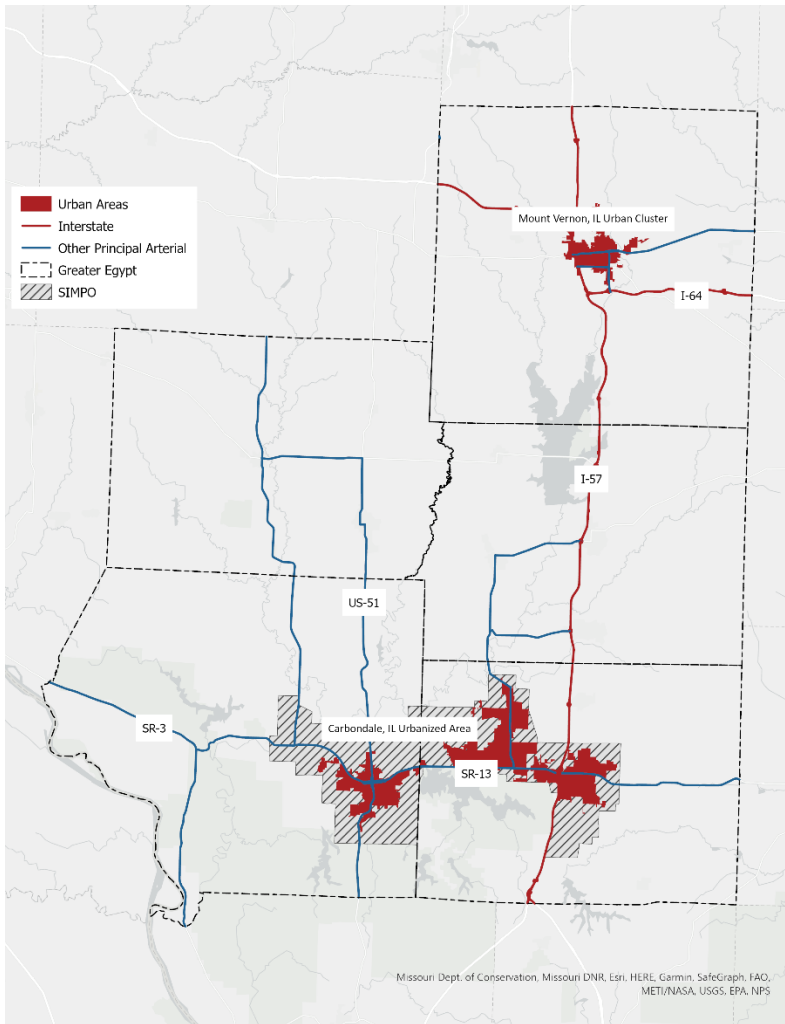


FIGURE 2: GREATER EGYPT URBAN AREAS



The FAST Act

The Fixing America's Surface Transportation (FAST) Act was signed into Law on December 2, 2015. This Act serves as funding for transportation projects and programs in the United States. The FAST Act provides long-term funding for surface transportation. Prior to the FAST Act, MAP 21 served as the funding and authorization bill which governed the transportation spending in the United States.

For more than 100 years, the government has been providing the states with highways funding. Most funds are apportioned to the states by formula. The implementation of those funds is left primarily to state departments of transportation. In addition to the funding provided by the government, the states are required to provide matching funds. Until the 1950s, each federal dollar had to be matched by an identical amount of state and local money. The federal share is now 80% for non-Interstate System road projects and 90% for Interstate System projects. Third, generally, federal money can be spent only on designated federal-aid highways, which make up roughly a quarter of U.S. public roads.

The National Highway System

The National Highway System (NHS) consists of roadways important to the nation's economy, defense, and mobility. All principal arterial routes that are not currently on the NHS before October 1, 2012, will

automatically be added to the NHS provided the principal arterials connect to the NHS in a onetime addition. There will be no restrictions on maximum NHS mileage. The National Highway System includes the following subsystems of roadways (note that a specific highway route may be on more than one subsystem):

Interstate: The Eisenhower Interstate System of highways retains its separate identity within the NHS.

Other Principal Arterials: Highways in rural and urban areas that provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.

Strategic Highway Network (STRAHNET): A highway network important to the United States' strategic defense policy, providing defense access, continuity, and emergency capabilities for defense purposes.

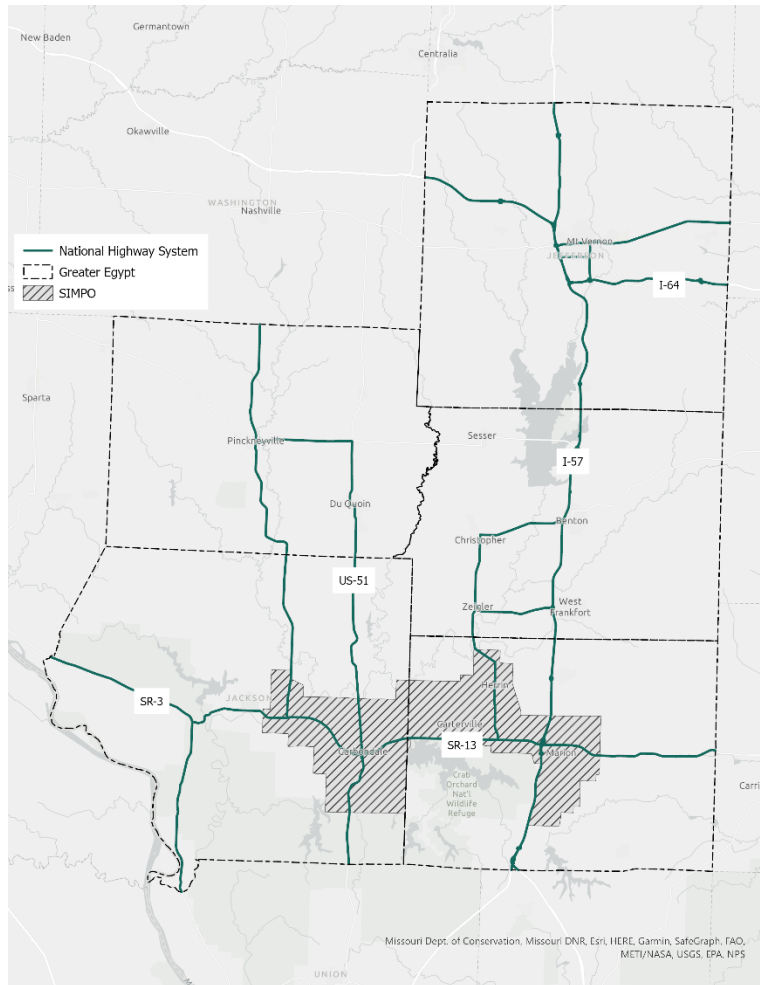
Major Strategic Highway Network Connectors: Highways that provide access between major military installations and highways that are part of the Strategic Highway Network.

Inter-modal Connectors: These highways provide access between major inter-modal facilities and the other four subsystems making up the National Highway System.

NHS routes within the region are listed below and shown in figure 3.

- Interstates
 - I-57
 - I-64
- US Routes
 - US-51
- State Routes
 - SR-3
 - SR-13
 - SR-14
 - SR-15
 - SR-37
 - SR-127
 - SR-148
 - SR-149
- Other
 - Veterans Memorial Drive (Mount Vernon)

FIGURE 3: NATIONAL HIGHWAY SYSTEM ROUTES



Functional Classification

The Federal Highway Administration (FHWA) recommends grouping the roadway network into a hierarchical functional classification system based on the characteristics of the roadway, as well as the service the roadway is intended to provide. As a first step, roadways are typically identified by whether the road is urban or rural. Then, the roadways are further classified in the following categories:

Interstate – This is the highest classification of Arterials and were designed and constructed with ability and long-distance travel in mind. Roadways in this functional classification category are officially designated as Interstates by the Secretary of Transportation, and all routes that comprise the Dwight D. Eisenhower National System of Interstate and Defense Highways belong to the Interstate functional classification category and are considered Principal Arterials. Greater Egypt is served by two interstate highways, I-57 and I-64. I-57 travels south with connections to Memphis, TN and Nashville, TN and north to Chicago, IL. I-64 travels west to St. Louis, MO and East to Louisville, KY.

Freeway/Expressway - The roads in this classification have directional travel lanes and are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Like Interstates, these

roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

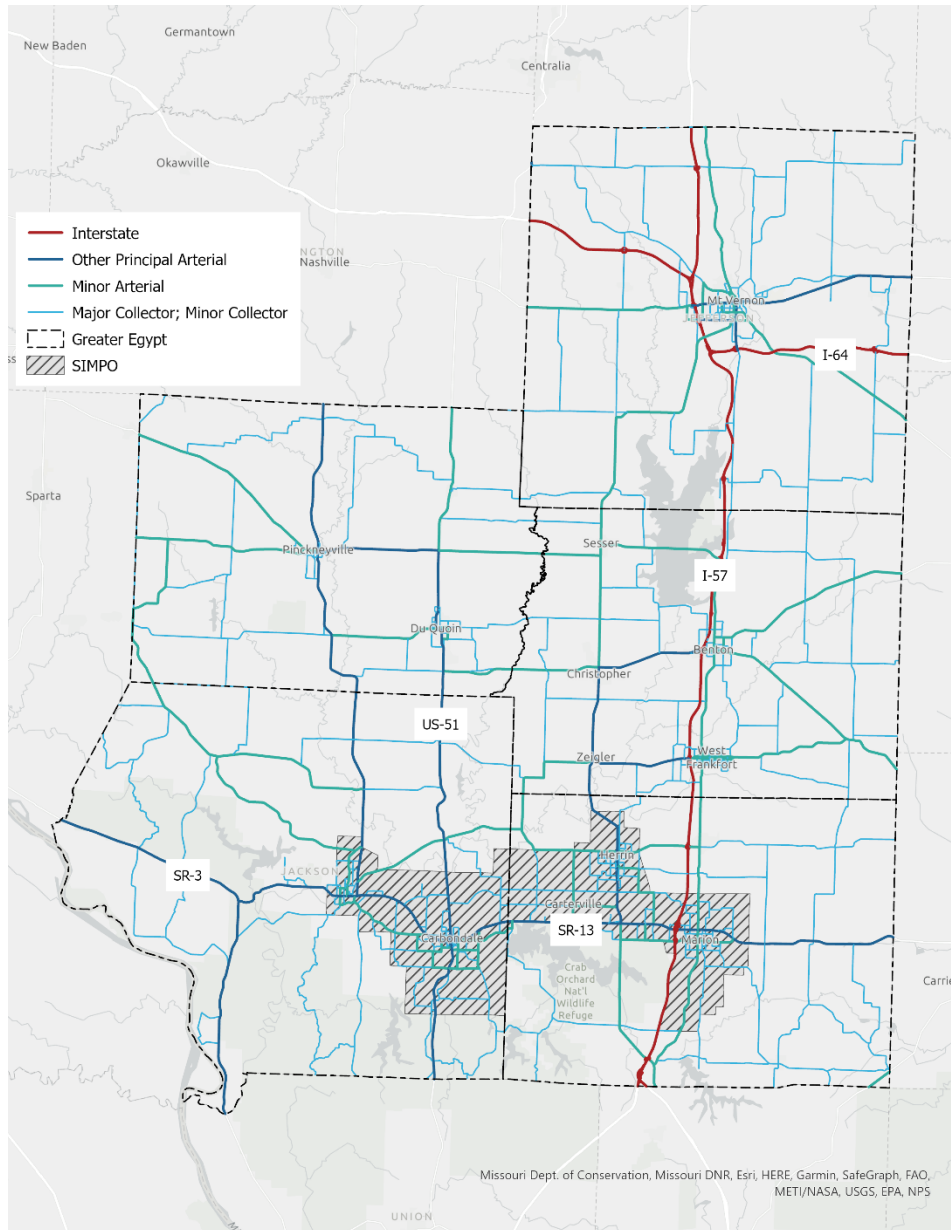
Principal Arterial – The roads in this classification serve major centers of metropolitan areas, provide a high degree of mobility, and can also provide mobility through rural areas. Unlike their access-controlled counterparts, abutting land uses can be served directly. Principal arterials in the region include SR-13 traveling through the Carbondale, IL Urbanized Area; US-51 connecting Carbondale, IL to more rural area in Jackson and Perry counties; and SR-148 which connects SR-13 in Williamson County and I-57 in Franklin County.

Minor Arterial - The roads in this classification provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. There are numerous minor arterials in the region that provide access to the interstates and principal arterials. Minor arterials include SR-37, portions of SR-148, and SR-4.

Major Collector - Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. In rural areas such as Greater Egypt, major collectors provide the key link from residential areas to arterials in order to reach destinations like work, school, and commercial centers.

Minor Collector and Local Road - The roads in this classification account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land.

FIGURE 4: FUNCTIONAL CLASSIFICATION



Traffic

The traffic volume experienced on the roadway network varies based on the functional class. I-57 and I-64 see the most total daily volumes followed by SR-13 and US-51. Traffic volume data are collected by both state and local agencies on most roadways with a functional class of major collector and above. Figure 5 shows the Annual Average Daily Traffic (AADT) for roadways with the Greater Egypt region.

FIGURE 5: AADT

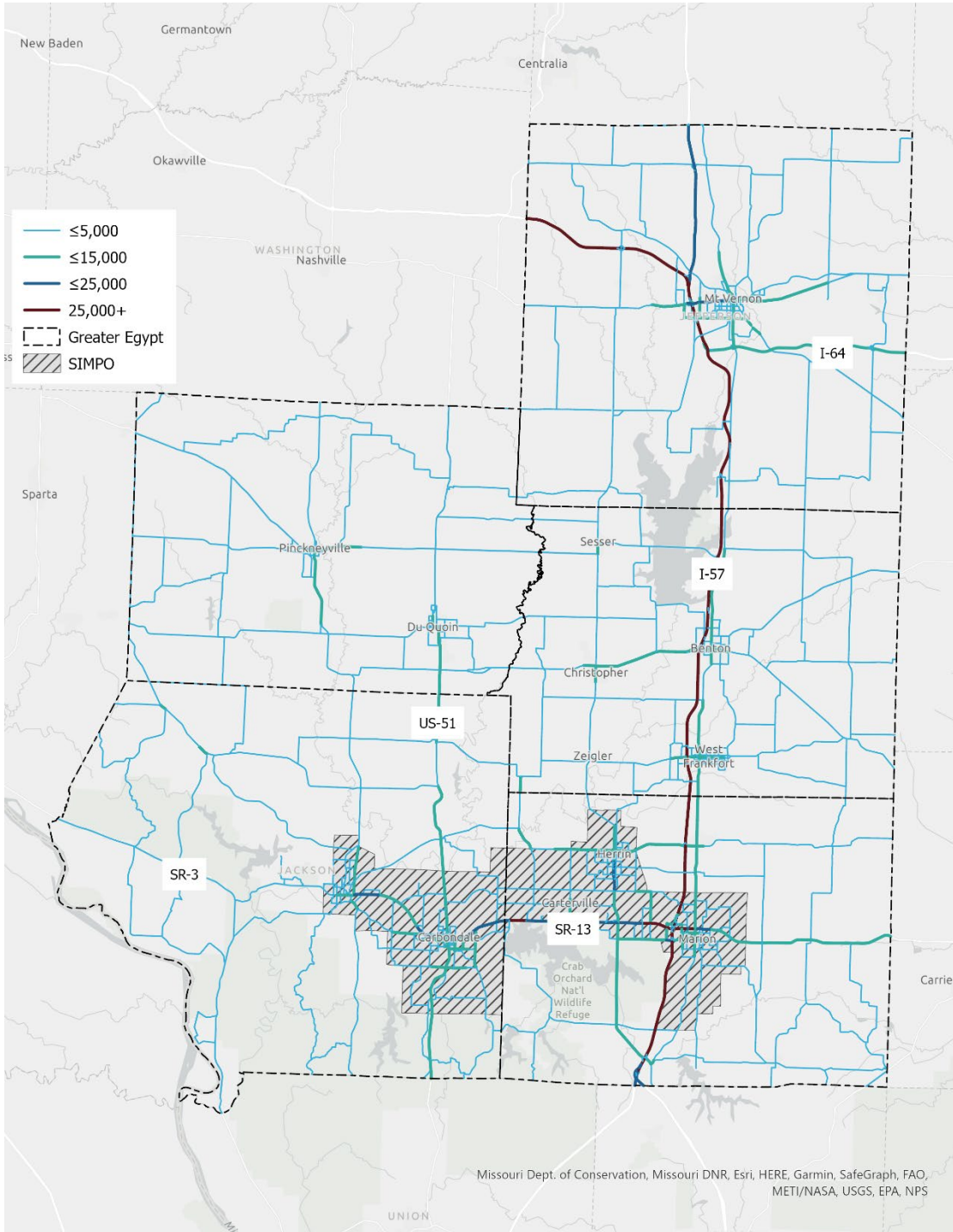
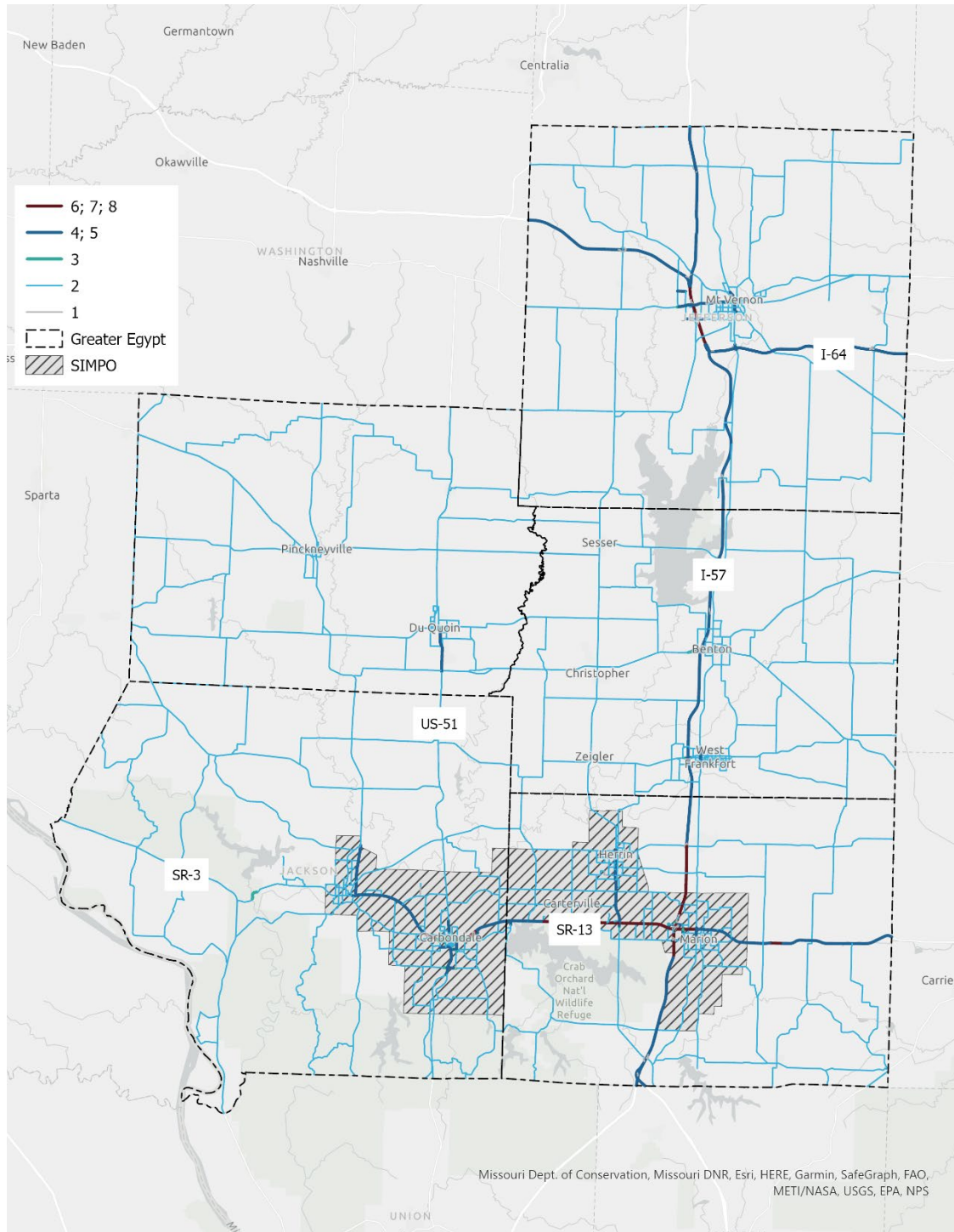


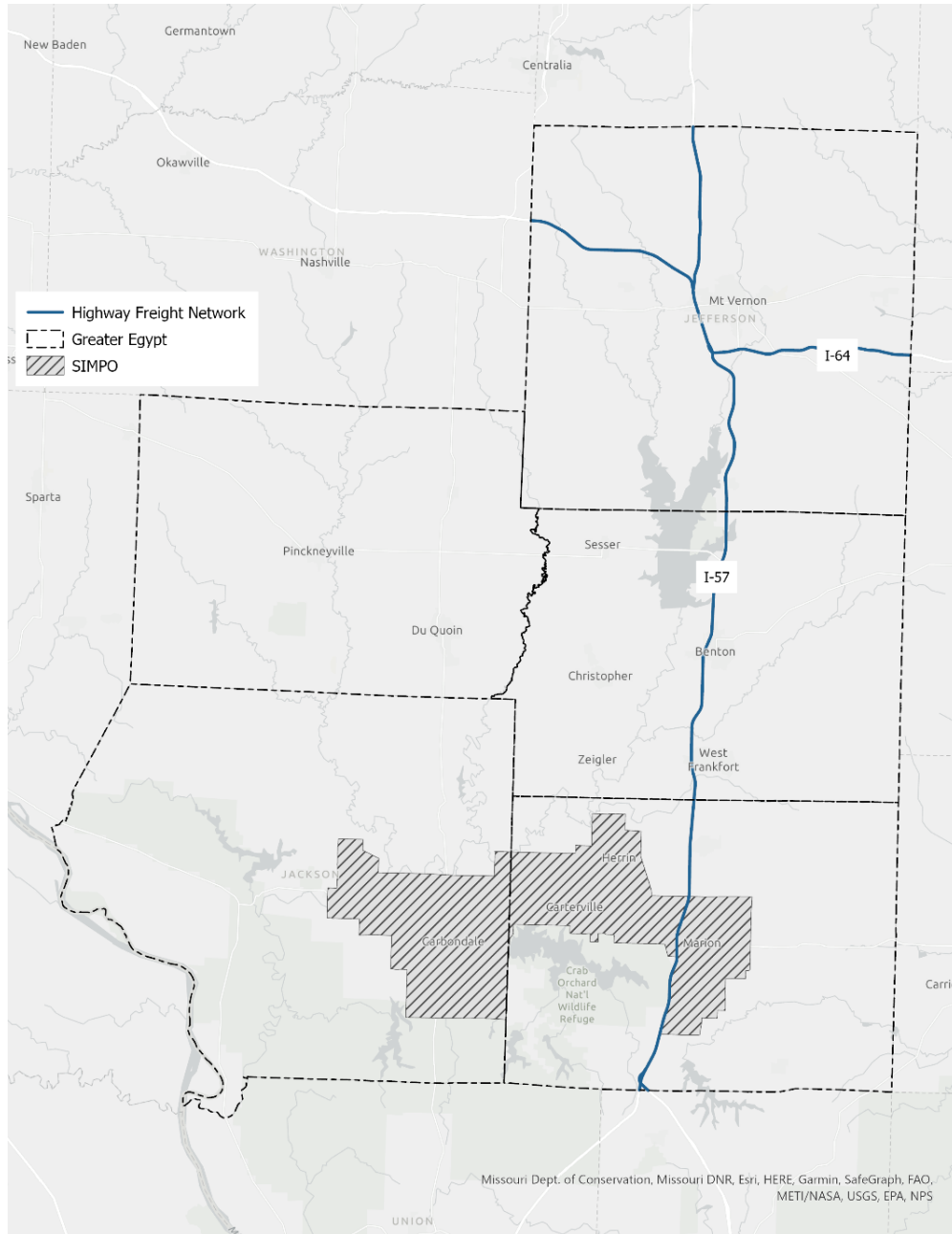
FIGURE 6: NUMBER OF LANES



Freight

Freight plays a critical role in any transportation system. Particularly in rural areas where raw materials originate, the freight system has an outside role in the economy, environment, and quality of life. Greater Egypt has two major corridors on the National Highway Freight Network (NHFN), I-64 and I-57, as seen in figure 7. Both corridors are significant to freight flows at a greater regional and national level. I-64 provides access to markets and rail connections in St. Louis, MO, Louisville, KY, and Cincinnati, OH. I-57 provides access to both Chicago, IL and Memphis, TN, two critical access points for all modes of freight.

