



## SECTION 4. COUNTY PROFILE

### 2019 HMP Update Changes

- The County Profile contains updated information regarding the county's physical setting, population and demographics and trends, general building stock, land use and trends, and critical facilities. Additionally, it includes future development trends in the county.

This profile describes the general information of the County (physical setting, population and demographics, general building stock, and land use and population trends) and critical facilities located within Burlington County. In Section 5, specific profile information is presented and analyzed to develop an understanding of the study area, including the economic, structural, and population assets at risk and the particular concerns that may be present related to hazards analyzed (for example, a high percentage of vulnerable persons in an area).

### 4.1 GENERAL INFORMATION

Burlington County is located in the center of New Jersey, bordered to the north by Mercer and Monmouth County, east by Ocean County, to the south by Atlantic County, to the southwest by Camden County, and to the northwest by the Delaware River and Pennsylvania. According to the 2010 U.S. Census, the total population of the County is 448,734 and has a total land area of 820 square miles. The County is 43 miles long and has an average width of 20 miles. Burlington County ranks first in area and 11<sup>th</sup> in population among New Jersey's 21 counties. Figure 4-1 illustrates an overview of Burlington County.

The Lenni-Lenape Indians were the original aboriginal owners of Burlington County. In October 1677, a group of English debarked from the ship Kent and founded the Town of Burlington. Burlington County was later incorporated on May 17, 1694. The American Indians sold more and more of their lands to the new settlers until finally, in 1801, there remained less than 100 adult American Indians on the Indian Mills reservation, which was the first American Indian reservation in the U.S. and the American Indian's last dwelling place in Burlington County (Burlington County HMP 2014).

The County's waterways were a principal factor in the early and successful seating of Burlington County. These transportation systems were vital at the time to trade, travel and provincial existence. Consequently, the earliest homes and the earliest settlements were on the waterways. Burlington, thriving at its river location, was the port of entry. Several of its early inhabitants moved on to establish farms in the fertile valleys, being generally careful to choose creek-valleys where a landing and a waterway insured easy transport to Burlington or Philadelphia (Burlington County HMP 2014).

According to the 2010 U.S. Census data, the County's population was 448,734. Burlington County is the 11th most populated county in New Jersey (U.S. Census Bureau, 2010).

### 4.2 MAJOR PAST HAZARD EVENTS

Presidential disaster declarations are typically issued for hazard events that cause more damage than state and local governments can handle without assistance from the federal government, although no specific dollar loss threshold has been established for these declarations. A presidential disaster declaration puts federal recovery programs into motion to help disaster victims, businesses, and public entities. Some of the programs are matched by state programs. Review of presidential disaster declarations helps establish the probability of reoccurrence for each hazard and identify targets for risk reduction. Table 4-1 shows FEMA disaster declarations that included Burlington County through 2018 (records date back to 1954).



**Table 4-1. History of FEMA Declarations in Burlington County, New Jersey**

Disaster Number	Event Date	Declaration Date	Incident Type	Title
DR-205	August 18, 1965	August 18, 1965	Drought	Water Shortage
DR-310	September 4, 1971	September 4, 1971	Flood	Heavy Rains & Flooding
DR-477	July 23, 1975	July 23, 1975	Flood	Heavy Rains, High Winds, Hail & Tornadoes
DR-528	February 8, 1977	February 8, 1977	Severe Ice Storm	Ice Conditions
EM-3083	October 19, 1980	October 19, 1980	Drought	Water Shortage
EM-3106	March 13-17, 1993	March 17, 1993	Snow	Severe Blizzard
DR-1088	January 7-12, 1996	January 13, 1996	Snow	Blizzard of 96 (Severe Snow Storm)
EM-3148	September 16-18, 1999	September 17, 1999	Hurricane	Hurricane Floyd Emergency Declarations
EM-3156	May 30-November 1, 2000	November 1, 2000	Other	West Nile Virus
EM-3169	September 11, 2001	September 19, 2001	Fire	Fires and Explosions
EM-3181	February 16-17, 2003	March 20, 2003	Snow	Snow
DR-1530	July 12-23, 2004	July 16, 2004	Severe Storm(s)	Severe Storms and Flooding
EM-3257	August 29-October 1, 2005	September 19, 2005	Hurricane	Hurricane Katrina Evacuation
DR-1694	April 14-20, 2007	April 26, 2007	Severe Storm(s)	Severe Storms and Inland and Coastal Flooding
FM-2695	May 15, 2007	May 16, 2007	Fire	Warren Grove Fire
DR-1873	December 19-20, 2009	February 5, 2010	Snow	Snowstorm
DR-1889	February 5-6, 2010	March 23, 2010	Snow	Severe Winter Storm and Snowstorm
DR-1897	March 12-April 15, 2010	April 2, 2010	Severe Storm(s)	Severe Storms and Flooding
DR-1954	December 26-27, 2010	February 4, 2011	Snow	Severe Winter Storm and Snowstorm
DR-4021	August 27-September 5, 2011	August 31, 2011	Hurricane	Hurricane Irene
DR-4086	October 26-November 8, 2012	October 30, 2012	Hurricane	Hurricane Irene
DR-4231	June 23, 2015	July 22, 2015	Hurricane	Hurricane Sandy
DR-4264	January 22-24, 2016	March 14, 2016	Hurricane	Hurricane Sandy
DR-4368	March 6-7, 2018	June 8, 2018	Severe Storm(s)	Severe Storm

Source: FEMA 2019

## 4.3 PHYSICAL SETTING

This section presents the physical setting of the County, including: location, hydrography and hydrology, topography and geology, climate, and land use/land cover.

### 4.3.1 Location

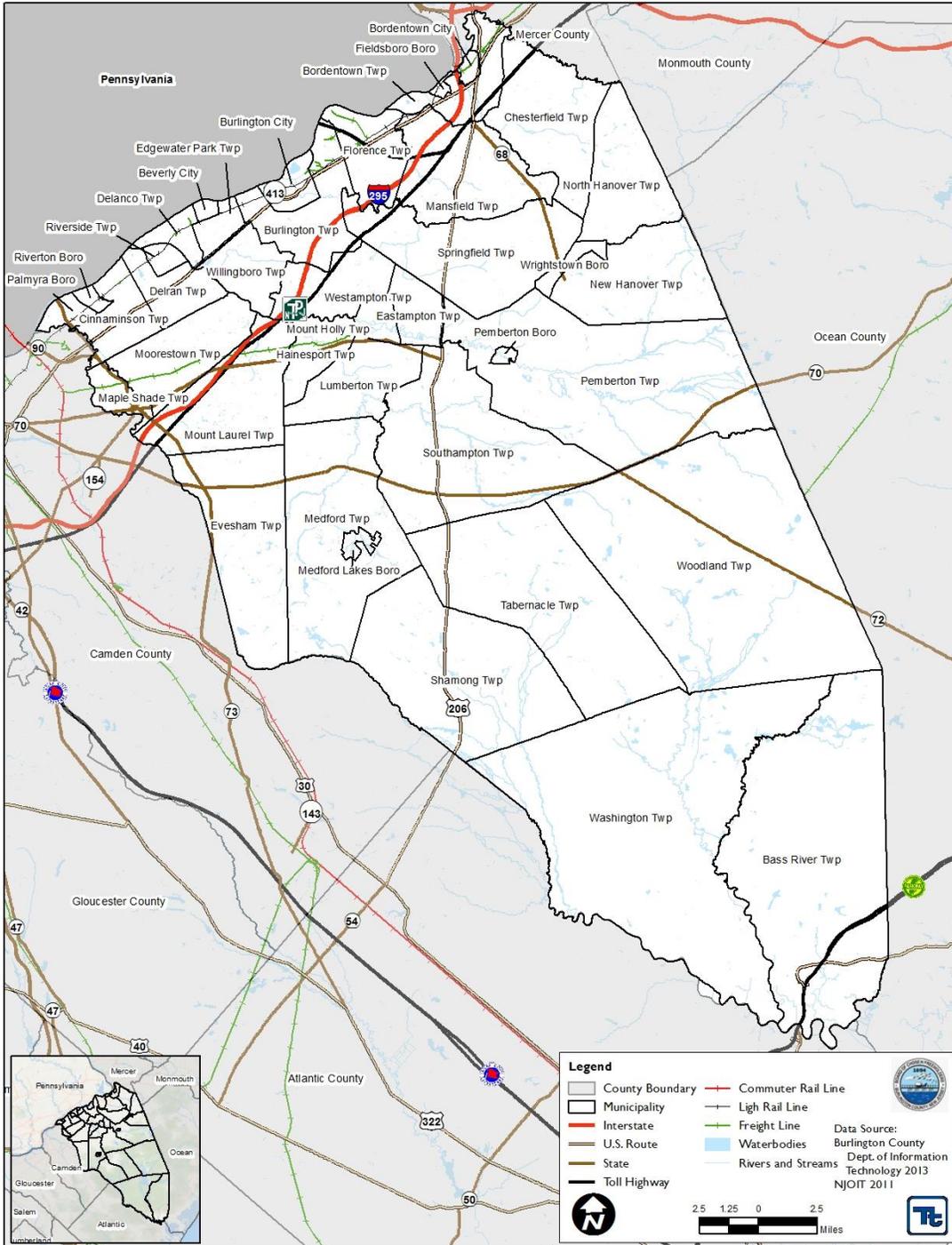
Burlington County is the largest county in New Jersey, covering 827 square miles, and extends from the Delaware River to the Great Bay. Burlington County is bordered to the north by Mercer County, to the northeast by Monmouth County, to the east by Ocean County, to the southwest by Atlantic County and to the west by Camden County. The Delaware River separates Burlington County from Pennsylvania to the west. The County has a total area of 529,351 acres including 5,191 acres of water (Burlington County, 2014). Figure 4-1 illustrates Burlington County and its surrounding area.





Forty municipalities exist within the County, consisting of three cities, six boroughs and 31 townships. The county seat is located in Mount Holly (Burlington County, 2013). Burlington County is located within the Philadelphia-Camden-Wilmington Metropolitan Statistical Area (MSA). Burlington County features a variety of land uses including densely populated urban development to preserved open space and military use.

Figure 4-1. Burlington County, New Jersey

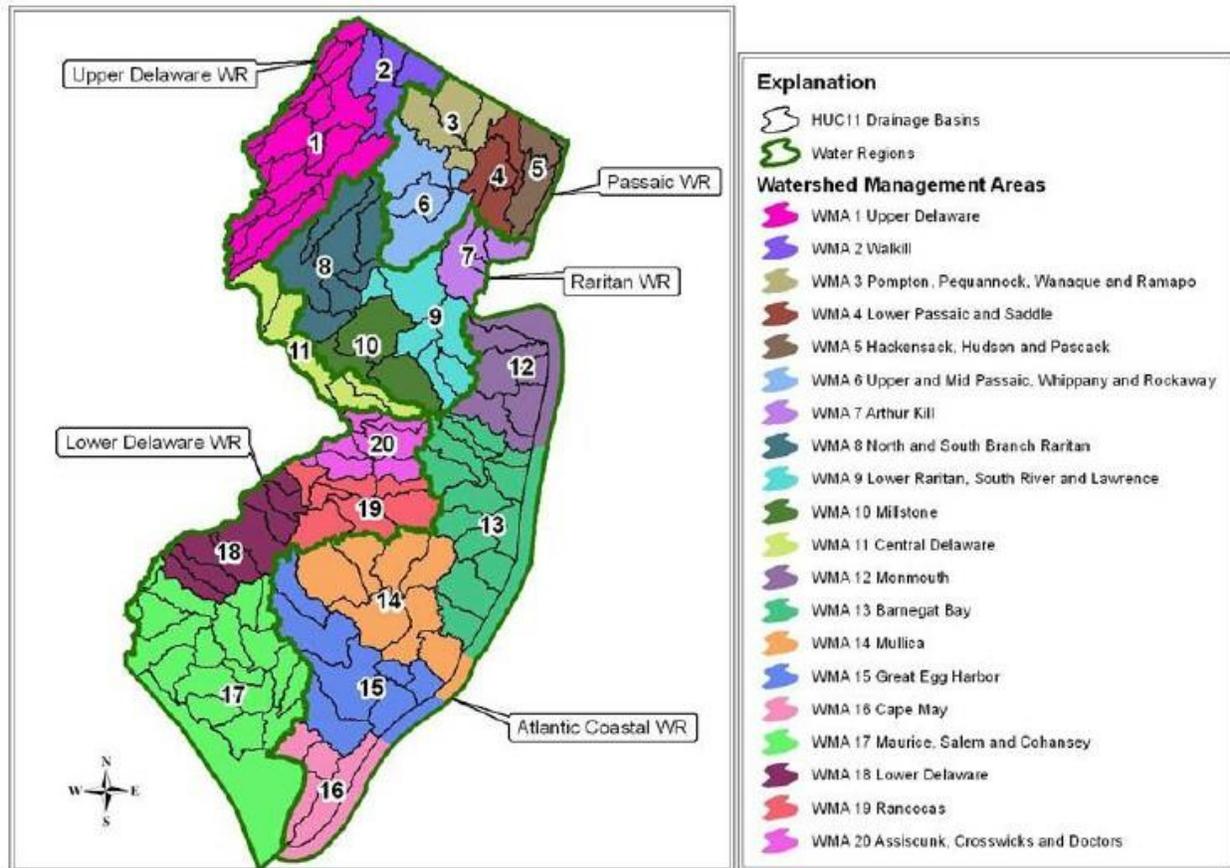




### 4.3.2 Hydrography and Hydrology

A watershed is the area of land that drains into a body of water such as a river, lake, stream, or bay. It is separated from other systems by high points in the area such as hills or slopes. It includes not only the waterway itself but also the entire land area that drains to it. Drainage basins generally refer to large watersheds that encompass the watersheds of many smaller rivers and streams. In New Jersey, the State is divided into 20 Watershed Management Areas (WMA), which are made up of smaller watersheds. Figure 4-2 depicts the 20 Watershed Management Areas (WMAs) and drainage basins found in New Jersey.

Figure 4-2. Watershed Management Areas of New Jersey



Source: *New Jersey Geological and Water Survey, 2007*

According to the figure above and to Figure 4-3, Burlington County is located in five WMAs: WMA 13 (Barnegat Bay), WMA 14 (Mullica), WMA 18 (Lower Delaware), WMA 19 (Rancocas), and WMA 20 (Assiscunk, Crosswicks, Doctors).

WMA 13, Barnegat Bay, includes watersheds that drain the central Atlantic drainage of New Jersey. The Barnegat Bay Watershed is a 660 square mile area encompassing all of the land and water in Ocean County, as well as parts of Monmouth County. The area lies mostly in Ocean County and includes the Barnegat Bay as well as the following subwatersheds: Metedeconk River, Toms River, Forked River, Cedar Creek (NJDEP 2012a).

WMA 14, Mullica, includes watersheds draining portions of the Pinelands of New Jersey. It is approximately 561 square miles in size and approximately 80% of this watershed consists of state parks and forests. Major rivers include the Mullica, Wading River, Nochescatauxin Brook, Atsion Creek, Bass River, Batsto River, Nescochaque



Creek, Landing Creek, Hammonton Creek and the Oswego River. This Management Area lies in Burlington, Atlantic and Ocean Counties and includes the watersheds of Mullica River, Mechescatauxin Creek, Wading River, Atsion Creek, Batsto River, and Doughty Creek. The Mullica River and its tributaries are considered the primary drainage system for the Pinelands (NJDEP 2012b).

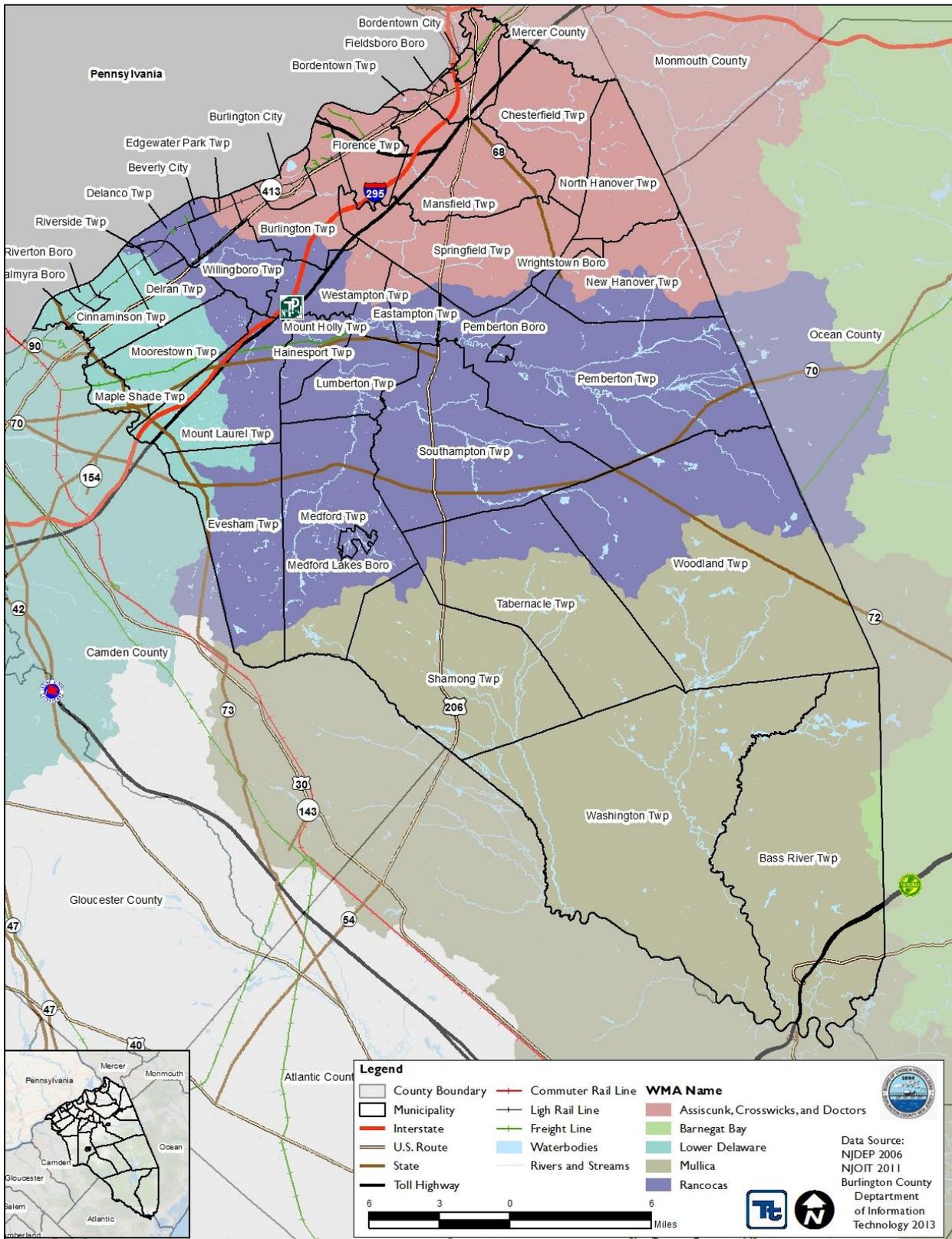
WMA 18, Lower Delaware, includes the Cooper River, Big Timber, Mantua, Newton, Oldmans, Pennsauken, Pompeston, Raccoon, Repaupo and Woodbury Creeks, as well as Baldwin Run, Swede Run and Maple Swamp. This management area covers all or parts of Burlington, Camden and Gloucester counties, including 68 municipalities encompassing 391 square miles (NJDEP 2012c).

WMA 19, Rancocas, is the largest watershed in south-central New Jersey and is made up of the North and South Branch and the Main stem of the Rancocas Creek, including Mill Creek. Portions of Burlington, Camden and Ocean Counties and approximately 33 municipalities make up this management area and cover an area of 360 square miles. Of its total area, the North Branch drains 167 square miles and the South Branch drains 144 square miles. The North Branch is 31 miles long and is fed by the Greenwood Branch, McDonalads Branch and Mount Misery Brook. The major tributaries to the South Branch include the Southwest Branch Rancocas Creek; Stop the Jade Run, Haynes Creek and Friendship Creek (NJDEP 2012d).

WMA 20, Assiscunk, Crosswicks, Doctors, includes the Assiscunk, Blacks, Crafts, Crosswicks, Doctors, Duck and Mill Creeks. This management area includes 26 municipalities spanning four counties: Burlington, Mercer, Monmouth and Ocean encompassing 253 square miles. Crosswicks Creek is 25 miles long and drains an area of 146 square miles to the Delaware River at Bordentown. Major tributaries include Jumping Brook, Lahaway Creek, North Run and Doctors Creek. Tides affect this stream up to the Crosswicks Mill Dam. Allentown Lake, Oakford Lake, Prospertown Lake and Imlaystown Lake are major impoundments in the Crosswicks Creek Watershed (NJDEP 2012e).



