North Carolina Department of Environmental Quality
July 14, 2022

Carolina Poultry Power

Draft Environmental Justice Report

Contents

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 Lenoir County, Census Tract 111, as well as the one-mile radius around the property boundary of the proposed Carolina Poultry Power facility. Finally, the demographics of the entire state of North Carolina are also considered as they compare to 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 historical context, current permit conductions, and the demographics of the communities in the area surrounding the facility. Accordingly, this Draft EJ Report includes:

- Pertinent permit information
- Facility history 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 in the surrounding area
- Local industrial sites (using the NCDEQ Community Mapping System: https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=1eb0fbe2bcfb4cccb3cc212af8a0b8c8)
- Outreach recommendations

Demographics for Lenoir County and the state are compared to the local (census tract 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 for having the potential for environmental justice concerns using criteria set out in more detail in Section 5, Regional and Local Settings.

3 Proposed Project

Carolina Poultry Power RG3, LLC submitted an air quality permit application (No. 5400216.22A) to the Division of Air Quality (DAQ) for a new biomass-to-energy facility in LaGrange, Lenoir County, North Carolina. The company has requested a new greenfield permit for the following equipment:

- A boiler to fire used poultry bedding (litter) (maximum heat input of 97 million Btu per hour, ID No. ES-B1) with emissions controlled by:
  - A multicyclone (ten 24-inch-diameter cyclone tubes) for particulate matter (PM) control;
  - A selective non-catalytic reduction system with 8 urea injectors (ID No. CD-SNCR1) for nitrogen oxides (NOx) control;
  - A dry sorbent injection control system (ID No. CD-SI1) for acid gas control; and
  - A fabric filter (15,808 square feet of filter area, ID No. CD-BF1) for particulate matter (PM) control
- A lime storage silo (31 tons storage capacity, ID No. ES-SILO) with a bagfilter (196 square feet of filter area, ID No. CD-BV1) for particulate control

The facility will be classified as synthetic minor. To prevent the facility from becoming a Title V major source, the draft permit contains specific conditions limiting criteria air pollutant emissions to 100 tons per year (each), the greatest potentially emitted hazardous air pollutant (HAP) to less than 10 tons per year, and total emissions of HAPs to less than 25 tons per year. To comply with the conditions, the facility must properly operate and maintain the emissions control equipment. See Table 1 for an overview of the facility's potential emissions before and after installing controls.

Carolina Poultry Power RG3 submitted air toxics modeling with the permit application, identifying emissions of eight toxic air pollutants (TAPs) exceeding the Toxics Permitting Emissions Rates (TPERs) listed in 15A NCAC 02Q .0711; therefore, it was necessary to conduct atmospheric dispersion modeling for these eight TAPs. DAQ reviewed this modeling and compared the results to the respective Acceptable Ambient Levels (AALs). DAQ determined that the modeling adequately demonstrates that maximum concentrations of each TAP will be below the AALs, in compliance with 15A NCAC 02D .1104. The TAP with the greatest concentration as a percentage of its respective AAL, benzene, was modeled at 21% of its AAL. The other seven modeled at 2% or less. Based on the analysis results and the modeling review, DAQ has determined that the toxics emissions from this facility will not pose unacceptable health risks.

Table 1. Facility Emissions Overview

Pollutant	Potential Emissions Before Controls (tons/year)	Potential Emissions After controls (tons/year)
PM	1290.72	12.91
PM_{10}	1290.67	12.91
NOx	178.44	98.14
CO	93.47	93.47
SO_2	118.96	95.17
VOC	7.22	7.22
Highest HAP (HCl) (Next largest HAP <2 tpy)	139.71	9.78
Total HAPs	147.55	17.54
Greenhouse Gases	96,592	96,592

Since this is a greenfield facility, actual emissions were estimated by Carolina Poultry Power RG3 to be the same as the potential controlled emissions.

