Contents

Figures

Tables

2 Demographic Profile

This section provides an overview and description of demographic factors that influence demand for transit. The section focuses on population and employment data as well as concentrations of populations that generally rely on transit to reach destination such as employment, educational centers, and shopping.

Existing demographics in the study area have been documented using the Census Bureau's American Community Survey (ACS) data. Future conditions are documented using the BCDCOG's regional travel demand model for the horizon year 2040. The demographic categories are illustrated using density (e.g., population per square mile) as opposed to totals, as this is a more appropriate indicator for transportation demand analysis. Figures 2.1 through 2.10 show current demographic conditions in the study area for the following categories:

- Existing population density
- Future population density (2040)
- Existing employment density
- Future employment density (2040)
- Minority population density
- Population below poverty density
- Zero-auto household density
- Persons with disabilities density
- Population under the age of 18 density
- Population over the age of 64 density

The demographic data show densities for most categories listed above are highest in downtown Charleston, with pockets of higher densities in North Charleston along University Boulevard and Rivers Avenue, and in Ladson on the north side of I-26. There are some exceptions, including clusters of populations over 64, for which higher densities are evenly spread throughout the study area, including in Summerville.

Compared to Berkeley, Charleston, and Dorchester Counties, the study area outpaces the region in its proportions of several demographic categories known to contribute to transit dependency. As summarized in Table 2.1, the minority share in the study area population is one and a half that of the overall region (53 percent versus 36 percent), the share of the population below poverty in the study area is nearly twice that of the region (26 percent versus 14 percent), and the share of households without access to a vehicle in the study area is over twice that of the region (13 percent versus 6 percent).

Table 2.1: Study Area Demographic Comparison

	Total population	Population per square mile	Percent under 18	Percent over 64	Percent minority	Percent disabled	Percent below poverty	Percent zero-auto households
Study area	85,326	2,239	21%	10%	53%	12%	26%	13%
Berkeley, Charleston, and Dorchester counties	744,195	235	22%	14%	36%	12%	14%	6%

Source: American Community Survey Five-Year Estimates (2013-2017)

2.1 Existing Population Density

Higher population densities, in combination with transit supportive land uses, generally increase the likelihood for people to utilize transit services. As illustrated on Figure 2.1, population densities in the study area are highest in downtown Charleston, with pockets of higher densities in the Charleston Heights and Whipper Barony areas of North Charleston along University Boulevard and Rivers Avenue, and in Ladson on the north side of I-26.

2.2 Future Population Density (2040)

As illustrated in Figure 2.2, population density trends in the future scenario (2040) remain fairly consistent, with downtown Charleston and areas of North Charleston representing the highest densities. Notably, high population densities are also projected on the Magnolia site adjacent to I-26 and the Ashley River, where a mixed-use development is being planned.

2.3 Existing Employment Density

Employment locations are common origins and destinations for transit trips. As illustrated on Figure 2.3, existing employment densities are highest in downtown Charleston where major employment centers such as the Medical University of South Carolina (MUSC) are located. Areas of high and moderate employment densities are also concentrated in the portion of the study area from the Northwoods Mall to Ashley Junction in North Charleston.

2.4 Future Employment Density (2040)

As illustrated on Figure 2.4, future employment density trends remain largely unchanged from current conditions. Downtown Charleston and the portion of North Charleston from the Northwoods Mall to Ashley Junction still feature the highest densities. Additionally, some areas increased from low to moderate employment densities, including portions of Ladson and Summerville.

2.5 Minority Population Density

For the purpose of transportation analysis, the term minority refers to any population that does not identify as non-Hispanic white. Minority populations utilize transit services at higher rates than non-Hispanic white populations. As illustrated on Figure 2.5, minority population densities are highest in downtown Charleston, between Dorchester Road and I-26, and the Charleston Heights and Park Circle areas of North Charleston.

2.6 Population Below Poverty Density

Persons below poverty are less likely to have access to private automobiles and thus have a higher propensity to use transit services. As illustrated on Figure 2.6, densities for this metric are highest in downtown Charleston with pockets of moderate densities in the Charleston Heights and Whipper Barony areas of North Charleston.

2.7 Zero-Auto Household Density

Households that lack access to automobiles are forced to use alternative transportation modes such as transit to meet their mobility needs. As illustrated on Figure 2.7, high densities for this metric are concentrated in downtown Charleston and the Charleston Heights and Whipper Barony areas of North Charleston.

2.8 Persons with Disabilities Density

Persons with disabilities often have mobility limitations and are thus reliant on alternative transportation modes such as transit. As illustrated on Figure 2.8, densities for persons with disabilities are highest in downtown Charleston, the Charleston Heights area of North Charleston, Hanahan, and the areas along University Boulevard and Rivers Avenue in North Charleston.

2.9 Population under the age of 18 density

Individuals under 18 years of age are typically more reliant on transit services as they may not be licensed to drive and/or lack access to a private vehicle. As illustrated on Figure 2.9, densities for this metric are highest in downtown Charleston, the Windsor Place and Whipper Barony areas of North Charleston, and along University Boulevard and Rivers Avenue in North Charleston.

2.10 Population over the age of 64 density

Individuals over the age of 64 years of age are more likely to have mobility limitations and thus rely on alternative transportation modes such as transit to access destinations. As illustrated on Figure 2.10, densities for this metric are highest in downtown Charleston, with pockets of moderate densities spread throughout North Charleston.

