

## Land Use (Socioeconomic Data)

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### Background

The MPO forecasts socioeconomic data (SE Data), such as dwelling units, population and employment, to the year 2045 and uses that data as a key input into the travel demand model called the Triangle Regional Model, or TRM). The process starts with the 2045 guide totals, which are county- level population and employment projections for the year 2045, and proceeds to the Community Visualization (CommViz) model that distributes the dwelling units and employment to particular parcels based on land availability and suitability.

The following MPO Web page provides detailed information on the methodologies used for the guide totals and CommViz modeling process, as well as maps showing the projected population and employment distribution: <http://bit.ly/DCHC-MTP-LandUse>

### Guide Totals

The MPO establishes the 2045 county-level population and employment to calculate the growth that the CommViz model process will distribute. The population is based on estimates and projections from the N.C. Office of State Budget and Management, and the employment projection is based on a private service from Woods-and-Poole Economics. The employment current employment estimate is based on employer data from InfoUSA that is verified and updated by local planners. The following table provides the guide totals:

Population				
County	2013	2045	2013-45	% change
Chatham*	41,543	72,110	30,567	74%
Durham	286,210	475,091	188,881	66%
Orange	139,289	194,867	55,578	40%
<i>Total</i>	<i>467,042</i>	<i>742,068</i>	<i>275,026</i>	<i>59%</i>
Employment				
County	2013	2045	2013-45	% change
Chatham*	9,339	17,718	8,379	90%
Durham	192,877	342,910	150,033	78%
Orange	64,212	107,791	43,579	68%
<i>Total</i>	<i>266,428</i>	<i>468,419</i>	<i>201,991</i>	<i>76%</i>

\* Only includes portion of Chatham County in the modeling area.

## Scenarios

The 2045 MTP uses the Connect 2045 Triangle area land use modeling process, which is based on a model called Community Visualization (or CommViz). The Connect 2045 team created two land use scenarios with the direct assistance of local land use planners throughout the Triangle area. In these scenarios, the CommViz model distributes the county-level guide totals of population and employment growth to a particular place.

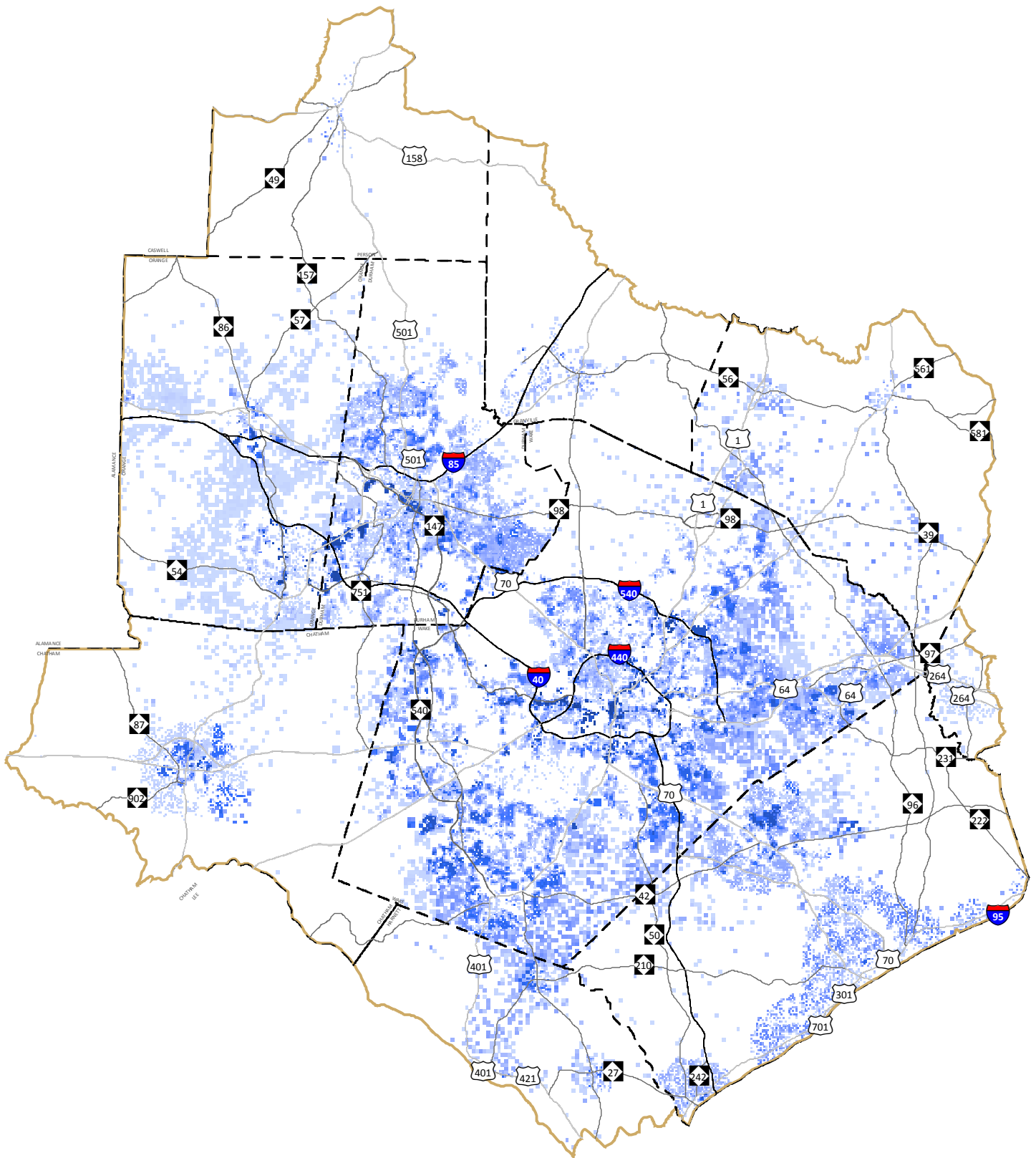
- Community Plan – This scenario is based on the local comprehensive plans and land use policies, and can be understood as the most likely scenario.
- AIM-High – This scenario uses the Community Plan scenarios as a base but increases the land use density and mix around the future light rail. It is based on draft data from an ongoing regional study on rail station development potential, and though it pushes the limits it is still market possible.

