# International Tie Disposal, LLC - Project Tie Draft Environmental Justice Report 

North Carolina Department of Environmental Quality
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## Contents

1 Introduction ..... 4
2 Environmental Justice Evaluation ..... 4
3 Proposed Project ..... 5
4 Geographic Area ..... 7
5 Regional and Local Settings ..... 8
5.1 Race and Ethnicity ..... 9
Regional Setting ..... 9
Local Setting ..... 10
5.2 Age and Sex. ..... 11
Regional Setting ..... 11
Local Setting ..... 12
Project Radius ..... 12
5.3 Disability ..... 13
Regional Setting ..... 13
Local Setting ..... 15
5.4 Poverty ..... 18
Regional Setting ..... 18
Local Setting ..... 20
5.5 Household Income ..... 23
Regional Setting ..... 23
Local Setting ..... 23
Per Capita Income ..... 25
6 Limited English Proficiency (LEP) ..... 25
7 County Health ..... 26
Figure 1. International Tie Disposal, LLC location with the one-mile radius ..... 7
Figure 2. Census tract encompassing the facility location and one-mile radius. ..... 8
Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute. ..... 27
Figure 4. Sensitive receptors surrounding the proposed International Tie, LLC- Project Tie facility. ..... 29
Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the International Tie, LLC - Project Tie proposed facility. ..... 30
Table 1. Facility Emissions Overview ..... 6
Table 2. Regional Setting - Race and Ethnicity ..... 9
Table 3. Local Setting- Race and Ethnicity ..... 10
Table 4. Local Setting (Towns) - Race and Ethnicity ..... 11
Table 5. Regional Setting- Age Groups and Sex ..... 11
Table 6. Local Setting- Age Groups and Sex ..... 12
Table 7. Project Radius- Age Groups and Sex ..... 12
Table 8. Local Setting (Towns)- Age Groups and Sex ..... 13
Table 9. Regional Setting- Disability ..... 14
Table 10. Local Setting- Disability ..... 16
Table 11. Local Setting (Towns) - Disability ..... 17
Table 12. Regional Setting- Poverty ..... 19
Table 13. Local Setting- Poverty ..... 21
Table 14. Local Setting (Towns) - Poverty ..... 22
Table 15. Regional Setting- Household Income ..... 23
Table 16. Local Setting- Household Income ..... 24
Table 17. Local Setting (towns)- Household Income ..... 25
Table 18. Limited English Proficiency ..... 26
Table 19. Health Outcomes ..... 27

## 1 Introduction

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (US EPA). This evaluation examines the demographic and environmental conditions in Richmond County, in census tracts 9710 and 9711, the one-mile radius around the property boundary of the proposed International Tie, LLC Project Tie facility, and the two nearest towns, Dobbins Heights and Hamlet. Finally, the demographics of the entire state of North Carolina are also considered as they compare to both the county and the local census tract and radius settings.

The primary goal of this Draft EJ Report is to encourage comments and suggestions from the surrounding community, industry, and environmental groups throughout the comment period. Public comments will be considered throughout the remainder of the comment period to inform the Final EJ Report.

## 2 Environmental Justice Evaluation

The Department of Environmental Quality (DEQ or Department) has assessed the permit application and the demographics of the communities in the area surrounding the proposed project. Accordingly, this Draft EJ Report includes:

- Permit application submitted by International Tie Disposal, LLC - Project Tie
- Facility emissions overview
- Study of area demographics [determined by utilizing the US EPA Environmental Justice tool (EJSCREEN) https://ejscreen.epa.gov/mapper/ and current, available census data. https://data.census.gov/cedsci/]
- Comparison of local area demographics to the county and statewide census data
- County health assessment
- Sensitive receptors surrounding the area
- Local industrial sites (using the NCDEQ Community Mapping System https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=1eb0fbe2bcfb4cccb3 cc212af8a0b8c8).

Demographics for Richmond County and the state, are compared to the local (census tracts and project radius) level data to identify any disparities surrounding the project area using standard environmental justice guidelines from the EPA and National Environmental Policy Act (NEPA) documentation. Certain areas will be flagged as potentially underserved communities using criteria set out in more detail in Section 5: Regional and Local Settings.

## 3 Proposed Project

International Tie Disposal, LLC - Project Tie submitted a permit application for a new facility located at 174 Marks Creek Church Road, Hamlet, Richmond County, North Carolina. The proposed facility will manufacture biochar using a controlled heating process known as pyrolysis. The pyrolysis process volatilizes raw material components while producing the carbonaceous biochar. The proposed facility will have 426 kilns and 62 natural gas-fired afterburners on site. The proposed facility may operate 24 hours per day, 7 days per week, 365 days per year. To maintain emissions below the Clean Air Act Title V Air Quality permitting thresholds, the facility has requested annual limits on their operations.

The proposed facility will receive logs (untreated lumber) and creosote-treated railroad ties by railcar in the tie unloading and sorting area. Received materials will be offloaded and stacked in the raw material storage area. Raw material staging and handling will be performed using a tracked excavator with a handling arm. All raw material from the storage area will be loaded onto a conveyor and fed into a Chomper (Crusher) where it is reduced in size to 3 - to 4 inches by 12 - to 18 -inches and then loaded by conveyor into individual kilns in the raw material staging area. The Crusher is located inside an intermodal shipping container that is open on two ends to accommodate the conveyors. Empty kilns will be transported to the kiln loading area for loading with crushed logs (untreated lumber) or crushed ties. The capacity of each kiln will be approximately 2,000 pounds of woody raw material.

A kiln loaded with raw material will then be transported to the processing area using a wheelloader. Each loaded kiln is then fitted with a removable, refractory-lined exhaust stack/afterburner ( $0.125 \mathrm{mmBtu} / \mathrm{hr}$ natural gas-fired). This exhaust stack allows the mounted afterburners to create a tight seal with the kiln. The afterburner is then started and brought up to operating temperature. Pyrolysis within the kiln is initiated by the natural gas-fired kiln burner that is a component of the kiln itself. The kiln burner is direct-fired (natural gas) and has a maximum heat input capacity of $0.0078 \mathrm{mmBtu} / \mathrm{hr}$. Once pyrolysis is initiated, the kiln burner is turned off as the pyrolysis process is self-sustaining and does not require additional natural gas combustion. The kiln's integral seal-cover lid is then opened and the afterburner is used to control kiln emissions. The facility plans to cycle up to 62 kilns into the pyrolysis period which is estimated to last between 7 and 8 hours. The facility plans for 3 pyrolysis periods per day

At the end of the pyrolysis operation, the kiln's integral seal-cover lid is closed. Note that this integral seal-cover lid must be closed before the exhaust stack/afterburner is removed to keep the biochar from combusting and resulting in ash rather than biochar, as desired. The exhaust stack/afterburner then is removed and placed on an adjacent kiln, already loaded with raw material, in preparation for the biochar process. Exhaust stacks/afterburners are handled by a mid-sized loader. The kiln that has completed pyrolysis is then moved to the cooling area for a period for approximately 10 to 18 hours. There are no emissions from the kilns during the cooldown period.

After the cool-down period, the kiln containing biochar is transported to the biochar sorting processing line by a mid-sized wheel loader. Up to 500 pounds of biochar will be produced by a single kiln pyrolysis process. The biochar is then loaded into a hopper equipped with a hood
and a dust collection capture vent to capture fugitive dust. This biochar sorting processing line is located inside multiple intermodal shipping containers that are sealed with foam gaskets. Each container is equipped with dust collection vents that vent to one of two external bagfilters. The line contains a series of conveyors and the following equipment:

- A magnet (to remove bolts and spikes left in the ties after processing)
- A crusher to reduce the size of the biochar to no greater than 3 inches
- A detwigger which removes any large unconverted wood
- A hammermill to reduce the size of the biochar to no greater than 1 inch
- A drum magnet followed by a 3 deck open screener to separate the biochar into 4 sizes.
- A destoner to separate the good biochar from the smaller unconverted wood
- A rollermill to further reduce the size of the biochar

The biochar then moves into a bucket elevator up to a screener, into small hoppers in the top of the bagging container, bagged in super sacks which are moved by Bobcat loader to the biochar storage area for loading onto railcars. Packaged product will then be loaded directly onto pallets for shipment off-site by rail.