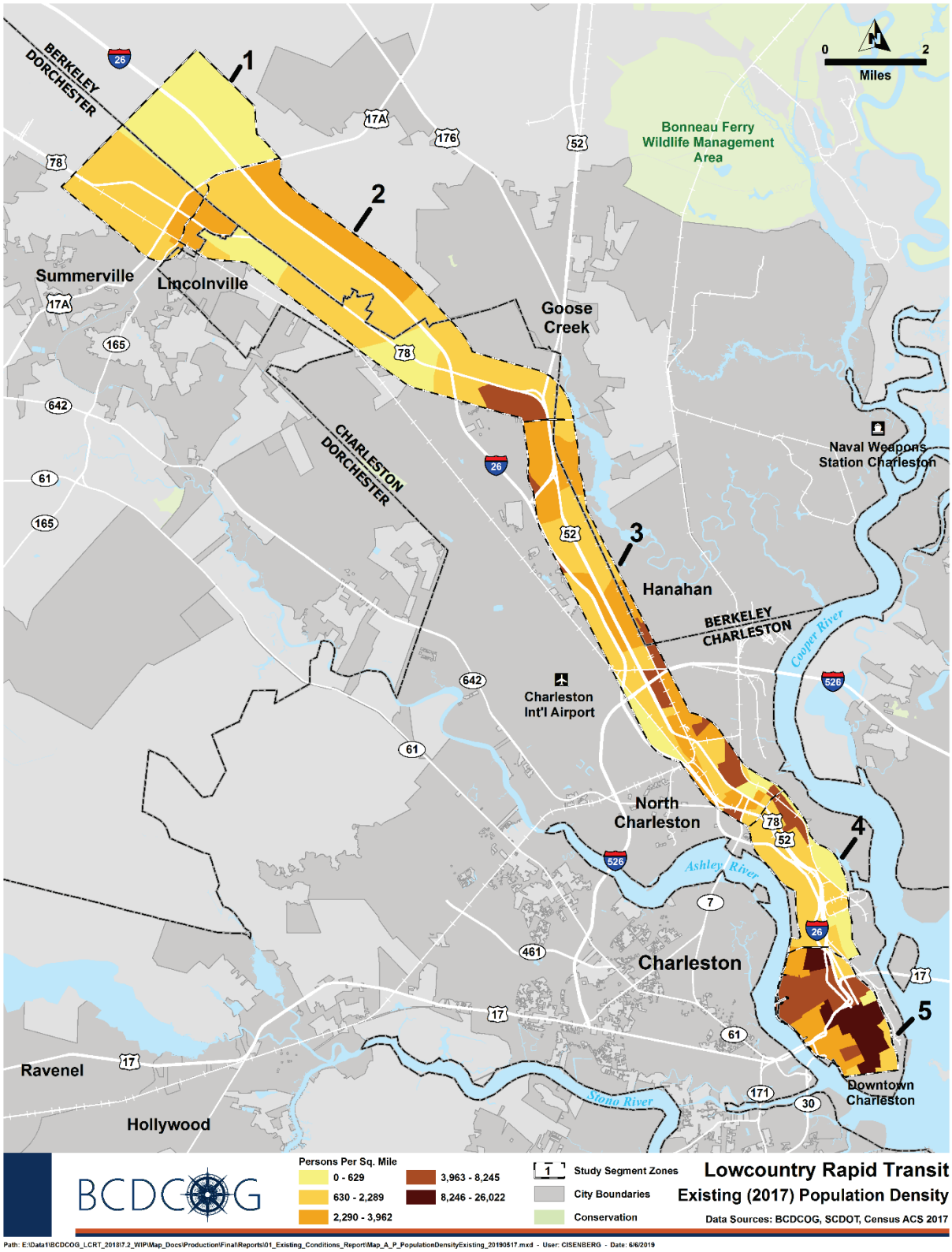

Figure 2.1 Existing Population Density

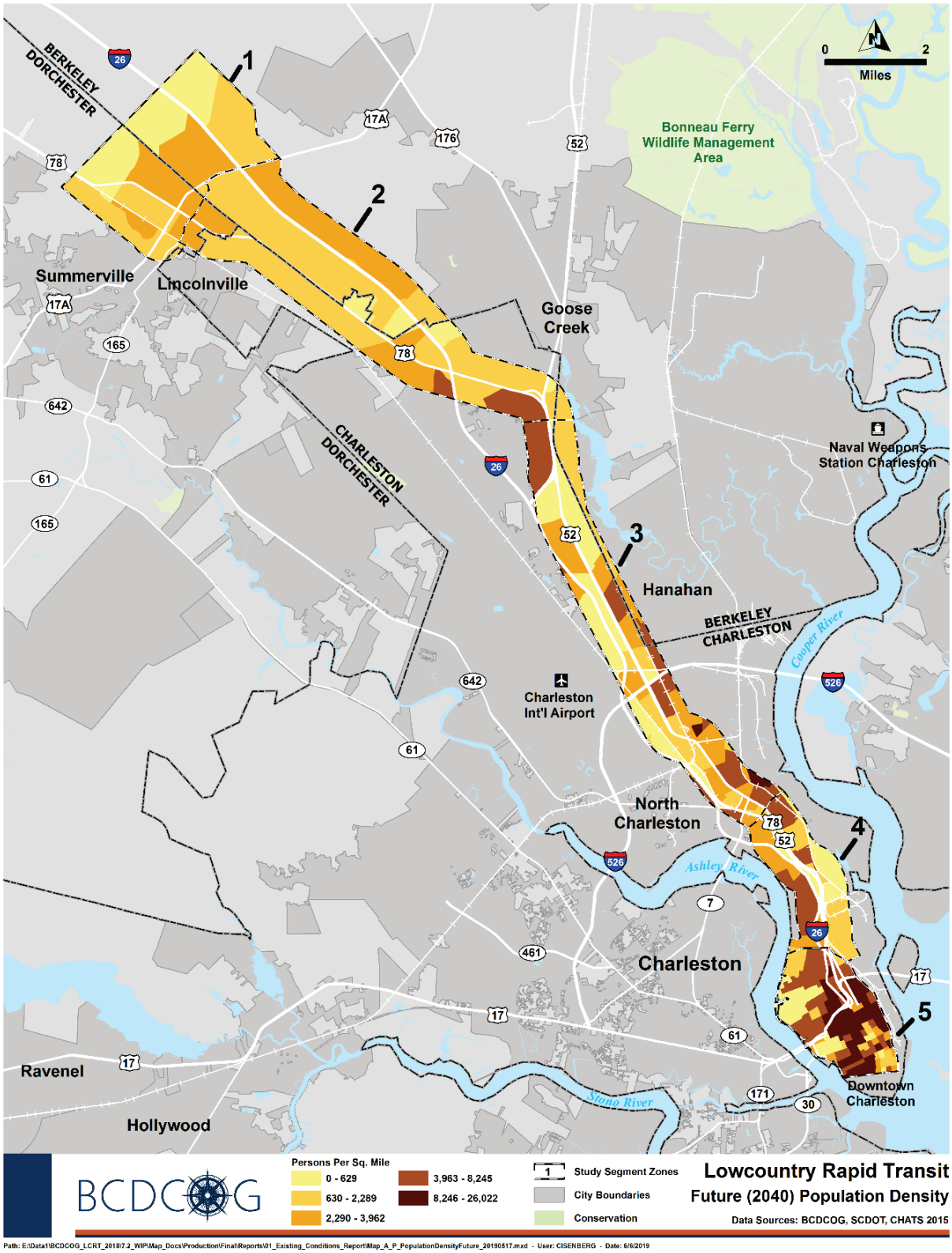