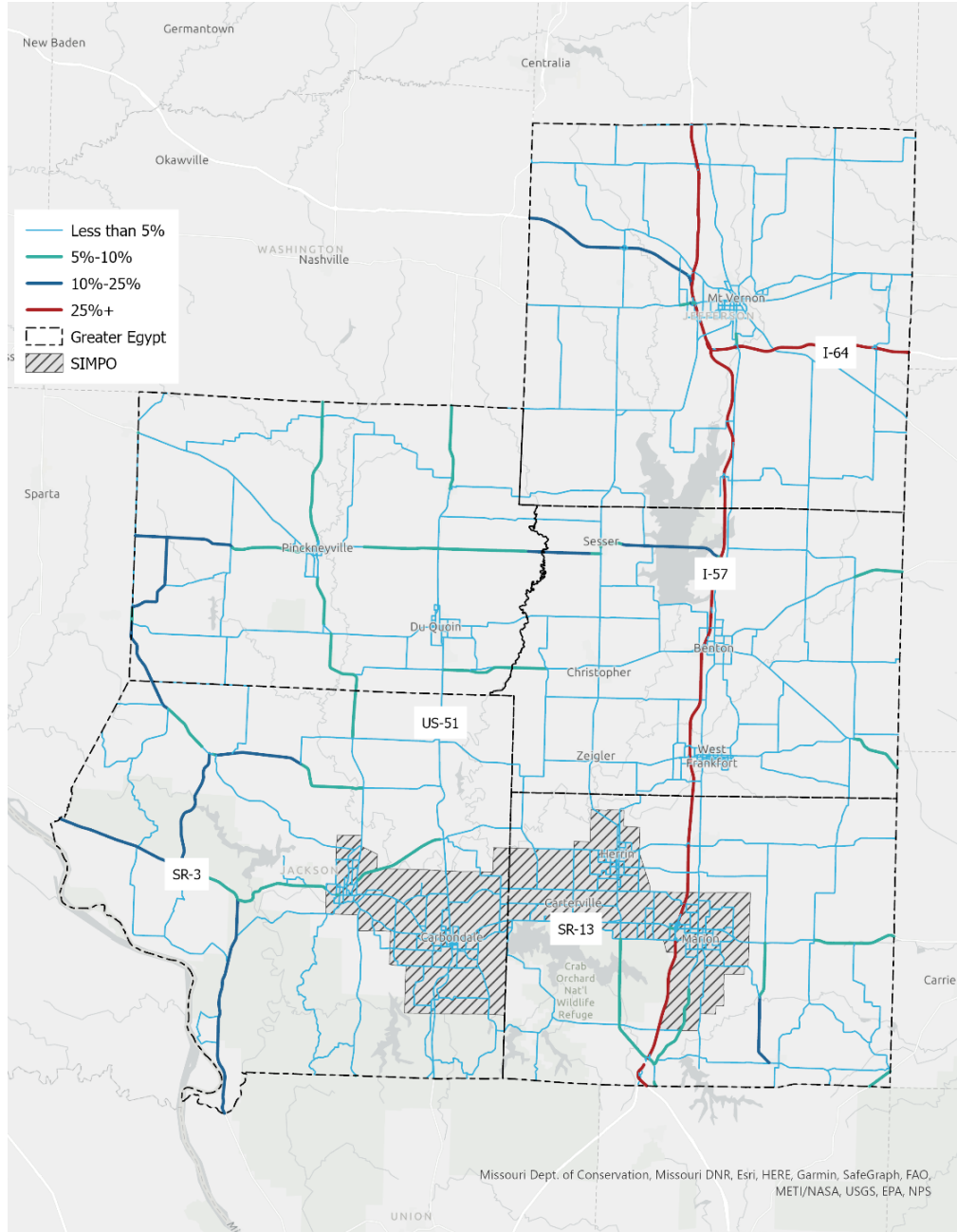
FIGURE 7: FREIGHT NETWORK



In addition to the NHFN, there are many other regionally important freight routes. SR-154, SR-151, and SR-3 all experience truck volumes in excess of 10 percent of total AADT and are good examples of the

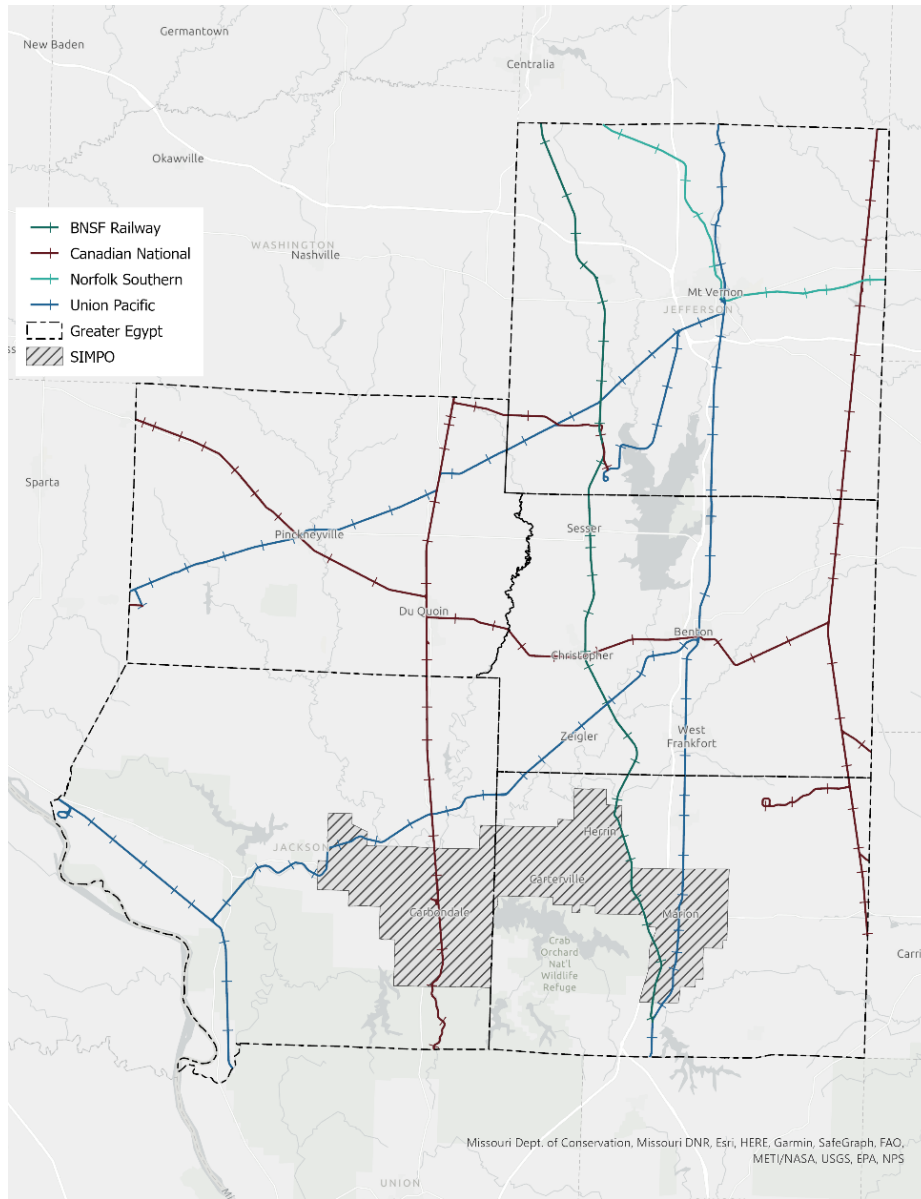
importance of freight infrastructure in rural areas. These routes all have low AADT (less than 5,000), but the high relative truck volumes indicate that residents and shippers rely on these routes for goods delivery and market access. Truck volume, as a percentage of AADT, is shown in figure 8.

FIGURE 8: TRUCK VOLUME



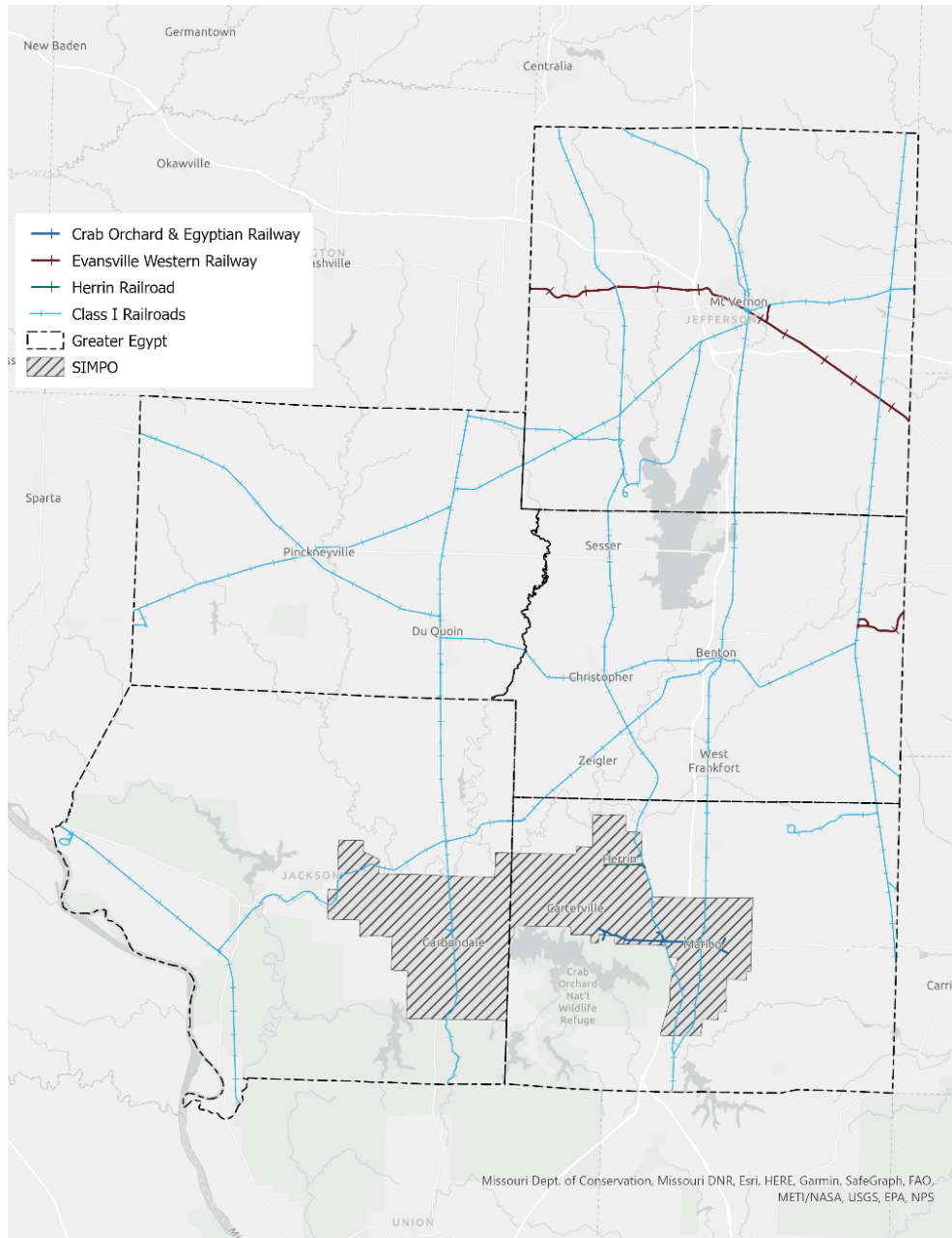
Illinois is at the center of the American railroad network. Greater Egypt is home to four (of seven) class I railroads. Class I railroads are the largest and most profitable railroads and operate throughout multiple states, and sometimes countries (US and Canada). These major railroads provide access to the rail centers of St. Louis, Chicago, and Memphis as well as ports and intermodal facilities along the Mississippi and Ohio River systems. Class one railroads in Greater Egypt are shown in figure 9.

FIGURE 9: CLASS I RAILROADS



In the 1980s, large rail carriers began to sell or abandon less profitable lines. These less profitable lines, shortlines, provide service to directly rural areas and interchanges with class I railroads. This access is important to rural areas because rural economies are reliant on heavy freight and rural communities are disproportionately burdened by truck freight transportation (safety and air quality). Rail freight is a safer and more environmentally friendly mode of freight transport than truck. Shortlines, therefore, offer a vital service for rural communities and provide shippers access to the class I rail network. Shortline railroads typically ship goods such as agricultural products and waste and provide transloading services. Shortline railroads are shown on Figure 10.

FIGURE 10: SHORTLINE RAILROADS



Public Transportation

The Greater Egypt region is served by various public transportation agencies. Passenger rail service is provided by Amtrak with connections to Chicago and Memphis. Three local/regional public transportation systems also serve the area: Jackson County Mass Transit District, Rides Mass Transit District, and South-Central Illinois Mass Transit District.

Various types of public transportation systems operate throughout the region. Public transportation in rural areas must meet the needs of residents who may live in more remote communities without the population density to support traditional forms of public transit.

Intercity Passenger Rail – Passenger rail service that serves long distances with limited stops.

Fixed Route Bus – Bus service that operates along a predetermined route and predetermined schedule.

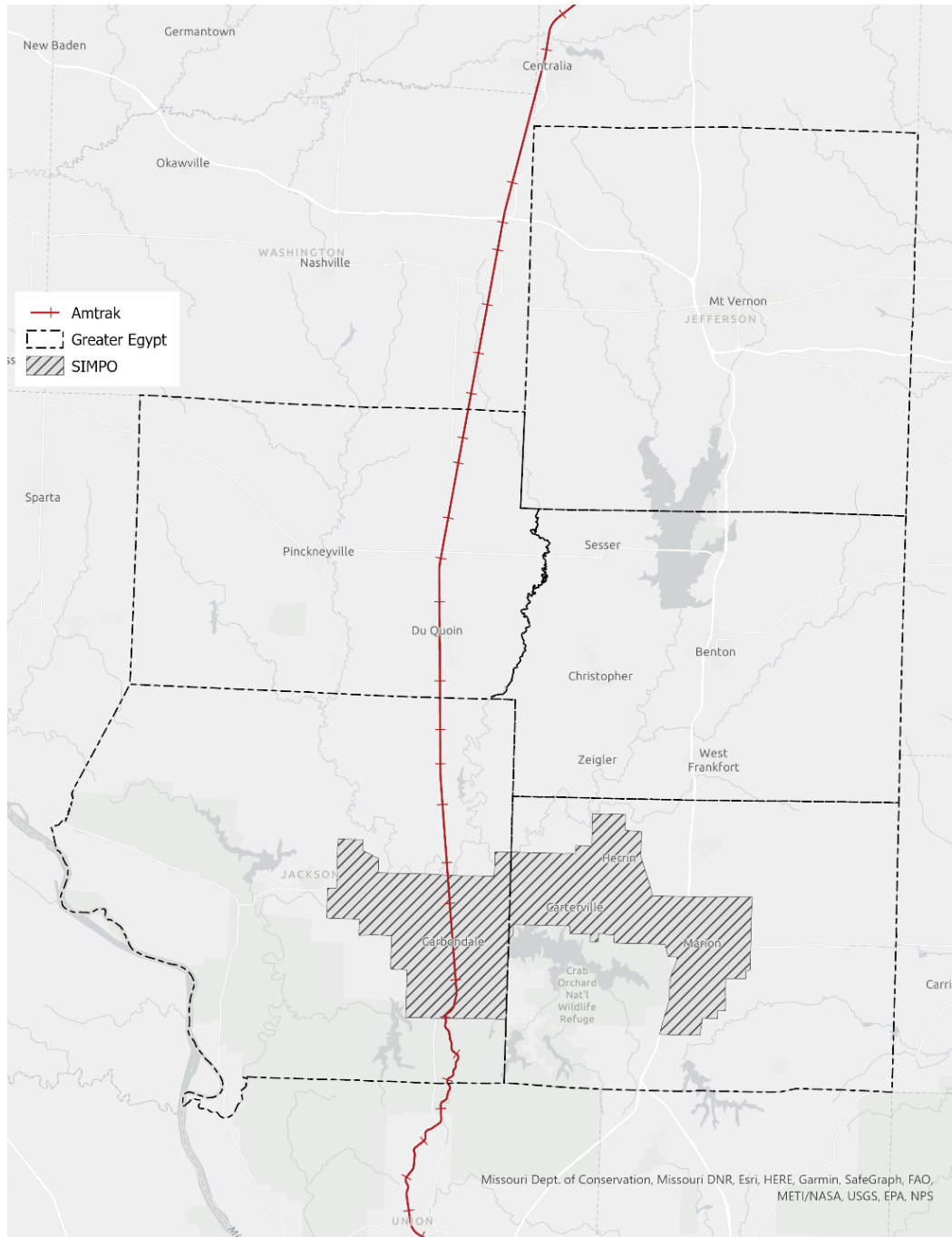
Flex Route – Service that operates predetermined schedules but may deviate from determined routes to serve specific locations.

Demand Response – Service that operates flexible schedules dependent on passenger requests.

Passenger Rail Service (Amtrak)

In addition to freight rail, the region is also home to Amtrak passenger rail service. Regional and national service routes operate. The Illini Service route provides daily service from Carbondale to Chicago with a stop in Du Quoin as well. The City of New Orleans route provides 3x/week service from Chicago to Memphis to New Orleans with a stop in Carbondale. The Amtrak operated lines are shown in figure 11.

FIGURE 11: AMTRAK PASSENGER RAIL SERVICE



Jackson County Mass Transit District

Jackson County Mass Transit District (JCMTD) is a municipal corporation created by the Jackson County Board in 1992 and has been in operation since 2002. JCMTD is a general public mass transportation system that operates flex route and demand response service within Jackson County. JCMTD operates three point-deviated routes within Carbondale and two point-deviated routes between Carbondale and Murphysboro.

TABLE 1: JCMTD SERVICE

Year	Annual Unlinked Trips (UPT)	Annual Passenger Miles (PMT)	Average Weekday Unlinked Trips
2019	93,691	731,337	346

TABLE 2: JCMTD OPERATING EXPENSES

Expense	Amount	Percent
Labor	\$998,576	72.6%
Materials and Supplies	\$180,880	13.2%
Purchased Transportation	\$0	0.0%
Other Operating Expenses	\$195,098	14.2%
Total Operating Expenses	\$1,374,554	100.0%

Rides Mass Transit District

Rides Mass Transit District (RMTD) is the largest rural public transit provider in Illinois and operates throughout an 18-county service area in southern Illinois. In Greater Egypt, RMTD provides flex route service in Williamson County and a fixed route service (Saluki Express) in Carbondale.