Table 1. Facility Emissions Overview

| Pollutant | Expected Actual <br> Emissions <br> (tons/yr) | Potential Emissions <br> Before Controls <br> (tons/yr) | Potential Emissions <br> After Controls <br> (tons/yr) |
| :---: | :---: | :---: | :---: |
| PM | 7.30 | 53.95 | 7.30 |
| $\mathrm{PM}_{10}$ | 4.80 | 35.40 | 4.80 |
| $\mathrm{PM}_{2.5}$ | 3.52 | 25.63 | 3.52 |
| $\mathrm{SO}_{2}$ | 0.03 | 0.15 | 0.03 |
| NOx | 97.84 | 699.71 | 97.84 |
| CO | 19.57 | 139.94 | 19.57 |
| VOC | 13.12 | 321.86 | 13.12 |
| Highest Individual <br> HAP (Methanol) | $2,050 \mathrm{lbs} / \mathrm{yr}$ | $5,470 \mathrm{lbs} / \mathrm{yr}$ | $2,050 \mathrm{lbs} / \mathrm{yr}$ |
| Total HAP | $2,180 \mathrm{lbs} / \mathrm{yr}$ | $6,360 \mathrm{lbs} / \mathrm{yr}$ | $2,180 \mathrm{lbs} / \mathrm{yr}$ |

All toxic pollutant emissions are calculated below the toxic air pollutant permitting emission rates (TPERs). Additional information on emissions calculations can be found in the draft permit review ${ }^{1}$. Toxic air pollutants are designated through state regulation while Hazardous Air Pollutants are designated by the U.S. EPA.

[^0]
## 4 Geographic Area

As proposed, International Tie Disposal, LLC- Project Tie would be located at 174 Marks Creek Church Road, Hamlet, NC 28345 (Figure 1). The highest off-site ambient air impacts will occur at the plant fence line. A one-mile radius was used to evaluate the local demographics and socioeconomics to appropriately include the surrounding community and help inform public outreach efforts. The one-mile buffer around the proposed facility is located wholly within Richmond County and does not encompass two nearby towns; Dobbins Heights and Hamlet. However, DEQ recognized that it would be instructive to evaluate these two towns in order to provide the best possible outreach and engagement to the communities near this proposed project, and have thus been included in this report.


Figure 1. International Tie Disposal, LLC location with the one-mile radius.
Richmond County is designated as a Tier 1 county by the NC Department of Commerce 2021 rankings. According to the Department of Commerce, Tier 1 counties encompass the 40 most distressed counties based on average unemployment rate, median household income, percentage growth in population, and adjusted property tax per capita. Tier 2 counties encompass the next 40 counties based on this ranking system². International Tie Disposal, LLC

[^1]- Project Tie and the one-mile radius is located within census tracts 9710 and 9711 in Richmond County (Figure 2). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau). The census tracts do not encompass land within a state-designated tribal statistical area. However, neighboring Scotland County is identified by the North Carolina Commission of Indian Affairs as a county in which the staterecognized Lumbee Tribe resides.


Figure 2. Census tract encompassing the facility location and one-mile radius.

## 5 Regional and Local Settings

The following sections on race and ethnicity, age and sex, disability, poverty, household income, and Limited English Proficiency (LEP) populations are based on U.S. Census Bureau data, first at a state and county level (regional setting), and then at a census tract- and project- radius level (local setting). The surrounding census tracts included are those that overlap into the one-mile radius. Demographics of the county will be compared to the local level data to identify any disparities surrounding the project area. Using standard environmental justice guidelines from the EPA and NEPA documentation, the following conditions will be flagged as potential communities of concern:

1. $10 \%$ or more in comparison to the county or state average
2. $50 \%$ or more minority
3. $5 \%$ or more in comparison to the county or state average for poverty

For example, if a census tract has $35 \%$ of the population classified as low income but the county consists of $30 \%$ low income, the census tract would exceed the county average by $16.7 \%$ and thus be flagged as a potential area of concern. For this report, census data from 2010 and census data estimates from 2011-2015 and 2018 were used. 2010 Census Bureau data is real data gathered every ten years, whereas the estimates from the more recent years are modeled based on the real data. For the data gathered from the 2018 and 2011-2015 estimates, the margin of error (MOE) has been included. This value is a measure of the possible variation of the estimate around the population value (U.S. Census Bureau). The Census Bureau standard for the MOE is at the $90 \%$ confidence level and may be any number between 0 and the MOE value in either direction (indicated by $+/-$ ).

### 5.1 Race and Ethnicity

## Regional Setting

According to the 2010 US Census Data Table 9: Hispanic or Latino, and Not Hispanic or Latino by Race, North Carolina's population totaled $9,535,483$ individuals (Table 2). The three most common racial groups across the state were White (65.3\%), Black or African-American (21.2\%), and Hispanic or Latino (of any race) at $8.4 \%$.

Richmond County had a total population of 46,639 individuals (Table 2). The three most common racial or ethnic groups in Richmond County were White (58.7\%), Black or African American (30.4\%), and Hispanic or Latino (5.8\%). Black or African American was greater than $10 \%$ different when compared to the state.

Table 2. Regional Setting - Race and Ethnicity

|  | North Carolina |  | Richmond County |  |
| :---: | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent |
| Total Population | $9,535,483$ | 100 | 46,639 | 100 |
| White | $6,223,995$ | 65.3 | 27,369 | 58.7 |
| Black or African American | $2,019,854$ | 21.2 | 14,159 | 30.4 |
| American Indian or Alaska Native | 108,829 | 1.1 | 1,069 | 0.4 |
| Asian | 206,579 | 2.2 | 419 | 1.6 |
| Native Hawaiian and Other Pacific Islander | 5,259 | 0.1 | 15 | 0.0 |
| Some other Race | 15,088 | 0.2 | 63 | 0.1 |
| Two or More Races | 155,759 | 1.6 | 804 | 1.7 |
|  |  |  |  |  |
| HISPANIC OR LATINO (of any race) |  |  |  |  |
| Source: US Census Bureau, 2010 Census <br> All bolded and orange highlighted cells indicate a difference that is greater than <br> compared to the State. | 800,120 | 8.4 | 2,741 | 5.88 |

## Local Setting

According to the 2010 US Census Data Table 9: Hispanic or Latino, and Not Hispanic or Latino by race or ethnicity, the largest population within Census Tract 9710 was Black or African American at $54.1 \%$, followed by White at $41.3 \%$. The largest population within Census Tract 9711 was White at $51.0 \%$, followed by Black or African American at $37.6 \%$. Within the one-mile radius, White (72\%) was the largest population, followed by Black or African American (20\%). For both census tracts, Black or African American was greater than 10\% different when compared to the county and state (Table 3). American Indian or Alaska Native was greater than $10 \%$ different in the one-mile radius when compared to the county and state. In Census Tract 9711, American Indian or Alaska Native and Two or More Races were greater than $10 \%$ when compared to both county and state.

Table 3. Local Setting- Race and Ethnicity

| Subject | Project Area - 1 Mile |  | Census Tract 9710 |  | Census Tract 9711 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 259 | 100 | 4,046 | 100 | 4,390 | 100 |
| White | 252 | 72 | 1,670 | 41.3 | 2,237 | 51.0 |
| Black or African American | 187 | 20 | 2,187 | 54.1 | 1,649 | 37.6 |
| American Indian or Alaska Native | 5 | $\mathbf{2}$ | 46 | 1.1 | 263 | 6.0 |
| Asian | 5 | 2 | 36 | 0.9 | 11 | 0.3 |
| Native Hawaiian and Other <br> Pacific Islander | 0 | 0 | 7 | 0.2 | 1 | 0.0 |
| Some other Race | 1 | 1 | 7 | 0.2 | 10 | 0.2 |
| Two or More Races | 7 | 3 | 93 | 2.3 | 149 | 3.4 |
|  |  |  |  |  |  |  |
| HISPANIC OR LATINO (of any <br> race) | 10 | 4 | 128 | 3.2 | 70 | 1.6 |
| Source: US Census Bureau 2010 Cons |  |  |  |  |  |  |

Source: US Census Bureau, 2010 Census
All bolded and blue cells indicate a difference that is greater than $10 \%$ when compared to the county and the State
For the two evaluated towns (Table 4), both Dobbins Heights and Hamlet had a greater than $10 \%$ difference compared to both the county and the state for Black or African American ( $84.2 \%$ and $36.2 \%$, respectively).