4 Geographic Area

The proposed Carolina Poultry Power facility is located on Brothers Road, LaGrange, NC 28551 (Lenoir County Tax Parcel No. 15787) (Figure 1). A one-mile radius was used to evaluate the local demographics and socioeconomics to appropriately include the surrounding community and help inform the Department's public outreach efforts. The one-mile buffer around the facility is located entirely within Lenoir County.
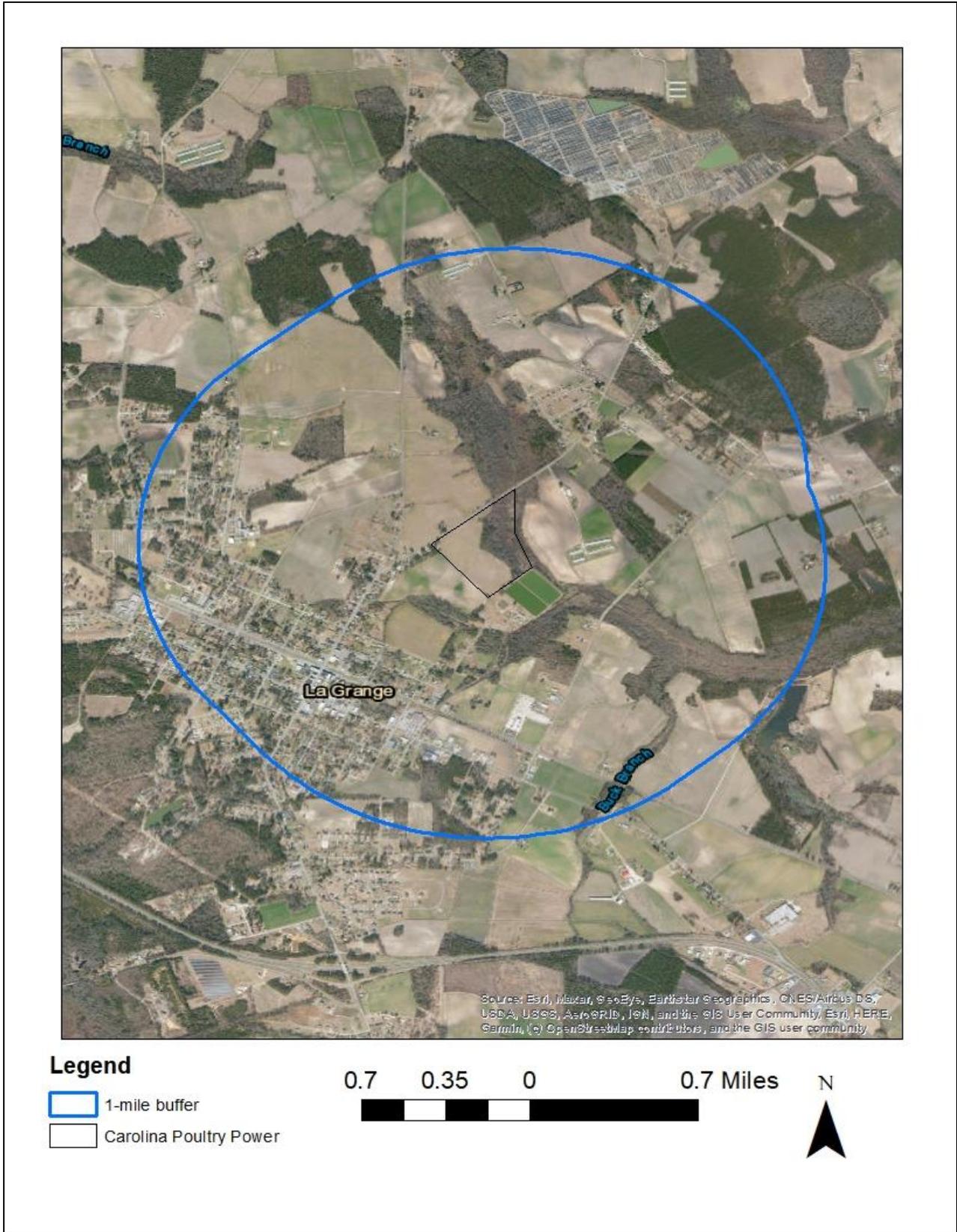
Figure 1. Facility location with the one-mile buffer.

Lenoir County is designated as a Tier 1 county by the NC Department of Commerce 2022 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 system. The proposed facility location is located fully within Census Tract 111 (Figure 2). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau). Neither the county nor the census tracts encompass land within a state-designated tribal statistical area.
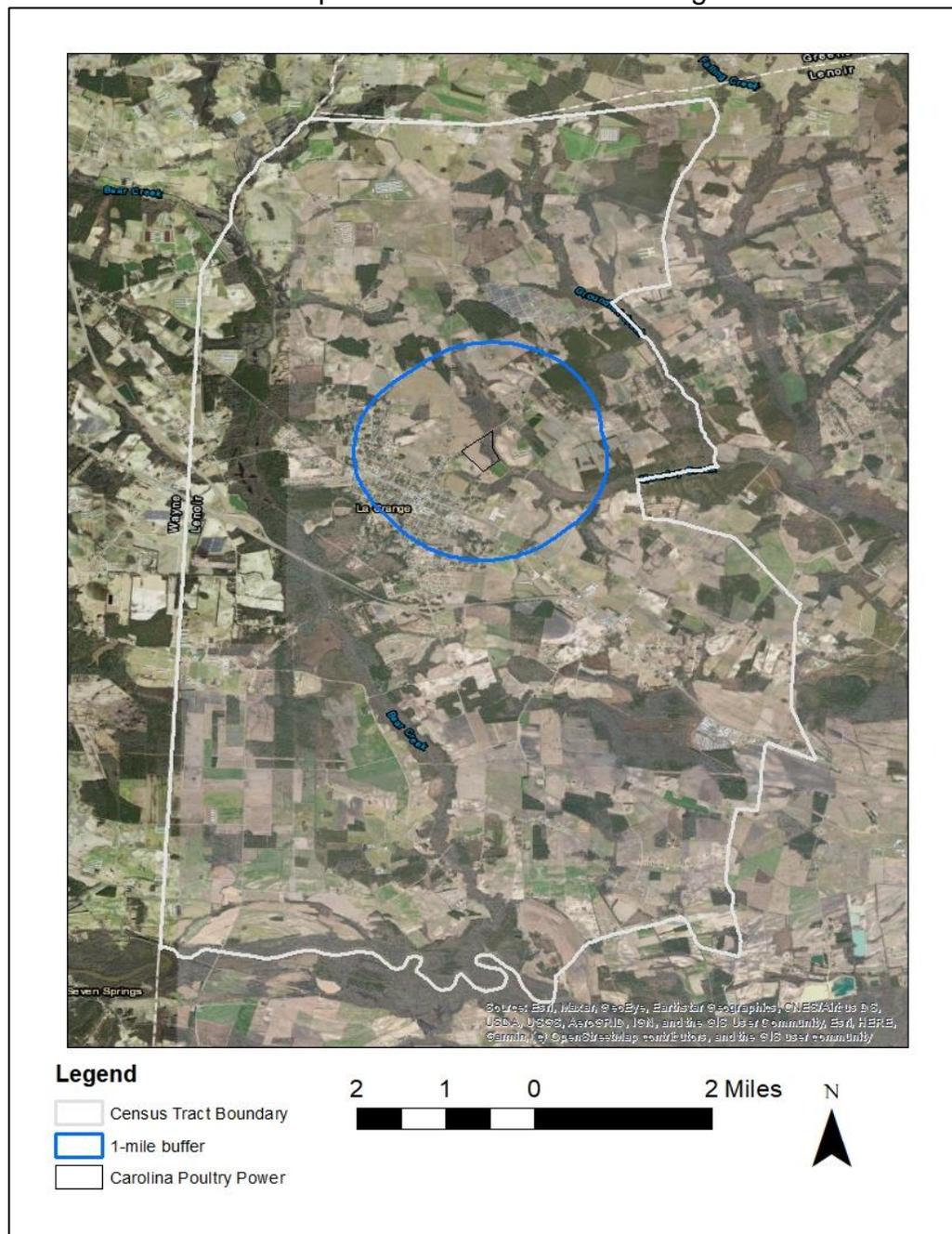
Figure 2. Census Tract 111 surrounding the facility location.