Figure 4-3. Watersheds of Burlington County





### Delaware River Basin

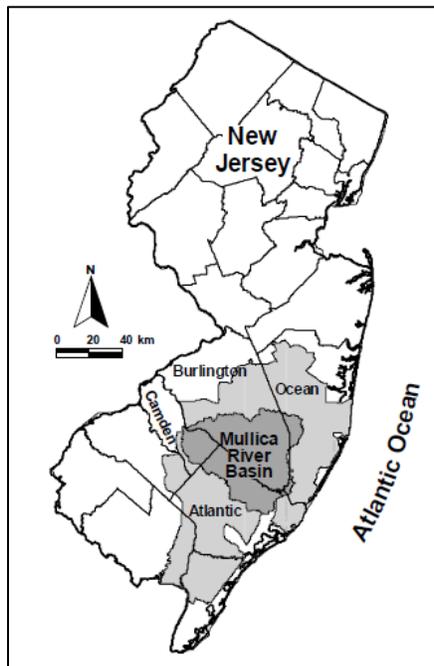
The Delaware River is the longest un-dammed river in the United States east of the Mississippi River. The Delaware extends 330 miles from the confluence of its East and West branches at Hancock, New York to the mouth of the Delaware Bay where it meets with the Atlantic Ocean. The Delaware River is fed by 216 tributaries, with the largest being the Schuylkill and Lehigh Rivers in Pennsylvania. Overall, the Delaware River Basin contains over 13,000 square miles and drains portions of Pennsylvania, New York State, New Jersey, and Delaware. Over 15 million people rely on the waters of the Delaware River Basin for drinking, agricultural use and industrial use. New York City gets roughly half its water from three large reservoirs located on tributaries to the Delaware River (Delaware River Basin Commission 2017).

Three reaches of the Delaware River are included in the National Wild and Scenic Rivers System. One section extends 73 miles from the confluence of the River's East and West branches at Hancock, New York downstream to Millrift, Pennsylvania; the second stretches 40 miles just south of Port Jervis, New York downstream to the Delaware Water Gap near Stroudsburg, Pennsylvania. The Lower Delaware Wild and Scenic Rivers Act, signed into law on November 1, 2000, added a 38.9-mile section of the main stem Delaware (and about 28 miles of selected tributaries) to the national system, linking the Delaware Water Gap and Washington Crossing, Pennsylvania, just upstream of Trenton, New Jersey. Three-quarters of the non-tidal Delaware River is now included in the National Wild and Scenic Rivers System (Delaware River Basin Commission 2017).

### Mullica River Basin

The 1,474 square km Mullica River Basin drains 23 municipalities in Atlantic, Burlington, Camden, and Ocean Counties. The unconfined Kirkwood-Cohanset aquifer system underlies the basin. The Basin is dominated by undeveloped forest land, much of which is designated as state owned or wildlife management areas. The entire Basin lies within the Pinelands National Reserve. The Mullica River and its tributaries are renowned for their high-water quality and largely undisturbed ecosystems (Zampella et al., 2001).

**Figure 4-4. Regional Location of the Mullica River Basin in the Pinelands National Reserve**



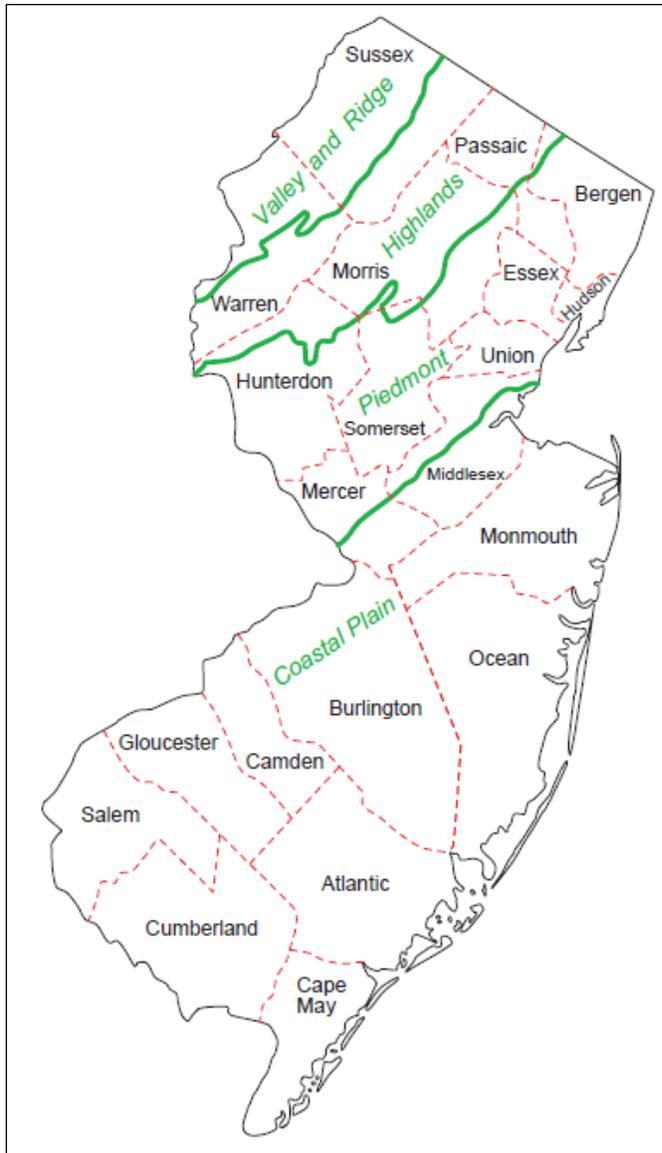
Source: Zampella et al., 2001



### 4.3.3 Topography and Geology

Burlington County lies within the Atlantic Coastal Plain. The lowest part of the County is sea level at the Delaware River and the highest point is Arneys Mount, located in the Township of Springfield, at an elevation of approximately 260 feet above sea level (FEMA FIS, 2010). The Atlantic Coastal Plain is one of the four major physiographic regions of New Jersey (Figure 4-5). The unconsolidated deposits of the Coastal Plain dip gently to the southeast and range in age from the upper Cretaceous to Minocene (90 to 10 million years old) (Dalton, 2003).

Figure 4-5. Physiographic Provinces in Burlington County



Source: Dalton, 2003

According to the New Jersey Geological Survey (NJGS), the Coastal Plain begins with a broad trough that extends along the southern border of the Piedmont Province from the Raritan Bay to Trenton. Near Monmouth Junction the trough floor forms a saddle and it reaches an elevation of about 80 feet. East of that depression is a drainage divide between the Delaware River and Atlantic Ocean. The maximum elevation of the Coastal Plain, located at Crawford Hill, is 391 feet. The streams that flow northwest to the Delaware have narrow valleys, are shorter and



have steeper gradients than streams that flow northwest to the Delaware which are shorter and have steeper gradients than the streams that flow southeast. The Highlands of Navesink at 266 feet above sea level is the highest point directly on the coast (Dalton, 2003).

Like New Jersey, Burlington County has distinct geological regions within the County. The Coastal Plain is divided into three subdivisions including the inner lowland, the inner upland, and the outer lowland. In Burlington County the inner lowland is the area bordering the Delaware River, where elevations rarely exceed 100 feet above sea level. Streams in this inner lowland area drain to the Delaware River (Lucey, 2001).

The inner upland forms the drainage divide in the county and is a narrow, slightly dissected cuesta with some elevations up to 200 feet. Erosional remnants for the prominent hills of Mount Holly, Juliustown, and Arney's Mount. The sands and gravel in these hills, in addition to having been protected by capping gravels, have frequently been partially cemented by iron-oxide precipitated by water percolating down through the ground (Lucey, 2001).

Southern Burlington County lies within the outer lowland where elevations rarely exceed 50 feet. Streams within this subprovince empty into the Atlantic Ocean. Sloping gently towards the sea, the flat terrain of this area has been slightly modified by the Mullica, Wading, and Bass Rivers (Lucey, 2001).

#### 4.3.4 Climate

New Jersey is located about halfway between the equator and the North Pole, on the eastern coast of the U.S. Due to its geographic location, New Jersey is influenced by wet, dry, hot, and cold airstreams, creating a highly variable climate (ONJSC, Date Unknown). Five climate zones make up New Jersey – North, Central, Southwest, Pine Barrens, and Coastal. Figure 4-6 illustrates the climate zones of New Jersey.

As shown of Figure 4-6, Burlington County primarily located within the Pine Barrens zone, with the southeastern tip of the County located in the Coastal zone and the north and northwest portions in the central and southwest climate regions. Details regarding these climate zones are described below.

- Pine Barrens Climate Zone - Scrub pine and oak forests dominate the interior southern portion of New Jersey, hence the name, Pine Barrens. Sandy soils, which are porous and not very fertile, have a major effect on the climate of this region. On clear nights, solar radiation absorbed during the day is quickly radiated back into space, resulting in surprisingly low minimum temperatures. Atlantic City Airport, which is surrounded by sandy soil, can be 15-20 degrees cooler than the Atlantic City Marina on the bay, which is only about thirteen miles away.

The porous soil permits any precipitation to rapidly infiltrate and leave surfaces quite dry. Drier conditions allow for a wider range between the daily maximum and minimum temperatures, and make the area vulnerable to forest fires.

- Southwest Climate Zone - lies between sea level and approximately 100 feet above sea level. The close proximity to Delaware Bay adds a maritime influence to the climate of this region. The Southwest has the highest average daily temperatures in the state and without sandy soils, tends to have higher nighttime minimum temperatures than in the neighboring Pine Barrens (ONJSC, Date Unknown).

This region receives less precipitation than the Northern and Central regions of the state as there are no orographic features and, it is farther away from the Great Lakes-St. Lawrence storm track. It is also far enough inland to be away from the heavier rains from some coastal storms, thus it receives less precipitation than the Coastal Zone (ONJSC, Date Unknown).

Prevailing winds are from the southwest, except in winter when west to northwest winds dominate. High humidity and moderate temperatures prevail when winds flow from the south or east. The moderating effect of the water also allows for a longer growing season. Autumn frosts usually occur about four weeks



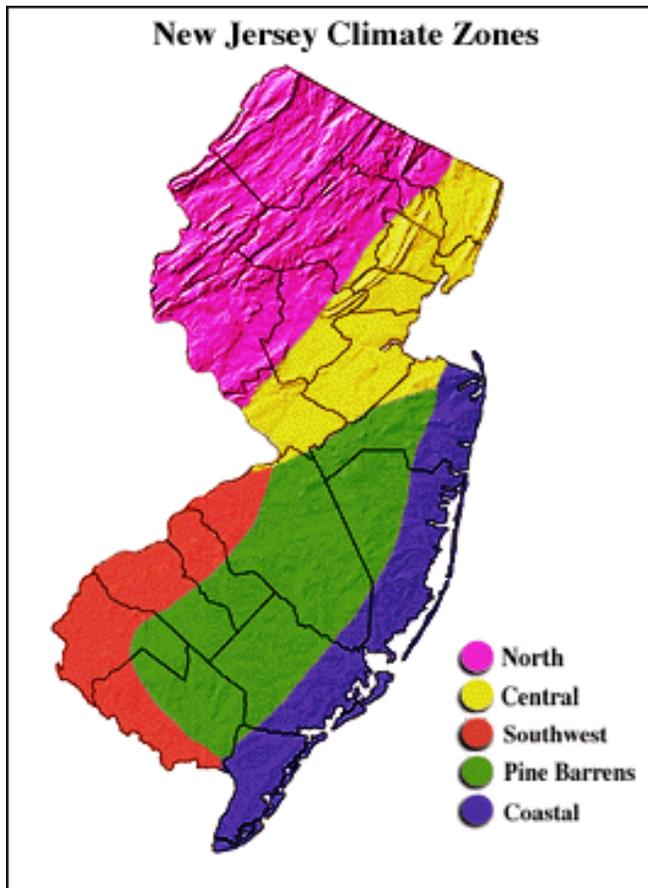
later here than in the North and the last spring frosts are about four weeks earlier, giving this region the longest growing season in New Jersey (ONJSC, Date Unknown).

- Coastal Climate Zone - In autumn and early winter, when the ocean is warmer than the land surface, the Coastal Zone will experience warmer temperatures than interior regions of the state. In the spring months, ocean breezes keep temperatures along the coast cooler. Being adjacent to the Atlantic Ocean, with its high heat capacity (compared to land), seasonal temperature fluctuations tend to be more gradual and less prone to extremes.

Sea breezes play a major role in the coastal climate. When the land is warmed by the sun, heated air rises, allowing cooler air at the ocean surface to spread inland. Sea breezes often penetrate 5-10 miles inland, but under more favorable conditions, can affect locations 25-40 miles inland. They are most common in spring and summer.

Burlington County has a temperate climate with warm summers and moderate winters. The annual precipitation averages approximately 43 inches, which is generally distributed evenly throughout the year (FEMA FIS, 2010).

Figure 4-6. Climate Zones in New Jersey



Source, ONJSC, Date Unknown.

#### 4.3.5 Land Use and Land Cover

Burlington County's land area is occupied and utilized in several different ways. This includes agricultural land, barren land, forested land, urban land, and wetlands. In 2007, 20.46 percent of the land in Burlington County was used for residential, industrial, transportation, and recreational purposes. Compared to the 2012 figures which indicate that 20.89 percent of the County was developed for these purposes. Also, in 2007 35.39 percent was



forested land; 10.42 percent was agricultural land; 30.17 percent was wetlands; and 0.75 percent was barren land. When compared with the land use land cover data set from 2012, there has been a decrease in agricultural land to 10.22 percent, barren land decreased to 0.71 percent, forest decreased to 35.26 percent and wetlands decreased to 30.12 percent with an increase in urban land use to 20.9 percent. Refer to Table 4-2 and Figure 4-7 below.

**Table 4-2. Land Use Summary for Burlington County, 2007 and 2012**

Land Use Category	2007 Data		2012 Data	
	Acreage	Percent of Burlington County	Acreage	Percent of Burlington County
Agriculture	54,625.00	10.42%	53,580.41	10.22%
Barren	3,951.09	0.75%	3,725.75	0.71%
Forest	185,524.84	35.39%	184,855.05	35.26%
Urban	107,260.49	20.46%	109,499.22	20.89%
Wetlands	158,140.19	30.17%	157,867.93	30.12%

Source: NJDEP (2007, 2012 LULC)

Note: Urban land includes residential, industrial, transportation, and recreational land. Water is excluded from the table above. Percentages were calculated as a percentage of total county area including water.

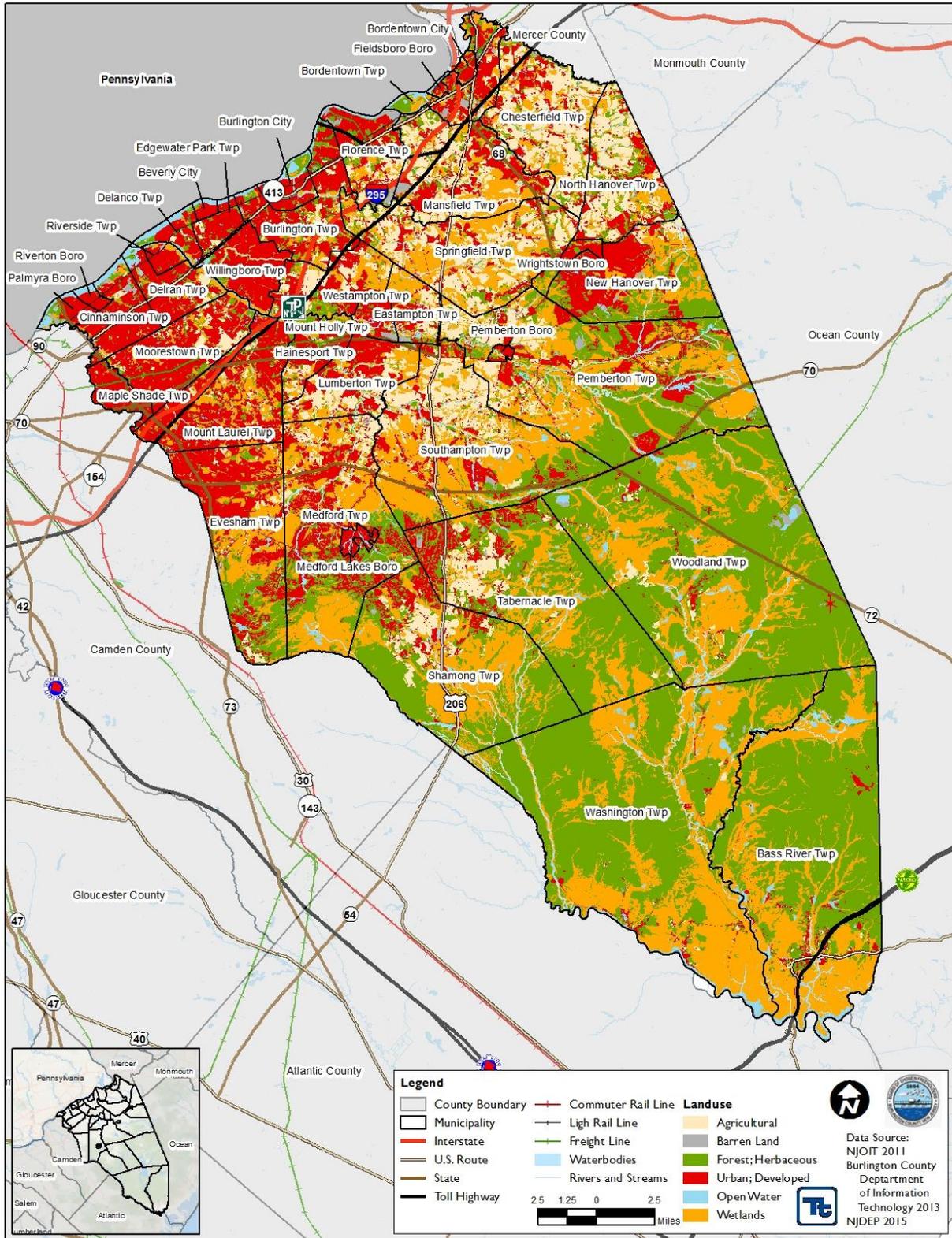
### Land Use Trends

Local zoning and planning authority is provided for under the New Jersey Municipal Land Use Law, which gives municipalities zoning and planning authority. DMA 2000 requires that communities consider land use trends, which can impact the need for, and priority of, mitigation options over time. Land use trends significantly impact exposure and vulnerability to various hazards. For example, significant development in a hazard area increases the building stock and population exposed to that hazard.

This plan provides a general overview of population and land use and types of development occurring within the study area. An understanding of these development trends can assist in planning for further development and ensuring that appropriate mitigation, planning, and preparedness measures are in place to protect human health and community infrastructure.



Figure 4-7. 2012 Land Use Land Cover for Burlington County





## Agriculture

New Jersey is the most densely populated state in the nation. Farmland is disappearing at an average rate of 10,000 acres a year. Fields where dairy cows once grazed and peach trees once blossomed are now home to shopping malls, houses and highways (State of New Jersey, 2006).

Agriculture in Burlington County predates the arrival of European settlers. Native Americans farmed in the region, originally named Matinicum, at the time British Quakers arrived in the New World in the early 1600s. Native Americans cultivated a number of crops and, understanding the limitations of soils, rotated fields in order to prevent the depletion of soils. As early European settlers arrived, they were able to begin cultivation on small fields utilized by Native Americans immediately rather than having to clear forested lands. An abundance of good agricultural soils and proximity to major urban centers contributed significantly to the development of the county’s early agricultural industry (Burlington County Agricultural Development Board, 2008).

Agricultural land is used primarily for the production of food and fiber. This includes cropland, pastureland, and orchards. According to the NJDEP, agricultural land includes pasturelands and grazing lands associated with horse or cattle raising operations, orchards, vineyards, nurseries and other horticultural areas. Other lands used in support of agricultural activities, such as farmsteads, associated barns, stables, and corrals, are also included (NJDEP, 2007).

Agriculture is an integral part of the natural landscapes that comprise the County. Burlington County’s natural and agricultural landscapes are attractive to many farmers. According to the 2012 Census of Agriculture, there were 95,899 acres of farmland in the County, or approximately 18.3% of the total lands in the County. This is significantly more than the 2007 survey which indicated that there were 85,790 acres of farmland or 16.3% of the total lands in the County. In 2012, there were 838 active farms in the County. The number of farms is down from 2007 when there were 922. Table 4-3 outlines the number of farms, average farm size and total acreage of farms in Burlington County from 1900 to 2012.

**Table 4-3. Farms in Burlington County, 1900 to 2007**

Year	Number of Farms	Average Farm Size (acre)	Total Acreage
1900	2,549	135	343,096
1910	2,389	121	287,816
1920	2,172	125	271,235
1925	2,132	86	183,940
1930	1,948	94	182,740
1935	2,122	103	219,273
1940	1,847	171	314,825
1945	1,629	108	176,242
1950	1,905	111	211,588
1954	1,835	113	207,618
1959	1,351	137	184,727
1964	1,070	154	164,835
1969	857	166	142,132
1974	708	202	142,751
1978	717	181	129,747
1982	743	152	112,689
1987	834	124	103,224
1992	816	119	97,186
1997	857	121	103,667
2002	906	123	111,237



Year	Number of Farms	Average Farm Size (acre)	Total Acreage
2007	922	93	85,790
2012	838	114	95,899

Source(s): U.S. Department of Agriculture National Agricultural Statistics Service, 2007; Burlington County Comprehensive Farmland Preservation Plan, 2008, USDA 2012.

Table 4-4 outlines the top crop items grown in Burlington County, along with the number of acres devoted to these crops. The table indicates that soybeans for beans are the predominant crop in the County and ranks second in the State for total acres of soybeans.

**Table 4-4. Burlington County Farmland by Crop (Acres): 2007 and 2012**

Crop Type	2007	2012
Soybeans for beans	18,589	19,288
Corn for grain	8,342	7,557
Forage - land used for all hay and haylage, grass silage, and greenchop	6,035	4,663
Land in berries	4,912	4,974
Vegetables harvested for sale	4,309	5,071

Source: USDA, 2012

With active agriculture extending from the Pinelands throughout northern Burlington County, the County has always been one of the leading agricultural counties in the nation. The largest blueberries in the world were developed and raised in Burlington County and the County is ranked as the second largest blueberry-producing and third largest cranberry-producing county in the U.S. There are more acres devoted to farming than any county in the state, primarily in vegetable, fruit and timber production (Burlington County HMP, 2013).

