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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 Halifax County in census tract 9301 and the one-mile radius around the property boundary of the proposed Roanoke Valley Lumber facility which also includes census tracts 9302 and 9304 . 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 Roanoke Valley Lumber
- 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=1eb0fbe2bcfb4cccb3cc 212af8a0b8c8).

Demographics for Halifax 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

The proposed facility is a new sawmill which is yet to be constructed. It will be constructed in two phases: the first phase will support up to 300 million board-feet per year (bd-ft/yr) of lumber
drying capacity. The second phase will support additional 200 million bd-ft/yr lumber drying capacity bringing the total capacity to 500 million bd-ft/yr.

The mill will process raw southern pine logs into planed pine lumber and wood chips/pine shavings. Pine logs will be delivered to the plant and stored outside. The sawmill will transform the pine logs into green rough-cut lumber through debarking, bucking and rough sawing. Roughcut lumber will then enter a system of stackers where it will be prepared for the drying kilns. The kilns will dry the lumber to customer- and industry-specified criteria for minimum drying temperature and maximum moisture content. Dried rough-cut lumber from the drying kilns is sent to the planer mill for final processing. The following sections describe in detail each of these manufacturing steps:

## Green Lumber Operations

Green lumber operations at Roanoke Valley Lumber involve processing whole logs into roughsawn lumber of various dimensions. Processes included in this mill area are log debarking, log bucking, lumber sawing, and byproduct material collection, conveyance, and storage.

All green lumber operations (i.e., debarker including log bucking and debarking, sawmill, bark hogs, and block/trim chippers) are insignificant emissions activities, as defined under NC's Title V procedures.

## Lumber Drying

Roanoke Valley Lumber proposes to dry the lumber with direct-fired, continuous drying kilns. Each kiln will be equipped with a 45 million Btu/hr natural gas-fired, low NOx burner (LNB) and will have an annual lumber drying capacity of 100 million bd-ft/yr. The facility plans to install three kilns in Phase 1. Up to two additional kilns will be installed in Phase 2.

## Planer Mill

Planer mill operations involve processing rough, kiln-dried dimensional lumber into finished lumber. Processes in this mill area include planing and trimming the dried, rough lumber and byproduct material collection, conveyance, and storage. Trim pieces are processed in an enclosed dry wood hog. All planer mill operations are conducted within the planer mill building, limiting the emissions of fugitive Particulate Matter (PM).

## Additional Mill Operations

Maintenance and fuel storage activities consist of procedures such as parts degreasing, welding stations, metal fabrication/grinding stations, compressed air system maintenance, and small storage tanks or totes containing diesel oil, hydraulic fluids or lubricants. Maintenance and fuel storage operations are sources of regulated air pollutants; however, the activities are either categorically exempt or insignificant based on size/emission levels under the Title V program.

The following table (Table 1) provides a facility-wide emission summary for the Roanoke Valley Lumber facility. It is based upon the emissions estimate provided in the application ${ }^{1}$

Table 1. Potential Emissions

| Regulated Air Pollutant | Expected Actual Emissions Tons Per Year | Potential Emissions Before Control <br> Tons Per Year | Potential Emissions After Control Tons Per Year |
| :---: | :---: | :---: | :---: |
| PM | 11.62 | 59.3 | 11.62 |
| PM 10 | 6.52 | 18.0 | 6.52 |
| $\mathrm{PM}_{2.5}$ | 3.43 | 4.3 | 3.43 |
| $\mathrm{SO}_{2}$ | 0.54 | 0.54 | 0.54 |
| $\mathrm{NOx}\left(\mathrm{as} \mathrm{NO}_{2}\right.$ ) | 39.94 | 39.94 | 39.94 |
| CO | 63.63 | 63.63 | 63.63 |
| VOC | 1054.3 | 1054.3 | 1054.3 |
| Lead | 0.0004 | 0.0004 | 0.0004 |
| GHG as $\mathrm{CO}_{2 \mathrm{e}}$ | 89,843.0 | 89,843.0 | 89,843.0 |
| Single Largest Hazardous Air Pollutant (HAP), Methanol | 49.8 | 49.8 | 49.8 |
| Total HAPs | 73.1 | 73.1 | 73.1 |

Additional technical discussion is available in the permit review as well as the application.

## 4 Geographic Area

As proposed, Roanoke Valley Lumber is located at 290 Power Place Drive, Weldon, NC 27890 (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 the DAQ's public outreach efforts.

[^0]

Figure 1. Roanoke Valley Lumber location with the one-mile radius.
Halifax County is designated as a Tier 1 county by the NC Department of Commerce 2021 rankings. According to the Department of Commerce, Tier 1 counties encompass the 40 most distressed counties based on average unemployment rate, median household income, percentage growth in population, and adjusted property tax per capita. The proposed facility and the one-mile radius is located within census tracts 9301, 9302, and 9304 in Halifax County (Figure 2). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau). Halifax County is identified by the N.C. Commission of Indian Affairs as a county in which the state recognized Haliwa-Saponi resides. The census tracts do not encompass land within a state-designated tribal statistical area.

While the one-mile radius does encompass some area within Northampton County, this area of the county does not appear to have any residents or business, but rather remains natural space. Given this, the Department has not included the County or the census tract from Northampton County in this sociodemographic analysis.


Figure 2. Census Tracts 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 having 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 a potential area of concern. 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\%).

Halifax County had a total population of 48,622 individuals (Table 2). The two most common racial or ethnic groups in Halifax County were Black or African American (50.9\%) and White (39.2\%). Black or African American and American Indian or Alaska Native were greater than $10 \%$ different when compared to the state.

