ENVIVA PELLETS HAMLET, LLC
Draft Environmental Justice Report

6/15/2021
North Carolina Department of Environmental Quality

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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 report examines the demographic and environmental conditions in Richmond County, as well as census tracts, and the 1-mile radius around the property boundary of the Enviva Pellets Hamlet, LLC facility. Finally, the demographics of the entire state of North Carolina are also considered as they relate to both the county and local census tract and radius settings.

 Enviva Pellets Hamlet, LLC (Enviva) is a wood pellets manufacturing facility, operating under a state permit from the North Carolina Division of Air Quality (NC DAQ) permit 10365R00 on March 29, 2016. "Title V" refers to a section of the 1990 Clean Air Act Amendments that requires major facilities to obtain an operating permit. In North Carolina major facilities obtain a construction and operation permit and then submit the Title V permit application. Enviva Hamlet received their construction and operation permit in 2016 and has applied for its Title V first-time permit. Consolidated with this request is the renewal of its State operating permit with associated modifications.

2   Environmental Justice Evaluation

The North Carolina Department of Environmental Quality (NCDEQ) has assessed the permit application and the demographics of the communities surrounding the facility. This assessment includes:

- Permit modification application submitted by – Enviva Pellets Hamlet, LLC.
- 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).

3   Project Proposal

Enviva Pellets Hamlet, LLC (Enviva) is a wood pellet manufacturing facility and currently holds permit No. 10365R05, issued on July 20, 2020, which authorized the construction of additional control equipment to classify the facility as a minor source under prevention of significant deterioration (PSD) and an area source of hazardous air pollutants (HAPs). The facility is permitted to produce up to 625,011 oven-dried tons (ODT) per year of wood pellets utilizing up to 85% softwood on a 12-month rolling basis. This permitting action is for a first-time Title V with modification.   In addition to changes affecting those activities classified as insignificant, the following changes are proposed to the existing permit:

- Update potential emissions to reflect the results of compliance testing completed in January 2020 for the regenerative thermal oxidizer (CD-RTO).
- The addition of two (2) propane vaporizers to vaporize propane received by truck for combustion by the RTO burners, RCO/RTO burners, and burners for the dryer system double ducts.
- Modifications to optimize operation of the RTO (CD-RTO), the addition of two (2) canisters with combustion zone and additional burners, and increase the heat input of the RTO from 32 MMBtu/hr to 54.4 MMBtu/hr.
- Diesel fuel may be used as an accelerant for cold start-up of the furnace.
- Provide clarification on use of the dryer bypass stack.
- Update the process description for Green Wood Handling (IES-GWH) to more accurately reflect the facility as constructed.
- Update the fraction of particulate matter (PM) that is PM2.5 for the Finished Product Handling baghouse (CD-FPH-BH) to more accurately reflect emissions based on a review of National Council for Air and Stream Improvements (NCASI) particle size distribution data for similar baghouses in the wood products industry.
- Modify the permit to reflect that the dryer furnace is not considered a control device.
- Reflect the use of steam in the pellet production process using an electric boiler.

Potential emissions before and after this modification are provided in Table 1 below:

Table 1. Emissions Associated with Permit Modification

Pollutant	Potential Emissions before Modification (tpy)	Potential Emissions after Modification (tpy)	Change in Potential Emissions (tpy)
PM (TSP)	60.3	50.7	-9.6
PM10	54.9	49.6	-5.3
PM2.5	46.6	46.7	0.1
CO	186	187	1.0
NO_x	151	153	2.0
SO_2	27.2	27.7	0.5
VOC	100	101	1
Total HAP	24.7	24.9	0.2
CO2e	266,694	273,878	7,184

4 Geographic Area

The Enviva facility is located at 1125 North NC Highway 177 Hamlet, NC, 28345 (Richmond County) (Figure 2). The draft environmental justice report reviews demographics one mile from the Enviva property boundary as data allows, as well as for the Town of Dobbins Heights and the City of Hamlet.