Burlington County has adopted a Comprehensive Farmland Preservation Plan which lays out a strategy for preservation of this vital resource. Over 26,500 acres have been permanently protected from conversion to nonagricultural uses through permanent deed-restrictions. In addition, roughly 23,000 acres of land in agricultural planning areas of the state-regulated New Jersey Pinelands have been deed-restricted through the Pinelands Development Credit Program. In total, nearly 50,000 acres (roughly 45 percent of the existing agricultural land base) have been protected from conversion to non-agricultural uses (Burlington County Agricultural Development Board, 2008).

### Pinelands National Reserve

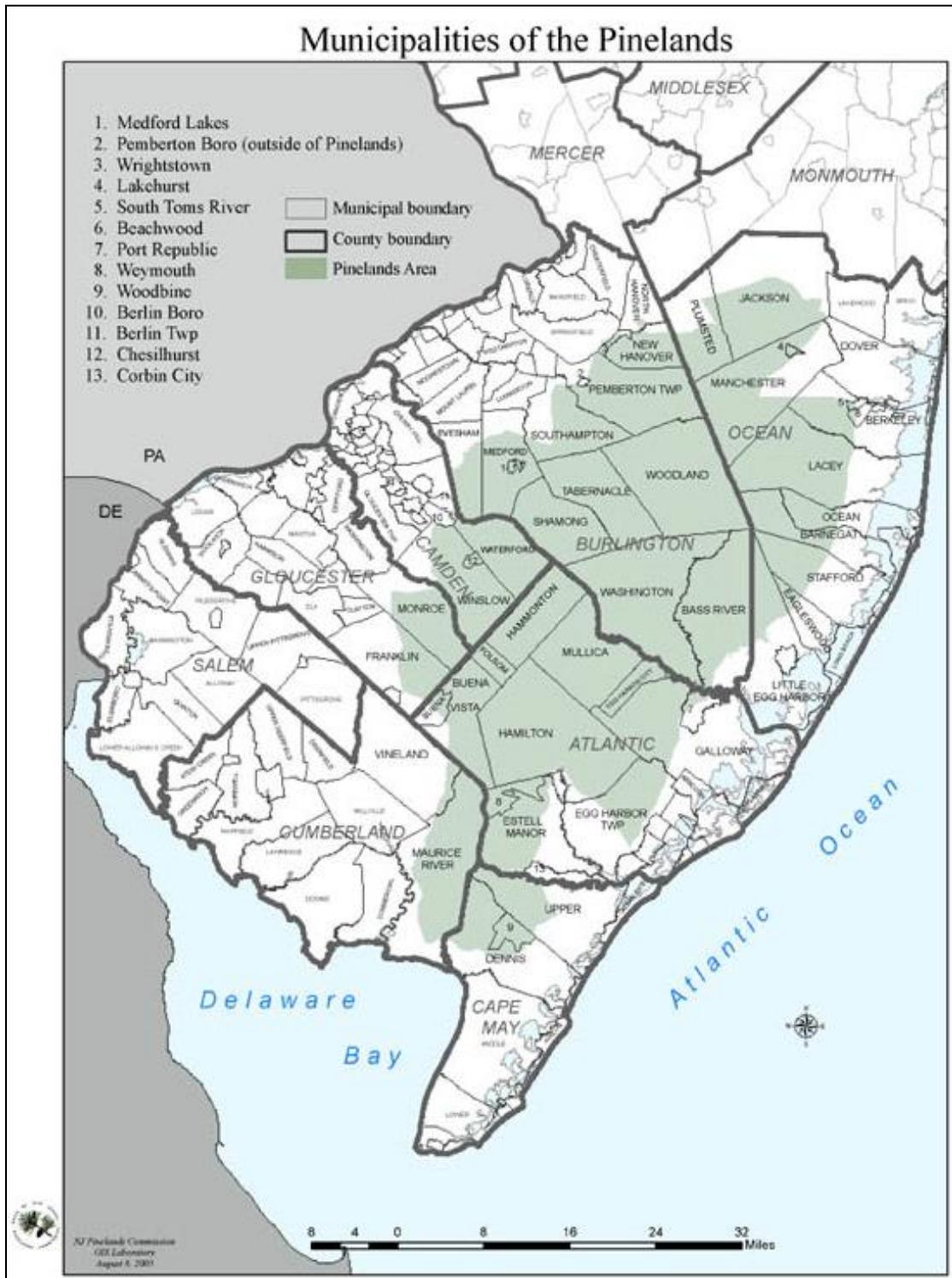
The Pinelands National Reserve (PNR) was created by Congress under the National Parks and Recreation Act of 1978. The PNR is the first National Reserve in the nation. The PNR encompasses approximately 1.1 million acres covering portions of seven counties and all or parts of 56 municipalities (NJ Pinelands Commission, 2013).

This internationally important ecological region is 1.1 million acres in size and occupies 22% of New Jersey's land area. It is the largest body of open space on the Mid-Atlantic seaboard between Richmond and Boston and is underlain by aquifers containing 17 trillion gallons of some of the purest water in the land (NJ Pinelands Commission, 2013).

Approximately 64 percent of Burlington County's land area is under the jurisdiction of the New Jersey Pinelands Commission. Fourteen of Burlington County's 40 municipalities have area within the Pinelands. In its 2017 long-term economic monitoring report, the Pinelands Commission estimated that 21.5 percent of the county's population, according to 2010 U.S. Census estimates were located within the Pinelands (New Jersey Pinelands Commission, 2017). Figure 4-8 illustrates the location of and municipalities within the Pinelands.



Figure 4-8. Municipalities within the New Jersey Pinelands



Source: Piney Power, 2013





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### **Barren Land**

Barren land is composed of rock or rock faces or lacks vegetation for other reasons. Burlington County has very limited barren land, amounting to less than 1% of the County's land cover.

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### **Metropolitan/Urban Area**

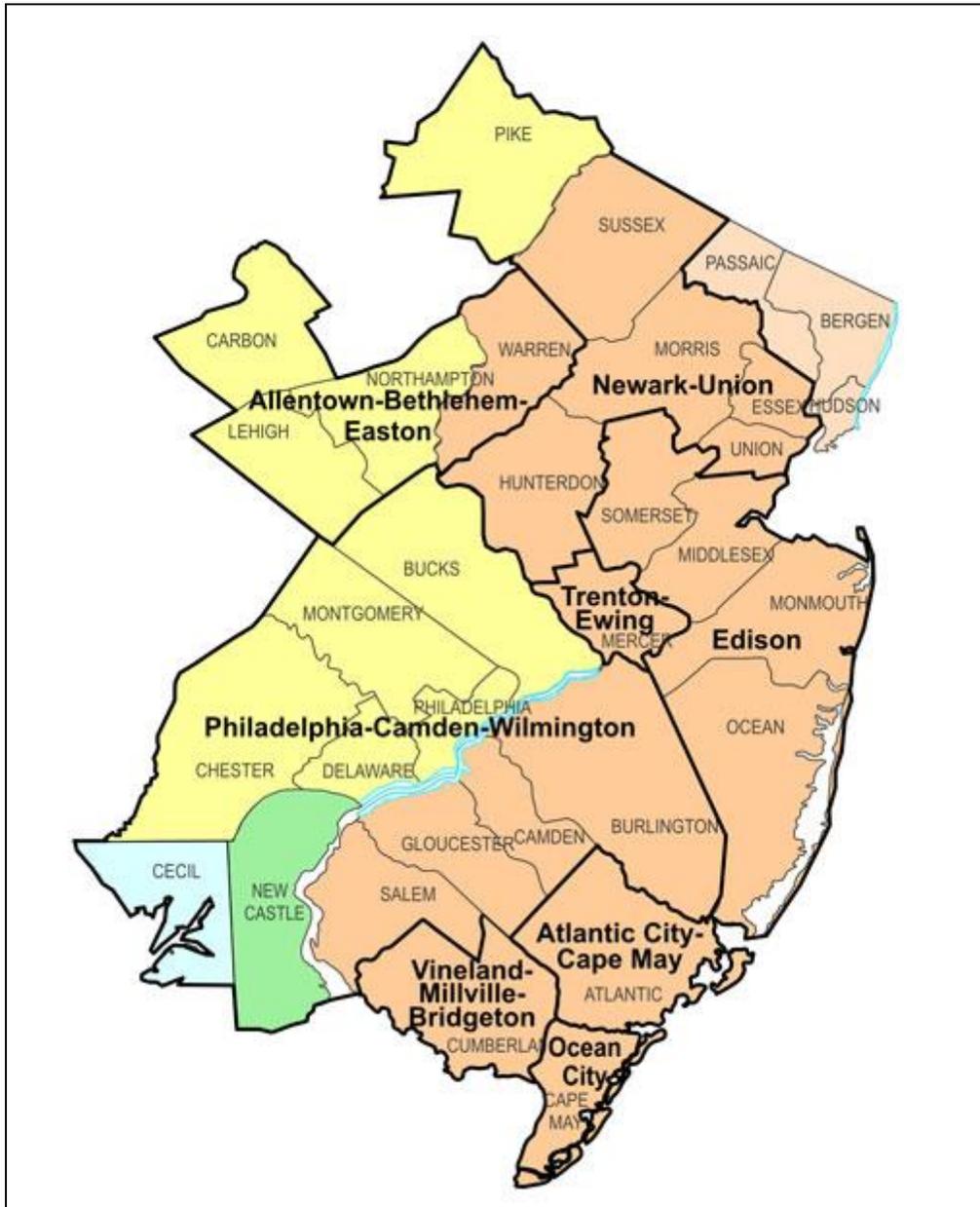
The Census Bureau classifies 'urban' as all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consist of core census block groups or blocks that have a population density of at least 1,000 people per square mile; and surrounding census blocks that over an overall density of at least 500 people per square mile.

An urbanized area is defined as "A statistical geographic entity consisting of a densely settled core created from census tracts or blocks and contiguous qualifying territory that together have a minimum population of at least 50,000 persons." (U.S. Census Bureau, 2011). An urban cluster is defined as "A statistical geographic entity consisting of a densely settled core created from census tracts or blocks and contiguous qualifying territory that together have at least 2,500 persons but fewer than 50,000 persons." (U.S. Census Bureau, 2011). With a population of over 448,000 and a population density of approximately 500 people per square mile, Burlington County is not considered an urban area.

Burlington County is one of the 12 counties within the Philadelphia-Camden-Wilmington Metropolitan Statistical Area, which is the sixth most populous metropolitan area in the United States. The MSA has a 2010 population of 5,965,343, which includes Burlington County. The MSA also has approximately 4,377 square miles of land. (U.S. Census Bureau). This metropolitan area is made up of 5 divisions as indicated in Figure 4-9.



Figure 4-9. Philadelphia-Camden-Wilmington Metropolitan Statistical Area, PA-NJ-DE-MD Metropolitan Statistical Area



### Water

Numerous ponds, lakes, creeks, and rivers make up the waterscape of Burlington County, which lie within two drainage basins (Lower Delaware Basin and New Jersey Coastal Basin) and three sub-basins (Crosswicks-Neshaminy, Lower Delaware, and Mullica-Toms) (NJDEP, 2012; USEPA, 2013). A description of the drainage basins is discussed earlier in this section.

The major bodies of water and waterways within the County include: Delaware River, Oswego River, Bass River, Batsto River, Mullica River, Wading River, West Branch Wading River, Rancocas Creek, North Branch Rancocas Creek, South Branch Rancocas Creek, Southwest Branch Rancocas Creek, Crosswicks Creek, Big Timber Creek,



South Branch Mount Misery Brook, Shoal Branch, Greenwood Branch, and Great Bay (National Atlas, 2013). The county has numerous manmade small lakes and ponds created through modifying streams and creeks including Oswego Lake, Harrisville Lake, and Lake Absegami.

### Wetlands

In classifying land cover, wetlands are defined as all freshwater wetlands larger than one acre and all linear freshwater wetlands wider than 10 feet. Wetlands are lands that are inundated or saturated by surface or ground waters at a frequency and duration sufficient to support vegetation. Included in this category are natural vegetation swamps, marshes, bogs, and savannas. Wetlands make up a significant portion of Burlington County (~30%) and are found along many of the County’s rivers, streams, and creeks.

### Open Space and Parkland

Open space is defined as a portion of a site which is permanently set aside for public or private use and will not be developed. The space may be used for passive or active recreation, or may be reserved to protect or buffer natural areas. The Burlington County Park System has more than 1,000 acres of developed parkland, 3,500 acres of land slated for park development, and a regional trail system that will provide a link between parks in the future (Burlington County Parks Department 2019). Burlington County Freeholders have focused on expanding the parks system to include:

- Regional Parks
- Recreation Areas
- Natural Resource Areas
- Special Use Areas

Connectivity will be a high priority in park planning and design. Pathway facilities and linkages in the Burlington County Parks System will include:

- Park trails
- Connector trails
- Bikeways
- Water or canoe trails
- All terrain bike trails
- Cross-country ski trails
- Equestrian trails

The Burlington County Park System consists of 12 county parks and historic sites. Table 4-6 outlines locations included in the County park system, as well as State parks in the County. These parks range from small to large and feature aquatic features and hiking trails.

**Table 4-5. County and State Parks in Burlington County**

Park	Total Acreage
Amico Island Park	55
Amphitheater	Unknown
Bass River State Forest	29,147
Batsto Natural Area	9,449
Boundary Creek Natural Resource Area	34
Brendan T. Byrne State Forest	37,242
Burlington County Community Agricultural Center	Unknown
Cedar Swamp Natural Area	30,000





Park	Total Acreage
County Fairgrounds	61
Crystal Lake Park	370+
Laurel Run Park	120
Long Bridge Park	115
Oswego River Natural Area	1,927
Penn State Forest	3,366
Pennington Park	140
Smithville Park	312
Smithville Lake	22
Rancocas Nature Center	210
Rancocas State Park (Hainesport)	1,252
Willingboro Lakes Park	105
Wharton State Forest	122,880

Source: Burlington County, 2013

## 4.4 POPULATION AND DEMOGRAPHICS

Knowledge of the population composition, how it has changed in the past and how it may change in the future is needed to make informed decisions. Information about population is a critical part of planning because it directly relates to needs such as housing, industry, stores, public facilities and services, and transportation. The following sections discuss general population characteristics, vulnerable populations and population trends in Burlington County.

### 4.4.1 General Population Characteristics

According to the 2010 U.S. Census, Burlington County had a population of 448,734 people. Table 4-2 presents the 2000 and 2010 U.S. Census population statistics for Burlington County by municipality. Figure 4-9 shows the distribution of the general population density (persons per square mile) by Census block. For the purposes of this plan update, 2010 Census data available in HAZUS-MH are used to assess risk. This data is considered appropriate given the relatively small population increase between 2000 and 2010.

**Table 4-6. Burlington County Population Statistics (2010 U.S. Census)**

Municipality	Census 2000	Census 2010	Population 65+		Population 65+		Low-Income Population **	
	Total Pop.	Total Pop.	Total	% of Total	Total	% of Total	Total	% of Total
Bass River, Township of	1,510	1,443	187	13	178	11.8	129	8.5
Beverly, City of	2,661	2,577	292	11.3	312	11.7	271	10.2
Bordentown, City of	3,969	3,924	528	13.5	547	13.8	520	13.1
Bordentown, Township of	8,380	11,367	1,207	10.6	986	11.8	564	6.7
Burlington, City of	9,736	9,920	1,556	15.7	1,678	17.2	1,269	13.0
Burlington, Township of	20,294	22,594	2,719	12.0	2,603	12.8	1,537	7.6
Chesterfield, Township of	5,955	7,699	415	5.4	283	4.8	72	1.2
Cinnaminson, Township of	14,595	15,569	2,839	18.2	2,787	19.1	726	5.0
Delanco, Township of	3,237	4,283	689	16.1	421	13.0	332	10.3
Delran, Township of	15,536	16,896	2,009	11.9	1,678	10.8	1,185	7.6
Eastampton, Township of	6,202	6,069	283	4.7	452	7.3	423	6.8
Edgewater Park, Township of	7,864	8,881	1,403	15.8	1,014	12.9	876	11.1
Evesham, Township of	42,275	45,538	5,961	13.1	3,795	9.0	2,134	5.0
Fieldsboro, Borough of	522	540	57	10.6	39	7.5	18	3.4





Municipality	Census 2000	Census 2010	Population 65+		Population 65+		Low-Income Population **	
	Total Pop.	Total Pop.	Total	% of Total	Total	% of Total	Total	% of Total
Florence, Township of	10,746	12,109	1,534	12.7	1,277	11.9	956	8.9
Hainesport, Township of	4,126	6,110	874	14.3	499	12.1	233	5.6
Lumberton, Township of	10,461	12,559	1,312	10.4	1,106	10.6	952	9.1
Mansfield, Township of	5,090	8,544	2,382	27.9	1,566	30.8	501	9.8
Maple Shade, Township of	19,079	19,131	2,530	13.2	2,894	15.2	2,321	12.2
Medford Lakes, Borough of	4,173	4,146	611	14.7	513	12.3	122	2.9
Medford, Township of	22,253	23,033	3,212	13.9	2,295	10.3	835	3.8
Moorestown, Township of	19,017	20,726	3,360	16.2	3,123	16.4	1,126	5.9
Mount Laurel, Township of	40,221	41,864	6,723	16.1	1,312	12.2	1,204	11.2
Mt. Holly, Township of	10,728	9,536	1,054	11.1	6,001	14.9	2,873	7.1
New Hanover, Township of	9,744	7,385	276	3.7	91	0.9	258	2.6
North Hanover, Township of	7,347	7,678	648	8.4	443	6.0	834	11.4
Palmyra, Borough of	7,091	7,398	973	13.2	937	13.2	677	9.5
Pemberton, Borough of	1,210	1,409	187	13.3	104	8.6	142	11.7
Pemberton, Township of	28,691	27,912	3,257	11.7	2,736	9.5	2,535	8.8
Riverside, Township of	7,911	8,079	850	10.5	1,082	13.7	881	11.1
Riverton, Borough of	2,759	2,779	498	17.9	537	19.5	214	7.8
Shamong, Township of	6,462	6,490	636	9.8	376	5.8	301	4.7
Southampton, Township of	10,388	10,464	3,347	32.0	3,498	33.7	1,509	14.5
Springfield, Township of	3,227	3,414	453	13.3	346	10.7	116	3.6
Tabernacle, Township of	7,170	6,949	777	11.2	489	6.8	319	4.4
Washington, Township of	621	687	N/A	N/A	133	21.4	53	8.5
Westampton, Township of	7,217	8,813	914	10.4	656	9.1	331	4.6
Willingboro, Township of	33,008	31,629	5,037	15.9	4,210	12.8	1,657	5.0
Woodland, Township of	1,170	1,788	187	10.5	94	8.0	50	4.3
Wrightstown, Borough of	746	802	63	0.07	66	8.8	164	21.9
<b>Burlington County</b>	<b>423,394</b>	<b>448,734</b>	<b>26,231</b>	<b>5.8</b>	<b>53,157</b>	<b>12.6</b>	<b>31,220</b>	<b>7.4</b>

Source: Census 2010 (U.S. Census Bureau); HAZUS-MH 4.0

Note: Pop. = population

\* Individuals below poverty level (2017 Census poverty threshold for a 3-person family unit is \$19,173)

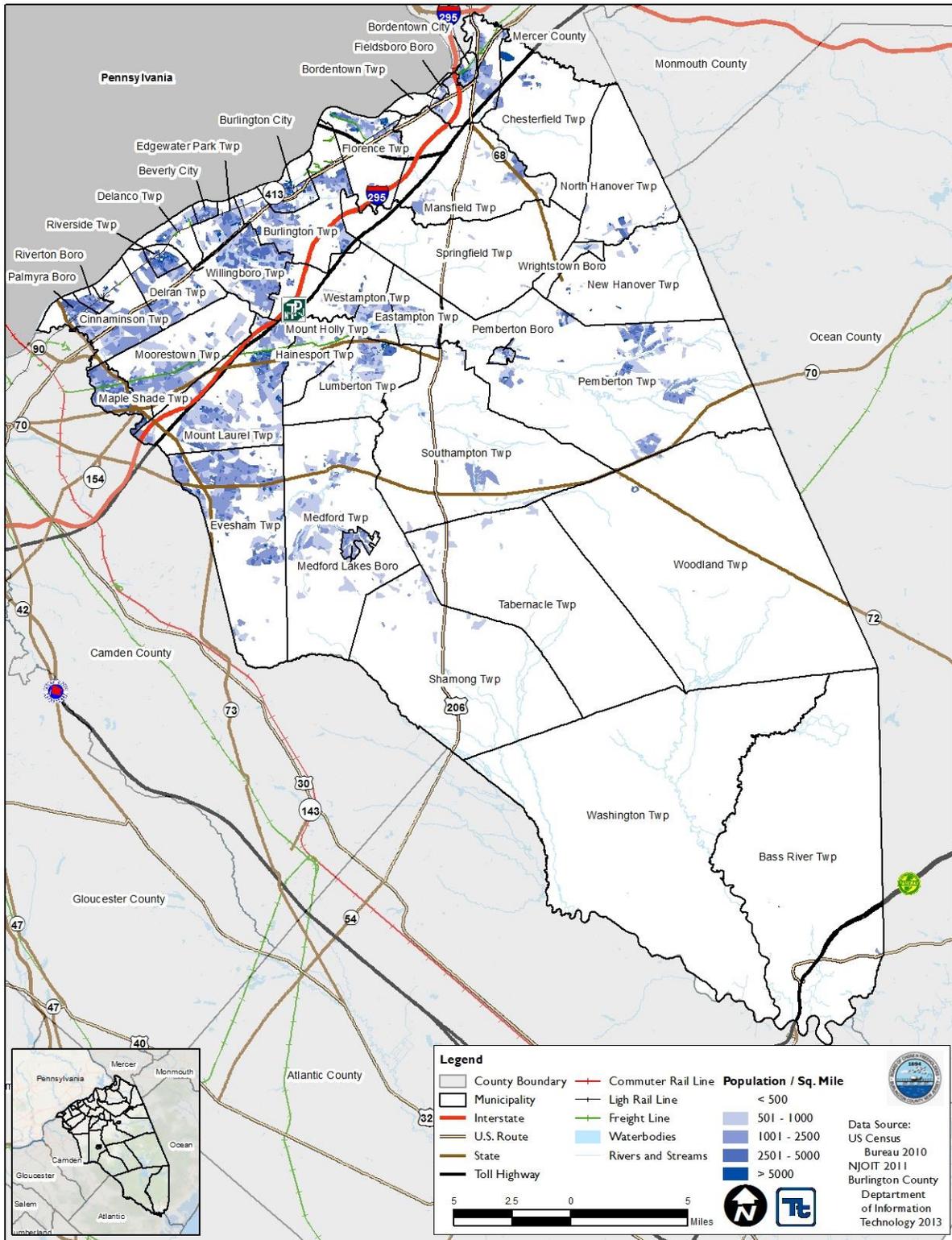
\*\* Households with an income of less than \$20,000 are reported

\*\*\* 2010 Census Data not available





Figure 4-10. Distribution of General Population for Burlington County, New Jersey





## 4.4.2 Vulnerable Populations

Identifying concentrations of vulnerable populations can assist communities in targeting preparedness, response and mitigation actions. Populations with a higher level of vulnerability may be more seriously affected during the course of an emergency or disaster. Vulnerable populations have unique needs which need to be taken into consideration by public officials to help ensure the safety of demographics with a higher level of risk. For the purposes of this planning process, vulnerable populations in Burlington County include children, elderly, low-income, the physically or mentally disabled, non-English speakers and the medically or chemically dependent.