TABLE 3: RMTD SERVICE

Year	Annual Unlinked Trips (UPT)	Annual Passenger Miles (PMT)	Average Weekday Unlinked Trips
2019	1,119,285	11,688,946	4,147

TABLE 4: RMTD OPERATING EXPENSES

Expense	Amount	Percent
Labor	\$13,077,963	76.7%
Materials and Supplies	\$2,300,027	13.5%
Purchased Transportation	\$0	0.0%
Other Operating Expenses	\$1,669,324	9.8%
Total Operating Expenses	\$17,047,314	100.0%

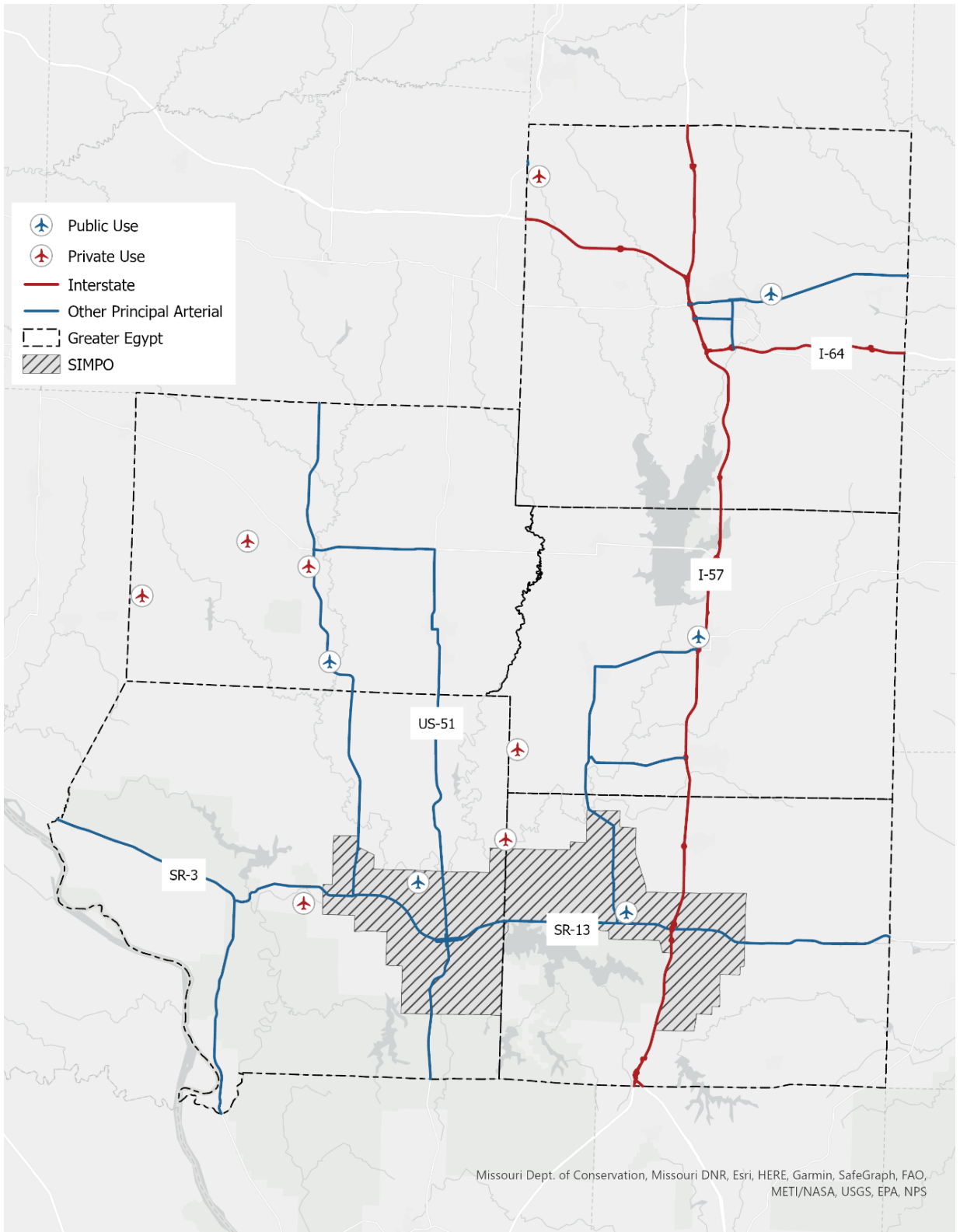
South Central Illinois Mass Transit District

South Central Illinois Mass Transit District (SCT) is the public transportation system serving the counties of Marion, Jefferson, Clinton, Washington, Franklin, and Perry. SCT provides flex route and demand response service. SCT is the only transit provider in Greater Egypt that operates exclusively outside of the urban area.

Air Transportation

There are 12 airports within Greater Egypt, 10 of which are outside of the SIMPO area. The airports in Greater Egypt provide commercial service for small aircraft, flight training, research, emergency flight service, and economic development opportunities.

Three public use airports located in the rural area include: Benton Municipal Airport, Mt. Vernon Outland Airport, and Pinckneyville-Du Quoin Airport.



Bicycle and Pedestrian Facilities

Active transportation facilities are vital for a balanced, sustainable, and healthy multi-modal transportation system. As stated by the FHWA, it is federal policy to promote the increased use, and safety of, bicycling and walking as transportation modes. Whether to promote recreation, fitness, or functional transportation, investments in active transportation can improve communities in a variety of ways:

- Reducing vehicle miles traveled
 - Improving air quality
 - Decreasing personal transportation costs
 - Reducing roadway maintenance costs
- Supporting small businesses and local economic activity
- Improving quality of life and transportation choices
- Supporting more equitable transportation investments

Currently, the region lacks an accessible and connected bicycle and pedestrian network. Primary, dedicated active transportation facilities include:

- Rend Lake Bike Trail
- Perkins Ave. (Veterans Memorial Park to S. 10th St.) bike lane in Mt. Vernon
- S. 34th St. (Broadway St. to Veterans Memorial Dr.) bike lane in Mt. Vernon

It is critical to incorporate the needs of cyclists and pedestrians into future roadway projects to ensure that people of all ages, abilities, and preferences have the same opportunity to travel throughout their community.

Safety

Analyzing existing traffic crash patterns is the first step towards understanding the underlying factors of safety issues. Crash data provided by IDOT from the years 2016 to 2020 were used for analysis to provide up-to-date assessments of the safety conditions within the boundaries of Greater Egypt. From the data, the following was revealed:

24,537 total crashes reported from 2016 to 2020.

Crashes are trending slightly down (assuming 2020 was an outlier because of the pandemic's effect on traffic volumes).

Injury crashes accounted for nearly a quarter of all crashes (22.4%), with 7,775 total injuries; fatal crashes accounted for less than 1% of all crashes, but with 194 total fatalities.

Bicycles or pedestrian were involved in 260 crashes resulting in 241 injuries and 23 fatalities.

During the four-period of 2016-2019, Greater Egypt averaged 5,315 crashes per year. In 2020, there was a dramatic drop in crashes to 3,277, most likely a direct result of the Covid-19 pandemic and the stay-at-home orders, social distancing requirements, and job losses.

FIGURE 12: NUMBER OF CRASHES PER YEAR

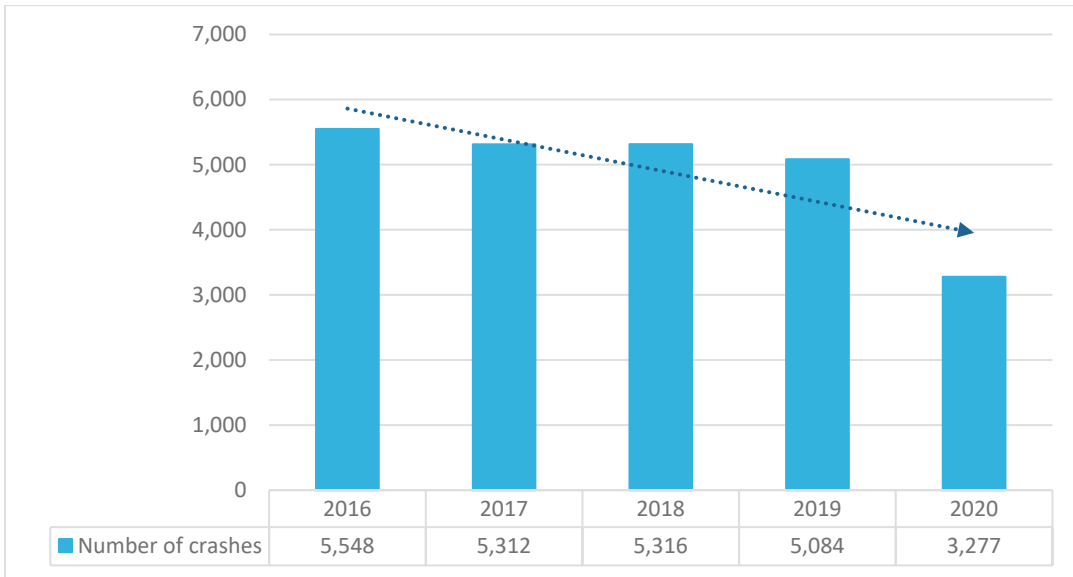
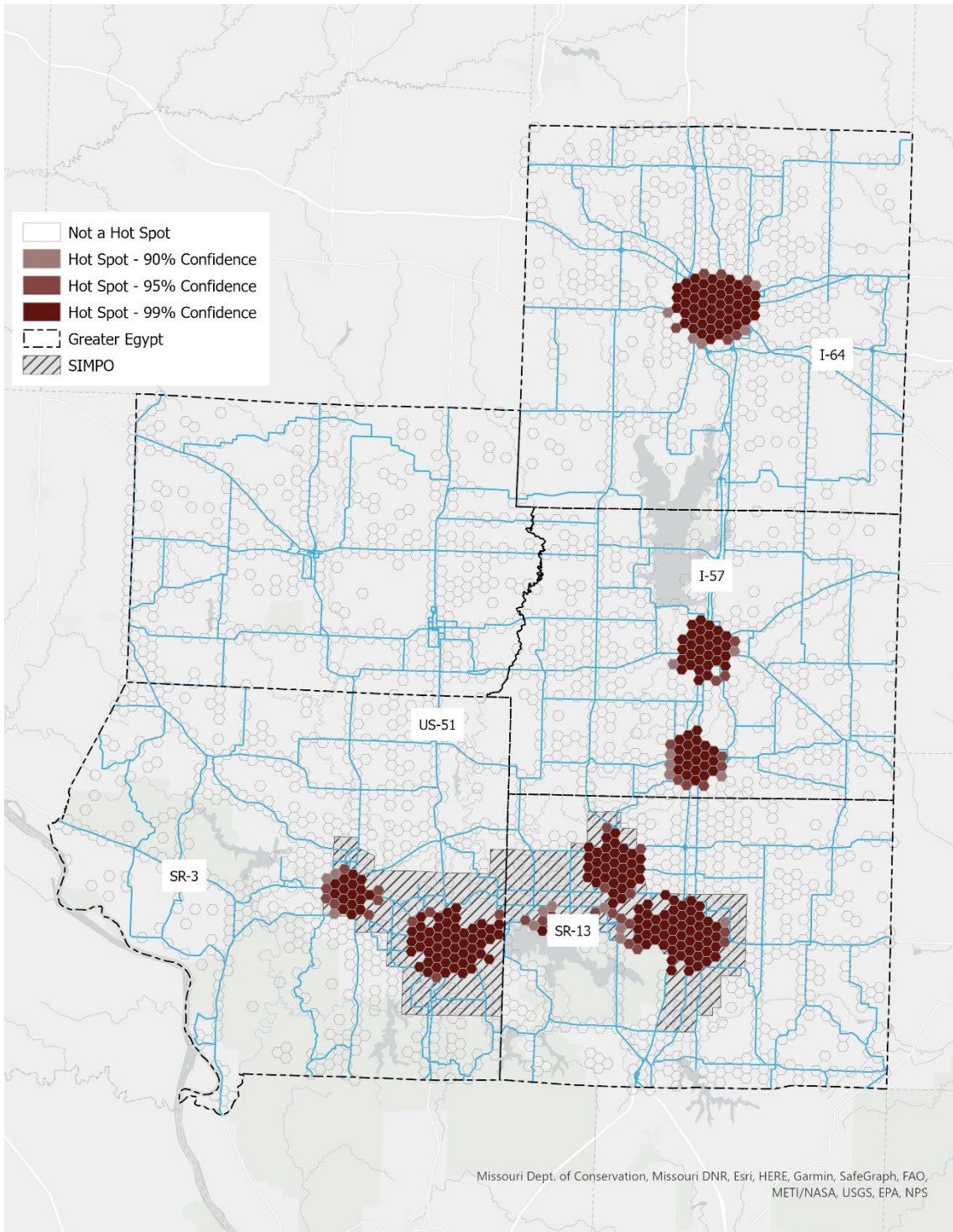


Figure 13 displays total crashes as a hot spot map indicating where crashes are clustering within the region. Often, crash hot spots trend alongside total population or traffic volume. So, while the hot spot map effectively illustrates where lots of crashes are happening, it does not show where crashes are happening at higher frequency relative to their traffic and functional classification.

FIGURE 13: CRASH HOT SPOTS



A more thorough analysis of crashes looks at average crash rates in the region. For this analysis, GIS was used to identify crashes along roadways with functional classes of Interstate, Principal Arterial, and Other Minor Arterials. In Illinois, segment crash rates are calculated as follows:

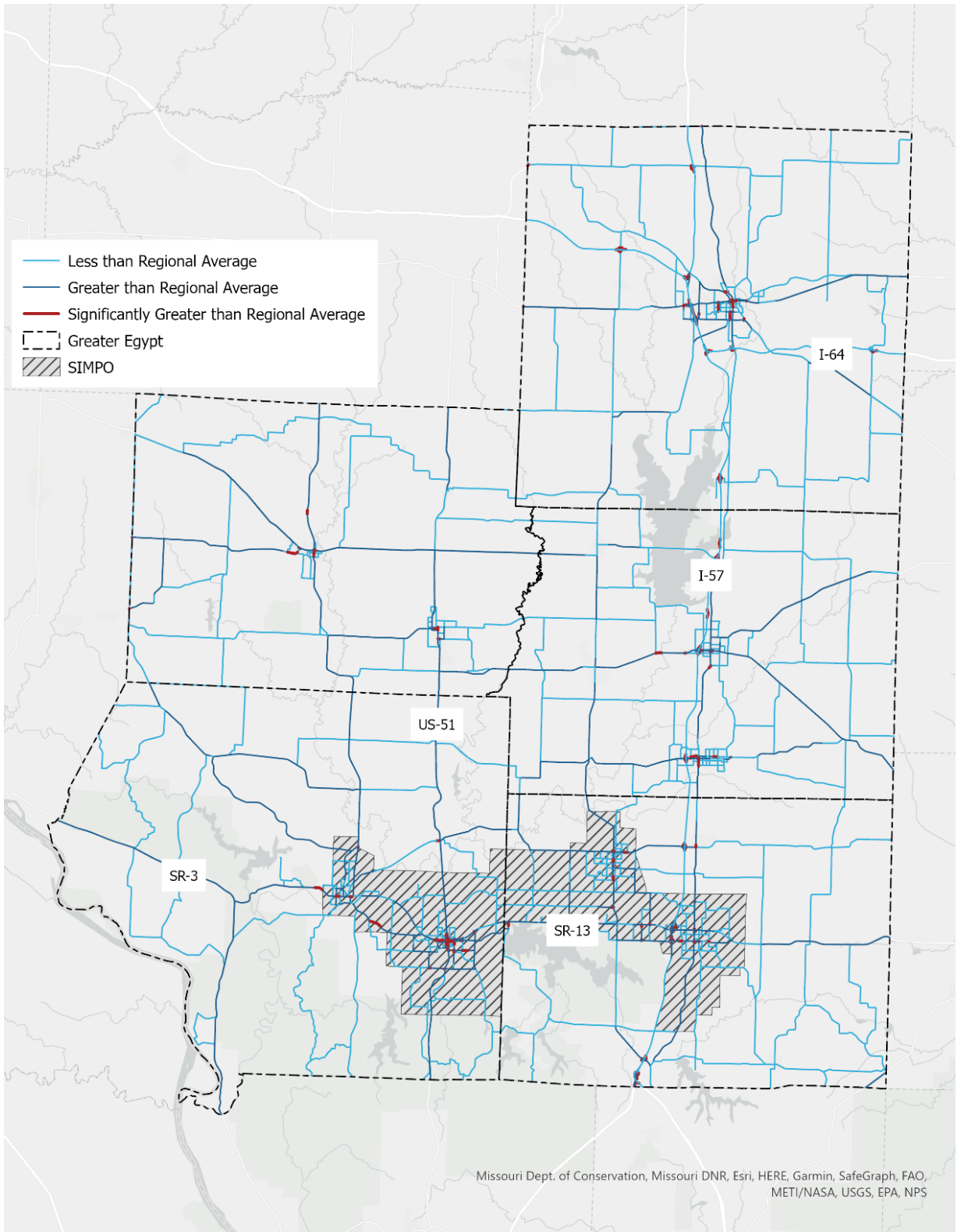
$$“[\sum(\text{number of crashes}) \times 100,000,000] / [(\sum(\text{segment length} \times \text{ADT}) \times \text{number of crash years} \times 365)]”$$

Observed crash rates along segments were then compared to IDOT average regional crash rates per functional class. Figure 14 shows how crash rates compare to the regional average and is a good starting point to identifying crash problem areas.

Notes on crash rate analysis:

- Intersection crashes were not included in the regional analysis; separate crash rates are calculated for intersections, but appropriate intersection data was not available.
- Segments were combined where possible (same number of lanes, functional class, AADT), but some segments were still too short in length. These short segments may have higher crash rates and should be viewed within the context of surrounding roadways (highway ramps for example show higher crash rates).
- Roadways with AADT of zero were omitted from the analysis.

FIGURE 14: CRASH RATES



Franklin County

SR149 and SR37 in West Frankfort

SR14 and SR37 through Benton

I57 and SR154 interchange

Jackson County

SR51 through Carbondale

Murphysboro Rd between Murphysboro and Carbondale

SR127 and Ava Rd

Jefferson County

SR37 and SR15 through Mt. Vernon

Perry County

SR127 through Pickney

SR13/SR154 through Pickney

US51 south of the SR154

Williamson County

SR13 near Crab Orchard Lake

I57 interchanges at SR13 and Main St. in Marion

SR37 between Johnson City and Marion

Appendix C - Environmental Analysis



Environmental Analysis

It is critical to consider the natural environment when accounting for the short- and long-term impacts of transportation decisions. In connection with new approaches to how communities maintain and enhance the livability of our region, the FAST ACT reconfirms the need to enhance the performance of transportation systems while protecting and enhancing the natural environment as one of its primary goals for the nation. Managing environmental resources as a group of strategic assets that are crucial to municipal goals, important to ecosystem health, and beneficial to the region is key to successful regional management.

Key environmental assets may be described as follows:

Clean air: essential to both human and ecosystem health.

Rivers and water bodies: provide drinking water, recreation, and act as natural pollution filters.

Biodiversity: essential for food, material, and improved quality of life, and also increases the region's resilience.

Forests: serve as watersheds, habitats, carbon sinks, leisure amenities, and tourist destinations. If managed sustainably, forests are also a source of energy and building materials.

Wetlands: filter and process stormwater and waste as well as acting as a nursery for aquatic life.

The natural environment provides the region with several ecosystem services which are fundamental to livability. In considering environmental resources, these benefits may be managed and increased by planning transportation networks in a way which preserves, unifies, and invests in these natural systems.

Land Cover

In order to track preservation of natural systems over time, land cover acreage should be mapped every five years in order to track environmental maintenance efforts. Wetlands greatly assist in retaining storm water during times of heavy precipitation and work to reduce the effects of regional flooding in addition to providing habitat for specific types of vegetation and animal species not found in other environments. **Table 1** shows the acreage associated with each land cover type identified in the region. **Figure 2, Figure 3, and Figure 4** show where Wetlands, Forestlands, and Agricultural lands are located throughout the five-county region. Information on land cover was obtained from the 2016 U.S. Geological Survey (USGS) National Land Cover Database (NLCD).