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 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 communities with the potential for environmental justice concerns:

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 an area with the potential for having EJ concerns. For this report, census data from 2010, 2020 and census data estimates from 2011-2015 and 2019 were used. 2010 and 2020 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 2019 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 2020 US Census Data Table P2: Hispanic or Latino, and Not Hispanic or Latino by Race, North Carolina's population totaled 10,439,388 individuals (Table 2). The three most common racial groups across the state were White (60.5%), Black or African American (20.2%), and Hispanic or Latino (of any race) (10.7%).

Lenoir County had a total population of 55,122 individuals (Table 2). The two most common racial or ethnic groups in Lenoir County were White (not Hispanic or Latino) (48.2%) and Black or African American (40.0%). The population of 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		Lenoir County	
	Number	Percent	Number	Percent
Total Population	10,439,388	100.0	55,122	100.0
White	6,312,148	60.5	26,582	48.2
Black or African American	2,107,526	20.2	22,034	**40.0**
American Indian or Alaska Native	100,886	1.0	134	0.2
Asian	340,059	3.3	332	0.6
Native Hawaiian and Other Pacific Islander	6,980	0.1	22	0.0
Some other Race	46,340	0.4	135	0.2
Two or More Races	406,853	3.9	1,518	2.8
HISPANIC OR LATINO (of any race)	1,118,596	10.7	4,365	7.9
Source: US Census Bureau, 2020 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 2020 US Census Data Table P2: Hispanic or Latino, and Not Hispanic or Latino by race or ethnicity, the largest population within Census Tract 111 was White (48.6%) (Table 3). Black or African American was greater than 10% different compared to the state, and Hispanic or Latino (of any race) was greater than 10% different when compared to the County.

Within the one-mile project radius, the largest population was White (not Hispanic or Latino) at 47%, followed by Black or African American at 45%, which was greater than 10% different when compared to both the County and state.

Table 3. Local Setting - Race and Ethnicity

	Project Area - 1 Mile		Census Tract 111	
Race and Ethnicity	**Number**	**Percent**	**Number**	**Percent**
Total Population	2,280	100	5,366	100
White	1,060	47	2,608	48.6
Black or African American	1,026	**45**	2,076	**38.7**
American Indian or Alaska Native	3	0	12	0.2
Asian	8	0	27	0.5
Native Hawaiian and Other Pacific Islander	1	0	1	0.0
Some other Race	2	0	10	0.2
Two or More Races	20	1	160	3.0
HISPANIC OR LATINO (of any race)	160	7	472	**9**
Source: US Census Bureau, 2020 Census; EJSCREEN Census 2010 (for Project Area - 1 mile) 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 median age for females (38.7) was slightly older than the median age for males (36).

Lenoir County had a total population of 59,495 individuals. The median age for females (43.4) was slightly higher than the median age for males (38.5), both older than the median age for the state.

Table 4. Regional Setting - Age Groups and Sex

Age	North Carolina						Lenoir 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%	49%	51%	59,495	28,397	31,098	100%	48%	52%
Median Age	37.4	36	38.7				41.0	38.5	43.4			
Source: US Census Bureau, 2010 Census												

Local Setting

According to the 2010 US Census Data Table P 12: Sex by Age, and Table P13: Median Age, Census Tract 111 had a total population of 5,820 and a slightly older median ages than the state (Table 5).

Table 5. Local Setting - Age Groups and Sex

Age	Census Tract 111					
	Number			Percent		
	Both sexes	Male	Female	Both sexes	Male	Female
Total Population	5,820	2,799	3,021	100%	48%	52%
Median Age	41.10	37.9	44			
Source: US Census Bureau, 2010 Census						

Project Buffer

EJSCREEN identified a population of 2,280 individuals within the one-mile buffer surrounding the facility. There was a slightly higher percentage of females than males in this area. EJSCREEN data does not provide the median age (Table 6).

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	2,280	1,078	1,202	100%	47%	53%
Source: US Census Bureau, 2010 Census. Obtained through EJSCREEN 2.0						

5.3 Disability

Regional Setting

According to the 2020 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 10,178,084 noninstitutionalized citizens. Of those individuals, an estimated 13.4% (MOE +/- 0.1%) had a disability. American Indian and Alaskan Native had the highest estimated disability rate of 18.3% (MOE +/- 0.8%). Black or African American and White (not Hispanic or Latino) had the next highest population estimates with disabilities in North Carolina, both at 14.4% (MOE +/-0.2%) and 14.4% (MOE +/- 0.1%), respectively (Table 7).

Lenoir County had an estimated total population of 55,150 noninstitutionalized citizens. Of those, an estimated 24.0% (MOE +/- 1.2%) had a disability. The largest population of disabled civilians was American Indian and Alaska Native (31.8%, MOE 30.8%), followed by Native Hawaiian and Other Pacific Islander (28.0%, MOE +/- 41.8%). All the race and ethnicity brackets were greater than 10% different when compared to the state.