Table 2. Regional Setting - Race and Ethnicity

| Race and Ethnicity | North Carolina |  | Halifax County |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| Total Population | $10,439,388$ | $100.0 \%$ | 48,622 | $100.0 \%$ |
| White | $6,312,148$ | $60.5 \%$ | 19,070 | $39.2 \%$ |
| Black or African <br> American | $2,107,526$ | $20.2 \%$ | 24,737 | $50.9 \%$ |
| American Indian or <br> Alaska Native | 100,886 | $1.0 \%$ | 1,593 | $3.3 \%$ |
| Asian | 340,059 | $3.3 \%$ | 281 | $0.6 \%$ |
| Native Hawaiian and <br> Other Pacific <br> Islander | 6,980 | $0.1 \%$ | 11 | $0.0 \%$ |
| Some other Race | 46,340 | $0.4 \%$ | 142 | $0.3 \%$ |
| Two or More Races | 406,853 | $3.9 \%$ | 1,334 | $2.7 \%$ |
|  | $1,118,596$ | $10.7 \%$ | 1,454 | $3.0 \%$ |
| HISPANIC OR <br> LATINO (of any <br> race) |  |  |  |  |
| Sourc: US Census Bur | 24,2020 Cense |  |  |  |

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 9301 was Black or African American (72.7\%). Black or African American was greater than 10\% different when compared with the State (Table 3). The largest population within Census Tract 9302 was White ( $64.0 \%$ ). Black or African American and Some Other Race was greater than 10\% different compared to the State. The largest population within Census Tract 9304 was White (53.7\%). Black or African American was greater than 10\% different compared to the state.

According to the 2010 US Census Data, Within the one-mile project radius, the two largest populations were White (50.0\%) and Black or African American (44.0\%). Black or African American was greater than $10 \%$ different when compared to the state.

Table 3. Local Setting - Race and Ethnicity

|  | Project Area - 1 Mile |  | Census Tract 9301 |  | Census Tract 9302 |  | Census Tract 9304 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 2,179 | $100.0 \%$ | 2,908 | $100.0 \%$ | 5,164 | $100.0 \%$ | 3,467 | $100.0 \%$ |
| White | 1,092 | $50.0 \%$ | 624 | $21.5 \%$ | 3,306 | $64.0 \%$ | 1,861 | $53.7 \%$ |
| Black or African American | 948 | $44.0 \%$ | 2,114 | $72.7 \%$ | 1,367 | $26.5 \%$ | 1,330 | $38.4 \%$ |
| American Indian or Alaska <br> Native | 7 | $0.0 \%$ | 12 | $0.4 \%$ | 29 | $0.6 \%$ | 18 | $0.5 \%$ |
| Asian | 54 | $2.0 \%$ | 6 | $0.2 \%$ | 147 | $2.8 \%$ | 50 | $1.4 \%$ |
| Native Hawaiian and Other <br> Pacific Islander | 0 | $0.0 \%$ | 2 | $0.1 \%$ | 1 | $0.0 \%$ | 0 | $0.0 \%$ |
| Some other Race | 2 | $0.0 \%$ | 15 | $0.5 \%$ | 6 | $0.1 \%$ | 6 | $0.2 \%$ |
| Two or More Races | 26 | $1.0 \%$ | 80 | $2.8 \%$ | 126 | $2.4 \%$ | 101 | $2.9 \%$ |
| HISPANIC OR LATINO (of | 50 | $2.0 \%$ | 55 | $1.9 \%$ | 182 | $3.5 \%$ | 101 | $2.9 \%$ |
| Hny race) |  |  |  |  |  |  |  |  |

Source: US Census Bureau, 2020 Census ; Census 2010 obtained through EJSCREEN (for Project Area - 1 mile)
All bolded and orange highlighted cells indicate a difference that is greater than $10 \%$ different 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

### 5.2 Age and Sex

## Regional Setting

According to the 2010 US Census Data Table P12: 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 higher than the median age for males (36).

Halifax County had a total population of 54,691 individuals. The median age for females (43.7) was slightly higher than the median age for males (39.7) and were both higher than the median age for the state.

Table 4. Regional Setting - Age Groups and Sex

|  | North Carolina |  |  |  |  |  | Halifax County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  | Percent |  |  | Number |  |  | Percent |  |  |
| Age | Both sexes | Male | Female | Both sexes | Male | Female | Both Sexes | Male | Female | Both <br> Sexes | Male | Female |
| Total Population | 9,535,483 | 4,645,492 | 4,889,991 | 100.0\% | 49.0\% | 51.0\% | 54,691 | 26,137 | 28,554 | 100.0\% | 48.0\% | 52.0\% |
| Median Age | 37.4 | 36.0 | 38.7 |  |  |  | 41.7 | 39.7 | 43.7 |  |  |  |

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 Tracts 9301 and 9302 had slightly older median ages than the State (Table 5). Census
Tract 9304 had slightly higher median age for females than the state.
Table 5. Local Setting - Age Groups and Sex

| Age | Census Tract 9301 |  |  |  |  |  | Census Tract 9302 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  | Percent |  |  | Number |  |  | Percent |  |  |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female | Both sexes | Male | Female |
| Total Population | 3,435 | 1,548 | 1,887 | 100.0\% | 45.0\% | 55.0\% | 5,310 | 2,453 | 2,857 | 100.0\% | 46.0\% | 54.0\% |
| Median Age | 40.6 | 38.4 | 42.3 |  |  |  | 41.6 | 40 | 43.2 |  |  |  |
| Source: US Census Bureau, 2010 Census |  |  |  |  |  |  |  |  |  |  |  |  |


| Age | Census Tract 9304 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  |  | Percent |  |  |
|  | Both <br> sexes | Male | Female | Both <br> sexes | Male | Female |  |
| Total Population | 3,629 | 1,659 | 1,970 | $100.0 \%$ | $46.0 \%$ | $54.0 \%$ |  |
| Median Age | 36.8 | 33.7 | 39 |  |  |  |  |
| Source: US Census Bureau, 2010 Census |  |  |  |  |  |  |  |

## Project Radius

EJSCREEN identified a population of 2,179 individuals within the one-mile radius surrounding the proposed facility. There was a slightly lower percentage of males than females 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 | 2,179 | 976 | 1,203 | 100.0\% | 45.0\% | 55.0\% |
| Median Age |  |  |  |  |  |  |
| 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 10,060,249 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 $18.2 \%$ (MOE +/- 0.8\%). Black or African American and White (not Hispanic or Latino) were the next highest population estimates with disabilities in North Carolina, at 14.6\% (MOE +/-0.2\%) and 14.5\% (MOE +/- 0.1\%), respectively (Table 7).