When investing in transportation infrastructure, it is critically important to preserve ecological systems. Recommendations to protect and preserve natural systems include:

- Dense development practices
- Reduced minimum lot sizes
- Reduced or eliminated minimum parking requirements
- Purse enhancements within existing ROW whenever possible
- Identify and track local critical ecological systems
- Track newly developed land to ensure development does not outpace population or job growth

TABLE 1: NLCD LAND COVER CLASSIFICATION

NLCD Class Code	NLCD Land Cover Classification	Percent	Square Miles
11		3.95%	99.02
21	Developed, Open Space	4.54%	113.80
22	Developed, Low Intensity	3.29%	82.66
23	Developed, Medium Intensity	0.70%	17.63
24	Developed, High Intensity	0.16%	4.14
31	Barren Land	0.11%	2.77
41	Deciduous Forest	25.93%	650.49
42	Evergreen Forest	0.12%	3.05
43	Mixed Forest	3.82%	95.72
52	Shrub/Scrub	0.06%	1.62
71	Herbaceous	0.83%	20.77
81	Hay/Pasture	17.25%	432.87
82	Cultivated Crops	34.48%	865.09
90	Woody Wetlands	4.41%	110.65
95	Emergent Herbaceous Wetlands	0.35%	8.72
Total		100.00%	2,509

FIGURE 1: LAND COVER DISTRIBUTION

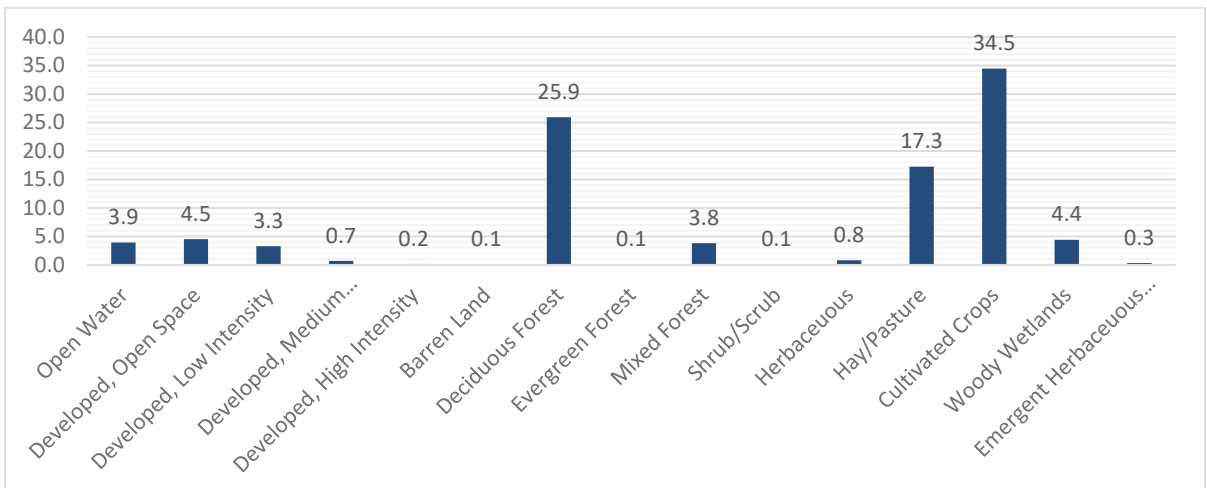


FIGURE 2: OPEN WATER AND WETLANDS

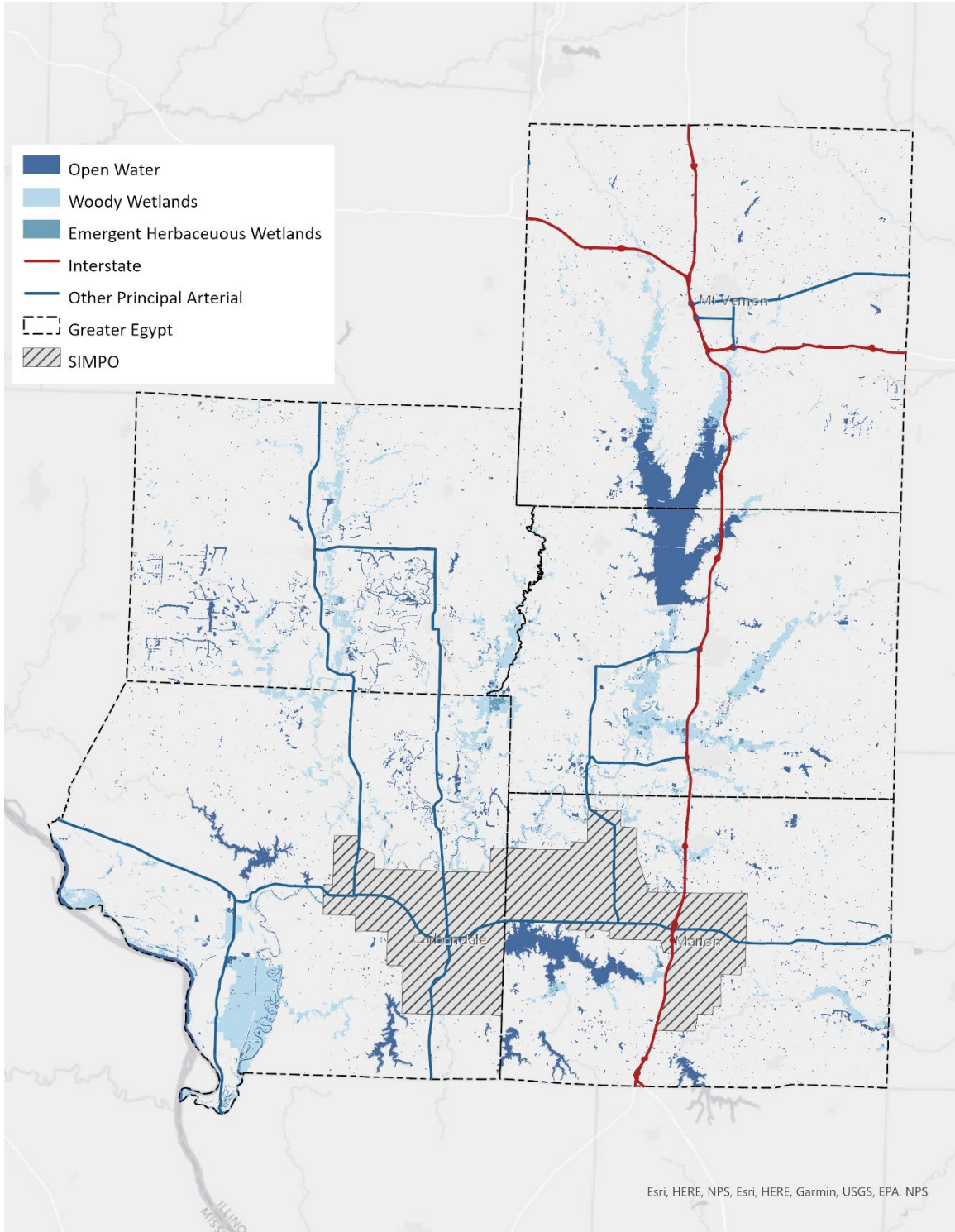


FIGURE 3: FORESTS, GRASSLANDS, AND OPEN LAND

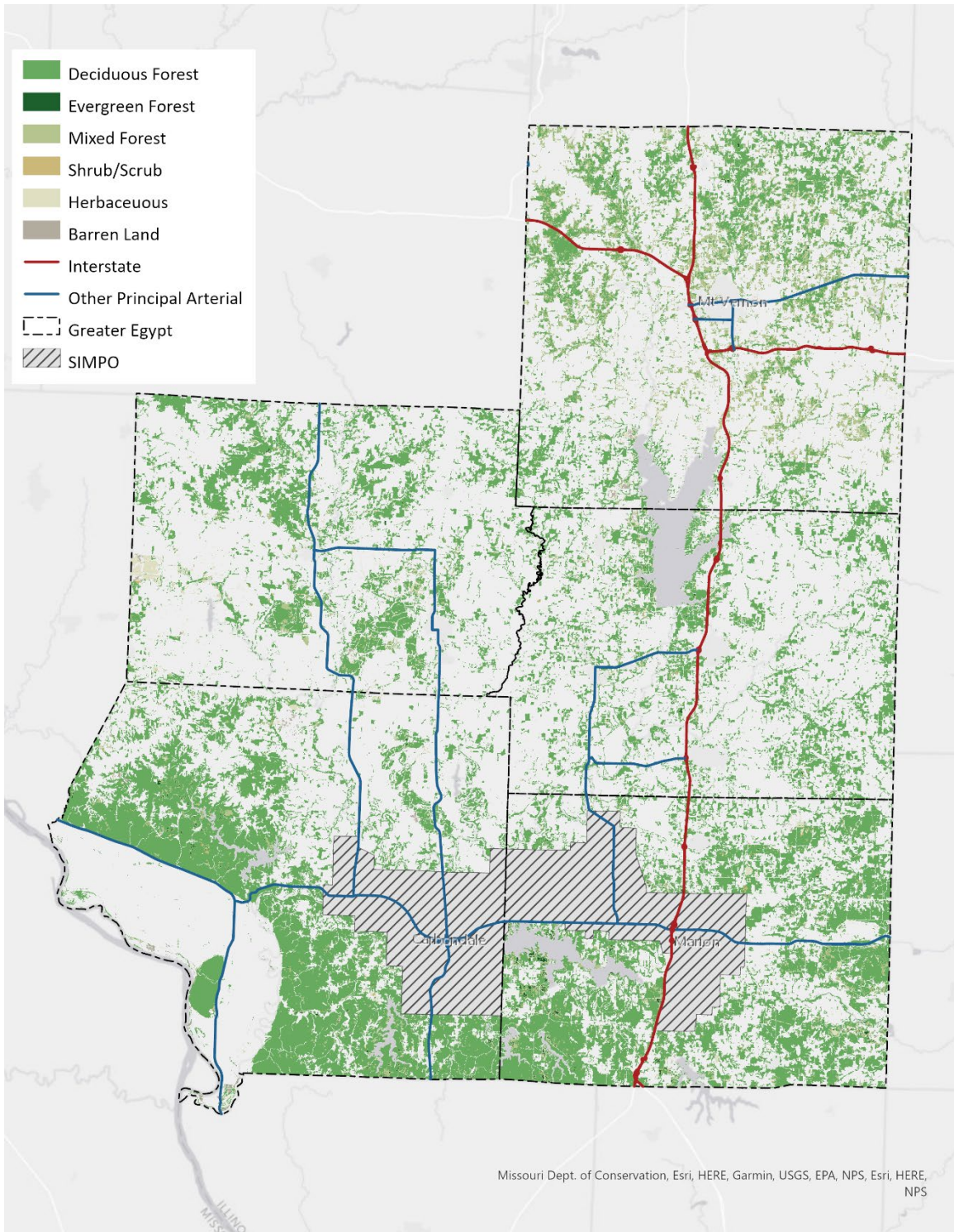


FIGURE 4: AGRICULTURAL LAND

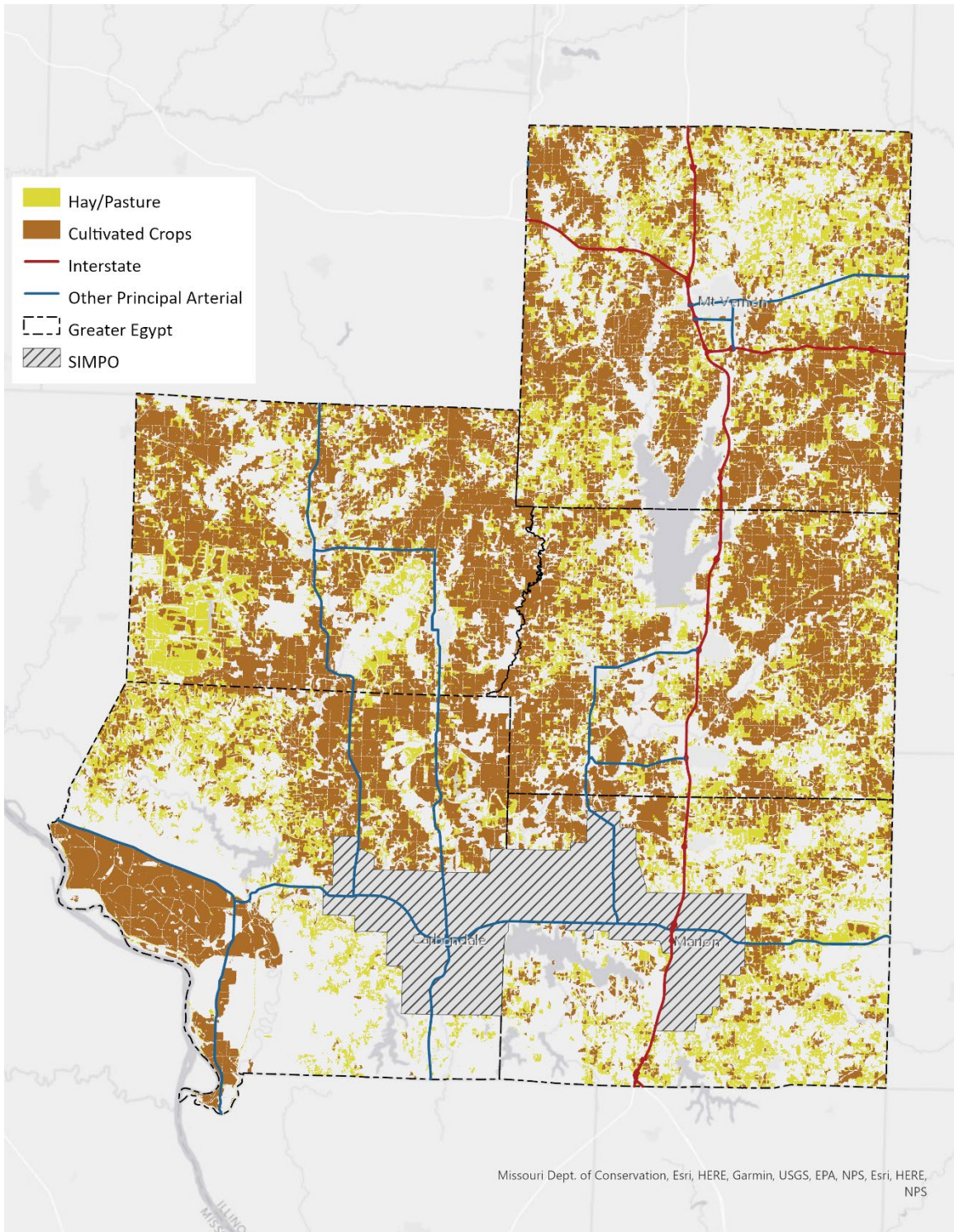
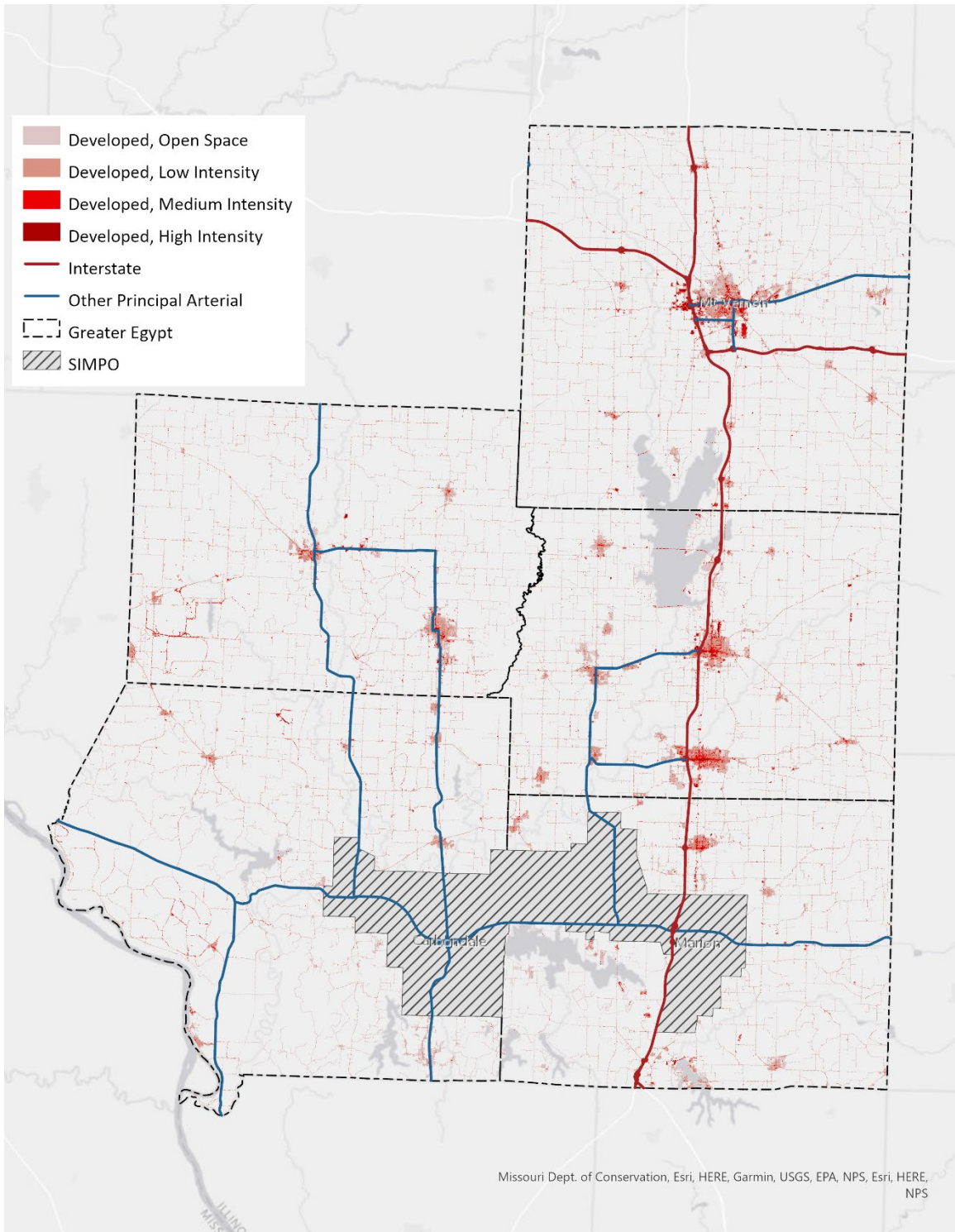


FIGURE 5: DEVELOPED LAND



Threatened and Endangered Species

As of December 2020, there are 84 threatened or endangered species throughout Greater Egypt. These species often rely on sensitive natural areas like grasslands, woodlands, and wetlands for survival. A full list of threatened and endangered species is in **Table 2**.

TABLE 2: THREATENED AND ENDANGERED SPECIES

Number	County	Name	Federal Status	State Status
1.	Franklin	False Bugbane		Endangered
2.	Franklin; Jackson	Little Blue Heron		Endangered
3.	Franklin; Jackson	River Redhorse		Threatened
4.	Franklin; Jackson; Jefferson; Perry; Williamson	Northern Long-Eared Myotis	Threatened	Threatened
5.	Franklin; Jackson; Jefferson; Perry; Williamson	Indiana Bat	Endangered	Endangered
6.	Franklin; Jackson	Spotted Pondweed		Endangered
7.	Franklin; Jefferson	River Cooter		Endangered
8.	Franklin; Jackson	Dull Meadow Beauty		Endangered
9.	Franklin; Jackson; Williamson	Spring Ladies' Tresses		Endangered
10.	Franklin; Jefferson; Perry	Ornate Box Turtle		Threatened
11.	Franklin; Williamson	Green Trillium		Endangered
12.	Franklin; Jefferson	Piping Plover	Endangered	
13.	Jackson	Black Cohosh		Endangered
14.	Jackson	Western Sand Darter		Endangered
15.	Jackson; Williamson	Chuck-Will's-Widow		Threatened
16.	Jackson	Smooth Softshell		Threatened
17.	Jackson; Williamson	Bradley's Spleenwort		Endangered
18.	Jackson	Winged Sedge		Endangered
19.	Jackson	Arkansas Sedge		Endangered
20.	Jackson	Swollen Sedge		Endangered
21.	Jackson; Williamson	Bellows Beak Sedge		Endangered
22.	Jackson	Plantain-Leaved Sedge		Endangered
23.	Jackson	Drooping Sedge		Threatened
24.	Jackson	Willdenow's Sedge		Threatened
25.	Jackson	Rafinesque's Big-Eared Bat		Endangered
26.	Jackson; Perry; Williamson	Timber Rattlesnake		Threatened
27.	Jackson	Crystal Darter		Endangered
28.	Jackson	Cynosciadium		Endangered
29.	Jackson; Williamson	French's Shootingstar		Threatened
30.	Jackson	Snowy Egret		Endangered
31.	Jackson	Bigclaw Crayfish		Endangered
32.	Jackson	Cluster Fescue		Threatened
33.	Jackson	Spring Cavefish		Threatened
34.	Jackson; Perry	Common Gallinule		Endangered

Number	County	Name	Federal Status	State Status
35.	Jackson	Eastern Narrowmouth Toad		Threatened
36.	Jackson	Arkansas Mannagrass		Endangered
37.	Jackson	Silverbell Tree		Endangered
38.	Jackson	Crested Coralroot Orchid		Endangered
39.	Jackson	Cliff Clubmoss		Threatened
40.	Jackson	One-Flowered Hydrolea		Endangered
41.	Jackson	Bird-Voiced Treefrog		Threatened
42.	Jackson	American Orpine		Threatened
43.	Jackson; Perry; Williamson	Least Bittern		Threatened
44.	Jackson; Jefferson; Perry	Loggerhead Shrike		Endangered
45.	Jackson	Swainson's Warbler		Endangered
46.	Jackson	Red Honeysuckle		Endangered
47.	Jackson	Yellow Honeysuckle		Endangered
48.	Jackson	Sturgeon Chub		Endangered
49.	Jackson; Williamson	Climbing Milkweed		Endangered
50.	Jackson	Virginia Bunchflower		Endangered
51.	Jackson	Squirting Cucumber		Threatened
52.	Jackson	Gray Bat	Endangered	Endangered
53.	Jackson	Bigeye Shiner		Endangered
54.	Jackson	Illinois Wood Sorrel		Threatened
55.	Jackson; Williamson	Shortleaf Pine		Endangered
56.	Jackson	Heart-Leaved Plantain		Endangered
57.	Jackson	Grove Bluegrass		Endangered
58.	Jackson	Mock Bishop's Weed		Endangered
59.	Jackson	Rock Chestnut Oak		Threatened
60.	Jackson; Perry	Harvey's Buttercup		Threatened
61.	Jackson	Southern Grape Fern		Endangered
62.	Jackson; Williamson	Carolina Whipgrass		Endangered
63.	Jackson	Cerulean Warbler		Threatened
64.	Jackson	Grass-Leaved Lily		Threatened
65.	Jackson	Hairy Synandra		Threatened
66.	Jackson	Grass		Endangered
67.	Jackson	Buffalo Clover		Threatened
68.	Jackson	Nettle		Threatened
69.	Jackson	Pallid Sturgeon	Endangered	
70.	Jefferson	Cypress Minnow		Endangered
71.	Jefferson	Pugnose Shiner		Endangered
72.	Jefferson	Osprey		Threatened
73.	Perry	Short-Eared Owl		Endangered
74.	Perry	American Bittern		Endangered
75.	Perry	Opaque Oval Sedge		Endangered

Number	County	Name	Federal Status	State Status
76.	Perry; Williamson	Northern Harrier		Endangered
77.	Perry	Tubercled Orchid		Threatened
78.	Perry	King Rail		Endangered
79.	Williamson	Upland Sandpiper		Endangered
80.	Williamson	Eryngo		Endangered
81.	Williamson	Indiana Crayfish		Endangered
82.	Williamson	Butternut		Endangered
83.	Williamson	Least Brook Lamprey		Threatened
84.	Williamson	Yellow-Crowned Night Heron		Endangered
85.	Williamson	Dull Meadow Beauty		Endangered
86.	Williamson	Bewick's Wren		Endangered