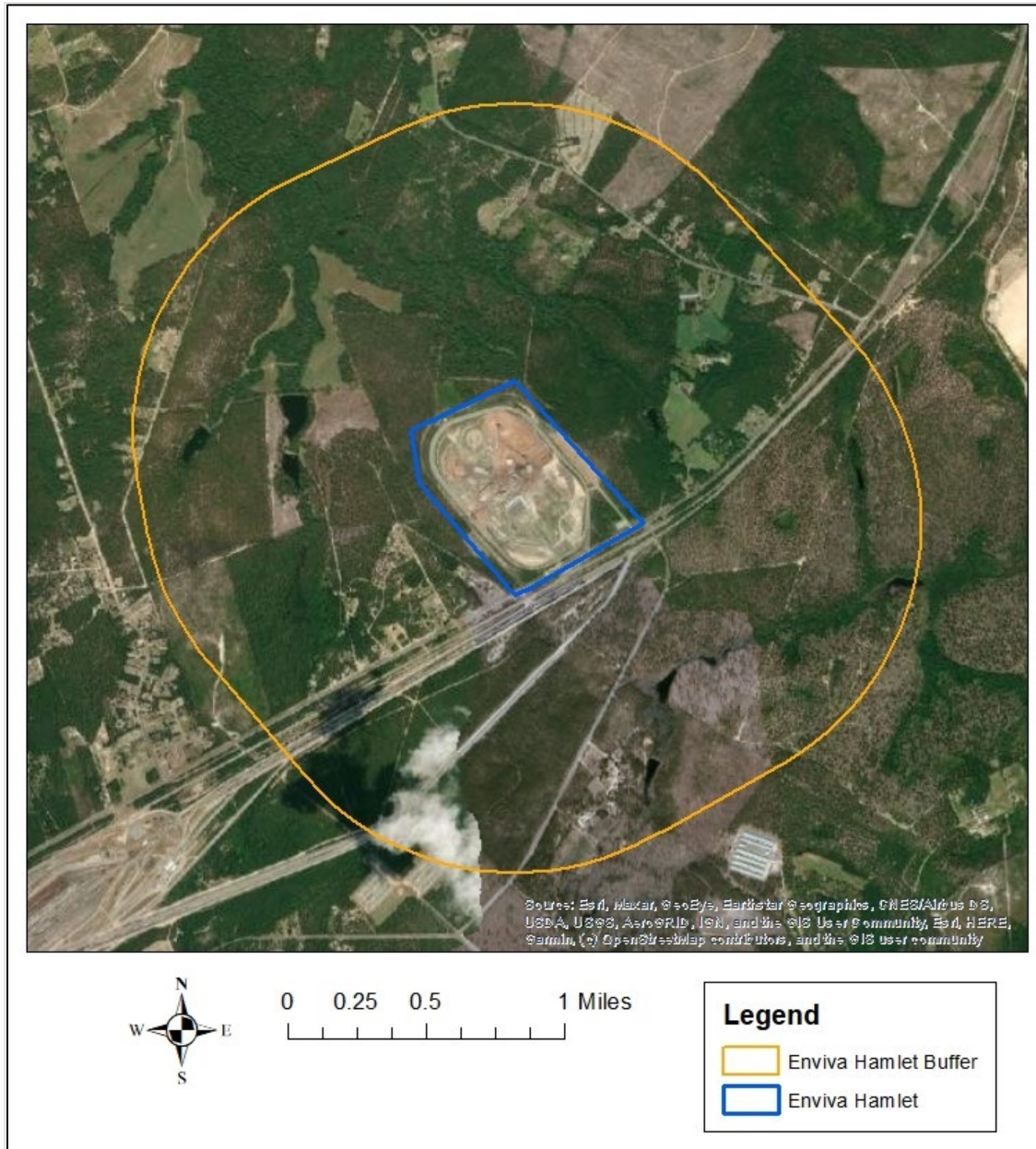*Figure 1. Facility location with 1-mile radius.*