Halifax County had an estimated total population of 49,917 noninstitutionalized citizens. Of those, an estimated 18.5\% (MOE +/- 1.1\%) had a disability. The largest population of disabled civilians was American Indian and Alaska Native (23.3\%, MOE +/- $5.5 \%$ ), followed by Black or African American (19.3\%, MOE +/- 1.8\%). Almost all subjects and all disability types were greater than 10\% different when compared to the state.

Table 7. Regional Setting - Disability

| Subject | North Carolina |  |  |  |  |  | Halifax 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 | 10,060,249 | 2,163 | 1,352,783 | 8,378 | 13.4\% | 0.1 | 49,917 | 252 | 9,217 | 549 | 18.5\% | 1.1 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 6,357,724 | 2,614 | 919,485 | 7,082 | 14.5\% | 0.1 | 19,220 | 149 | 3,498 | 338 | 18.2\% | 1.7 |
| Black or African American | 2,144,532 | 5,119 | 312,780 | 4,850 | 14.6\% | 0.2 | 26,315 | 280 | 5,066 | 472 | 19.3\% | 1.8 |
| American Indian and Alaska Native | 120,813 | 1,815 | 22,048 | 842 | 18.2\% | 0.8 | 1924 | 196 | 448 | 98 | 23.3\% | 5.5 |
| Asian | 290,103 | 1,968 | 15,414 | 800 | 5.3\% | 0.3 | 365 | 95 | 27 | 25 | 7.4\% | 7.3 |
| Native Hawaiian and Other Pacific Islander | 6,694 | 677 | 638 | 183 | 9.5\% | 2.7 | 74 | 68 | 6 | 11 | 8.1\% | 15.6 |
| Some other Race | 313,224 | 7,444 | 16,846 | 1,231 | 5.4\% | 0.4 | 77 | 79 | 6 | 11 | 7.8\% | 19.1 |
| Two or more races | 265,791 | 6,168 | 29,353 | 1,430 | 11.0\% | 0.4 | 933 | 291 | 133 | 66 | 14.3\% | 6.7 |
| Hispanic or Latino | 942,342 | 855 | 59,694 | 2,120 | 6.3\% | 0.2 | 1404 | 38 | 64 | 46 | 4.6\% | 3.3 |
| Disability Type |  |  |  |  |  |  |  |  |  |  |  |  |
| Hearing difficulty | $X$ | $X$ | 375,385 | 4,061 | 3.7\% | 0.1 | $X$ | $X$ | 2,079 | 275 | 4.2\% | 0.6 |
| Vision difficulty | X | X | 263,064 | 4,326 | 2.6\% | 0.1 | X | X | 1,777 | 289 | 3.6\% | 0.6 |
| Cognitive difficulty | X | X | 511,243 | 5,636 | 5.4\% | 0.1 | X | X | 3,275 | 355 | 6.9\% | 0.7 |
| Ambulatory difficulty | X | X | 716,908 | 6,389 | 7.6\% | 0.1 | X | X | 5,281 | 423 | 11.2\% | 0.9 |
| Source: US Census Bureau, ACS 2019 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 9301 had an estimated total population of 3,187 noninstitutionalized citizens (Table 8). Of those individuals, an estimated $18.4 \%$ (MOE +/- 4.7\%) had a disability. The subject with the largest population of disabled civilians was White (not Hispanic or Latino) ( $22.1 \%$, MOE +/- 8.7\%), followed by Two or more Races at $17.6 \%$ (MOE +/- 29.7\%) and Black or African American at 17.4\% (MOE +/-5.8\%). Black or African American was greater than 10\% different compared to the state. White (not Hispanic or Latino) and Two or more Races were greater than $10 \%$ different compared to both the county and the state.

Census Tract 9302 had a total population of 4,617 noninstitutionalized citizens. Of those individuals, an estimated $12.9 \%$ (MOE +/- $3.6 \%$ ) had a disability. The subject with the largest population of disabled civilians was Black or African American (20.5\%, MOE +/- 9.9\%), followed by White (not Hispanic or Latino) at $11.8 \%$ (MOE +/- 4.2\%). Black or African American was greater than $10 \%$ different compared to the state.

Census Tract 9304 had a total population of 3,902 noninstitutionalized citizens. Of those individuals, an estimated $17.0 \%$ (MOE +/- $5.1 \%$ ) had a disability. The subject with the largest population of disabled civilians was Black or African American (22.1\%, MOE +/- 9.4\%), followed by White at $18.9 \%$ (MOE +/- $7.6 \%$ ). White (not Hispanic or Latino) was greater than $10 \%$ different compared to the state. Black or African American was greater than 10\% different compared to both the county and the state.