Figure 2.2 Future (2040) Population Density

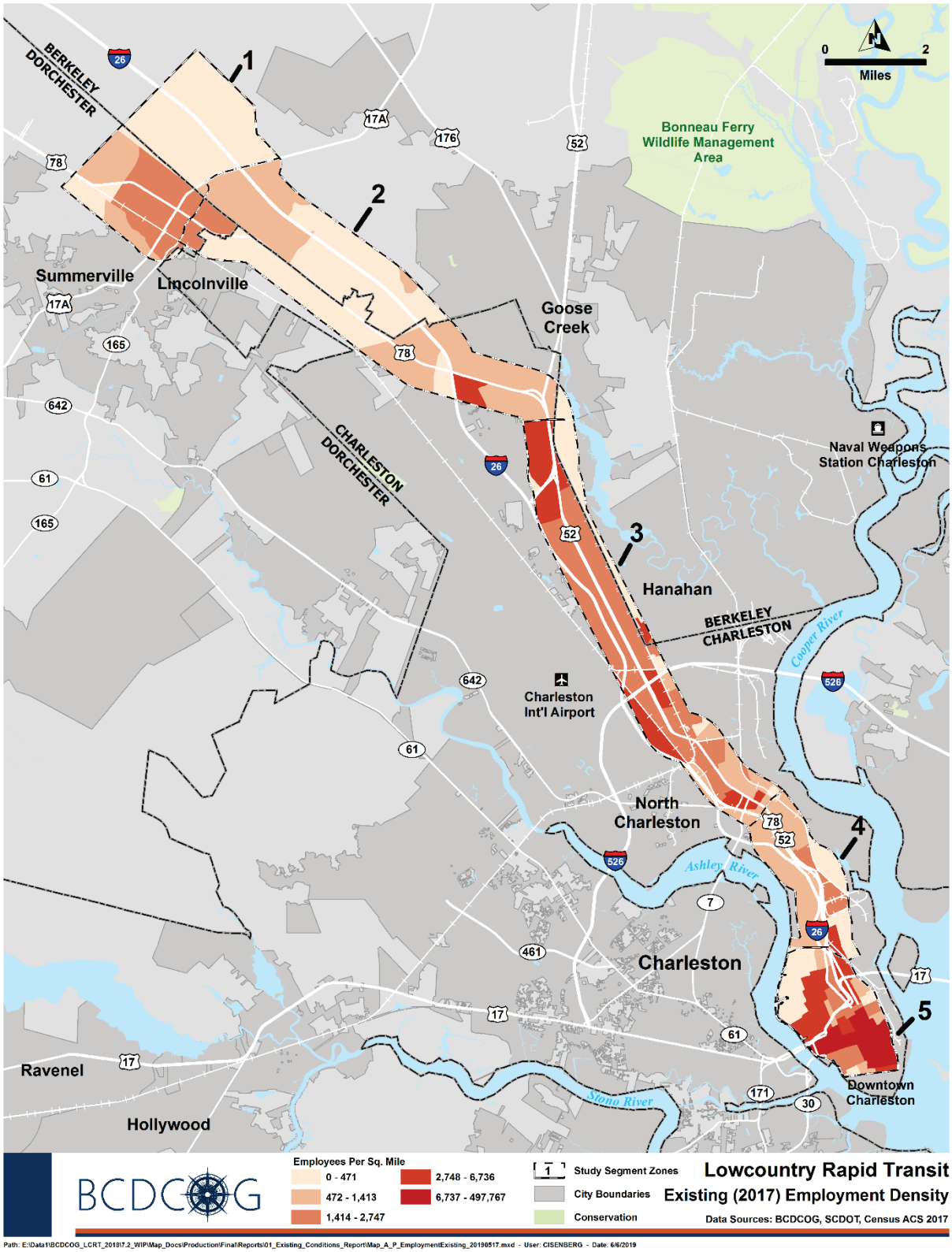

Figure 2.3 Existing Employment Density