Table 7. Regional Setting – Disability

Subject	North Carolina						Lenoir 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	10,178,084	2,246	1,363,146	10,334	13.4	0.1	55,150	307	13,234	650	**24.0**	1.2
RACE AND HISPANIC OR LATINO ORIGIN												
White (not Hispanic or Latino)	6,384,673	4,026	920,335	7,716	14.4	0.1	27,020	233	6,695	474	**24.8**	1.8
Black or African American	2,162,727	5,667	312,089	5,124	14.4	0.2	21,390	903	5,550	537	**25.9**	2.2
American Indian and Alaska Native	117,165	2,329	21,497	933	18.3	0.8	107	78	34	48	**31.8**	30.8
Asian	305,567	2,316	16,107	1,164	5.3	0.4	120	101	12	21	**10.0**	18.9
Native Hawaiian and Other Pacific Islander	6,715	771	620	185	9.2	2.8	50	39	14	26	**28.0**	41.8
Some other Race	330,447	8,082	21,840	1,304	6.6	0.4	1628	505	153	93	**9.4**	5.5
Two or more races	368,363	7,303	38,115	1,947	10.3	0.5	2588	834	627	294	**24.2**	7.2
Hispanic or Latino	968,502	1,000	63,943	2,301	6.6	0.2	4381	44	445	167	**10.2**	3.8
Type of Disability												
With a hearing difficulty	(X)	(X)	379973	5120	3.7	0.1	(X)	(X)	3,008	384	5.5	0.7
With a vision difficulty	(X)	(X)	263954	5052	2.6	0.1	(X)	(X)	2,346	391	4.3	0.7
With a cognitive difficulty	(X)	(X)	515673	7341	5.4	0.1	(X)	(X)	6,076	570	11.7	1.1
With an ambulatory difficulty	(X)	(X)	711995	6660	7.4	0.1	(X)	(X)	6,877	515	13.3	1.0

Source: US Census Data, 2020 ACS 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 2020 American Community Survey 5-Year Estimates, Table S1810 Disability Characteristics from the US Census Bureau, Census Tract 111 had an estimated total population of 5,607 noninstitutionalized citizens (Table 8). Of those individuals, an estimated 18.8% (MOE +/- 4.8%) had a disability. The subjects with the largest population of disabled civilians were Two or more races (41.8%, MOE +/- 5.6%), followed by White at 20.8% (MOE +/- 4.8%). The total population with a disability, White, Black or African American, some other race, and two or more races were greater than 10% different compared to the state.

Table 8. Local Setting - Disability

Subject	Census Tract 111					
	Total		With a Disability		Percent with a Disability	
	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-
Total civilian noninstitutionalized population	5,607	650	1,053	258	**18.8%**	4.8
RACE AND HISPANIC OR LATINO ORIGIN						
White (not Hispanic or Latino)	3,105	696	647	267	**20.8%**	7.5
Black or African American	1,641	611	300	187	**18.3%**	9.3
American Indian and Alaska Native	0	19	0	19	-	**
Asian	0	19	0	19	-	**
Native Hawaiian and Other Pacific Islander	0	19	0	19	-	**
Some other Race	505	438	50	78	**9.9%**	9.3
Two or more races	134	210	56	90	**41.8%**	5.6
Hispanic or Latino	729	468	50	78	6.9%	7.9
Type of Disability						
With a hearing difficulty	(X)	(X)	298	139	5.3%	2.5
With a vision difficulty	(X)	(X)	186	104	3.3%	2.0
With a cognitive difficulty	(X)	(X)	382	147	7.5%	3.1
With an ambulatory difficulty	(X)	(X)	626	209	12.3%	4.2
Source: US Census Data, 2020 ACS 5-Year Estimates, All **bolded and orange** highlighted cells indicate a difference that is greater than 10% when compared to the state						

5.4 Poverty

Regional Setting

According to the Census Table S1701, Poverty Status in the Past 12 Months, 2020 American Community Survey 5-Year Estimates, from the US Census Bureau, North Carolina had an estimated population of 10,098,330, with 14.0% (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 25.0% (MOE +/- 1.5%). The next three subjects with the highest poverty level were American Indian and Alaska Native at 24.1% (MOE +/- 1.2%), Hispanic or Latino at 23.9% (MOE +/- 0.6%), and Native Hawaiian and Pacific Islander at 22.8% (MOE +/- 5.8%). Households below 200 percent of the federal poverty level[1] are calculated by multiplying the percentage point by the poverty level for the number of individuals in that household. For example, to calculate 200% of the poverty level for a household of four in 2021[2], that would be $53,000 (2.0 x $26,500).

Lenoir County had an estimated population of 55,145 with 22.0% (MOE +/- 2.5%) living below the poverty level. Across all subjects, American Indian and Alaska Native had the highest percent living below the poverty level at 43.0% (MOE +/- 32.1%), followed by two or more races (42.4%, MOE +/- 16.8%), and Hispanic or Latino (36.3%, MOE +/- 10.6%). All populations except for Asian, Native Hawaiian and Pacific Islander, and some other race, had estimates greater than 10% different when compared to the state.

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[1] https://www.thebalance.com/federal-poverty-level-definition-guidelines-chart-3305843

[2] The poverty level for a household of four in 2021 is an annual income of $26,500. To calculate the poverty level for larger families, add $4,540 for each additional person in the household. For smaller families, subtract $4,540 per person.