## Preferred Option Uses AIM-High

The MPO staff proposes using the AIM-High scenario for the Preferred Option. AIM-High is within the market possibilities of rail station development and it proved to have desired, positive impacts on the performance measures such as reduced overall congestion and delay.

## Maps

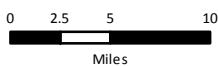
The maps on the following pages show the distribution of the growth of households and employment from 2013 through 2045 in the Triangle Region and the three counties in the MPO. The set of household maps are presented first, followed by the employment maps.



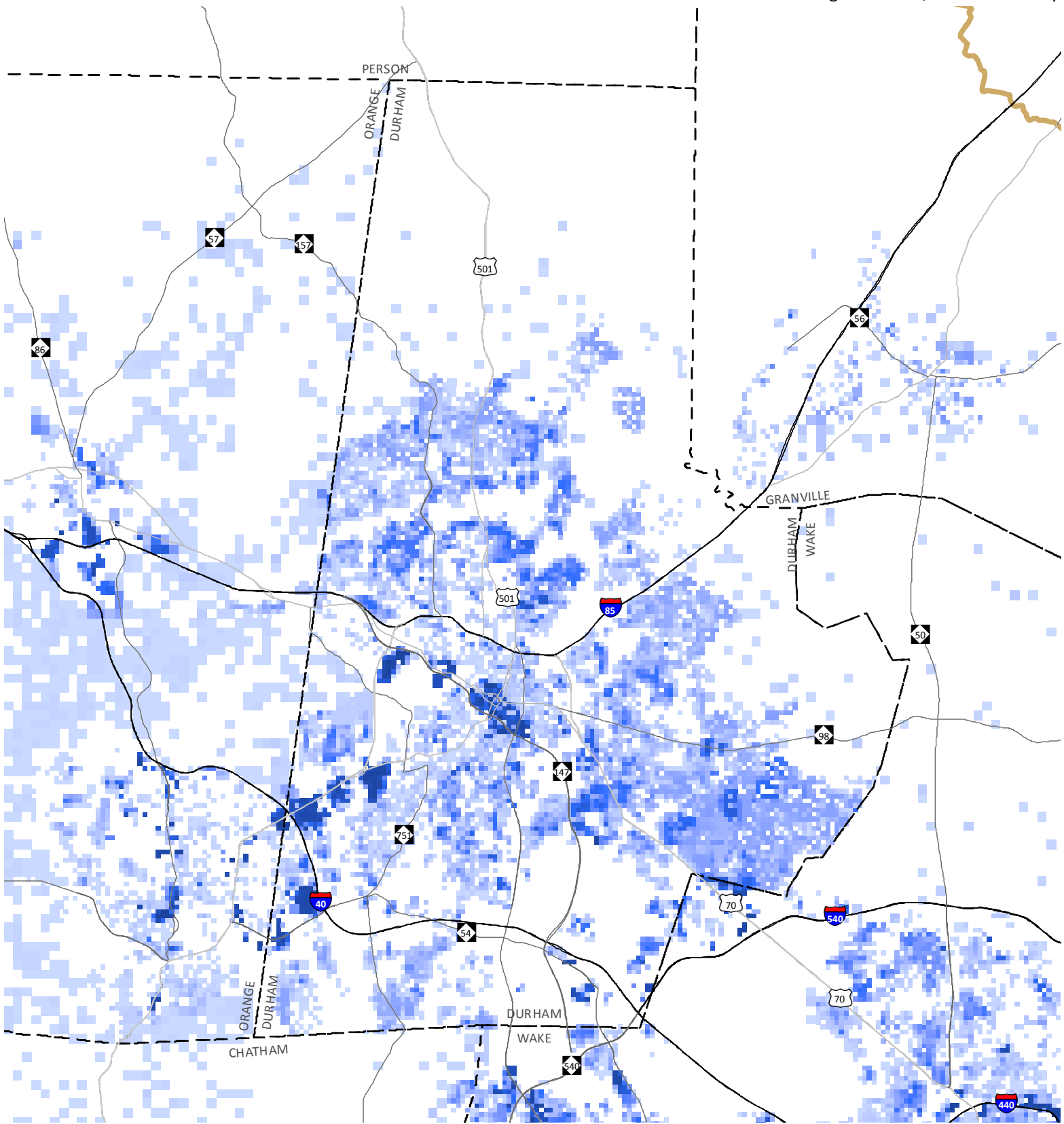
Regional Composite Map - New Household Distribution - 32-Year Forecast (2013-2045)