Table 8. Local Setting - Disability

| Subject | Census Tract 9301 |  |  |  |  |  | Census Tract 9302 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 3,187 | 336 | 586 | 155 | 18.4\% | 4.7 | 4,617 | 352 | 595 | 166 | 12.9\% | 3.6 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 707 | 146 | 156 | 65 | 22.1\% | 8.7 | 3,109 | 307 | 367 | 129 | 11.8\% | 4.2 |
| Black or African American | 2,453 | 351 | 427 | 150 | 17.4\% | 5.8 | 1,111 | 272 | 228 | 105 | 20.5\% | 9.9 |
| American Indian and Alaska Native | 0 | 12 | 0 | 12 | - | ** | 33 | 31 | 0 | 12 | 0.0\% | 53.6 |
| Asian | 0 | 12 | 0 | 12 | - | ** | 127 | 134 | 0 | 12 | 0.0\% | 23.8 |
| Native Hawaiian and Other Pacific Islander | 0 | 12 | 0 | 12 | - | ** | 0 | 12 | 0 | 12 | - | ** |
| Some other Race | 5 | 9 | 0 | 12 | 0.0\% | 100.0 | 0 | 12 | 0 | 12 | - | ** |
| Two or more races | 17 | 18 | 3 | 5 | 17.6\% | 29.7 | 63 | 90 | 0 | 12 | 0.0\% | 38.8 |
| Hispanic or Latino | 12 | 15 | 0 | 12 | 0.0\% | 88.8 | 174 | 123 | 0 | 12 | 0.0\% | 18.1 |
| Disability Type |  |  |  |  |  |  |  |  |  |  |  |  |
| Hearing difficulty | X | X | 149 | 65 | 4.7\% | 1.9 | X | $X$ | 115 | 79 | 2.5\% | 1.7 |
| Vision difficulty | X | X | 101 | 57 | 3.2\% | 1.8 | X | X | 40 | 48 | 0.9\% | 1.0 |
| Cognitive difficulty | X | X | 307 | 114 | 10.5\% | 4 | X | X | 160 | 92 | 3.6\% | 2.0 |
| Ambulatory difficulty | X | X | 362 | 99 | 12.4\% | 3.4 | X | X | 364 | 135 | 8.2\% | 3.0 |

Source: US Census Data, 2019 ACS 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

| Subject | Census Tract 9304 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | With a Disability |  | Percent with a Disability |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total civilian noninstitutionalized population | 3,902 | 339 | 662 | 189 | 17.0\% | 5.1 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 1,739 | 303 | 329 | 142 | 18.9\% | 7.6 |
| Black or African American | 1,506 | 325 | 333 | 140 | 22.1\% | 9.4 |
| American Indian and Alaska Native | 1 | 3 | 0 | 12 | 0.0\% | 100.0 |
| Asian | 106 | 114 | 0 | 12 | 0.0\% | 27.5 |
| Native Hawaiian and Other Pacific Islander | 0 | 12 | 0 | 12 | - | ** |
| Some other Race | 0 | 12 | 0 | 12 | - | ** |
| Two or more races | 19 | 24 | 0 | 12 | 0.0\% | 70.6 |
| Hispanic or Latino | 531 | 324 | 0 | 12 | 0.0\% | 6.4 |
| Disability Type |  |  |  |  |  |  |
| Hearing difficulty | X | X | 144 | 87 | 3.7\% | 2.2 |
| Vision difficulty | X | X | 150 | 77 | 3.8\% | 2 |
| Cognitive difficulty | X | X | 302 | 126 | 8.3\% | 3.5 |
| Ambulatory difficulty | X | X | 280 | 110 | 7.7\% | 3 |
| Source: US Census Data, 2018 ACS 5-Year Estimates <br> 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 +/- $0.4 \%$ ). Households below 200 percent of the federal poverty level ${ }^{2}$ 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, ${ }^{3}$ that would be $\$ 53,000(2.0 \times \$ 26,500)$.

[^1]Halifax County had an estimated population of 49,855 with $25.8 \%$ (MOE $+/-2.2 \%$ ) living below the poverty level. Across all subjects, American Indian and Alaska Native had the highest percent living below the poverty level at 33.9\% (MOE +/- 7.2\%), followed by Black or African American (32.5\%) and Two or more Races (31.1\%). White, Black or African American, American Indian or Alaska Native, and Two or more Races all had estimates greater than $5 \%$ different when compared to the state values.

Table 9. Regional Setting - Poverty

| Subject | North Carolina |  |  |  |  |  | Halifax 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 | 49,855 | 255 | 12,864 | 1,088 | 25.8\% | 2.2 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 6,320,337 | 2,990 | 644,440 | 10,085 | 10.2\% | 0.2 | 19,188 | 154 | 2,994 | 577 | 15.6\% | 3.0 |
| Black or African American | 2,116,769 | 5,452 | 475,973 | 8,126 | 22.5\% | 0.4 | 26,292 | 281 | 8,556 | 814 | 32.5\% | 3.1 |
| American Indian and Alaska Native | 120,328 | 1,846 | 29,981 | 1,608 | 24.9\% | 1.3 | 1,924 | 196 | 652 | 142 | 33.9\% | 7.2 |
| Asian | 285,786 | 2,021 | 30,707 | 2,034 | 10.7\% | 0.7 | 365 | 95 | 18 | 18 | 4.9\% | 5.4 |
| Native Hawaiian and Other Pacific Islander | 6,630 | 675 | 1,360 | 332 | 20.5\% | 4.6 | 74 | 68 | 15 | 17 | 20.3\% | 28.7 |
| Some other Race | 311,206 | 7,397 | 84,699 | 4,639 | 27.2\% | 1.2 | 77 | 79 | 2 | 4 | 2.6\% | 5.2 |
| Two or more races | 262,580 | 6,121 | 54,627 | 2,414 | 20.8\% | 0.8 | 926 | 276 | 288 | 132 | 31.1\% | 12.0 |
| Hispanic or Latino | 940,295 | 1,251 | 248,474 | 6,013 | 26.4\% | 0.6 | 1,404 | 38 | 373 | 314 | 26.6\% | 22.4 |
| All individuals below: |  |  |  |  |  |  |  |  |  |  |  |  |
| 200 percent of poverty level | 3,420,476 | 24,183 |  |  |  |  | 25,929 | 1,150 |  |  |  |  |
| Source: US Census Data, 2019 ACS 5-Year Estimates <br> All bolded and orange cells indicate a difference that is greater than $5 \%$ when compared to the State |  |  |  |  |  |  |  |  |  |  |  |  |