The one-mile radius used in this analysis is located entirely within Richmond County. The census tracts within Richmond County are 9710 and 9711 (Figure 3). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau).
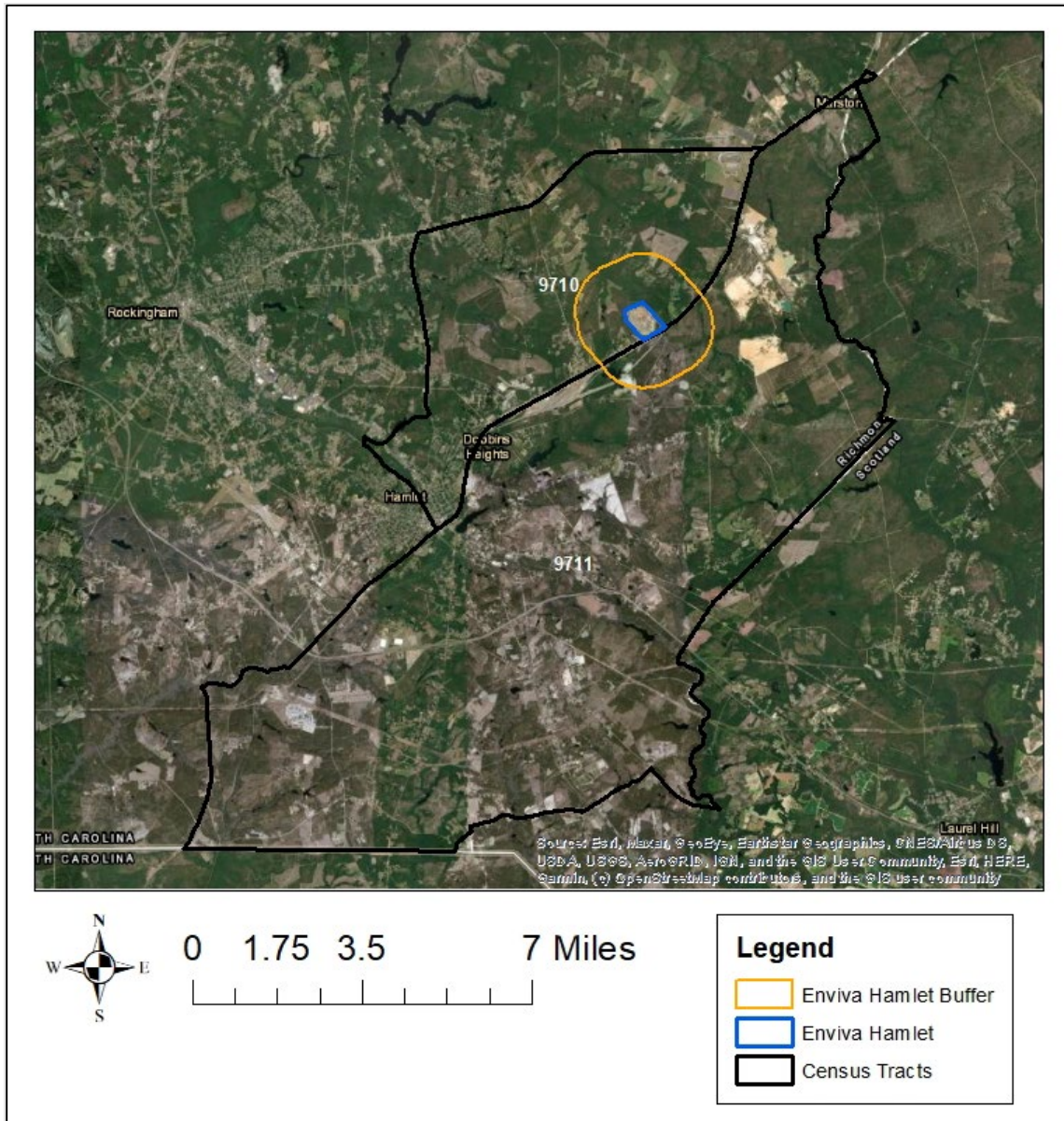
Figure 2. Census tracts and counties surrounding facility location.

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 US 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 any census tracts that overlap into the one-mile radius. Demographics of Richmond 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 average
2. 50% or more minority
3. 5% or more in comparison to the county average for poverty

For example, if a census tract has 35% of the population low income but the county consists of 30% low income, the census tract would exceed the county average by 16.5% 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 2014-2018 were used. 2010 Census Bureau data is real data gathered every ten years, whereas the estimates from the more recent years are modeled estimates based on the real data. For the data gathered from the 2014-2018 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 (US 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 QT-P3, Race and Hispanic Origin: 2010; 2010 Census Summary File 1 report, North Carolina' population totaled 9,535,483 individuals (Table 2). The three most common racial groups across the state were White (68.5%), Black or African American (21.5%) and Hispanic or Latino (of any race) at 8.4%.

Richmond County had a total population of 46,639 individuals (Table 2). The largest racial groups within the population of the county were White (60.2%), Black or African American (30.6%), and Hispanic or Latino (5.9%). The Black or African American population (30.6%) was greater than 10% different when compared to the state (21.5%). The American Indian or Alaska Native population (2.5%) was greater than 10% different when compared to the state (1.3%). Each other racial group (Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, Two or More Races, and Hispanic or Latino) made up less than 10% when compared to North Carolina.

Table 2. Regional Setting – Race and Ethnicity

Race and Ethnicity	North Carolina		Richmond County	
	Number	Percent	Number	Percent
Total Population	9,535,483	100.0	46639.0	100.0
White	6,528,950	68.5	28072.0	60.2
Black or African American	2,048,628	21.5	14269.0	**30.6**
American Indian or Alaska Native	122,110	1.3	1173.0	**2.5**
Asian	208,962	2.2	431.0	0.9
Native Hawaiian and Other Pacific Islander	6,604	0.1	26.0	0.1
Some other Race	414,030	4.3	1700.0	3.6
Two or More Races	206,199	2.2	968.0	2.1
HISPANIC OR LATINO (of any race)	800,120	8.4	2741.0	5.9

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

Local Setting

Environmental Protection Agency's EJSCREEN was used to review a one-mile radius from the Enviva property boundary (Table 3). The American Indian or Alaska Native population of 2% was greater than 10% different from the state (1.3%). The Black or African American population of 20% in the one-mile radius was similar to the state (21.5%), but less than Richmond County (30.6%). The Asian population in the project radius (2%) was greater than 10% different from Richmond County (0.9%). The Two or More Race population within the project radius (3%) was greater than 10% different from Richmond County (2.1%) and the State (2.2%).

