

Robeson County Liquefied Natural Gas Facility: Environmental Justice Snapshot

1 Introduction

The EJ Snapshot is an initial look at the demographics and socioeconomics of a facility's surrounding community area. This includes information within a radius determined by the North Carolina Department of Environmental Quality (Department or DEQ), race and poverty (decennial census year), per capita income and Ability to speak English (most current American Community Survey (ACS) census range), the current North Carolina Department of Commerce county tier, and presence of native American territory. The EJ Snapshot does not include a reconnaissance of the community.

A snapshot will be conducted at the beginning of the application process when a full EJ report is already requested. This will be distributed to interested community members (if known) and posted to the DEQ website with the relevant permit application before the close of the public comment period. The primary goal is to encourage EJ Report comments and suggestions from the surrounding community, industry, and environmental groups throughout the comment period.

Among other things, the snapshot could be conducted based on community, public or national interest; involvement of a new technology or new facility and/or the presence of coal ash. An EJ snapshot may also be conducted in lieu of an EJ report in some circumstances.

It is important to keep in mind, that based on the data available, the following limitations of this study: census data is from 2010 and may be outdated; the more recent census data through 2017 are estimates; EJSCREEN does not provide all of the data categories that were used in this analysis so the census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; 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 radius; and the Department cannot determine which populations are in that small amount of overlap.

The Department has conducted this Snapshot of the demographic and socioeconomic data for the community surrounding the Piedmont Natural Gas (PNG) Company's proposed Liquefied Natural Gas (LNG) Facility to foster communication while the Department evaluates PNG's erosion and sedimentation control plans for the site. Based on the results of this Snapshot and any public comments received, a full EJ Report may be conducted prior to any final Agency action.

2 Environmental Justice Assessment

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 Snapshot examines the demographic and environmental conditions in Robeson County, as well as census tracts, and a one-mile radius around the property boundary of PNG's proposed LNG facility. Finally, the demographics of the entire state of North Carolina are also considered as they relate to the county, local census tracts, and radius settings.

Aware of the potential environmental or public health impacts a LNG facility may have in this community, the Department reviewed communities surrounding the proposed LNG facility and determined the need to conduct this Environmental Justice Assessment Snapshot, which includes:

- A review of PNG's project and application for an erosion and sedimentation control plan.
- Study of area demographics [determined by utilizing the EPA (EPA) Environmental Justice tool (EJSCREEN) <https://ejscreen.epa.gov/mapper/> and current, available census data. <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>]
- Comparison of local area demographics to both county and statewide census data.
- County Health Assessment.
- Surrounding sensitive receptors.

3 Proposed Project

The erosion and sedimentation control plan for Phase 1 of the LNG facility was received by the Division of Energy, Mineral, and Land Resources on April 30, 2019. The purpose of the Phase 1 plan is to establish perimeter controls and support early access, clearing, grubbing and rough grading of the tank and impoundment area.

Proposed Phase 1 construction and development will be located on the northern portion of the site, on approximately 44 acres out of the total 685 acres, with sediment and erosion control measures that include silt fencing, five sediment basins, temporary diversions with check dams, temporary construction entrances, soil stockpile, etc. These measures use existing site storm water features to minimize disturbance and provide efficient sediment capture and storage. Separate submittals will follow for Phase 2 and Phase 3 plans for full project construction. Phase 2 includes construction of a second access road, process area, truck loading area, administration buildings and electrical substation. Phase 3 will incorporate the linear portion of the project.

The facility for which this sediment and erosion control plan has been filed for is an LNG Facility. This type of facility receives natural gas from a pipeline, cools the gas to a liquid state, and then stores it. When demand increases on the pipeline, the liquid gas is converted back to the gaseous state through a reheating process. This means that throughout the warm months of the year, the plant will be intaking gas and cooling it to the liquefied state, while during colder months the gas will be reheated and supplied back into the pipeline. The proposed facility will connect to the existing Transco Pipeline.

On March 20, 2019, PNG applied for a permit from the Division of Air Quality. However, on April 18, 2019, PNG rescinded its air permit application. PNG determined that the facility design could be modified to eliminate the flare due to the low concentration of ethane in the pipeline gas stream. The flare would have been the only permitted emission source. With the removal of the flare from the facility design, the facility qualifies for exemption under state air quality rules.

