



FLOWERS TIMBER COMPANY DRAFT ENVIRONMENTAL JUSTICE REPORT

7/29/2021

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 evaluation examines the demographic and environmental conditions in Wayne County, in Census Tract 6.02, and the one-mile radius around the property boundary of the Flowers Timber Company facility. 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 Flowers Timber Company
- 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 Wayne 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

Flowers Timber Company has a North Carolina air quality permit (10549R00) for emission sources associated with sawmill and log fumigation operations. The facility has submitted a permit modification application to incorporate requirements established under the 15A NCAC 2D .0546 "Control of Emissions from Log Fumigation Operations" regulation, which became effective November 1, 2020. Flowers Timber Company plans to contract with Ecolab Inc. to

fumigate logs under tarpaulins using methyl bromide, and to fumigate other commodities inside of containers using phosphine. The facility has requested to retain synthetic minor status; therefore, the annual emission limit for methyl bromide will remain 10 tons per year in the permit.

Emissions modeling was submitted with the application to demonstrate compliance with methyl bromide and phosphine Acceptable Ambient Levels (AALs) provided in 15A NCAC 2D.1100 “Control of Toxic Air Pollutants.” Fugitive emissions are considered in the modeling. Based upon the modeling results, the application requests emission limits of 1,584 pounds per day and 19,999 pounds per year for methyl bromide, and 1.15 pounds per hour for phosphine.

Both methyl bromide and phosphine emissions will vent to a single stack (2 feet in diameter, 40 feet minimum height, and 57.6 feet per second minimum velocity) that will be permanently constructed at the location dictated by the modeling¹.

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
NOx	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

4 Geographic Area

The Flowers Timber Company facility is located at 140 Greenfield Cemetery Rd. Seven Springs, NC 28578 (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 Wayne County.

¹ Facility Information is subject to change throughout the permitting process. This data is up to date as of 7/29/2021.

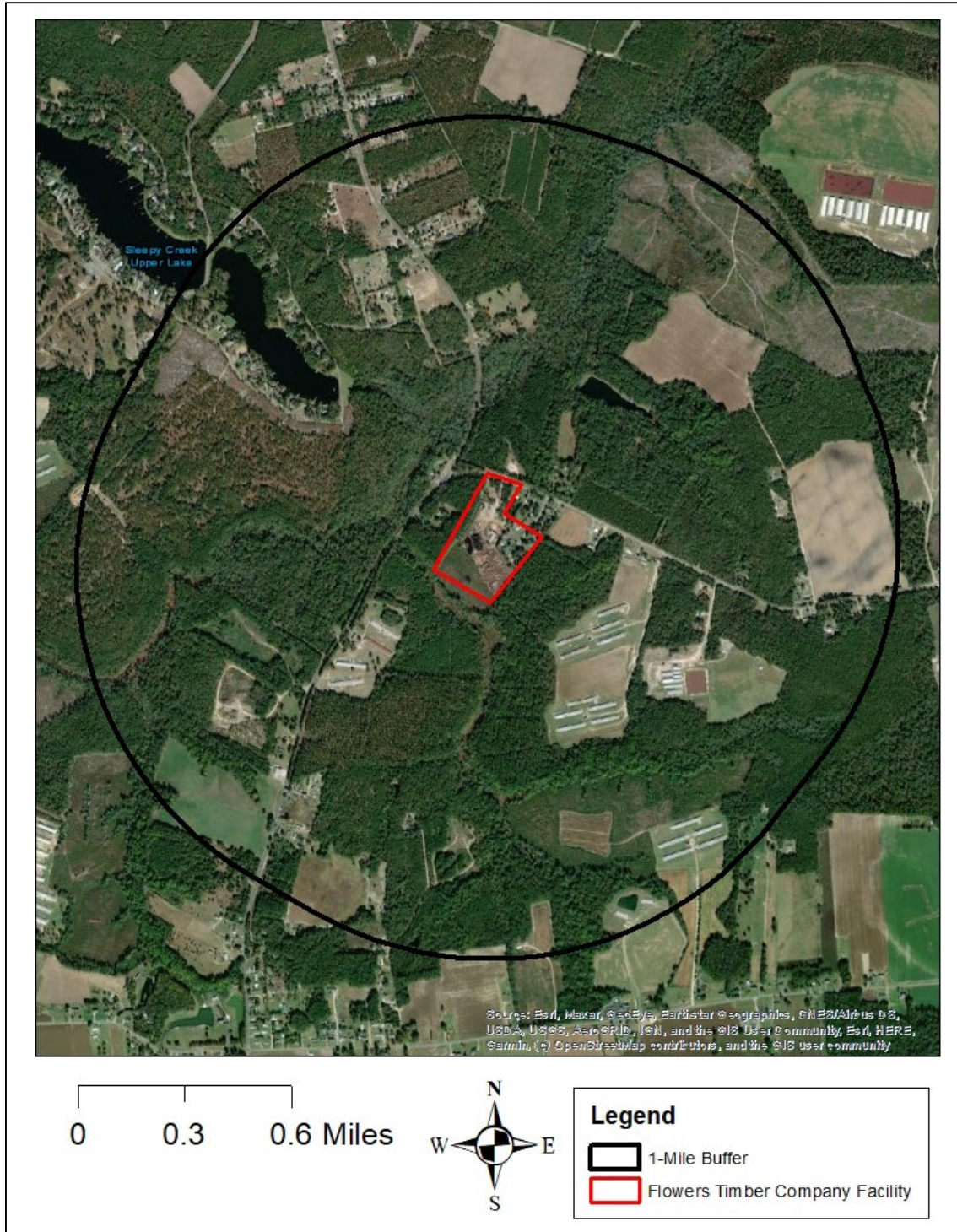


Figure 1. Flowers Timber Company location with the one-mile radius.