## Local Setting

According to the Census Table S1701, Poverty Status in the Past 12 Months, 2019 American Community Survey 5-Year Estimates, from the US Census Bureau, Census Tract 9301 had an estimated population of 1,050 with $32.9 \%$ (MOE +/-10.9\%) living below the poverty level (Table 10). The total population for whom poverty status is determined as well as Black or African American had poverty levels higher than $5 \%$ different when compared to both the county and the state. White (not Hispanic or Latino) had poverty levels higher than $5 \%$ different when compared to the state.

Census Tract 9302 had an estimated population of 4,617 individuals, with $6.4 \%$ (MOE +/- $3.1 \%$ ) living below the poverty level. No subjects had poverty levels higher than $5 \%$ different when compared to the state or to the county.

Census Tract 9304 had an estimated population of 3,894 individuals, with $34.3 \%$ (MOE +/$12.1 \%$ ) living below the poverty level (Table 11). The total population for whom poverty status is determined as well as White (not Hispanic or Latino), Black or African American, American Indian and Alaska Native, and Hispanic or Latino had poverty levels higher than 5\% different when compared to both the county and the state.

Table 10. Local Setting- Poverty

| Subject | Census Tract 9301 |  |  |  |  |  | Census Tract 9302 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 3,187 | 336 | 1,050 | 354 | 32.9\% | 10.9 | 4,617 | 352 | 296 | 147 | 6.4\% | 3.1 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 707 | 146 | 84 | 60 | 11.9\% | 8.6 | 3,109 | 307 | 193 | 128 | 6.2\% | 3.9 |
| Black or African American | 2,453 | 351 | 966 | 355 | 39.4\% | 13.9 | 1,111 | 272 | 103 | 86 | 9.3\% | 8.8 |
| American Indian and Alaska Native | 0 | 12 | 0 | 12 | - | ** | 33 | 31 | 0 | 12 | 0.0\% | 53.6 |
| Asian | - | 12 | - | 12 | - | ** | 127 | 134 | - | 12 | 0.0\% | 23.8 |
| Native Hawaiian and Other Pacific Islander | - | 12 | - | 12 | - | ** | - | 12 | - | 12 | - | ** |
| Some other Race | 5 | 9 | - | 12 | 0.0\% | 100.0 | - | 12 | - | 12 | - | ** |
| Two or more races | 17 | 18 | - | 12 | 0.0\% | 74.6 | 63 | 90 | - | 12 | 0.0\% | 38.8 |
| Hispanic or Latino | 12 | 15 | - | 12 | 0.0\% | 88.8 | 174 | 123 | - | 12 | 0.0\% | 18.1 |
| All individuals below: |  |  |  |  |  |  |  |  |  |  |  |  |
| 200 percent of poverty level | 1,927 | 301 |  |  |  |  | 1,659 | 456 |  |  |  |  |
| Source: US Census Data, 2019 ACS 5-Year Estimates <br> All bolded and blue cells indicate a difference that is greater than $5 \%$ when compared to the county and the State. All bolded and orange cells indicate a difference that is greater than $5 \%$ when compared to the State. |  |  |  |  |  |  |  |  |  |  |  |  |

Table 11. Local Setting - Poverty (cont'd)

| Subject | Census Tract 9304 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 3,894 | 339 | 1,335 | 494 | 34.3\% | 12.1 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |
| White | 1,731 | 301 | 358 | 237 | 20.7\% | 13.4 |
| Black or African American | 1,506 | 325 | 719 | 278 | 47.7\% | 15.6 |
| American Indian and Alaska Native | 1 | 3 | 1 | 3 | 100.0\% | 100.0 |
| Asian | 106 | 114 | - | 12 | 0.0\% | 27.5 |
| Native Hawaiian and Other Pacific Islander | - | 12 | - | 12 | - | ** |
| Some other Race | - | 12 | - | 12 | - | ** |
| Two or more races | 19 | 24 | - | 12 | 0.0\% | 70.6 |
| Hispanic or Latino | 531 | 324 | 257 | 325 | 48.4\% | 51.6 |
| All individuals below: |  |  |  |  |  |  |
| 200 percent of poverty level | 2,197 | 489 |  |  |  |  |
| Source: US Census Data, 2019 ACS 5-Year Estimates 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 12) was compiled using data from the Census Table S1901, Income in the Past 12 Months (in 2019 Inflation-Adjusted Dollars) 2019 American Community Survey 5Year 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 $\$ 54,602$ and the mean income was $\$ 76,940$.

The household income range for Halifax County with the highest percent was $\$ 50,000$ to $\$ 74,999$ at $15.6 \%$ (MOE +/- $1.7 \%$ ). The median income was $\$ 35,502$ and the mean income was $\$ 51,994$, both lower than that of the state. The income ranges below $\$ 35,000$ were all greater than $10 \%$ different when compared to the state.