Table 3. Local Setting – Race and Ethnicity

Race and Ethnicity	Project Radius		Census Tract 9710		Census Tract 9711	
	Number	Percent	Number	Percent	Number	Percent
Total Population	330	100	4,174	100.0	4,390	100.0
White	321	72	1,732	41.5	2,255	51.4
Black or African American	66	20	2,199	**52.7**	1,658	**37.8**
American Indian or Alaska Native	6	**2**	55	1.3	274	**6.2**
Asian	6	**2**	36	0.9	11	0.3
Native Hawaiian and Other Pacific Islander	-	-	7	0.2	1	0.0
Some other Race	5	1	41	1.0	30	0.7
Two or More Races	9	**3**	104	**2.5**	161	**6.3**
HISPANIC OR LATINO (of any race)	12	4	128	3.1	70	1.6

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

The Black or African American population of 52.7%, and 37.8%, respectively within census tracts 9710, and 9711 was greater than 10% different than the State (21.5%) and Richmond County (30.6%). The American Indian population of 6.2% within Census Tract 9711 was greater than 10% compared to the State (1.3%) and Richmond County (2.5%).

For the two local governments that were evaluated (see Table 4), both Dobbins Heights and Hamlet had a greater than 10% difference compared to both Richmond County and the state for Black or African American (84.2% and 36.2%, respectively).

Table 4. Local Setting (Local Governments) – Race and Ethnicity

Subject	Town of Dobbins Heights		City of Hamlet	
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 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 (24.4%).

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	7.0	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

Table 7. Local Setting - Age Groups and Sex (Project Area)

Age	Project radius - 1 Mile					
	Number			Percent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total Population	330	164	166	100	50	50
Under 5 years	19			6		
Under 18 years	83			25		
18+	247			75		
65 years and over	39			12		

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

Age	Town of Dobbins Heights						City of 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

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 4,380 noninstitutionalized citizens (Table 10). Of those individuals,an estimated 15.2% (MOE +/- 3.4%) had a disability. The subject group with the largest population of disabled civilians was 65 to 74 years (31.8%, MOE +/- 11%) The second largest population was 75 years and older at 28.7% (MOE +/- 14.1%). The population groups of totalcivilian noninstitutionalized population, 35 to 64 years, male, and Black or African American hadan 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 4,381 noninstitutionalized citizens. Of those individuals, an estimated 22.8% (MOE +/- 4.5%) had a disability. The subject group withthe largest population of disabled civilians was the population 75 years and over (52.2%, MOE +/- 19.1%). The second largest population was 65 to 74 years at 40.1% (MOE +/- 14.2%). 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.

Both the Town of Dobbins Heights and the City of Hamlet had an estimated total population (of non-institutionalized individuals) with a disability greater than 10% different from the state or the state and the county (Table 11).

Table 10. Local Setting - Census Tract 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 (Local Governments) - Disability

| Subject | Town of Dobbins Heights | | | | | | City of 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 29.5% (MOE +/- 1.4%). The next three subjects with the highest poverty level were Hispanic or Latino at 28.5% (MOE +/- 0.2%), American Indian and Pacific Islander at 25.1% (MOE +/- 1.3%), and Black or African-American at 23.5% (MOE +/- 0.4%).   The age group with the highest population below poverty was under 18 (22%, MOE +/- 0.3%), followed by 18 to 64 years (14.5%, 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, Hispanic or Latino had the highest percent living below the povertylevel at 44.7% (MOE +/- 14.2%). The next subjects with the highest poverty level were Two or More Races at 37.8% (MOE +/- 19.1%), and those under 18 years of age at 37.3% (MOE +/- 5.6%). All subject groups had a greater than 5% difference when compared to the state, with the exception of Native Hawaiian and Other Pacific Islander and Some Other Race.

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 anestimated population of 4,355 with 27.0% (MOE +/-8.2%) living below the poverty level (Table 13). Across all subjects, Some other Race (82.4%, MOE +/-44.9%) had the highest percent living below the poverty level. The next subjects with the highest poverty rates were American Indian and Alaska Native at 49.4% (MOE +/- 43.0%), and under 18 at 44.1% (MOE +/- 15.5%).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 4,354 with 38.9% (MOE +/- 9.9%) living below the poverty level (Table 13). Across all subjects, Two or More Races (86.8%, MOE +/- 30.0%) had the highest percent living below the poverty level. The next subjects with the highestpoverty rates were American Indian and Alaska Native at 73.7% (MOE +/- 31.6%), and under 18 at 60.2% (MOE +/- 18.2%). 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 (Table 14). Across all subjects, American Indian and AlaskaNative had the highest poverty rate (100%, MOE +/-100%), followed by Hispanic or Latino of any race (56.5%, MOE +/- 16.9%).