Wayne 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 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. Flowers Timber

Company and the one-mile radius is located within Census Tract 6.02 in Wayne County (Figure 2). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau). The census tract does not encompass land within a state-designated tribal statistical area.

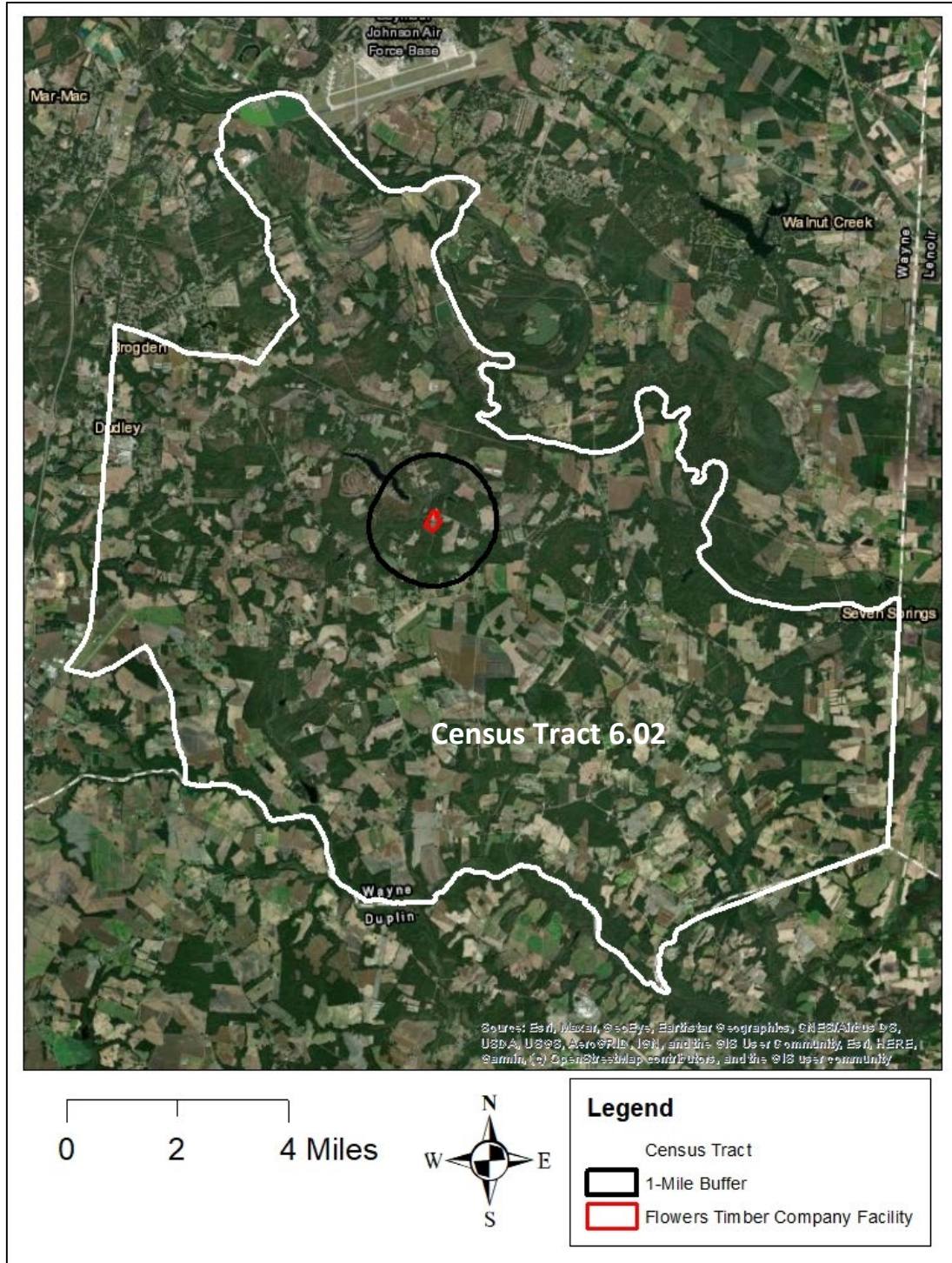


Figure 2. Census tract encompassing the facility location and one-mile radius.

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 potentially underserved communities:

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%.

Wayne County had a total population of 122,623 individuals (Table 2). The three most common racial or ethnic groups in Wayne County were White (55.6%), Black or African American (31.1%), and Hispanic or Latino (9.9%). Black or African American and Hispanic or Latino (of any race) were both greater than 10% different when compared to the state.

