

Connect2050 Appendix 12. Environmental Justice and Critical Environmental Resource Maps

This appendix contains a series of maps illustrating the results of analyzing environmental justice criteria and inventorying critical environmental resources. A brief overview of the two sets of maps is given below, with additional details given in Chapter 9 of the 2050 MTP report. An online, interactive map that includes all layers in this appendix can be viewed [here](#).

Environmental Justice Maps

The first set of five maps in this appendix display 2050 MTP highway projects (all, new, widening, and others) and transit corridors overlaid on communities of concern. Communities of concern were identified for the DCHC MPO and CAMPO region using American Community Survey 2015-2019 estimates for six indicators: race (non-White), ethnicity (Hispanic or Latino origin), age (70+), income (below 150% of the poverty line), vehicle availability (zero-car households), and English proficiency (people who do not speak English or speak English “less than very well”). The percentage of the population in each census block group was calculated for each indicator, with block groups in the 75th percentile (top 25%) counted as meeting each indicator threshold. The composite communities of concern layer shown in the first five maps displays the total number of thresholds that were met for each block group in the region.

Critical Environmental Resource Maps

The second set of eleven maps in this appendix display 2050 MTP and CTP highway projects to identify projects that might have significant impacts on the environment or protected spaces. Many of the CTP projects are not included in the final adopted 2050 MTP, but are included in these maps to ensure that a comprehensive record of all of the potential future projects was being evaluated.

Environmental Justice Metrics (CAMPO Pilot)

As part of the MPOs efforts to better document the impact of the recommended improvements to the transportation network for the region, additional land use displacement metrics are being studied for inclusion in future joint MTPs.

Currently, a summary analysis of the impact of highway improvements on forecasted land use values for parcels within the region is under development. This analysis applies approximate right-of-way buffers to mapped highway corridors in the CAMPO region and then tabulates the number and area of parcels that fall within them.

These tabulations are further summarized in Table 1 by land use type (forecast in 2050) as designated by the local planning staff responsible for submitting this data at the outset of MTP development. Finally, these tabulations are summarized in Table 2 by the underlying presence of identified communities of concern (as outlined earlier in this appendix).

This preliminary analysis permits MPO staff to begin cataloging the direct impact of highway improvement recommendations to future land use and the communities that are historically most likely to be excluded from planning outreach efforts. Future development of this analysis aims to apply a statistically rigorous measure of impact that better answers questions such as:

“When compared to the entire region, are the recommended highway improvements in this plan significantly impacting particular subsets of forecasted land use and communities of concern?”

“What impacts from the recommended improvements are considered beneficial or consequential to these land use types and communities of concern?”

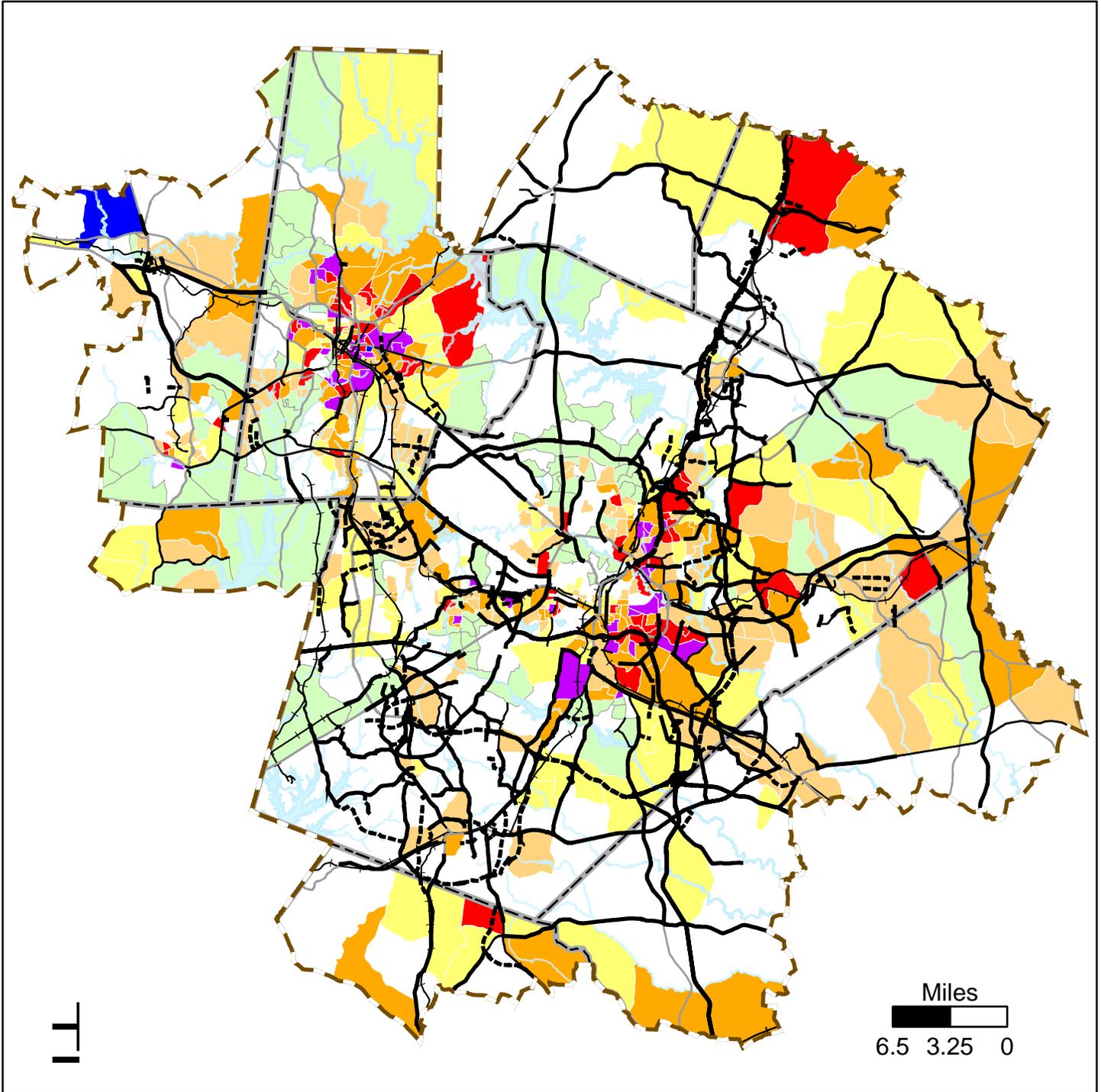
The tables below are the results of the preliminary analysis outlined above for the CAMPO bound data of the last alternative scenario (All Together) to be considered for the 2050 MTP. A new analysis applied to the adopted scenario, for the entire region, of the joint 2050 MTP is planned post-adoption as a part of further analysis development.

Table 1. Area of impact (in square miles) of recommended highway improvements by forecasted land use type (2050) – CAMPO region only

Land Use Type	New Location	Other	Widening	Total Area
Civic	0.33	0.14	0.83	1.31
Commercial	0.80	0.49	3.49	4.78
Residential	3.26	0.66	8.50	12.41
School	0.03	0.00	0.09	0.12
Total Area	4.42	1.30	12.91	18.62

Table 2. Summary count, and percentage total, of parcels by land use type and community of concern status impacted by recommended highway improvements in the CAMPO region

Analysis Zone	Residential Parcels	Residential %	Commercial Parcels	Commercial %	Civic Parcels	Civic %	School Parcels	School %
Entire CAMPO Region	442,896	100	21,562	100	17,089	100	391	100
CAMPO Community of Concern	229,253	51.8	13,765	63.9	10,988	64.3	216	55.2
CAMPO Highway Project Buffer	36,116	8.2	8,115	37.6	3,056	17.9	201	51.4
CAMPO Highway Project Buffer and Community of Concern	18,524	4.2	4,601	21.3	1,807	10.6	113	28.9