Table 4. Local Setting (Towns) - Race and Ethnicity

| Subject | Dobbins Heights town |  | Hamlet City |  |
| :--- | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent |
| Total Population | 866 | 100 | 6,495 | 100 |
| White | 91 | 10.5 | 3,492 | 53.8 |
| Black or African American | 729 | 84.2 | 2,351 | 36.2 |
| American Indian or Alaska Native | 10 | 1.2 | 90 | 1.4 |
| Asian | 3 | 0.3 | 48 | 0.7 |
| Native Hawaiian and Other Pacific <br> Islander | 6 | 0.7 | 0 | 0.0 |
| Some other Race | 0 | 0.0 | 8 | 0.1 |
| Two or More Races | 13 | 1.5 | 106 | 1.6 |
|  | 14 | 1.6 | 400 | 6.2 |
| HISPANIC OR LATINO (of any <br> race) |  |  |  |  |
| Souce: US Cesu Bur | 14 |  |  |  |

Source: US Census Bureau, 2010 Census
All bolded and blue cells indicate a difference that is greater than $10 \%$ when compared to the county and the State

### 5.2 Age and Sex

Regional Setting
According to the 2010 US Census Data Table P 12: Sex by Age, and Table P13: Median Age, North Carolina had a total population of $9,535,483$ individuals (Table 5). The largest percentage of the total state population (63.1\%) was between the ages of 18 and 64, followed by under 18 years ( $23.9 \%$ ), and 65 years and older (12.9\%).

Richmond County had a total population of 46,639 individuals. The largest percentage of the total county population (61.3\%) was between the ages of 18 and 64 , followed by under 18 years (25.5\%).

Table 5. Regional Setting- Age Groups and Sex

| Age | North Carolina |  |  |  |  |  | Richmond County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  | Percent |  |  | Number |  |  | Percent |  |  |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both Sexes | Male | Female | Both Sexes | Male | Female |
| Total Population | 9,535,483 | 4,645,492 | 4,889,991 | 100\% | 100\% | 100\% | 46,639 | 22,957 | 23,682 | 100 | 100 | 100 |
| Under 5 years | 632,040 | 322,871 | 309,169 | 6.6 | 7 | 6.3 | 3,096 | 1,599 | 1,497 | 6.6 | 7.0 | 6.3 |
| Under 18 years | 2,281,635 | 1,167,303 | 1,114,332 | 23.9 | 25.1 | 22.8 | 11,380 | 5,848 | 5,532 | 24.4 | 25.5 | 23.4 |
| 18 to 64 years | 6,019,769 | 2,954,233 | 3,065,536 | 63.1 | 63.6 | 62.7 | 25,568 | 14,294 | 14,274 | 61.3 | 62.3 | 60.3 |
| 65 years and over | 1,234,079 | 523,956 | 710,123 | 12.9 | 11.3 | 14.5 | 6,691 | 2,815 | 3,876 | 14.3 | 12.3 | 16.4 |
| Median Age | 37 | 36 | 38.7 |  |  |  | 38.7 | 37 | 40.3 |  |  |  |
| Source: US Census Bureau, 2010 Census All bolded and orange cells indicate a difference that is greater than $10 \%$ when compared to the |  |  |  |  |  |  |  |  |  |  |  |  |

## Local Setting

According to the 2010 US Census Data Table P 12: Sex by Age, and Table P13: Median Age, Census Tract 9710 had a slightly younger median population than Census Tract 9711 (Table 6). However, both census tracts had similar median ages compared to the state and county.

Table 6. Local Setting- Age Groups and Sex

| Age | Census Tract 9710 |  |  |  |  |  | Census Tract 9711 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  | Percent |  |  | Number |  |  | Percent |  |  |
|  | $\begin{aligned} & \text { Both } \\ & \text { sexes } \end{aligned}$ | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female | $\begin{aligned} & \text { Both } \\ & \text { sexes } \end{aligned}$ | Male | Female |
| Total Population | 3,370 | 1,973 | 2,201 | 100 | 100 | 100 | 4,390 | 2,150 | 2,240 | 100 | 100 | 100 |
| Under 5 years | 325 | 159 | 166 | 9.6 | 8.1 | 7.5 | 275 | 133 | 142 | 6.3 | 6.2 | 6.3 |
| Under 18 years | 1,139 | 555 | 584 | 33.8 | 28.1 | 26.5 | 1,099 | 547 | 552 | 25.0 | 25.4 | 24.6 |
| 18 to 64 years | 2,499 | 1,169 | 1,330 | 74.2 | 59.2 | 60.4 | 2,702 | 1,341 | 1,361 | 61.5 | 62.4 | 60.8 |
| 65 years and over | 536 | 249 | 287 | 15.9 | 12.6 | 13.0 | 654 | 263 | 391 | 14.9 | 12.2 | 17.5 |
| Median Age | 37.6 | 37.9 | 37.3 |  |  |  | 38.9 | 38.6 | 39.3 |  |  |  |

Source: US Census Bureau, 2010 Census
All bolded and orange cells indicate a difference that is greater than $10 \%$ when compared to the State

## Project Radius

EJSCREEN identified a population of 259 individuals within the 1-mile radius surrounding the proposed facility. The largest population was 18+ years (75\%), followed by under 18 years at 25\% (Table 7).

Table 7. Project Radius- Age Groups and Sex

| Age | Project Area - 1 Miles |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  | Percent |  |  |
|  | Both <br> sexes | Male | Female | Both <br> sexes | Male | Female |
| Total Population | 259 | 129 | 130 | 100 | 50 | 50 |
| Under 5 years | 15 |  |  | 6 |  |  |
| Under 18 years | 65 |  |  | 25 |  |  |
| 18+ | 194 |  |  | 75 |  |  |
| 65 years and over | 31 |  |  | 12 |  |  |
| Source: US Census Bureau, 2010 Census. Obtained through EJSCREEN 2019 |  |  |  |  |  |  |

Table 8. Local Setting (Towns)- Age Groups and Sex

|  | Dobbins Heights |  |  |  |  |  | Hamlet |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number |  |  | Percent |  |  | Number |  |  | Percent |  |  |
|  | Both Sexes | Male | Female | Both Sexes | Male | Female | Both <br> Sexes | Male | Female | Both Sexes | Male | Female |
| Total Population | 866 | 423 | 443 | 100 | 100 | 100 | 6,495 | 2,997 | 3,498 | 100 | 100 | 100 |
| Under 5 years | 58 | 33 | 25 | 6.7 | 7.8 | 5.6 | 519 | 259 | 260 | 8.0 | 8.6 | 7.4 |
| Under 18 years | 204 | 113 | 91 | 23.6 | 26.7 | 20.5 | 1,746 | 885 | 861 | 26.9 | 29.5 | 24.6 |
| 18 to 64 years | 518 | 249 | 269 | 59.8 | 58.9 | 60.7 | 3,726 | 1,717 | 2,009 | 57.4 | 57.3 | 57.4 |
| 65 years and over | 144 | 61 | 83 | 16.6 | 14.4 | 18.7 | 1,023 | 395 | 628 | 15.8 | 13.2 | 18.0 |
| Median Age | 41.4 | 38.3 | 42.9 |  |  |  | 37 | 35.4 | 38.2 |  |  |  |

### 5.3 Disability

## Regional Setting

According to the 2018 American Community Survey 5-Year Estimates, Table S1810 Disability Characteristics from the US Census Bureau, the state of North Carolina had an estimated total population of $9,952,031$ noninstitutionalized citizens. Of those individuals, an estimated $13.6 \%$ (MOE $+/-0.1 \%$ ) had a disability. The largest population of disabled civilians were 75 years and over ( $50.1 \%$, MOE $+/-0.4 \%$ ). The second largest population was the 65 years to 74 years at $26.6 \%$ (MOE +/- 0.3\%). By race, American Indian and Alaskan Native had the highest estimated disability rate of $18.5 \%$ (MOE $+/-0.8 \%$ ). Black or African-American, White, and Two or More Races had the next three highest population estimates with disabilities in North Carolina, at $14.8 \%$ (MOE +/-0.2\%), $14.6 \%$ (MOE +/- 0.1\%), and 11.4\% (MOE +/- 0.5\%), respectively (Table 9).

Richmond County had an estimated total population of 43,806 noninstitutionalized citizens. Of those, an estimated $18.3 \%$ (MOE +/- $1.5 \%$ ) had a disability. The largest population of disabled civilians was the population 75 years and over ( $53.9 \%$, MOE $+/-0.4 \%$ ), followed by Native Hawaiian and Other Pacific Islander ( $36.7 \%$, MOE $+/-2.7 \%$ ). The majority of the adult disabled population in Richmond County have estimates greater than $10 \%$ different when compared to the state.