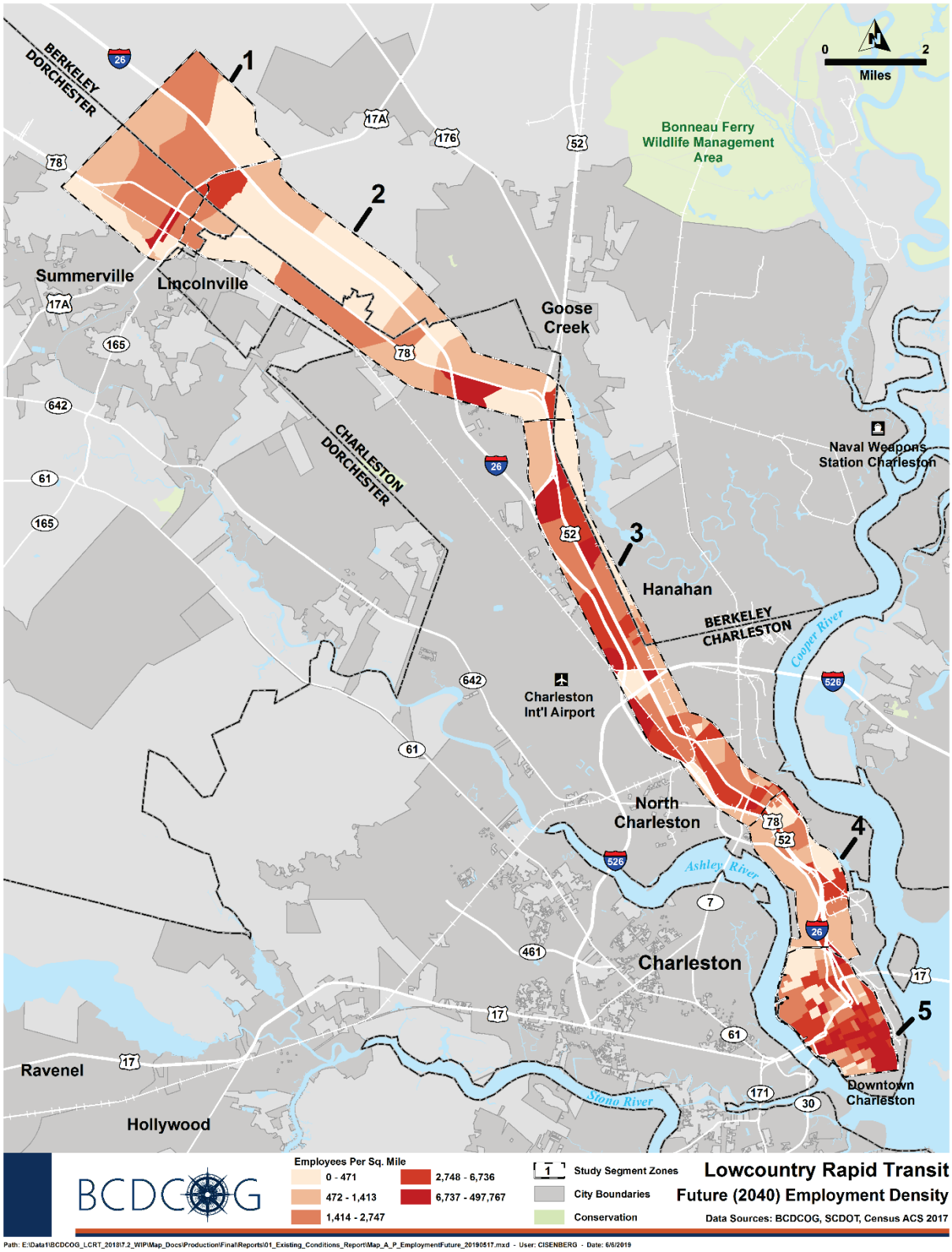

Figure 2.4 Future (2040) Employment Density

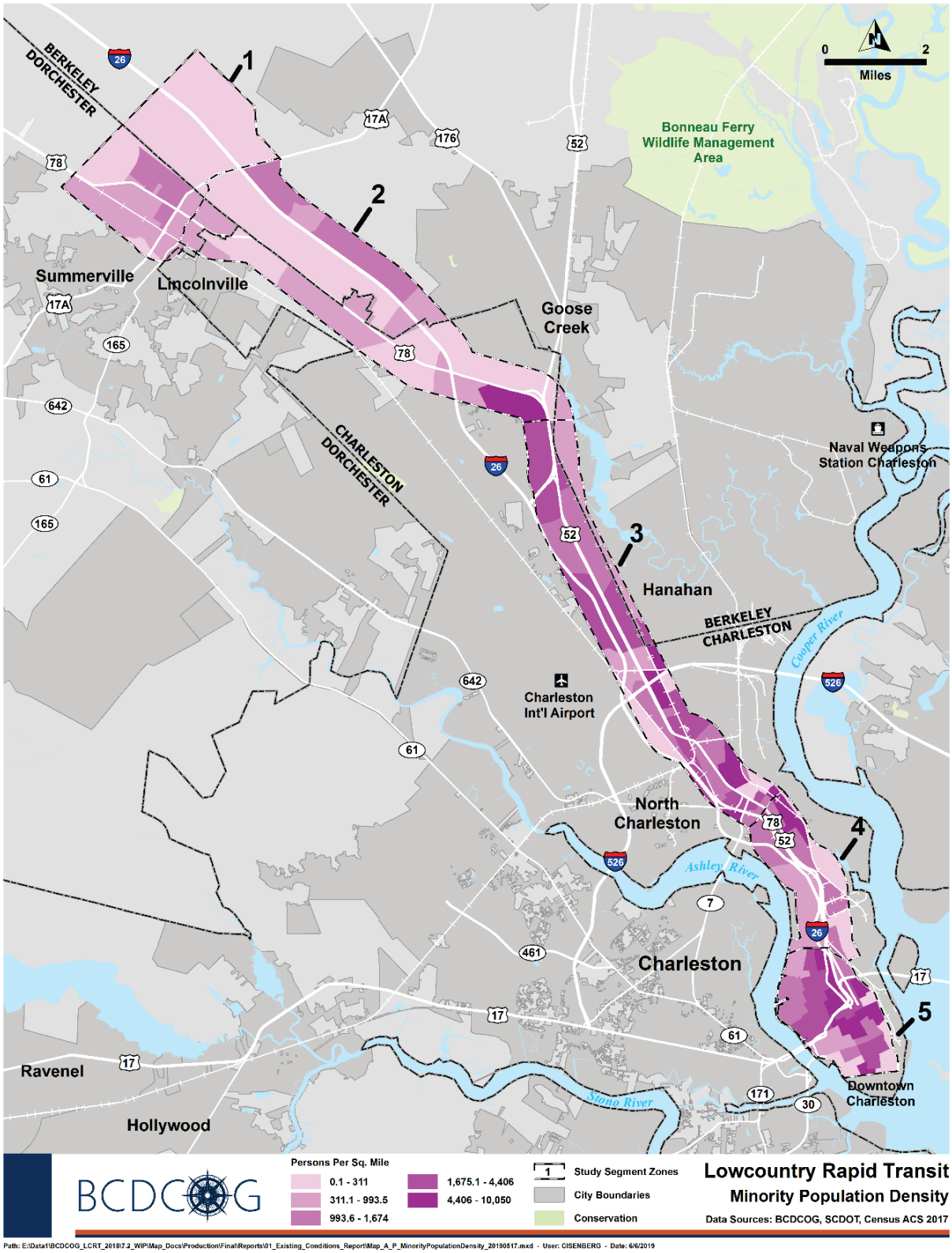