Communities of Concern (Block Group) MTP Highway Projects

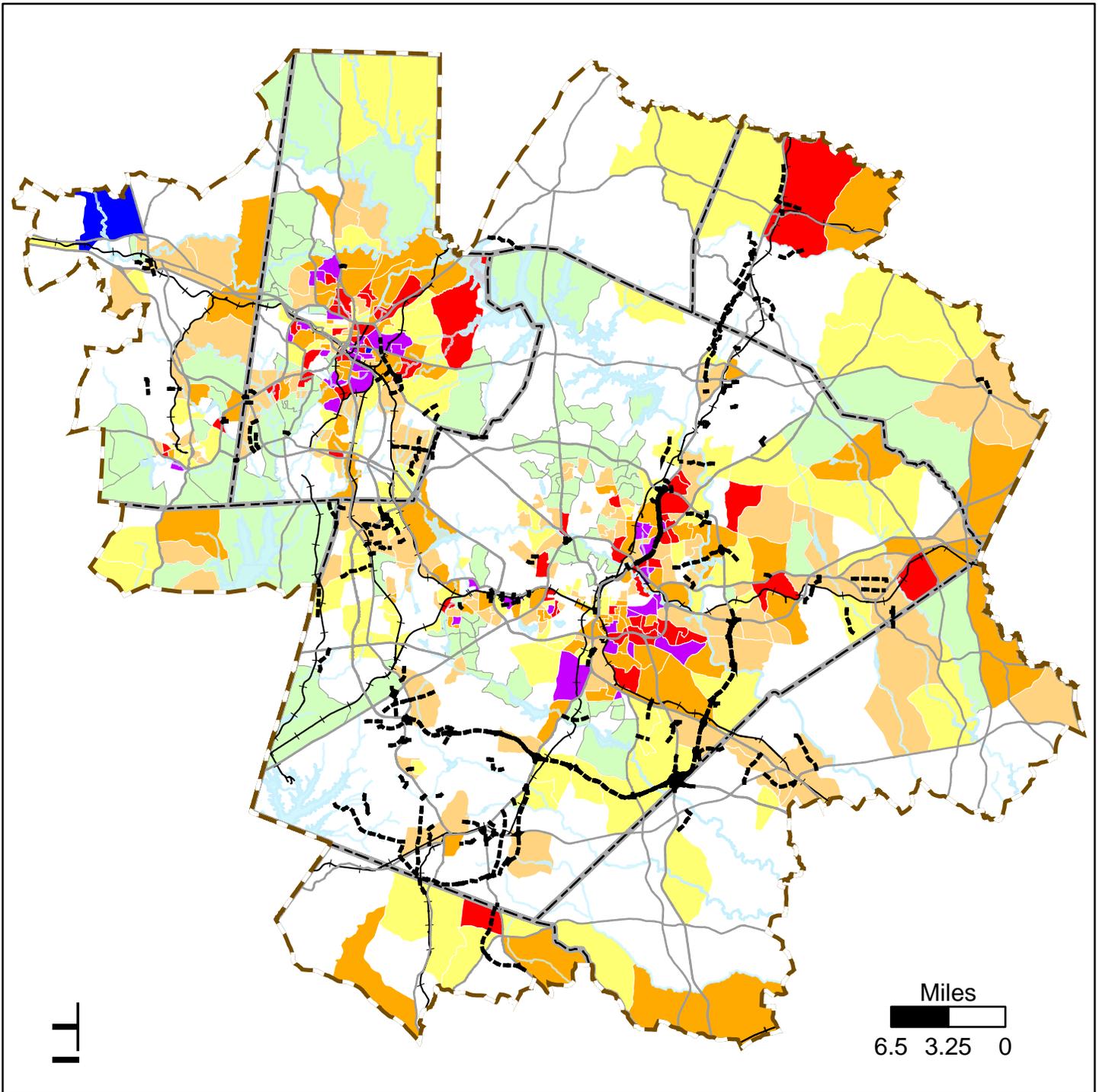
Number of Triggers Present

- 1, AGE
- 1, NOT AGE
- 2
- 3
- 4
- 5
- 6

- Modernization/Superstreet
- Widening
- New Location
- Expressway; Freeway
- MPO Boundaries
- Major Roads
- Railroads
- Counties
- Major Water Bodies

	Total	CofC	Percent in CofC
All Hwy Miles	1230	700	57%
All Hwy Invest	\$21620	\$11986	55%

(Investment in millions)



Communities of Concern (Block Group) MTP Highway Projects

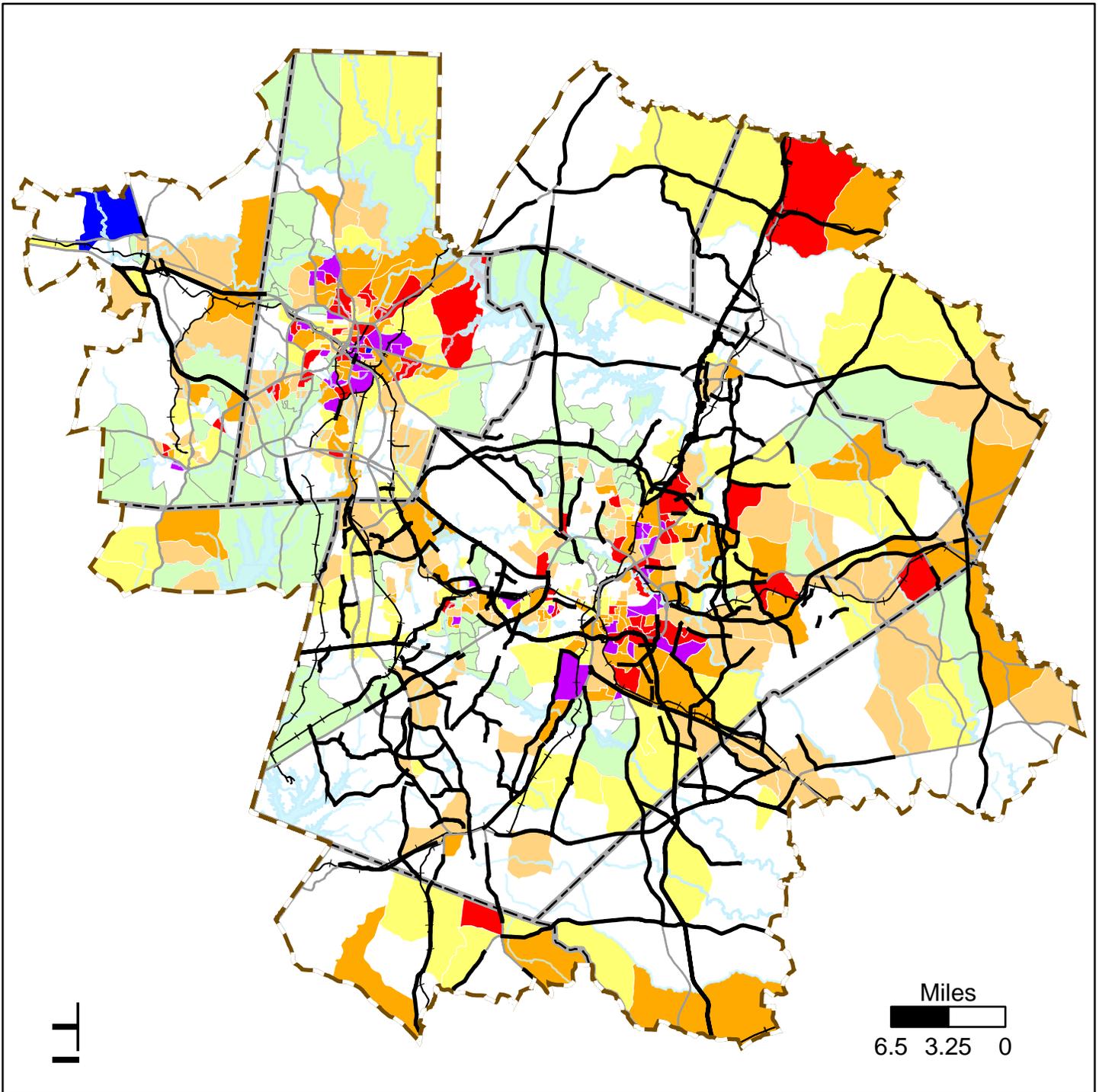
Number of Triggers Present

- 1, AGE
- 1, NOT AGE
- 2
- 3
- 4
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- Modernization/Superstreet
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	Total	CofC	Percent in CofC
NewLoc Miles	184	110	60%
NewLoc Invest	\$4225	\$2630	62%

(Investment in millions)