Table 2. Regional Setting - Race and Ethnicity

Race and Ethnicity	North Carolina		Wayne County	
	Number	Percent	Number	Percent
Total Population	9,535,483	100.0%	122,623	100.0%
White	6,223,995	65.3%	68,216	55.6%
Black or African American	2,019,854	21.2%	38,107	31.1%
American Indian or Alaska Native	108,829	1.1%	333	0.3%
Asian	206,579	2.2%	1,405	1.1%
Native Hawaiian and Other Pacific Islander	5,259	0.1%	47	0.0%
Some other Race	15,088	0.2%	231	0.2%
Two or More Races	155,759	1.6%	2,122	1.7%
HISPANIC OR LATINO (of any race)	800,120	8.4%	410,162	9.9%

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 6.02 was White at 41.9%, followed by Hispanic or Latino at 40.4%. Within the one-mile radius, White was the largest population (65.0%), followed by Black or African American (15.0%). For both Census Tract 6.02 and the one-mile radius, Hispanic or Latino of any race was greater than 10% different when compared to the county and state (Table 3). Some other race and two or more races were greater than 10% different in the one-mile radius when compared to the county and state.

Table 3. Local Setting - Race and Ethnicity

Subject	Project Area - 1 Mile		Census Tract 6.02	
	Number	Percent	Number	Percent
Total Population	1,311	100.0%	8,980	100.0%
White	851	65.0%	3,763	41.9%
Black or African American	200	15.0%	1,444	16.1%
American Indian or Alaska Native	5	0.0%	22	0.2%
Asian	3	0.0%	21	0.2%
Native Hawaiian and Other Pacific Islander	1	0.0%	1	0.0%
Some other Race	217	17.0%	20	0.2%
Two or More Races	35	3.0%	83	0.9%
HISPANIC OR LATINO (of any race)	434	33.0%	3,626	40.4%

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

5.2 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 4). 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%).

Wayne County had a total population of 185,290 individuals. The largest percentage of the total county population was between the ages of 18 and 64 (62.0%), followed by under 18 years (17.7%). The median age was slightly lower for the county than the state.

Table 4. Regional Setting - Age Groups and Sex

Age	North Carolina						Wayne County					
	Number			Percent			Number			Percent		
	Both sexes	Male	Female	Both sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total Population	9,535,438	4,645,492	4,889,991	100.0%	100.0%	100.0%	122,623	59,956	62,667	100.0%	100.0%	100.0%
Under 5 years	632,040	322,871	309,169	6.6%	7.0%	6.3%	8,765	4,489	4,276	7.1%	7.5%	6.8%
Under 18 years	2,281,635	1,167,303	1,114,332	23.9%	25.1%	22.8%	21,719	11,119	10,600	17.7%	18.5%	16.9%
18 to 64 years	6,019,769	2,954,233	3,056,536	63.1%	63.6%	62.7%	76,061	37,769	38,292	62.0%	63.0%	61.1%
65 years and over	1,234,079	523,956	710,123	12.9%	11.3%	14.5%	16,078	6,579	9,499	13.1%	11.0%	15.2%
Median Age	37.4	36	38.7				36.6	34.6	38.5			

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 6.02 had similar median ages compared to the state and county (Table 5).

Table 5. Local Setting - Age Groups and Sex

Age	Census Tract 6.02					
	Number			Percent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total Population	3,370	1,973	2,201	100.0%	100.0%	100.0%
Under 5 years	325	159	166	9.6%	8.1%	7.5%
Under 18 years	1,139	555	584	33.8%	28.1%	26.5%
18 to 64 years	2,499	1,169	1,330	74.2%	59.2%	60.4%
65 years and over	536	249	287	15.9%	12.6%	13.0%
Median Age	37.6	37.9	37.3			

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

Project Radius

EJSCREEN identified a population of 546 individuals within the one-mile radius. The largest population was 18+ years (73.0%), followed by under 18 years at 27.0% (Table 6). EJSCREEN does not provide all of the same data to compare to the county and state.

Table 6. Project Radius - Age Groups and Sex

Age	Project Area - 1 Miles					
	Number			Percent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total Population	546	273	273	100.0%	50.0%	50.0%
Under 5 years	43			8.0%		
Under 18 years	145			27.0%		
18+	401			73.0%		
65 years and over	56			10.0%		

Source: US Census Bureau, 2010 Census. Obtained through EJSCREEN 2019

5.3 Disability

Regional Setting

According to the 2019 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 7).

Wayne County had an estimated total population of 119,247 noninstitutionalized citizens. Of those, an estimated 16.3% (MOE +/-0.9%) had a disability. The largest population of disabled civilians was the population 75 years and over (53.9%, MOE +/-4.0%). By race, only White and Black or African American had estimates greater than 10% different when compared to the state.