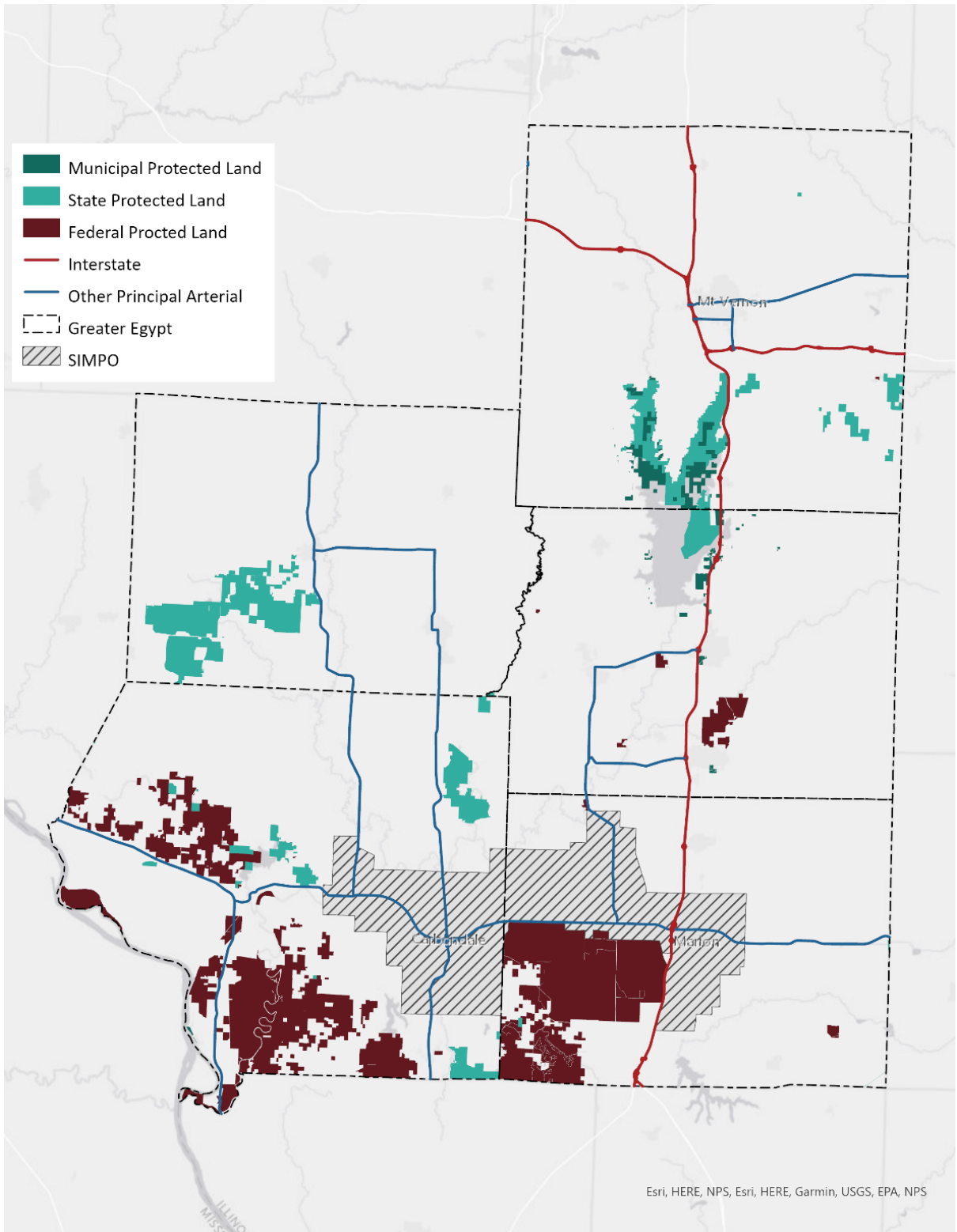
Protected Land

In 1986, the Illinois Department of Natural Resources (DNR) established the Illinois Natural Heritage Database. The database is a central location of information on important natural features within the state. The database is continuously updated and field surveys are conducted to verify locations, evaluate conditions, and verify high priority locations. Currently, there are 30 state protected areas within the region. In addition to state protection, there are numerous municipal and non-governmental organization (NGO) protected lands. Finally, there are multiple federal government protected lands in the form of conservation easements, wildlife refuges, and a national park. **Figure 6** shows all protected lands in Greater Egypt.

Recommendations to ensure the protection of certain land includes:

- Preserve the boundaries of existing public lands; expand these boundaries where and when possible
- Establish conservation easements to protect private land from certain kinds of development that may be particularly harmful to important natural systems

FIGURE 6: PROTECTED LAND



Historic Resources

In addition to natural resources, cultural and historic resources should also be considered, and steps should be taken to minimize damage, destruction, or removal of these features. **Table 3** and **Figure 7** show landmarks on the National Register of Historic places. **Figure 8** shows the historic rural residences in the region.

TABLE 3: NATIONAL REGISTER OF HISTORIC PLACES

Resource Name	County
Allen, Willis, House	Williamson
Appellate Court, 5th District	Jefferson
Franklin County Jail	Franklin
Fuller, R. Buckminster, and Anne Hewlett Dome Home	Jackson
Giant City Stone Fort Site	Jackson
Goddard Chapel	Williamson
Grange Hall	Jackson
Hamilton, Robert W., House	Jackson
Hennessy, Cornelius, Building	Jackson
Hull, William H., House	Jackson
Illinois Central Railroad Passenger Depot	Jackson
Judd, C. H., House	Jefferson
Liberty Theater	Jackson
Mobile and Ohio Railroad Depot	Jackson
Murphysboro Elks Lodge	Jackson
Perry County Jail	Perry
Reef House	Jackson
Riverside Park Bandshell	Jackson
Sesser Opera House	Franklin
Stotlar, Ed. M., House	Williamson
West Frankfort City Hall	Franklin
Williamson County Jail	Williamson

FIGURE 7: NATIONAL REGISTER OF HISTORIC PLACES

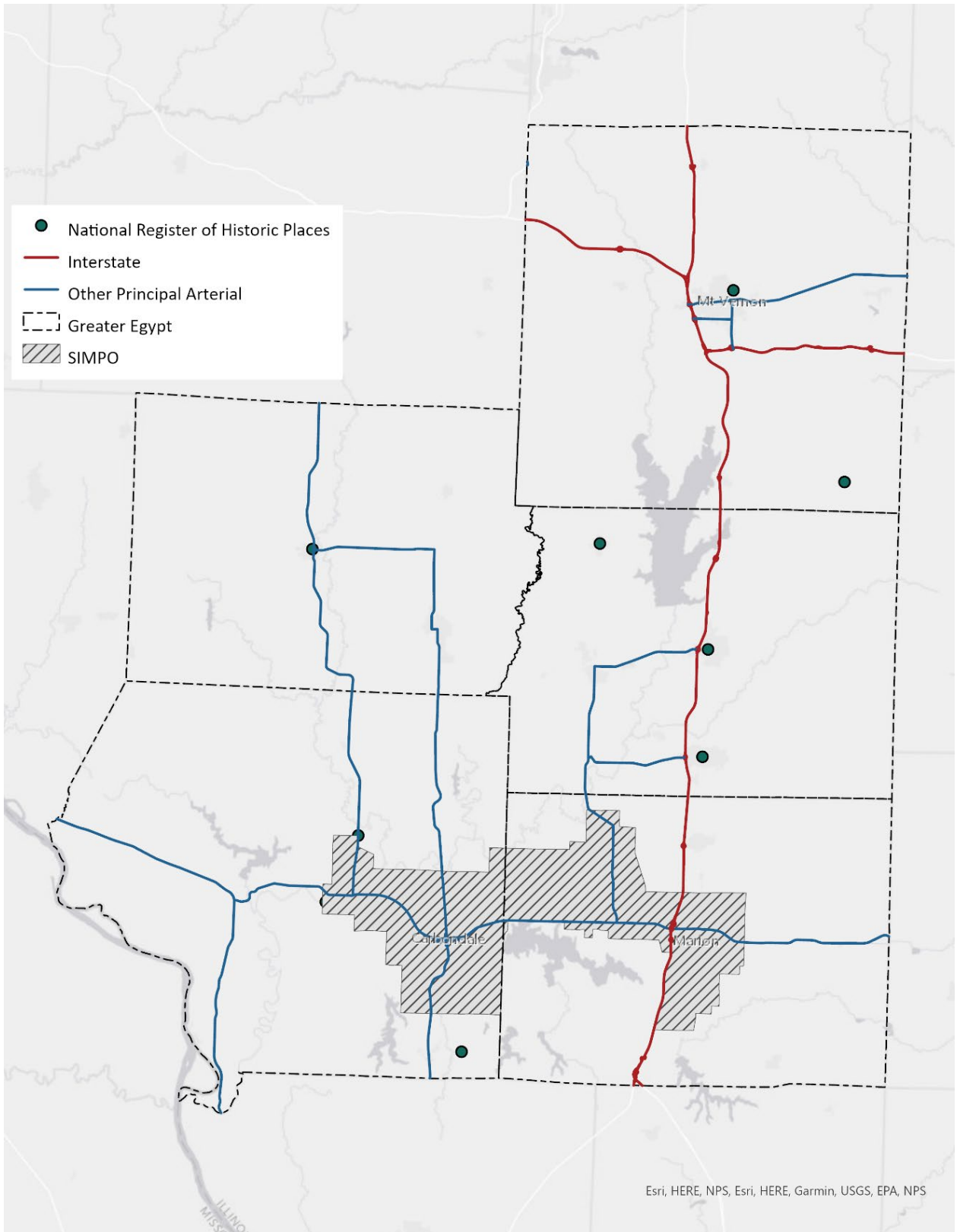
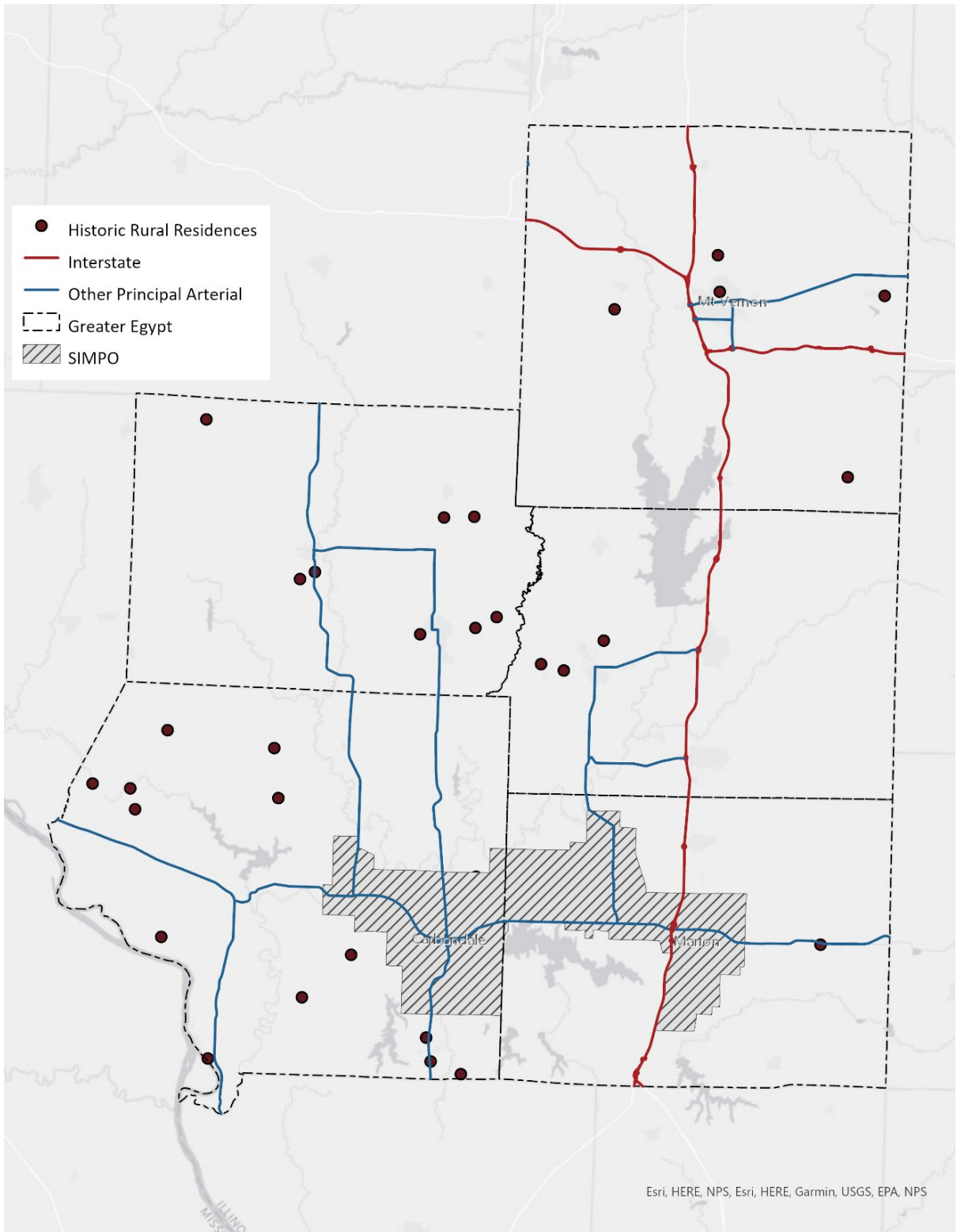


FIGURE 8: HISTORIC RURAL RESIDENCES



National Environmental Policy Act (NEPA)

When a transportation improvement project is designed, many residents believe that the bulldozers will arrive tomorrow. In contrast, the LRTP is often viewed as part of the distant and uncertain future. Linking long range planning and environmental review can help overcome this public confusion and focus stakeholder engagement as well as save time and money. The National Environmental Policy Act (NEPA) is a federal law that promotes the enhancement and preservation of the environment. NEPA requires federal agencies, or other agencies using federal money, to review the environmental impacts of their actions. Since many transportation investments rely on federal money, NEPA is a typical step within project delivery. NEPA requires project review against a host of federal statutes such as: Clean Air Act, Clean Water Act, Endangered Species Act, Section 106 of the National Historic Preservation Act, and other state and local environmental protection laws.

Linking planning and NEPA is sometimes perceived as requiring additional work of staff and resource agencies where resources are limited. This demand is often magnified by a lack of understanding of the individual agency processes and requirements. Collaboration, either through formal agreement or informal working relationships, can improve these challenges over time. The NEPA process requires strong documentation; therefore, one essential requirement is for good, standardized documentation of information (data, decisions, and analysis) that are to be passed between the LRTP and NEPA in order to avoid revisiting decisions made in planning.

Air Quality

Air quality and transportation are intimately connected through United States Environmental Protection Agency (EPA) regulation. The Clean Air Act, which was last amended in 1990, requires EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. The current standards are shown in **Table 4**. Units of measure for the standards are parts per million (ppm) by volume, parts per billion (ppb) by volume, and micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$).

Currently, the Greater Egypt region meets State and Federal air quality standards and air quality in the region rated as good on most days. In 2019, Illinois deployed 145 instruments at 64 monitoring sites throughout the state. None of the monitors were located within the region however, monitors were placed nearby in Hamilton and Randolph counties for ozone and particulate matter (PM_{2.5}). Both of the nearby monitors showed design values for ozone and PM_{2.5} within the National Ambient Air Quality Standards.

Although the region is within national air quality standards, it's important to consider the relationship between air quality and transportation. Recommendations to maintain air quality include:

- Regularly optimize signal timings to reduce unnecessary congestion
- Encourage the use of non-motorized transportation such as walking or bicycling
- Encourage and direct investment of a robust electric vehicle charging station network

TABLE 4: NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Primary/Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)	Primary	8 Hours	9 ppm	Not to be exceeded more than once per year
		1 Hour	35 ppm	

Lead (Pb)	Primary and secondary	Rolling 3-month average	0.15 µg/m ³	Not to be exceeded	
Nitrogen Dioxide (NO₂)	Primary	1 hour	100 ppb	98 th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	Primary and secondary	1 year	53 ppb	Annual Mean	
Ozone (O₃)	Primary and Secondary	8 Hours	0.070ppm	Annual fourth-highest daily maximum 8 hours concentrations, averaged over 3 years	
Particle Pollution	PM 2.5	Primary	1 year	12.0 µg/m ³	Annual mean, averaged over 3 years
		Secondary	1 year	15.0 µg/m ³	Annual mean, averaged over 3 years
		Primary and Secondary	24 hours	35 µg/m ³	98 th percentile, averaged over 3 years
	PM 10	Primary and Secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide	Primary	1 hour	75 ppb	99 th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	Secondary	3 hour	0.5 ppm	Not to be exceeded more than once per years	

Water Quality

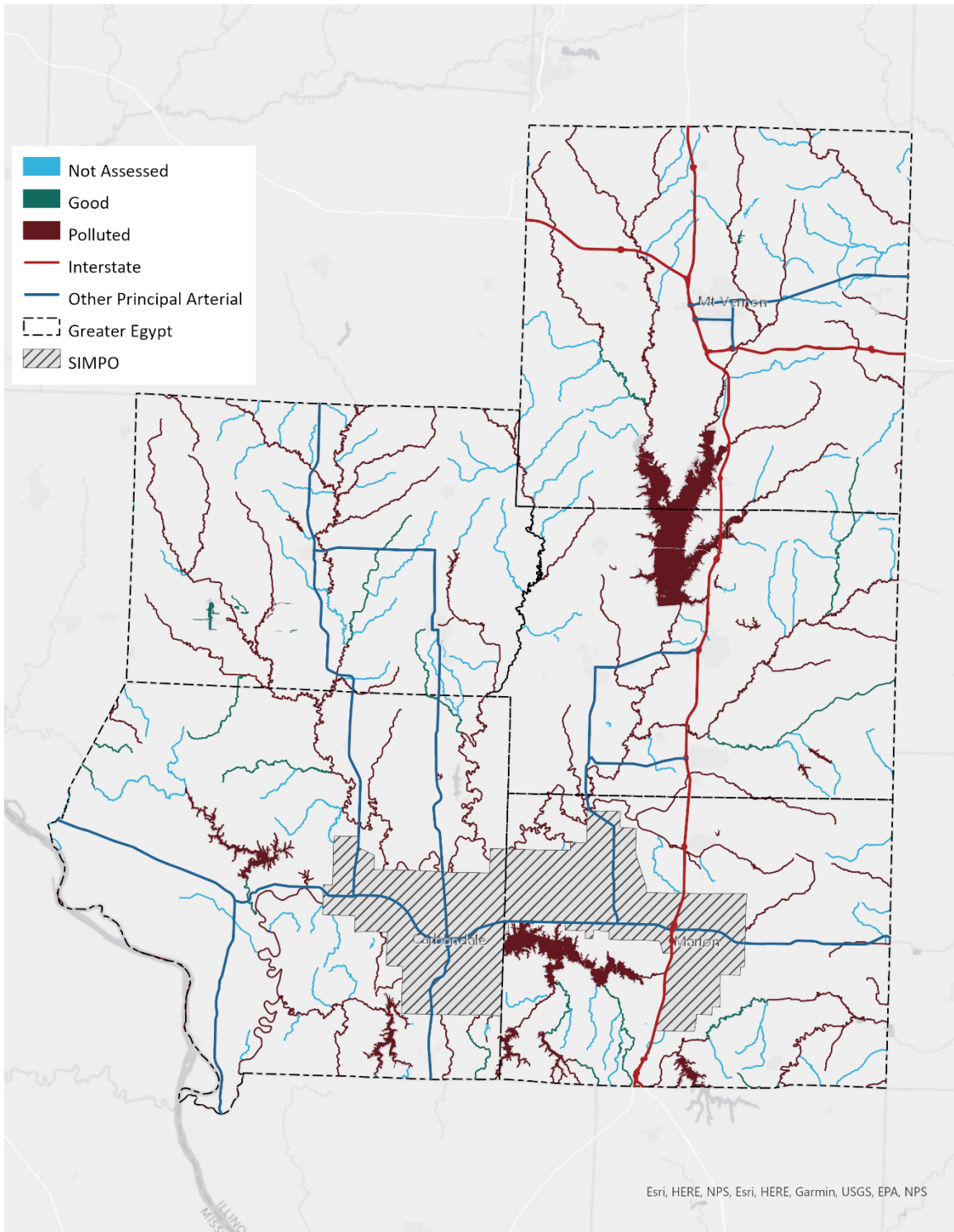
While air pollution is the most visible and studied environmental consequence of transportation systems, water pollution and wetlands issues are also of crucial importance in the transportation and environment nexus. Fuel, particle, and salt-laden runoff from streets, highways, and storage facilities results in damage to public water supplies, ponds, lakes and surface streams, roadside soil, vegetation and trees, and infrastructure and vehicles. The role of wetlands in water purification, management of surface water runoff, and wetlands as habitat preserves for numerous species are all being closely studied.

Roadways tend to bisect watersheds. Water quality impacts attributed to erosion, sedimentation, and polluted runoff associated with highway construction, operation, and maintenance may be limited to the adjacent streams. But in the watershed downstream, the impact from the road may also contribute to other forms of water pollution. Watersheds are therefore both directly and indirectly impacted by transportation. It is for this reason that a watershed approach has become the most widely accepted direction of study of most water and transportation research.

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole-body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

The EPA Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS) is an online system and database for information about water quality. **Figure 9** shows the assessed and polluted waters in the region. Many of the region's waterways are currently polluted, many are identified in the 303(d) list, and many are subject to TMDLs. Primary water bodies including Rend Lake, Crab Orchard Lake, and Kinkaid Lake are on the 303(d) list and have TMDLs. The main causes of poor water quality for these lakes are concentrations of mercury and high turbidity.

FIGURE 9: WATER QUALITY & IMPAIRED WATERS



According to the EPA, transportation affects water quality directly in four ways: 1) road construction and maintenance, including the creation of impervious surfaces can adversely affect water quality due to faster rates of runoff, lower groundwater recharge rates, and increased erosion; 2) pollutants such as vehicle exhaust, oil, and dirt, and deicing chemicals, are deposited to roadways and other impervious

surfaces; 3) leaking underground storage tanks release petroleum to groundwater; and 4) oil spills, especially in the marine sector, affect the water quality of inland waterways and coastal areas.

One method of lessening the impact of stormwater is through green infrastructure. Green infrastructures are strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations.