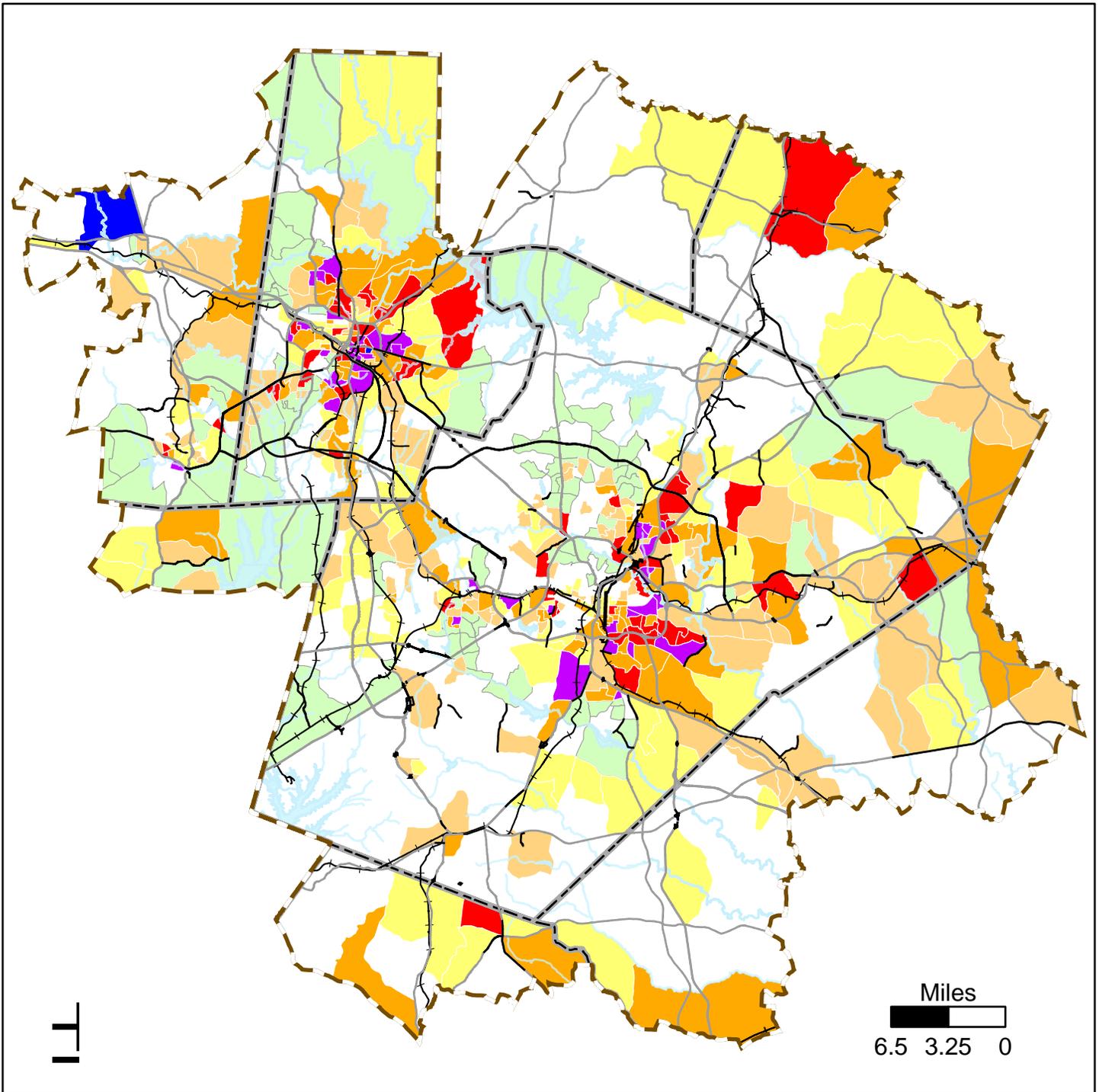
Communities of Concern (Block Group) MTP Highway Projects

Number of Triggers Present

- 1, AGE
- 1, NOT AGE
- 2
- 3
- 4
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- Modernization/Superstreet
- Widening
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- Major Roads
- + Railroads
- Counties
- Major Water Bodies

	Total	CofC	Percent in CofC
Widen Miles	804	439	55%
Widen Invest	\$14349	\$7786	54%
(Investment in millions)			



Communities of Concern (Block Group) MTP Highway Projects

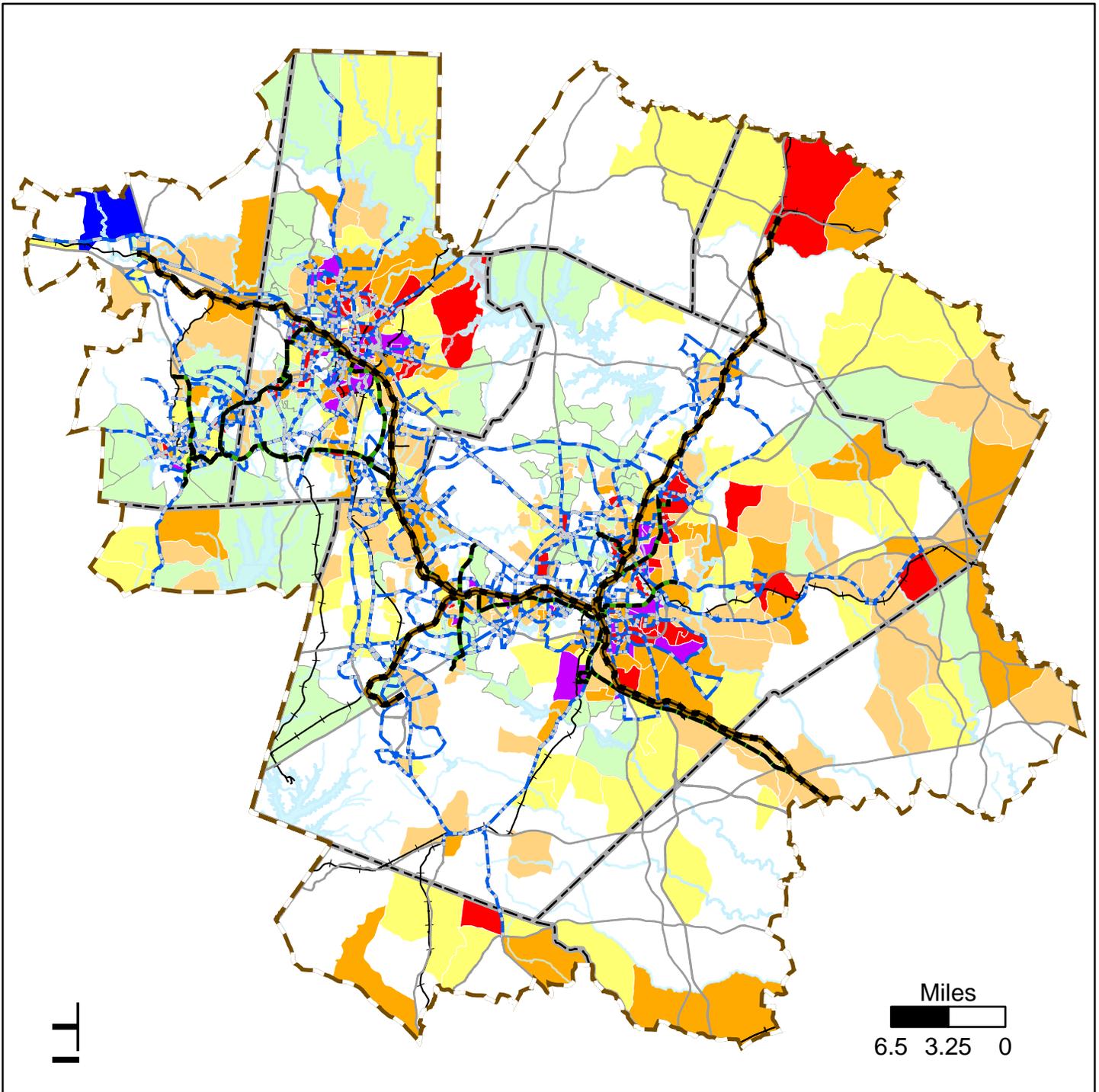
Number of Triggers Present

- 1, AGE
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- 2
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- Modernization/Superstreet
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- Counties
- Major Water Bodies

	Total	CofC	Percent in CofC
Other Hwy Miles	242	151	62%
Other Hwy Invest	\$3046	\$1569	52%

(Investment in millions)



Communities of Concern (Block Group)

Number of Triggers Present

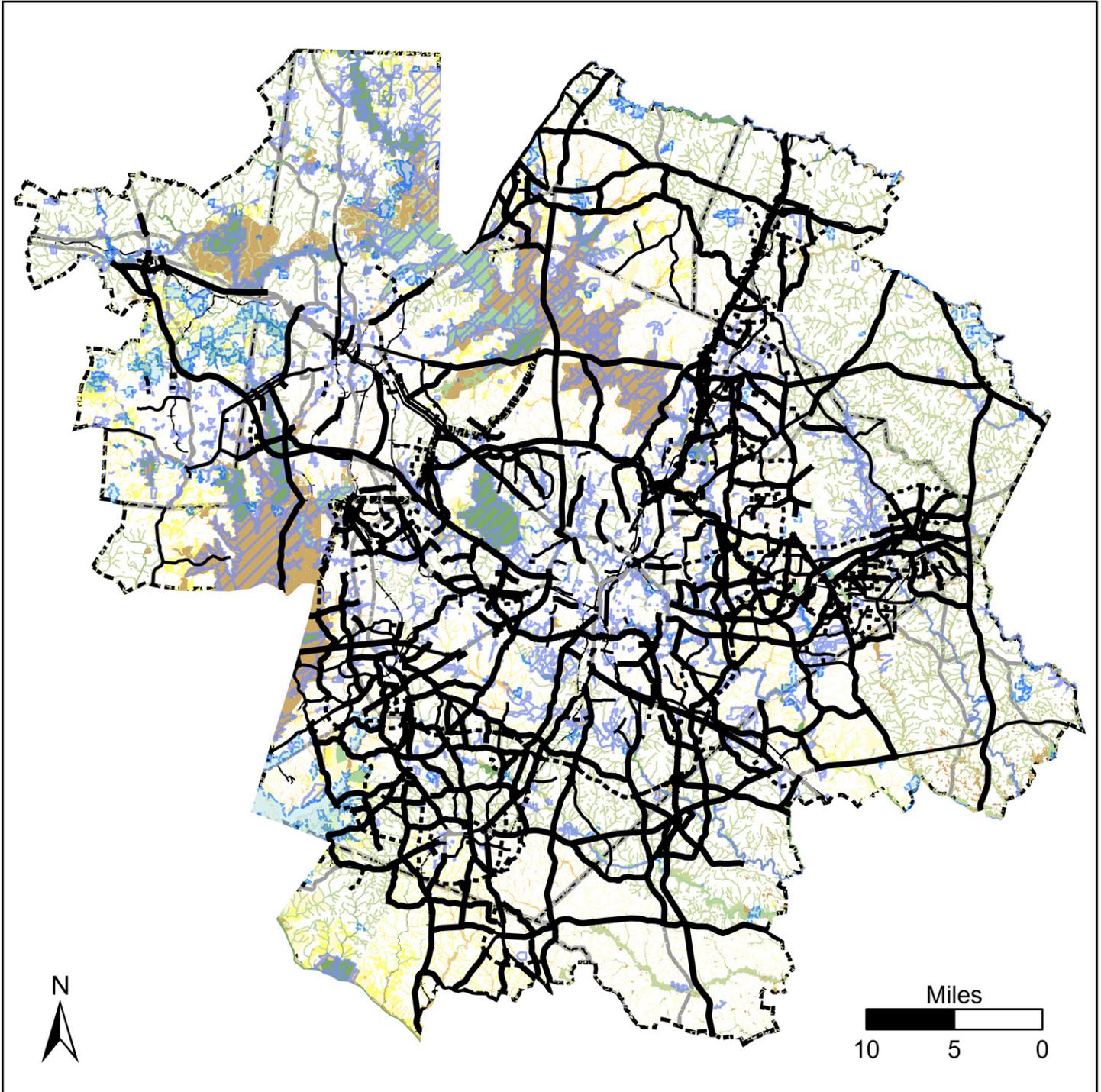
- 1, AGE
- 1, NOT AGE
- 2
- 3
- 4
- 5
- 6