Table 7. Regional Setting - Disability

Subject	North Carolina						Wayne 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%	119,247	490	19,380	1,104	16.3%	0.9%
Population under 5 years	603,155	767	4,761	613	0.8%	0.1%	8,244	31	12,233	99	1.8%	1.2%
Population 5 to 17 years	1,685,827	941	94,822	2,522	5.6%	0.2%	21,152	41	6,720	304	6.5%	1.4%
Population 18 to 34 years	2,216,915	1,791	146,329	3,165	6.6%	0.1%	25,683	453	32	301	6.7%	1.2%
Population 35 to 64 years	3,915,727	1,742	556,505	5,319	14.2%	0.1%	44,783	258	61	698	18.5%	1.5%
Population 65 to 74 years	932,178	1,157	248,418	2,902	26.6%	0.3%	11,461	143	0	374	31.0%	3.2%
Population 75 years and over	598,229	982	299,698	2,471	50.1%	0.4%	7,924	90	60	368	53.9%	4.0%
SEX												
Male	4,786,233	2,284	647,158	4,946	13.5%	0.1%	58,222	402	9,454	758	16.6%	1.3%
Female	5,165,798	1,829	703,375	5,616	13.6%	0.1%	62,425	226	9,926	712	15.9%	1.1%
RACE AND HISPANIC OR LATINO ORIGIN												
White (not Hispanic or Latino)	6,316,065	2,254	920,269	6,535	14.6%	0.1%	76,001	387	11,769	863	18.5%	1.3%
Black or African American	2,123,353	5,762	314,216	3,706	14.8%	0.2%	36,749	699	6,720	709	18.4%	1.9%
American Indian and Alaska Native	118,231	1,604	21,874	929	18.5%	0.8%	317	88	32	27	10.1%	8.6%
Asian	279,615	2,022	13,450	961	4.8%	0.3%	1323	239	61	46	4.6%	3.5%
Native Hawaiian and Other Pacific Islander	6,447	668	635	178	9.8%	2.7%	19	26	0	29	0.0%	70.6%
Some other Race	303,837	7,743	16,218	1,100	5.3%	0.4%	1,331	482	60	48	4.5%	3.8%
Two or more races	255,739	6,070	29,063	1,446	11.4%	0.5%		670	274	102	7.3%	2.7%
Hispanic or Latino	916,366	863	57,239	1,970	6.2%	0.2%	14226	104	589	218	4.1%	1.5%
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 2019 American Community Survey 5-Year Estimates, Table S1810 Disability Characteristics from the US Census Bureau, Census Tract 6.02 in Wayne County had an estimated total population of 8,684 noninstitutionalized citizens (Table 8). Of those individuals, an estimated 11.7% (MOE +/-0.9) had a disability. The racial group with the largest population of disabled civilians was White alone, not Hispanic or Latino (20.6%, MOE +/- 8.3%). The population groups of under 5 years, 5 to 17 years, 75 years and over, male, White, and Black or African American had an estimate that was greater than 10% different when compared to the County and the state or just the state.

Table 8. Local Setting - Disability

Subject	Census Tract 6.02					
	Total		With a Disability		Percent with a Disability	
	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-
Total civilian noninstitutionalized population	8,684	963	1,016	390	11.7%	4.1%
Population under 5 years	872	268	60	83	6.9%	9.8%
Population 5 to 17 years	2,116	540	143	183	6.8%	8.1%
Population 18 to 34 years	1,684	368	122	98	7.2%	5.6%
Population 35 to 64 years	3,071	424	275	128	9.0%	4.0%
Population 65 to 74 years	600	190	150	129	25.0%	18.9%
Population 75 years and over	344	181	266	164	77.3%	16.7%
SEX						
Male	4,467	596	686	341	15.4%	6.9%
Female	4,220	574	330	123	7.8%	3.0%
RACE AND HISPANIC OR LATINO ORIGIN						
White (not Hispanic or Latino)	3,496	591	721	358	20.6%	8.3%
Black or African American	1,284	434	210	112	16.4%	10.1%
American Indian and Alaska Native	0	17	0	17	-	**
Asian	0	17	0	17	-	**
Native Hawaiian and Other Pacific Islander	0	17	0	17	-	**
Some other Race	387	312	16	30	4.1%	8.7%
Two or more races	78	71	0	17	0.0%	34.3%
Hispanic or Latino	3,829	704	85	98	2.2%	2.3%
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, 2019 American Community Survey 5-Year Estimates, from the US Census Bureau, North Carolina had an estimated population of 9,984,891, with 14.7% (MOE +/- 0.2%) below the poverty level (Table 9). Across all subjects, Some Other Race had the highest percent living below the poverty level at 27.2% (MOE +/- 1.2%). The next three subjects with the highest poverty level were Hispanic or Latino at 26.4% (MOE +/- 0.6%), American Indian and Alaska Native at 24.9% (MOE +/- 1.3%), and Black or African American at 22.5% (MOE +/- 0.4%). The age group with the highest population below poverty was under 18 (21.2%, MOE +/- 0.4%) followed by 18 to 64 years (13.8%, MOE +/- 0.2%).

Wayne County had an estimated population of 120,420 with 20.2% (MOE +/-1.2%) living below the poverty level. Across all subjects, Hispanic or Latino origin (of any race) had the highest percent living below the poverty level at 40.5% (MOE +/- 6.3%). The next subjects with the highest poverty level were Some other race at 39.9% (MOE +/- 15.9%) and under 18 years at 32.8% (MOE +/- 3.0%). Most subject groups had a greater than 5% difference when compared to the state.