Study Area Boundary (TRM V.6)  
 County Boundary



Interstate  
 US Hwy  
 State Hwy



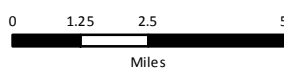
See table named "Connect 2045 - AIM High Output by Jurisdiction" for a summary of household and employment data allocated to individual cities, towns, and counties in the Triangle Region CommunityViz Model.



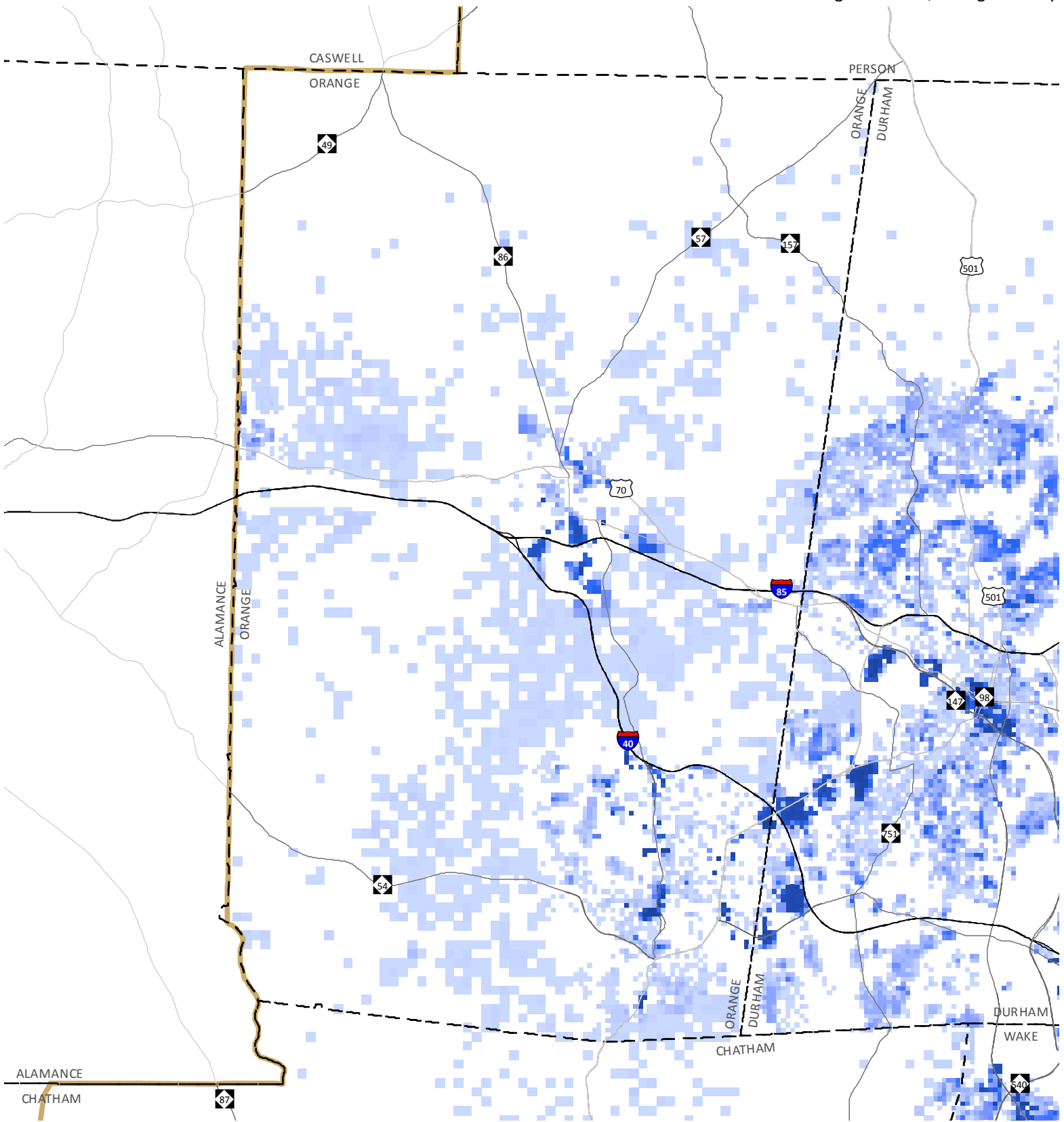
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-  US Hwy
-  State Hwy