Table 12. Regional Setting - Household Income

| Subject | North Carolina |  | Halifax County |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 3,965,482 | 10,327 | 21,017 | 478 |
| Less than \$10,000 | 6.4\% | 0.1 | 11.9\% | 1.4 |
| \$10,000 to \$14,999 | 5.0\% | 0.1 | 9.3\% | 1.3 |
| \$15,000 to \$24,999 | 10.3\% | 0.1 | 15.1\% | 1.4 |
| \$25,000 to \$34,999 | 10.3\% | 0.1 | 13.2\% | 1.7 |
| \$35,000 to \$49,999 | 13.9\% | 0.1 | 15.1\% | 1.7 |
| \$50,000 to \$74,999 | 18.0\% | 0.1 | 15.6\% | 1.7 |
| \$75,000 to \$99,999 | 12.4\% | 0.1 | 8.6\% | 1.4 |
| \$100,000 to \$149,999 | 13.1\% | 0.1 | 7.2\% | 1.1 |
| \$150,000 to \$199,999 | 5.1\% | 0.1 | 2.8\% | 0.8 |
| \$200,000 or more | 5.4\% | 0.1 | 1.4\% | 0.4 |
| Median income (dollars) | 54,602 | 231 | 35,502 | 1,818 |
| Mean income (dollars) | 76,940 | 352 | 51,994 | 2,961 |
| Per Capita Income | 30,783 | 154 | 21,848 | 1,274 |

Source: US Census Data, 2019 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 ranges for Census Tract 9301 with the highest percent was $\$ 25,000$ to $\$ 34,999$ at $15.1 \%$ (MOE +/- $4.6 \%$ ) and $\$ 50,000$ to $\$ 74,999$ at $15.1 \% ~(M O E+/-6.9 \%)$. The median income was $\$ 30,969$ and the mean income was $\$ 44,167$ (Table 13). The income ranges from Less than $\$ 10,000$ to $\$ 34,999$ had percentages that were more than $10 \%$ greater than either the state or county. The income range $\$ 15,000$ to $\$ 24,999$ had a greater than $10 \%$ difference when compared to the state. The income ranges from Less than $\$ 10,000$ to $\$ 14,999$ and $\$ 25,000$ to $\$ 34,999$ had a greater than $10 \%$ difference when compared to both the county and the state.

The household income range for Census Tract 9302 with the highest percent was $\$ 35,000$ to $\$ 49,999$ at $21.0 \%$ (MOE $+/-7.8 \%$ ). The median income was $\$ 48,094$ and the mean income was $\$ 75,990$. The income ranges $\$ 10,000$ to $\$ 14,999$ and $\$ 150,000$ to $\$ 199,999$ all had a greater than $10 \%$ difference when compared to the state, with $\$ 35,000$ to $\$ 49,999$ having a greater than $10 \%$ difference when compared to both the county and the state.

The household income range for Census Tract 9304 with the highest percent was Less than $\$ 10,000$ at $19.8 \%$ (MOE $+/-7.1 \%$ ). The median income was $\$ 32,162$ and the mean income was $\$ 40,954$. The income ranges Less than $\$ 10,000$ to $\$ 34,999$ had a greater than $10 \%$ difference when compared to the state. The income range Less than $\$ 10,000$ had a greater than $10 \%$ difference when compared to both the county and the state.

The household income range for the one-mile radius with the highest percent was Less than $\$ 15,000$ at $26.0 \%$ (MOE +/- 96.0\%). EJSCREEN data provides different income ranges that cannot be compared in the same manner. (Table 14).

Table 13. Local Setting - Household Income

| Subject | Census Tract 9301 |  | Census Tract 9302 |  | Census Tract 9304 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  | Households |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 1,328 | 125 | 2,182 | 170 | 1,382 | 140 |
| Less than \$10,000 | 13.9\% | 6.1 | 6.0\% | 3.1 | 19.8\% | 7.1 |
| \$10,000 to \$14,999 | 12.8\% | 5.3 | 7.1\% | 4 | 5.9\% | 5.2 |
| \$15,000 to \$24,999 | 13.6\% | 6.8 | 11.1\% | 6 | 15.8\% | 6.7 |
| \$25,000 to \$34,999 | 15.1\% | 4.6 | 7.5\% | 4.9 | 13.5\% | 5.7 |
| \$35,000 to \$49,999 | 14.2\% | 7.6 | 21.0\% | 7.8 | 14.0\% | 7.1 |
| \$50,000 to \$74,999 | 15.1\% | 6.9 | 19.3\% | 7.2 | 14.2\% | 6.8 |
| \$75,000 to \$99,999 | 6.1\% | 4 | 4.8\% | 2.9 | 12.4\% | 5.3 |
| \$100,000 to \$149,999 | 6.5\% | 2.7 | 13.1\% | 4.4 | 2.5\% | 2.1 |
| \$150,000 to \$199,999 | 1.7\% | 1.4 | 5.8\% | 4.6 | 1.9\% | 2.6 |
| \$200,000 or more | 1.1\% | 1.5 | 4.2\% | 2.5 | 0.0\% | 2.5 |
| Median income (dollars) | 30,969 | 8,213 | 48,094 | 10,723 | 32,162 | 5,666 |
| Mean income (dollars) | 44,167 | 7,141 | 75,990 | 18,577 | 40,954 | 6,022 |
| Per Capita Income | 18,504 | 2,915 | 36,352 | 9,299 | 14,945 | 2,150 |

Source: US Census, 2019 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 14. Project Radius - Household Income

| Subject | 1 mile |  |  |
| :---: | :---: | :---: | :---: |
|  | Number | Percent | MOE |
| Number of Households | 1,059 | $100.0 \%$ | 156 |
| Per Capita Income <br> (dollars) | 22,504 |  |  |
| Household Income |  |  |  |
| $<\$ 15,000$ | 274 | $26.0 \%$ | 96 |
| $\$ 15,000-\$ 25,000$ | 96 | $9.0 \%$ | 79 |
| $\$ 25,000-\$ 50,000$ | 299 | $28.0 \%$ | 147 |
| $\$ 50,000-\$ 75,000$ | 144 | $14.0 \%$ | 108 |
| $\$ \$ 75,000+$ | 246 | $23.0 \%$ | 105 |
| 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 2019 Inflation-Adjusted Dollars), 2019 American Community Survey 5 -Year Estimates. The North Carolina per capita income estimate was $\$ 30,783$. The estimate for Halifax County was $\$ 21,848$. The estimate for Census Tract 9301 was $\$ 18,504$, the estimate for Census Tract 9302 was $\$ 36,352$, and the estimate for Census Tract 9304 was $\$ 14,945$.