Table 9. Poverty - Regional Setting

	North Carolina						Wayne 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	9,984,891	1,988	1,467,591	17,844	14.7%	0.2	120,420	494	24,383	1,484	20.2%	1.2
AGE												
Under 18 years	2,261,398	2,191	478,877	9,118	21.2%	0.4	28,808	263	9,447	844	32.8%	3
18 to 64 years	6,135,778	1,127	853,693	9,607	13.8%	0.2	72,227	370	12,819	924	17.7%	1.3
65 years and over	1,587,715	1107	145,021	2,963	9.1%	0.2	19,385	146	2117	346	10.9%	1.8
SEX												
Male	4,828,486	2,335	642,615	8,992	13.3%	0.2	58,030	58030	10,174	895	17.5%	1.5
Female	5,156,405	2,230	824,976	10,797	16.0%	0.2	62,390	62,390	14,209	895	22.8%	1.4
RACE AND HISPANIC OR LATINO ORIGIN												
White	6,320,337	2,990	644,440	10,085	10.2%	0.2	64,525	64,525	7,059	982	10.9%	1.5
Black or African American	2,116,769	5,452	475,973	8,126	22.5%	0.4	36,708	36,708	10,319	1,027	28.1%	2.7
American Indian and Alaska Native	120,328	1,846	29,981	1,608	24.9%	1.3	323	323	34	41	10.5%	11
Asian	285,786	2,021	30,707	2,034	10.7%	0.7	1,340	1,340	104	82	7.8%	5.6
Native Hawaiian and Other Pacific Islander	6,630	675	1,360	332	20.5%	4.6	19	19	0	29	0.0%	70.6
Some other race	311,206	7,397	84,699	4,639	27.2%	1.2	1,337	1,337	534	323	39.9%	15.9
Two or more races	262,580	6,121	54,627	2,414	20.8%	0.8	3,751	3,751	1,147	507	30.6%	10.8
Hispanic or Latino origin (of any race)	940,295	1,251	248,474	6,013	26.4%	0.6	14,205	14,205	5,755	898	40.5%	6.3
ALL INDIVIDUALS WITH INCOME BELOW THE FOLLOWING POVERTY RATIOS												
50 percent of poverty level	644,054	10,566					11,049	11,049				
125 percent of poverty level	1,965,346	19,596					32,390	32,390				
150 percent of poverty level	2,447,468	21,928					38,861	38,861				
185 percent of poverty level	3,136,964	24,561					47,868	47,868				
200 percent of poverty level	3,420,476	24,183					51,395	51,395				

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

All **bolded and orange** highlighted 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 6.02 had an estimated population of 8,641 with 39.8% (MOE +/-9.6%) living below the poverty level (Table 10). Across all subjects, Some other race (67.4%, MOE +/- 37.5%) had the highest percent living below the poverty level, followed by under 18 at 60.3% (MOE +/- 14.9%). All populations with an estimate of above 0.0% below the poverty level had a greater than 5% difference when compared to the county and the state.

Table 10. Poverty - Local Setting

Subject	Census Tract 6.02					
	Total		Below poverty level		Percent below poverty level	
	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-
Population for whom poverty status is determined	8,641	963	3,442	998	39.8%	9.6
AGE						
Under 18 years	2,942	577	1,774	656	60.3%	14.9
18 to 64 years	4,755	482	1,481	437	31.1%	8.7
65 years and over	944	204	187	104	19.8%	11.5
SEX						
Male	4,441	598	1,522	573	34.3%	11.3
Female	4,200	572	1,920	568	45.7%	10.5
RACE AND HISPANIC OR LATINO ORIGIN						
White	3,496	591	804	678	23.0%	17.8
Black or African American	1,284	434	607	390	47.3%	22.1
American Indian and Alaska Native	0	17	0	17	-	**
Asian	0	17	0	17	-	**
Native Hawaiian and Other Pacific Islander	0	17	0	17	-	**
Some other race	387	312	261	274	67.4%	37.5
Two or more races	78	17	0	17	0.0%	34.3
Hispanic or Latino origin (of any race)	3,783	698	2,031	691	53.7%	14.5
ALL INDIVIDUALS WITH INCOME BELOW THE FOLLOWING POVERTY RATIOS						
50 percent of poverty level	1,693	900				
125 percent of poverty level	4,168	1,013				
150 percent of poverty level	4,233	1,023				
185 percent of poverty level	4,668	1,055				
200 percent of poverty level	4,847	1,052				
Source: US Census Bureau, ACS 2018 5-year Estimates						
All bolded and blue highlighted 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 11) 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 \$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 Wayne County with the highest percent was \$50,000 to \$74,999 at 17.2% (MOE +/- 1.3%). The median income was \$44,416 and the mean income was \$62,307. All income ranges less than \$35,000 had percentages that were more than 10% greater than the state ranges.

Table 11. Regional Setting - Household Income

Subject	North Carolina		Wayne County	
	Households		Households	
	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-
Total	3,918,597	8,585	48,343	649
Less than \$10,000	6.8%	0.1%	7.7%	0.9%
\$10,000 to \$14,999	5.4%	0.1%	6.9%	1.0%
\$15,000 to \$24,999	10.7%	0.1%	12.6%	1.3%
\$25,000 to \$34,999	10.7%	0.1%	12.8%	1.3%
\$35,000 to \$49,999	14.2%	0.1%	15.5%	1.2%
\$50,000 to \$74,999	18.1%	0.1%	17.2%	1.3%
\$75,000 to \$99,999	12.0%	0.1%	11.8%	1.2%
\$100,000 to \$149,999	12.5%	0.1%	10.6%	1.1%
\$150,000 to \$199,999	4.7%	0.1%	2.6%	0.5%
\$200,000 or more	4.9%	0.1%	2.4%	0.5%
Median income (dollars)	52,413	224	44,416	1,980
Mean income (dollars)	73,753	332	62,307	2,787
Per Capita Income (dollars)	29,456	143	25,777	1,115
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 6.02 with the highest percent was \$15,000 to \$24,999 at 21.5% (MOE +/- 8.2%). The median income was \$38,558 and the mean income was \$58,877 (Table 12). The income ranges from \$10,000 to \$24,999 had percentages that were more than 10% greater than both the state and county.