Figure 2.5 Minority Population Density

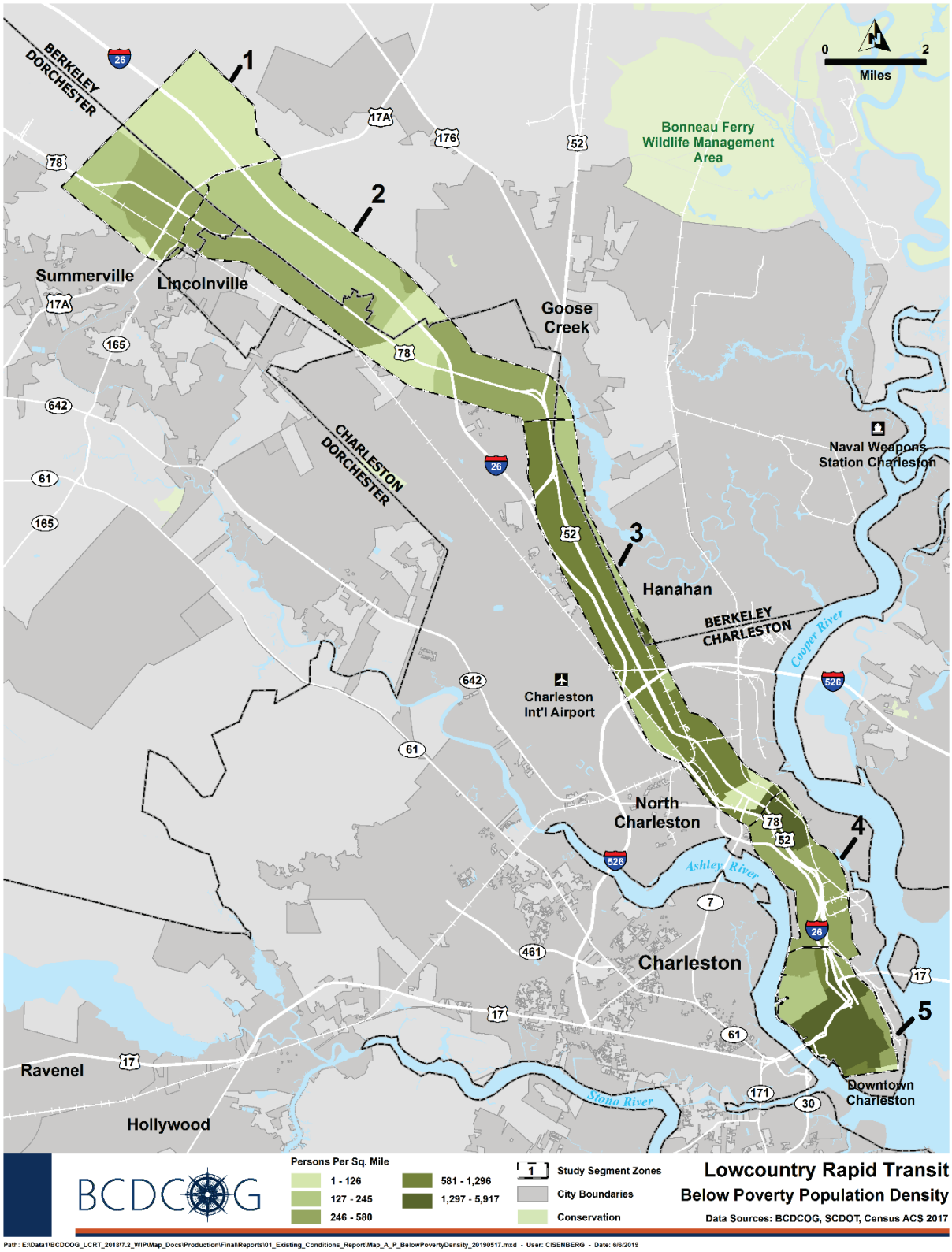

Figure 2.6 Population Below Poverty Density