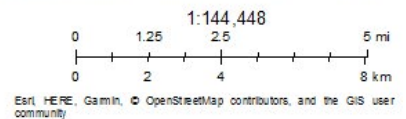
4 Geographic Area

The address of the proposed LNG facility is 680 Reverend Bill Road, in Maxton, North Carolina. The facility's physical location is in the northwest corner Robeson County (Figure 1) and is in close proximity to both neighboring Hoke and Scotland counties. The one-mile radius (calculated from the property boundary) used in this analysis does not exceed the Robeson County boundary and spans only one census tract (Figure 2). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (U.S. Census Bureau). The proposed LNG facility is located in Census Tract 9604.01 of Robeson County.



April 18, 2019

- 1- mile buffer
- Property Boundary

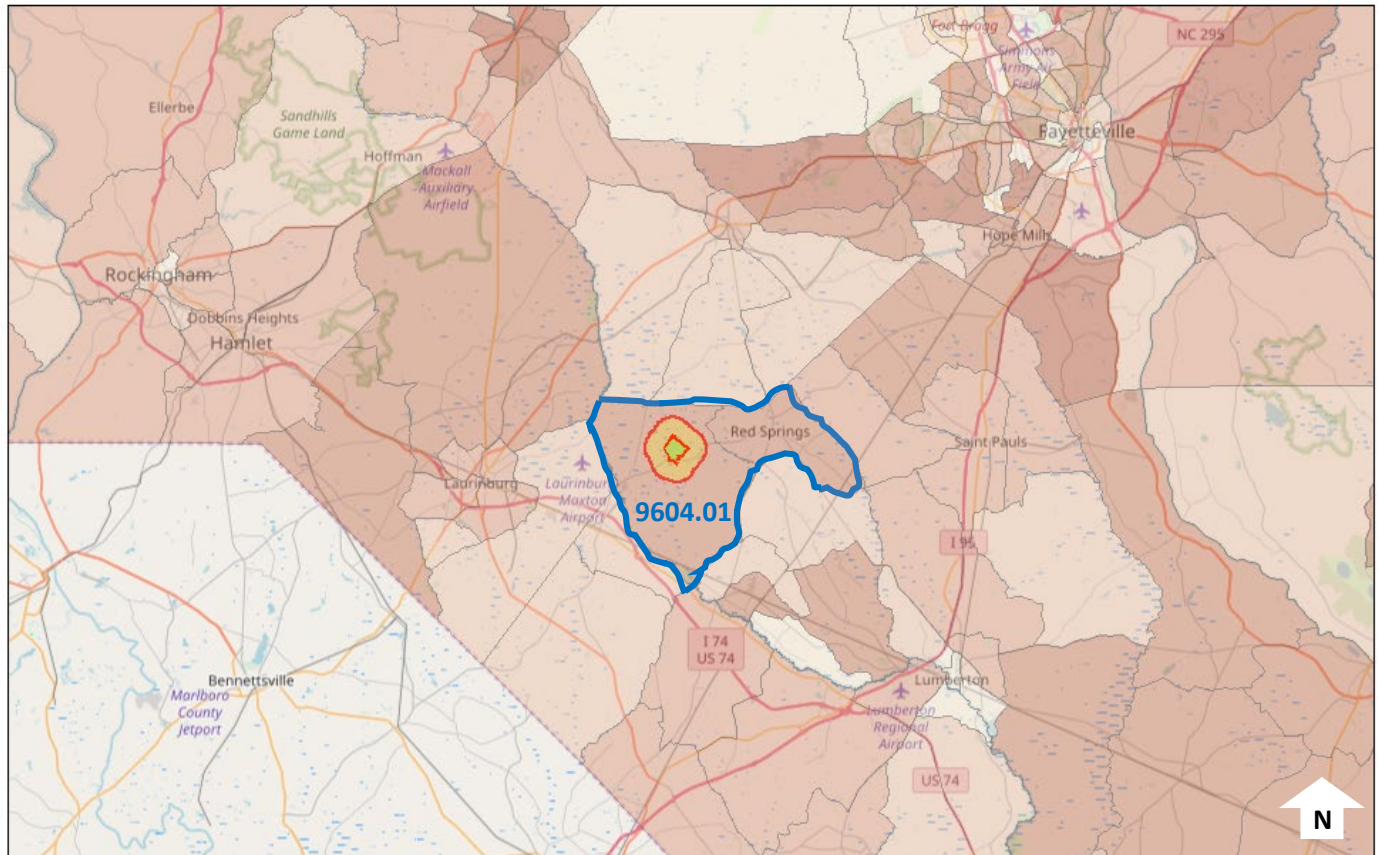


EJSCREEN 2018

Figure 1. Proposed plant and the one-mile radius.