Table 9. Regional Setting – Poverty

Subject	North Carolina						Lenoir 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	10,098,330	2,221	1,411,939	17,543	14.0	0.2	55,145	314	12,113	1,362	**22.0**	2.5
RACE AND HISPANIC OR LATINO ORIGIN												
White	6,344,815	4,042	622,712	11,804	9.8	0.2	26,973	260	3,485	556	**12.9**	2.1
Black or African American	2,132,832	6,025	456,894	7,600	21.4	0.4	21,423	884	6,169	965	**29**	4.0
American Indian and Alaska Native	116,785	2,358	28,165	1,550	24.1	1.2	107	78	46	51	**43.0**	32.1
Asian	301,700	2,467	30,354	2,417	10.1	0.8	117	112	12	21	10.3	20.9
Native Hawaiian and Other Pacific Islander	6,653	762	1,516	343	22.8	5.0	50	39	-	31	0.0	46.5
Some other Race	328,061	8,018	82,109	5,279	25.0	1.5	1,628	505	415	301	25.5	15.2
Two or more races	365,189	7,058	70,845	3,951	19.4	1.0	2,588	834	1,097	619	**42.4**	16.8
Hispanic or Latino	966,330	1,407	230,691	6,016	23.9	0.6	4,393	39	1,593	465	**36.3**	10.6
All individuals below:												
200 percent of poverty level	3,331,937	25,024					25,006	1,494				
Source: US Census Data, 2020 ACS 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, 2020 American Community Survey 5-Year Estimates, from the US Census Bureau, Census Tract 111 had an estimated population of 5,627 with 16.3% (MOE +/- 7.4%) living below the poverty level (Table 10). The total population for whom poverty status is determined as well as Black or African American and two or more races had poverty levels higher than 5% different when compared to either the county, the state, or both.

Table 10. Local Setting- Poverty

Subject	Census Tract 111					
	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	5,627	652	915	394	**16.3**	7.4
RACE AND HISPANIC OR LATINO ORIGIN						
White	3,125	695	218	170	7.0	5.4
Black or African American	1,641	611	565	316	**34.4**	17.9
American Indian and Alaska Native	0	19	0	19	-	**
Asian	-	19	-	19	-	**
Native Hawaiian and Other Pacific Islander	-	19	-	19	-	**
Some other Race	505	438	-	19	0.0	7.6
Two or more races	134	210	132	210	**98.5**	4.8
Hispanic or Latino	729	468	-	19	0.0	5.3
All individuals below:						
200 percent of poverty level	2,390	623				
Source: US Census Data, 2020 ACS 5-Year Estimates All **bolded and orange** highlighted 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 11) was compiled using data from the Census Table S1901, Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars) 2020 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 18.0%. The state median household income was $56,642 and the mean income was $79,620.

The household income range for Lenoir County with the highest percent was $50,000 to $74,999 at 17.3% (MOE +/- 1.8%). The median income was $39,923 and the mean income was $56,328, both lower than that of the state. All household income ranges from less than $10,000 through $35,000 to $49,999 were greater than 10% higher when compared to the state.

Table 11. Regional Setting - Household Income

Subject	North Carolina Households		Lenoir County Households	
	Estimate	Margin of Error +/-	Estimate	Margin of Error +/-
Total	4,031,592	8,480	23,494	565
Less than $10,000	6.2%	0.1	**7.5%**	1.2
$10,000 to $14,999	4.8%	0.1	**10.5%**	1.8
$15,000 to $24,999	9.7%	0.1	**12.6%**	1.9
$25,000 to $34,999	10.0%	0.1	**13%**	1.9
$35,000 to $49,999	13.6%	0.2	**15.7%**	1.8
$50,000 to $74,999	18.0%	0.1	17.3%	1.8
$75,000 to $99,999	12.6%	0.2	9.6%	1.7
$100,000 to $149,999	13.7%	0.1	9.3%	1.4
$150,000 to $199,999	5.4%	0.1	2.5%	0.7
$200,000 or more	6.0%	0.1	2%	0.8
Median income (dollars)	56,642	280	39,923	1,963
Mean income (dollars)	79,620	412	56,328	3,534
Per Capita Income	31,993	182	24,894	1844

Source: US Census, 2020 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 111 with the highest percent was $15,000 to $24,999 at 18.5% (MOE +/- 8.2%) (Table 12). The median income was $48,7504 and the mean income was $63,999. The income ranges $10,000 to $14,999, $15,000 to $24,999, $75,000 to $99,999, and $100,000 to $149,999 had a greater than 10% difference when compared to the state or both the county and the state.

The household income range for the one-mile radius with the highest percent was $15,000-$25,000 at 32%. EJSCREEN data provides different income ranges that cannot be readily compared in the same manner (Table 13).

Table 12. Local Setting - Household Income

Subject	Census Tract 111	
	Households	
	Estimate	**Margin of Error +/-**
Total	2,173	254
Less than $10,000	3.1%	3.5
$10,000 to $14,999	6.1%	4.7
$15,000 to $24,999	**18.5%**	8.2
$25,000 to $34,999	9.0%	4.7
$35,000 to $49,999	13.9%	6.2
$50,000 to $74,999	13.8%	6.3
$75,000 to $99,999	**15.4%**	8.9
$100,000 to $149,999	**15.6%**	7.4
$150,000 to $199,999	3.5%	2.8
$200,000 or more	1.2%	1.4
Median income (dollars)	48,750	13,656
Mean income (dollars)	63,999	8,209
Per Capita Income	25,571	3,619

Source: US Census, 2020 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 13. Project Radius - Household Income

Subject	1 mile		
	Number	**Percent**	**MOE**
Number of Households	943	100%	216
Per Capita Income (dollars)	19,449		
Household Income			
<$15,000	121	13%	106
$15,000-$25,000	303	32%	144
$25,000-$50,000	248	26%	125
$50,000-$75,000	125	13%	98
$75,000+	146	16%	165
Source: EJSCREEN 2019			

Per Capita Income

Per Capita Income data was obtained through the Census Table B19301, Per Capita Income in the Past 12 Months (In 2020 Inflation-Adjusted Dollars), 2020 American Community Survey 5-Year Estimates. The North Carolina per capita income estimate was $31,993. The estimate for Lenoir County was $24,894. The estimate for Census Tract 111 was $25,571.