Table 9. Regional Setting- Disability

| Subject | North Carolina |  |  |  |  |  | Richmond County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | With a Disability |  | Percent with a Disability |  | Total |  | With a Disability |  | Percent with a Disability |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total civilian noninstitutionalized population | 9,952,031 | 1,743 | 1,350,533 | 7,387 | 13.6 | 0.1 | 43,806 | 429 | 1,027 | 203 | 18.3 | 1.5 |
| Population under 5 years | 603,155 | 767 | 4,761 | 613 | 0.8 | 0.1 | 2,779 | 174 | 174 | 9.8 | 0.0 | 0.1 |
| Population 5 to 17 years | 1,685,827 | 941 | 94,822 | 2,522 | 5.6 | 0.2 | 7,653 | 229 | 229 | 2.4 | 4.7 | 0.2 |
| Population 18 to 34 years | 2,216,915 | 1,791 | 146,329 | 3,165 | 6.6 | 0.1 | 8,695 | 190 | 190 | 14.3 | 8.3 | 0.1 |
| Population 35 to 64 years | 3,915,727 | 1,742 | 556,505 | 5,319 | 14.2 | 0.1 | 17,166 | 212 | 212 | 7.4 | 21.5 | 0.1 |
| Population 65 to 74 years | 932,178 | 1,157 | 248,418 | 2,902 | 26.6 | 0.3 | 4,562 | 115 | 115 | 12.8 | 36.5 | 0.3 |
| Population 75 years and over | 598,229 | 982 | 299,698 | 2,471 | 50.1 | 0.4 | 2,951 | 93 | 93 |  | 53.9 | 0.4 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 4,786,233 | 2,284 | 647,158 | 4,946 | 13.5 | 0.1 | 20,894 | 314 | 522 | 178 | 19.4 | 2 |
| Female | 5,165,798 | 1,829 | 703,375 | 5,616 | 13.6 | 0.1 | 22,912 | 223 | 505 | 136 | 17.3 | 1.8 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 6,316,065 | 2,254 | 920,269 | 6,535 | 14.6 | 0.1 | 25,361 | 371 | 637 | 158 | 19.7 | 0.1 |
| Black or African American | 2,123,353 | 5,762 | 314,216 | 3,706 | 14.8 | 0.2 | 13,704 | 232 | 373 | 129 | 19.7 | 0.2 |
| American Indian and Alaska Native | 118,231 | 1,604 | 21,874 | 929 | 18.5 | 0.8 | 1,043 | 12 | 17 | 20 | 8.3 | 0.8 |
| Asian | 279,615 | 2,022 | 13,450 | 961 | 4.8 | 0.3 | 380 | 12 | 0 | 12 | 6.1 | 0.3 |
| Native Hawaiian and Other Pacific Islander | 6,447 | 668 | 635 | 178 | 9.8 | 2.7 | 60 | 12 | 0 | 12 | 36.7 | 2.7 |
| Some other Race | 303,837 | 7,743 | 16,218 | 1,100 | 5.3 | 0.4 | 270 | 81 | 0 | 12 | 0.0 | 0.4 |
| Two or more races | 255,739 | 6,070 | 29,063 | 1,446 | 11.4 | 0.5 | 744 | 371 | 0 | 158 | 18.0 | 0.5 |
| Hispanic or Latino | 916,366 | 863 | 57,239 | 1,970 | 6.2 | 0.2 | 2,713 | 48 | 637 | 12 | 4.1 | 0.2 |
| Source: US Census Bureau, ACS 2018 -year Estimates <br> All bolded and orange highlighted cells indicate a difference that is greater than $10 \%$ when compared to the State |  |  |  |  |  |  |  |  |  |  |  |  |

## Local Setting

According to the 2018 American Community Survey 5-Year Estimates, Table S1810 Disability Characteristics from the US Census Bureau, Census Tract 9710 in Richmond County had an estimated total population of 4,514 noninstitutionalized citizens (Table 10). Of those individuals, an estimated $15.8 \%$ (MOE +/- 4.3\%) had a disability. The subject group with the largest population of disabled civilians was Two or More Races (52.5\%, MOE +/- 28\%). The second largest population was 65 to 74 years at $27.5 \%$ (MOE $+/-14.6 \%$ ). The population groups of total civilian noninstitutionalized population, 35 to 64 years, male, and Black or African American had an estimate that was greater than $10 \%$ different when compared to just the state. The following population groups had estimates that were greater than $10 \%$ when compared to both the state and the county: 5 to 17 years, 18 to 63 years, two or more races, and Hispanic or Latino.

Census Tract 9711 had an estimated total population of 1,027 noninstitutionalized citizens. Of those individuals, an estimated $23.2 \%$ (MOE +/- 4.4\%) had a disability. The subject group with the largest population of disabled civilians was the population 75 years and over ( $55.3 \%$, MOE $+/-22.9 \%$ ). The second largest population was 65 to 74 years at $45.1 \%$ (MOE +/-12.8\%). The total civilian noninstitutionalized population, 18 to 34 years, 35 to 64 years, 65 to 74 years, male, female, White, and Black or African American population groups had an estimate that was greater than $10 \%$ different when compared to the state and the county.

Table 10. Local Setting-Disability

| Subject | Census Tract 9710 |  |  |  |  |  | Census Tract 9711 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | With a Disability |  | Percent with a Disability |  | Total |  | With a Disability |  | Percent with a Disability |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error+/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total civilian noninstitutionalized population | 4,380 | 491 | 664 | 150 | 15.2 | 3.4 | 4,381 | 474 | 1,001 | 173 | 22.8 | 4.5 |
| Population under 5 years | 321 | 126 | 0 | 12 | 0.0 | 10.3 | 413 | 239 | 0 | 12 | 0.0 | 8.1 |
| Population 5 to 17 years | 853 | 252 | 24 | 30 | 2.8 | 3.6 | 817 | 278 | 17 | 18 | 2.1 | 2.2 |
| Population 18 to 34 years | 795 | 193 | 95 | 50 | 11.9 | 6.6 | 663 | 160 | 138 | 101 | 20.8 | 14.2 |
| Population 35 to 64 years | 1,727 | 233 | 337 | 109 | 19.5 | 6.0 | 1,730 | 159 | 509 | 113 | 29.4 | 6.2 |
| Population 65 to 74 years | 377 | 91 | 120 | 49 | 31.8 | 11.0 | 484 | 122 | 194 | 81 | 40.1 | 14.2 |
| Population 75 years and over | 307 | 83 | 88 | 50 | 28.7 | 14.1 | 274 | 97 | 143 | 80 | 52.2 | 19.1 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,941 | 264 | 307 | 79 | 15.8 | 4.5 | 2,300 | 294 | 461 | 117 | 20.0 | 5.4 |
| Female | 2,439 | 369 | 357 | 111 | 14.6 | 4.4 | 2,081 | 266 | 540 | 157 | 25.9 | 7.7 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 2,014 | 321 | 350 | 133 | 17.4 | 6.7 | 2,144 | 310 | 532 | 123 | 24.8 | 5.5 |
| Black or African American | 2,134 | 436 | 281 | 100 | 13.2 | 4.4 | 1,842 | 354 | 450 | 133 | 24.4 | 8.6 |
| American Indian and Alaska Native | 85 | 71 | 13 | 15 | 15.3 | 21.4 | 342 | 254 | 19 | 22 | 5.6 | 8.6 |
| Asian | 0 | 12 | 0 | 12 | - | ** | 0 | 12 | 0 | 12 | - | ** |
| Native Hawaiian and Other Pacific Islander | 0 | 12 | 0 | 12 | . | ** | 0 | 12 | 0 | 12 | - | ** |
| Some other Race | 17 | 12 | 0 | 12 | 0.0 | 74.6 | 0 | 12 | 0 | 12 | - | ** |
| Two or more races | 86 | 68 | 12 | 16 | 14.0 | 17.6 | 53 | 67 | 0 | 12 | 0.0 | 42.3 |
| Hispanic or Latino | 73 | 55 | 8 | 12 | 11.0 | 14.4 | 7 | 11 | 0 | 12 | 0.0 | 100.0 |

## Source: US Census Bureau, ACS 2018 5-year Estimates

All bolded and orange highlighted cells indicate a difference that is greater than $10 \%$ when compared to the State
All bolded and blue highlighted cells indicate a difference that is greater than $10 \%$ when compared to both the County and the State