The City 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. Poverty Status – Census Tracts

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 362Error +/-	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. Poverty Status – Local Governments

Subject	Dobbins Heights town						City of Hamlet					
	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 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 36%. 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. 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	143	
Less than $10,000	9.9	4	18.0	6.1	15%	
$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	20%	
$25,000 to $34,999	13.4	5	12.3	4.9	12%	
$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	36%	
$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	19,718	

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. Household Income – Local Governments

Subject	Dobbins Heights Households		Hamlet 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 is the mean income computed for every man, woman, and child in a particular group including those living in group quarters. It is derived by dividing the aggregate income of a particular group by the total population in that group (US Census Bureau). Per Capita Income data was obtained through the Census Table B19301, Per Capita Income inthe 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 estimatefor 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 $19,718, higher than the census tracts, but lower than the state and the county. 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)

The following table (Table 18) was completed using data from Census Table B16001, Language Spoken at Home by Ability to Speak English for the population 5 years and over, 2011-2015 American Community Survey 5-Year Estimates for census tracts 9710 and 9711. These are the potential languages the Department could encounter around the project area where English assistance or translation may be necessary. Only the languages where one or more individual was estimated to "speak English less then very well" were included in the following table. Per the Safe Harbor Guidelines, should an LEP Group be identified during the pre-permit issuance process, written translations of vital documents for each eligible LEP language group that constitutes five percent 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 five percent trigger, then DEQ would not translate vital written materials but 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. No language was flagged as having a population of greater than 5% or 1,000 individuals. DEQ will revisit the Safe Harbor Guidelines if specific requests arise throughout the permitting process.

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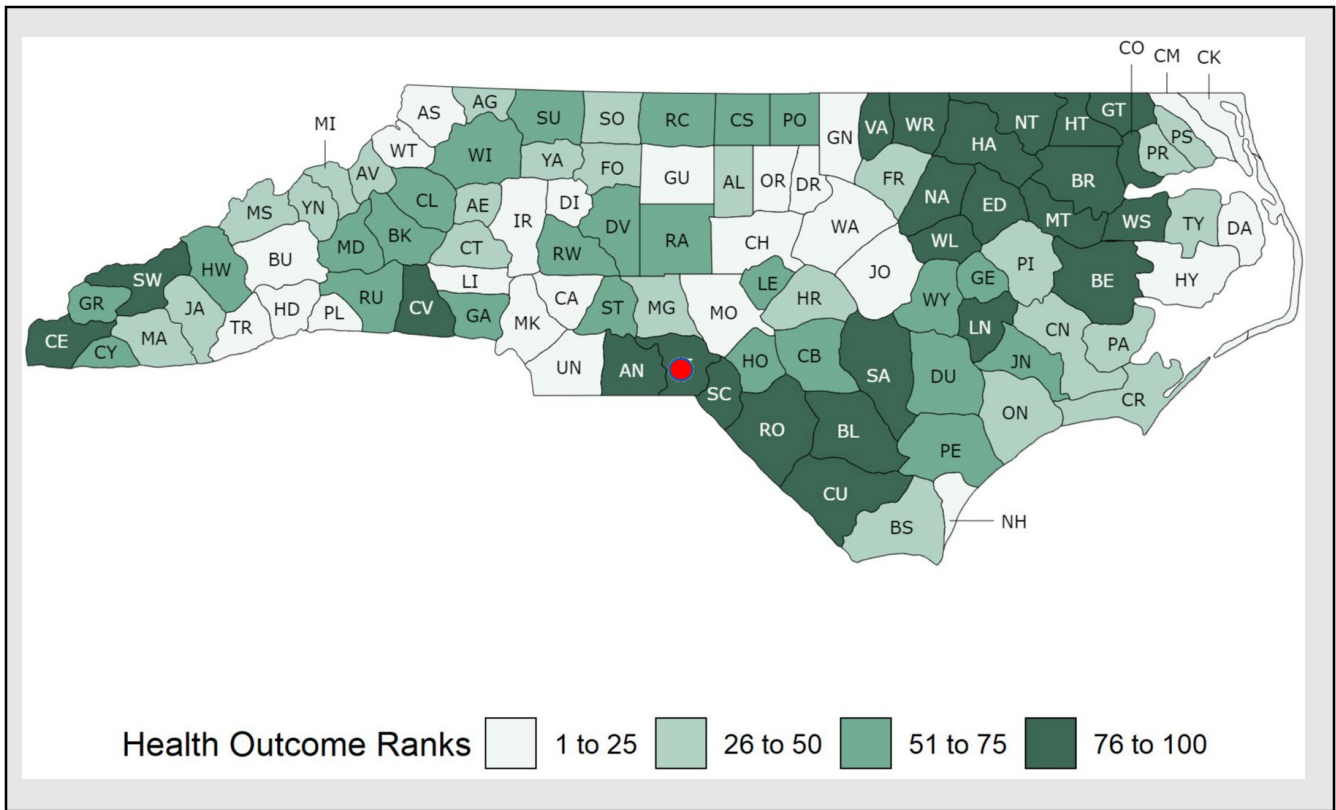
Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