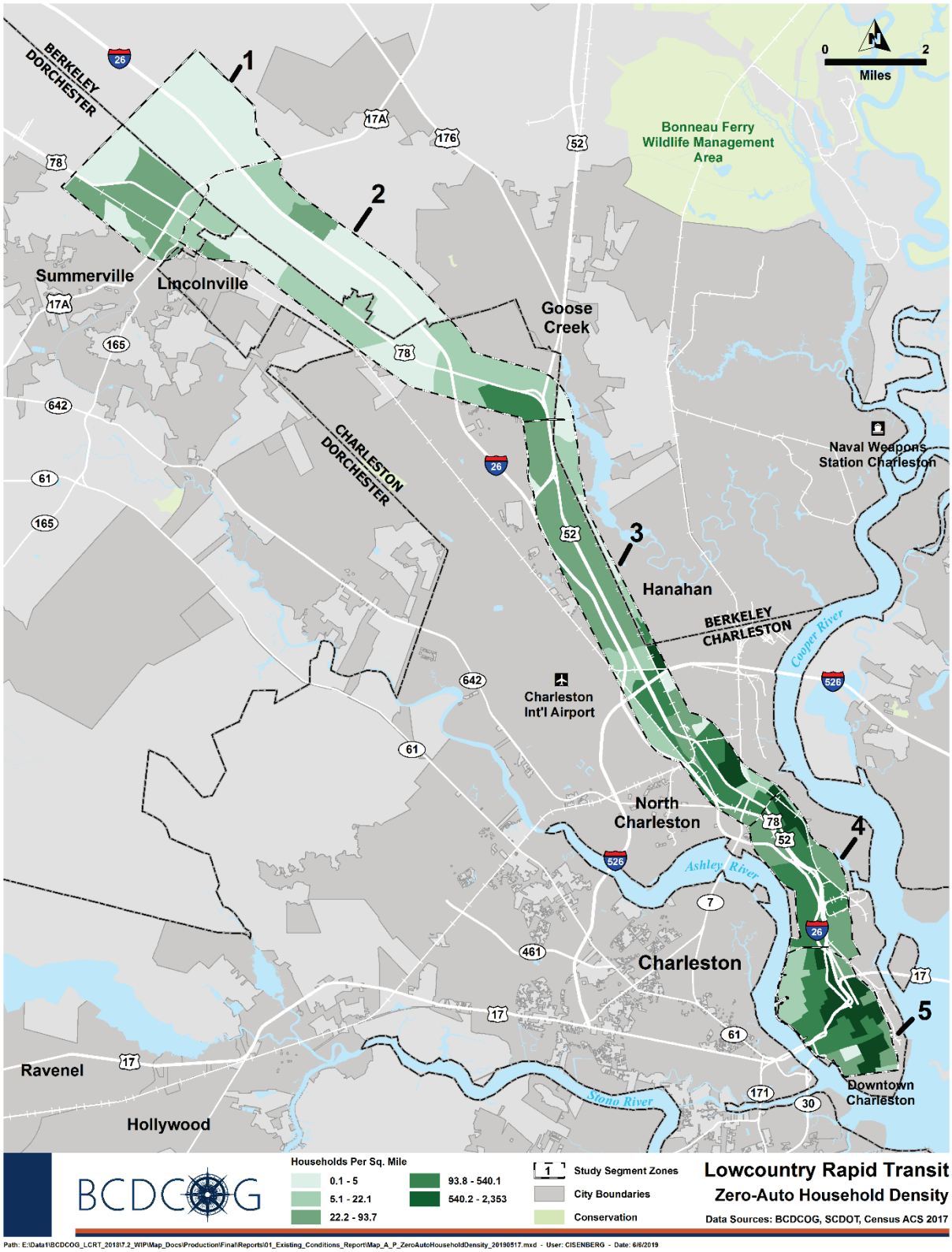

Figure 2.7 Zero-Auto Household Density

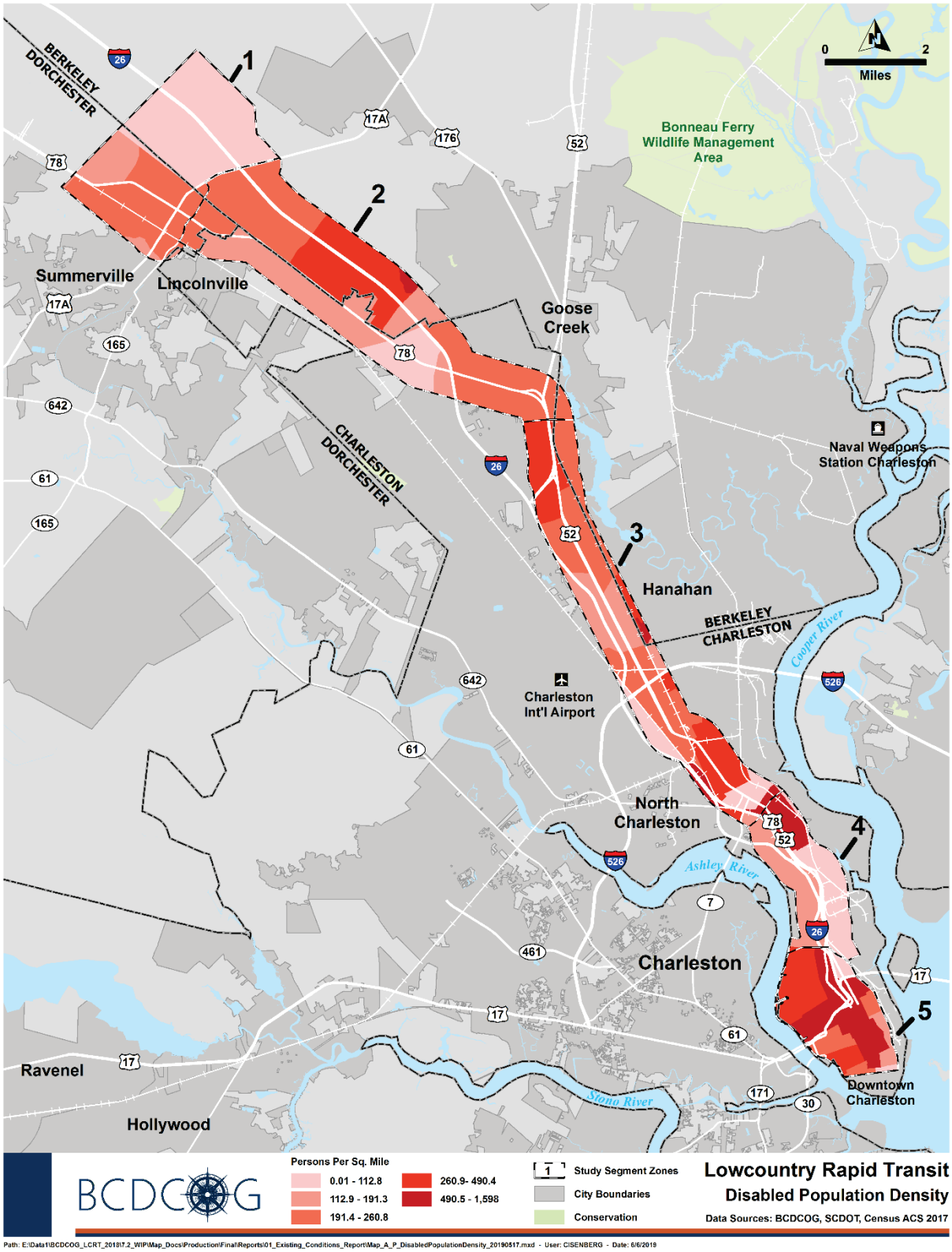