Table 11. Local Setting (Towns) - Disability

|  | Dobbins Heights |  |  |  |  |  | Hamlet |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | With a Disability |  | Percent with a Disability |  | Total |  | With a Disability |  | Percent with a Disability |  |
| Subject | Estimate | Margin of Error (+/-) | Estimate | Margin of Error (+/-) | Estimate | Margin of Error (+/-) | Estimate | Margin of Error (+/-) | Estimate | Margin of Error (+/-) | Estimate | Margin of Error (+/-) |
| Total civilian noninstitutionalized population | 928 | 265 | 217 | 75 | 23.4\% | 7.2 | 6,253 | 117 | 947 | 263 | 15.1\% | 4.2 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 475 | 168 | 84 | 39 | 17.7\% | 8.3 | 2,882 | 250 | 374 | 144 | 13.0\% | 5.2 |
| Female | 453 | 128 | 133 | 54 | 29.4\% | 9.7 | 3,371 | 235 | 573 | 186 | 17.0\% | 5.1 |


| White alone (not Hispanic or Latino) | 156 | 105 | 35 | 41 | 22.4\% | 19 | 2,964 | 416 | 599 | 209 | 20.2\% | 6.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black or African American alone | 735 | 233 | 179 | 66 | 24.4\% | 8.5 | 3,205 | 403 | 304 | 150 | 11.2\% | 5.7 |
| American Indian and Alaska Native alone | 3 | 5 | 4 | 5 | 100.0\% | 100 | 84 | 71 | 10 | 15 | 11.9\% | 16.8 |
| Asian alone | 0 | 12 | 0 | 12 | - | - | 81 | 115 | 0 | 17 | 0.0\% | 33.5 |
| Native Hawaiian and Other Pacific Islander alone | 0 | 12 | 0 | 12 | - | - | 60 | 97 | 22 | 34 | 36.7\% | 8.7 |
| Some other race alone | 3 | 5 | 0 | 12 | 0.0\% | 100 | 0 | 17 | 0 | 17 | - | - |
| Two or more races | 16 | 18 | 0 | 12 | 0.0\% | 76.9 | 110 | 92 | 12 | 16 | 10.9\% | 16.2 |
| Hispanic or Latino (of any race) | 30 | 30 | 0 | 12 | 0.0\% | 56.2 | 301 | 287 | 22 | 34 | 7.3\% | 13.5 |

AGE

| Under 5 years | 108 | 73 | 0 | 12 | $0.0 \%$ | 27.1 | 517 | 180 | 0 | 17 | $0.0 \%$ | 6.5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 to 17 years | 96 | 69 | 3 | 5 | $3.1 \%$ | 5.4 | 1,255 | 231 | 0 | 17 | $0.0 \%$ | 2.7 |
| 18 to 34 years | 238 | 114 | 44 | 34 | $18.5 \%$ | 12.9 | 1,340 | 273 | 144 | 98 | $10.7 \%$ | 7.5 |
| 35 to 64 years | 325 | 100 | 81 | 38 | $24.9 \%$ | 11.1 | 2,275 | 308 | 537 | 212 | $23.6 \%$ | 8.1 |
| 65 to 74 years | 117 | 48 | 63 | 35 | $53.8 \%$ | 16.8 | 409 | 127 | 82 | 58 | $20.0 \%$ | 13 |
| 75 years and over | 44 | 34 | 26 | 25 | $59.1 \%$ | 34.2 | 457 | 148 | 184 | 91 | $40.3 \%$ | 14.2 |
| Source |  |  |  |  |  |  |  |  |  |  |  |  |

Source: US Census Bureau, ACS 2018 5-year Estimates
All bolded and orange highlighted cells indicate a difference that is greater than $10 \%$ when compared to the State
All bolded and blue highlighted cells indicate a difference that is greater than $10 \%$ when compared to both the County and the State

### 5.4 Poverty

## Regional Setting

According to the Census Table S1701, Poverty Status in the Past 12 Months, 2018 American Community Survey 5-Year Estimates, from the US Census Bureau, North Carolina had an estimated population of $9,881,292$, with $15.4 \%$ (MOE +/- $0.2 \%$ ) below the poverty level (Table 12). Across all subjects, Some Other Race had the highest percent living below the poverty level at $32.0 \%$ (MOE $+/-1.4 \%$ ). The next three subjects with the highest poverty level were Hispanic or Latino at 30.1\% (MOE +/- .8\%), American Indian and Alaska Native at 26.2\% (MOE +/- 1.5\%), and Black or African-American at $24.9 \%$ (MOE +/- $.4 \%$ ). The age group with the highest population below poverty was under 18 ( $22.9 \%$, MOE +/- $0.4 \%$ ), followed by 18 to 64 years (15.3\%, MOE +/- 0.2\%).

Richmond County had an estimated population of 43,638 with $24.1 \%$ ( $\mathrm{MOE}+/-2.4 \%$ ) living below the poverty level. Across all subjects, under 18 had the highest percent living below the poverty level at $37.3 \%$ (MOE $+/-5.6 \%$ ). The next subjects with the highest poverty level were American Indian and Alaska Native at 40.3\% (MOE +/- 21.2\%), and Hispanic or Latino at 38.5\% (MOE +/$2.7 \%$ ). All subject groups had a greater than $5 \%$ difference when compared to the state, with the exception of Native Hawaiian and Other Pacific Islander.

Table 12. Regional Setting- Poverty

| Subject | North Carolina |  |  |  |  |  | Richmond County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Below poverty level |  | Percent below poverty level |  | Total |  | Below poverty level |  | Percent below poverty level |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Population for whom poverty status is determined | 9,881,292 | 1,522 | 1,523,949 | 15,319 | 15.4 | 0.2 | 43,638 | 277 | 10,503 | 1,065 | 24.1 | 2.4 |
| AGE |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 18 | 2,258,876 | 1,607 | 498,013 | 7,632 | 22.0 | 0.3 | 10,239 | 137 | 3,821 | 585 | 37.3 | 5.6 |
| 18 to 64 | 6,092,009 | 1,103 | 884,618 | 9,282 | 14.5 | 0.2 | 25,886 | 214 | 5,613 | 614 | 21.7 | 2.4 |
| 65 years and over | 1,530,407 | 995 | 141,318 | 2,705 | 9.2 | 0.2 | 7,513 | 145 | 1,069 | 224 | 14.2 | 3.0 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 4,779,533 | 2,237 | 669,307 | 8,648 | 14.0 | 0.2 | 20,824 | 261 | 4,784 | 549 | 23.0 | 2.6 |
| Female | 5,101,759 | 2,244 | 854,642 | 8,676 | 16.8 | 0.2 | 22,814 | 229 | 5,719 | 687 | 25.1 | 3.0 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White alone (not Hispanic or Latino) | 6,281,258 | 2,576 | 668,925 | 9,394 | 10.6 | 0.2 | 25,247 | 227 | 4,170 | 655 | 16.5 | 2.6 |
| Black or African American | 2,096,490 | 5,812 | 493,496 | 8,392 | 23.5 | 0.4 | 13,650 | 205 | 4,391 | 591 | 32.2 | 4.3 |
| American Indian and Alaska Native | 117,702 | 1,595 | 29,577 | 1,585 | 25.1 | 1.3 | 1,043 | 212 | 383 | 250 | 36.7 | 19.3 |
| Asian | 275,301 | 1,983 | 32,712 | 2,356 | 11.9 | 0.9 | 380 | 130 | 82 | 121 | 21.6 | 30.3 |
| Native Hawaiian and Other Pacific Islander | 6,414 | 671 | 1,246 | 264 | 19.4 | 4.2 | 60 | 97 | 0 | 26 | 0.0 | 39.7 |
| Some other Race | 302,934 | 7,911 | 89,305 | 5,371 | 29.5 | 1.5 | 270 | 172 | 17 | 23 | 6.3 | 8.7 |
| Two or more races | 252,709 | 6,223 | 54,335 | 2,369 | 21.5 | 0.8 | 744 | 291 | 281 | 177 | 37.8 | 19.1 |
| Hispanic or Latino | 915,426 | 901 | 260,607 | 5,682 | 28.5 | 0.2 | 2,713 | 130 | 1,214 | 395 | 44.7 | 14.2 |
| All individuals below: |  |  |  |  |  |  |  |  |  |  |  |  |
| 50 percent of poverty level | 663,550 | 10,829 |  |  |  |  | 4,582 | 803 |  |  |  |  |
| 125 percent of poverty level | 2,034,827 | 19,447 |  |  |  |  | 13,646 | 982 |  |  |  |  |
| 150 percent of poverty level | 2,526,688 | 21,681 |  |  |  |  | 16,705 | 1,033 |  |  |  |  |
| 185 percent of poverty level | 3,227,889 | 24,339 |  |  |  |  | 19,922 | 1,214 |  |  |  |  |
| 200 percent of poverty level | 3,513,670 | 25,035 |  |  |  |  | 21,407 | 1,200 |  |  |  |  |
| Source: American Community All bolded and orange cells in | rivey 5-year ate a differe | $\begin{aligned} & \text { timates, } 201 \\ & \text { e that is grea } \end{aligned}$ | er than 5\% | en compared | to the Sta |  |  |  |  |  |  |  |