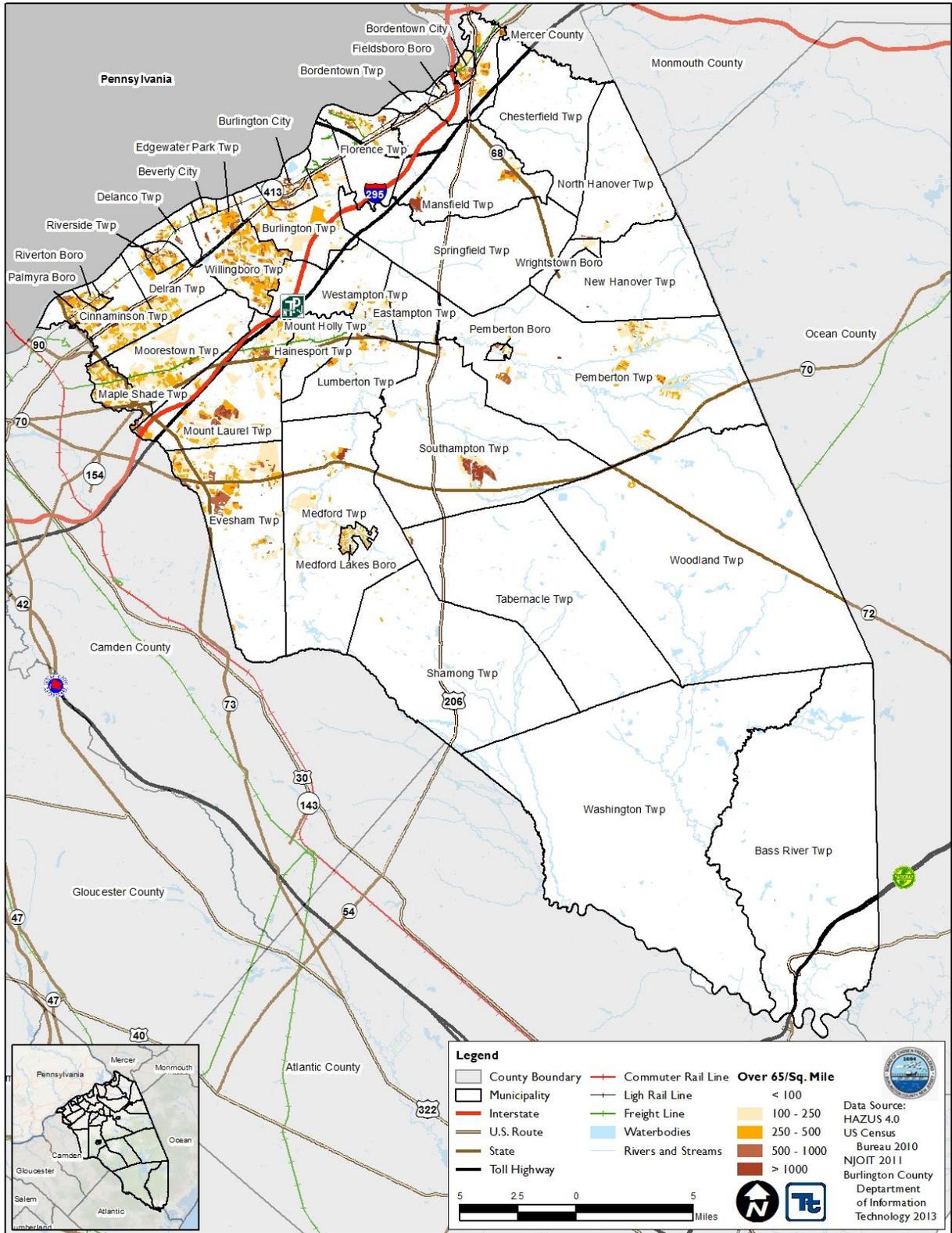
### Age

Children are considered vulnerable to hazard events because they are dependent on others to safely access resources during emergencies and may experience increased health risks from hazard exposure. The elderly are more apt to lack the physical and economic resources necessary for response to hazard events and are more likely to suffer health-related consequences. Those living on their own may have more difficulty evacuating their homes. The elderly are also more likely to live in senior care and living facilities (described in Section 4.4.1) where emergency preparedness occurs at the discretion of facility operators.

According to the 2012-2016 American Community Survey 5-Year Estimates, the median age in Burlington County was 41.3 years. HAZUS-MH reports 23.2 percent of the 2010 Burlington County population is under the age 16. Of the 2016 population, 15.5 percent of the County's population is age 65 and older. Figure 4-7 shows the distribution of persons over age 65 and Figure 4-8 shows the distribution of persons under the age of 16 and in Burlington County.



Figure 4-11. Distribution of Persons Over the Age of 65 in Burlington County, New Jersey

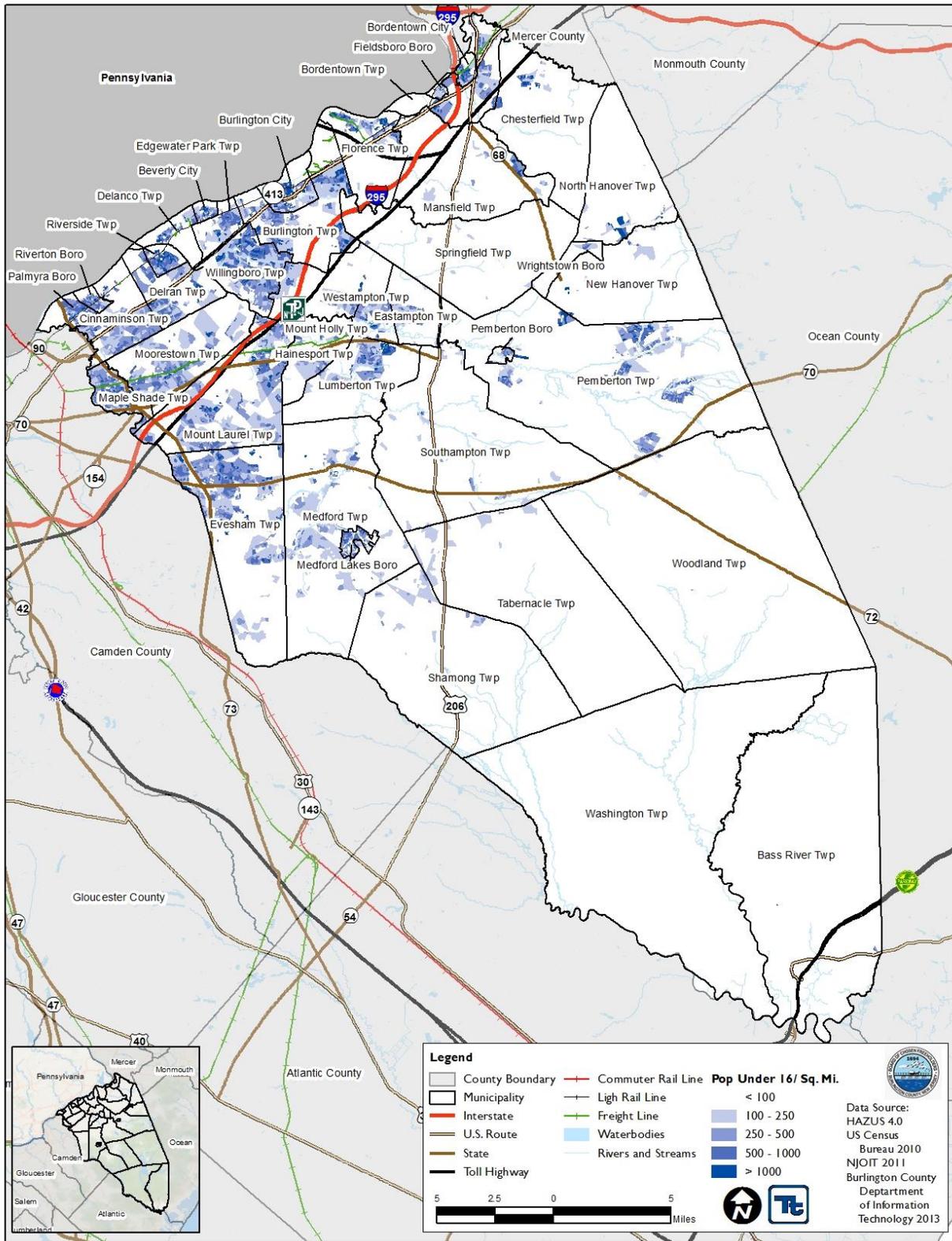


Note: The figure indicates distribution based on Census Block designations.





Figure 4-12. Distribution of Children under Age of 16 in Burlington County, New Jersey





## **Income**

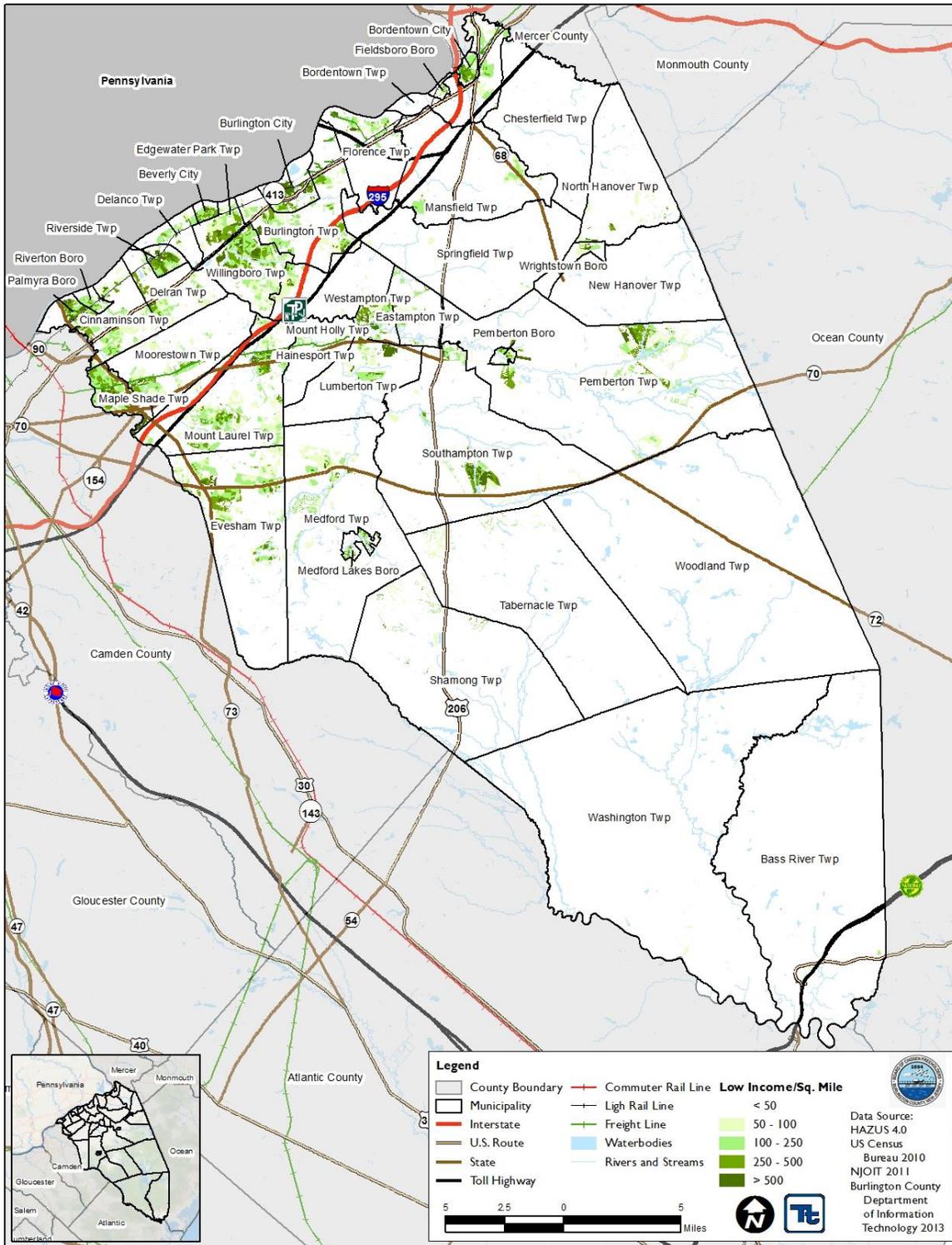
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The 2012-2016 American Community Survey 5-Year Estimates find that the median household income in Burlington County was \$80,034, and the per capita income was \$38,137. The U.S. Census Bureau identifies households with two adults and two children with an annual household income below \$24,339 per year as “low income” (U.S. Census 2016). The 2012-2016 American Community Survey 5-Year Estimates indicates a total of 6.5 percent persons below the poverty level.

It is noted that the spatial U.S. Census data for household income provided in HAZUS-MH includes two ranges (less than \$10,000 and \$10,000-\$20,000/year) that were totaled to provide the “low-income” data used in this study. This does not correspond exactly with the “poverty” thresholds established by the 2016 U.S. Census Bureau data. This difference is not believed to be significant for the purposes of this planning effort; therefore, for the exposure and loss estimations in the risk assessment, the 2010 U.S. Census data in HAZUS-MH is reported. Refer to Figure 4-13 below which illustrates the low-income population density in Burlington County.



Figure 4-13. Distribution of Low-Income Population in Burlington County, New Jersey



Note: The figure indicates distribution based on Census Block designations using the HAZUS-MH household income of <\$20,000 per year.





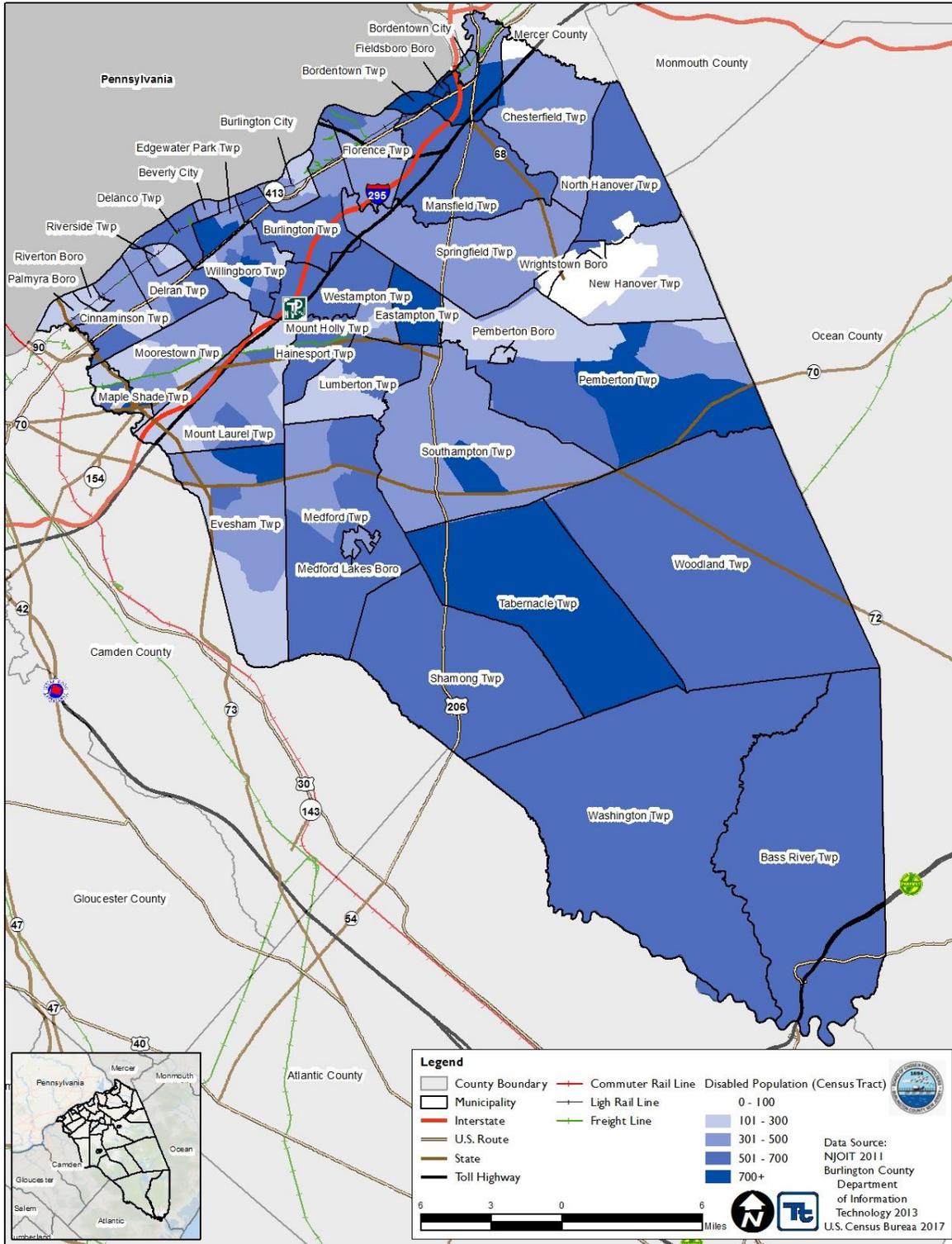
### **Physically or Mentally Disabled**

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“Persons with a disability include those who have physical, sensory, or cognitive impairment that might limit a major life activity (Center for Disease Control, 2015).” These impairments may increase the level of difficulty that individuals may face during an emergency. Cognitive impairments may reduce an individual’s capacity to receive, process, and respond to emergency information or warnings. Individuals with a physical or sensory disability may face issues of mobility, sight, hearing, or reliance on specialized medical equipment. According to the 2012-2016 American Community Survey, 11.2 percent of residents in Burlington County are living with a disability. The figure below shows the geographic distribution of disabled individuals throughout Burlington County, it includes individuals with: hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties.



Figure 4-14. Distribution of Persons with a Disability in Burlington County, New Jersey



Source: United States Census Bureau, 2012-2016 American Community Survey; Burlington County Department of Information Technology, 2013

Note: The figure indicates distribution based on Census Tract designations.