The EJSCREEN analysis also provided the Per Capita Income estimate for the one-mile radius surrounding facility site, which was $19,449. All Per Capita Income estimates were lower than that of 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. Census Tract 111 had a population that was greater than 5% Limited English proficiency that spoke Spanish (Table 14).

Table 14. Limited English Proficiency

LANGUAGE SPOKEN AT HOME	Census Tract 111			
	Estimate	**Margin of Error**	**Percent**	**Margin of Error**
Total (population 5 years and over):	**5,212**	**571**	(X)	(X)
Speak only English	4,627	560	88.8	7.1
Spanish or Spanish Creole	585	387	**11.2%**	7.1
Other Indo-European languages	0	19	0.00%	0.8
Asian and Pacific Island languages	0	19	0.00%	0.8

7 Educational Attainment

Regional Setting

The following data was obtained through the US Census Bureau Table S1501, American Community Survey 2020 5-Year Estimates (Table 15). Lenoir County had considerably higher percentages of individuals who were in 9th to 12th grades but no diploma and who graduated from high school (or equivalent) while also having considerably lower percentages of individuals who had attained a Bachelor's degree or higher when compared to the state.

Table 15. Regional Setting- Educational Attainment (above 25 years old)

Subject	North Carolina				Lenoir County			
	Number		Percent		Number		Percent	
	Estimate	MOE +/-	Estimate	MOE +/-	Estimate	MOE +/-	Estimate	MOE +/-
Total Above 25	7,096,773	1,493			39,290	148		
Less than 9th grade	301,823	5,184	4.3%	0.1	2,460	427	**6.3%**	1.1
9th to 12th grade, no diploma	513,393	7,840	7.2%	0.1	4,957	661	**12.6%**	1.7
High school graduate (includes equivalency)	1,806,403	11,352	25.5%	0.2	12,581	744	**32%**	1.9
Bachelor's degree or higher	2,273,890	16,159	32.0%	0.2	6,097	521	15.5%	1.3

Source: US Census, 2020 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 following data was obtained through the US Census Bureau Table S1501, American Community Survey 2020 5-year Estimates. Census Tract 111 had a higher percentage of individuals who had attained 9th to 12th grade (no diploma) when compared to the state (Table 16). The percentage of individuals who attained a bachelor's degree or higher was lower when compared to the state.

The educational attainment within the project radius had a higher percentage of individuals who were a high school graduate (includes equivalency) when compared to both the county and the state. The percentage of individuals who had attained a bachelor's degree or higher was lower when compared to the county, state and census tract. The less than 9th grade percentage was higher than the county, state and census tract as well.

Table 16. Local Setting- Educational Attainment (above 25 years old)

Subject	Census Tract 111				Project Radius			
	Number		Percent		Number		Percent	
	Estimate	MOE +/-	Estimate	MOE +/-	Estimate	MOE +/-	Estimate	MOE +/-
Total Above 25	4,054	453			1,574	585		
Less than 9th grade	347	164	8.6%	3.8	157	128	10.0%	
9th to 12th grade, no diploma	552	248	13.6%	5.5	223	148	14%	
High school graduate (includes equivalency)	1,437	320	35.4%	6.3	541	295	34%	
Bachelor's degree or higher	649	276	16%	7.3	141	129	9%	

Source: US Census, 2020 ACS 5-Year Estimates and EJSCREEN 2019
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

8 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 2022 report, out of all 100 counties in North Carolina (with 1 indicating the healthiest), Lenoir County ranks 90th in health outcomes and 82nd in health factors.
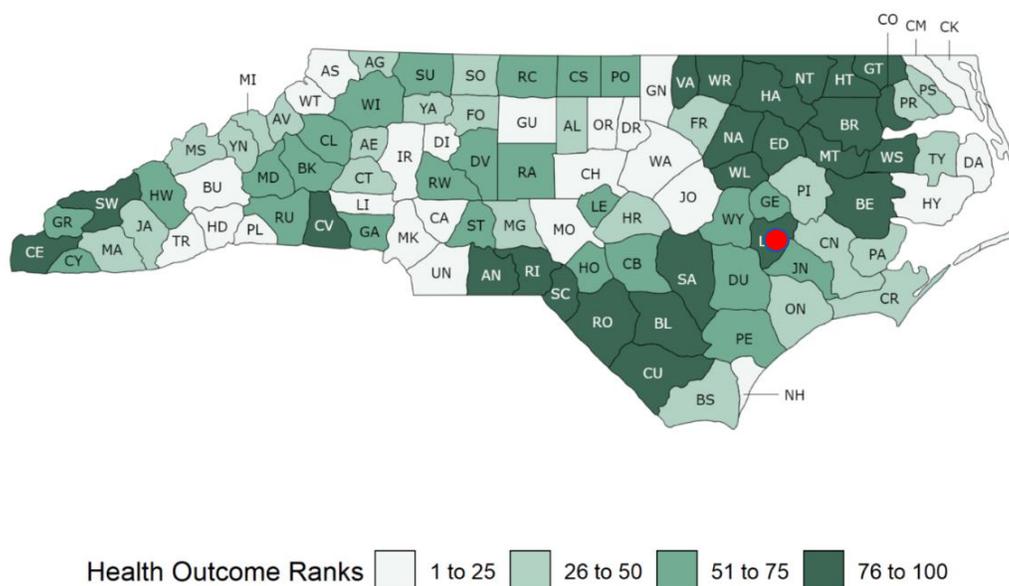

Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

According to the NC DEQ Community Mapping System Environmental Justice Tool, the health outcome causes of death in this particular location are higher than the state averages overall, except for stroke and diabetes, which are the same as the state average. The hospitalizations due to asthma in this area is 47 per 100,000 individuals, as compared to the state at 90 per 100,000 individuals. Finally, the number of primary care physicians in this area (6.06 per 10,000 residents) is higher than the state average (4.812 per 10,000 residents).