Figure 2.8 Disabled Population Density

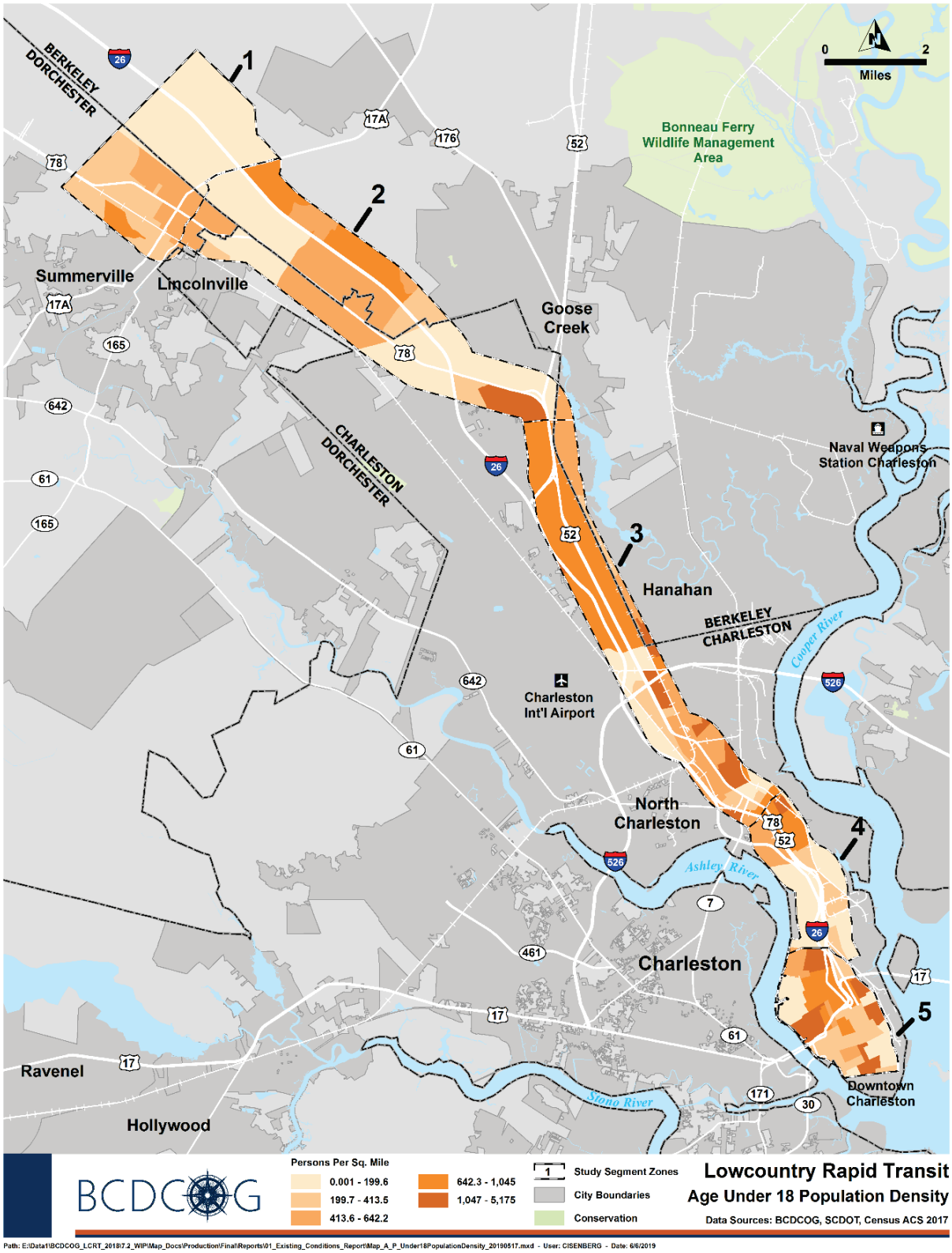

Figure 2.9 Age Under 18 Population Density