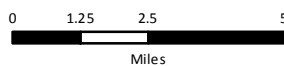
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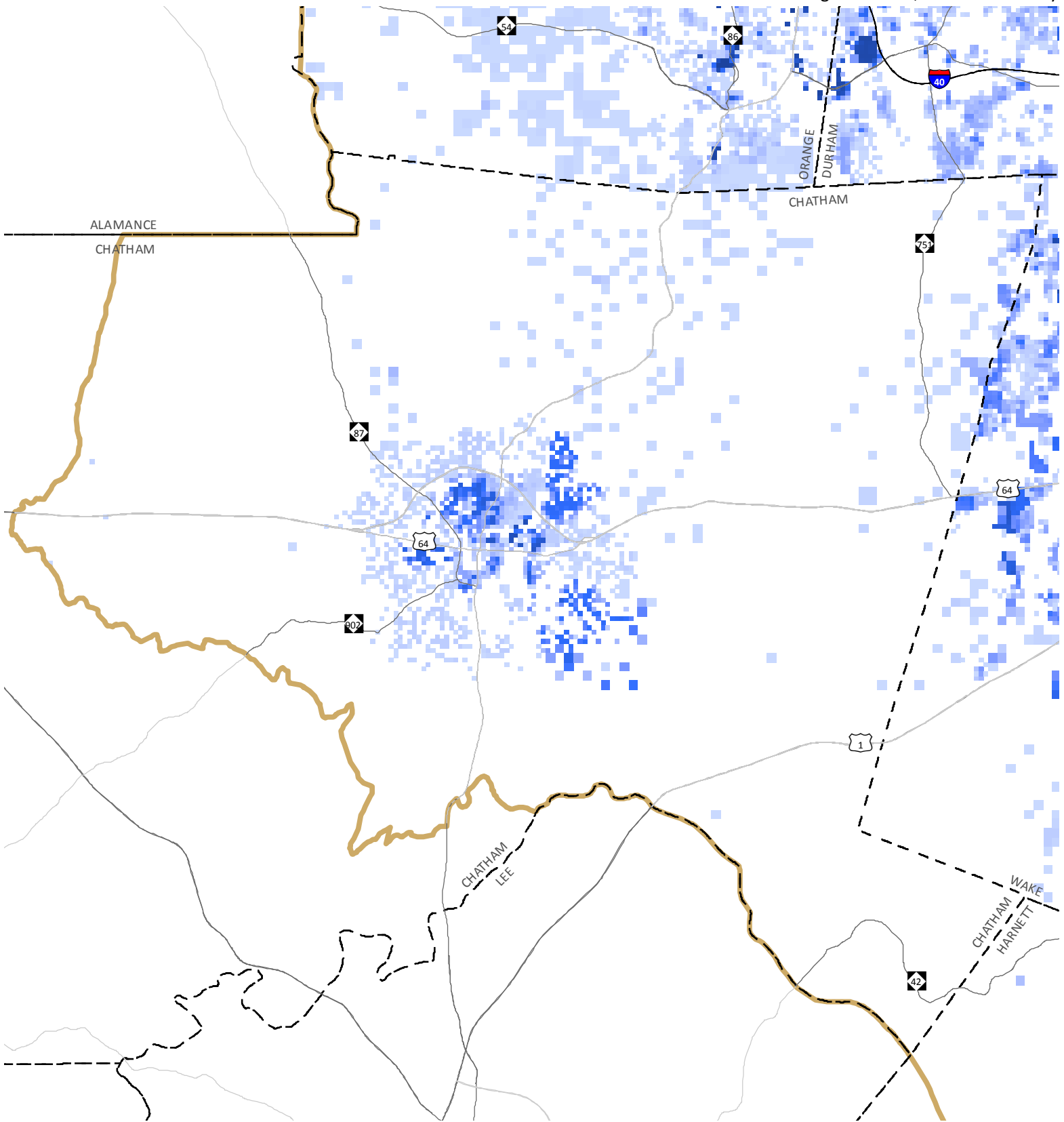
-  Study Area Boundary (TRM V.6)
-  County Boundary

