# North Carolina Department of Environmental Quality July 19, 2023 

## Stericycle, Inc.

Draft Environmental Justice Report

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## Executive Summary

## Facility Location:

## Stericyle, Inc. (Stericycle)

Address: 1168 Porter Avenue Haw River, NC 27258
An approximate one-mile radius around the facility footprint and address provided was used for the analysis:

- County: The address is in Alamance County.
- Census Tracts: The address is in census tract 212.01. An approximate one-mile radius intersects four census tracts: 211.01, 212.01, 212.04, and 212.06. Census tracts are from U.S. 2020 Census.


## Overview:

- Potentially Underserved Community: The site is located within one mile of a block group identified as potentially underserved based on NC DEQ's definition ${ }^{1}$ (See Figure 10). DEQ recommends consulting the Enhanced Engagement Methods to Reach

- Poverty and Household Income: More than one census tracts have minority populations experiencing poverty ( $>20 \%$ poverty). Two of the four census tracts have a population experiencing poverty for which there is a percentage increase of $5 \%$ or more compared to Alamance County and/or the state. Median income in two of four census tracts were lower than the state and Alamance County median income. Per capita income in the one-mile facility radius of $\$ 27,488$ was similar to Alamance County per capita income of $\$ 27,944$.
- Race/Ethnicity: Three of four census tracts have a minority population of Black or African American, American Indian or Alaska Native, or Hispanic or Latino (of any race) for which there is a percentage increase of $10 \%$ or more compared to Alamance County and/or state. Additionally, the total minority population is greater than $50 \%$ in two of the four census tracts.

[^0]- Tribe: While the facility is not within one mile of a tribal statistical area, the facility is within Alamance County, which encompasses land within the Occaneechi Band of the Saponi Nation, a state-recognized Tribe.
- Limited English Proficiency: The site is in an area with limited English proficiency (Spanish) because one of the four census tracts has a population $>5 \%$ which speaks English less than very well. Additionally, $22 \%$ of the population within one mile of the facility speaks Spanish at home. DEQ recommends any company and any state or local government consult DEQ's Limited English Proficiency Language Access Plan and conduct outreach in both English and Spanish.
- Cumulative Impact Potential: The CDC identifies one of the four census tracts as having a high EJ index, signifying potential for high environmental burden, social vulnerability, and/or health vulnerability. There are 7 existing permits, including one for the Stericycle facility, and 17 incidents, including one above-ground storage tank incident for the Stericycle facility, within one mile of the site that could contribute to cumulative impacts to sensitive receptors within and outside the one-mile buffer.


## Recommendations:

- Consideration for Spanish translation services in accordance with the Department LEPLanguage Access Plan.
- Creation of a one-page, easy to understand flyer in both English and Spanish.
- Communication and outreach through Spanish news media outlets with coverage in the relevant communities.
- Outreach and engagement with the list of identified sensitive receptors.
- Provision of a call-in option for people to leave comments on a voicemail line in case of lack of internet access.
- Distribution of project information to county and municipal government officials in Alamance County and government-to-government outreach to the Occaneechi Band of the Saponi Nation.
- Consultation with known community leaders for additional outreach options and recommendations.


## 1 Introduction

It is the policy of the North Carolina Department of Environmental Quality (DEQ) that no person shall, on the grounds of race, religion, color, national origin, ethnicity, sex, pregnancy, gender identity or expression, sexual orientation, age, political affiliation, National Guard or veteran status, genetic information, or disability be excluded from participation in, be denied the benefits of or be subjected to discrimination under Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Action of 1987, the Rehabilitation Act of 1973, and all other pertinent nondiscrimination laws and regulations.

[^1]Environmental justice (EJ) 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).

EPA defines overburdened communities as a minority, low-income, tribal or indigenous populations, or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. Disproportionality can result in greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative environmental, health, economic, or social conditions within these populations or places. The term environmental justice describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.

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 conditions, 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=1eb0fbe2bcfb4cccb3cc 212af8a0b8c8)
- Outreach recommendations

Demographics for Alamance 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

Stericycle, Inc. (Stericycle) operates two identical hospital, medical, and infectious waste incinerators (HMIWI) and their associated air pollution control equipment at 1168 Porter Avenue in Haw River, Alamance County, North Carolina. The air pollution control equipment for each HMIWI includes one selective non-catalytic reduction system, one packed bed scrubber and associated quench column, one venturi scrubber equipped with a mist eliminator, and one sulfur impregnated carbon bed. The facility is requesting a renewal of its Title V permit. The current Air Quality Permit No. 05896T25 was issued on December 19, 2016, with an expiration date of November 30, 2021. The complete renewal application was received on January 27, 2021, at least six months prior to the date of permit expiration as required by rule. Since a complete and timely application was submitted, the existing permit shall not expire until the renewal permit has been issued or denied in accordance with 15A North Carolina Administrative Code 02Q . 0513.

The Permittee is not requesting any equipment changes with this renewal. Actual emissions are shown below as taken from the last two Annual Emissions Inventories and are not expected to change significantly.

| Pollutant | CY2021 Actual <br> Emissions, tons/year | CY2020 Actual <br> Emissions, tons/year |
| :--- | :--- | :--- |
| Particulate Matter (10-micron <br> diameter or less) $\left(\mathrm{PM}_{10}\right)$ | 1.03 | 0.82 |
| Sulfur Dioxide $\left(\mathrm{SO}_{2}\right)$ | 0.33 | 0.23 |
| Nitrogen Oxides $\left(\mathrm{NOx}^{2}\right)$ | 24.57 | 22.03 |
| Carbon Monoxide (CO) | 0.74 | 0.70 |
| Volatile Organic Compounds (VOC) | 0.85 | 0.87 |
| Total Hazardous Air Pollutants (HAP) | 0.1510 | 0.0345 |
| Highest Individual Hazardous Air <br> Pollutant | 0.128 <br> (Hydrogen Chloride) | 0.014 <br> (Hexane, $\mathrm{n}-)$ |

On December 19, 2023, the DAQ Director signed a Special Order of Consent (SOC) with the facility to resolve recent violations related to use of the bypass stacks for the two HMIWI units. During the public comment period for the SOC, a request was made for a public hearing. The DAQ determined that not enough public interest was expressed for a public hearing on the SOC, but plans were made to hold a public hearing for the renewal of the air quality permit. The SOC included a requirement that the facility submit to the DAQ for approval, then implement, a Bypass Reduction Plan. Submittal of the proposed Bypass Reduction Plan was made to the DAQ by the facility on January 23, 2023. The Bypass Reduction Plan was approved by the DAQ in a letter dated February 20, 2023.