## Local Setting

According to the Census Table S1701, Poverty Status in the Past 12 Months, 2018 American Community Survey 5-Year Estimates, from the US Census Bureau, Census Tract 9710 had an estimated population of 4,488 with $28.2 \%$ (MOE +/-8.2\%) living below the poverty level (Table 13). Across all subjects, Some other Race ( $84.6 \%$, MOE +/- $37.3 \%$ ) had the highest percent living below the poverty level. The next subjects with the highest poverty rates were American Indian and Alaska Native at 49.3\% (MOE +/- 45.3\%), and under 18 at 47.7\% (MOE +/- 16.2\%). Except for Two or More Races and Hispanic or Latino, all subject groups with an estimate above $0 \%$ had a greater than $5 \%$ difference when compared to either the county and the state or just the state.

Census Tract 9711 had an estimated population of 4,398 with 36.2\% (MOE +/- 9.5\%) living below the poverty level (Table 11). Across all subjects, Two or More Races (91.0\%, MOE +/$22.6 \%$ ) had the highest percent living below the poverty level. The next subjects with the highest poverty rates were American Indian and Alaska Native at 66.5\% (MOE +/-35.6\%), and under 18 at $56.5 \%$ (MOE $+/-15.3 \%$ ). All subject groups with an estimate above $0 \%$ (other than Hispanic or Latino) had a greater than $5 \%$ difference when compared to the county and the state.

The Town of Dobbins Heights had an estimated total population of 874 individuals, with $29.6 \%$ (MOE +/-12.4\%) living below the poverty level. Across all subjects, American Indian and Alaska Native had the highest poverty rate (100\%, MOE +/-100\%), followed by Hispanic or Latino of any race (56.5\%, MOE +/- 16.9\%).

The Town of Hamlet had an estimated population of 6,239 individuals, with $28.9 \%$ (MOE +/$7.5 \%$ ) living below the poverty level (Table 14). Across all subjects, Black or African American had the highest poverty rate (52.3\%, MOE +/-14.6\%), followed by under 18 (46.6\%, MOE +/14.5\%).

Table 13. Local Setting- Poverty

| Subject | Census Tract 9710 |  |  |  |  |  | Census Tract 9711 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Below poverty level |  | Percent below poverty level |  | Total |  | Below poverty level |  | Percent below poverty level |  |
|  | Estimate | Margin of Error +/- | Estimate | $\begin{aligned} & \text { Margin of } \\ & \text { 362Error } \\ & \text { +/- } \end{aligned}$ | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Population for whom poverty status is determined | 4,355 | 481 | 1,177 | 362 | 27.0 | 7.1 | 4,354 | 468 | 1,692 | 522 | 38.9 | 9.9 |
| AGE |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 18 | 1,149 | 283 | 507 | 238 | 44.1 | 15.5 | 1,203 | 343 | 724 | 359 | 60.2 | 18.2 |
| 18 to 64 | 2,522 | 293 | 574 | 167 | 22.8 | 6.2 | 2,393 | 215 | 790 | 212 | 33.0 | 8.3 |
| 65 years and over | 684 | 100 | 96 | 55 | 14.0 | 7.5 | 758 | 127 | 178 | 106 | 23.5 | 12.4 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1,941 | 264 | 524 | 172 | 27.0 | 7.0 | 2,290 | 292 | 919 | 302 | 40.1 | 10.9 |
| Female | 2,414 | 364 | 653 | 276 | 27.1 | 10.0 | 2,064 | 262 | 773 | 266 | 37.5 | 11.1 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 1,989 | 301 | 214 | 144 | 10.8 | 6.7 | 2,144 | 310 | 566 | 267 | 26.4 | 10.8 |
| Black or African American | 2,134 | 436 | 856 | 344 | 40.1 | 12.4 | 1,815 | 346 | 828 | 319 | 45.6 | 13.5 |
| American Indian and Alaska Native | 85 | 71 | 42 | 49 | 49.4 | 43.0 | 342 | 254 | 252 | 245 | 73.7 | 31.6 |
| Asian | 0 | 12 | 0 | 12 | - | ** | 0 | 12 | 0 | 12 | - | ** |
| Native Hawaiian and Other Pacific Islander | 0 | 12 | 0 | 12 | - | ** | 0 | 12 | 0 | 12 | - | ** |
| Some other Race | 17 | 12 | 14 | 22 | 82.4 | 44.9 | 0 | 12 | 0 | 12 | - | ** |
| Two or more races | 86 | 68 | 40 | 56 | 46.5 | 43.3 | 53 | 67 | 46 | 68 | 86.8 | 30.0 |
| Hispanic or Latino | 73 | 55 | 32 | 30 | 43.8 | 26.6 | 7 | 11 | 0 | 12 | 0.0 | 100.0 |
| All individuals below: |  |  |  |  |  |  |  |  |  |  |  |  |
| 50 percent of poverty level | 619 | 315 |  |  |  |  | 681 | 259 |  |  |  |  |
| 125 percent of poverty level | 1,513 | 391 |  |  |  |  | 1,819 | 511 |  |  |  |  |
| 150 percent of poverty level | 1,894 | 396 |  |  |  |  | 2,005 | 496 |  |  |  |  |
| 185 percent of poverty level | 2,147 | 443 |  |  |  |  | 2,573 | 512 |  |  |  |  |
| 200 percent of poverty level | 2,184 | 442 |  |  |  |  | 2,646 | 517 |  |  |  |  |

Source: American Community Survey 5-year Estimates, 2018
All bolded and orange cells indicate a difference that is greater than $5 \%$ when compared to the State
All bolded and blue cells indicate a difference that is greater than $5 \%$ when compared to the county and the State

Table 14. Local Setting (Towns) - Poverty

| Subject | Dobbins Heights town |  |  |  |  |  | Hamlet city |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | Below poverty level |  | Percent below poverty level |  | Total |  | Below poverty level |  | Percent below poverty level |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Population for whom poverty status is determined | 874 | 218 | 259 | 133 | 29.6\% | 12.4 | 6,239 | 49 | 1,806 | 466 | 28.9\% | 7.5 |
| AGE |  |  |  |  |  |  |  |  |  |  |  |  |
| Under 18 years | 163 | 101 | 74 | 71 | 45.4\% | 28.6 | 1,620 | 291 | 755 | 268 | 46.6\% | 14.5 |
| 18 to 64 years | 541 | 149 | 156 | 76 | 28.8\% | 12.6 | 3,705 | 280 | 901 | 274 | 24.3\% | 7.0 |
| 65 years and over | 170 | 74 | 29 | 27 | 17.1\% | 14.6 | 914 | 202 | 150 | 92 | 16.4\% | 9.2 |
| SEX |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 448 | 136 | 151 | 102 | 33.7\% | 17.2 | 3,054 | 224 | 940 | 292 | 30.8\% | 8.7 |
| Female | 426 | 114 | 108 | 49 | 25.4\% | 11.5 | 3,185 | 228 | 866 | 280 | 27.2\% | 8.6 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 91 | 70 | 12 | 15 | 13.2\% | 16.9 | 2,861 | 395 | 271 | 145 | 9.5\% | 4.9 |
| Black or African American | 759 | 205 | 233 | 128 | 30.7\% | 13.7 | 2,876 | 420 | 1,503 | 467 | 52.3\% | 14.6 |
| American Indian and Alaska Native | 1 | 4 | 1 | 4 | 100.0\% | 100.0 | 134 | 105 | 7 | 13 | 5.2\% | 11.4 |
| Asian | 0 | 12 | 0 | 12 | - | - | 76 | 112 | 0 | 17 | 0.0\% | 34.9 |
| Native Hawaiian and Other Pacific Islander | 0 | 12 | 0 | 12 | - | - | 24 | 41 | 0 | 17 | 0.0\% | 62.8 |
| Some other race | 2 | 4 | 0 | 12 | 0.0\% | 100.0 | 0 | 17 | 0 | 17 | - | - |
| Two or more races | 9 | 13 | 5 | 9 | 55.6\% | 53.5 | 78 | 62 | 13 | 21 | 16.7\% | 27.3 |
| Hispanic or Latino origin (of any race) | 23 | 25 | 13 | 16 | 56.5\% | 16.9 | 227 | 238 | 25 | 30 | 11.0\% | 19.0 |
| All Individuals Below |  |  |  |  |  |  |  |  |  |  |  |  |
| 50 percent of poverty level | 80 | 48 |  |  |  |  | 766 | 341 |  |  |  |  |
| 125 percent of poverty level | 335 | 144 |  |  |  |  | 2,462 | 535 |  |  |  |  |
| 150 percent of poverty level | 462 | 172 |  |  |  |  | 2,837 | 527 |  |  |  |  |
| 185 percent of poverty level | 645 | 210 |  |  |  |  | 3,361 | 567 |  |  |  |  |
| 200 percent of poverty level | 662 | 213 |  |  |  |  | 3,553 | 562 |  |  |  |  |
| Source: American Community Survey 5-year Estimates, 2018 <br> All bolded and orange cells indicate a difference that is greater than $5 \%$ when compared to the State <br> All bolded and blue cells indicate a difference that is greater than $5 \%$ when compared to the county and the State |  |  |  |  |  |  |  |  |  |  |  |  |