Table 17. Health Outcomes

Cause of Death	Project Area	North Carolina
Cancer	180.5	169.1
Heart Disease	231.7	163.7
Stroke	42.3	43.1
Cardiovascular Disease	285.2	221.9
Diabetes	22.6	22.8
Source: CMS EJ Tool 2020		

9 Local Sensitive Receptors

The U.S. 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 healthy individuals aged between 18 and 64.

Within the one-mile radius surrounding the facility location, the following sensitive receptors were identified (Figure 4):

- E B Frink Middle 102
  N Martin Luther King Jr Dr La Grange, NC 28551

- La Grange Elementary
  402 W Railroad St La Grange, NC 28551

Additional sensitive receptors may be identified during the remainder of the permit application process.
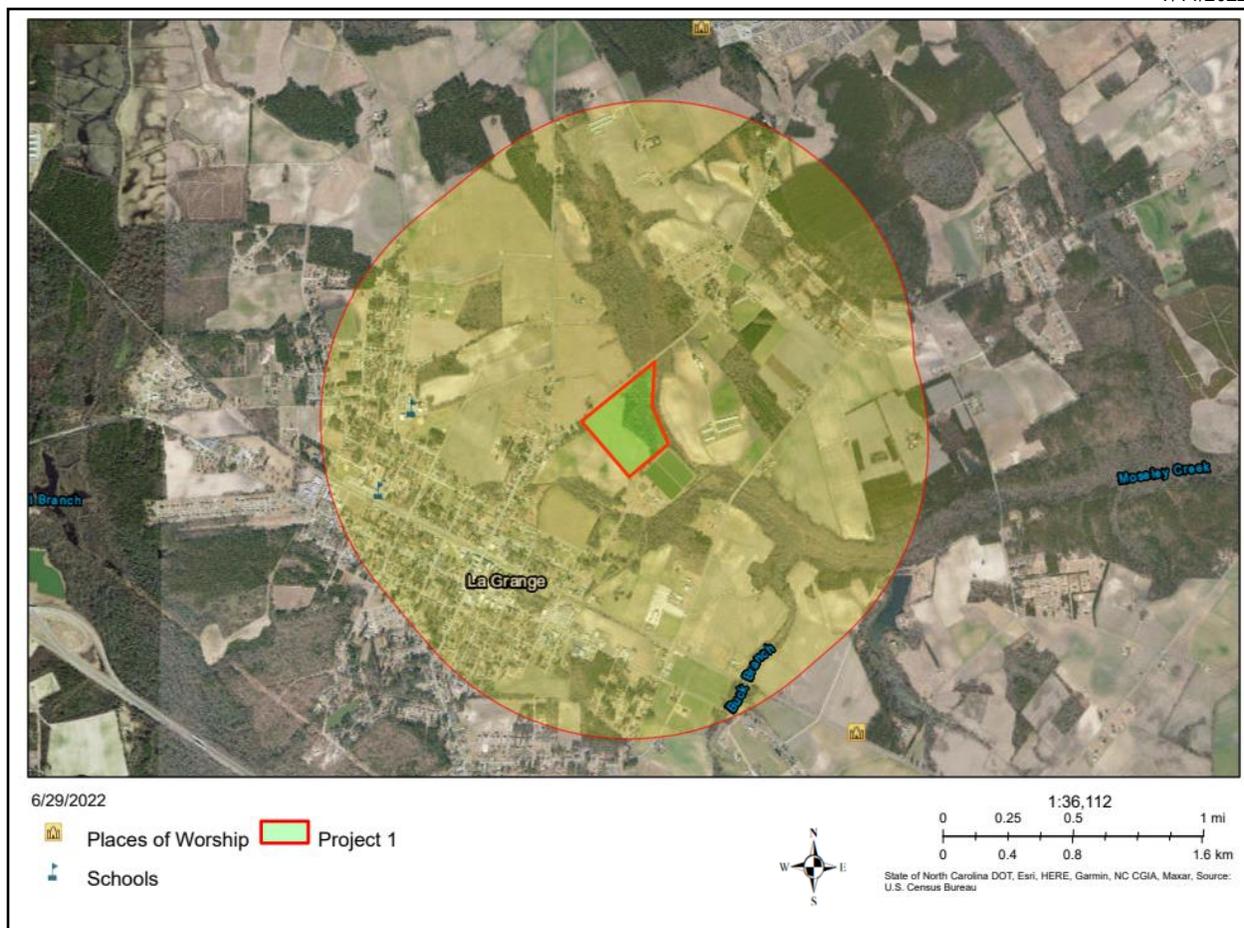
Figure 4. Sensitive receptors surrounding the proposed facility.

10 Local Industrial Sites

According to the NC CMS/EJ Tool, within the one-mile radius of the facility, there are 27 permits or incidents (as of June 29, 2022) (Figure 5).