The EJSCREEN analysis also provided the Per Capita Income estimate for the one-mile radius surrounding facility site, which was $\$ 22,504$. All Per Capita Income estimates were lower than that of the state except for Census Tract 9302.

## 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. Only languages where an estimated population of greater than 0 who reside in a Limited English-speaking household are included in this analysis. The population over 5 years and over who reside in a Limited English-speaking household in Census Tract 9302 and 9304 was greater than 0 but less than $5 \%$ of the total population (Table 15).

Table 15. Limited English Proficiency

| Household Language by Household Limited English Speaking Status | Census Tract 9301 |  |  | Census Tract 9302 |  |  | Census Tract 9304 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | Margin of Error +/- | Percent | Estimate | Margin of Error +/- | Percent | Estimate | Margin of Error +/- | Percent |
| Total: | 1328 | 125 | 100.0 | 2182 | 170 | 100.0 | 1382 | 140 | 100.0 |
| English only | 1289 | 141 | 97.1 | 2047 | 183 | 93.8 | 1274 | 161 | 92.2 |
| Spanish: | 32 | 37 | 2.4 | 82 | 48 | 3.8 | 85 | 69 | 6.2 |
| Limited English speaking household | 0 | 12 | 0.0 | 19 | 33 | 0.9 | 41 | 56 | 3.0 |
| Not a limited English speaking household | 32 | 37 | 2.4 | 63 | 50 | 2.9 | 44 | 66 | 3.2 |
| Other Indo-European languages: | 7 | 8 | 0.5 | 35 | 41 | 1.6 | 0 | 12 | 0.0 |
| Limited English speaking household | 0 | 12 | 0.0 | 0 | 12 | 0.0 | 0 | 12 | 0.0 |
| Not a limited English speaking household | 7 | 8 | 0.5 | 35 | 41 | 1.6 | 0 | 12 | 0.0 |
| Asian and Pacific Island languages: | 0 | 12 | 0.0 | 18 | 24 | 0.8 | 17 | 18 | 1.2 |
| Limited English speaking household | 0 | 12 | 0.0 | 0 | 12 | 0.0 | 0 | 12 | 0.0 |
| Not a limited English speaking household | 0 | 12 | 0.0 | 18 | 24 | 0.8 | 17 | 18 | 1.2 |
| Other languages: | 0 | 12 | 0.0 | 0 | 12 | 0.0 | 6 | 12 | 0.4 |
| Limited English speaking household | 0 | 12 | 0.0 | 0 | 12 | 0.0 | 0 | 12 | 0.0 |
| Not a limited English speaking household | 0 | 12 | 0.0 | 0 | 12 | 0.0 | 6 | 12 | 0.4 |

## 7 Educational Attainment

## Regional Setting

The following data was obtained through the US Census Bureau Table S1501, American Community Survey 20195 -year Estimates. Halifax County had a higher percentage of individuals who attained less than $9^{\text {th }}$ grade, $9^{\text {th }}$ to $12^{\text {th }}$ grade (no diploma) and graduated from high school (or equivalent) while also having a lower percentage of individuals who had attained a Bachelor's degree when compared to the state (Table 16).

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

| Subject |  | North Carolina |  |  |  | Halifax County |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number |  | Percent |  | Number |  | Percent |  |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- |  |
| Total Above 25 | $6,983,859$ | 1,636 |  |  | 36,147 | 128 |  |  |  |
| Less than 9th grade | 314,545 | 4,322 | $4.5 \%$ | 0.1 | 2,598 | 342 | $\mathbf{7 . 2 \%}$ | 0.9 |  |
| 9th to 12th grade, no diploma | 538,851 | 6,801 | $7.7 \%$ | 0.1 | 5,132 | 439 | $14.2 \%$ | 1.2 |  |
| High school <br> equivalency) | $1,791,532$ | 12,844 | $25.7 \%$ | 0.2 | 13,453 | 561 | $37.2 \%$ | 1.6 |  |
| Bachelor's degree or higher (includes | $2,182,853$ | 16,331 | $31.3 \%$ | 0.2 | 5,222 | 481 | $14.4 \%$ | 1.3 |  |

Source: US Census ACS 2019 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 20195 -year Estimates. Census Tract 9301 had a higher percentage of individuals who had attained less than $9^{\text {th }}$ grade, $9^{\text {th }}$ to $12^{\text {th }}$ grade (no diploma), and High school graduate (includes equivalency) when compared to the state (Table 17). Census Tract 9301 had a lower percentage of individuals who had attained a Bachelor's degree or higher when compared to the county and the state.

Census Tract 9302 had a higher percentage of individuals who had attained a Bachelor's degree or higher when compared to both the county and the state. Census Tract 9302 had a lower percentage of individuals had attained a less than $9^{\text {th }}$ grade education when compared to the county and the state. Census Tract 9304 had a higher percentage of individuals who had attained less than $9^{\text {th }}$ grade and $9^{\text {th }}$ to $12^{\text {th }}$ grade (no diploma) education when compared to both the county and the state (Table 18).

The educational attainment within the project radius had similar percentages of Less than $9^{\text {th }}$ grade and $9^{\text {th }}$ to $12^{\text {th }}$ grade (no diploma) compared to the county; as well as similar percentages of High School graduate (includes equivalency) and Bachelor's degree or higher compared to the state (Table 19).