## 4 Geographic Area

The existing Stericycle facility is located at 1168 Porter Avenue Haw River, NC 27258 (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 in Alamance County.


Figure 1. U.S. 2020 Census Tracts surrounding the facility location with one-mile buffer

Alamance County is defined as a Tier 2 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 facility location is in Census Tract 211.01, 212.01, 212.04, and 212.06 in Alamance County (Figure 1). Census tracts are small, relatively permanent statistical subdivisions of a county with a unique numeric code (US Census Bureau). Alamance County encompasses land within the Occaneechi Band of the Saponi Nation, a state-recognized Tribe.

## 5 Methods

The following sections on race and ethnicity, age and sex, disability, poverty and household income, and Limited English Proficiency (LEP) populations are based on the most recent U.S. Census Bureau data at the state, county, census tract, and project-one-mile radius geographic scales.
U.S. Census Definitions for Demographic and Socioeconomic Variables Considered -

- Race - a person's self-identification with one or more social groups. An individual can report as White (not Hispanic or Latino), Black or African American, Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or some other race.
- Age and Sex - Age is the length of time in completed years that a person has lived. Sex refers to a person's biological sex.
- Disability - A long-lasting physical, mental, or emotional condition. This condition can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition can also impede a person from being able to go outside the home along or to work at a job or business.
- Income - The money income received on a regular basis (exclusive of certain money receipts such as capital gains and lump-sum payments) before payments for personal income taxes, social security, union dues, Medicare deductions, etc.
- Poverty - A set of money income thresholds that vary by family size and composition to determine who is in poverty. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family (and every individual in it) or unrelated individual is considered in poverty.
- Limited English Proficiency (LEP) - The language currently used by respondents at home, either "English only" or a non-English language which is used in addition to English or in place of English.
- Minority - Population of people who are not single-race White and not Hispanic. Populations of individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

Using standard environmental justice guidelines from the EPA and National Environmental Policy Act (NEPA) documentation, the following conditions are highlighted as communities with the potential for environmental justice concerns:

- Percentage increase of $10 \%$ or more compared to the county or state for minority race, age, sex, disability, or household income brackets
- $50 \%$ or more minority population
- Percentage increase of $5 \%$ or more compared to the county or state average for poverty
- Share of population experiencing poverty is $20 \%$ or more
- At least $5 \%$ of the population or 1000 people (whichever is smaller) speaks English less than very well

Demographics for Alamance County and the state are compared to the local (census tract and project one-mile radius) geographic scales to identify any disparities surrounding the project area using standard environmental justice guidelines from the EPA and NEPA documentation. Sociodemographic data displayed from EJScreen were accessed on June 30, 2023 throughout the report.

Data at the county geographic scale are compared to the state geographic scale and the local geographic scales are compared to the county and state geographic scales to identify disparities surrounding the project area. Local geographic scales include selected census tracts which intersect the one-mile radius around the approximate facility footprint as well as the area inclusive of the one-mile radius around the facility.

Percentage Increase Example:
If a census tract has $35 \%$ of the population classified as low income and the county consists of $30 \%$ low income, the census tract's proportion of low-income population would exceed the county proportion of low-income population by $16.7 \%$ and thus be flagged as an area with the potential for having environmental justice concerns.

American Community Survey Data from the U.S. Census: This report uses 5 -year estimates from the American Community Survey data, when possible. The U.S. Census indicates that the primary advantage of using multiyear estimates is the increased statistical reliability of the data for less populated areas and small population subgroups. The margin of error (MOE) has been included, when provided, and is a measure of the possible variation of the estimate around the population value (U.S. Census Bureau). The smaller the geographic unit, the larger the MOE becomes (generally). 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 1). 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\%).

Alamance County had a total population of 171,415 (Table 1). The two most common racial or ethnic groups in Alamance County were White (not Hispanic or Latino) (59.8\%) and Black or African American (19.6\%). No populations were greater than 10\% different when compared to the state.

Table 1. Regional Setting - Race and Ethnicity

| Race and Ethnicity | North Carolina |  | Alamance County |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |
| Total Population | 10,439,388 | 100.0 | 171,415 | 100.0 |
| White (not Hispanic or Latino) | 6,312,148 | 60.5 | 102,487 | 59.8 |
| Black or African American | 2,107,526 | 20.2 | 33,555 | 19.6 |
| American Indian or Alaska Native | 100,886 | 1.0 | 584 | 0.3 |
| Asian | 340,059 | 3.3 | 2,811 | 1.6 |
| Native Hawaiian and Other Pacific Islander | 6,980 | 0.1 | 86 | 0.1 |
| Some other Race | 46,340 | 0.4 | 762 | 0.4 |
| Two or More Races | 406,853 | 3.9 | 6,427 | 3.7 |
| Hispanic or Latino (of any race) | 1,118,596 | 10.7 | 24,703 | 14.4 |
| Source: US Census Bureau, 2020 decennial Census All orange and bolded highlighted cells indicate a difference that is greater than $10 \%$ or more in the County compared to the state |  |  |  |  |

## Local Setting

The following project area - one-mile radius race and ethnicity data are based on 2021 American Community 5 -year Estimates and were obtained from EJScreen 2.2 (see Figure 2). EJSCREEN identified a population of 428 individuals within the one-mile buffer surrounding the facility (Table 2). Within the one-mile project radius, the largest population was White) at $64 \%$ (Figure 2). Hispanic (of any race) was greater than $10 \%$ different when compared to the county and the state (Table 2).