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 19). Additionally, the hospitalizations due to asthma in Richmond County is 95 per 100,000 individuals, as compared to the state at 90 individuals per100,000 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 Industrial Sites

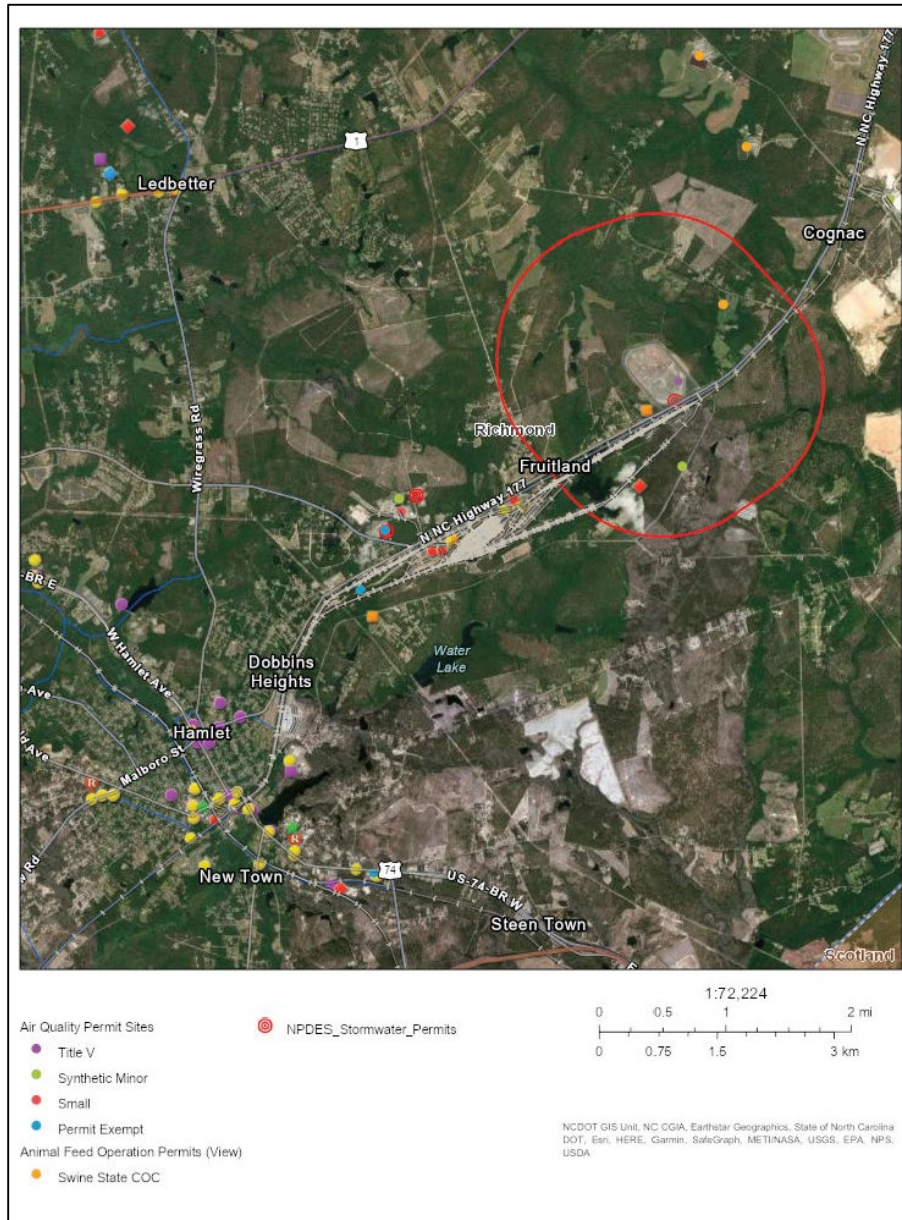1125 North NC Highway 177 Hamlet, North Carolina is just north of the town of Hamlet.

Figure 4. Industrial Sites Located Proximate to Enviva Hamlet.

Within one mile of the facility, there were 5 DEQ associated permits or incidents (as of May 26, 2021):

- 2 Air Quality permitted facilities (one of which is Enviva Hamlet)
- 1 Animal Feeding Operation
- 1 Solid Waste Landfill (Closed)
- 1 Inactive Hazardous Site

9 Local Sensitive Receptors

The Environmental Protection Agency suggests that sensitive receptors include, but are not limited to, hospitals, schools, churches, 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.