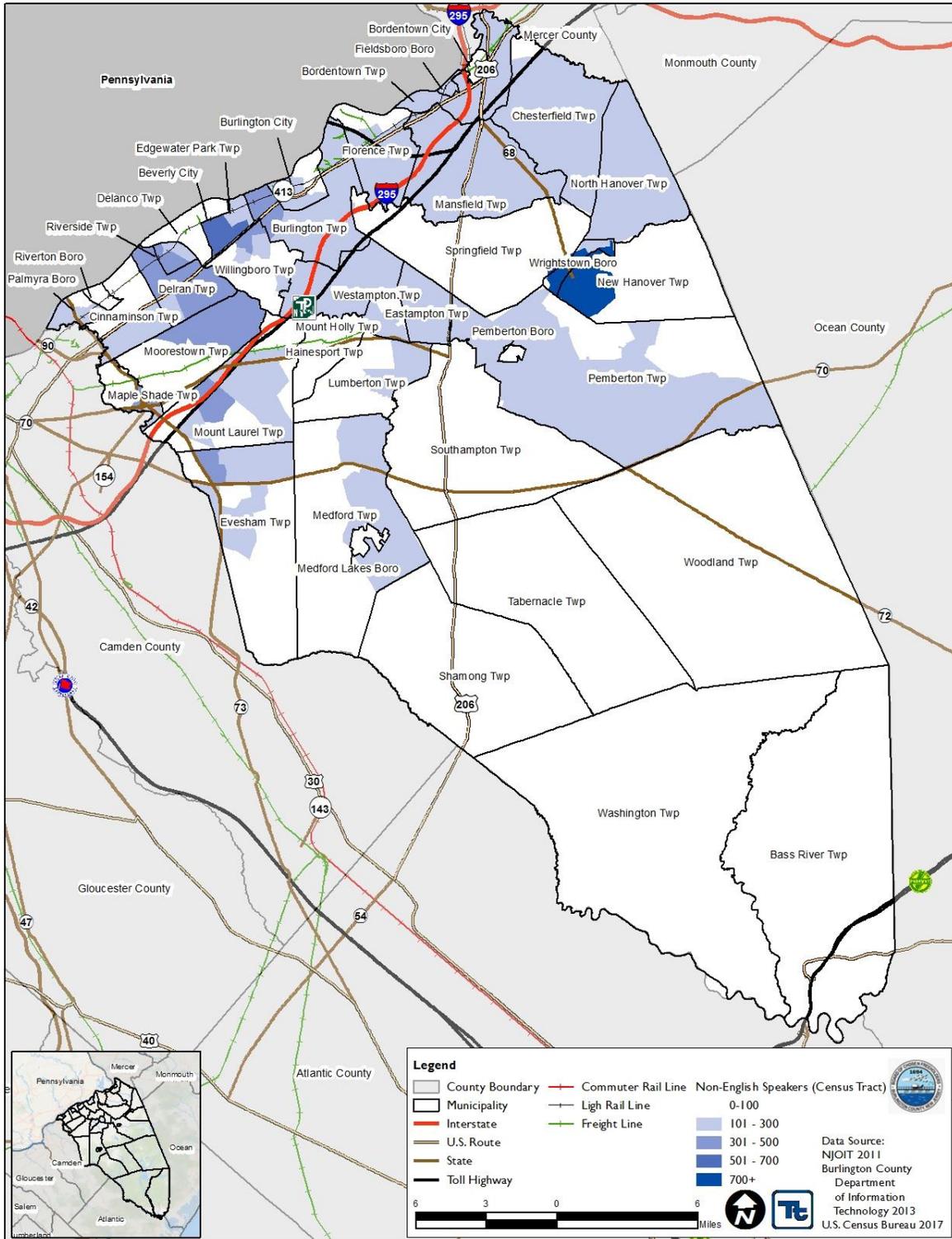
### **Non-English Speakers**

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Individuals who are not fluent or working proficiency in English are vulnerable because they may have difficulty with understanding information being conveyed to them. Cultural differences can also add complexity to how information is being conveyed to populations with limited proficiency of English (Centers for Disease Control, 2015). According to the 2012-2016 American Community Survey, 16.9 percent of the County’s population over the age of 5 primarily speaks a language other than English at home; this is significantly less than the State average of 30.7 percent. Of the County’s population, 7.3 percent speak Spanish and 7.6 percent speak other Indo-European languages. The figure below shows the geographic distribution of individuals who speaker a language other than English.



Figure 4-15. Distribution of Persons Who Speak English Less Than “Very Well” in Burlington County, New Jersey



Source: United States Census Bureau, 2012-2016 American Community Survey; Burlington County Department of Information Technology, 2013

Note: The figure indicates distribution based on Census Tract designations.





### 4.4.3 Population Trends

This section discusses population trends to use as a basis for estimating future changes of the population and significantly change the character of the area. Population trends can provide a basis for making decisions on the type of mitigation approaches to consider and the locations in which these approaches should be applied. This information can also be used to support planning decisions regarding future development in vulnerable areas.

According to the U.S. Census Bureau Burlington County’s 2010 population was 448,734 persons, which is a six-percent increase from the 2000 Census population of 423,394. From 1900 to 2010, the County has experienced a constant growth in population. The largest increase was seen between the years 1950 to 1960, when the County experienced a 65.2 percent (88,589 persons) population increase. From 1890 – 1900 the population decreased 0.5 percent (-287). Table 4-7 displays the population and population differences from 1900 to 2010 in Burlington County. Table 4-8 displays the population of the County’s municipalities from 1940 to 2010. Figure 4-16 depicts the past, current, and projected population statistics/trends for the County.

**Table 4-7. Burlington County Population Trends, 1900 to 2010**

Year	Population	Change in Population	Percent (%) Population Change
1900	58,241	-	-
1910	66,565	8,324	14.3
1920	81,770	15,205	22.8
1930	93,541	11,771	14.4
1940	97,013	3,472	3.7
1950	135,910	38,897	40.1
1960	224,499	88,589	65.2
1970	323,132	98,633	43.9
1980	362,542	39,410	12.2
1990	395,066	32,524	9.0
2000	423,394	28,328	7.2
2010	448,734	25,340	6.0

Source: U.S. Census Bureau, 2010

Note: Change in population and percent in population change was calculated from available data

**Table 4-8. Burlington County Resident Population by Municipality: 1940-2010**

Municipality	1940	1950	1960	1970	1980	1990	2000	2010	Percent Change 2000 - 2010
Bass River, Township of	599	688	737	815	1,344	1,580	1,510	1,443	-4%
Beverly, City of	2,691	3,084	3,400	3,105	2,919	2,973	2,661	2,577	-3%
Bordentown, City of	4,223	5,497	4,974	4,490	4,441	4,341	3,969	3,924	-1%
Bordentown, Township of	1,095	2,033	5,936	7,303	7,170	7,683	8,380	11,367	36%
Burlington, City of	10,905	12,051	12,687	12,010	10,246	9,835	9,736	9,920	2%
Burlington, Township of	2,520	3,441	6,291	10,621	11,527	12,454	20,294	22,594	11%
Chesterfield, Township of	1,766	2,020	2,519	3,190	3,867	5,152	5,955	7,699	29%
Cinnaminson, Township of	2,504	3,144	8,302	16,962	16,072	14,583	14,595	15,569	7%
Delanco, Township of	2,383	2,805	4,011	4,157	3,730	3,316	3,237	4,283	32%



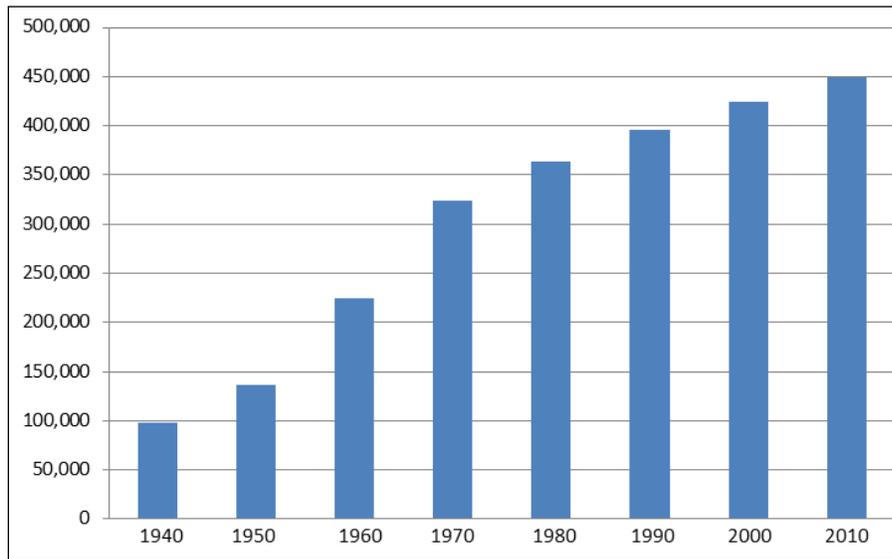


Municipality	1940	1950	1960	1970	1980	1990	2000	2010	Percent Change 2000 - 2010
Delran, Township of	5,327	10,065	14,811	13,178	15,536	13,178	15,536	16,896	9%
Eastampton, Township of	498	692	1,402	2,284	3,814	4,962	6,202	6,069	-2%
Edgewater Park, Township of	1,171	1,279	2,866	7,412	9,273	8,388	7,864	8,881	13%
Evesham, Township of	1,655	2,121	4,548	13,477	21,508	35,309	42,275	45,538	8%
Fieldsboro, Borough of	537	589	583	615	597	579	522	540	3%
Florence, Township of	7,229	7,455	8,127	8,560	9,084	10,266	10,746	12,109	13%
Hainesport, Township of	858	1,793	3,271	2,990	3,236	3,249	4,126	6,110	48%
Lumberton, Township of	1,007	1,325	2,833	3,945	5,236	6,705	10,461	12,559	20%
Mansfield, Township of	1,907	1,907	2,084	2,597	2,523	3,874	5,090	8,544	68%
Maple Shade, Township of	5,535	6,560	12,947	16,464	20,525	19,211	19,079	19,131	0%
Medford Lakes, Borough of	137	461	2,876	4,792	4,958	4,462	4,173	4,146	-1%
Medford, Township of	2,237	2,836	4,844	8,292	17,622	20,526	22,253	23,033	4%
Moorestown, Township of	7,749	9,123	12,497	15,577	15,596	16,116	19,017	20,726	9%
Mount Laurel, Township of	2,189	2,817	5,249	11,221	17,614	30,270	40,221	41,864	4%
Mt. Holly, Township of	6,892	8,206	13,271	12,713	10,818	10,639	10,728	9,536	-11%
New Hanover, Township of	983	18,168	28,528	27,410	14,258	9,546	9,744	7,385	-24%
North Hanover, Township of	731	1,155	2,796	9,858	9,050	9,994	7,347	7,678	5%
Palmyra, Borough of	5,178	5,802	7,036	6,969	7,085	7,056	7,091	7,398	4%
Pemberton, Borough of	906	1,194	1,250	1,344	1,198	1,367	1,210	1,409	16%
Pemberton, Township of	2,386	4,751	13,726	19,754	29,720	31,342	28,691	27,912	-3%
Riverside, Township of	7,072	7,199	8,474	8,591	7,941	7,974	7,911	8,079	2%
Riverton, Borough of	2,354	2,761	3,324	3,412	3,068	2,775	2,759	2,779	1%
Shamong, Township of	505	712	774	1,318	4,537	5,765	6,462	6,490	0%
Southampton, Township of	1,813	2,341	3,166	4,982	8,808	10,202	10,388	10,464	1%
Springfield, Township of	1,299	1,562	1,956	2,244	2,691	3,028	3,227	3,414	6%
Tabernacle, Township of	490	1,034	1,621	2,103	6,236	7,360	7,170	6,949	-3%
Washington, Township of	518	566	541	673	808	805	621	687	11%
Westampton, Township of	573	716	1,114	2,680	3,383	6,004	7,217	8,813	22%
Willingboro, Township of	642	852	11,861	43,386	39,912	36,291	33,008	31,629	-4%
Woodland, Township of	1,374	1,524	1,904	2,032	2,285	2,063	1,170	1,788	53%
Wrightstown, Borough of	241	1,199	4,846	2,719	3,031	3,843	746	802	8%

Source: U.S. Census of Population and Housing, Date Unknown.



**Figure 4-16. Burlington County Population Trends, 1940 – 2010**



Source: U.S. Census Bureau, 2010

Between 1990 and 2010, nine of the 40 municipalities experienced an overall decrease in their population all other of the municipalities saw an increase in their populations from 2000 to 2010. The municipalities which experienced population decreases were the Townships of Bass River, Easthampton, Mount Holly, New Hanover, Pemberton, and Willingboro, the Cities of Beverly and Bordentown, and the Borough of Medford Lakes. The Township of New Hanover experienced the greatest loss of population, losing 24% of its population from 2000. The Township of Woodland Township experienced a population increase of 53%.

Table 4-9 displays the 2010 Census population for the ten largest municipalities by population in Burlington County. According to the Delaware Valley Regional Planning Commission’s 2040 population estimates, the County population is expected to reach 457,126 by 2020, and 494,732 by 2040. This is an increase of 45,998 persons by 2040. (DVRPC 2012) With the predicted population increase, urban (residential) land use will increase, while other land uses, such as agriculture and forested land, may decrease over time.

**Table 4-9. Ten Largest Municipalities in Burlington County**

Rank	Municipality	Population
1	Evesham, Township of	45,538
2	Mount Laurel, Township of	41,864
3	Willingboro, Township of	31,629
4	Pemberton, Township of	27,912
5	Medford, Township of	23,033
6	Burlington, Township of	22,594
7	Moorestown, Township of	20,726
8	Maple Shade, Township of	19,131
9	Delran, Township of	16,896
10	Cinnaminson, Township of	15,569

Source: 2010 U.S. Census





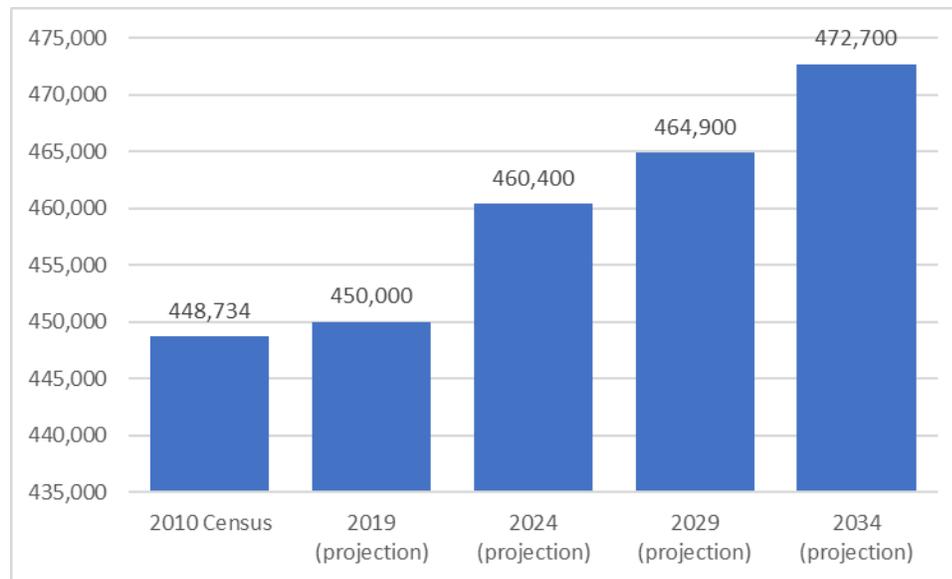
Over the next 15 years, from 2019 to 2034, Burlington County has a projected population growth of 5.3-percent. Based on New Jersey Department of Labor population projections, the county population is expected to reach 460,400 by 2024 and 472,700 by 2034 (Figure 4-17).

**Table 4-10. Burlington County Population Projections, 2019 to 2034**

Year	Population	Change in Population
2010 Census	448,734	-
2019 (projection)	450,000	0.28%
2024 (projection)	460,400	2.31%
2029 (projection)	464,900	0.98%
2034 (projection)	472,700	1.68%

Source: New Jersey Department of Labor and Workforce Development 2014

**Figure 4-17. Burlington County Population Projections, 2010 to 2034**



Source: New Jersey Department of Labor and Workforce Development 2014

## 4.5 GENERAL BUILDING STOCK

The 2010 U.S. Census data identifies 165,727 households in Burlington County. The U.S. Census data identified 175,615 housing units in Burlington County in 2010. U.S. Census defines household as all the persons who occupy a housing unit, and a housing unit as a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Therefore, you may have more than one household per housing unit. The median price of a single family home in Burlington County was estimated at \$266,200 in 2010 (U.S. Census, 2010).

For this update, the default general building stock in HAZUS-MH v4.2 was updated and replaced with a custom building inventory for Burlington County both at the aggregate and structure level. The updated building inventory



was built using detailed the building footprints, parcels and structure-specific building attributes. Burlington County has a total building replacement value (structure and content) of greater than \$165 billion. The Residential value makes up approximately 66.7 percent of the total replacement value. Table 4-3 presents replacement value statistics by occupancy class for Burlington County.



Table 4-11. Replacement Value by Occupancy Class

Municipality	All Occupancies				Residential		Commercial		Industrial	
	Count	Structural Value	Estimated Contents	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)
Bass River, Township of	1,863	\$592,479,667	\$435,437,463	\$1,027,917,130	1,023	\$471,126,613	484	\$209,674,207	9	\$11,665,684
Beverly, City of	964	\$307,500,140	\$163,986,998	\$471,487,138	935	\$430,539,426	8	\$6,853,816	2	\$5,148,790
Bordentown, City of	1,219	\$744,949,381	\$500,046,523	\$1,244,995,904	1,053	\$734,708,572	81	\$146,484,909	13	\$195,580,818
Bordentown, Township of	3,113	\$1,674,099,210	\$1,145,942,037	\$2,820,041,247	2,524	\$1,584,471,520	289	\$543,431,173	109	\$241,559,435
Burlington, City of	3,644	\$1,962,644,603	\$1,252,588,489	\$3,215,233,092	3,216	\$2,130,168,343	193	\$309,202,528	39	\$70,780,909
Burlington, Township of	7,757	\$5,000,155,300	\$3,013,104,371	\$8,013,259,672	7,031	\$5,961,152,787	205	\$533,519,273	124	\$614,236,873
Chesterfield, Township of	2,093	\$1,400,485,206	\$1,042,809,213	\$2,443,294,418	1,357	\$1,073,027,978	56	\$67,128,717	6	\$3,869,219
Cinnaminson, Township of	6,358	\$3,443,136,617	\$2,260,759,135	\$5,703,895,752	5,709	\$3,547,132,446	236	\$494,179,648	218	\$627,214,410
Delanco, Township of	1,562	\$918,559,858	\$503,641,621	\$1,422,201,479	1,458	\$1,244,754,710	42	\$40,614,401	6	\$87,628,606
Delran, Township of	5,191	\$3,217,120,782	\$1,928,501,814	\$5,145,622,596	4,767	\$3,865,856,904	213	\$308,925,108	34	\$231,693,686
Eastampton, Township of	2,499	\$1,060,270,313	\$626,747,199	\$1,687,017,512	2,030	\$1,300,569,343	225	\$125,347,418	16	\$16,022,117
Edgewater Park, Township of	2,567	\$1,457,974,255	\$849,310,960	\$2,307,285,215	2,364	\$1,825,989,884	74	\$162,098,732	34	\$117,725,858
Evesham, Township of	14,319	\$9,168,653,192	\$5,497,429,231	\$14,666,082,424	12,839	\$11,013,671,882	518	\$1,526,787,429	46	\$234,436,899
Fieldsboro, Borough of	242	\$84,982,564	\$54,388,563	\$139,371,126	193	\$91,782,003	10	\$6,613,341	28	\$27,791,285
Florence, Township of	2,522	\$1,673,982,403	\$1,113,281,204	\$2,787,263,607	2,044	\$1,682,103,599	78	\$81,114,272	52	\$115,275,168
Hainesport, Township of	2,747	\$2,080,207,178	\$1,367,001,557	\$3,447,208,735	2,174	\$2,139,616,863	138	\$228,412,051	105	\$415,818,773
Lumberton, Township of	4,009	\$3,424,896,916	\$2,034,660,341	\$5,459,557,257	3,405	\$4,170,709,726	178	\$312,145,320	48	\$145,386,902
Mansfield, Township of	2,798	\$2,285,414,884	\$1,771,086,705	\$4,056,501,589	1,874	\$1,542,984,536	136	\$305,587,252	4	\$41,805,982
Maple Shade, Township of	6,006	\$2,679,790,126	\$1,705,710,787	\$4,385,500,913	5,458	\$2,922,238,018	348	\$684,855,771	56	\$115,090,171
Medford Lakes, Borough of	1,909	\$837,422,542	\$442,628,329	\$1,280,050,871	1,846	\$1,184,382,640	30	\$36,912,107	12	\$10,947,073
Medford, Township of	10,627	\$7,999,936,346	\$4,845,971,148	\$12,845,907,494	9,206	\$9,461,895,592	386	\$563,064,071	66	\$170,312,318
Moorestown, Township of	8,736	\$6,109,599,449	\$3,999,202,177	\$10,108,801,626	7,741	\$6,331,191,815	438	\$1,192,836,317	109	\$984,189,569
Mount Holly, Township of	4,573	\$2,150,068,863	\$1,348,284,133	\$3,498,352,996	4,048	\$2,405,354,190	169	\$351,810,788	32	\$108,699,679



SECTION 4: COUNTY PROFILE

Municipality	All Occupancies				Residential		Commercial		Industrial	
	Count	Structural Value	Estimated Contents	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)	Count	Total Replacement Cost (Structural + Contents)
Mount Laurel, Township of	12,900	\$9,343,991,534	\$5,309,809,270	\$14,653,800,804	11,771	\$12,102,546,790	338	\$1,084,708,230	60	\$184,048,295
New Hanover, Township of	1,964	\$1,546,232,618	\$1,476,602,868	\$3,022,835,486	361	\$208,889,250	38	\$43,058,752	0	\$0
North Hanover, Township of	2,901	\$1,729,559,019	\$1,350,319,968	\$3,079,878,987	1,905	\$1,137,717,154	120	\$118,656,465	1	\$3,207,479
Palmyra, Borough of	2,713	\$1,106,819,144	\$681,579,412	\$1,788,398,557	2,516	\$1,275,719,196	90	\$134,518,987	22	\$83,146,192
Pemberton, Borough of	514	\$207,432,867	\$138,437,039	\$345,869,906	411	\$206,987,484	49	\$53,490,261	4	\$1,949,827
Pemberton, Township of	13,511	\$5,772,021,833	\$3,602,892,846	\$9,374,914,679	11,953	\$6,507,386,961	192	\$215,385,866	12	\$5,768,438
Riverside, Township of	2,868	\$1,276,520,301	\$762,619,650	\$2,039,139,951	2,615	\$1,541,701,954	132	\$146,343,852	18	\$133,048,415
Riverton, Borough of	1,274	\$585,858,006	\$330,576,784	\$916,434,789	1,218	\$765,843,666	22	\$32,219,835	5	\$13,100,109
Shamong, Township of	3,623	\$1,696,218,832	\$1,042,165,601	\$2,738,384,433	3,055	\$1,962,159,694	60	\$57,533,711	10	\$12,409,999
Southampton, Township of	7,982	\$3,975,061,802	\$2,747,285,971	\$6,722,347,774	5,865	\$3,683,327,494	1,015	\$809,156,809	36	\$36,000,792
Springfield, Township of	2,876	\$2,223,461,090	\$1,630,053,819	\$3,853,514,909	1,909	\$1,780,221,814	128	\$440,472,485	32	\$33,600,051
Tabernacle, Township of	4,452	\$2,175,794,267	\$1,443,246,498	\$3,619,040,765	3,661	\$2,197,643,307	328	\$158,507,585	7	\$5,656,451
Washington, Township of	939	\$357,333,022	\$240,093,911	\$597,426,933	718	\$351,717,333	44	\$11,686,204	11	\$20,091,603
Westampton, Township of	3,006	\$2,487,347,035	\$1,782,086,372	\$4,269,433,407	2,400	\$2,115,781,988	218	\$380,964,430	47	\$493,085,138
Willingboro, Township of	12,395	\$5,281,247,833	\$2,978,499,580	\$8,259,747,413	11,991	\$6,908,244,760	117	\$149,803,840	35	\$91,999,183
Woodland, Township of	1,323	\$888,068,601	\$768,679,645	\$1,656,748,246	746	\$358,166,869	33	\$19,806,031	45	\$32,504,921
Wrightstown, Borough of	485	\$223,368,035	\$188,595,000	\$411,963,035	167	\$104,319,107	41	\$79,264,094	7	\$4,964,834
<b>Burlington County</b>	<b>173,044</b>	<b>\$101,150,665,635</b>	<b>\$64,376,064,232</b>	<b>\$165,526,729,867</b>	<b>147,557</b>	<b>\$110,323,804,210</b>	<b>7,500</b>	<b>\$12,173,176,085</b>	<b>1,520</b>	<b>\$5,747,461,950</b>

Source: Burlington County, NJ Department of the Treasury, 2017





The 2012-2016 American Community Survey for Burlington County identified that there are 177,623 housing units in Burlington County. The median property value is \$245,000. The 2010 Census data identify that the majority of housing units (65.0 percent) in Burlington County are single-family detached units. The 2016 U.S. Census Bureau's County Business Patterns data identified 38,883 business establishments employing 182,219 people in Burlington County. The industry with the greatest number of employees (27,533) is the health care and social assistance industry, followed by the retail trade industry (25,043).