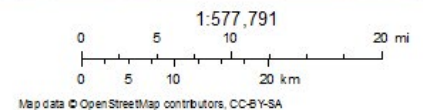
4.1 Regional and Local Settings

Robeson County is designated as a Tier 1 county by the North Carolina Department of Commerce. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2, and the 20 least distressed as Tier 3. County Tiers are calculated based on average unemployment rate, median household income, percentage growth in population, and adjusted property tax base per capita (<https://www.nccommerce.com/grants-incentives/county-distress-rankings-tiers>). According to the North Carolina Commission of Indian Affairs *N.C. Tribal and Urban Communities Map*, Robeson, Scotland, and Hoke counties are recognized as those counties where the State Recognized Lumbee Tribe resides (<https://ncadmin.nc.gov/about-doa/divisions/commission-of-indian-affairs>).



April 18, 2019

- 1-mile Buffer
- Property Boundary



EJSCREEN 2018

Figure 2. Census tracts and counties around facility location.

Demographics (including race and ethnicity, poverty status, and per capita incomes (Tables 1 through 6)) for Robeson County will be 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, 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

Table 1. Race and Ethnicity -Regional Setting

Race and Ethnicity	North Carolina		Robeson County	
	Number	Percent	Number	Percent
Total Population	9,535,483	100.0	134,168	100.0
White	6,528,950	68.5	38,877	29.0
Black or African American	2,048,628	21.5	32,637	24.3
American Indian or Alaska Native	122,110	1.3	51,502	38.4
Asian	208,962	2.2	993	0.7
Native Hawaiian and Other Pacific Islander	6,604	0.1	86	0.1
Some other Race	414,030	4.3	6,672	5.0
Two or More Races	206,199	2.2	3,401	2.5
HISPANIC OR LATINO (of any race)	800,120	8.4	10,932	8.1
Mexican	486,960	5.1	8,616	6.4
Puerto Rican	71,800	0.8	629	0.5
Cuban	18,079	2.3	80	0.1
Other Hispanic or Latino	223,281	2.3	1,607	1.2

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

Table 2. Race and Ethnicity -Local Setting

Race and Ethnicity	Census Tract 9604.01		Project Area - 1 Mile		Project Area - 2 Miles	
	Number	Percent	Number	Percent	Number	Percent
Total Population	7,157	100.0	368	100.0	1,678	100.0
White	350	4.9	31	8.0	156	9.0
Black or African American	336	4.7	26	7.0	178	11.0
American Indian or Alaska Native	6,291	87.9	308	84.0	1,310	78.0
Asian	6	0.1	0	0.0	1	0.0
Native Hawaiian and Other Pacific Islander	0	0.0	0	0.0	0	0.0
Some other Race	32	0.4	2	0.0	9	1.0
Two or More Races	142	2.0	2	0.0	24	1.0
HISPANIC OR LATINO (of any race)	113	1.6	9	2.0	39	2.0
Mexican	86	1.2				
Puerto Rican	6	0.1				
Cuban	1	0.0				
Other Hispanic or Latino	20	0.3				