-  Interstate
-  US Hwy
-  State Hwy





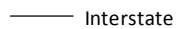


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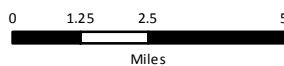
AIM High Scenario, Chatham County



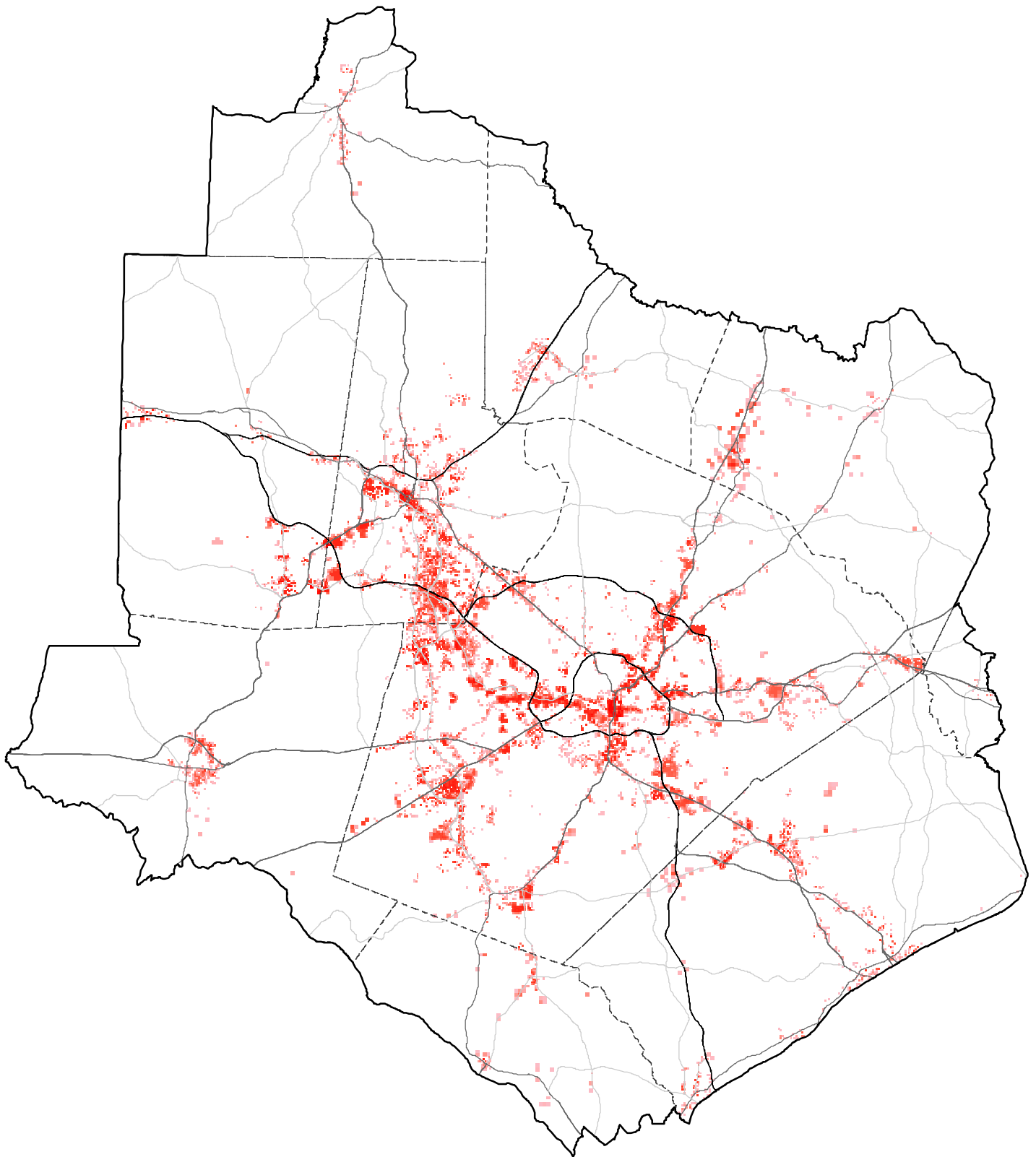
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