MTP Transit Corridors

Transit Mode/Project ID

- Commuter Rail Transit
- Bus Rapid Transit
- Bus
- MPO Boundaries
- Major Roads
- Railroads
- Counties
- Major Water Bodies

Total	CoFC	Percent in CoFC
1956	1381	71%



Relative Conservation Value

- 9-10 (Maximum)
- 8
- 7
- 6
- 5
- 2-4
- 1 (Moderate)

Conservation Tax Credit Properties

-
- Managed Areas**
-

CTP Highway Projects

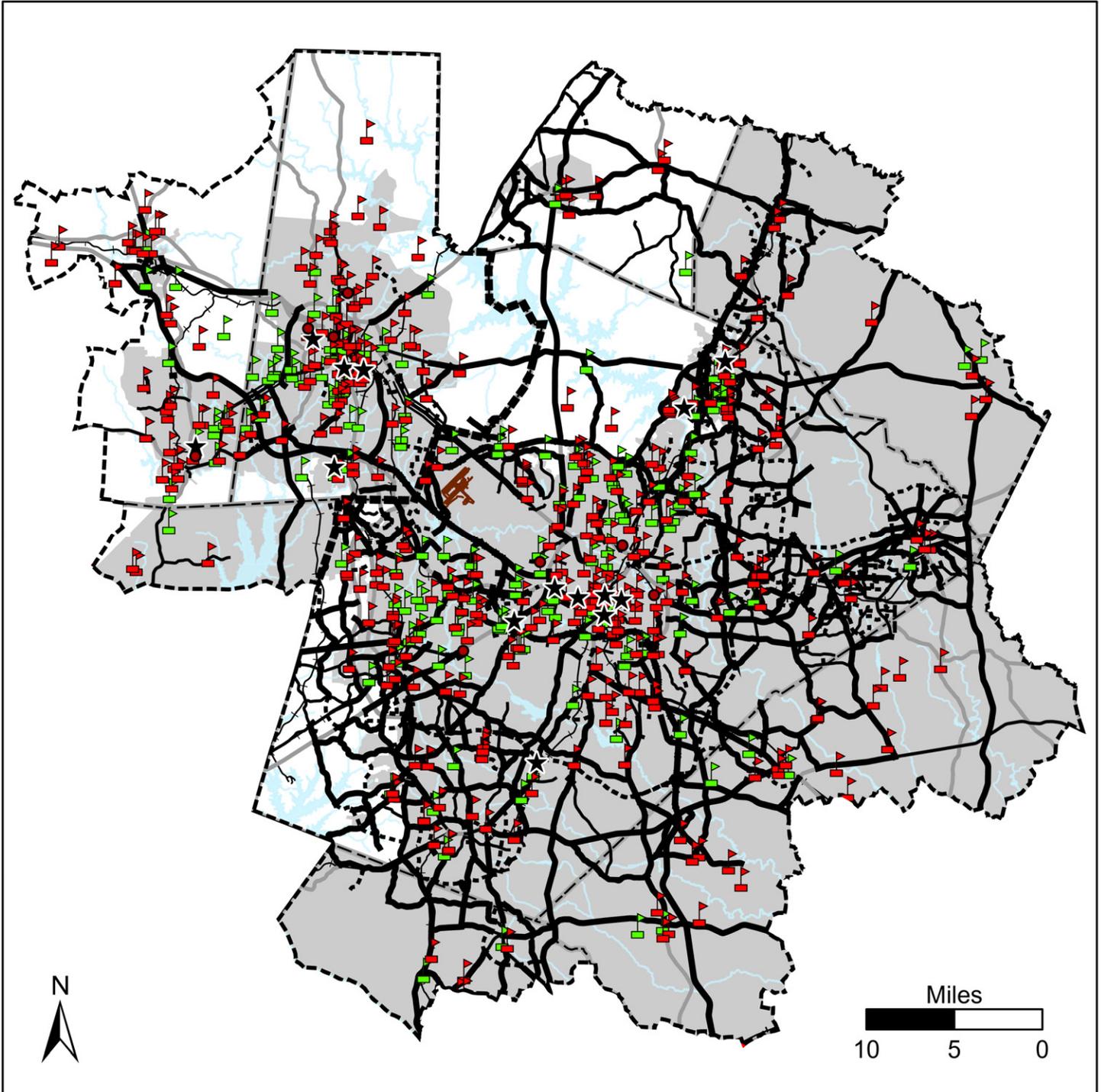
- Modernization/Superstreet
- Widening
- New Location
- Expressway; Freeway

MPO Boundaries

- MPO Boundaries
- Major Roads
- Railroads
- Counties

Map prepared by Capital Area MPO GIS staff on December 6, 2021.
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Development 2050 MTP and CTP

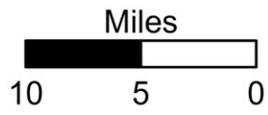
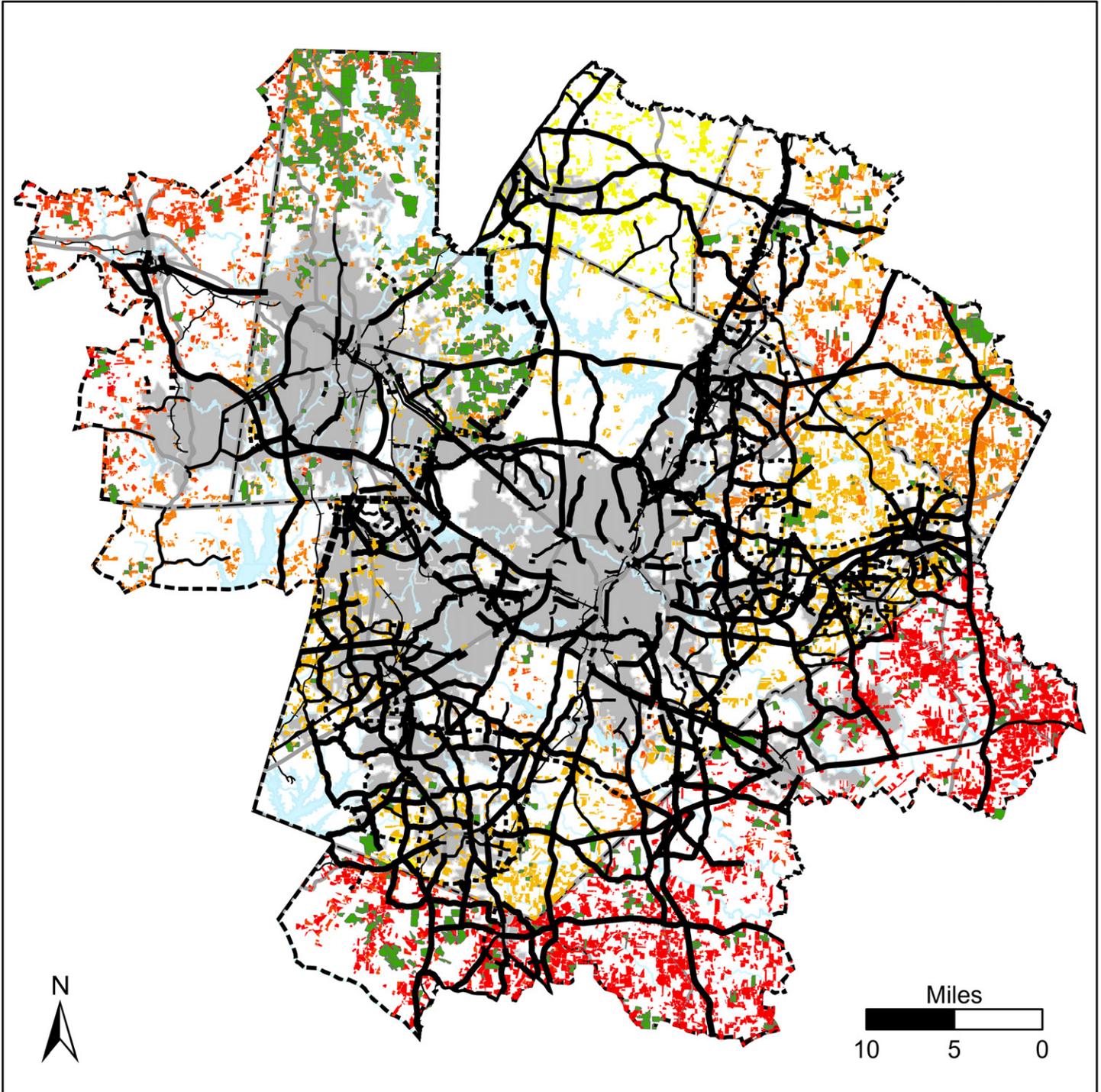


