



International Tie Disposal, LLC – Project Tie Draft Environmental Justice Report

North Carolina Department of Environmental Quality
January 25, 2021

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=1eb0fbe2bcfb4cccb3cc212af8a0b8c8>).

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 wheel loader. Each loaded kiln is then fitted with a removable, refractory-lined exhaust stack/afterburner (0.125 mmBtu/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 mmBtu/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 cool-down 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 Emissions (tons/yr)	Potential Emissions Before Controls (tons/yr)	Potential Emissions After Controls (tons/yr)
PM	7.30	53.95	7.30
PM ₁₀	4.80	35.40	4.80
PM _{2.5}	3.52	25.63	3.52
SO ₂	0.03	0.15	0.03
NO _x	97.84	699.71	97.84
CO	19.57	139.94	19.57
VOC	13.12	321.86	13.12
Highest Individual HAP (Methanol)	2,050 lbs/yr	5,470 lbs/yr	2,050 lbs/yr
Total HAP	2,180 lbs/yr	6,360 lbs/yr	2,180 lbs/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 review¹. Toxic air pollutants are designated through state regulation while Hazardous Air Pollutants are designated by the U.S. EPA.

¹ Data correct as of January 25, 2021. Emissions are subject to change throughout the permitting process.

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.

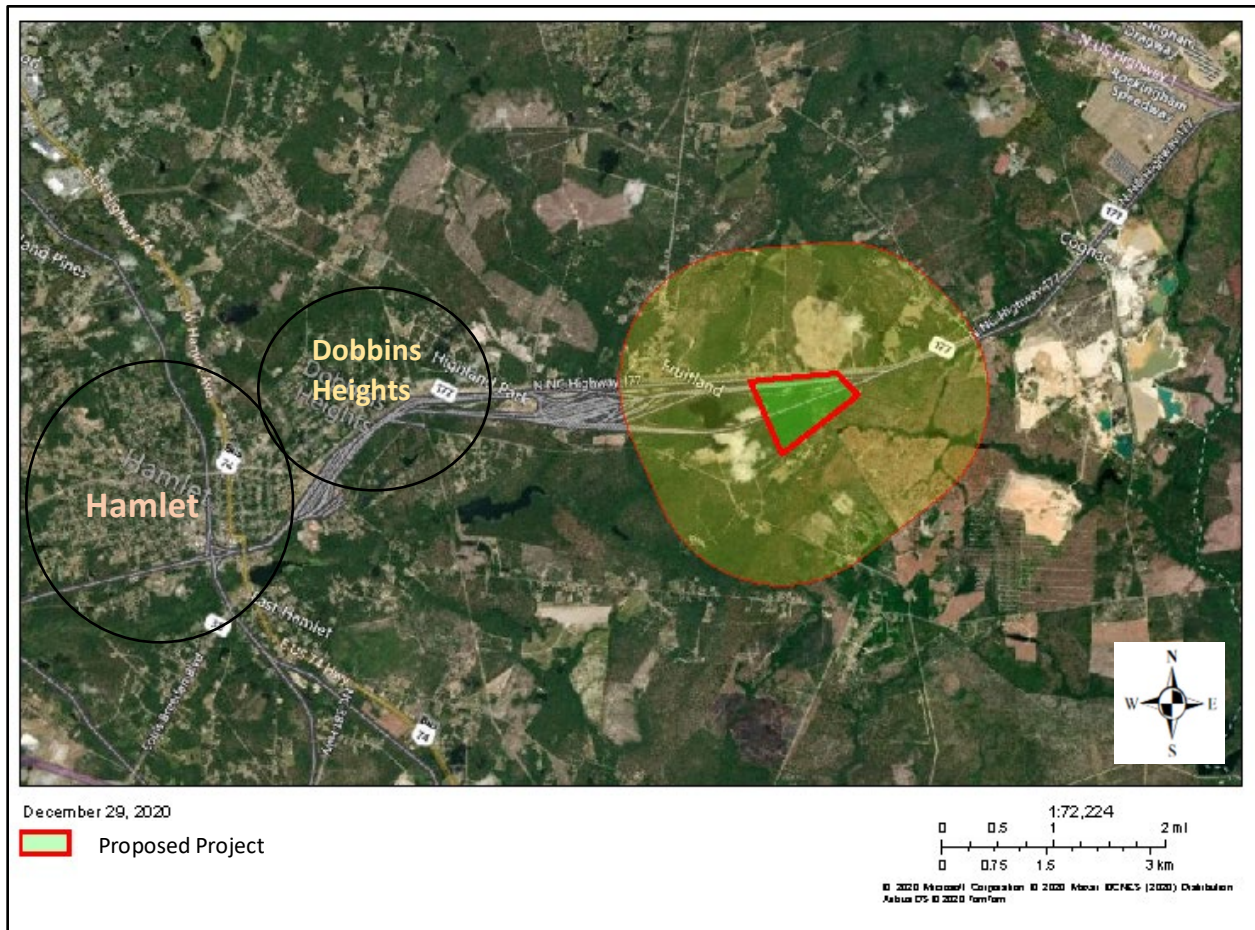


Figure 1. International Tie Disposal, LLC location with the one-mile radius.