Figure 4-12 through Figure 4-14 show the distribution and exposure density of residential, commercial and industrial buildings in Burlington County. Exposure density is the dollar value of structures per unit area, including building content value. Generally, contents for residential structures are valued at about 50 percent of the building's value. For commercial facilities, the value of the content is generally about equal to the building's structural value. Actual content value varies widely depending on the usage of the structure. The densities are shown in units of \$1,000,000 (\$M) per square mile.

Viewing exposure distribution maps, such as Figures 4-12 through 4-14, can assist communities in visualizing areas of high exposure and in evaluating aspects of the study area in relation to the specific hazard risks.



Figure 4-18. Distribution of Residential Building Stock Replacement Cost Value in Burlington County

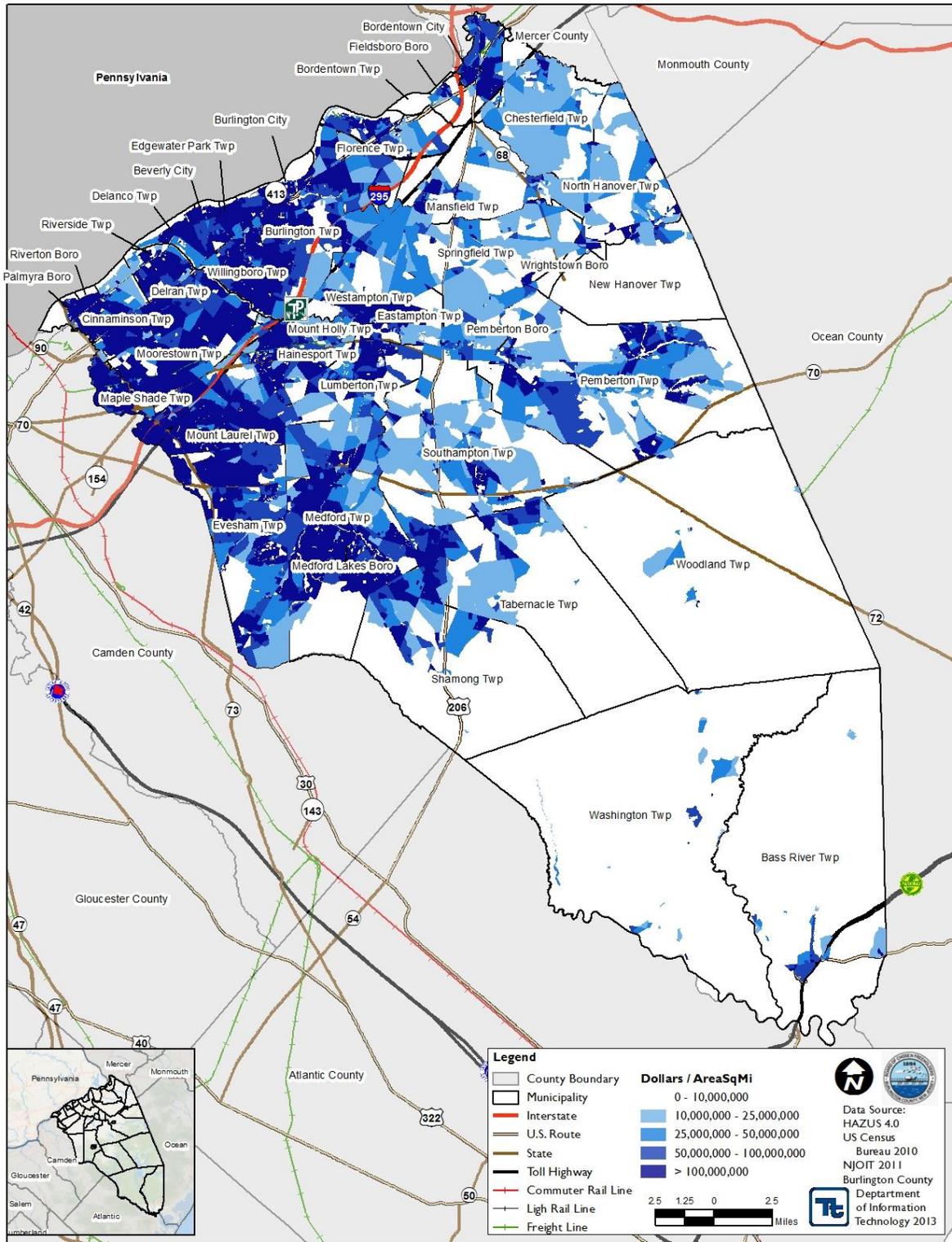




Figure 4-19. Distribution of Commercial Building Stock Replacement Value in Burlington County

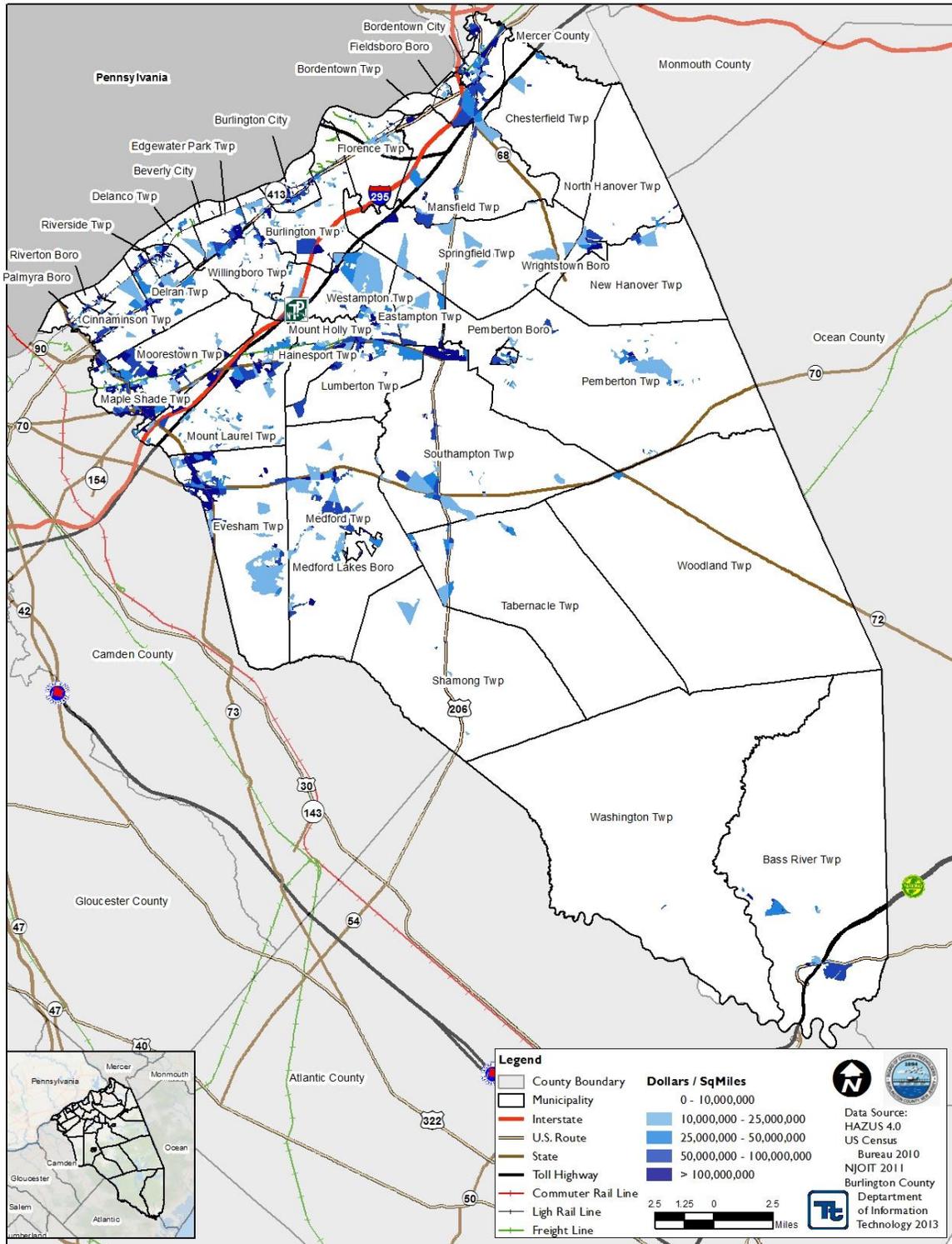
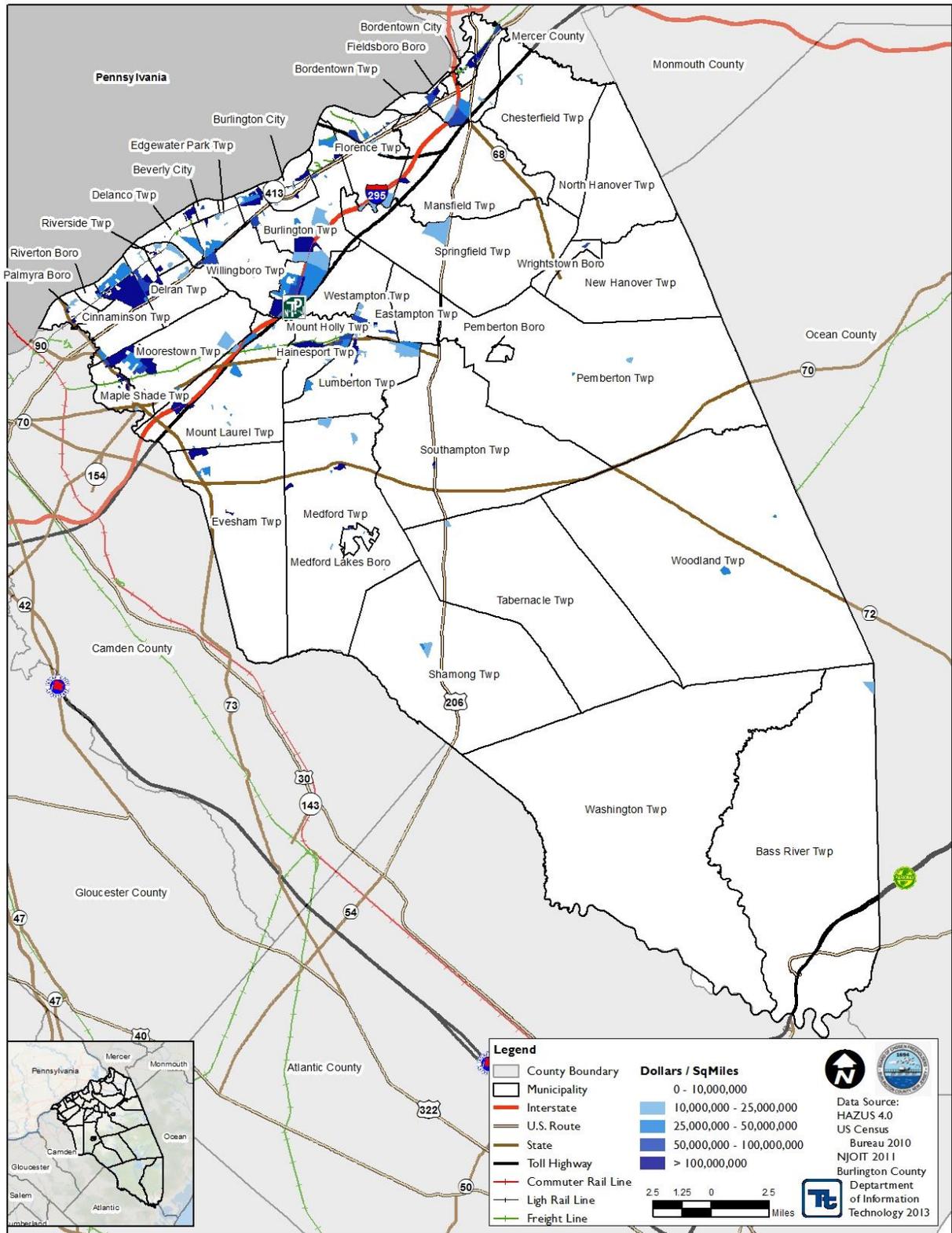




Figure 4-20. Distribution of Industrial Building Replacement Cost Value in Burlington County





### **4.5.1 Development Trends and New Development**

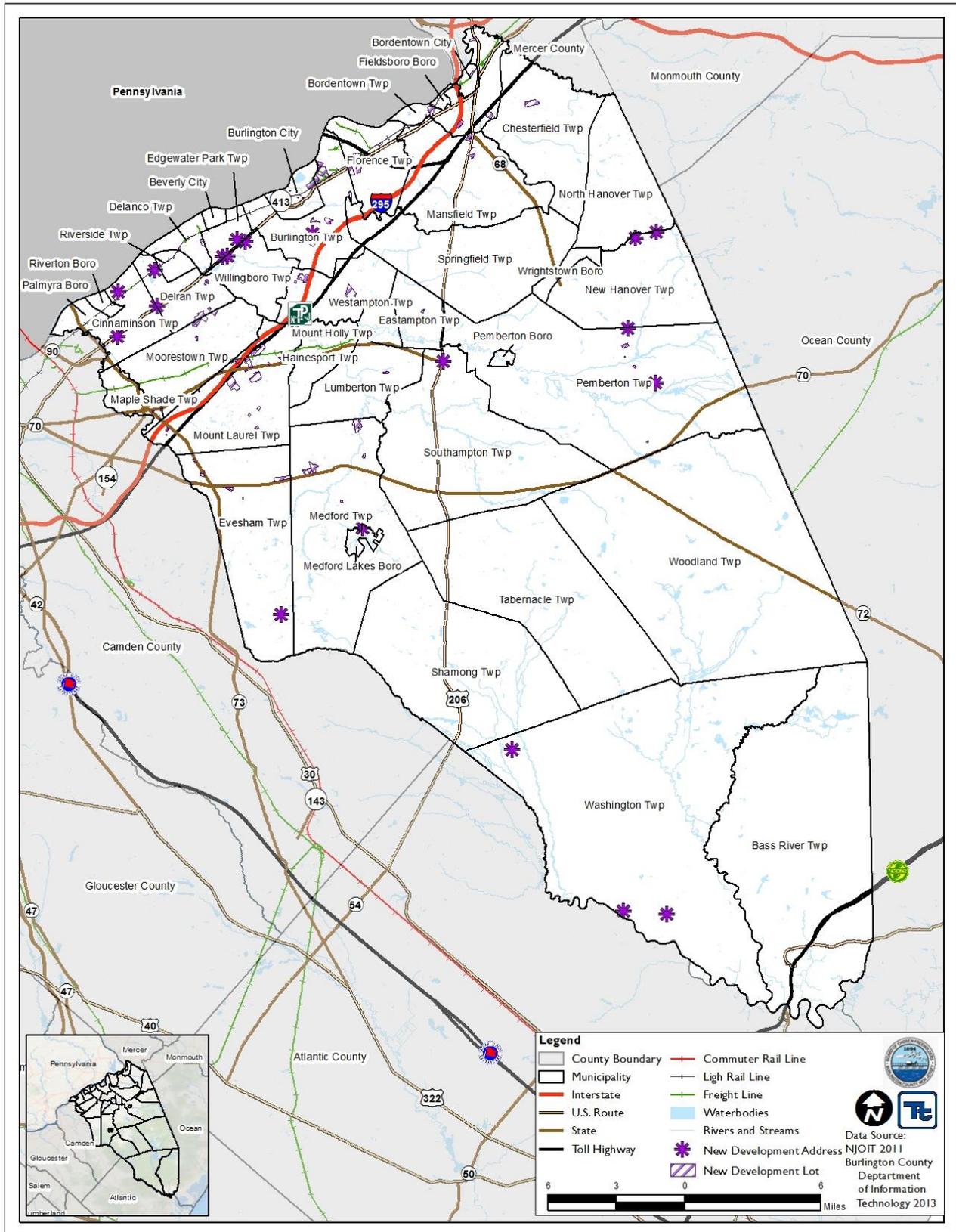
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Local zoning and planning authority is provided for under the New Jersey Municipal Land Use Law, which gives municipalities zoning and planning authority. The DMA 2000 requires that communities consider land use trends, which can impact the need for, and priority of, mitigation options over time. Land use trends significantly impact exposure and vulnerability to various hazards. For example, significant development in a hazard area increases the building stock and population exposed to that hazard.

This plan provides a general overview of population and land use, and types of development occurring within the study area. An understanding of these development trends can assist in planning for future development and ensuring that appropriate mitigation, planning, and preparedness measures are in place to protect human health and community infrastructure. Figure 4-21 provides locations of potential new development identified in the county over the next five years. For municipal identified new development, refer to the municipal annexes in Section 9.



Figure 4-21. Potential New Development in Burlington County





## 4.6 CRITICAL FACILITIES

A comprehensive inventory of critical facilities in Burlington County was developed from various sources provided by the county and individual municipalities. The inventory of critical facilities presented in this section represents the current state of this effort at the time of publication of the HMP and was used for the risk assessment in Section 5.

A comprehensive inventory of critical facilities in Burlington County was developed from the Burlington County Department of Information Technology, GIS Division. The inventory of critical facilities presented in this section represents the current state of this effort at the time of publication of the HMP and was used for the risk assessment in Section 5.

The inventory of critical facilities identified for the HMP is considered sensitive information. It is protected by the Protected Critical Infrastructure Information (PCII) program and under New Jersey Executive Order 21. Therefore, individual facility names and addresses are not provided in this HMP. A summary of the facility types used for the risk assessment are presented further in this section.

**Critical facilities** are those facilities considered critical to the health and welfare of the population and that are especially important following a hazard. As defined for this HMP, critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities and hazardous material facilities.

**Essential facilities** are a subset of critical facilities that include those facilities that are important to ensure a full recovery following the occurrence of a hazard event. For the County risk assessment, this category was defined to include police, fire, EMS, EOCs, schools, shelters, senior facilities and medical facilities.

**Emergency Facilities** are a subset of critical facilities that, for the purposes of this Plan, include police, fire, emergency medical services (EMS) and emergency operations centers (EOC).

### 4.6.1 Essential Facilities

This section provides information on emergency facilities, hospital and medical facilities, schools, shelters and senior care and living facilities, all of which are considered essential facilities for the purposes of this HMP. Figure 4-22 illustrates the general location of facilities in Burlington County.

#### Emergency Facilities

For the purposes of this HMP, emergency facilities include police, fire, emergency medical services (EMS), and emergency operations centers (EOC). The county has a highly coordinated and interconnected network of emergency facilities and services at the county and municipal level. The Burlington County OEM serves as the primary coordinating agency between local, state, and federal agencies. In response to an emergency event, the Burlington County OEM will work with county and municipal health agencies and healthcare providers, emergency facilities and the County Sheriff's Office to provide aid to residents of the county.