- | | | |
|-------------------------|-----------------------------|--------------------------------------|
| ● Hospital | CTP Highway Projects | ▤ MPO Boundaries |
| ★ College or University | — Modernization/Superstreet | — Major Roads |
| ▤ Public School | — Widening | — Railroads |
| ▤ Non-Public School | ⋯ New Location | ▭ Counties |
| | — Expressway; Freeway | ■ Major Water Bodies |
| | | ■ Water and Sewer Service Boundaries |

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Farmland 2050 MTP and CTP



Farm Viability

- 2 - 66 Low Viability
- 67 - 95 Medium Low Viability
- 96 - 118 Medium Viability
- 119 - 141 Medium High Viability
- 142 - 204 High Viability
- Voluntary Agricultural District

CTP Highway Projects

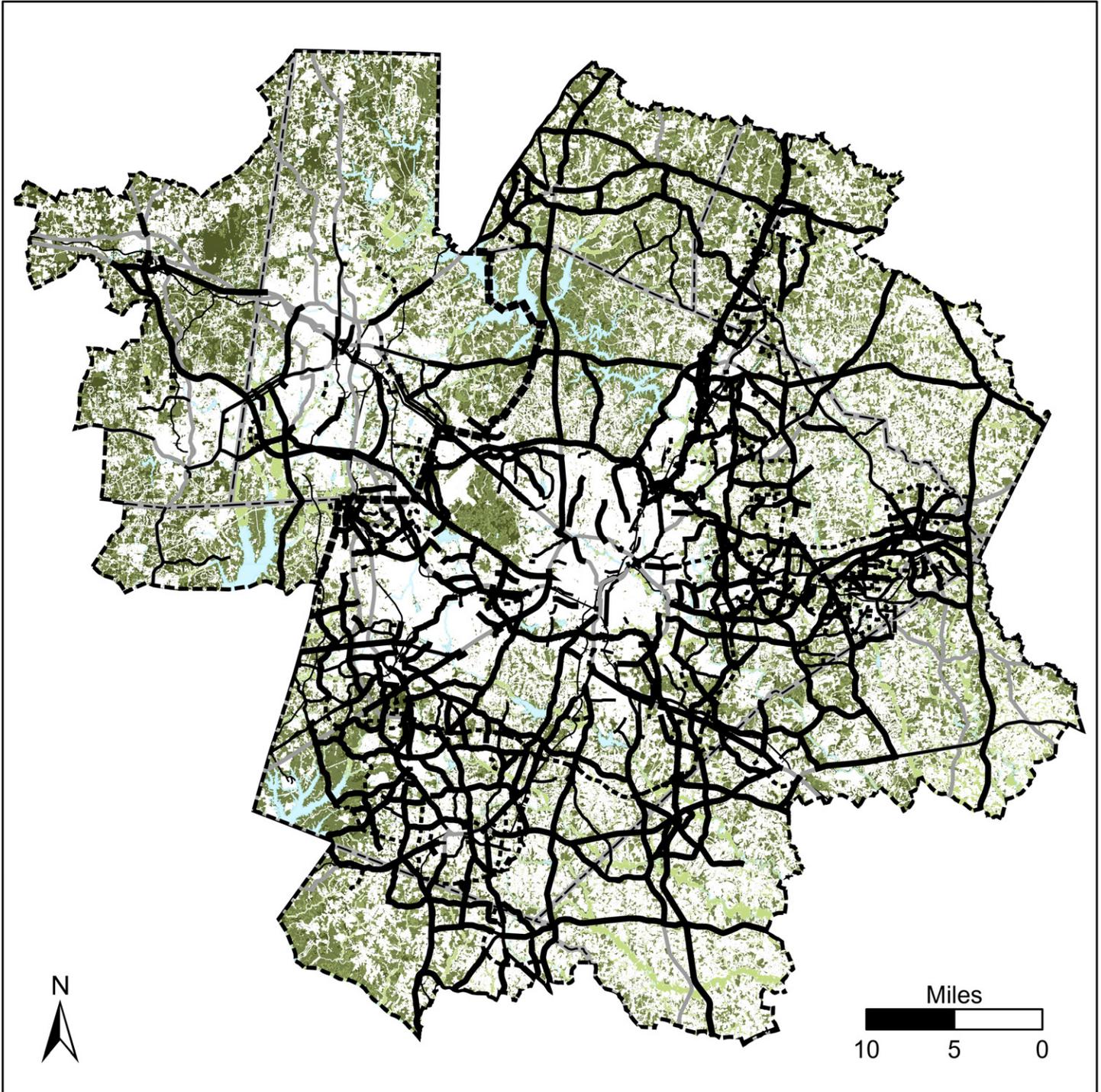
- Modernization/Superstreet
- Widening
- New Location
- Expressway; Freeway

- MPO Boundaries
- Major Roads
- ++ Railroads
- Counties
- Major Water Bodies

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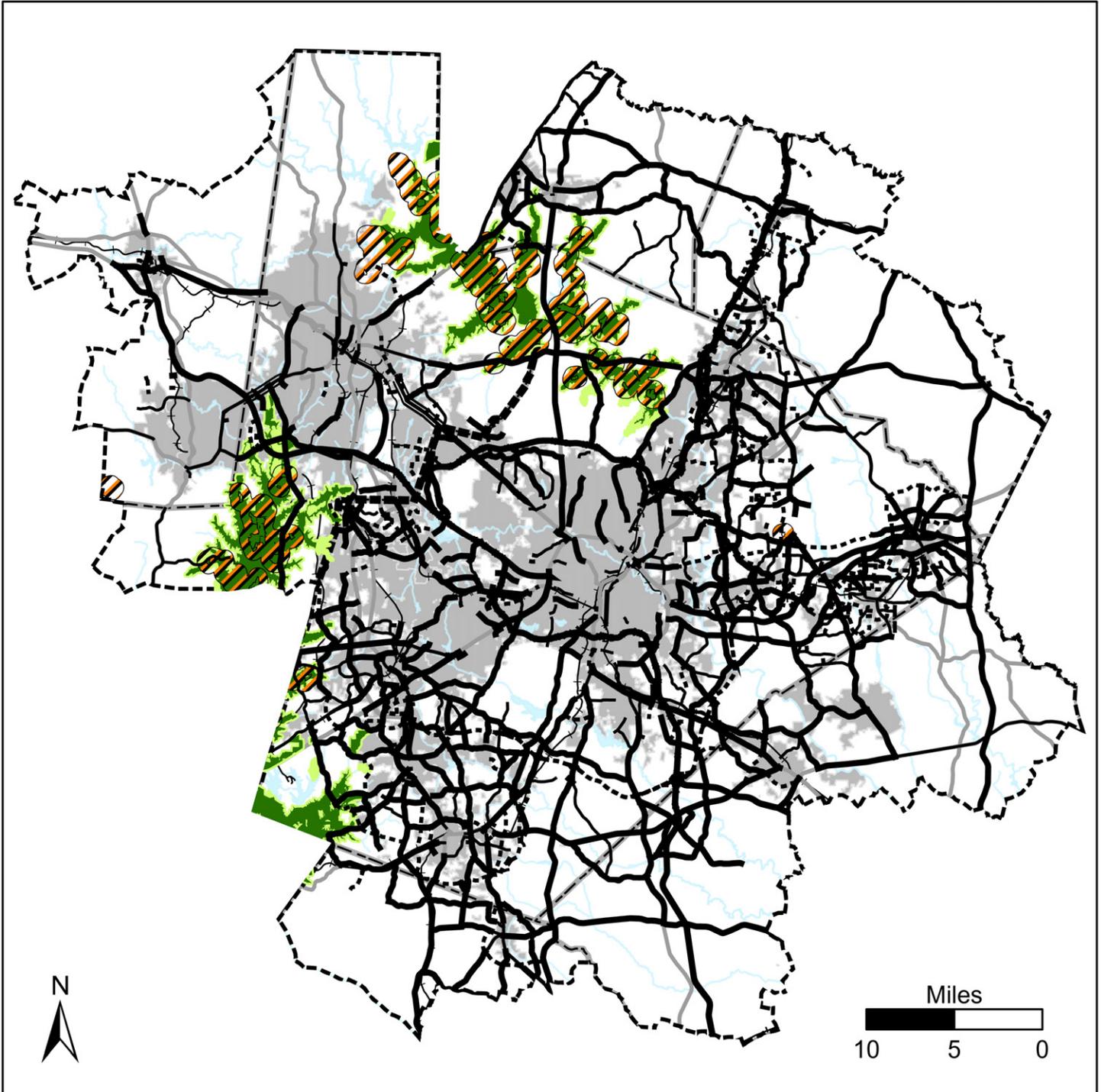
Forest 2050 MTP and CTP