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

² 2021 rankings had a tie for 40th place so there are 41 in Tier 1 and 39 in Tier 2 this year.

– 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 state-recognized 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

Race and Ethnicity	North Carolina		Richmond County	
	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)	800,120	8.4	2,741	5.88

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

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	
	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	2	46	1.1	263	6.0
Asian	5	2	36	0.9	11	0.3
Native Hawaiian and Other 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 race)	10	4	128	3.2	70	1.6

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	
	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 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
HISPANIC OR LATINO (of any race)	14	1.6	400	6.2

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 State

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		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	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 sexes	Male	Female	Both 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

Age	Dobbins Heights						Hamlet					
	Number			Percent			Number			Percent		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both 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 5-year Estimates

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

Subject	Dobbin Heights						Hamlet					
	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	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
RACE AND HISPANIC OR LATINO ORIGIN												
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: 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% (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 Survey 5-year Estimates, 2018

All **bolded and orange** cells indicate a difference that is greater than 5% when compared to the State

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	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	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

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

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 5-Year 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		Richmond County	
	Households		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. 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		
\$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	43%	
\$50,000 to \$74,999	19.2	5.6	11.3	4.9		
\$75,000 to \$99,999	10.2	4.7	6.9	4.6		
\$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. 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 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	Margin of Error (+/-)
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. 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				

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 5-Year 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 Error +/-	Estimate	Margin of 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 95th in health factors and 93rd in health outcomes.