Figure 2. Race and Ethnicity Within 1-Mile Radius- Source: EJScreen 2.2

Table 2. Local Setting - Race and Ethnicity

| Project Area - One-Mile |  |
| :--- | :---: |
| Total Population | 428 |
| Race and Ethnicity | Percent |
| White | 64 |
| Black | 19 |
| American Indian | 1 |
| Asian | $\sim 0$ |
| Hawaiian/Pacific Islander | $\sim 0$ |
| Other Race | 14 |
| Two or More Races | 2 |
| HISPANIC (of any race) |  |
| Source: US Census Bureau, 2017-2021 ACS. Obtained through EJSCREEN 2.2 <br> All blue and bolded highlighted cells indicate a percentage increase of 10\% or more in <br> the project area compared to the State and the County |  |

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 211.01 was White (not Hispanic or Latino) (49.8\%) (Table 3). Black or African American and Two or More Races were greater than $10 \%$ different compared to the state and the county, and American Indian or Alaska Native
was greater than 10\% different when compared to the County. Hispanic or Latino (of any race) was greater than 10\% different when compared to the State.

The largest population within Census Tract 212.01 was White (not Hispanic or Latino) (41.0\%) (Table 3). Black or African American and Hispanic or Latino (of any race) were greater than $10 \%$ different compared to the county and the state.

The largest population within Census Tract 212.04 was White (not Hispanic or Latino) (61.2\%) (Table 4). American Indian or Alaska Native and Asian were greater than $10 \%$ different compared to the county, and Hispanic or Latino (of any race) was greater than $10 \%$ different when compared to the county and the state.

The largest population within Census Tract 212.06 was White (not Hispanic or Latino) (51.1\%) (Table 4). American Indian or Alaska Native was greater than $10 \%$ different compared to the county, and Black or African American, Some other Race, and Two or more races were greater than $10 \%$ different when compared to the county and the state.

Table 3. Local Setting - Race and Ethnicity (cont'd)

|  | Census Tract 211.01 |  | Census Tract 212.01 |  |
| :--- | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent |
| Total Population | 3,984 | 100.0 | 6,305 | 100.0 |
| White (not Hispanic or Latino) | 1,986 | 49.8 | 2,585 | 41.0 |
| Black or African American | 1,122 | $\mathbf{2 8 . 2}$ | 1,798 | $\mathbf{2 8 . 5}$ |
| American Indian or Alaska Native | 26 | 0.7 | 13 | 0.2 |
| Asian | 52 | 1.3 | 32 | 0.5 |
| Native Hawaiian and Other Pacific Islander | 0 | 0.0 | 0 | 0.0 |
| Some other Race | 23 | $\mathbf{0 . 6}$ | 34 | $\mathbf{0 . 5}$ |
| Two or More Races | 186 | $\mathbf{4 . 7}$ | 236 | 3.7 |
|  |  |  |  |  |
| HISPANIC OR LATINO (of any race) | 589 | $\mathbf{1 4 . 7 8}$ | 1,607 | $\mathbf{2 5 . 5}$ |
| Source: US Census Bureau, 2020 Census <br> All orange and bolded highlighted cells indicate a percentage increase of 10\% or more in the census tract <br> All blue and bolded highlighted cells indicate a percentage increase of 10\% or more in the census tract compared to the State and <br> the County <br> All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County |  |  |  |  |

Table 4. Local Setting - Race and Ethnicity (cont'd)

|  | Census Tract 212.04 |  | Census Tract 212.06 |  |
| :--- | :---: | :---: | :---: | :---: |
| Race and Ethnicity | Number | Percent | Number | Percent |
| Total Population | 5,217 | 100 | 5,382 | 100.0 |
| White (not Hispanic or Latino) | 3,194 | 61.2 | 3,127 | 58.1 |
| Black or African American | 839 | 16.1 | 1,260 | 23.4 |
| American Indian or Alaska Native | 33 | 0.6 | 21 | 0.4 |
| Asian | 102 | $\mathbf{2 . 0}$ | 84 | 1.6 |
| Native Hawaiian and Other Pacific Islander | 1 | 0.0 | 1 | 0.0 |
| $\quad$ Some other Race | 12 | 0.0 | 43 | 0.8 |
| Two or More Races | 205 | 3.9 | 245 | 4.6 |
|  |  |  |  |  |
| $\quad$ HISPANIC OR LATINO (of any race) | 831 | 15.9 | 601 | 11.2 |
| Source: US Census Bureau, 2020 Census <br> All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State <br> All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State <br> and the County <br> All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County |  |  |  |  |

### 5.2 Age and Sex

## Regional Setting

According to the 2020 ACS 5-Year Estimates US Census Data Table S0101: Age and Sex, North Carolina had a total population of $10,386,227$ individuals (Table 5). The median age for females (40.4) was slightly older than the median age for males (37.4).

Alamance County had a total population estimate of 166,144 individuals. The median age for females (40.0) was slightly higher than the median age for males (37.9).

When comparing three different age categories ( $\leq 5$ years, $\leq 18$ years, and $\geq 65$ years), there were no notable percentage differences between Alamance County and the state.