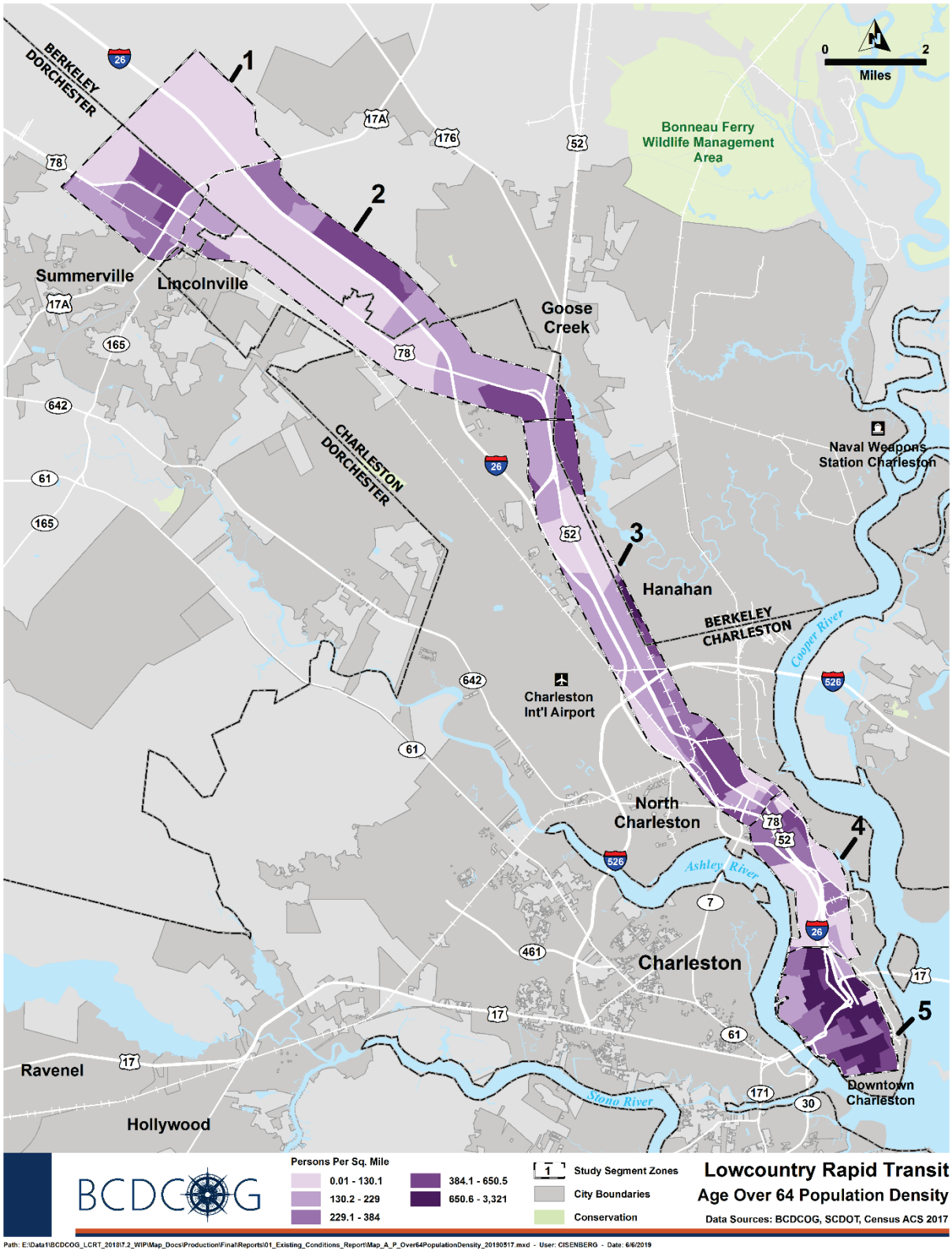

Figure 2.10 Age Over 64 Population Density

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