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

Table 4. Poverty Status -Regional Setting

Subject	North Carolina						Robeson 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	9,685,511	1,782	1,631,704	17,281	16.80	0.2	130,706	+/-623	38,182	+/-1,667	29.2	+/-1.3
AGE												
Under 18	2,254,721	2,050	539,417	8,484	23.90	0.4	33,707	+/-183	14,202	+/-758	42.1	+/-2.2
18 to 64	6,012,888	1,258	955,430	9,789	15.90	0.2	79,155	+/-598	20,769	+/-1,062	26.2	+/-1.3
65 years and over	1,417,902	1,068	136,857	2,562	9.70	0.2	17,844	+/-239	3,211	+/-256	18.0	+/-1.4
SEX												
Male	4,684,761	2,068	719,985	8,902	15.40	0.2	62,722	+/-282	17,208	+/-921	27.4	+/-1.4
Female	5,000,750	1,846	911,719	9,880	18.20	0.2	67,984	+/-419	20,974	+/-928	30.9	+/-1.3
RACE AND HISPANIC OR LATINO ORIGIN												
White	6,220,770	2,615	718,254	11,602	11.50	0.2	37,263	+/-839	7,741	+/-781	20.8	+/-1.9
Black or African American	2,056,688	4,872	537,538	7,834	26.10	0.4	30,958	+/-373	11,351	+/-661	36.7	+/-2.0
American Indian and Alaska Native	114,277	1,759	32,101	1,831	28.10	1.5	51,937	+/-468	14,967	+/-1,079	28.8	+/-2.0
Asian	248,665	1,763	32,044	1,973	12.90	0.8	874	+/-55	284	+/-123	32.5	+/-13.8
Native Hawaiian and Other Pacific Islander	6,227	910	1,229	363	19.70	5.3	55	+/-50	0	+/-28	0.0	+/-40.0
Some other Race	293,512	8,038	98,899	5,189	33.70	1.5	6,516	+/-730	2,871	+/-621	44.1	+/-7.4
Two or more races	233,951	5,773	57,525	2,970	24.60	1.1	3,103	+/-495	968	+/-258	31.2	+/-6.4
Hispanic or Latino	867,229	835	273,081	2,970	24.60	0.8	11,197	+/-83	4,653	+/-526	41.6	+/-4.7
All individuals below:												
50 percent of poverty level	709,029	10,824					17,199	+/-1,351				
125 percent of poverty level	2,156,665	18,666					48,025	+/-1,615				
150 percent of poverty level	2,675,626	22,058					56,948	+/-1,637				
185 percent of poverty level	3,374,865	23,762					68,119	+/-1,805				
200 percent of poverty level	3,649,420	24,199					72,223	+/-1,891				

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

Table 5. Poverty Status – Local Setting

Subject	Census Tract 9604.01					
	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	7,731	+/-571	2,096	+/-519	27.1	+/-6.4
AGE						
Under 18	1,944	+/-317	775	+/-238	39.9	+/-10.2
18 to 64	4,945	+/-430	1,204	+/-360	24.3	+/-7.0
65 years and over	842	+/-139	117	+/-77	13.9	+/-8.9
SEX						
Male	3,945	+/-318	1,120	+/-321	28.4	+/-7.4
Female	3,786	+/-355	976	+/-262	25.8	+/-6.5
RACE AND HISPANIC OR LATINO ORIGIN						
White	352	+/-164	213	+/-154	60.5	+/-25.8
Black or African American	336	+/-232	67	+/-101	19.9	+/-30.6
American Indian and Alaska Native	6,675	+/-558	1,751	+/-455	26.2	+/-6.4
Asian	32	+/-48	0	+/-17	0.0	+/-52.4
Native Hawaiian and Other Pacific Islander	0	+/-17	0	+/-17	-	**
Some other Race	101	+/-89	5	+/-11	5.0	+/-13.4
Two or more races	235	+/-167	60	+/-96	25.5	+/-34.5
Hispanic or Latino	78	+/-62	41	+/-46	52.6	+/-42.6
All individuals below:						
50 percent of poverty level	1,157	+/-410				
125 percent of poverty level	2,708	+/-577				
150 percent of poverty level	2,832	+/-583				
185 percent of poverty level	3,194	+/-537				
200 percent of poverty level	3,566	+/-528				
Source: US Census, 2013-2017 ACS 5-Year Estimates						
All bolded and yellow highlighted cells indicate a difference that is greater than 10% when compared to the State.						
All bolded and red highlighted cells indicate a difference that is greater than 10% when compared to both the County and the State						

Table 6. Per Capita Income

Subject	1 mile		2 miles		Robeson County		Census Tract 9604.01	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Number of Households	119	109	501	109	44,504	730	2,323	230
Per Capita Income (dollars)	13,626		14,951		17,161	621	17,121	1,661
Source: U.S. Census, ACS 2013-2017								