- 1 Air Quality Permit Sites
- 1 NPDES Wastewater Treatment Facility Permits
- 1 Animal Feed Operation Permits (View)
- 3 Inactive Hazardous Sites
- 1 Pre-Regulatory Landfill Sites
- 1 Brownfields Program Sites
- 1 Hazardous Waste Sites
- 11 Underground Storage Tank Incidents
- 3 Above Ground Storage Tank Incidents
- 4 Underground Storage Tank Active Facilities
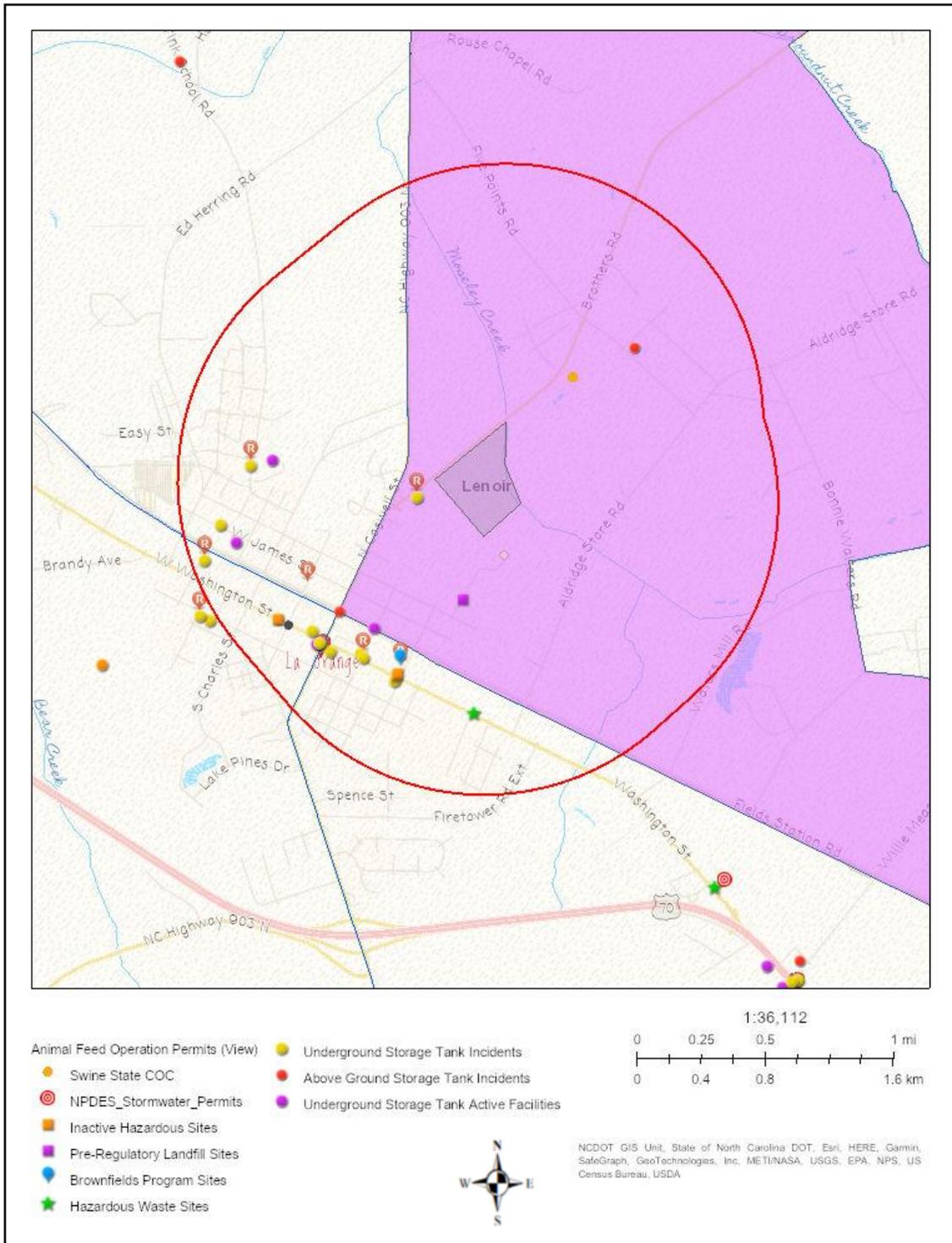
Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the facility.

11 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 Draft EJ report examined the demographic and environmental conditions in North Carolina and the one-mile radius around the Carolina Poultry Power Facility encompassing Census Tract 111 in Lenoir County. It is important to keep in mind that based on the available data, the following limitations of this report: census data is from 2020 and may be outdated; the American Community Survey data through 2020 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 are in that small amount of overlap around the facility.

The Department assessed the available demographic and socioeconomic data of the community surrounding the Carolina Poultry Power Facility regarding its permit application. The county, the project area data from the radius used, and the census tract were generally 10% or greater than the state estimates for multiple datasets. Census Tract 111 had a population that was greater than 5% Limited English proficiency that spoke Spanish.

Lenoir County ranks 90th in health outcomes and 82nd in health factors. The project area performed worse than the state average for all death rates that are included in the DEQ EJ Tool. There were 27 permits or incidents recorded within one mile of the proposed facility.

Based on this Draft EJ Report, the following outreach is recommended:

- Consult the list of sensitive receptors while considering additional outreach options that may best fit this community's needs.
- Generate a one-page flyer
- Distribute the flyer to local businesses and shops
- Conduct the four factor analysis to determine feasibility of translating the flyer and press release into Spanish
- Provide a call in option for people to leave comments on a voicemail line in case of lack of internet
- Provide project information to officials in the Town of La Grange, and the local health Department.
- Consult known community leaders for additional outreach options and recommendations.