- | | | |
|-----------------------------|-----------------------------|-----------------------|
| Important Forestland | CTP Highway Projects | MPO Boundaries |
| Deciduous Forest | Modernization/Superstreet | Major Roads |
| Evergreen Forest | Widening | Railroads |
| Mixed Forest | New Location | Counties |
| Wooded Wetland | Expressway; Freeway | Major Water Bodies |

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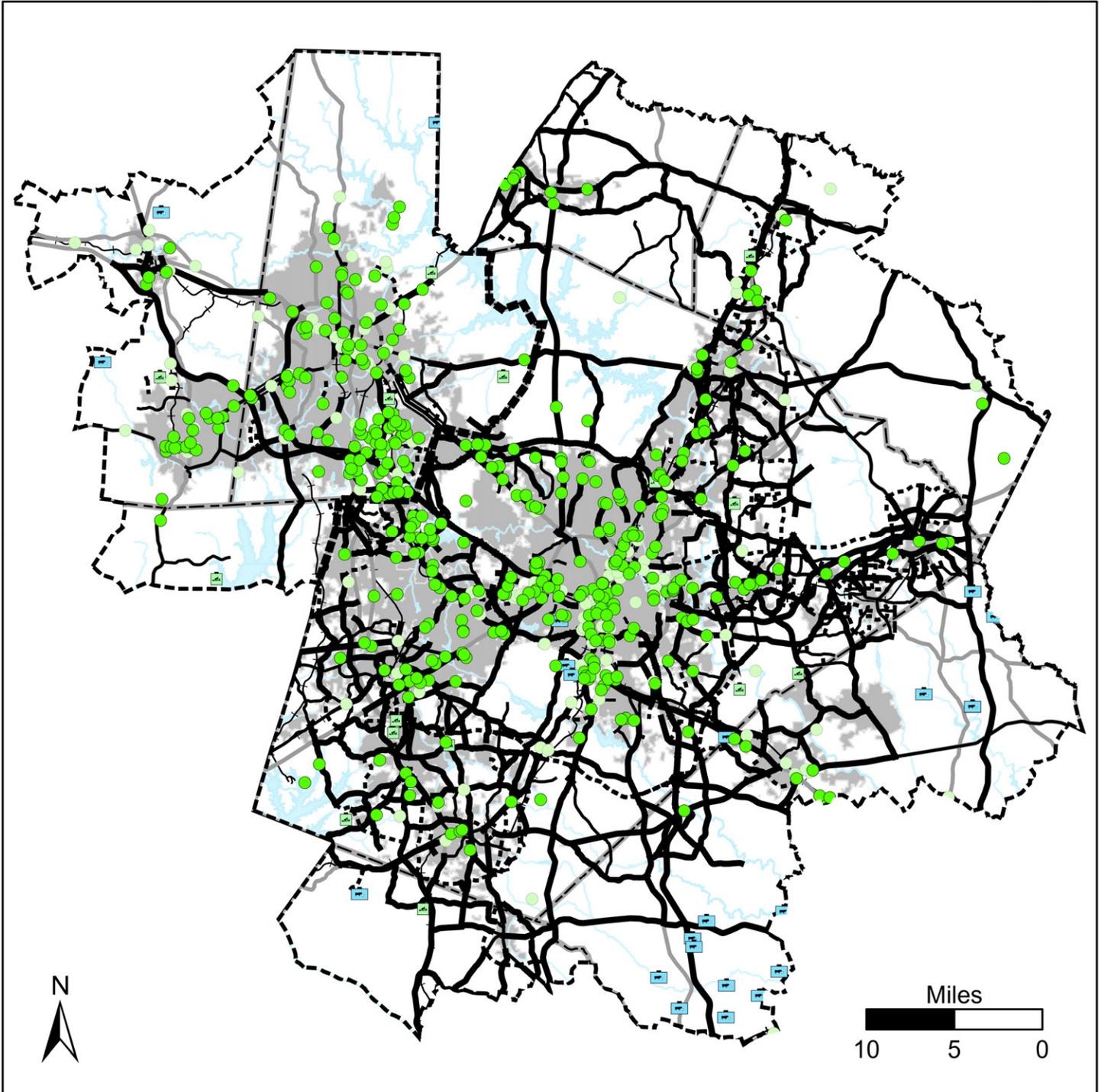


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|---|-----------------------|---|---|---|---|---|----------------------|
|  | Smoke Awareness Area | CTP Highway Projects |  | MPO Boundaries |  | Major Water Bodies | |
|  | Gameland |  | Modernization/Superstreet |  | Major Roads |  | Municipal Boundaries |
|  | Hunting Safety Buffer |  | Widening |  | Railroads | | |
| | |  | New Location |  | Counties | | |
| | |  | Expressway; Freeway | | | | |

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Hazards 2050 MTP and CTP

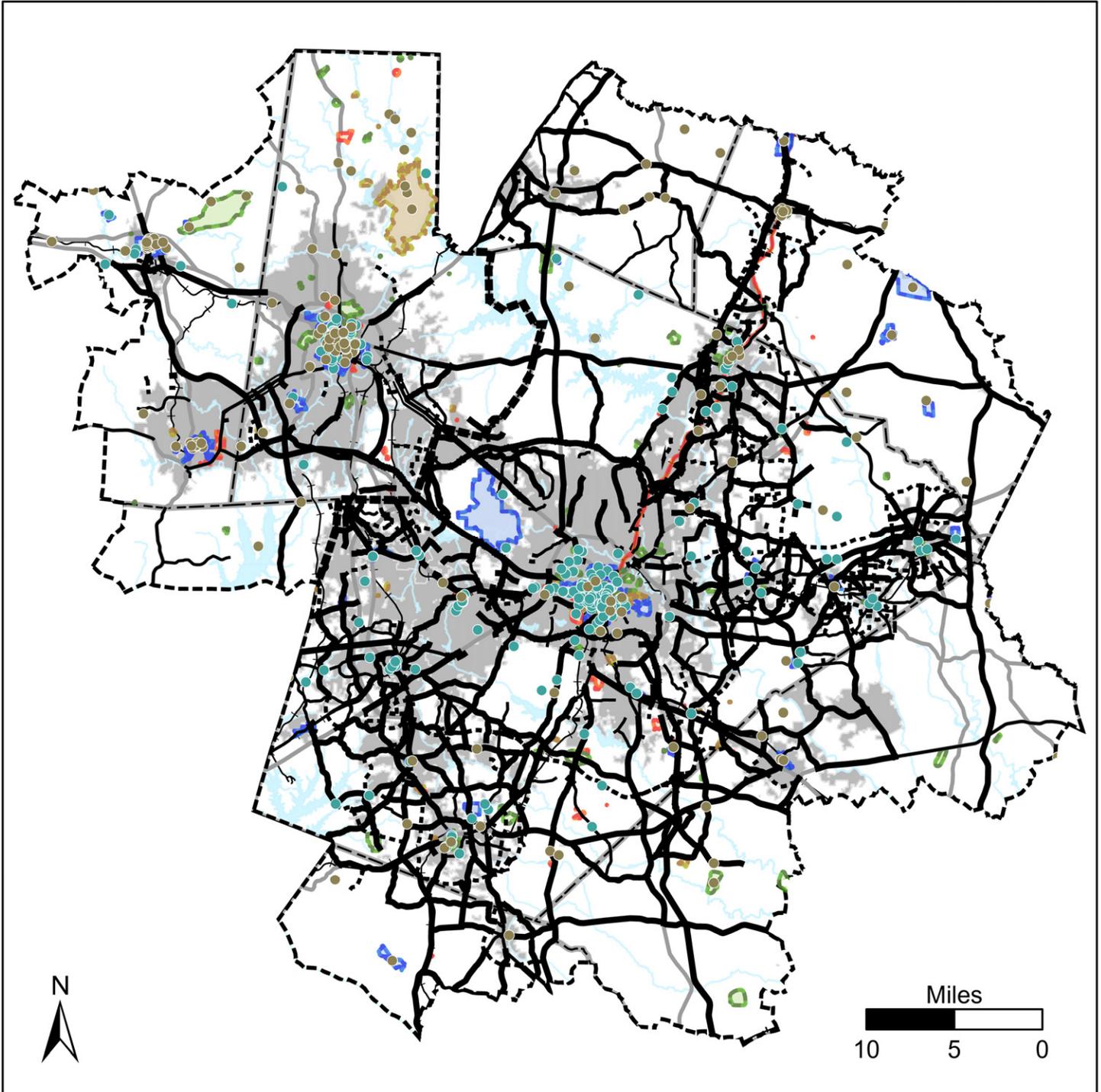


- | | | |
|--|-----------------------------|--------------------|
| ● Hazardous Waste - Active | CTP Highway Projects | MPO Boundaries |
| ● Hazardous Waste - Unverified | Expressway; Freeway | Major Roads |
| ● Hazardous Waste - Inactive | Modernization | Railroads |
| Animal Operation Facility | New Location | Counties |
| Active Permitted Landfill | Widening | Major Water Bodies |
| Hazardous Substance Disposal Site | | |