The household income range for the one-mile radius with the highest percent was \$75,000 and higher at 43%. EJSCREEN provides data with different income ranges that cannot be compared in the same manner.

Table 12. Household Income - Local Setting

Subject	Census Tract 6.02		Project Radius	
	Households		Households	
	Estimate	Margin of Error (+/-)	Estimate	Margin of Error (+/-)
Total	2,913	258	214	159
Less than \$10,000	2.5%	2.3%	0%	
\$10,000 to \$14,999	11.7%	5%		
\$15,000 to \$24,999	21.5%	8.2%	16%	
\$25,000 to \$34,999	9.6%	4.4%	28%	
\$35,000 to \$49,999	11.9%	5.9%		
\$50,000 to \$74,999	17.6%	6.2%	13%	
\$75,000 to \$99,999	7.7%	4.3%	43%	
\$100,000 to \$149,999	11.4%	4.7%		
\$150,000 to \$199,999	3.6%	2.6%		
\$200,000 or more	2.5%	2.4%		
Median income (dollars)	38,558	9,909		
Mean income (dollars)	58,877	7,242		
Per Capita Income (dollars)	20,306	2,979	22,857	
Source: US Census Bureau, ACS 2018 5-year Estimates All bolded and blue highlighted cells indicate a difference that is greater than 10% when compared to the County and the State				

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 Wayne County was \$25,777. The estimate for Census Tract 6.02 was \$20,306. Both the County and Census Tract 6.02 had a lower Per Capita Income than that of the state. The EJSCREEN analysis detailed the Per Capita Income estimate for the one-mile buffer surrounding facility site, at \$22,857, higher than the census tract, but lower than the county and the state.

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 13). At 26% of the census tract population, this reaches the 5% threshold that initiates potential translation services for this project. DEQ will perform the four-factor analysis as laid out in the LEP-Language Access Plan (<https://files.nc.gov/ncdeq/EJ/Limited-English-Proficiency-Plan.pdf>) to determine appropriate additional outreach steps.

Table 13. Limited English Proficiency (LEP)

LANGUAGE SPOKEN AT HOME	Census Tract 6.02		
	Estimate	Margin of Error +/-	Percent
Total (population 5 years and over):	8,099	796	100%
Speak only English	4,468	363	55.2%
Spanish or Spanish Creole:	3,577	585	44.2%
Speak English "very well"	1,474	54	18.2%
Speak English less than "very well"	2,103	17	26.0%
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 a County Health Rankings system 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 2021 report, out of all 100 counties in North Carolina (with 1 indicating the healthiest), Wayne County ranks 70th in health factors and 64th in health outcomes.

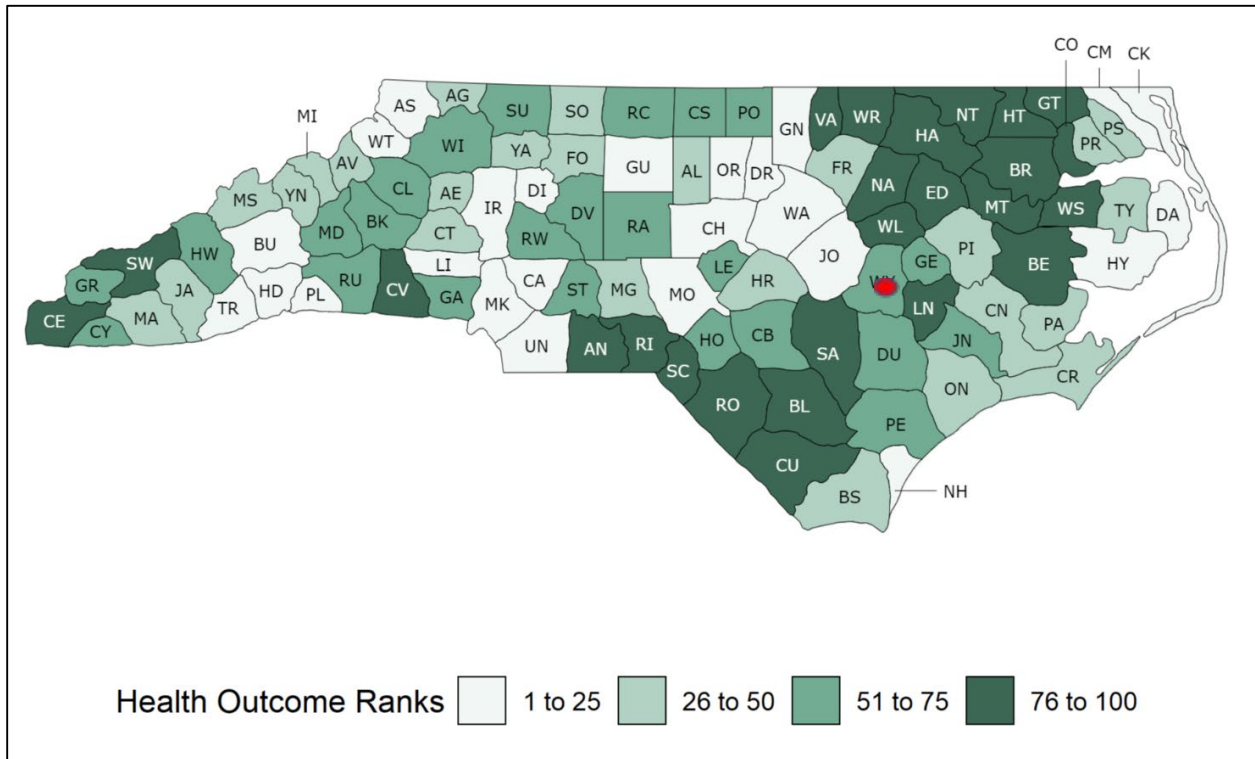


Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

According to the NC DEQ Community Mapping System Environmental Justice Tool, the rates of death in Wayne County are slightly higher than the state averages (Table 14). The hospitalization due to asthma in Wayne County is 180 (per 100,000 individuals), twice the hospitalization average for the state at 90 individuals per 100,000 individuals. The number of primary care physicians in Wayne County (6.3 per 10,000 residents) is slightly higher than the state average (4.8 per 10,000 residents).