Using green infrastructure techniques in the transportation system has many benefits. For example, a road built through the heart of a historically wet area can experience flooding and can deplete the ability for that area to absorb and filter stormwater. A community can effectively build a transportation system while maintaining the vital roles that ecosystems play in community health and wellbeing by considering the functions of natural systems while planning for transportation infrastructure.

There are many ways to integrate green infrastructure into roadway projects. Examples of green infrastructure include:

- The use of vegetative bioswales and wetland retention to filter and absorb stormwater from the road system
- Planting of street trees
- The use of porous pavement

The concept and associated technology of green infrastructure has been evolving for decades, and engineers and scientists are becoming more and more confident in the applicability and effectiveness of these technologies.

Other recommended methods to reduce water pollution from transportation projects include:

- Ensuring the quality of stormwater runoff is protected while roadways in Greater Egypt are constructed, operated, and maintained
- Promoting innovative control measures (i.e., best management practices)
- Reducing the amount of herbicides and chemical agents used for road maintenance
- Managing natural habitat to compensate for lost systems, such as planting native vegetation in swales
- Providing effective water quality education to staff
- Facilitating cooperation between watershed groups, other Water Quality Program managers, businesses, and the public
- Developing a Stormwater Management Program to reduce pollutants in stormwater from area roadways and facilities.

Appendix D - Financial Analysis



Financial Analysis

Financial planning is a critical attribute to any long-range transportation plan. It helps demonstrating that the financial analysis is valid encourage public involvement. The financial element of the long-range transportation plan chapter identifies the estimated revenue from existing and proposed funding sources over the plan period and compares it against estimated project costs of constructing, maintaining, and operating the existing and planned transportation system through 2045. This chapter summarizes a transparent financial analysis of potential transportation investments identified through rigorous reviews of available and anticipated federal, state, and local revenue sources and existing and estimated costs to maintain and operate the highway system in the five counties that make up the Greater Egypt Region.

It is critical to acknowledge that available federal, state, and other local funding sources may not be enough to implement all of the proposed infrastructure improvements identified in this plan over the planning horizon year. Moreover, this financial plan is a long-range, system-level plan and most of both the cost and revenue projections are preliminary and will be revisited periodically in the future.

Funding Sources

The Greater Egypt Region's financial needs over the next 25 years will depend on the limited amount of federal, state, and local funding sources described in the following:

Federal Funding

2.1.1 Roadway Funding

The Infrastructure Investment and Jobs Act (IIJA) Act was passed in December 2021. It authorizes over \$1.2 trillion for Federal highway, safety, transit, and rail programs for five years from federal fiscal year (FY) 2021 to 2026. This new transportation bill, succeeding the FAST Act, increases federal-aid formula for core apportioned programs (the funds that are allocated annually to States and MPOs) by about 30% across the board, depending on the individual program. Fund allocations are inclusive of Surface Transportation Block Grant Program (STBGP) funds, most Federal Transit Administration (FTA) formula funds (5307, 5311, 5339, etc.), and Highway Safety Improvement Program (HSIP) funds. Other increases of interest include a 10% increase for Congestion Mitigation Air Quality (CMAQ), and a 71% increase for Transportation Alternatives (TA) type funding (sidewalks, shared use paths, bicycle facilities, etc.)

In addition to funding increases over FY 2021, program funding grows nearly 2-3% per year through FY 2026. This continuous growth essentially means more direct resources for states, transit providers, and MPOs as well as suballocations to local governments through these listed agencies.

Major programs of the IIJA include:

- National Highway Performance Program
- Surface Transportation Block Grant Program
- Highway Safety Improvement Program
- Railway-Highway Crossing Program
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program

- Transportation Planning Program
- National Highway Freight Program

In addition to core programs previously funded through the FAST Act, new programs (both formula and competitive) for transportation investment include but are not limited to:

- Carbon Reduction Program
- PROTECT
- National Infrastructure Project Assistance Grants
- Competitive Bridge Repair Program
- Rural Surface Transportation Grant program
- Active Transportation Infrastructure Investments Program
- Safe Streets and Roads for All Grant Program
- Healthy Streets Program

Brief descriptions of the programs under the IIJA Act that can be utilized for the proposed transportation system improvements identified in this plan include the following:

National Highway Performance Program: This program supports the condition and performance of the National Highway System (NHS) and to construct new facilities on the NHS. The NHS is the network of the most important highways, including the Interstate and US highway systems. Harrison County's NHS facilities are shown in Figure 1 of Chapter 4.

Surface Transportation Block Grant Program: The long-standing Surface Transportation Program was converted into the Surface Transportation Block Grant (STBG) Program under the FAST Act. This program provides funds for the construction, rehabilitation, resurfacing, restoration, preservation, and other improvements to federal-aid highways and replacement, preservation, and other improvements to bridges on public roads. Funding for Transportation Alternatives (TA) is set aside from the overall STBG funding amount.

Highway Safety Improvement Program: The US Department of Transportation's (USDOT) top priority is the safety throughout all of the transportation program. The FAST Act continues to fund the successful Highway Safety Improvement Program (HSIP). It requires the States to pursue, under HSIP, a data-driven, strategic, and performance focused approach to improving highway safety on all public roads. Chapter 6 identified 13 fatal crashes and -- incapacitating injury crashes in Harrison County from 2013 to 2017.

Railway-Highway Crossing Program: The FAST Act continues the Railway-Highway Crossing Program which provides funds for safety improvements for reducing the number of fatalities, injuries, and crashes at public railway-highway grade crossings.

National Highway Freight Program: The National Highway Freight Program is a new program under the FAST Act which includes estimated \$1.2 billion per year in funding. This program is focused on improving the efficient movement of freight on the National Highway Freight Network (NHFN). The NHFN includes the Primary Highway Freight System (PHFS), critical rural and urban freight corridors (as designated by States, and in some cases by MPOs), and the portions of the Interstate System not included in the PHFS. Chapter 5 provided a detailed summary of multi-modal freight transportation system in Harrison County.

Most federal transportation grants require 10-20% match from state, local or other funding sources. Over 75% of funding allocated to Illinois is for use in the National Highway Performance Program and Surface Transportation Block Grant Program. X.X and Table X.X. provide detail of the State of Illinois apportionment of federal funds under the IIJA for FY 2021.

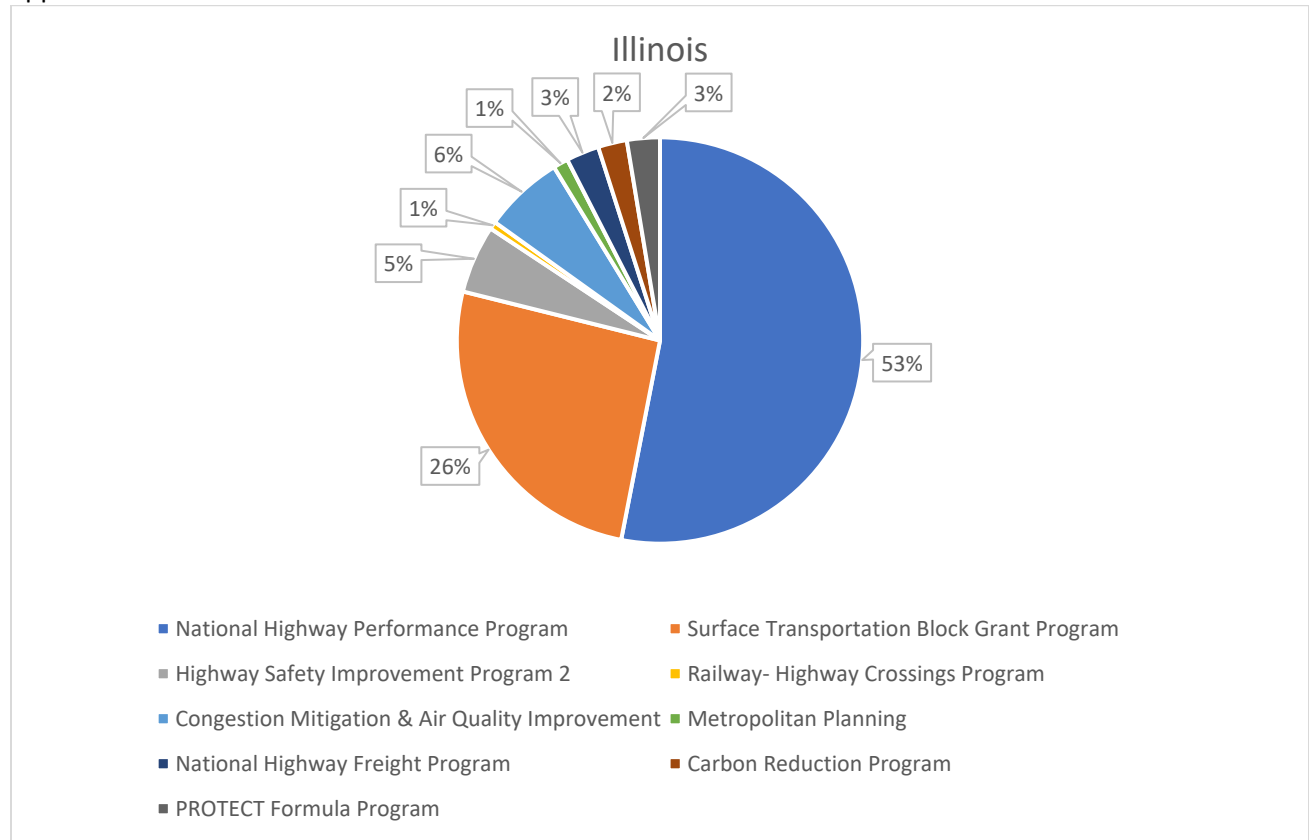


Table --: IIJA Funding Program and Apportionment for Illinois

Federal Program	FY22
National Highway Performance Program	\$ 999,514,444.00
Surface Transportation Block Grant Program	\$ 486,250,270.00
Highway Safety Improvement Program	\$ 102,028,534.00
Railway- Highway Crossings Program	\$ 11,306,853.00
Congestion Mitigation & Air Quality Improvement	\$ 119,957,587.00
Metropolitan Planning	\$ 22,509,719.00
National Highway Freight Program	\$ 49,306,725.00
Carbon Reduction Program	\$ 43,357,316.00
PROTECT Formula Program	\$ 49,300,375.00
TOTAL	\$ 1,883,531,823.00

2.1.2 Transit Funding

The IIJA provides steady funding for transit through the Federal Transit Administration for FY 2022 to 2026. Major federal transit grant programs include:

- The Urban Formula Program (Section 5307)
- New Starts (Section 5309)

- Elderly Individuals and Individuals with Disabilities Program (Section 5310)
- Rural Formula Program (Section 5311)
- State of Good Repair Program (Section 5337)

The Jackson County Mass Transit District, Rides Mass Transit District, and South-Central Illinois Mass Transit District operates transit service in the Greater Egypt Region.

2.2 State Funding

State highway funds are typically developed through gasoline and diesel taxes, vehicle registration fees (including title and license fees), sales tax, and bonding. In June 2019, the State of Illinois General Assembly authorized Rebuild Illinois, which introduced the following taxes and fees for funding the state's roadway infrastructure projects and took effect July 1, 2019:

- Increase of gasoline tax by 19 cents per gallon to 38 cents per gallon.
- Increase of special fuels tax by 24 cents to 45 cents.
- Raising passenger vehicle registration fees by \$50 to \$148.00.
- Raising electric vehicles registration fees by \$230.50 to \$248.00.
- Raising truck registration fees by \$100.00.
- Increasing standard certificate of title fees \$55 to \$150.

Illinois cities, towns, and counties received financial benefit of an additional \$33.2 billion for local roads, bridges, railroads, mass transit, and ports through 2025 as a result of these additional funding sources.

Funds to local governments are available for infrastructure improvements, project studies, economic development and technical support. These funding programs include:

- [Economic Development Program](#)
- [Highway Safety Improvement Program \(HSIP\)](#)
- [Illinois Transportation Enhancement Program \(ITEP\)](#)
- [Rail Freight Loan Program](#)
- [Safe Routes to School Program \(SRTS\)](#)
- [Truck Access Route Program \(TARP\)](#)

For a complete list of all available local planning a programming funding sources, general descriptions, match ratio, eligible items, distribution method, and date distributed or solicited, see the IDOT Local Programming Matrix¹.

Illinois distributes federal Surface Transportation Block Grants, referred to as Surface Transportation Program or STP, to metropolitan planning organizations, transit agencies, and local governments annually. STP funds can be used for projects such as:

- Roadway resurfacing or reconstruction
- Bridge replacement, rehabilitation or preventive maintenance plans
- Bicycle and pedestrian facilities
- Traffic flow improvements
- Transit capital projects

¹ <https://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Guides-&-Handbooks/Highways/Local-Roads-and-Streets/Local%20Programming%20Matrix.pdf>

- Highway and transit safety infrastructure improvements and programs, including railway-highway grade crossings

Projects on roads functionally classified as local or rural minor collectors are not eligible for these funds. Bridges on any functionally classified road are eligible for STP funds, however, bridges on roads functionally classified as local or rural minor collectors may be replaced with only minimal connecting road work eligible for federal funds. Bicycle and pedestrian facilities may be constructed regardless of the roadway functional classification.

The federal STP allotments have been further delineated in Illinois into STP-Rural (STR), STP-Urban (STU), and Local Bridge Formula Program (formerly known as STP-Br) categories to be distributed fairly across the state. Allocations reflect the 2010 census, including any population updates received from the Secretary of State’s office, and the current Illinois Highway and Street Mileage Statistics non-urban mileage and non-urban area totals. Formula distributions of IDOT STP funds as well as State Matching Assistance are detailed in the following section.

Funds displayed in the following sections are allocated annually; however, not all local public agencies request or receive the maximum allotment available for various reasons including lack of local need for eligible improvements or inability to make match. These tables and their inferences are used for planning purposes and not intended to serve as definitive records of fund distribution.

STP-RURAL (STR)

The formula for distribution of the STR funds to the downstate counties is as follows:

1. Ten percent divided equally among the downstate counties.
2. Balance allocated to the downstate counties on the basis of the following three factors with equal weight being given to each factor:
 - a. non-urban area
 - b. non-urban population
 - c. non-urban mileage (total all systems)

The allocations for STR funding for counties in Greater Egypt are shown in Table 1.

Table 1: County STR Allocation in by County

STR Allocation	Year					Average
	2016	2017	2018	2019	2020	
Franklin	\$392,918.51	\$431,680.83	\$446,723.36	\$457,701.37	\$469,038.94	\$439,612.60
Jackson	\$433,312.54	\$478,594.42	\$498,136.11	\$510,526.55	\$523,223.45	\$488,758.61
Jefferson	\$461,353.91	\$507,044.04	\$525,498.64	\$538,268.07	\$551,545.14	\$516,741.96
Perry	\$279,991.71	\$307,058.06	\$317,102.40	\$324,696.83	\$332,680.49	\$312,305.90
Williamson	\$404,873.44	\$439,694.18	\$439,417.82	\$450,376.88	\$461,920.85	\$439,256.63

Source: IDOT

Local Bridge Formula Program (formerly STP-Br)

With the passage of the Infrastructure Investment and Jobs Act (IIJA), there is a new bridge formula program under the Highway Infrastructure Program (HIP) for bridge replacement, rehabilitation, preservation, and more. This program will now fund the Local Bridge Program and replace STP-Bridge.

For FY 2023, these funds will maintain the exact same rules and guidelines as STP-Bridge. In the future there may be changes. The allocations for Local Bridge Formula funding for counties in Greater Egypt are shown in Table 2.

Table 2: Local Bridge Formula Program Allocation by County

Local Bridge Allocation	Year					Average
	2016	2017	2018	2019	2020	
Franklin	\$25,941.00	\$21,090.00	\$9,607.00	\$9,069.00	\$61,206.00	\$25,382.60
Jackson	\$108,705.00	\$57,806.00	\$111,178.00	\$41,793.00	\$90,503.00	\$81,997.00
Jefferson	\$69,346.00	\$59,882.00	\$56,418.00	\$41,668.00	\$36,321.00	\$52,727.00
Perry	--	--	--	\$24,689.00	\$35,784.00	\$12,094.60
Williamson	\$23,973.00	\$26,143.00	\$13,990.00	\$17,856.00	\$17,437.00	\$20,201.83

Source: IDOT

State Matching Assistance Program

The State Matching Assistance Program (SMA) is designed to assist counties in matching federal funds when the county cannot derive sufficient matching funds from local taxation. Counties receive a Surface Transportation Program Rural (STR) allotment which may be used to fund up to 80 percent of eligible project costs. Counties are allowed to levy a Federal-Aid Matching Tax to use for the local share. Although an 80/20 federal / local matching ratio is allowable for STR projects, a lower matching ratio is judged to be more equitable when determining the need for matching funds because the counties receive other federal-aid funds in addition to STR funds that require a local match. Some counties do not have a sufficient tax base to generate the local funds needed for the match.

Any county receiving SMA county is required to levy a Federal-Aid Matching Tax of at least .045 percent to be eligible for assistance. To receive the maximum amount, it is required to have a tax rate of .05 percent. If the rate is .045 percent, the allocation is 90 percent of the maximum. If the rate is between .045 percent and .05 percent, the assistance is prorated. If the rate falls below .045 percent, the county may retain its eligibility for assistance if a permanent transfer of funds from a nonhighway fund to the Federal-Aid Matching Tax Fund is made to meet the equivalent of the minimum eligibility threshold.

The maximum assistance amount for each county is established as the difference between the amount required to match the county's STR allotment using a computer generated federal / local matching ratio and the funds generated by the county's Federal-Aid Matching Tax. This matching ratio is variable each year and is generated to result in utilization of the entire State Matching Assistance amount.

The amount of funds received by each county will vary from year to year. The variable amount of STR funds available each year and the local Equalized Assessed Valuation (EAV) as provided by the Department of Revenue have a direct correlation on the amount of funds to be disbursed based on shortfall. As an example, when the STR allotment increases, the counties will have a greater need for additional match. Conversely, when the STR allotment decreases, the counties will not have a need to match as much federal funding and therefore will require

less State Matching Assistance Program funds. State Matching Assistance Program funds may be used for any federal-aid project.

If a county so desires, it may use its accumulated matching funds to defray any part or the entire non-federal portion of any local federal-aid project regardless of the federal matching percentage. The State Matching Assistance funds may be committed as a lump-sum amount or as a percentage of the project cost not to exceed the current available State Matching Assistance allotment for the county.

There can be no anticipation of State Matching Assistance funds. In other words, no county can commit more State Matching Assistance funds to a project than it has available at the time of letting. However, existing agreements for active projects may be amended to increase the amount of State Matching Assistance funding when it becomes available.

The allocations for State Matching Assistance for counties in Greater Egypt are shown in Table 2.

Table 3: State Matching Assistance Allocation by County

State Matching Assistance	Year					Average
	2016	2017	2018	2019	2020	
Franklin	\$61,228.85	\$61,855.64	\$52,555.06	\$50,989.46	\$49,677.97	\$55,261.40
Jackson	--	--	--	--	--	--
Jefferson	--	--	--	--	--	--
Perry	\$60,024.85	\$59,266.95	\$59,245.23	\$55,347.67	\$58,942.25	\$58,565.39
Williamson	--	--	--	--	--	--

Source: IDOT

The total average annual allocations for STP formula funding provided by IDOT for the counties in Greater Egypt is shown in Table 4.

Table 4: State Formula Fund Annual Allocation Average Total by County

State Fund Revenue Sources	County				
	Franklin	Jackson	Jefferson	Perry	Williamson
Surface Transportation Rural	\$439,612.60	\$488,758.61	\$516,741.96	\$312,305.90	\$439,256.63
Local Bridge Program	\$25,382.60	\$81,997.00	\$52,727.00	\$12,094.60	\$20,201.83
State Matching Assistance	\$55,261.40	--	--	\$58,565.39	--
Total	\$520,256.60	\$570,755.61	\$569,468.96	\$382,965.89	\$459,458.46

Source: IDOT

STU- Urban

In addition to funds disbursed to the counties, STP funds sub-allocated to the urbanized areas are referred to as Surface Transportation Urban or STU. Allocations of STU are based on percentage of population of the individual urbanized area to the total urbanized area population for the entire state. Five urbanized areas within the Greater Egypt Region, excluding those that comprise the Southern Illinois Metropolitan

Urbanized Area, receive a state STP allocation. Table 5 displays the annual STU allocation for five small, urbanized areas in Greater Egypt from 2017-2021.