Table 17. Local Setting- Educational Attainment (above 25 years old)

| Subject | Census Tract 9301 |  |  |  | Census Tract 9302 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  | Percent |  | Number |  | Percent |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- |
| Total Above 25 | 2,210 | 232 |  |  | 3,223 | 254 |  |  |
| Less than 9th grade | 132 | 59 | 6.0\% | 2.5 | 75 | 50 | 2.3\% | 1.5 |
| 9th to 12th grade, no diploma | 253 | 82 | 11.4\% | 3.6 | 225 | 122 | 7.0\% | 3.8 |
| High school graduate (includes equivalency) | 887 | 216 | 40.1\% | 7.8 | 897 | 233 | 27.8\% | 7 |
| Bachelor's degree or higher | 251 | 80 | 11.4\% | 3.4 | 1,061 | 247 | 32.9\% | 7.4 |

Source: US Census ACS 2019 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 18 Local Setting- Educational Attainment (above 25 years old) (cont'd)

| Subject |  | Census Tract 9304 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Number |  | Percent |  |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- |  |
| Total Above 25 | 2,498 | 249 |  |  |  |
| Less than 9th grade | 209 | 124 | $8.4 \%$ | 4.8 |  |
| 9th to 12th grade, no diploma | 443 | 139 | $17.7 \%$ | 5.5 |  |
| High school graduate (includes <br> equivalency) | 860 | 159 | $34.4 \%$ | 6.5 |  |
| Bachelor's degree or higher | 388 | 183 | $15.5 \%$ | 6.7 |  |
| Sal |  |  |  |  |  |

Source: US Census ACS 2019 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

Table 19. Project Radius - Educational Attainment (above 25 years old)

| Subject | Project Radius |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number |  | Percent |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- |
| Total Above 25 | 1,524 | 255 |  |  |
| Less than 9th grade | 112 | 128 | $7.0 \%$ |  |
| 9th to 12th grade, no diploma | 216 | 105 | $\mathbf{1 4 . 0 \%}$ |  |
| High school graduate (includes <br> equivalency) | 368 | 185 | $24.0 \%$ |  |
| Bachelor's degree or higher | 444 | 164 | $\mathbf{2 9 . 0 \%}$ |  |
| Source: EJSCREEN 2019 <br> All orange and bolded highlighted cells indicate a difference that is greater than $10 \%$ when <br> compared to the state <br> All green and bolded highlighted cells indicate a difference that is greater than 10\% when <br> compared to 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 2021 report, out of all 100 counties in North Carolina (with 1 indicating the healthiest), Halifax County ranks $95^{\text {th }}$ in health outcomes and $98^{\text {th }}$ 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 project area overall are higher than the state averages. However, the hospitalizations due to asthma in this area is 42 (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 ( 4.938 per 10,000 residents) is slightly higher than the state average (4.812 per 10,000 residents).

Table 20. Health Outcomes

| Cause of Death | Project Area | North <br> Carolina |
| :--- | :---: | :---: |
| Cancer | 190.95 | 169.1 |
| Heart Disease | 173.95 | 163.7 |
| Stroke | 45.7 | 43.1 |
| Cardiovascular Disease | 248.25 | 221.9 |
| Diabetes | 44.7 | 22.8 |

## 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 a healthy individual aged between 18 and 64.

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

- Roanoke Valley Early College
- Chockoyotte Church
- Halifax Community College
- Community Missionary Baptist church
- Grant Park Laundry
- Apostle Olivia Sharp
- Valley Community Church
- Ponderosa Campground and RV Park
- 3 Public or subsidized housing units (one for Elderly, another for developmentally disabled): Barton Apartments, Roanoke Rapids Housing Authority, Subsidized Housing 800012570

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


Figure 4. Sensitive receptors surrounding Roanoke Valley Lumber

## 10 Local Industrial Sites

Within the one-mile radius of the proposed facility, there are 53 permits or incidents (as of October 13, 2021) (Figure 5).

- 3 Air Quality Permitted Sites
- 2 NPDES Wastewater Treatment Facility
- 4 Coal Ash Structural Fills (CCB) (Closed)
- 1 Inactive Hazardous Site
- 1 Brownfields Program Site
- 3 Hazardous Waste Sites
- 20 Underground Storage Tank Incident
- 6 Above Ground Storage Tank Incidents
- 10 Underground Storage Tank Active Facilities
- 3 Land Use Restriction and/or Notice


Figure 5. Permitted facilities and incidents with the one-mile radius surrounding the proposed project.

## 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 Roanoke Valley Lumber facility encompassing Census Tract 9301, 9302, and 9304 in Halifax County. Potential emissions rates outlined in the permit application and county level health data are 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-for Age \& Sex-is from 2010 and may be outdated; the more recent census data through 2019 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 Roanoke Valley Lumber Facility regarding its permit application. The county, the project area data from the radius used, and the census tracts generally exceed the state estimates for Black and African American individuals present. The area-except Census Tract 9302—also showed higher percentages of individuals earning the lowest income ranges and elevated poverty rates (as compared to the State and County). No LEP groups was identified as requiring translation or interpretation services.

Halifax County ranks $95^{\text {th }}$ in health outcomes and $98^{\text {th }}$ 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 53 permits or incidents recorded within one mile of the proposed facility.

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

- The Haliwa-Saponi Indian Tribe will be provided information regarding this permit application and associated opportunities for public comment
- The list of sensitive receptors should be consulted while considering additional outreach options that may best fit this community's needs.
- Project information should be provided to officials in the Town of Weldon.
- Known community leaders should be consulted for additional outreach options.


[^0]:    ${ }^{1}$ This information is subject to change throughout the permit review process.
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[^1]:    ${ }^{2}$ https://www.thebalance.com/federal-poverty-level-definition-guidelines-chart-3305843
    ${ }^{3}$ 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.