 Interstate  
 US Hwy  
 State Hwy



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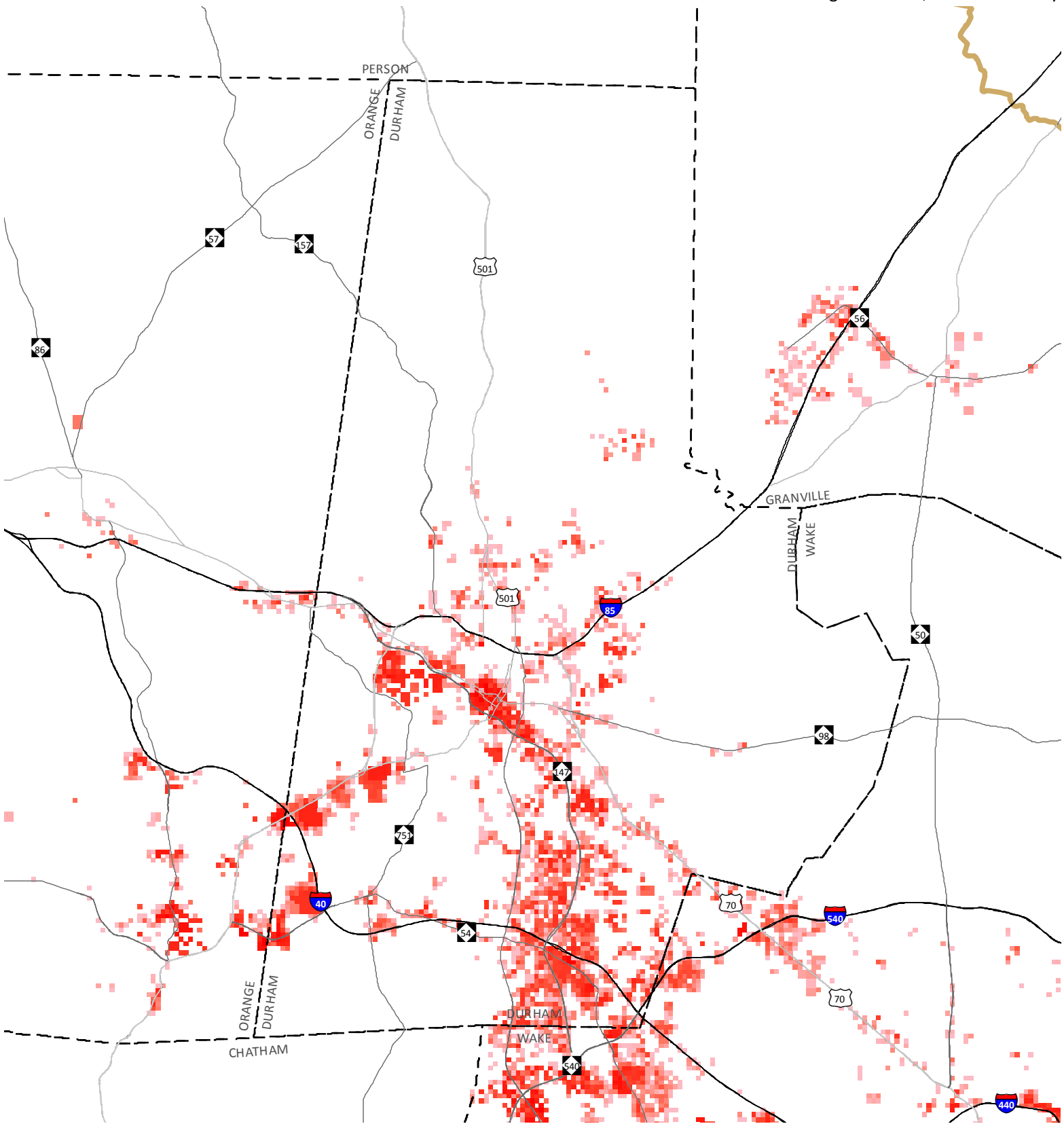