5 Limited English Proficiency (LEP)

In accordance with the Safe Harbor Guidelines, when an LEP Group is identified during the pre-permit issuance process, written translations of vital documents will be prepared and made available 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 fewer than 50 persons in a language group reaches the five percent trigger, then DEQ will not translate vital written materials, but 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 per the EPA guidance for LEP persons and followed by DEQ when deemed appropriate. No LEP Groups were identified during the initial screening of demographic data for this assessment. However, if LEP Groups are identified during the site visit, DEQ will revisit Safe Harbor Guidelines.

6 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 2019 report, out of all 100 counties in North Carolina (with 1 indicating the healthiest), Robeson County is ranked number 100 in health factors and 100 in health outcomes (Figure 3).

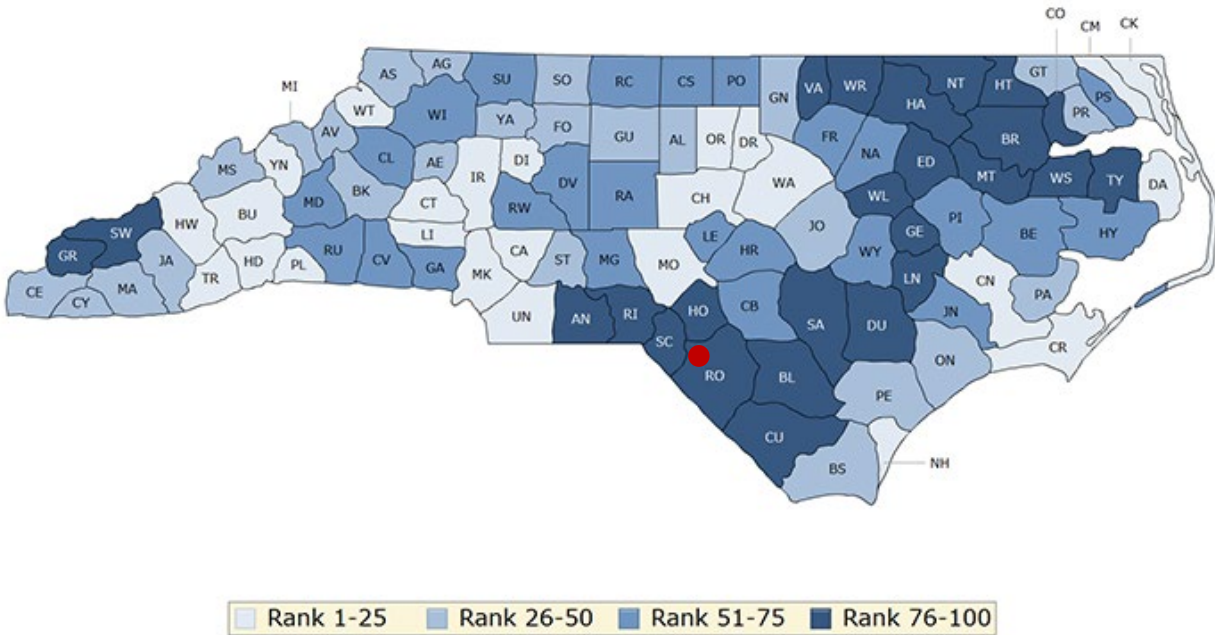


Figure 3. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

7 Local Sensitive Receptors

The EPA 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 close 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 the one-mile project radius, one sensitive receptor was identified - Oxendine Elementary School (Figure 4). According to the North Carolina Free and Reduced meals application data for 2017-2018, 100% of the 291 students in attendance applied for free lunch (<http://www.dpi.state.nc.us/fbs/resources/data/>). Also located just beyond the one-mile project radius are one church (Lighthouse Holiness Church) and one day care (Motherly Care Day Care).