Table 5. Regional Setting - Median Age and Sex

|  | North Carolina |  |  |  |  |  | Alamance County |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Estimate |  |  | Percent |  |  | Estimate |  |  | Percent |  |  |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both Sexes | Male | Female | Both <br> Sexes | Male | Female |
| Total Population | 10,386,227 | 5,052,667 | 5,333,560 | 100\% | 49\% | 51\% | 166,144 | 78,854 | 87,290 | 100\% | 47\% | 53\% |
| Median Age | 38.9 | 37.4 | 40.4 |  |  |  | 39.1 | 37.9 | 40.0 |  |  |  |

Source: US Census Bureau, 2020 ACS 5-year Estimates
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the County compared to the State

Table 6. Regional Setting - Age by Category

| Age | North Carolina |  | Alamance County |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Estimate | Percent | Estimate | Percent |
| $\leq 5$ Years of Age | 605299 | $5.8 \%$ | 9647 | $5.8 \%$ |
| $\leq 18$ Years of Age | 2301596 | $22.2 \%$ | 36877 | $22.2 \%$ |
| $\geq 65$ Years of Age | 1688354 | $16.3 \%$ | 27867 | $16.8 \%$ |
| Source: US Census Bureau, 2020 ACS 5-year Estimates <br> All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the County compared to the State |  |  |  |  |

## Local Setting

According to the 2020 ACS 5-Year Estimates US Census Data Table S0101: Age and Sex, Census Tract 211.01 had a total population estimate of 2,759 and a slightly older median agesexcept for males-than the state and Alamance County (Table 7). Census Tract 212.01 had a total population of 6,046 and a slightly younger median ages-expect for female-than the state and Alamance County (Table 8). Census Tract 212.04 had a total population of 4,785 and a slightly older median ages than the state and Alamance County (Table 8). Census Tract 212.06
had a total population of 5,602 and younger median ages than the state and Alamance County (Table 8).

When comparing three different age categories ( $\leq 5$ years, $\leq 18$ years, and $\geq 65$ years), there was a $10 \%$ higher difference for the following census tracts and age categories when compared to both Alamance County and state:

- Census Tract 211.01 - $\leq 5$ Years and $\geq 65$ Years (Table 8)
- Census Tract 212.01 - All age categories (Table 8)
- Census Tract 212.06 - $\leq 18$ Years and $\geq 65$ Years (Table 10)

Table 7. Local Setting - Median Age and Sex

|  | Census Tract 211.01 |  |  |  |  |  | Census Tract 212.01 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Estimate |  |  | Percent |  |  | Estimate |  |  | Percent |  |  |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both Sexes | Male | Female | Both Sexes | Male | Female |
| $\begin{gathered} \text { Total } \\ \text { Population } \\ \hline \end{gathered}$ | 2,759 | 1,325 | 1,434 | 100\% | 48\% | 52\% | 6,046 | 2,861 | 3,185 | 100\% | 47\% | 53\% |
| Median Age | 40.5 | 36.5 | 41.4 |  |  |  | 36.7 | 33.8 | 41.7 |  |  |  |
| Source: US Census Bureau, 2020 ACS 5 -year Estimates <br> All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State <br> All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County <br> All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County |  |  |  |  |  |  |  |  |  |  |  |  |

Table 8. Local Setting - Age by Category

| Age | Census Tract 211.01 |  | Census Tract 212.01 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Estimate | Percent | Estimate | Percent |
| $\leq 5$ Years of Age | 180 | $6.5 \%$ | 582 | $9.6 \%$ |
| $\leq 18$ Years of Age | 534 | $19.4 \%$ | 2052 | $33.9 \%$ |
| $\geq 65$ Years of Age | 586 | $21.2 \%$ | 1956 | $32.4 \%$ |
| Source: US Census Bureau, 2020 ACS 5 -year Estimates <br> All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> State <br> All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> State and the County <br> All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> County |  |  |  |  |

Table 9. Local Setting - Median Age and Sex (cont'd)

|  | Census Tract 212.04 |  |  |  |  |  | Census Tract 212.06 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Estimate |  |  | Percent |  |  | Estimate |  |  | Percent |  |  |
|  | Both sexes | Male | Female | Both sexes | Male | Female | Both Sexes | Male | Female | Both <br> Sexes | Male | Female |
| Total Population | 4,785 | 2,338 | 2,447 | 100\% | 49\% | 51\% | 5,602 | 2,609 | 2,993 | 100\% | 47\% | 53\% |
| Median Age | 43.0 | 44.5 | 42.6 |  |  |  | 34.1 | 32.4 | 37.0 |  |  |  |
| Source: US C <br> All orange and <br> All blue and b <br> All green and | sus Bure Ided hig d highlig ded hig | 2020 AC d cells cells indi d cells in | year Estim <br> te a perce <br> a percenta <br> a percen |  | of 10\% $10 \%$ or of $10 \%$ | more in the ore in the more in th | census nsus tra census | ct comp compar t comp | to the St the State to the Cou | d the Co |  |  |

Table 10. Local Setting - Age by Category (cont'd)

| Age | Census Tract 212.04 |  | Census Tract 212.06 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Estimate | Percent | Estimate | Percent |
| $\leq 5$ Years of Age | 244 | $5.1 \%$ | 279 | $5.0 \%$ |
| $\leq 18$ Years of Age | 1012 | $21.2 \%$ | 1599 | $\mathbf{2 8 . 5 \%}$ |
| $\geq 65$ Years of Age | 752 | $15.7 \%$ | 652 | $11.6 \%$ |
| Source: US Census Bureau, 2020 ACS 5-year Estimates <br> All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> State <br> All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> State and the County <br> All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the <br> County |  |  |  |  |

## Project Buffer

There was a slightly higher percentage of males than females in this area. EJSCREEN data does not provide the median age (Table 8). Populations less than age 5 and greater than age 65 , made up $6 \%$ and $12 \%$ of the one-mile radius population, respectively (Table 12).