Table 14. Health Outcomes

Cause of Death	Wayne County	North Carolina
Cancer	186.7	169.1
Heart Disease	164.3	163.7
Stroke	55.3	43.1
Cardiovascular Disease	239.9	221.9
Diabetes	30.9	22.8
Source: NCDEQ 2020 EJ Tool		

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.

No sensitive receptors were identified within the one-mile project radius of the Flowers Timber Company facility.

However, located slightly beyond the one-mile project radius, the following potential sensitive receptors were identified (Figure 4):

- Springs Creek Baptist Church
- Best Chapel Freewill Baptist church
- Walker Memorial United Methodist church
- La Pasadita Mexican Store
- Eagles Nest LDS Church Camp
- Indian Springs Volunteer Fire Department

Additional sensitive receptors may be identified during the permit application process, such as during the field reconnaissance visit or through public comment.

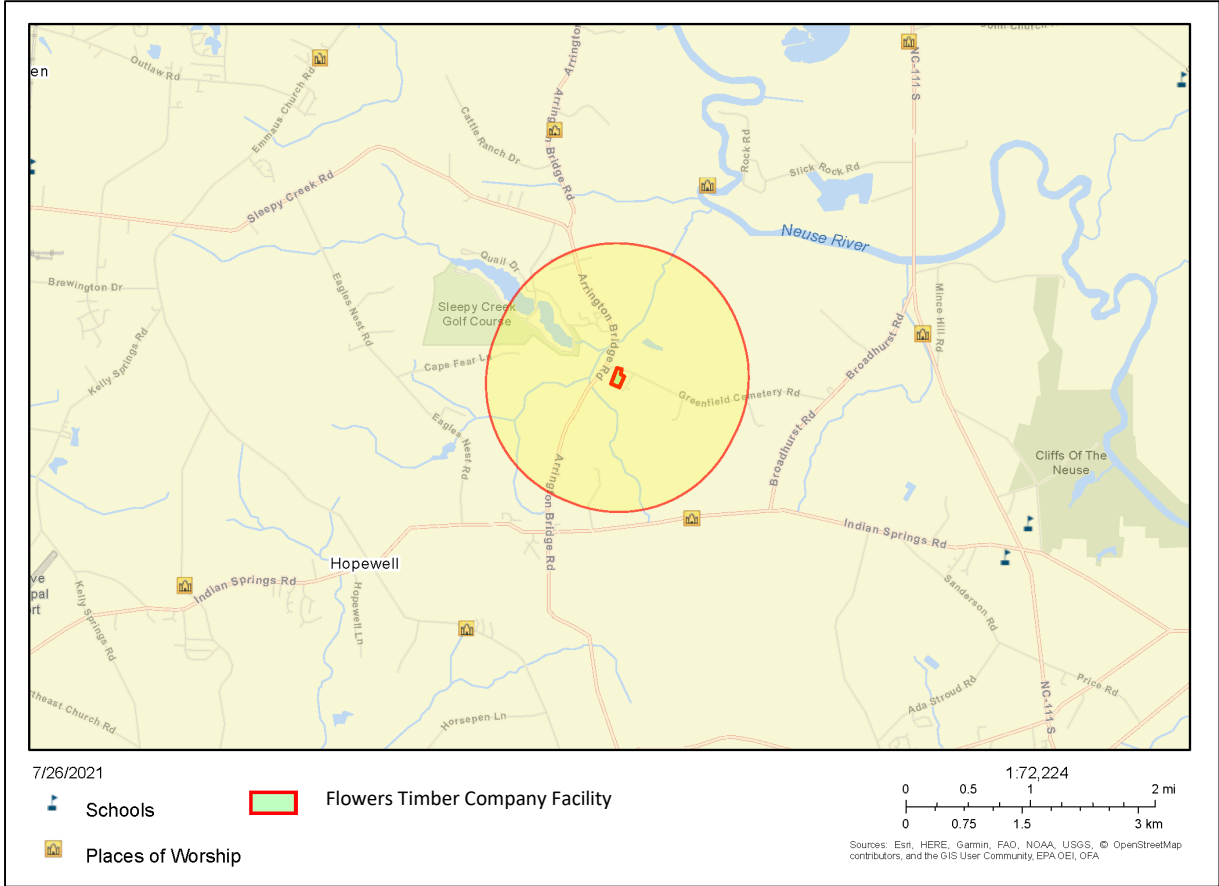


Figure 4. Sensitive Receptors surrounding the Flowers Timber Facility.