### 5.5 Household Income

## Regional Setting

The following table (Table 15) was compiled using data from the Census Table S1901, Income in the Past 12 Months (in 2018 Inflation-Adjusted Dollars) 2018 American Community Survey 5Year Estimates for North Carolina. The North Carolina household income range with the highest percent was for $\$ 50,000$ to $\$ 74,999$, at $18.1 \%$. The state median household income was $\$ 52,413$ and the mean income was $\$ 73,753$.

The household income range for Richmond County with the highest percent was $\$ 35,000$ to $\$ 49,999$ at $15.9 \%$ (MOE $+/-1.8 \%$ ). The median income was $\$ 36,091$ and the mean income was $\$ 49,511$. All income ranges less than $\$ 35,000$ had percentages that were more than $10 \%$ greater than the state ranges.

Table 15. Regional Setting- Household Income

| Subject | North Carolina Households |  | Richmond County Households |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 3,918,597 | 8,585 | 18,546 | 1,625 |
| Less than \$10,000 | 6.8\% | 0.1\% | 10.9\% | 1.7 |
| \$10,000 to \$14,999 | 5.4\% | 0.1\% | 9.7\% | 1.5 |
| \$15,000 to \$24,999 | 10.7\% | 0.1\% | 15.8\% | 2.1 |
| \$25,000 to \$34,999 | 10.7\% | 0.1\% | 12.2\% | 1.8 |
| \$35,000 to \$49,999 | 14.2\% | 0.1\% | 15.9\% | 1.8 |
| \$50,000 to \$74,999 | 18.1\% | 0.1\% | 15.1\% | 1.8 |
| \$75,000 to \$99,999 | 12.0\% | 0.1\% | 9.6\% | 1.4 |
| \$100,000 to \$149,999 | 12.5\% | 0.1\% | 8.3\% | 1.6 |
| \$150,000 to \$199,999 | 4.7\% | 0.1\% | 1.2\% | 0.5 |
| \$200,000 or more | 4.9\% | 0.1\% | 1.2\% | 0.4 |
| Median income (dollars) | 52,413 | 224 | 36,091 | 2,255 |
| Mean income (dollars) | 73,753 | 332 | 49,511 | 2,374 |
| Per Capita Income (dollars) | 29,456 | 143 | 20,745 | 870 |
| Source: US Census, 2018 ACS 5-Year Estimates. <br> All orange and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the state |  |  |  |  |

## Local Setting

The household income range for Census Tract 9710 with the highest percent was $\$ 50,000$ to $\$ 74,999$ at $19.2 \%$ (MOE +/- $5.6 \%$ ). The median income was $\$ 32,088$ and the mean income was $\$ 47,842$ (Table 16). All income ranges less than $\$ 34,999$ had percentages that were more than $10 \%$ greater than both the state and county.

The household income range for Census Tract 9711 with the highest percent was $\$ 15,000$ to $\$ 24,999$ at $18.6 \%$ (MOE $+/-5.6 \%$ ). The median income was $\$ 26,443$ and the mean income was $\$ 37,842$ (Table 16). All income ranges less than $\$ 49,999$ had percentages that were more than $10 \%$ greater than either the state or county. Additionally, both $\$ 100,000$ to $\$ 149,999$ and $\$ 150,000$ to $\$ 199,999$ income ranges are much higher than compared to the county and state.

The household income range for the one-mile radius with the highest percent was $\$ 75,000$ and higher at $43 \%$. EJSCREEN data provides different income ranges that cannot be compared in the same manner. Dobbins Heights had income ranges with a greater than $10 \%$ difference compared to both the county and state for all range $\$ 25,000$ to $\$ 34,999$ and below. Hamlet had income ranges greater than $10 \%$ different when compared to either the state or county and state for all income brackets $\$ 35,000$ to $\$ 49,999$ and below (Table 17).

Table 16. Local Setting- Household Income

| Subject | Census Tract 9710 |  | Census Tract 9711 |  | One-Mile Radius |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  | Households |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 1,625 | 152 | 1,856 | 129 | 126 |  |
| Less than \$10,000 | 9.9 | 4 | 18.0 | 6.1 | 12\% |  |
| \$10,000 to \$14,999 | 9.7 | 5.1 | 9.5 | 5.1 |  |  |
| \$15,000 to \$24,999 | 18.0 | 5.8 | 18.6 | 5.6 | 18\% |  |
| \$25,000 to \$34,999 | 13.4 | 5 | 12.3 | 4.9 | 10\% |  |
| \$35,000 to \$49,999 | 10.2 | 5 | 17.6 | 5.9 |  |  |
| \$50,000 to \$74,999 | 19.2 | 5.6 | 11.3 | 4.9 | 16\% |  |
| \$75,000 to \$99,999 | 10.2 | 4.7 | 6.9 | 4.6 | 43\% |  |
| \$100,000 to \$149,999 | 19.2 | 4 | 5.0 | 2.7 |  |  |
| \$150,000 to \$199,999 | 10.2 | 1.2 | 0.5 | 0.7 |  |  |
| \$200,000 or more | 7.7 | 0.8 | 0.3 | 0.5 |  |  |
|  |  |  |  |  |  |  |
| Median income (dollars) | 32,088 | 12,354 | 26,443 | 4,181 |  |  |
| Mean income (dollars) | 47,842 | 5,393 | 37,842 | 4,485 |  |  |
| Per Capita Income (dollars) | 17,986 | 2,137 | 16,190 | 2, 253 | 21,420 |  |
| Source: US Census, 2018 ACS 5-Year Estimates. <br> All orange and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the state All blue and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the state and the county <br> All green and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the county |  |  |  |  |  |  |

Table 17. Local Setting (towns)- Household Income

| Subject | Dobbins Heights |  | Hamlet |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  |
|  | Estimate | Margin of Error (+/-) | Estimate | $\begin{aligned} & \text { Margin } \\ & \text { of } \\ & \text { Error (+/- } \end{aligned}$ |
| Total | 396 | 96 | 2,411 | 233 |
| Less than \$10,000 | 19.9\% | 9 | 10.5\% | 5 |
| \$10,000 to \$14,999 | 12.1\% | 6.8 | 9.0\% | 4.5 |
| \$15,000 to \$24,999 | 26.3\% | 9 | 12.6\% | 5.2 |
| \$25,000 to \$34,999 | 15.9\% | 8.1 | 13.8\% | 5.4 |
| \$35,000 to \$49,999 | 4.3\% | 3.7 | 22.6\% | 7.2 |
| \$50,000 to \$74,999 | 15.4\% | 8.8 | 18.2\% | 5.8 |
| \$75,000 to \$99,999 | 3.5\% | 3.6 | 7.1\% | 3.7 |
| \$100,000 to \$149,999 | 2.5\% | 3.3 | 5.0\% | 2.6 |
| \$150,000 to \$199,999 | 0.0\% | 8.5 | 0.0\% | 1.4 |
| \$200,000 or more | 0.0\% | 8.5 | 1.2\% | 1.4 |
| Median income (dollars) | 23,207 | 3,255 | 36,681 | 4,636 |
| Mean income (dollars) | 30,014 | 5,590 | 46,676 | 8,589 |
| Per Capita Income (dollars) | 12,888 | 2,437 | 18,743 | 4,224 |
| Source: US Census, 2018 ACS 5-Year Estimates. <br> All orange and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the state <br> All blue and bolded highlighted cells indicate a difference that is greater than $10 \%$ when compared to the state and the county |  |  |  |  |