Table 11. Local Setting - Age Groups and Sex

| Sex | Project Area - 1 Mile |  |  |
| :--- | :---: | :---: | :---: |
|  | Percent |  |  |
|  | Both sexes | Male | Female |
| Total Population | $100 \%$ | $51 \%$ | $49 \%$ |
| Source: US Census Bureau, 2017-2021 ACS. Obtained through EJSCREEN 2.2 |  |  |  |

Table 12. Local Setting - Age by Category

| Age | Project Area - 1 <br> Mile |
| :--- | :---: |
|  | Percent |
| $\leq 5$ Years of Age | $6 \%$ |
| $\geq 65$ Years of Age | $12 \%$ |

Source: US Census Bureau, 2017-2021 ACS.
Obtained through EJSCREEN 2.2

### 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 10).

Alamance County had an estimated total population of 164,986 noninstitutionalized citizens. Of those, an estimated $13.6 \%$ (MOE +/- $0.9 \%$ ) had a disability. The largest population of civilians with a disability was Native Hawaiian and Other Pacific Islander (25.9\%, MOE 19.8\%). Native Hawaiian and Other Pacific Islander and Asian were greater than $10 \%$ different when compared to the state (Table 10), however the large margin of error limits conclusiveness of the difference.

Table 13. Regional Setting - Disability

| Subject | North Carolina |  |  |  |  |  | Alamance 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 | 164,986 | 189 | 22,379 | 1,443 | 13.6 | 0.9 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 6,887,100 | 8,360 | 952,878 | 7,860 | 13.8 | 0.1 | 113,669 | 1219 | 16,909 | 1200 | 14.9 | 1.1 |
| Black or African American | 2,162,727 | 5,667 | 312,089 | 5,124 | 14.4 | 0.2 | 32,618 | 625 | 4,139 | 574 | 12.7 | 1.8 |
| American Indian and Alaska Native | 117,165 | 2,329 | 21,497 | 933 | 18.3 | 0.8 | 681 | 235 | 110 | 67 | 16.2 | 11.1 |
| Asian | 305,567 | 2,316 | 16,107 | 1,164 | 5.3 | 0.4 | 2,679 | 230 | 219 | 98 | 8.2 | 3.5 |
| Native Hawaiian and Other Pacific Islander | 6,715 | 771 | 620 | 185 | 9.2 | 2.8 | 54 | 25 | 14 | 14 | 25.9 | 19.8 |
| Some other Race | 330,447 | 8,082 | 21,840 | 1,304 | 6.6 | 0.4 | 10,096 | 1,194 | 472 | 334 | 4.7 | 3.2 |
| Two or more races | 368,363 | 7,303 | 38,115 | 1,947 | 10.3 | 0.5 | 5,189 | 786 | 516 | 156 | 9.9 | 2.7 |
| Hispanic or Latino | 968,502 | 1,000 | 63,943 | 2,301 | 6.6 | 0.2 | 21,075 | 75 | 891 | 238 | 4.2 | 1.1 |
| Type of Disability |  |  |  |  |  |  |  |  |  |  |  |  |
| With a hearing difficulty | (X) | (X) | 379,973 | 5,120 | 3.7 | 0.1 | (X) | (X) | 7,340 | 766 | 4.4 | 0.5 |
| With a vision difficulty | (X) | (X) | 263,954 | 5,052 | 2.6 | 0.1 | (X) | (X) | 3,429 | 524 | 2.1 | 0.3 |
| With a cognitive difficulty | (X) | (X) | 515,673 | 7,341 | 5.4 | 0.1 | (X) | (X) | 8,221 | 912 | 5.3 | 0.6 |
| With an ambulatory difficulty | (X) | (X) | 711,995 | 6,660 | 7.4 | 0.1 | (X) | (X) | 10,928 | 958 | 7.0 | 0.6 |
| Source: US Census Data, 2020 ACS 5-Year Estimates, All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the County compared to the State |  |  |  |  |  |  |  |  |  |  |  |  |

## Local Setting

The project area (1-mile radius) disability data is based on 2021 American Community 5-Year Estimates and was obtained from EJScreen 2.2. Within the 1-mile radius, persons with disabilities made up $14 \%$ of the population (Table 10).

Of the four census tracts near the facility, two census tracts had a noninstitutional civilian population with greater than $10 \%$ difference as compared to the county and/or state.

According to the 2020 American Community Survey 5 -Year Estimates, Table S1810 Disability Characteristics from the US Census Bureau, Census Tract 211.01 had an estimated total population of 2,759 noninstitutionalized citizens (Table 11). Of those individuals, an estimated $16.2 \%$ (MOE $+/-5.2 \%$ ) had a disability, which is greater than $10 \%$ difference when compared to the county and/or state. The subjects with the largest population of disabled civilians were White (not Hispanic or Latino) (21.4\%, MOE +/- 7.6\%), followed by Some other Race at 20.4\% (MOE +/- 24.9\%). Total civilian noninstitutionalized population, White (not Hispanic or Latino) and some other race were greater than $10 \%$ different compared to the state and the county however the large margin of error limits conclusiveness of the difference.

Census Tract 212.01 had an estimated total population of 6,046 noninstitutionalized citizens (Table 11). Of those individuals, an estimated $16.5 \%$ (MOE +/- $3.5 \%$ ) had a disability, which is greater than $10 \%$ difference when compared to the county and/or state. The subjects with the largest population of disabled civilians were Black or African American ( $19.6 \%$, MOE $+/-5.6 \%$ ), followed by White (not Hispanic or Latino) at 19.6\% (MOE +/- $5.6 \%$ ). White (not Hispanic or Latino), Asian, and Hispanic or Latino were greater than 10\% different compared to the state and the county. Some other race was greater than $10 \%$ different compared to the county. The large margin of error among race/ethnicity groups with a disability limits conclusiveness of the difference.

Census Tract 212.04 had an estimated total population of 4,640 noninstitutionalized citizens (Table 12). Of those individuals, an estimated $10.5 \%$ (MOE +/- 2.6\%) had a disability. The subjects with the largest population of disabled civilians American Indian and Alaska Native and was greater than $10 \%$ different compared to the county and the state however the large margin of error limits conclusiveness of the difference.