9 Local Industrial Sites

Within the one-mile project radius, five facility permits or incident reports were identified using the NCDEQ Community Mapping System (as of June 29, 2021). Those include two air quality permitted facilities (one a Synthetic Minor for the existing Flowers Timber Company Facility and one an inactive permit for a previous facility), one NPDES Stormwater Permit (for the Flowers Timber Company itself), and two Animal Feeding Operations (Figure 5).

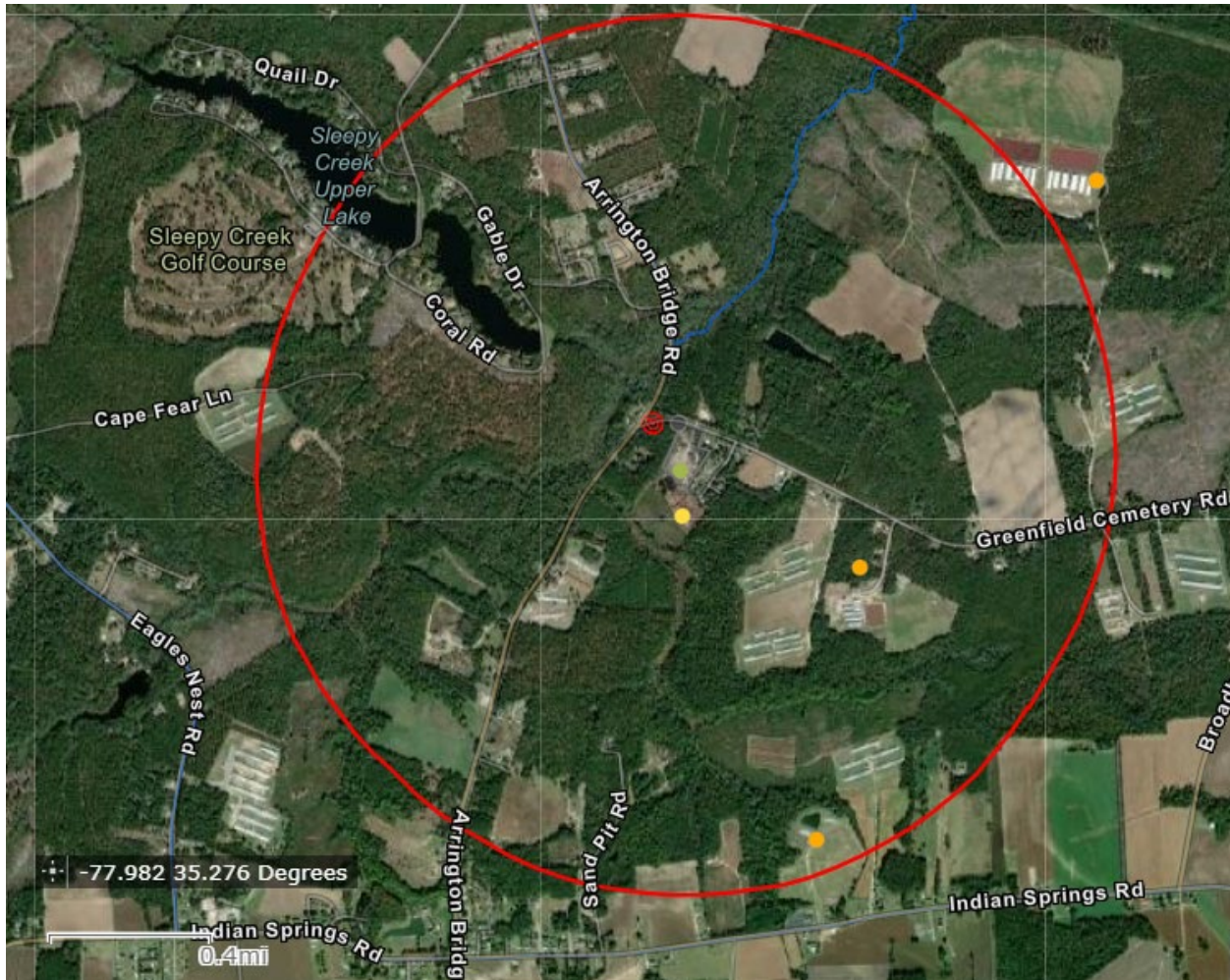


Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the Flowers Timber Company facility.

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, Wayne County, Census Tract 6.02, and the one-mile radius around the Flowers Timber Company 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; some of the census tracts slightly overlap with the one-mile radius; and the Department cannot determine which populations are in that small amount of overlap around the facility.

The Department assessed the available demographic and socioeconomic data of the communities surrounding the Flowers Timber Company facility regarding its permit application. The county, project area, and the census tract display generally higher percentages of Hispanic or Latino (of any race) populations than the state. Additionally, Wayne County (but not the local settings) has higher African American populations than state estimates. Overall, the disability estimates are slightly higher for both Wayne County and Census Tract 6.02 than those for the state. The majority of the poverty estimates are flagged for the County and the census tract when compared to both the state and the county. The County, census tract, and the project radius all have a per capita income lower than the state. Wayne County ranks 70th in health factors and 64th in health outcomes. There were five permitted facilities located within one-mile of the proposed facility.

Based on the data from this report, the following recommendations for enhanced outreach have been made:

- The list of sensitive receptors identified slightly beyond the one-mile radius will be consulted when considering best outreach options for this community.
- Contact known community leaders or individuals who have previously indicated interest in the methyl bromide rules.
- Further analyze the feasibility of translating relevant materials into Spanish.