Regional Composite Map - New Employment Distribution - 32-Year Forecast (2013-2045)






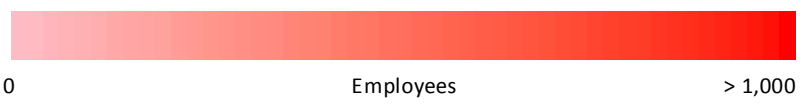

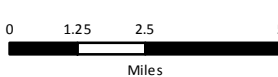
-  County Boundaries
-  Interstates/ Freeways
-  US Highways
-  NC Highways



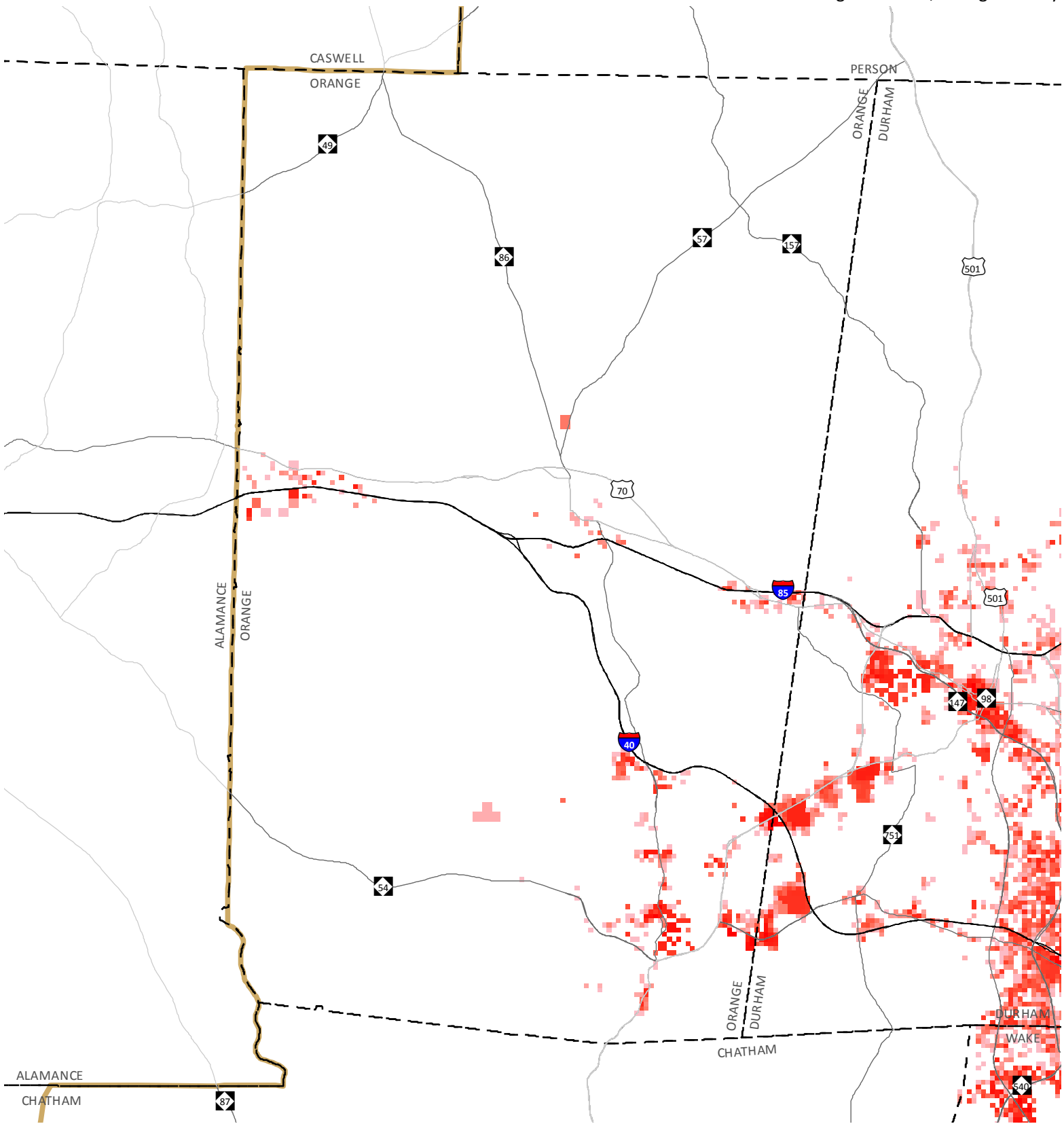
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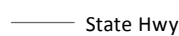
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<p>Triangle J Council of Governments Geographic Information Systems 7.26.17</p> 	 <p>0 1.25 2.5 5 Miles</p>	<p>See table named "Connect 2045 - AIM High Output by Jurisdiction" for a summary of household and employment data allocated to individual cities, towns, and counties in the Triangle Region CommunityViz Model.</p>