Census Tract 212.06 had an estimated total population of 5,602 noninstitutionalized citizens (Table 12). Of those individuals, an estimated $11.8 \%$ ( $\mathrm{MOE}+/-5.6 \%$ ) had a disability. The subjects with the largest population of disabled civilians were White (not Hispanic or Latino) ( $16.0 \%$, MOE $+/-9.1 \%$ ) and was greater than $10 \%$ different compared to the state. followed by White (not Hispanic or Latino) at 19.6\% (MOE +/- $5.6 \%$ ). Some other race was greater than 10\% different compared to the county and the state however the large margin of error limits conclusiveness of the difference.

Table 14. Local Setting - Disability

| Project Area - 1 Mile |  |
| :---: | :---: |
|  | Percent |
| Persons with disabilities: | 14 |
| Source: US Census Bureau, 2017-2021 ACS. Obtained through <br> EJSCREEN 2.2 |  |

Table 15. Local Setting - Disability

| Subject | Census Tract 211.01 |  |  |  |  |  | Census Tract 212.01 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 2,759 | 363 | 448 | 139 | 16.2 | 5.2 | 6,046 | 520 | 999 | 216 | 16.5 | 3.5 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 1,674 | 297 | 358 | 128 | 21.4 | 7.6 | 2,841 | 397 | 557 | 173 | 19.6 | 5.6 |
| Black or African American | 718 | 191 | 52 | 42 | 7.2 | 6.0 | 1,795 | 361 | 396 | 143 | 22.1 | 7.6 |
| American Indian and Alaska Native | 75 | 78 | 0 | 13 | 0 | 38.0 | 8 | 11 | 0 | 19 | 0 | 100.0 |
| Asian | 4 | 11 | 0 | 13 | 0 | 100.0 | 4 | 8 | 0 | 19 | 0 | 100.0 |
| Native Hawaiian and Other Pacific Islander | 0 | 13 | 0 | 13 | - | ** | 3 | 5 | 0 | 19 | 0 | 100.0 |
| Some other Race | 98 | 74 | 20 | 27 | 20.4 | 24.9 | 785 | 251 | 46 | 42 | 5.9 | 4.9 |
| Two or more races | 104 | 108 | 0 | 13 | 0 | 30.9 | 95 | 84 | 0 | 19 | 0 | 32.9 |
| Hispanic or Latino | 152 | 123 | 18 | 26 | 11.8 | 11.9 | 1,366 | 352 | 46 | 42 | 3.4 | 3.3 |
| Type of Disability |  |  |  |  |  |  |  |  |  |  |  |  |
| With a hearing difficulty | (X) | (X) | 73 | 59 | 2.6 | 2.0 | (X) | (X) | 400 | 129 | 6.6 | 2.2 |
| With a vision difficulty | (X) | (X) | 95 | 76 | 3.4 | 2.8 | (X) | (X) | 99 | 50 | 1.6 | 0.8 |
| With a cognitive difficulty | (X) | (X) | 180 | 89 | 7.0 | 3.6 | (X) | (X) | 430 | 152 | 7.6 | 2.6 |
| With an ambulatory difficulty | (X) | (X) | 282 | 102 | 10.9 | 4.0 | (X) | (X) | 317 | 109 | 5.6 | 1.9 |

Source: US Census Data, 2020 ACS 5-Year Estimates,
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

Table 16. Local Setting - Disability (cont'd)

| Subject | Census Tract 212.04 |  |  |  |  |  | Census Tract 212.06 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  | With a Disability |  | Percent with a Disability |  | Total |  | With a Disability |  | Percent with a Disability |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total civilian noninstitutionalized population | 4,640 | 472 | 488 | 119 | 10.5 | 2.6 | 5,602 | 656 | 662 | 334 | 11.8 | 5.6 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White (not Hispanic or Latino) | 3,192 | 366 | 358 | 108 | 11.2 | 3.5 | 3,249 | 492 | 520 | 334 | 16.0 | 9.1 |
| Black or African American | 825 | 239 | 76 | 53 | 9.2 | 6.5 | 1,582 | 482 | 70 | 58 | 4.4 | 4.2 |
| American Indian and Alaska Native | 44 | 47 | 30 | 41 | 68.2 | 49.9 | 0 | 19 | 0 | 19 | - | ** |
| Asian | 2 | 4 | 0 | 13 | 0.0 | 100.0 | 37 | 57 | 0 | 19 | 0.0 | 54.1 |
| Native Hawaiian and Other Pacific Islander | 0 | 13 | 0 | 13 | - | ** | 0 | 19 | 0 | 19 | - | ** |
| Some other Race | 234 | 257 | 7 | 10 | 3.0 | 7.1 | 142 | 142 | 15 | 24 | 10.6 | 12.5 |
| Two or more races | 86 | 63 | 11 | 18 | 12.8 | 19.6 | 275 | 189 | 37 | 50 | 13.5 | 14.1 |
| Hispanic or Latino | 508 | 279 | 6 | 10 | 1.2 | 2.0 | 459 | 290 | 35 | 40 | 7.6 | 9.9 |
| Type of Disability |  |  |  |  |  |  |  |  |  |  |  |  |
| With a hearing difficulty | (X) | (X) | 173 | 83 | 3.7 | 1.8 | (X) | (X) | 100 | 68 | 1.8 | 1.2 |
| With a vision difficulty | (X) | (X) | 31 | 36 | 0.7 | 0.8 | (X) | (X) | 63 | 55 | 1.1 | 1.0 |
| With a cognitive difficulty | (X) | $(X)$ | 190 | 80 | 4.3 | 1.8 | (X) | $(X)$ | 285 | 166 | 5.4 | 3.1 |
| With an ambulatory difficulty | (X) | (X) | 265 | 100 | 6.0 | 2.2 | (X) | (X) | 187 | 97 | 3.5 | 1.8 |

Source: US Census Data, 2020 ACS 5 -Year Estimates,
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

### 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 13). 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 ${ }^{4}$ 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 $2021^{5}$, that would be \$53,000 (2.0 x \$26,500). North Carolina had an estimated $33.0 \%$ of the population below $200 \%$ of the poverty level.