Each municipality is responsible for maintaining its own fire department; however, not every municipality maintains their own police department or emergency medical services facility. All municipalities except Bass River Township, Hainesport Township, Shamong Township, Southampton Township, Tabernacle Township, Woodland Township, and Wrightstown Borough maintain their own police department and those who do not are covered by the State Police. The Burlington County Sheriff's Office and NJ State Police also provide emergency support to the municipalities. The City of Beverly, Bordentown City, Burlington City, Chesterfield Township, Cinnaminson Township, Delanco Township, Delran Township, Eastampton Township, Evesham Township, Florence Township, Hainesport Township, Lumberton Township, Mansfield Township, Maple Shade Township, Medford Township, Moorestown Township, Mount Holly Township, Mount Laurel Township, New Hanover Township, North Hanover Township, Palmyra Borough, Pemberton Township, Shamong Township, Southampton Township, Springfield Township, Tabernacle Township, Washington Township, Westampton



Township, Willingboro Township, and Woodland Township maintain their own EMS facilities and provide support to surrounding municipalities.

Overall, there are 44 local, county, and state law enforcement facilities, 134 fire and EMS facilities, and 38 EOCs in Burlington County. The EOC total includes all municipal halls, fire departments, department of public work buildings and others that were identified as EOCs by the municipalities.

### **Hospital and Medical Facilities**

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Burlington County has a dynamic health care industry that includes hospitals, rehabilitation centers, and behavioral health facilities. There are 12 medical facilities located in Burlington County.

### **Senior Care and Living Facilities**

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It is important to identify and account for senior facilities, as their residents are highly vulnerable to the potential impacts of disasters. Understanding the location and numbers of these types of facilities can help manage an effective response post disaster. There are 76 senior facilities located within the county. Figure 4-22 shows the location of senior facilities in Burlington County.

### **Government Buildings**

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In addition to the facilities discussed, other county and municipal buildings, and department of public works facilities are essential to the continuity of operations pre-, during and post-disaster. There are 38 government facilities located in the county. In addition to these 40 facilities, the majority of the EOCs discussed above are local municipal buildings. Figure 4-22 shows the location of government buildings in Burlington County.

### **Schools**

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There are 245 schools, ranging from elementary to post-secondary education, which service the county. Several municipalities throughout the county have their own school systems, while other municipalities are served by regional school districts. In addition to the number of public schools throughout the county, there are a number of private education facilities. Figure 4-23 show the location of schools in Burlington County.

### **Shelters**

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There were 153 shelters identified within Burlington County; many schools, community centers, and municipal buildings could serve as a shelter during an emergency. Figure 4-23 show the location of shelters in Burlington County.



Figure 4-22. Essential Facilities in Burlington County

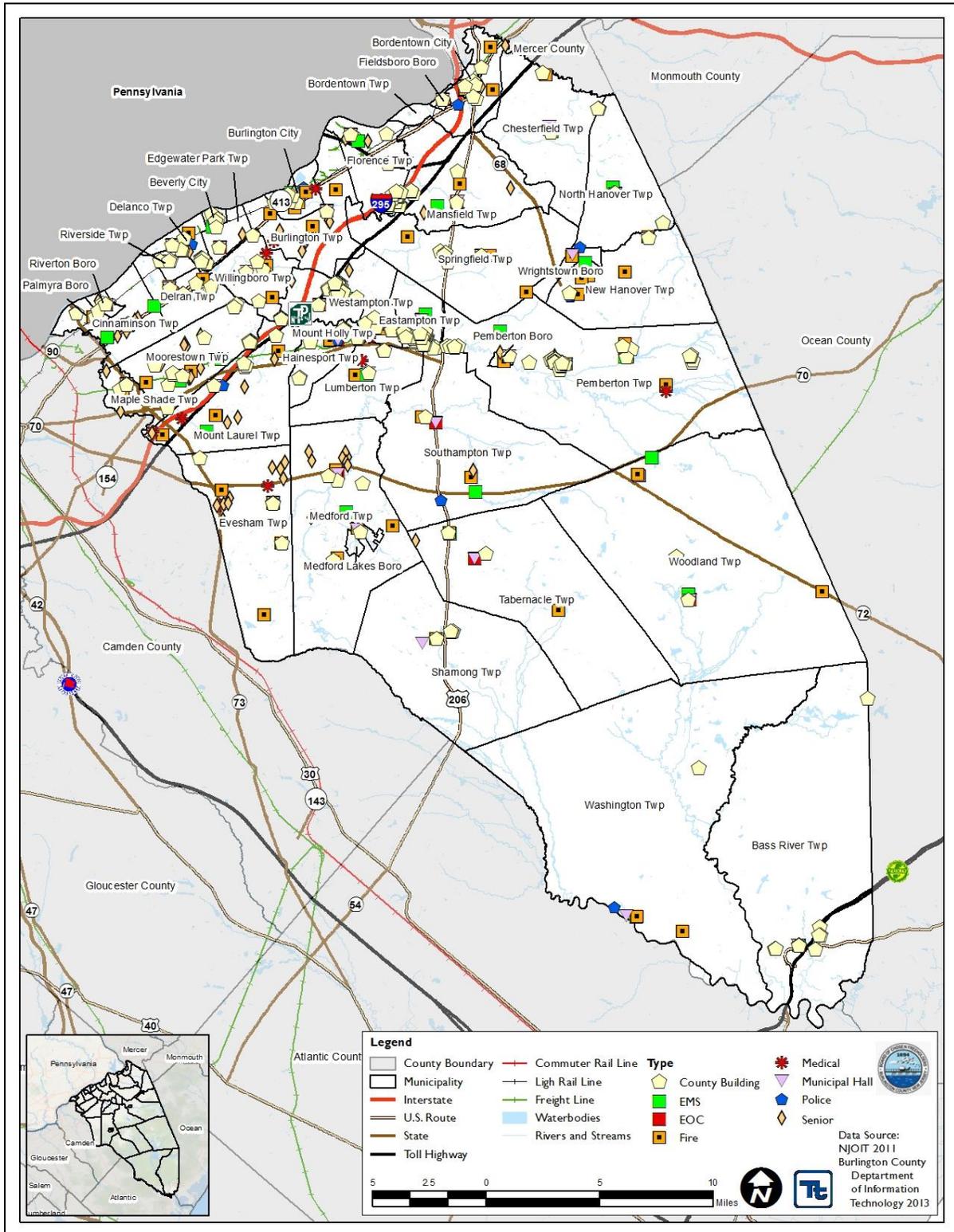
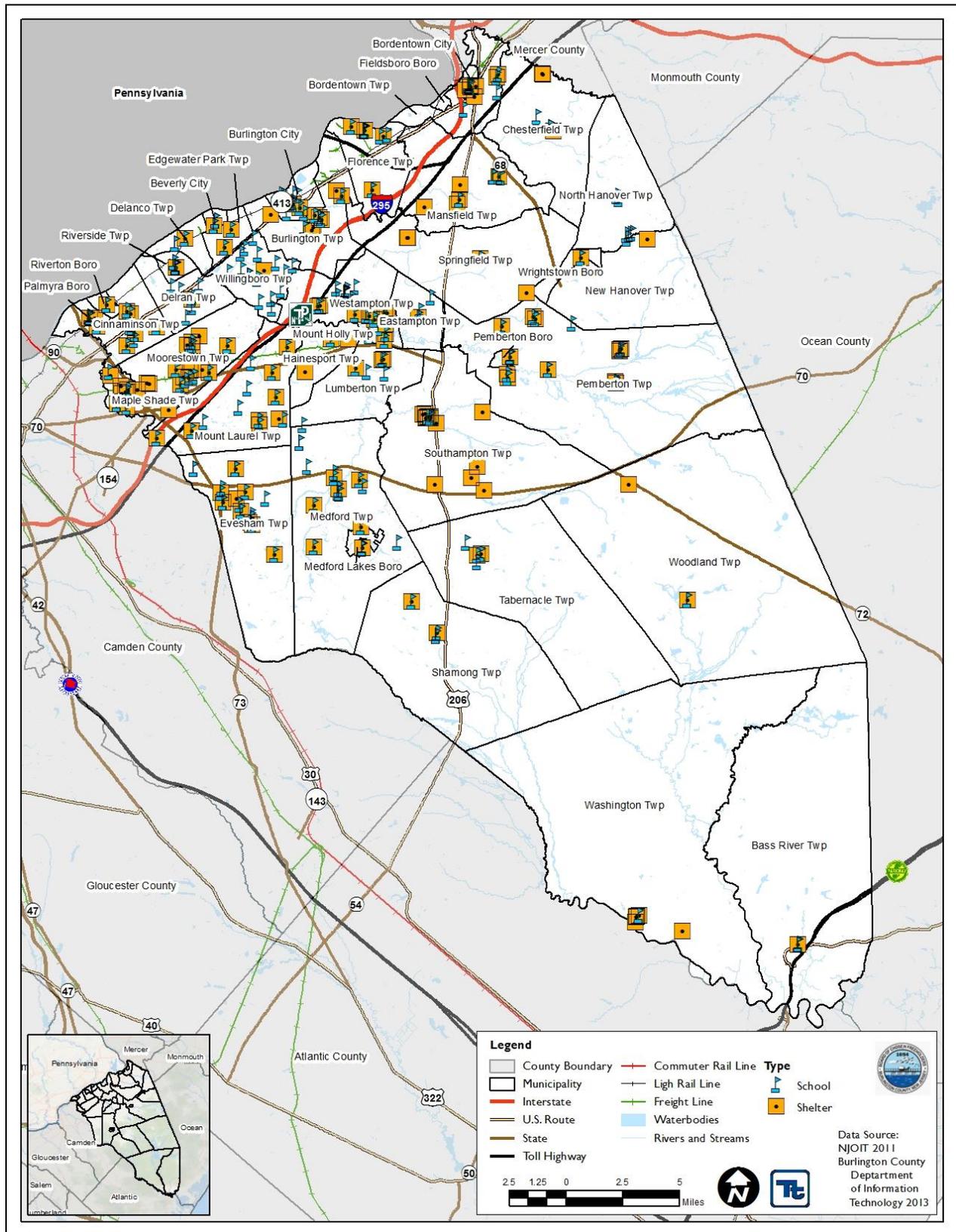




Figure 4-23. Schools and Shelters in Burlington County





## 4.6.2 Transportation Systems

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Transportation plays an important role in Burlington County. This section presents available inventory data for roadways, airports, railways and other transportation systems in Burlington County. Figure 4-24 shows regional transportation lifelines serving the County.

### Highway, Roadways and Associated Systems

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Interstates 295 and 95 are the major north-south routes that pass through the County. These routes are vital northeast corridors which connect major cities of the east coast. Additionally, a small portion of Interstate 276 connects Interstates 95 and 295 to northern Philadelphia and the Pennsylvania Turnpike's Northeast Extension. Along the eastern edge of the County the Garden State Parkway (US Route 9), another north-south route passes through the County. The Garden State Parkway extends from New York to the tip of Cape May County. This route is one of only two routes in the US with a ferry, as the Cape May-Lewes Ferry connects Cape May to Lewes, Delaware. Other important routes in Burlington County are U.S. Route 206 (north-south), U.S. Route 130 (north-south), NJ Route 70 (east-west), and NJ Route 72 (east-west).

### Air

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There were 28 air facilities identified within the County. These facilities include both airports and heliports which are utilized for public, private, medical, and military purposes.

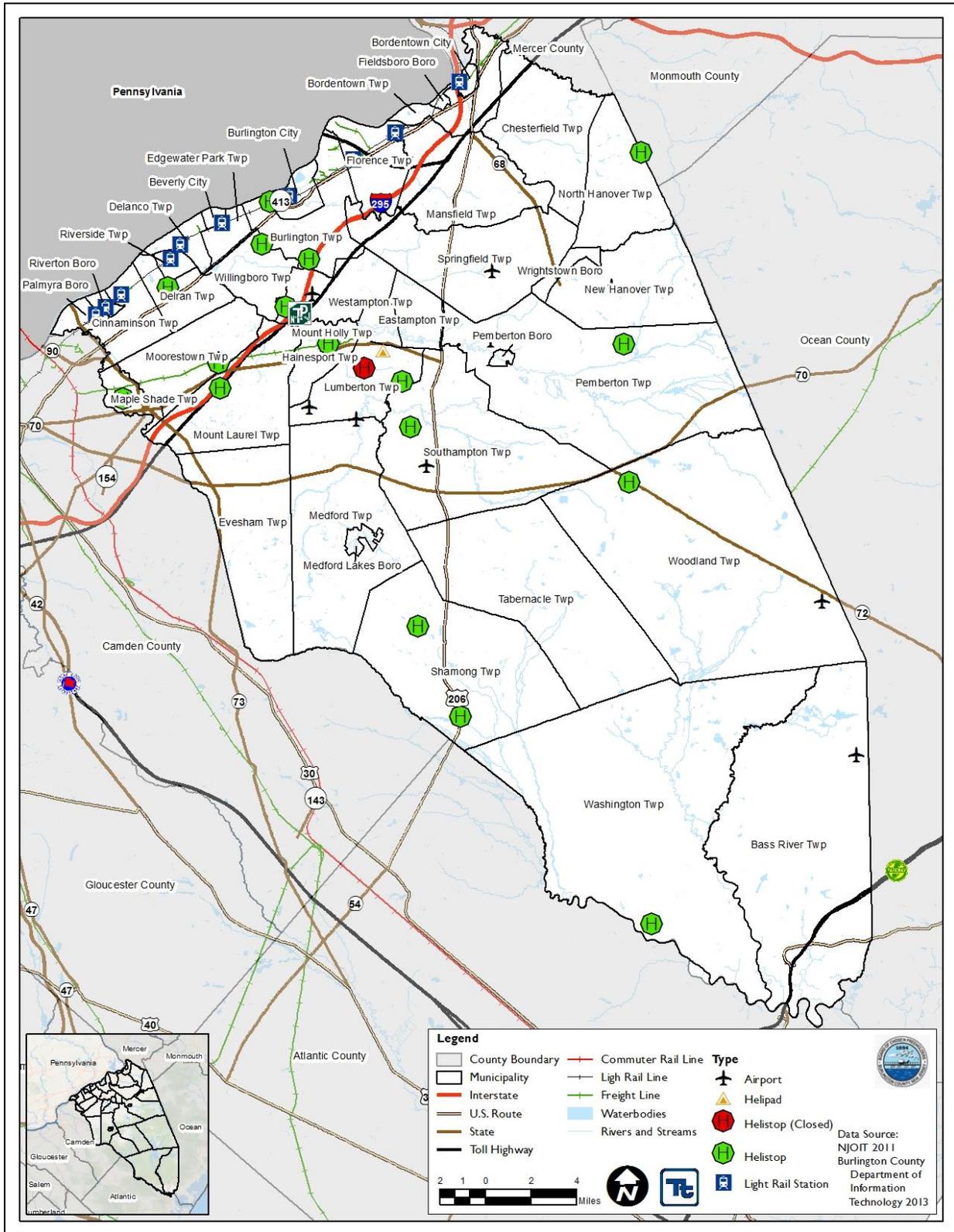
### Public Transportation

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Burlington County is served primarily by New Jersey Transit bus and rail lines. The NJ Transit River Line connects to Amtrak's Northeast Corridor at Trenton and to PATCO which connects Philadelphia to Camden. These lines provide the connection between Burlington County and other major cities such as Washington D.C., Baltimore, MD, Wilmington, DE, Philadelphia, PA, and New York, NY. Rail service extends to points north and south. Table 4-19 lists the river line stations located in the County.



Figure 4-24. Transportation Lifelines in Burlington County





### 4.6.3 Lifeline Utility Systems

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This section presents communication, potable water, wastewater, and energy resource utility system data. Due to heightened security concerns, local utility lifeline data sufficient to complete the analysis have only partially been obtained. Figure 4-25 shows the lifeline utility facilities in Burlington County.

#### Communication Resources

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Burlington County has a Central Communications, which serves as the Public Safety Answering point which dispatches all public safety services throughout the county.

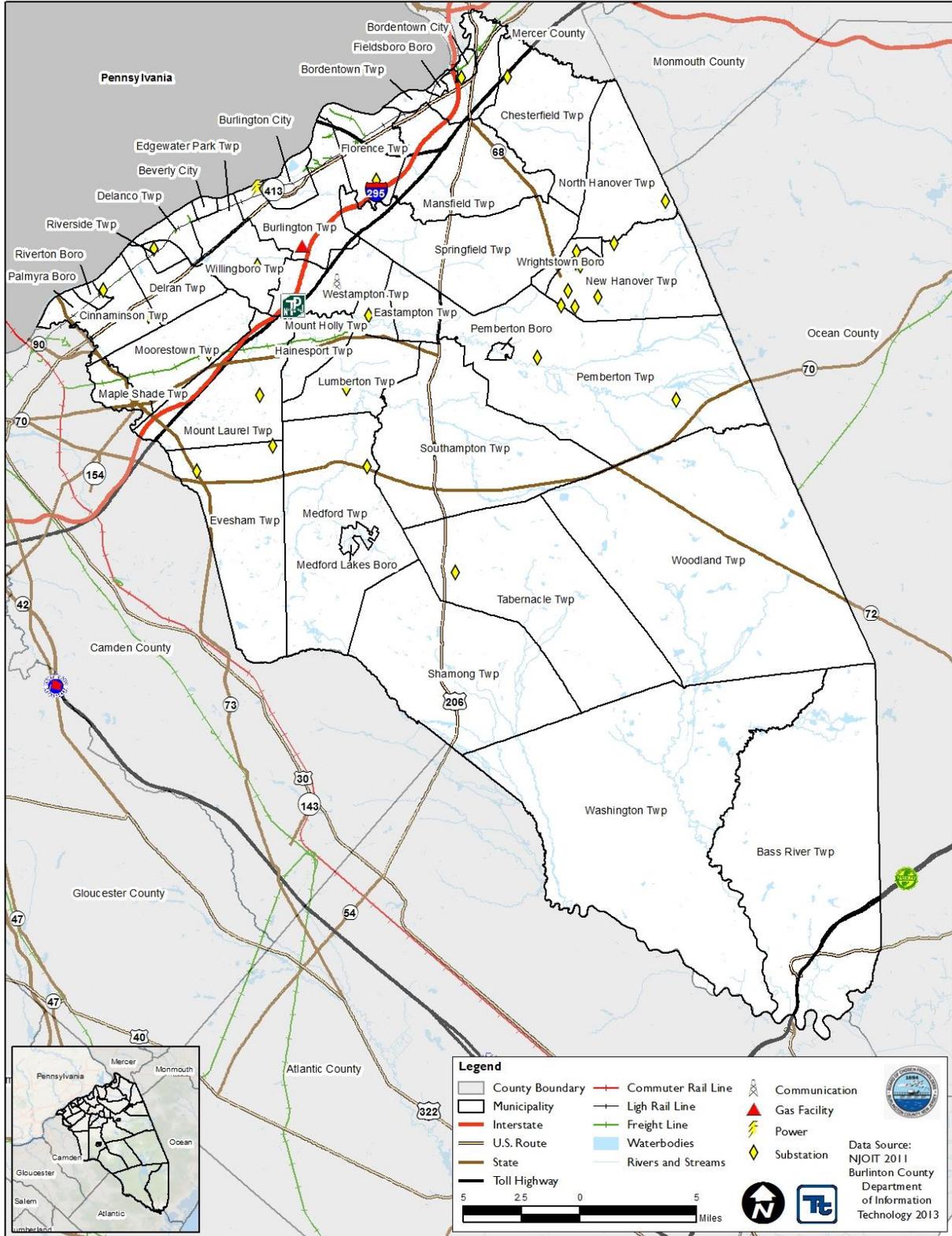
#### Energy Resources

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JCP&L and PSE&G are the primary electric and gas utility companies in Burlington County. In addition, South Jersey Gas provides natural gas service to Burlington County. Verizon is the primary provider of landline service in Burlington County.