Table 5: STU Allocation by Local Agency

STU Allocation	Year					Average
	2017	2018	2019	2020	2021	
Benton/West City	\$86,937.37	\$89,766.35	\$91,630.36	\$93,761.80	\$101,479.33	\$92,715.04
DuQuoin / St. John's	\$71,004.09	\$73,314.59	\$74,836.98	\$76,577.78	\$82,880.90	\$75,722.87
Mt Vernon	\$171,417.42	\$176,995.43	\$180,670.75	\$184,873.38	\$200,090.32	\$182,809.46
Pinckneyville	\$63,374.07	\$65,436.29	\$66,795.08	\$68,348.82	\$73,974.61	\$67,585.77
West Frankfort	\$95,824.10	\$98,942.26	\$100,996.81	\$103,346.12	\$111,852.54	\$102,192.37

Source: IDOT

2.3 Local Funding

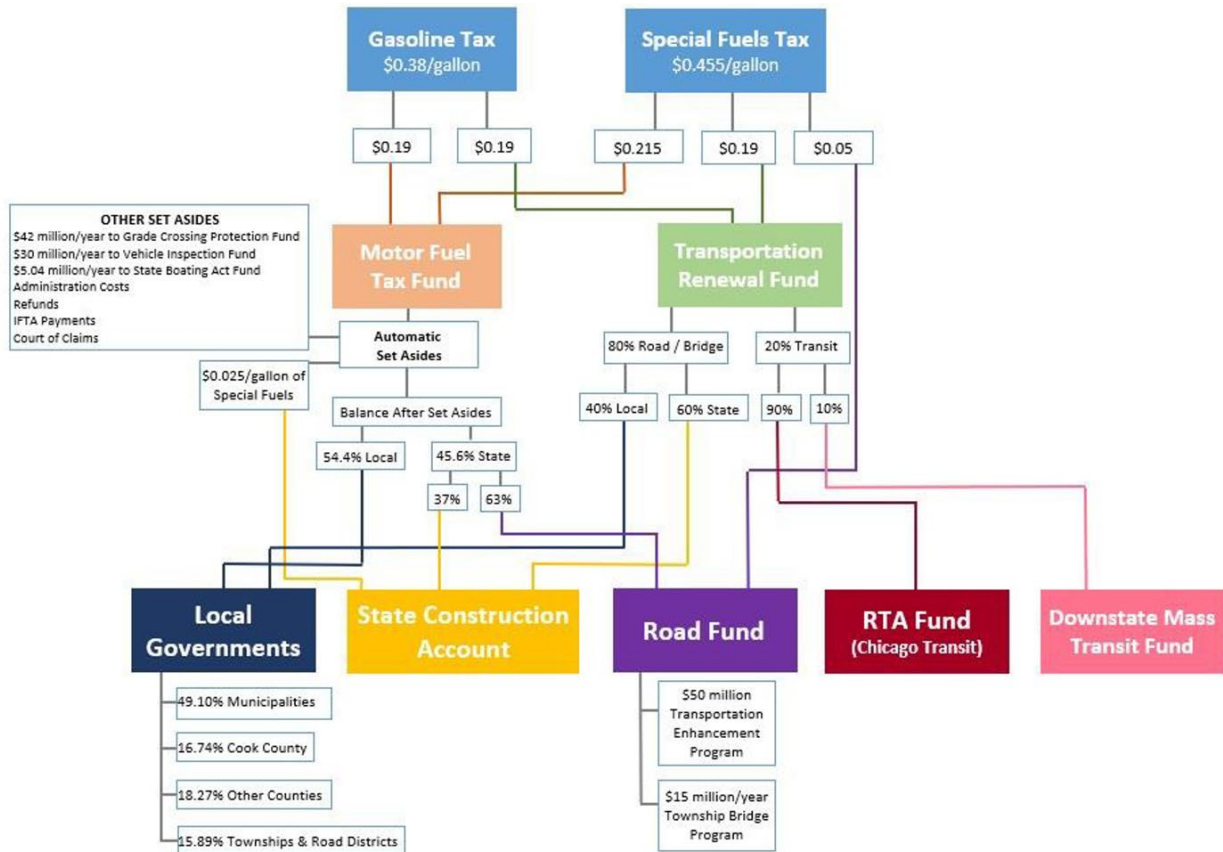
There are various transportation funding opportunities available to local governments. However, not all the local revenue sources can be used for serving as a match to federal funds for transportation improvement projects. In the State of Illinois, the motor fuel tax (MFT) is the most significant transportation funding source for local governments in Illinois for maintaining local transportation facilities, paying employee wages, and maintaining equipment. Taxes on gasoline and special fuels are deposited into two major funds which are then dispersed to agencies across the state. These funds are:

Motor Fuel Tax Fund: The Illinois MFT Fund is derived from a tax on the privilege of operating motor vehicles upon public highways and of operating recreational watercraft upon the waters of this State, based on the consumption of motor fuel. Municipalities throughout Illinois utilize MFT revenues to fund critical transportation infrastructure projects in their cities, villages and towns. MFT funds can be used to construct and maintain roads, traffic controls, street lighting, storm sewers, sidewalks and other pedestrian paths, off-street parking facilities and much more. These funds ensure that municipalities are able to provide for the public health, safety and welfare of their community through a stable infrastructure. Increased MFT revenues would allow municipalities to address neglected and dilapidated infrastructure.

Transportation Renewal Fund: On June 2, 2019, the Illinois General Assembly passed legislation that would increase the state's MFT by 19 cents per gallon on gasoline. Additionally, the MFT is increased each July 1, with rates now tied to inflation. The rate increases by an amount equal to the percentage increase in the CPI-U. Municipalities will receive a portion of these new revenues. The legislation also increased the tax on diesel fuel by 24 cents per gallon. All new revenues from both increases will be deposited into the state's new Transportation Renewal Fund (TRF), with the surcharge on diesel fuel dedicated to the state. A portion of the 19-cent increase in gasoline MFT will be shared with units of local governments. Of the total increase, 80% will be split among the state and local units of government for road construction and 20% will be distributed to mass transit districts.

As shown in Figure 1 below, of the funding going to local governments, municipalities receive 49.10%, Cook County receives 16.74%, all other counties receive 18.27%, and townships and road districts receive 15.89%. For Fiscal Year 2021 (July 1, 2020 – June 30, 2021), counties received over \$300 million, municipalities received over \$420 million, and townships and road districts received over \$136 million. As a result of motor fuel tax increases under Rebuild Illinois, these disbursement increased 66% beginning in FY2020.

Figure 1: MFT Disbursement



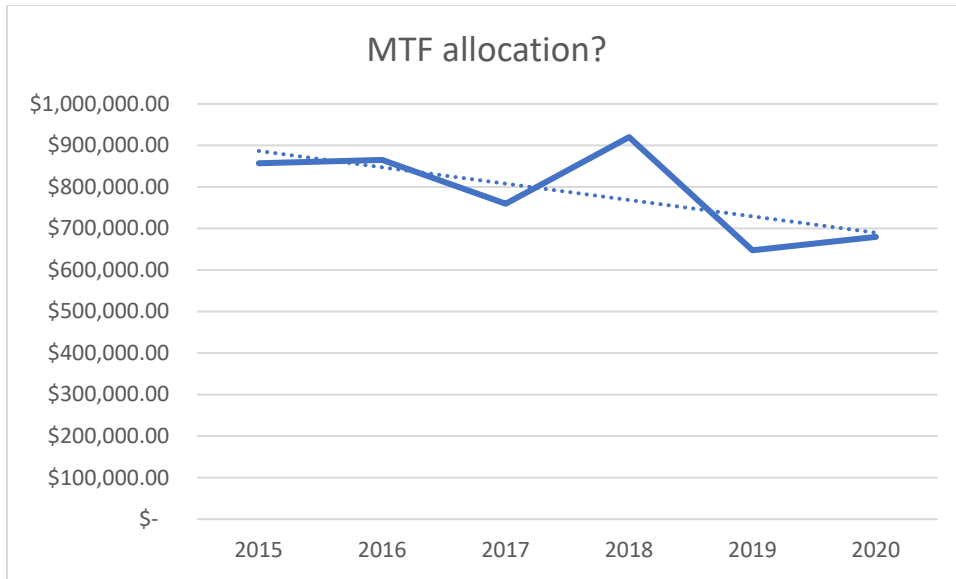
Source: IDOT

These funds are received regularly by the Local Public Agencies (LPA) from the Auditor of the State’s office. The distribution of these funds depends on formulae that consider road mileage, population, and the number of vehicle registrations.

Important Note: Reductions of VMT nationally and increases in fuel efficient vehicles have resulted in a gradual decrease of motor fuel tax revenue. This has made it increasingly difficult to raise adequate funds to maintain the national transportation infrastructure. Various alternatives have been proposed to replace the motor fuel tax (mileage based user fee), or supplement MFT with other revenue sources such as local sales taxes, public-private partnerships, and federal discretionary grants. While these alternatives are being tested, it is unknown if and when these additional/alternate revenue sources will be implemented. Declining MTF was documented at the county level as part of the final analysis conducted for this plan. Figure 2 displays the MFT Allocation for Jackson County from 2016 to 2020. As personal mobility preferences changes, more fuel-efficient vehicles become available, and electric

vehicles enter the market, this trend is expected to continue and accelerate. Revenue from MTF is expected to decline despite increases to the MFT rate. It is strongly recommended that IDOT and LPAs begin to explore alternative sources of sustainable revenue for funding transportation infrastructure.

Figure 2: Jackson County MFT Allocation



Other local funding sources currently available include, but are not limited to:

Property Taxes and Fees: Illinois local governments may collect and disburse of property taxes and local funds into special revenue funds for use as local match on federal aid projects.

The Transportation Infrastructure Finance and Innovation Act (TIFIA): The proceeds of a secured TIFIA loan may be used for any non-Federal share of project costs required under Title 23 or Chapter 53 of Title 49, if the loan is repayable from non-Federal funds. [See 23 U.S.C. 603\(b\)\(8\)](#) on the terms and limitations of a TIFIA loan.

Tax Increment Financing (TIF): As per the Illinois Municipal Code (65 ILCS 5/11-74.3-3), Tax Increment Financing is a government finance mechanism for development and redevelopment which captures increases in taxable assessed value within a defined area and then uses property tax revenue derived from these increases to finance public improvements within the specified area. Financing general public infrastructure improvements, including streets, sewer, water, and the like, in declining areas.

Public-Private Partnerships (P3): Third parties include private companies, organizations, individuals, and since SAFETEA-LU, local governments. The flexibility to apply the value of third-party donations to nonfederal highway project shares has existed since the 1995 NHS Act, which amended 23 U.S.C. 323 Donations and Credits².

² https://www.fhwa.dot.gov/ipd/finance/legislation/federal_aid/matching_strategies.aspx

Bonds: Local government units can also consider general obligation bonds and cumulative capital improvement funds for funding transportation improvement projects.

4.0 Roadway Funding Estimate

Since federal, state, or local sources do not guarantee the same level funding every year, estimating revenue for the 2045 plan horizon year can be complex and difficult to predict. Federal regulations require the financial plan to determine “all cost and revenue projections shall be based on the data reflecting the existing situation and historical trends.” As mentioned previously, IDOT provides Surface Transportation Block Grant Program (STBG) funding to each of the counties in Greater Egypt and five of the small urbanized areas. Financial analysis was performed for the five counties; however, detailed analysis of the small urbanized areas was not conducted. Other federal revenue (NHPP, HSIP, & NHFP) are grant based and can vary substantially every year.

The funding for the Greater Egypt Long Range Transportation plan can be estimated based on the following assumptions:

- Table 6 shows the Forecasted Cumulative STBG (STR and Local Bridge) Funds by County. Assuming the revenue and expenditure will remain consistent over the long-range year plan period, the total accumulated amount of STBG allocations for each county ranges from \$5.8 million to \$10.3 million. This was calculated assuming today’s dollars and a 0% annual inflation rate. Table 5 shows surplus revenue in cumulative bridge fund in 5-year increments.

Table 6: Forecasted Cumulative STBG (STR and Local Bridge) Funds by County

Year	County				
	Franklin	Jackson	Jefferson	Perry	Williamson
2025	\$464,995.20	\$570,755.61	\$569,468.96	\$324,400.50	\$459,458.46
2030	\$1,394,985.60	\$1,712,266.83	\$1,708,406.88	\$973,201.50	\$1,378,375.38
2035	\$3,719,961.60	\$4,566,044.88	\$4,555,751.68	\$2,595,204.00	\$3,675,667.68
2040	\$6,044,937.60	\$7,419,822.93	\$7,403,096.48	\$4,217,206.50	\$5,972,959.98
2045	\$8,369,913.60	\$10,273,600.98	\$10,250,441.28	\$5,839,209.00	\$8,270,252.28

Source: IDOT

- Table 7 shows each of the five counties in Greater Egypt and forecasted cumulative surplus revenue for transportation related funds for each county in 5-year increments. Assuming the revenue and expenditure will remain consistent over the long-range year plan period, Jackson, Jefferson, and Williamson counties can reasonably be assumed to have local funds available to achieve federal match requirements for state allocated STBG funds. With continued support of State Matching Assistance, Perry County can reasonably be assumed to have local funds available to achieve federal match requirements. Data for Franklin County was unavailable at the time of this study. All calculations assume today’s dollars and no annual inflation rate was applied.

Table 7: Forecasted Cumulative Excess Revenue in Local Funds

Year	County				
	Franklin*	Jackson	Jefferson	Perry	Williamson**
2025	---	\$ 590,049.60	\$ 936,218.40	\$ 546,403.80	\$ 2,674,686.00
2030	---	\$ 1,573,465.60	\$ 2,496,582.40	\$ 1,457,076.80	\$ 7,132,496.00
2035	---	\$ 2,556,881.60	\$ 4,056,946.40	\$ 2,367,749.80	\$ 11,590,306.00
2040	---	\$ 3,540,297.60	\$ 5,617,310.40	\$ 3,278,422.80	\$ 16,048,116.00
2045	---	\$ 4,523,713.60	\$ 7,177,674.40	\$ 4,189,095.80	\$ 20,505,926.00

Source: County Audit Reports 2016-2020

*Financial audits for Franklin County for a multiyear period were not available; therefore, excess or deficit revenue was unable to be calculated.

**A significant portion of Williamson County’s transportation network is located within the SIMPO urbanized area. Local excess funds shown in Table 7 are not exclusive to rural transportation needs and may be earmarked for urban programs.

- LPAs in Greater Egypt are expected to receive additional funds from the recently created Transportation Renewal Fund, and recently passed IJA. However, due to lack of historical trends the amount of revenue from these sources is unknown.
- LPAs in Greater Egypt will continue to be eligible to submit grant applications for federal programs including Highway Safety Improvement Program and National Highway Performance Program.
- Based on documented trends, it can reasonably anticipated that counties within the Greater Egypt region will have local funds available to meet federal matching funds for STBG allocated by IDOT.
- Public Private Partnerships (PPP) - The private sector, such as developers and business associations, often supports transportation projects through impact fees, right-of-way donations, and cost sharing. Developing public-private partnership will help financing the transportation projects identified in the long-range transportation plan.

Appendix E - Community Survey Results

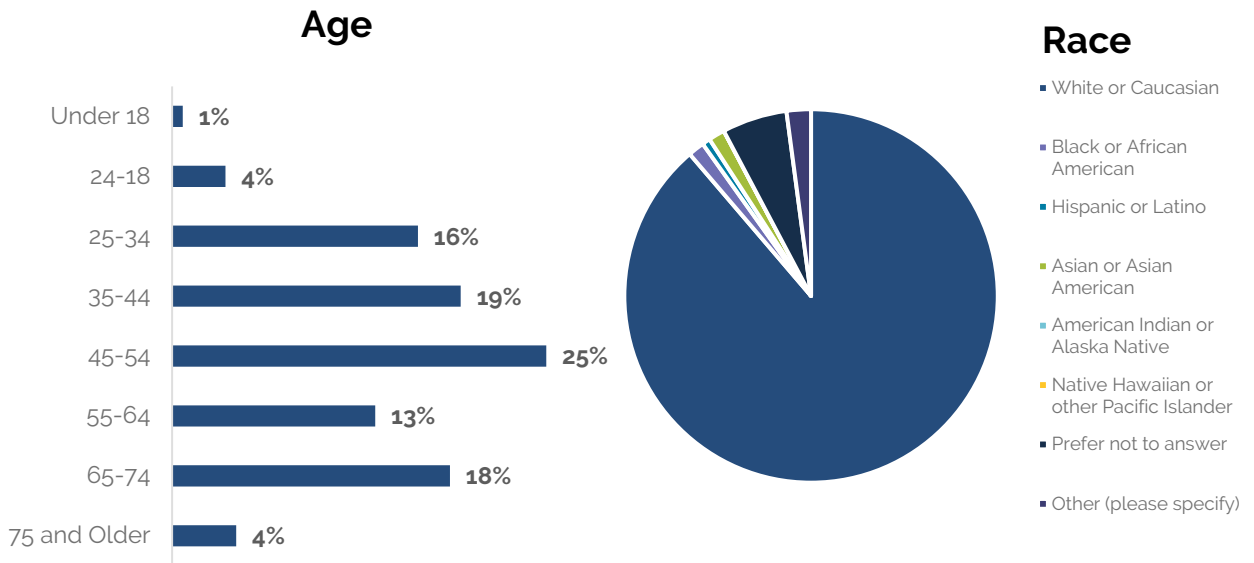


Community Survey Results

A community survey took place August 5th through November 4, 2021. The survey was available through a link on the Greater Egypt Regional Planning Commission’s website, the project website, and via social media. The survey was created to capture the sentiment of residents toward various mobility topics in the community (transportation modes, commutes, transportation goals, etc.).

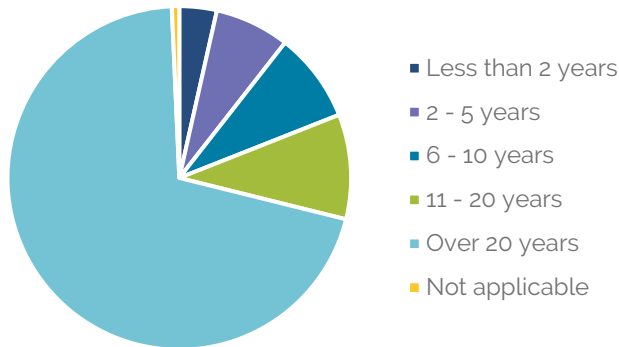
The community survey is an important tool that helps to inform the plan. It helps the planning team confirm trends and identify issues that may have been missed during other engagement activities. The survey included 14 multiple choice, ranking, and open ended questions. Over one hundred and forty respondents completed the survey by the closing date.

Survey Participants

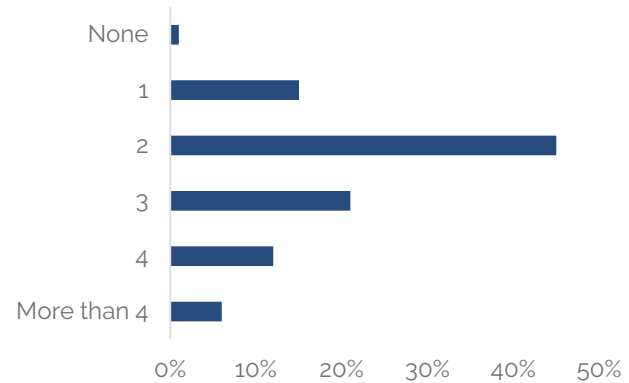


Survey participants included a representative variety of ages and races for the region. Over 64% of survey participants live and work in Greater Egypt, while an additional 33% live but do not work in the 5-county area. Almost all participants surveyed (99%) own at least one car, though most have two or more available at home. It was notable that an overwhelming majority (70%) have lived in the region for 20 years or more. Though this is more common in rural communities, it was nonetheless surprising.

Tenure



Vehicles at Home



Results from the engagement process revealed that almost all people use a car as their primary mode of transportation (87%). When given the option of other modes of transportation such as biking, walking, and bus transit, and the frequency in which they are used, it was found that walking was the next most common mode of transportation. According to the survey, 14% of people walk daily with an additional 52% of people who reported that they walk at least once a month. Over a quarter of all respondents reported that they biked at least once a month (26%) while 14% of people drove farm or agriculture machinery at least once a month.

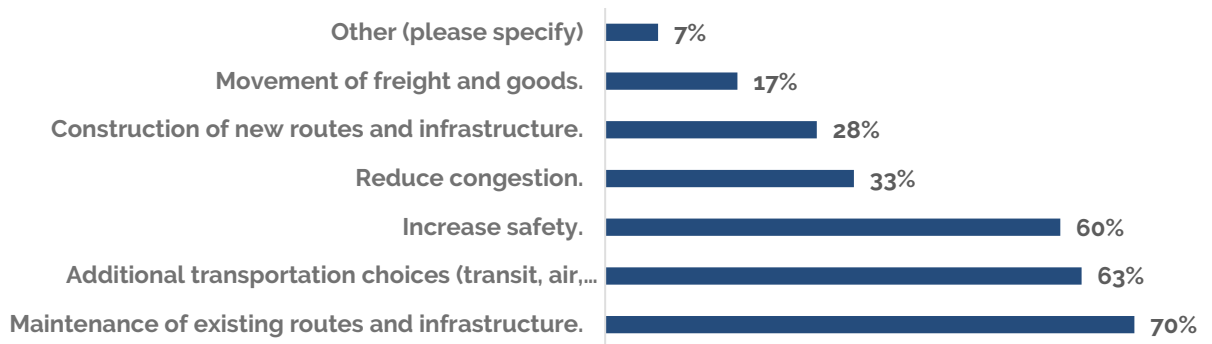
Of those who responded to the survey, 87% have not used public transportation within the last year. Additional modes of transportation that were reported used in the region included golf carts and mobility services like Uber/Lyft.