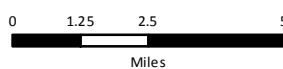




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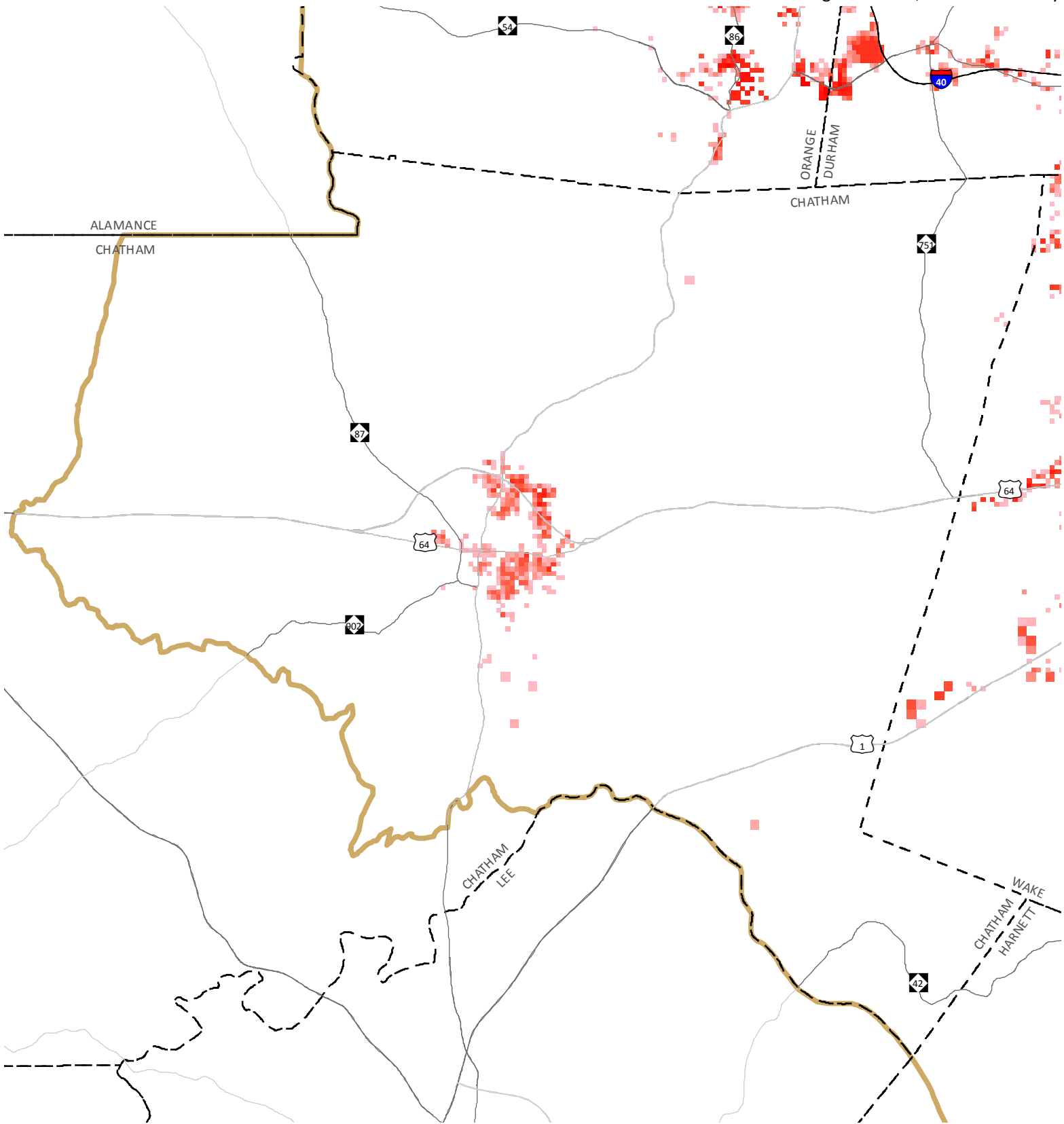
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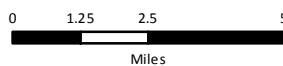
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