Figure 4-25. Lifeline Utility Facilities in Burlington County





### **Potable Water**

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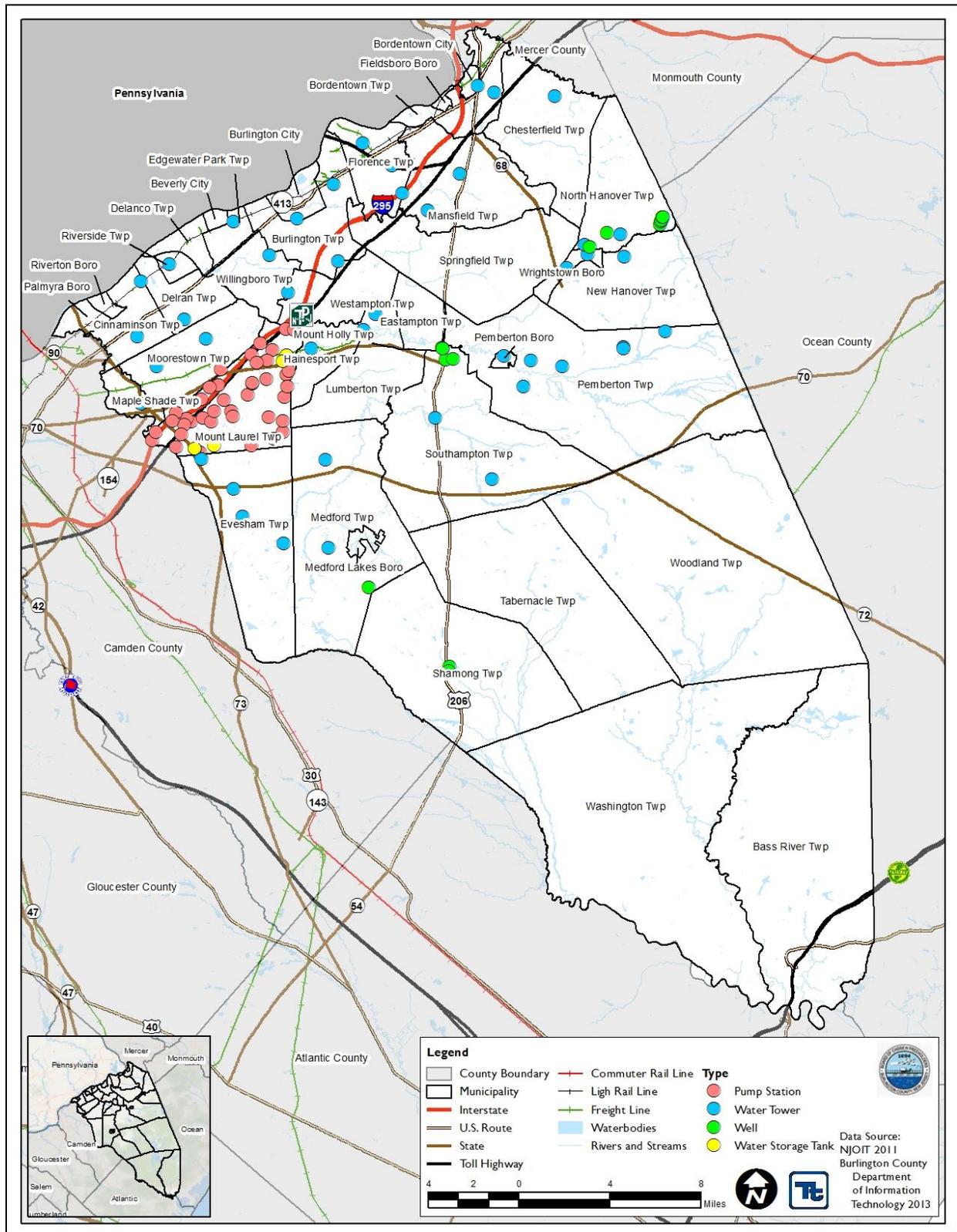
New Jersey American Water (NJAW), serves more than 80,000 people in 20 communities in Burlington County and more than two million people in the Garden State. NJAW's main production facility in the region is the Delaware River Water Treatment Plant (DRWTP), located in Delran. The DRWTP produces an average of 22 million gallons of water per day and serves customers in Burlington, Camden and Gloucester counties. The largest water purveyor in the state, NJAW is a wholly owned subsidiary of American Water, the largest private water services provider in North America. Headquartered in Voorhees, American Water employs approximately 6,900 professionals who provide high quality water, wastewater and other related services to more than 16.2 million people in 32 states and Ontario, Canada (Burlington County Economic Resource Guide, 2008).

Aqua America New Jersey provides drinking water and wastewater services to 150,000 residents in 18 municipalities in nine New Jersey counties (Burlington County Economic Resource Guide, 2008).

Burlington County's water is predominately from surface water sources. Additionally, a small portion of the water supply is well water from well fields distributed throughout the system.



Figure 4-26. Potable Water Facilities in Burlington County





**Wastewater Facilities**

Table 4-12 lists the wastewater treatment facilities and wastewater pump stations in the County.

**Table 4-12. Burlington County Wastewater Treatment Facilities and Pump Stations**

Name	Address	Type	Municipality
Beverly Sewerage Authority	Penn & Magnolia St.	Wastewater Treatment Plant	Beverly (C)
Bordentown Sewerage Authority	Park St.	Wastewater Pump	Bordentown (C)
A.C. Wagner Youth Correctional Institution	Ward Ave	Wastewater Treatment Plant	Bordentown (T)
Bordentown Sewerage Authority	954 Farnsworth Ave	Wastewater Treatment Plant	Bordentown (T)
Bordentown Township Sewage Authority	Off Route 206	Wastewater Treatment Plant	Bordentown (T)
Burlington City Sewerage Authority	601 Pearl St	Wastewater Treatment Plant	Burlington (C)
Common Council Burlington City	900 W Broad St	Wastewater Treatment Plant	Burlington (C)
Central Avenue Sewerage Treatment Plant	31 Central Ave	Wastewater Treatment Plant	Burlington (T)
Olde York Country Club	228 Old York Rd	Wastewater Pump	Chesterfield (T)
Cinnaminson Sewerage Authority	400 North Randolph	Wastewater Treatment Plant	Cinnaminson (T)
Delran Sewerage Authority	Norman Ave	Wastewater Treatment Plant	Delran (T)
Elmwood Sewerage Treatment Plant	260 Elmwood Road North	Wastewater Treatment Plant	Evesham (T)
Kings Grant Sewerage Treatment Plant	791 Barton Run Blvd	Wastewater Treatment Plant	Evesham (T)
Woodstream Sewerage Treatment Plant	355 Brandywine Dr	Wastewater Treatment Plant	Evesham (T)
Fieldsboro Sewerage Treatment Plant	203 Delaware St.	Wastewater Treatment Plant	Fieldsboro (B)
Florence Sewerage Treatment Plant	Front St West	Wastewater Treatment Plant	Florence (T)
Homestead Utility Company	14A Wagon Wheel Lane	Wastewater Treatment Plant	Mansfield (T)
National Auto Dealers Exchange	155 Aaronson Rd	Wastewater Treatment Plant	Mansfield (T)
Maple Shade Sewerage Treatment Plant	438 W Park Ave	Wastewater Treatment Plant	Maple Shade (T)
Medford Water Pollution Control	10 Fostertown Rd	Wastewater Treatment Plant	Medford (T)
Medford Lakes Sewerage Treatment Plant	14 Stokes Rd	Wastewater Treatment Plant	Medford Lakes (B)
Moorestown Township Sewerage Treatment Plant	N Lenola Rd	Wastewater Treatment Plant	Moorestown (T)
Mount Holly Municipal Utility Authority	300 Rancocas Road	Wastewater Treatment Plant	Mount Holly (T)
Mount Laurel Municipal Utilities Authority	Elbo Lane	Wastewater Treatment Plant	Mount Laurel (T)
Sanitary Sewer Treatment	Pike Rd (Along I 295)	Wastewater Treatment Plant	Mount Laurel (T)
Executive Days Inn	121 Walnut St	Wastewater Pump	New Hanover (T)
Hanover Mobile Home Park	202 Jacobstown-New Egypt Rd.	Wastewater Pump	North Hanover (T)
California Village Mobile Home Park	181 Cookstown-New Egypt Rd	Wastewater Treatment Plant	North Hanover (T)
Spartan Village Mobile Home Park	Wrightstown-Sykesville	Wastewater Treatment Plant	North Hanover (T)
Palmyra Sewerage Treatment Plant	Firth Lane	Wastewater Treatment Plant	Palmyra (B)
Helen Fort Middle School	301 Fort Dix Rd	Wastewater Pump	Pemberton (T)

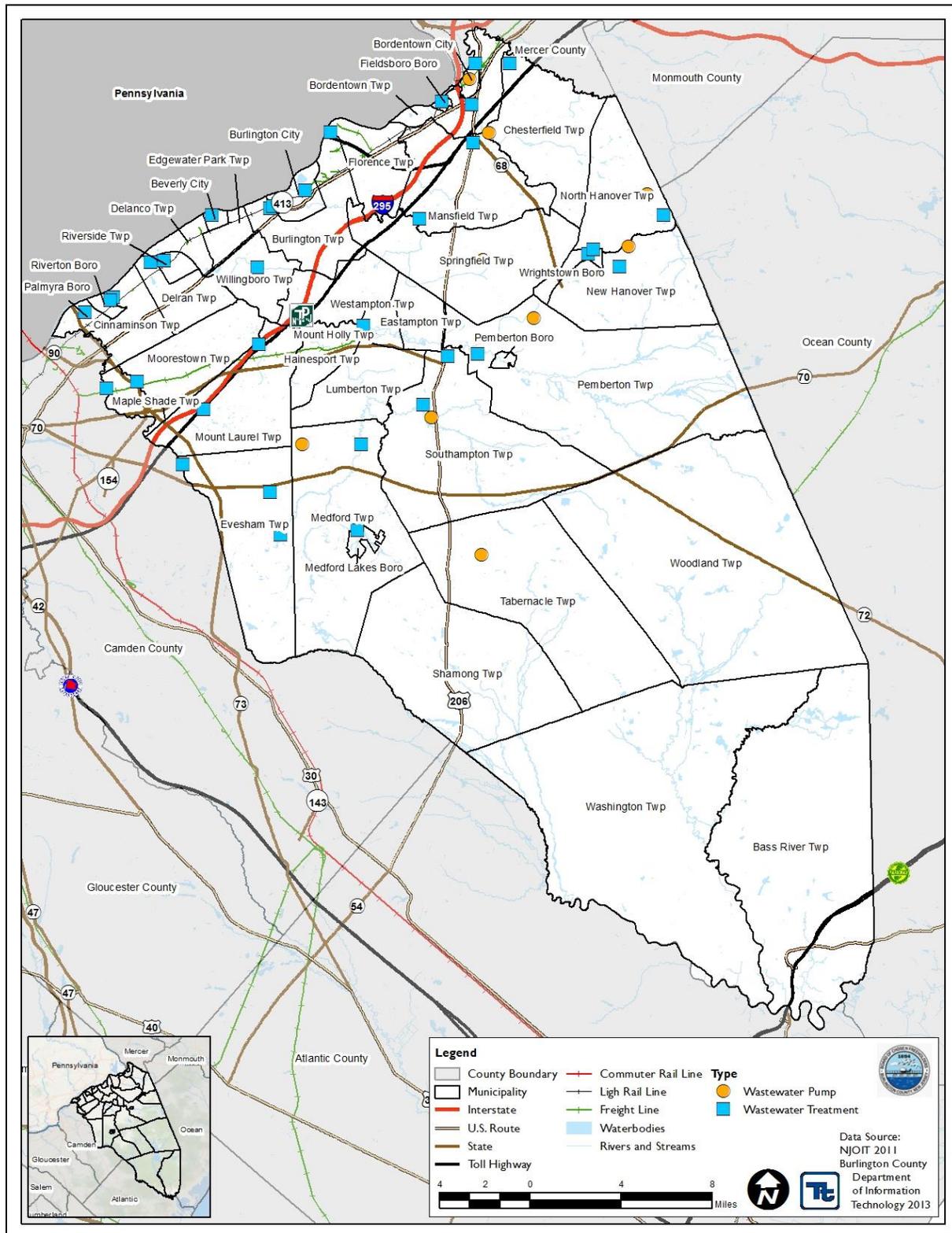


<b>Name</b>	<b>Address</b>	<b>Type</b>	<b>Municipality</b>
Pemberton Township Municipal Utilities Authority	500 Pemberton Browns Mill Rd	Wastewater Treatment Plant	Pemberton (T)
US Army Fort Dix/McGuire Air Force Base	5318 Delaware Ave	Wastewater Treatment Plant	Pemberton (T)
Riverside Sewerage Treatment Plant	301 American Legion Dr.	Wastewater Treatment Plant	Riverside (T)
Riverton Sewerage Treatment Plant	River Bank	Wastewater Treatment Plant	Riverton (B)
Upper Elementary	2101 Route 206	Wastewater Pump	Southampton (T)
Mobile Estates of Southampton	2362 Route 206	Wastewater Treatment Plant	Southampton (T)
Pinelands Sewer Company	117 Newbolds Corner Road	Wastewater Treatment Plant	Southampton (T)
Springfield School Sewerage Treatment Plant	2146 Jacks Jobstown Rd	Wastewater Pump	Springfield (T)
Lenape High School	115 Church Rd	Wastewater Pump	Tabernacle (T)
Tabernacle Middle School	132 New Street	Wastewater Pump	Tabernacle (T)
Willingsboro Municipal Sewerage Treatment Plant	58 Meribrook Circle	Wastewater Treatment Plant	Willingsboro (T)
Wrightstown Municipal Utilities Authority	70A Martha Ave	Wastewater Treatment Plant	Wrightstown (B)

*Source: Burlington County Department of Information Technology*



Figure 4-27. Wastewater Service Areas, Infrastructure and Facilities in Burlington County



Source: Burlington County Department of Information Technology





### 4.6.4 High-Potential Loss Facilities

High-potential loss facilities include dams, levees, hazardous materials facilities (HAZMAT), nuclear power plants and military installations. No nuclear power plants or military installations were identified in the County. Dams, levees and HAZMAT facilities are discussed below.

#### Dams and Levees

According to the New Jersey Department of Environmental Protection (NJDEP), there are four hazard classifications of dams in New Jersey. The classifications relate to the potential for property damage and/or loss of life should the dam fail:

- Class I (High-Hazard Potential) - Failure of the dam may result in probable loss of life and/or extensive property damage
- Class II (Significant-Hazard Potential) - Failure of the dam may result in significant property damage; however, loss of life is not envisioned.
- Class III (Low-Hazard Potential) - Failure of the dam is not expected to result in loss of life and/or significant property damage.
- Class IV (Small-Dam Low-Hazard Potential) - Failure of the dam is not expected to result in loss of life or significant property damage. Dam must also meet the requirements of a Class IV dam above.

According to the NJDEP Bureau of Dam Safety, the following dams and their classifications are located in Burlington County (Table 4-25). Nine dams have an undefined hazard classification. Figure 4-24 illustrates the locations of these dams.

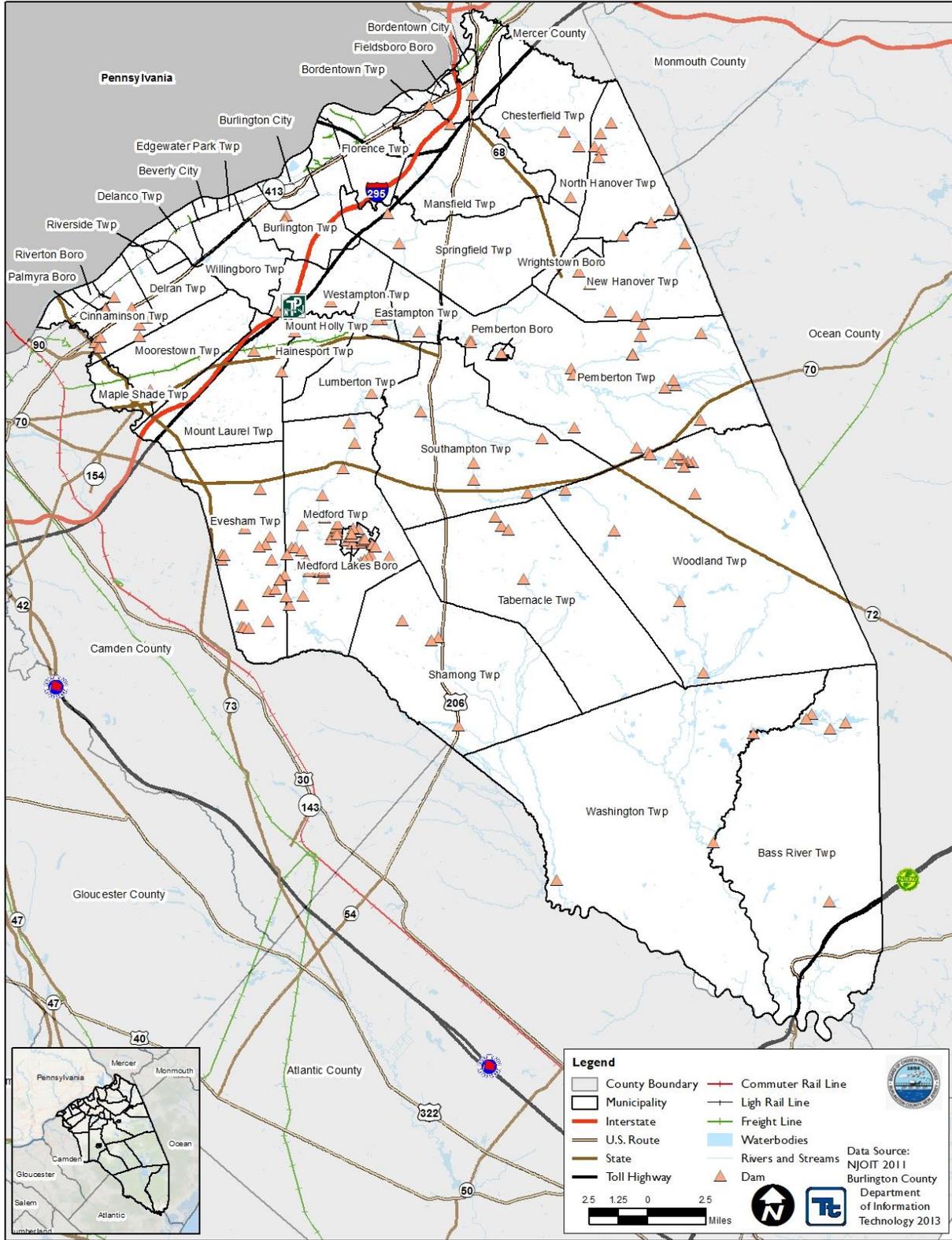
**Table 4-13. Dams in Burlington County**

County	Total Count	Class I	Class II	Class III	Class IV
Burlington	139	12	37	53	28

Source: Burlington County Department of Information Technologies



Figure 4-28. Dams in Burlington County





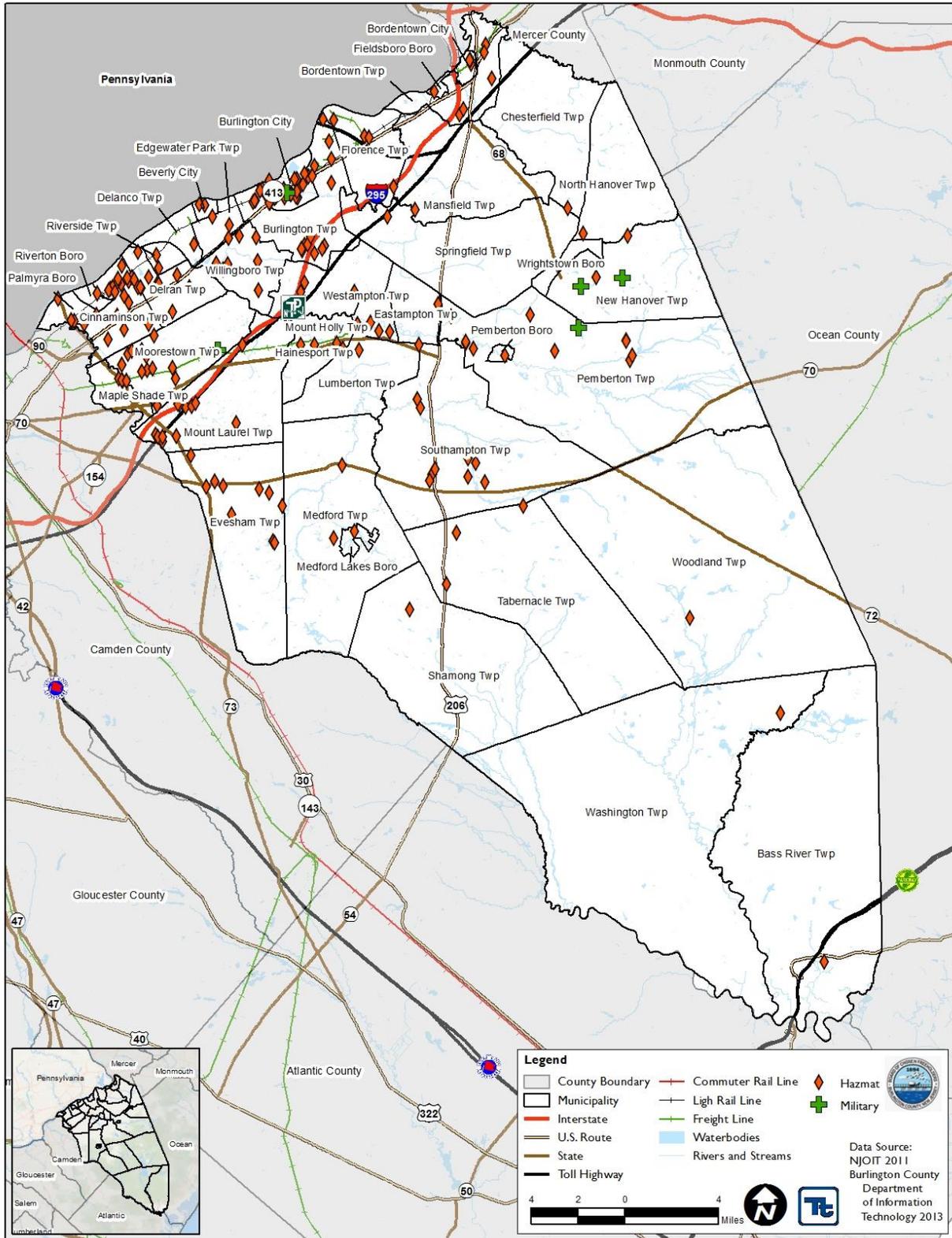
### **HAZMAT Facilities**

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The U.S. Environmental Protection Agency's (EPA) 2016 Toxics Release Inventory (TRI) database indicates there are 20 TRI facilities in Burlington County. TRI facilities are those required to report on chemical storage and use based on particular volumes of specified chemicals stored and used (USEPA, 2017). NJDEP Bureau of Release Prevention identifies facilities in the County where an extraordinarily hazardous substance may be present or generated above regulatory levels that are subject to the Toxic Catastrophe Prevention Act, (N.J.S.A. 13:1K-19 et seq.) and the regulations arising from the Act as codified in N.J.A.C. 7:31 (NJDEP, 2018).



Figure 4-29. High-Potential Loss Facilities in Burlington County





### 4.6.5 Other Facilities

The Planning Committee identified additional facilities (user-defined facilities) as critical including municipal buildings and dialysis centers. These facilities were included in the risk assessment conducted for the County. Figure 4-30 illustrates the locations of these facilities. These facilities have been incorporated into the Burlington County inventory and the hazard analyses performed for this plan.

Figure 4-30. User Defined Facilities in Burlington County