Within or slightly beyond the one-mile project radius from the Enviva Hamlet facility, the following potential sensitive receptors were identified (Figure 5):

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

Sensitive receptors located within the limits of the Town of Dobbins Heights and the City of 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

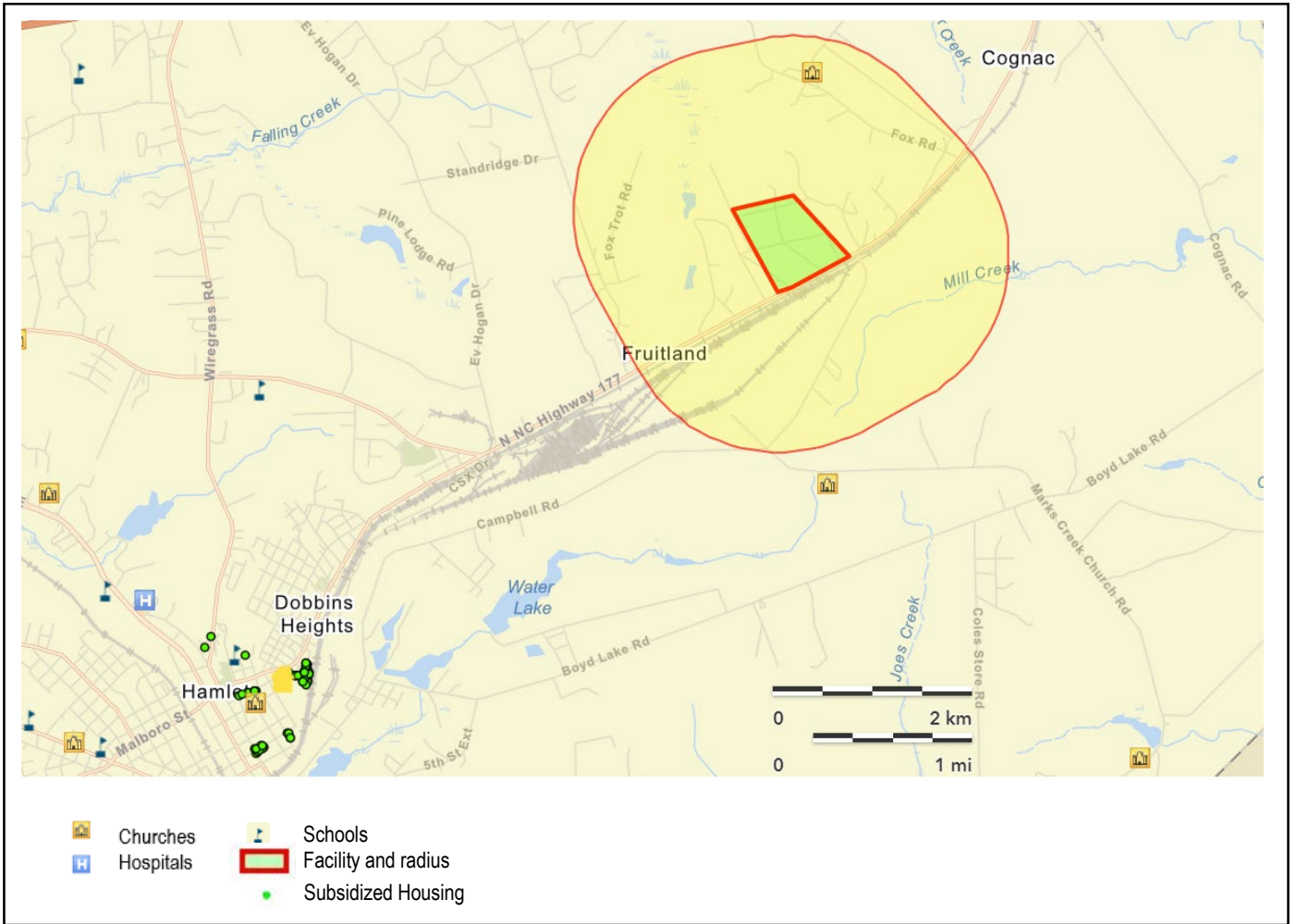Other sensitive receptors may be identified during the remainder of the permit application process.