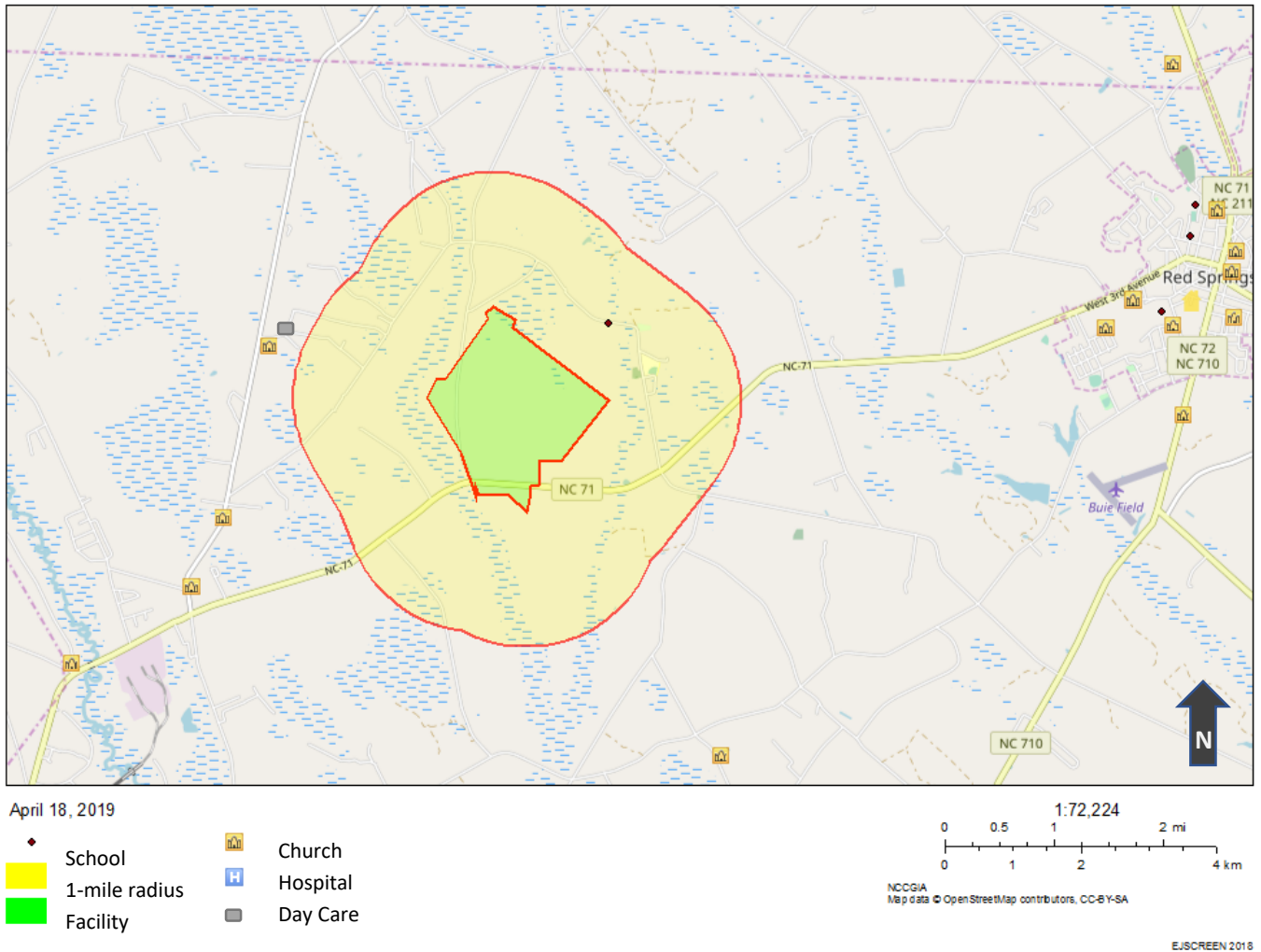


Figure 4. Sensitive Receptors around facility location.

8 Conclusion

The EJ Snapshot is an initial look at the demographics and socioeconomic of the surrounding community area. This would include information within a determined radius by the Department (1 mile for this project) on race and poverty (decennial census year), per Capita income and Ability to speak English (most current ACS census range), current NC Commerce county tier, and yes/no – native American territory. The EJ Snapshot does not include a reconnaissance of the community.

The DEQ Environmental Justice staff recommends conducting specialized outreach to the Lumbee Tribal community who live and work in this area. DEQ staff also recommend that PNG Company host a community meeting in the region before any formal decisions are made by the Department.