87%
Use a car as their primary mode of transportation

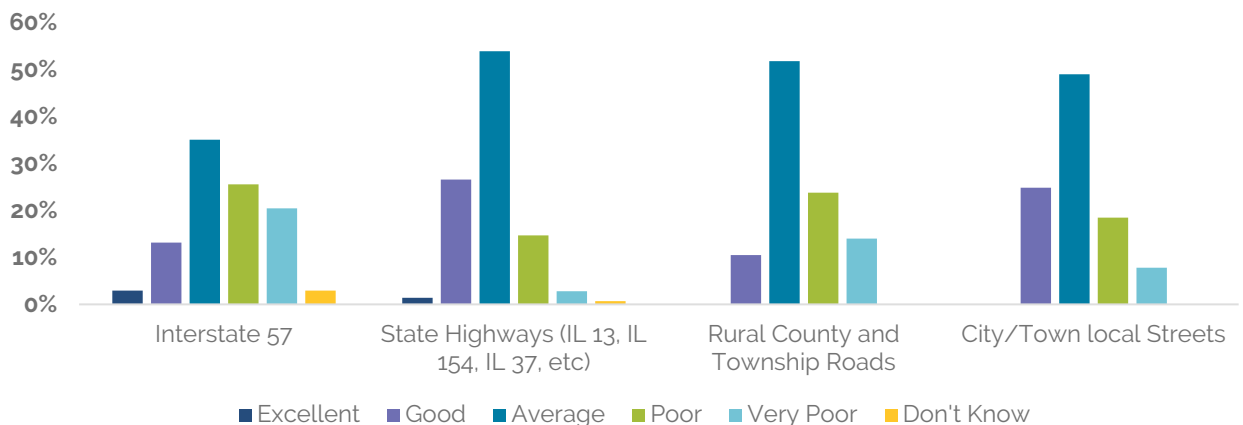
66%
Walk at least once a month

87%
Have not used public transportation in the last year

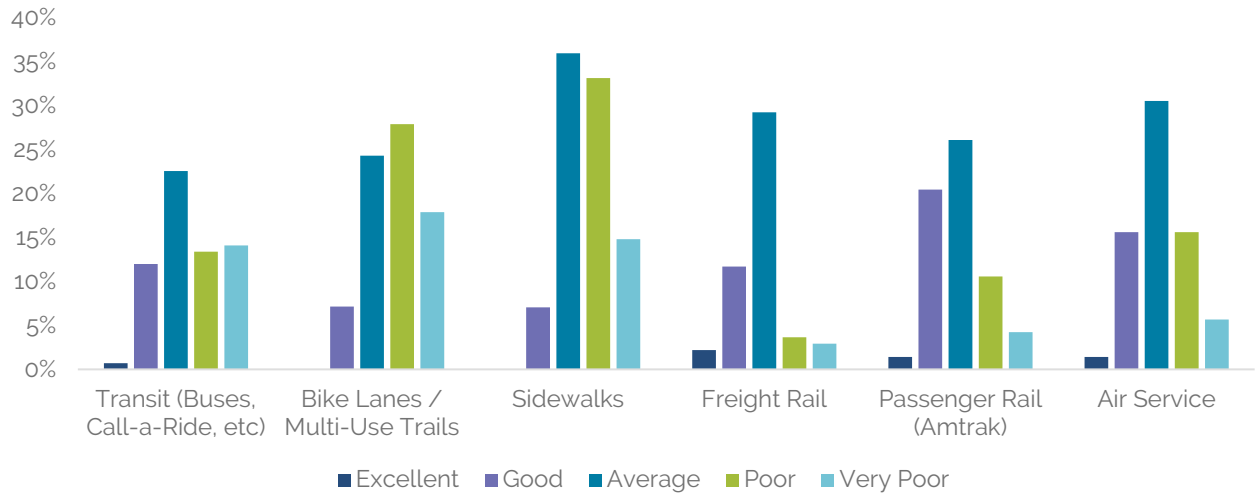
When asked what are the top transportation issues that should be addressed in the Greater Egypt Region, the most common response was the maintenance of existing routes and infrastructure (70%), followed by additional transportation choices (63%), and increase safety (60%). Other responses included a number of suggestions for improved public transit access, more direct connections to St. Louis, and addressing truck congestion on the Interstate.



When asked to report on the condition of the existing road system, respondents reported the state highway in the most favorable condition. Thoughts on the interstate system were divided with similar numbers reporting both excellent and very poor condition. Many comments reported that congestion, safety, and ongoing construction on I-57 as their highest concern. Overall, the interstate system received the least favorable condition rating. Approximately 28% of survey respondents found the state highways to be in excellent or good condition, while 54% reported state highways as average and 17% reported them in poor or very poor condition. City/town streets and county/township roads received average ratings with a number of comments about localized maintenance and flooding concerns.



A similar question was posed about condition of alternative transportation modes. Respondents reported the freight rail and passenger in the most favorable condition with an average rating. The bike lane and multi-use trail program received the lowest overall rating with 46% reporting it in poor or very poor condition. Sidewalks fared only marginally better with a higher percentage of good or average rating balanced by 48% reporting very poor or poor condition. It is notable that no bike lanes/multiuse trails or sidewalks were reported in excellent condition. Comments suggested more and improved walking and biking options, better on-time performance for passenger rail, passenger rail connection to St. Louis, and improved access throughout the rural region to public transportation.



The public was asked to provide up to three specific transportation improvements they would like to see in the Greater Egypt Region and rank in priority. The most common improvement cited as the highest priority was to improve access and availability of transit (23 responses). The next most common high priority improvements cited were enhancement to walking and biking options in the region, followed by increased safety and reduced congestion on Interstate 57. Other topics that appeared repeatedly include improving or providing an alternative to Rt. 13, providing air service to Chicago, increasing connectivity to St. Louis with the Southwest Connector, and improving overall road maintenance throughout the area. A number of specific issues were identified throughout the region, including localized flooding issues, intersection safety concerns, and at-grade rail separations.

Participants were given the opportunity to share any additional comments or suggestions with the project team. Many noted concerns about driving on I-57, suggested strategies to improve driver safety, and comment on their appreciation and support for the region. Some notable responses include:

- “We are a rural region that relies heavily on nature and farming with many families and individuals utilizing ATV/UTV side by side vehicles and golf carts. I would like to see more options for these in communities and traveling from community to community.”
- “Due to the layout of the interstates that run through our area, there is constantly a large amount of semi traffic. While this is extremely important for economic vitality, I would like to see the transportation system accommodate them more.”
- “Glad Greater Egypt is doing this. Regional planning that emphasizes public needs over politics is the smart way to do infrastructure planning. Thank you!”
- “People need to be able to work and do daily business without owning a car.”
- “Elderly who can’t drive have little options. Most cannot use Rides mass transit because they have to sit for long periods at their destination waiting for pickup. More options are really important.”

Appendix F - Performance Management



Performance Management

Greater Egypt will, to the best of its ability, attempt to monitor the performance of the area's transportation system, when reasonable, as described below. Much of the data needed for measurement of Greater Egypt's system will come from IDOT, as GERPDC does not currently have the capabilities to collect or analyze such data.

Greater Egypt has chosen to support targets as identified by IDOT as outlined below. Greater Egypt will continue to support solutions that assist in achieving the desired trends. It is recommended that Greater Egypt complete a yearly report card to monitor progress within the region. This report card would reflect accomplishments from the year prior that advance the goals Greater Egypt supported from state and transit agencies.

System Performance Report

As a minimum, Greater Egypt's LRTP shall include a system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in § 450.306(d). This includes progress achieved by Greater Egypt in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data.

The following system performance report details the condition and performance of the transportation system with respect to the performance targets for IDOT.

Federal Highway Performance Goals

The FWHA performance goals as established by Congress are¹:

- Safety
 - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition
 - To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction
 - To achieve a significant reduction in congestion on the National Highway System.
- System Reliability
 - To improve the efficiency of the surface transportation system.
- Freight Movement & Economic Vitality
 - To improve the national freight highway network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability
 - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays

¹ <https://www.fhwa.dot.gov/tpm/about/goals.cfm>

- To reduce project costs, promote jobs and the economy, and expediate the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Safety Targets

IDOT stresses safety as one of its main goals. **Table 2** shows the safety performance targets for IDOT, which Greater Egypt supports. Included in the table is a comparison between a 5-year rolling average between 2015-2019 to the calendar year 2021 target.

Five individual targets comprise the Safety Targets:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled;
5. Number of non-motorized fatalities and non-motorized serious injuries.

Table 1. Safety Performance Targets

	5-Year Rolling Average (2015 to 2019)	5-Year Rolling Average Statewide Target for CY 2021
	IDOT	IDOT
Number of Fatalities	1041.2	1000.0
Fatality Rate per 100 Million VMT	0.97	0.93
Number of Serious Injuries	12,032.9	11,556.4
Serious Injury Rate per 100 Million VMT	11.23	10.79
Number of Non-Motorized Fatalities and Serious Injuries	1,580.2	1,517.6

Pavement and Bridge Targets

In addition to safety performance targets, pavement and bridge performance targets are measured by State's DOTs. There are four performance targets for pavement and two performance targets for bridges that apply to Interstate and non-Interstate National Highway System (NHS) routes. As shown in **Table 3**, and **Table 4**, IDOT set a goal to maintain current conditions, which Greater Egypt supports.

Table 3. IDOT Pavement Performance Targets

Performance Measure	2017 Baseline	2020 Target	2022 Target
Percentage of Interstate Pavements in Good Condition	-	-	65%
Percentage of Interstate Pavements in Poor Condition	-	-	<4.9%
Percentage of non-Interstate NHS Pavements in Good Condition	37.6%	27%	27%
Percentage of non-Interstate NHS Pavements in Poor Condition	19.4%	6%	6%

Table 4. IDOT Bridge Performance Targets

Performance Measure	2017 Baseline	2020 Target	2022 Target
Percentage of NHS Bridges in Good Condition	29%	28%	27%
Percentage of NHS Bridges in Poor Condition	11.6%	13%	14%

Travel Time Reliability and Freight Reliability Targets

In addition to safety performance targets and pavement and bridge performance targets, the travel time reliability and freight reliability targets are set by State DOTs. The IDOT system reliability performance targets are shown in **Table 5** which Greater Egypt supports.

Table 5. IDOT System Reliability Performance Targets

Performance Measure	2017 Baseline	2019 Target	2021 Target
Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Interstate	80.8%	79%	77%
Non-Interstate Travel Time Reliability Measure: Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	87.3%	-	83.3%
Freight Reliability Measure: Truck Travel Time Reliability Index	1.3	1.34	1.37

FTA Transit Asset Management Performance Targets

Transit providers must establish transit asset management (TAM) targets for the following:

1. Rolling Stock: The percentage of revenue vehicles (by type) that exceed the useful life benchmark (ULB)
2. Equipment: The percentage of non-revenue service vehicles (by type) that exceed the ULB
3. Facilities: The percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirements Model (TERM) Scale

The National Transit Asset Management System Final Rule (49 USC 625) requires all agencies that receive federal financial assistance under 49 USC Chapter 53 and own, operate, or manage capital assets used in the provision of public transportation to create a Transit Asset Management (TAM) Plan. Agencies can meet this requirement either through an Individual or Group TAM Plan. Group TAM Plans are meant to collect TAM information about groups (typically small subrecipients of 5311 or 5310 grant programs) that do not have a direct financial relationship with FTA.

The TAM planning process uses asset condition to guide optimal funding prioritization at transit agencies to keep transit networks in a State of Good Repair (SGR). TAM plans require participants to set one or more targets of the asset types below based on SGR measures. See Table 2 for asset types and definitions.

Table 2: Transit Asset Types

Asset Type	Definition
Facilities	The percentage of facilities within an asset class and for which agencies have capital rehab and replacement responsibility, rated below condition 3 on the FTA TERM scale.
Rolling Stock (Revenue Vehicles)	The percentage of revenue vehicles by asset class that either meet or exceeded their Useful Life Benchmark (ULB).
Equipment (Service Vehicles)	The percentage of non-revenue, support-service and maintenance vehicles that either meet or exceeded their ULB.

IDOT, Illinois Public Transportation Association (IPTA), and Illinois Rural Transit Assistance Center (RTAC) cooperatively supported the development of the Illinois Group TAM Plan for all Tier II agencies. This state plan includes the four required elements for federal compliance, leveraging the current and historic CNA (Capital Needs Assessment) work to develop:

2. An inventory of capital assets, including all assets already reported through the CNA annual survey process
3. A condition assessment, including conditions estimated by the existing CNA model and new facility condition assessments being done by grantees
4. A decision support tool, through modification of the existing CNA model
5. Investment prioritization, including grantee input on prioritizing transit investments utilizing the improved data available in the annual CNA process and modified CNA model

The transit asset management performance targets are shown in **Table 6**.

Table 3: Illinois Transit Asset Performance Targets

Facilities Type	% Rated Below 3.0
Admin/Maintenance Facilities	17%
Passenger/Parking	12%
Total	16%
Revenue Vehicle Type	% of Vehicles At/Beyond ULB
Articulated bus	75%
Automobile	100%
Bus	33%
Ferryboat	100%
Minibus	48%
Minivan	67%
Other rubber tire vehicles	100%
Van	52%
Total	49%
Service Vehicle Type	% of Vehicles At/Beyond ULB
Automobile	46%
Minivan	56%
Other rubber tire vehicles	100%

Van	0%
Total	50%

Source: IDOT

Greater Egypt has elected to support IDOT's safety, system conditions, system performance, and transit safety performance measure targets. Jackson County Mass Transit District, RIDES Mass Transit District, and South Central Mass Transit District operate in the Greater Egypt planning area. Current Asset management benchmarks for all agencies compared to state targets are shown in the following table.

Table 4: Greater Egypt Transit Asset Management Benchmarks

Asset	% Rated Below 3.0			
	State Target	JCMTD	RIDES MTD	SCMTD
Facilities Type				
Admin/Maintenance Facilities	17%	--	0%	8%
Passenger/Parking	12%	--	0%	16%
Total	16%	--	0%	--
Revenue Vehicle Type	% of Vehicles At/Beyond ULB			
	State Target	JCMTD	RIDES MTD	RIDES MTD
Articulated bus	75%	--	--	53%
Automobile	100%	--	--	83%
Bus	33%	--	20%	18%
Ferryboat	100%	--	--	0%
Minibus	48%	--	25%	27%
Minivan	67%	--	57%	67%
Other rubber tire vehicles	100%	--	--	--
Van	52%	--	100%	45%
Total	49%	50%	--	--
Service Vehicle Type	% of Vehicles At/Beyond ULB			
	State Target	JCMTD	RIDES MTD	RIDES MTD
Automobile	46%	--	100%	32%
Minivan	56%	--	--	--
Other rubber tire vehicles	100%	--	40%	27%
Van	0%	--	--	--
Total	50%	50%	--	--

Source: 2020 NTD

As noted in the table above, the transit agencies operating within Greater Egypt are in compliance with most state asset management targets. JCMTD should work to reduce their total number of revenue vehicles beyond their usable life by 1%, RIDES should work to reduce their total number of revenue vans beyond their usable life by 48% and service automobiles by 54%, and JCMTD should work to improve 4% of their passenger and parking facilities above a 3.0 rating to meet state targets.

To achieve federal performance monitoring standards, system performance measure targets listed in this section must be established, monitored, and updated according to an adopted schedule.

Improve transit asset conditions for the following agencies and asset classes

- a. JCMTD – Reduce the percentage Revenue Vehicles beyond ULB by 1%
- b. RIDES— Reduce the percentage of Revenue Vans beyond ULB by 48%,
- c. RIDES— Reduce the percentage of Service automobiles beyond ULB by 54%
- d. JCMTD— Reduce the percentage Passenger and Parking Facilities rated 3.0 or below on the FTA TERM scale by 4%

Appendix G - Project List



93	County Highway 14/Creek Nationa Bktp at IL 184 to IL 148	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$800,000	Standard Overlay
94	N Du Quoin St at Sugar Creek 0.2 Mi S. of Petroff Rd	IDOT	Funded	1-10 Year	Bridge	\$200,000	Bridge Replacement
95	N Du Quoin St at Sugar Creek 0.2 Mi S. of Petroff Rd	IDOT	Funded	1-10 Year	Bridge	\$200,000	Bridge Construction Engineering
96	N Horrell at N of 9th St to Franfort Drive AND St. Louis St. at N. Horrell Ave to IL 149	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,500,000	Designed Overlay and widening existing pavement
97	N Horrell at N of 9th St to Franfort Drive AND St. Louis St. at N. Horrell Ave to IL 149	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$60,000	Construction Engineering
98	N Thomssonville Rd from Ewing Rd to IL 14 (1.18 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$250,000	Standard Overlay
99	Wastena St at IL 37 to S. McCleanboro St. (.55 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,250,000	Designed Overlay and widening existing pavement
100	Wastena St at IL 37 to S. McCleanboro St. (.55 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$120,000	Construction Engineering
101	US 51 at Collier Creek 0.2 Mi N of Tamora	IDOT	Funded	1-10 Year	Bridge	\$750,000	New Bridge
102	US 51 at Stacy St to IL 152 in DuQuoin	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$4,000,000	Roadway reconstruction
103	US 51 S of Grantway St to S of IL 14 in DuQuoin (1.98 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$750,000	Smart overlay
104	US 51 at Jackson County Line to .2 Mi S. of IL 14 S of DuQuoin	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$500,000	Standard Overlay
105	IL 4 at IL 150 to IL 151 in Ave (10.91 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$3,500,000	Standard Overlay
106	IL 14 at US 51 to Old Route 14	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,800,000	Standard Overlay and Shoulder Reconstruction
107	IL 14 at US 51 to Old Route 14	IDOT	Funded	1-10 Year	Land Acquisition	\$800,000	Land Acquisition
108	IL 14 at US 51 to Old Route 14	IDOT	Funded	1-10 Year	Utility Adjustment	\$250,000	Utility Adjustment
109	IL 127 Opposum Creek 1 mi N of Pinckneyville	IDOT	Funded	1-10 Year	Bridge	\$900,000	Bridge Replacement
110	IL 127/IL 13/IL 154 at Pinckneyville Square	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$4,400,000	Intersection Reconstruction
111	IL 127/IL 13/IL 154 at Pinckneyville Square	IDOT	Funded	1-10 Year	Utility Adjustment	\$250,000	Utility Adjustment
112	IL 127/IL 13 at IL 154 to N of RR Underpass in Pinckneyville	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$450,000	Standard Overlay
113	IL 150 at .3 Mi W of Cutler-trico Rd in Cutler	IDOT	Funded	1-10 Year	Misc	\$250,000	Culvert replacement
114	IL 150 N of Cutler to IL 154 (2.85 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,000,000	Standard Overlay
115	IL 152 at IL 127 to US 51 (6.67 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$12,000,000	Standard Overlay, New shoulders
116	IL 152 at IL 127 to US 51 (6.67 miles)	IDOT	Funded	1-10 Year	Land Acquisition	\$1,500,000	Land Acquisition
117	IL 154 3.5 Mi E of Randolph Co. Line	IDOT	Funded	1-10 Year	Misc	\$250,000	Culvert replacement
118	IL 154 and IL 13 at Grant Street to S. Walnut St. in Pinckneyville, .36 Miles	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$2,000,000	Road reconstruction
119	IL 154 and IL 13 at Grant Street to S. Walnut St. in Pinckneyville, .36 Miles	IDOT	Funded	1-10 Year	Land Acquisition	\$250,000	Land Acquisition
120	IL 154 at Beaucoup Creek E. of Pinckneyville	IDOT	Funded	1-10 Year	Bridge	\$3,000,000	Bridge replacement
121	County Line Rd at IL 13 to Hollyhook Rd	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$500,000	Standard Overlay
122	Greens Market Rd. at Sumlie Creek 1 Mi W of US 51	IDOT	Funded	1-10 Year	Bridge	\$1,294,000	Brige Replacement
123	Greens Market Rd. at Sumlie Creek 1 Mi W of US 51	IDOT	Funded	1-10 Year	Bridge	\$45,000	Construction Engineering
124	Pyatt-Cutler Rd at IL 4 to Union School Road (6.25)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,300,000	Standard Overlay
125	Pyatt-Cutler Rd at IL 4 to Union School Road (6.25)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$8,000	Construction Engineering
126	Pyatt-Cutler Rd at Union School Rd to IL 13/127	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,400,000	Standard Overlay
127	Pyatt-Cutler Rd at Union School Rd to IL 13/127	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$8,000	Construction Engineering
128	St Louis St at Grant Street to Mill St AND Walnut St at .1 mile N of Laurel St to Kaskas	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$400,000	Standard Overlay
129	St Louis St at Grant Street to Mill St AND Walnut St at .1 mile N of Laurel St to Kaskas	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$8,000	Construction Engineering
130	Union Schoo Rd at IL 154 to Jackson County Line (3.02 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$500,000	Standard Overlay
131	Union Schoo Rd at IL 154 to Jackson County Line (3.02 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$4,000	Construction Engineering
132	I-57 at Middle Fork Big Muddy River N of West Frankfor to I-64 S Tri-Level Interchange	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$9,000,000	Construction Engineering
133	I-57 2.5 Mile S. of IL 154 to Atchison Creek S of Bonnie (10.23 miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$58,000,000	Additional Lanes
134	I-57 Atchison Creek S. of Bonnie to I-64 S of Tri-Level Interchange in Mt Vernon	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$39,000,000	Additional Lanes
135	I-57 at Casey Fork 1.8 miles S. of I-64 at Dadds Creek 2.2 Miles S. of I-64	IDOT	Funded	1-10 Year	Bridge	\$5,600,000	Bridge Replacement, Bridge Deck Overlay
136	I-57/I-64 at IL 15 Interchange at Mt. Vernon	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$45,000,000	Interchange Reconstruction
137	I-57/I-64 at IL 15 Interchange at Mt. Vernon	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$2,000,000	Land Acquisition
138	I-57/I-64 at IL 15 Interchange at Mt. Vernon	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$1,000,000	Utility Adjustment
139	I-64 at Washington County line to I-57 (10.75 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$45,350,000	Reconstruction and Bridge Deck Overlay
140	I-64 at Washington County line to I-57 (10.75 Miles)	IDOT	Funded	1-10 Year	Improve Existing Roadway	\$2,400,000	Bridge Deck Overlay
141	I-64 at IL 37 Interchange (E8) S. of Mt Vernon	IDOT	Funded	1-10 Year	Bridge	\$7,500,000	Bridge Replacement
142	I-64 0.2 Miles E of IL 37	IDOT	Funded	1-10 Year	Bridge	\$9,000,000	
143	Herrin Road Extension	IDOT	Illustrative	11-25 Year	New Roadway	\$17,000,000	New Roadway Construction
144	Cobb Hill/Sulphur Spring Resurfacing	Williamson County	Funded	1-10 Year	Improve Existing Roadway	\$870,000	Roadway resurfacing
145	Lake of Egypt Rd Resurfacing	Williamson County	Funded	1-10 Year	Improve Existing Roadway	\$840,000	Roadway resurfacing
146	Power Plant Road Resurfacing	Williamson County	Funded	1-10 Year	Improve Existing Roadway	\$1,300,000	Roadway resurfacing
147	Reed Cemetery/Decatur Rd Resurfacing	Williamson County	Funded	1-10 Year	Improve Existing Roadway	\$700,000	Roadway resurfacing
148	SW IL Connector	IDOT	Illustrative	11-25 Year	New Roadway	\$905,000,000	
149	Neunert Road Safety Shoulders	Jackson County	Funded	1-10 Year	Improve Existing Roadway	\$175,000	Safety shoulders
150	Benton - I57 and IL14 Interchange	City of Benton	Illustrative	1-10 Year	Improve Existing Roadway	\$37,400,000	Interchange modifications