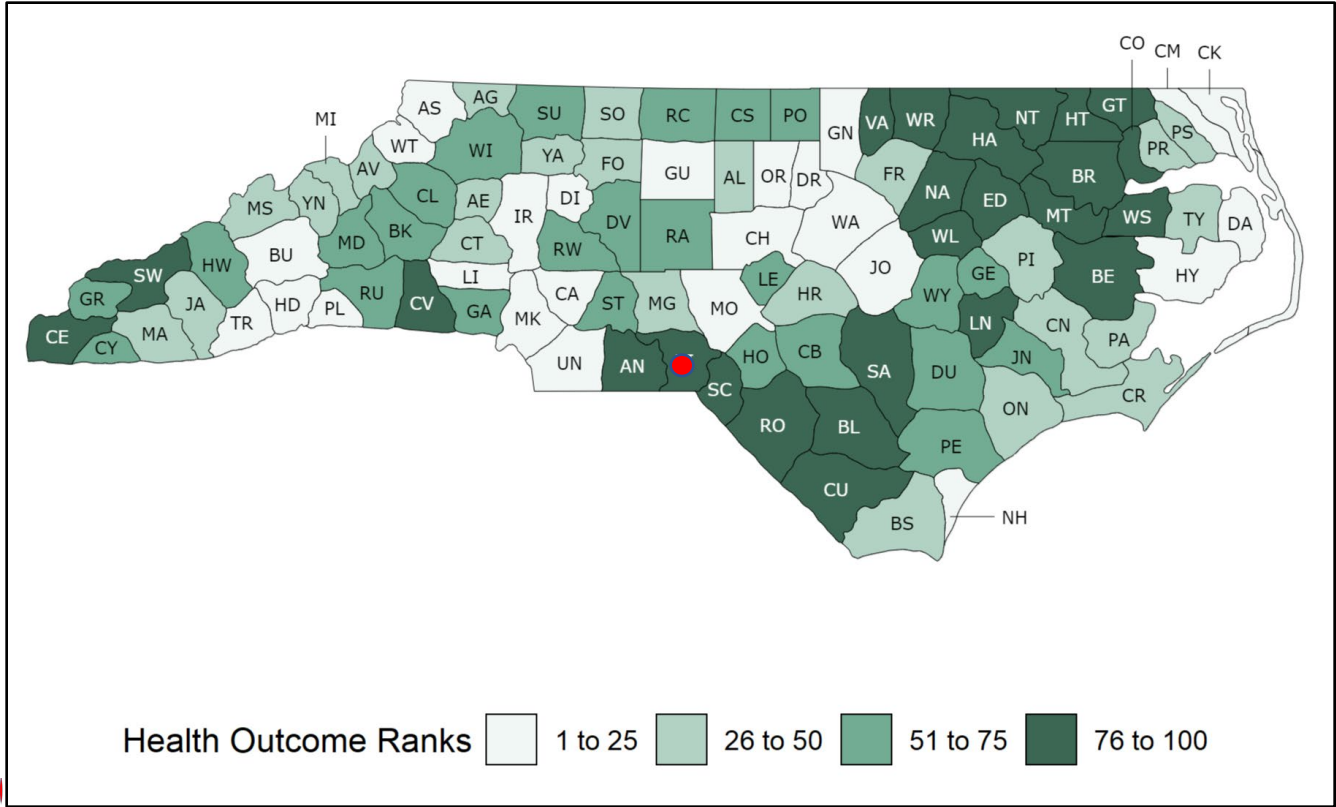


Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

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 County	North 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 9th Grade Academy
- Sandhills Regional Medical Center
- Zion Church
- Fellowship Church
- Church of God
- Hopewell Church
- Hamlet Housing Authority
-

Other sensitive receptors may be identified during the remainder of the permit application process.

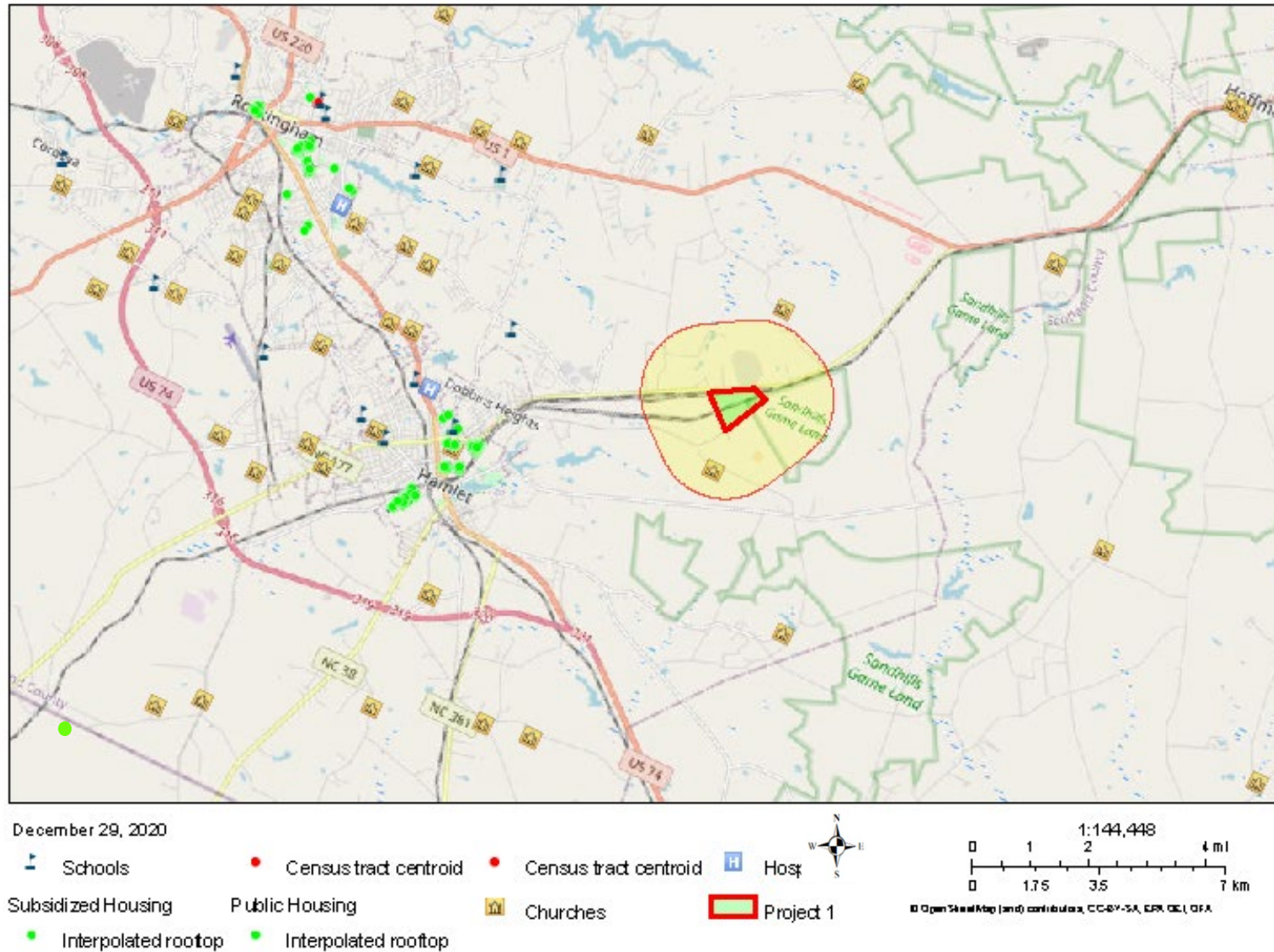


Figure 4. Sensitive receptors surrounding the proposed International Tie, LLC- Project Tie facility.