Per Capita Income
Per Capita Income data was obtained through the Census Table B19301, Per Capita Income in the Past 12 Months (In 2018 Inflation-Adjusted Dollars), 2018 American Community Survey 5Year Estimates. The North Carolina per capita income estimate was $\$ 29,456$. The estimate for Richmond County was $\$ 20,745$. The estimate for Census Tract 9710 was $\$ 17,986$. The estimate for Census Tract 9711 was $\$ 16,190$. Both the County and the census tracts had a lower Per Capita Income than that of the state. The EJSCREEN analysis also provided the Per Capita Income estimate for the one-mile buffer surrounding facility site, which was $\$ 21,420$, higher than the county and census tracts, but lower than the state. The Per Capita Income for Dobbins Heights was the lowest of any of the included geographies at $\$ 12,888$, while Hamlet was above both census tracts but less than both the County and State at $\$ 18,743$.

## 6 Limited English Proficiency (LEP)

Per the Safe Harbor Guidelines, should an LEP Group be identified during the permit application process, written translations of vital documents for each eligible LEP language group that constitutes $5 \%$ or includes 1,000 members (whichever is less) of the population of persons
eligible to be served or likely to be affected or encountered. If there are fewer than 50 persons in a language group that reaches the $5 \%$ trigger, then DEQ will not translate vital written materials, but instead will provide written notice in the primary language of the LEP language group of the right to receive competent oral interpretation of those written materials, free of cost. The safe harbor provisions apply to the translation of written documents only. Safe harbor guidelines are based on EPA guidance for LEP persons, and implemented by DEQ when deemed appropriate.

One LEP language group, Spanish or Spanish Creole, was identified as having an estimate for individuals who speak English less than "very well" greater than zero (Table 18). However, this number did not reach the 5\% threshold that would initiate potential translation services for this project. If larger LEP groups are identified or specific translation requests are received, then DEQ will revisit the Safe Harbor Guidelines.

Table 18. Limited English Proficiency

| LANGUAGE SPOKEN AT HOME | Census Tract 9710 |  | Census Tract 9711 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Estimate | Margin of <br> Error $+/-$ | Estimate | Margin of <br> Error $+/-$ |
| Total (population 5 years and over): | 3,678 | 340 | 4,241 | 450 |
| Speak only English | 3,608 | 338 | 38 | 33 |
| Spanish or Spanish Creole: | 46 | 33 | 38 | 33 |
| Speak English "very well" | 25 | 21 | 0 | 12 |
| Speak English less than "very well" | 21 | 25 | 0 | 12 |
| Source: US Census, ACS 5-Year estimates 2011-2015 |  |  |  |  |

## 7 County Health

The University of Wisconsin Population Health Institute, in collaboration with the Robert Wood Johnson Foundation, calculated County Health Rankings for all the States in the United States (www.countyhealthrankings.org). This ranking is based on health outcomes (such as lifespan and self-reported health status) and health factors (such as environmental, social and economic conditions). According to this 2020 report, out of all 100 counties in North Carolina (with 1 indicating the healthiest), Richmond County ranks $95^{\text {th }}$ in health factors and $93^{\text {rd }}$ in health outcomes.


Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

According to the NC DEQ Community Mapping System Environmental Justice Tool, the health outcome causes of death in Richmond County are higher than the state averages for all causes of death's included (Table 15). Additionally, the hospitalizations due to asthma in Richmond County is 95 per 100,000 individuals, as compared to the state at 90 individuals per 100,000 individuals. The number of primary care physicians in Richmond County ( 5.709 per 10,000 residents) is about $16 \%$ higher than the state average ( 4.812 per 10,000 residents).

Table 19. Health Outcomes

| Cause of Death | Richmond <br> County | North <br> Carolina |
| :--- | :---: | :---: |
| Cancer | 194.7 | 169.1 |
| Heart Disease | 238.2 | 163.7 |
| Stroke | 60.4 | 43.1 |
| Cardiovascular Disease | 331.7 | 221.9 |
| Diabetes | 56.2 | 22.8 |
| Source: NCDEQ 2020 EJ Tool. Death rates are per 100,000 individuals |  |  |

## 8 Local Sensitive Receptors

The Environmental Protection Agency suggests that sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing, and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas recognized as sensitive receptors. For instance, children and the elderly may have a higher risk of developing asthma from elevated levels of certain air pollutants than a healthy individual aged between 18 and 64 years.

Within or slightly beyond the one-mile project radius from the International Tie disposal, LLC facility, the following potential sensitive receptors were identified (Figure 4):

- Marks Creek Church
- Bethel Hill Church
- Approximately 126 households

Sensitive receptors located within the town limits of Dobbins Heights and Hamlet include:

- Richmond Early College High School
- Monroe Avenue Elementary School
- Hamlet Middle School
- Fairview Heights Elementary School
- Richmond $9^{\text {th }}$ Grade Academy
- Sandhills Regional Medical Center
- Zion Church
- Fellowship Church
- Church of God
- Hopewell Church
- Hamlet Housing Authority
$\bullet$
Other sensitive receptors may be identified during the remainder of the permit application process.


Figure 4. Sensitive receptors surrounding the proposed International Tie, LLC- Project Tie facility.

## 9 Local Industrial Sites

Within the 1-mile project radius, there are 9 permitted facilities or reported incidents (as of December 29, 2020). These include 2 air quality permits (one a Title V), 1 animal feeding operation, 1 closed solid waste landfill, 1 inactive hazardous waste site, 3 underground storage tank incidents (all reported between 1992-1995) and one above ground storage tank incident (Figure 5).


Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the International Tie, LLC - Project Tie proposed facility.

## 10 Conclusion

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (US EPA). This report examined the demographic and environmental conditions in North Carolina, Richmond County, Census Tracts 9710, 9711, and the one-mile radius around the proposed International Tie, LLC - Project Tie facility. Potential emissions rates outlined in the permit application and county level health data were also included, as well as data from the NCDEQ Community Mapping System.

It is important to keep in mind that based on the available data, the following limitations of this report: census data is from 2010 and may be outdated; the more recent census data through 2018 are estimates; EJSCREEN does not provide all of the data categories that were used in this analysis so the census tract and county data cannot be compared to the radius used surrounding the facility boundary for all criteria; census tracts can still be large areas and do not allow for exact locations of each population; and the Department cannot determine which populations, if any, reside in that small area of overlap surrounding the facility.

The Department assessed the available demographic and socioeconomic data of the community surrounding the proposed facility. Richmond County, the two census tracts, and the one-mile radius surrounding the project generally exhibit higher percentages than the state estimates for race and ethnicity and poverty levels. The one-mile radius showed higher percentages for the lowest income ranges, as well as elevated disability rates. No LEP groups were identified.

Richmond County ranks $95^{\text {th }}$ in health factors and $93^{\text {rd }}$ in health outcomes, and performed worse than the state averages for death rates reported in the DEQ EJ Tool.

To follow are recommendations based on this Draft EJ Report:

- Extra attention should be given to ensure language data is accurate and that translation or interpretation services are considered if more LEP populations are identified at any point throughout the permitting process.
- The list of sensitive receptors should be consulted while considering additional outreach options that may best fit this community's needs.
- The Lumbee Tribe should be consulted and kept informed throughout the permit application process.
- Project and permit information should be provided to local officials in Hamlet and Dobbins Heights, as well as to the Richmond County Health Department.
- Local community organizations should be contacted to ensure the community understands the proposed permit criteria and process, specifically the neighborhood located across the street from the facility off Marks Creek Church Road and Boyd Lake Road.


[^0]:    ${ }^{1}$ Data correct as of January 25, 2021. Emissions are subject to change throughout the permitting process.

[^1]:    ${ }^{2} 2021$ rankings had a tie for $40^{\text {th }}$ place so there are 41 in Tier 1 and 39 in Tier 2 this year.