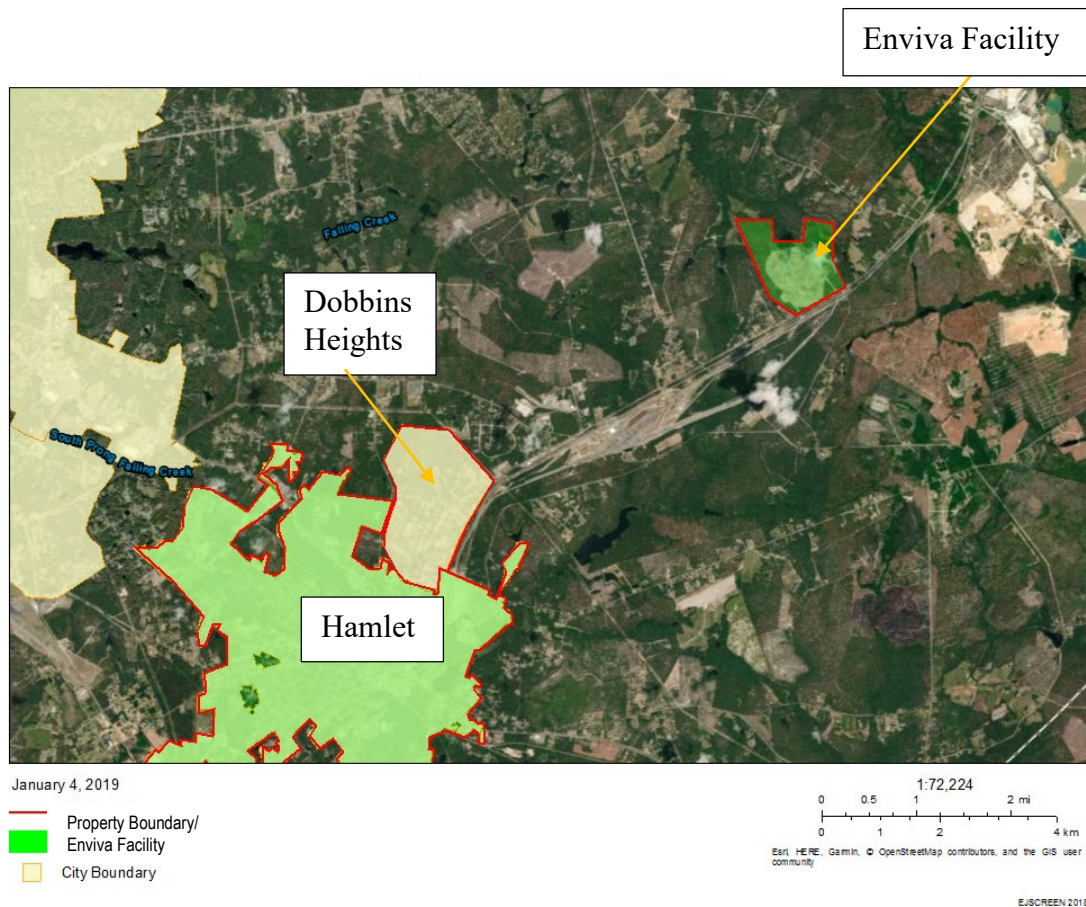*Figure 5. Sensitive Receptors surrounding the Enviva Hamlet Facility.*

Figure 6. Community locations in relationship to the Enviva facility.

Township of Dobbins Heights

Dobbins Heights is a small, incorporated township (in the late 1980's), located approximately four miles from the facility. The town has a population of 866 individuals, with an estimated 34.6% below poverty (2013-2017 US Census, Table S1701). This percentage increases to 42.1% for both the under 18 years and over 65 years populations. According to the 2010 US Census table QT-P3, Race and Hispanic or Latino Origin: 2010, 733 of the 866 individuals were Black or African American (84.6%). 92 (10.6%) were White, 14 (1.6%) were Hispanic or Latino (of any race), and 10 (1.2%) were American Indian and Alaska Native. Dobbins Heights was discussed as a potential community of concern in several comments at the public hearing, held Thursday November 8th, 2018.

City of Hamlet

The community living in the vicinity was named Hamlet in 1873 and incorporated in 1897. Hamlet resides adjacent to the southeastern side of Dobbins Heights. The city has a population of 6,500 individuals, with an estimated 28.2% below poverty (ACS, 2015 US Census from URL https://www.citytowninfo.com/places/north-carolina/hamlet). According to the ACS 2013-2017 US Census EJSCREEN report of Hamlet, the per capita income was $22,476. Race and ethnicity for the city are made up of 56% White, 39% Black or African American, 2% American Indian, 4% Two or More Races, and 2% Total Hispanic population.

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 Enviva Hamlet 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.

The following outreach will be conducted based on this Draft EJ Report:

- Extra attention will 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 will be consulted while considering additional outreach options that may best fit this community's needs, and project information will be sent to the list as well as the Richmond County School Superintendent.
- The Lumbee Tribe will be consulted and kept informed throughout the permit application process.
- Project and permit information will be provided to local officials in Hamlet and Dobbins Heights, as well as to the Richmond County Health Department.
- Local community organizations will 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