Alamance County had an estimated population of 161,433 with $15.4 \%$ (MOE +/- $1.2 \%$ ) living below the poverty level, which is greater than a $5 \%$ increase when compared to the state (Table 13). Black or African American, Hispanic or Latino, and two or more races had the highest percentages living below the poverty level. White, Black or African American, Asian, and Two or more races populations had estimates greater than $5 \%$ different when compared to the state. Alamance had a greater than $5 \%$ increase in estimated population below $200 \%$ of the poverty level, when compared to the state.

[^2]Table 17. Regional Setting - Poverty

| Subject | North Carolina |  |  |  |  |  | Alamance 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 | 161,433 | 538 | 24,893 | 1,854 | 15.4 | 1.2 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White, not Hispanic or Latino | 6,344,815 | 4,042 | 622,712 | 11,804 | 9.8 | 0.2 | 101,497 | 563 | 10,701 | 1,213 | 10.5 | 1.2 |
| Black or African American | 2,132,832 | 6,025 | 456,894 | 7,600 | 21.4 | 0.4 | 32,224 | 644 | 8,034 | 1,148 | 24.9 | 3.4 |
| American Indian and Alaska Native | 116,785 | 2,358 | 28,165 | 1,550 | 24.1 | 1.2 | 681 | 235 | 90 | 63 | 13.2 | 9.9 |
| Asian | 301,700 | 2,467 | 30,354 | 2,417 | 10.1 | 0.8 | 2,474 | 231 | 496 | 310 | 20.0 | 12.7 |
| Native Hawaiian and Other Pacific Islander | 6,653 | 762 | 1,516 | 343 | 22.8 | 5.0 | 54 | 25 | 3 | 6 | 5.6 | 11.2 |
| Some other Race | 328,061 | 8,018 | 82,109 | 5,279 | 25.0 | 1.5 | 10,012 | 1,190 | 1,869 | 676 | 18.7 | 5.8 |
| Two or more races | 365,189 | 7,058 | 70,845 | 3,951 | 19.4 | 1.0 | 5,127 | 797 | 1,135 | 397 | 22.1 | 6.6 |
| Hispanic or Latino | 966,330 | 1,407 | 230,691 | 6,016 | 23.9 | 0.6 | 20,784 | 116 | 5,054 | 960 | 24.3 | 4.6 |
| All individuals below: |  |  | Percent | below: |  |  |  |  | Perce | below: |  |  |
| 200 percent of poverty level | 3,331,937 | 25,024 | 33.0 | (X) |  |  | 59,053 | 2,367 | 36.6 | (X) |  |  |
| Source: US Census Data, 2020 ACS 5-Year Estimates, Table S1701; All orange and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the County compared to the State |  |  |  |  |  |  |  |  |  |  |  |  |

## Local Setting

None of the four census tracts near the facility include a total population experiencing poverty at greater than $20 \%$ Two of the four census tracts have a population experiencing poverty for which there is a percentage increase of $5 \%$ or more compared to Alamance County and/or the state.

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 211.01 had an estimated population for whom poverty status is determined of 2,742 with $17.6 \%$ (MOE +/$7.7 \%$ ) living below the poverty level (Table 14). Population for whom poverty status is determined among the entire population and Black or African American population had poverty levels higher than $5 \%$ different when compared to the county and the state. Tract 211.01 had an estimated total population of $44.2 \%$ below $200 \%$ of the poverty level, which is greater than a $5 \%$ increase when compared to the county and the state.

Census Tract 212.01 had an estimated total population of 6,010 with $13.3 \%$ (MOE $+/-4.6 \%$ ) living below the poverty level (Table 14). White, not Hispanic or Latino population had poverty levels higher than $5 \%$ different when compared to the state. Asian population had estimated poverty levels higher than $5 \%$ different when compared to the county and the state. American Indian and Alaska Native, and Some Other Race populations had estimated poverty levels higher than $5 \%$ different when compared to the county. Tract 212.01 had an estimated population of $46.2 \%$ below $200 \%$ of the poverty level, which is greater than a $5 \%$ increase when compared to the county and the state.

Census Tract 212.04 had an estimated total population of 4,642 with $15.8 \%$ (MOE +/- $5.9 \%$ ) living below the poverty level, which is greater than $5 \%$ higher when compared to the state (Table 15). Black or African American, Some other race, Two or more races and Hispanic or Latino populations had poverty levels higher than $5 \%$ different when compared to the county and the state. Tract 212.04 had an estimated population of $24.9 \%$ below $200 \%$ of the poverty level.

Census Tract 212.06 had an estimated total population for whom poverty status is determined of 5,602 with $9.1 \%$ (MOE +/- $5.6 \%$ ) living below the poverty level (Table 15). Hispanic or Latino population had poverty levels higher than $5 \%$ different when compared to the county and the state. Tract 212.06 had an estimated population of $27.6 \%$ below $200 \%$ of the poverty level.

The project area - 1-mile radius poverty data is based on 2021 American Community 5-Year estimates and was obtained from EJScreen 2.2. Within the 1 -mile radius, an estimate $32 \%$ of households were at or below $200 \%$ of the poverty level (Table 16).