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).

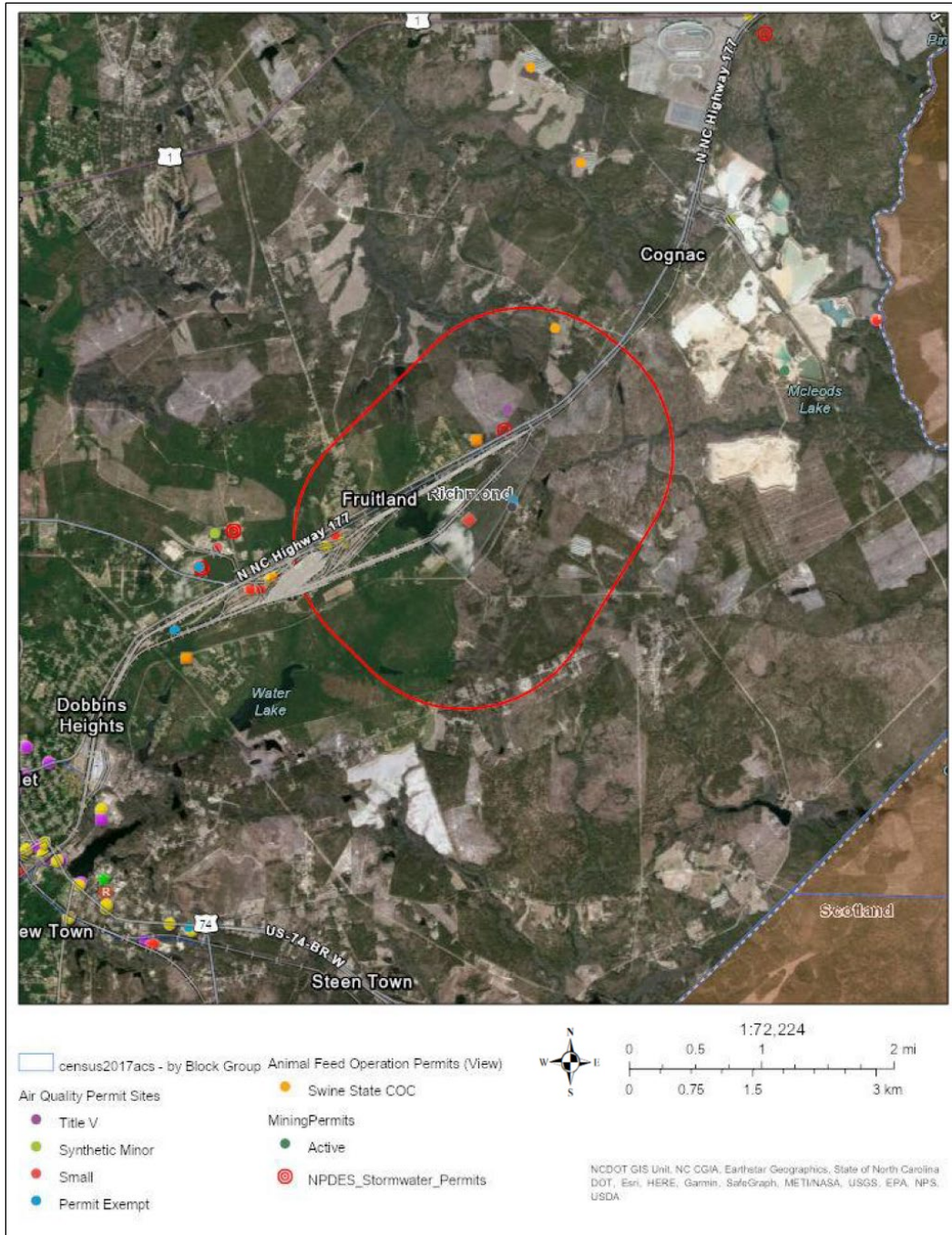


Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the International Tie, LLC – Project Tie proposed facility.

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 95th in health factors and 93rd 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.