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Historic Sites 2050 MTP and CTP

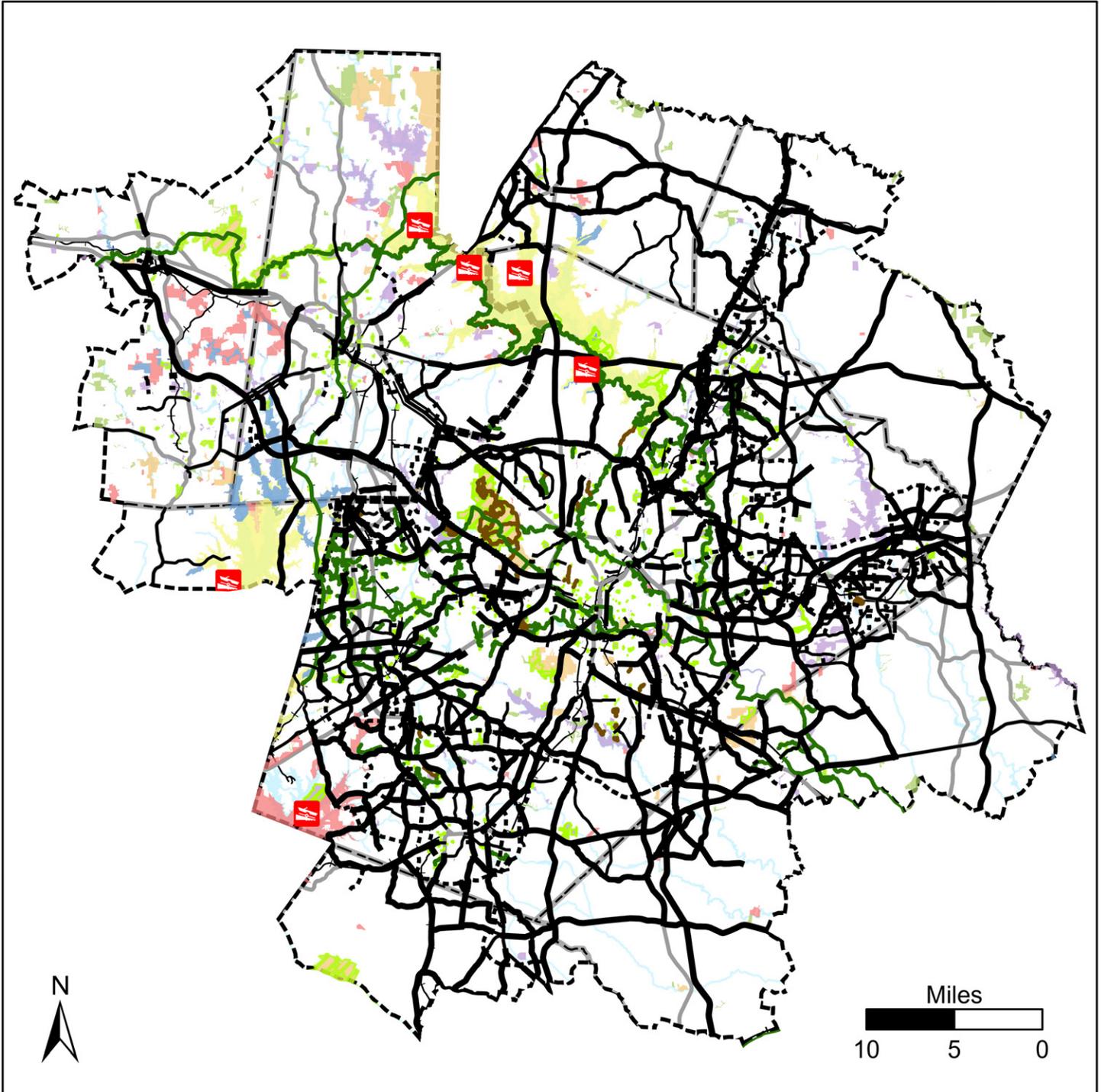


- | | | |
|---|-----------------------------|----------------------|
| ● Local Landmark | CTP Highway Projects | MPO Boundaries |
| ● National Registry Site | Modernization/Superstreet | Major Roads |
| Local Historic District | Widening | Railroads |
| National Registry Boundaries | New Location | Counties |
| DOE | Expressway; Freeway | Major Water Bodies |
| NR | | Municipal Boundaries |
| NRD | | |
| SL | | |
| SLDOE | | |

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Parks and Recreation 2050 MTP and CTP



Managed Areas

- Dedicated Nature Preserve
- Easement
- Federal
- Local Government
- Private
- Registered Heritage Area
- State



Boat Access

Trail

Greenway

Managed_Areas_Parks

CTP Highway Projects

Modernization/Superstreet

Widening

New Location

Expressway; Freeway



MPO Boundaries

Major Roads

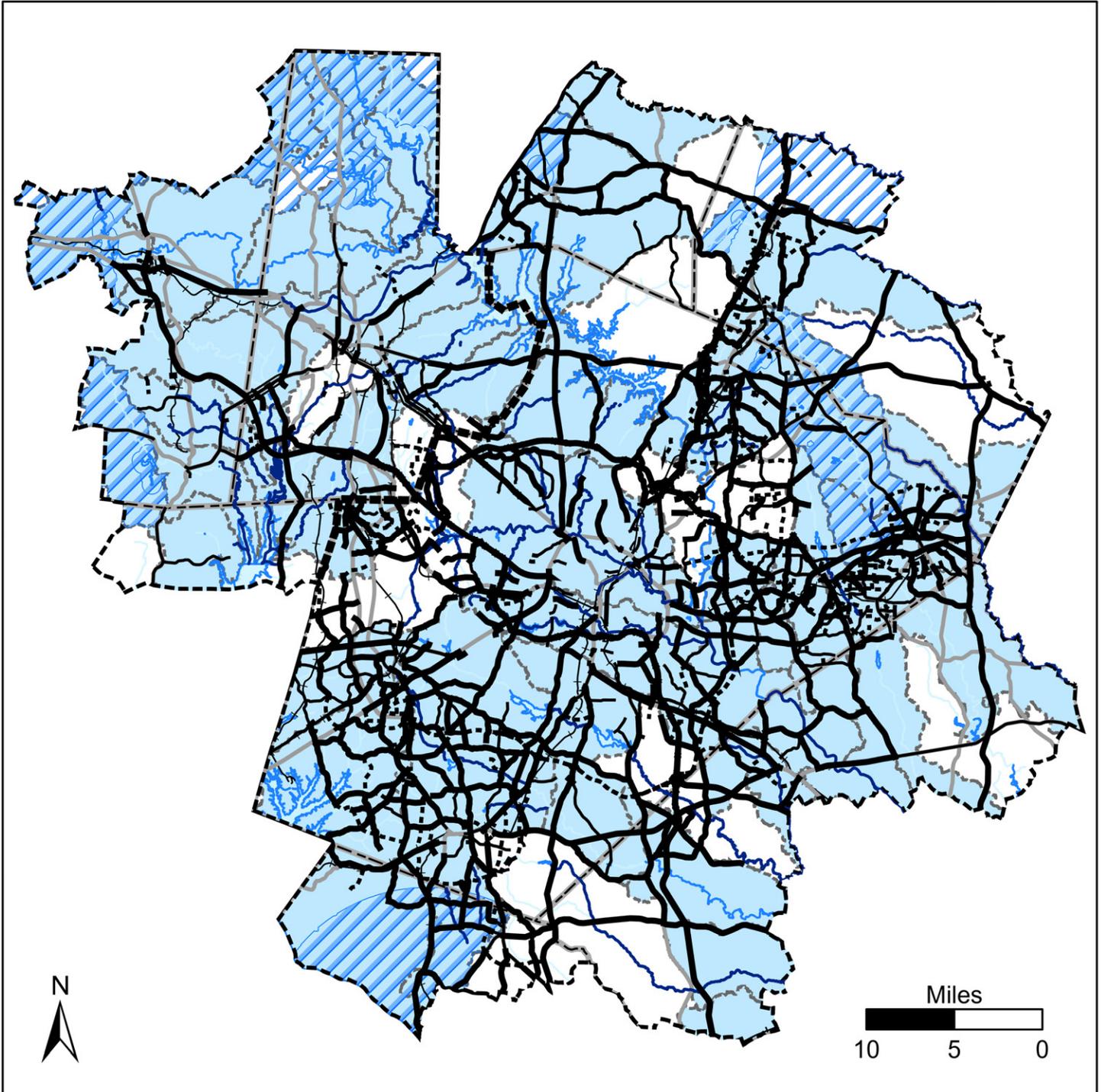
Railroads

Counties

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Water Resources 2050 MTP and CTP



-  Impaired Streams
-  Outstanding Resource Management Zone
-  Targeted Local Watershed

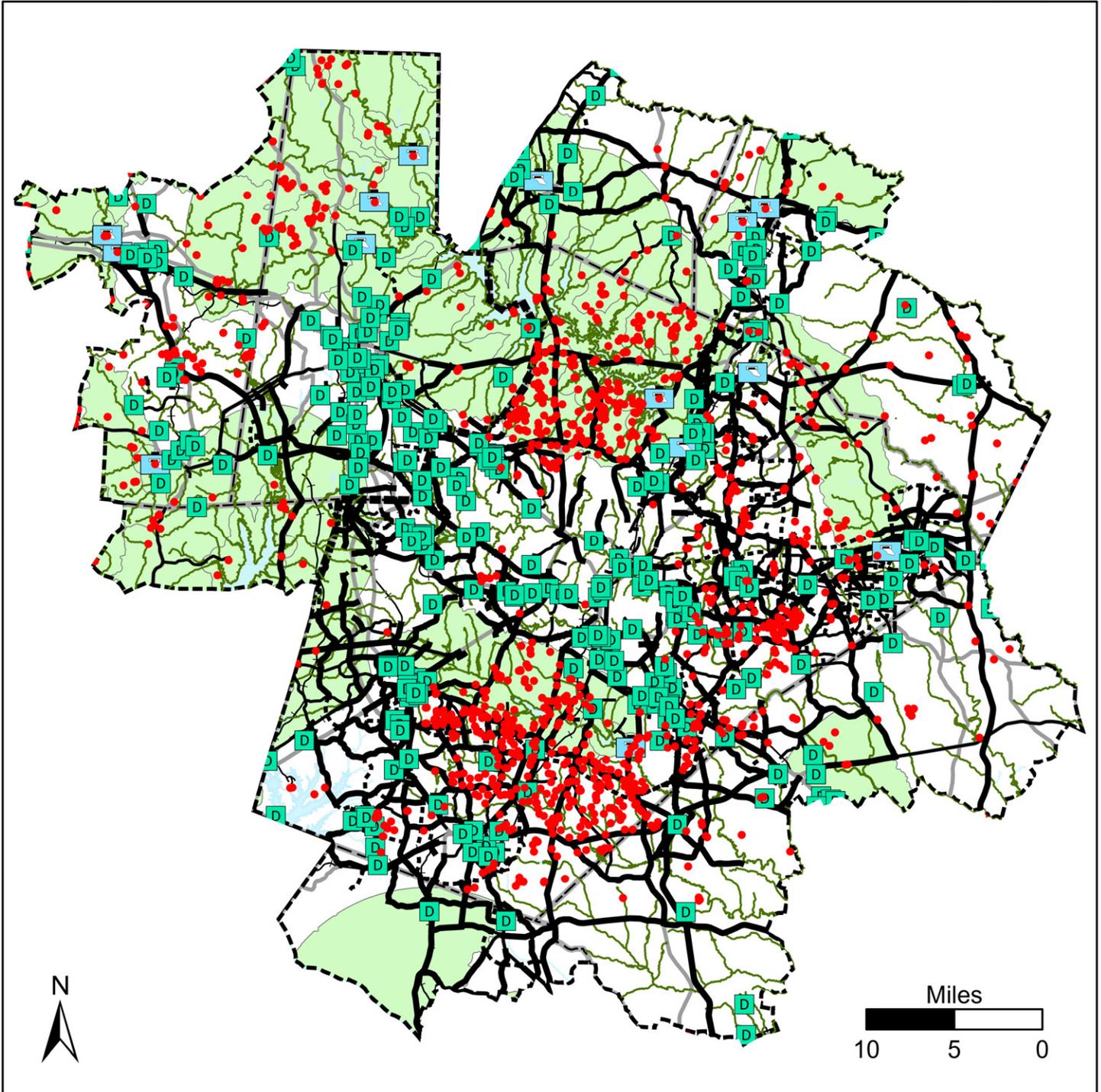
- ### CTP Highway Projects
-  Modernization/Superstreet
 -  Widening
 -  New Location
 -  Expressway; Freeway

-  MPO Boundaries
-  Major Roads
-  Railroads
-  Counties
-  Major Water Bodies

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Water Supply 2050 MTP and CTP

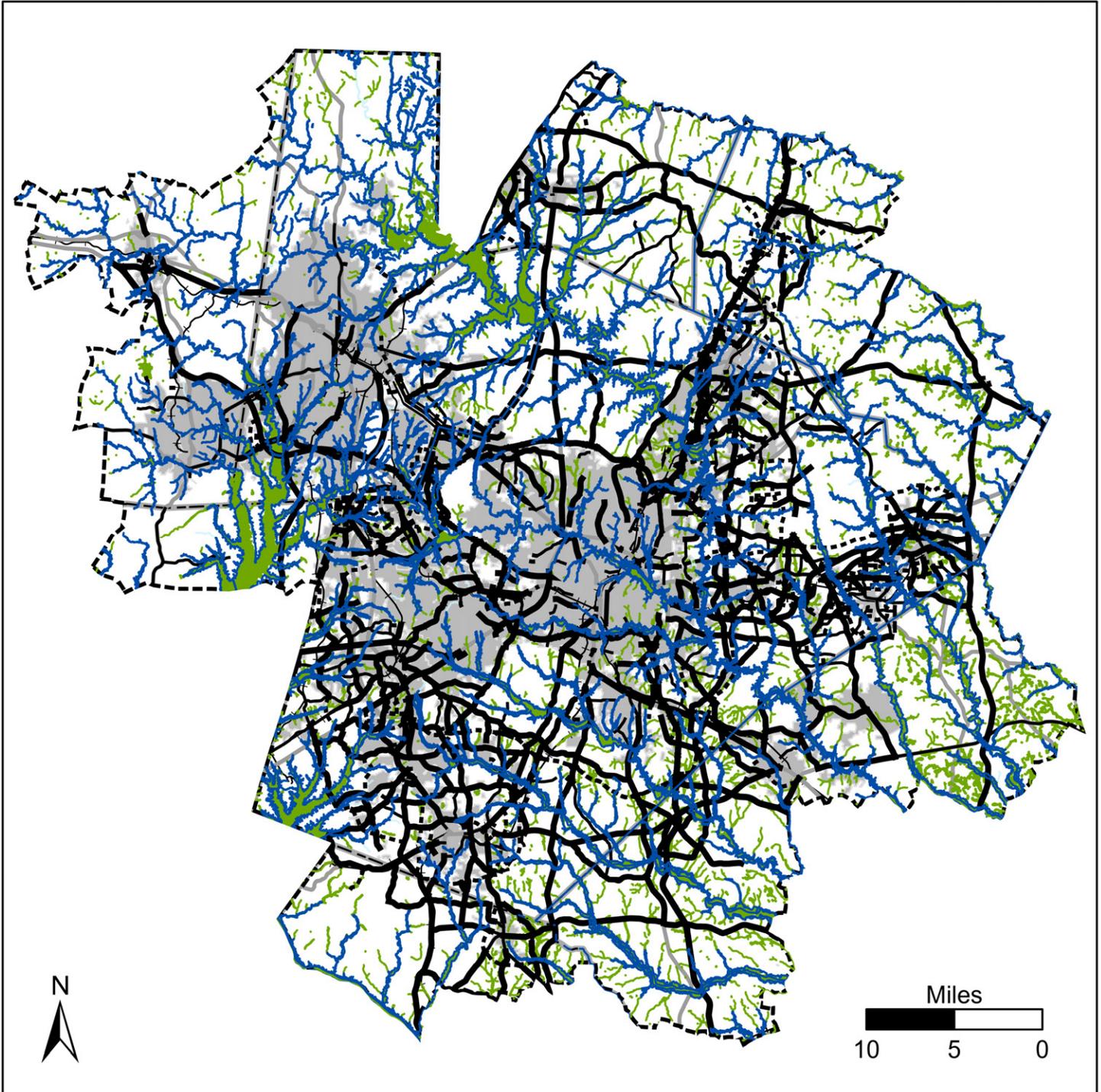


- | | | |
|-------------------------------|-----------------------------|----------------------|
| ● Public Water Supply Sources | CTP Highway Projects | — Major Roads |
| ■ NPDES Stormwater Permits | — Modernization/Superstreet | — Railroads |
| ■ Surface Water Intake | — Widening | ▭ Counties |
| ■ Water Supply Watershed | --- New Location | ■ Major Water Bodies |
| — Nutrient Sensitive Waters | — Expressway; Freeway | |
| | ■ MPO Boundaries | |

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Wetlands and Floodplains 2050 MTP and CTP



- | | | |
|---|---|---|
|  FMIS Floodplain | CTP Highway Projects |  MPO Boundaries |
|  Wetland |  Modernization/Superstreet |  Major Roads |
| |  Widening |  Railroads |
| |  New Location |  Counties |
| |  Expressway; Freeway |  Major Water Bodies |
| | |  Municipal Boundaries |

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