Table 18. Local Setting- Poverty

| Subject | Census Tract 211.01 |  |  |  |  |  | Census Tract 212.01 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 2,742 | 363 | 482 | 218 | 17.6 | 7.7 | 6,010 | 516 | 800 | 287 | 13.3 | 4.6 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White, not Hispanic or Latino | 1,657 | 294 | 149 | 108 | 9.0 | 6.3 | 2,841 | 397 | 297 | 131 | 10.5 | 4.2 |
| Black or African American | 718 | 191 | 333 | 184 | 46.4 | 19.4 | 1,759 | 347 | 229 | 130 | 13.0 | 6.6 |
| American Indian and Alaska Native | 75 | 78 | 0 | 13 | 0.0 | 38.0 | 8 | 11 | 2 | 4 | 25.0 | 60.3 |
| Asian | 4 | 11 | 0 | 13 | 0.0 | 100.0 | 4 | 8 | 4 | 8 | 100.0 | 100.0 |
| Native Hawaiian and Other Pacific Islander | 0 | 13 | 0 | 13 | - | ** | 3 | 5 | 0 | 19 | 0.0 | 100.0 |
| Some other Race | 98 | 74 | 0 | 13 | 0.0 | 32.2 | 785 | 251 | 160 | 148 | 20.4 | 15.9 |
| Two or more races | 104 | 108 | 0 | 13 | 0.0 | 30.9 | 95 | 84 | 5 | 8 | 5.3 | 9.0 |


| Hispanic or Latino | 152 | 123 | 0 | 13 | 0.0 | 22.9 | 1,366 | 352 | 268 | 208 | 19.6 | 13.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All <br> individuals below: |  |  | Percent below: |  |  |  |  |  | Percent below: |  |  |  |
| 200 percent of poverty level | 1,211 | 360 | 44.2 | (X) |  |  | 2,775 | 526 | 46.2 | (X) |  |  |

Source: US Census Data, 2020 ACS 5-Year Estimates, Table S1701
All orange and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the County

Table 19. Local Setting- Poverty (cont'd)

| Subject | Census Tract 212.04 |  |  |  |  |  | Census Tract 212.06 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 4,642 | 471 | 733 | 301 | 15.8 | 5.9 | 5,602 | 656 | 511 | 322 | 9.1 | 5.6 |
| RACE AND HISPANIC OR LATINO ORIGIN |  |  |  |  |  |  |  |  |  |  |  |  |
| White, not Hispanic or Latino | 3,194 | 367 | 177 | 104 | 5.5 | 3.3 | 3,249 | 492 | 131 | 115 | 4.0 | 3.6 |
| Black or African American | 825 | 239 | 232 | 171 | 28.1 | 19.3 | 1,582 | 482 | 150 | 187 | 9.5 | 11.1 |
| American Indian and Alaska Native | 44 | 47 | 0 | 13 | 0.0 | 49.6 | 0 | 19 | 0 | 19 | - | ** |
| Asian | 2 | 4 | 0 | 13 | 0.0 | 100.0 | 37 | 57 | 0 | 19 | 0.0 | 54.1 |
| Native Hawaiian and Other Pacific Islander | 0 | 13 | 0 | 13 | - | ** | 0 | 19 | 0 | 19 | - | ** |
| Some other Race | 234 | 257 | 126 | 191 | 53.8 | 45.1 | 142 | 142 | 0 | 19 | 0.0 | 24.2 |
| Two or more races | 86 | 63 | 20 | 30 | 23.3 | 30.8 | 275 | 189 | 0 | 19 | 0.0 | 13.5 |
| Hispanic or Latino | 508 | 279 | 304 | 211 | 59.8 | 24.7 | 459 | 290 | 230 | 246 | 50.1 | 38.2 |


| All individuals below: |  |  | Percent below: |  |  |  | Percent below: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $200$ <br> percent of poverty level | 1,156 | 276 | 24.9 | (X) | 1,546 | 476 | 27.6 | (X) |  |

Source: US Census Data, 2020 ACS 5-Year Estimates, Table S1701
All orange and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $5 \%$ or more in the census tract compared to the County

Table 20. Local Setting-Poverty (cont'd)

| Project Area - 1 Mile |  |
| :---: | :---: |
|  | Percent |
| Households at or below <br> 200 percent of poverty level | 32 |
| Source: US Census Bureau, 2017-2021 ACS. <br> Obtained through EJSCREEN 2.2 |  |

### 5.5 Household Income

## Regional Setting

The following table (Table 17) was compiled using data from the Census Table S1901, Income in the Past 12 Months (in 2020 Inflation-Adjusted Dollars) 2020 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 $\$ 56,642$ and the mean income was $\$ 79,620$.

The household income range for Alamance County with the highest percent was $\$ 50,000$ to $\$ 74,999$ at $17.3 \%$ (MOE $+/-0.9 \%$ ). The median income was $\$ 51,580$ and the mean income was $\$ 69,461$, both lower than that of the state. Household income ranges $\$ 15,000$ to $\$ 24,999$ and $\$ 35,000$ to $\$ 49,999$ were greater than $10 \%$ higher when compared to the state.

Table 21. Regional Setting - Household Income

| Subject | North Carolina |  | Alamance County |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 4,031,592 | 8,480 | 65,455 | 668 |
| Less than \$10,000 | 6.2 | 0.1 | 6.6 | 0.9 |
| \$10,000 to \$14,999 | 4.8 | 0.1 | 4.8 | 0.7 |
| \$15,000 to \$24,999 | 9.7 | 0.1 | 11.9 | 1 |
| \$25,000 to \$34,999 | 10.0 | 0.1 | 9.8 | 0.9 |
| \$35,000 to \$49,999 | 13.6 | 0.2 | 15.4 | 1.2 |
| \$50,000 to \$74,999 | 18.0 | 0.1 | 17.3 | 0.9 |
| \$75,000 to \$99,999 | 12.6 | 0.2 | 12.5 | 1 |
| \$100,000 to \$149,999 | 13.7 | 0.1 | 14.4 | 1.1 |
| \$150,000 to \$199,999 | 5.4 | 0.1 | 4.3 | 0.6 |
| \$200,000 or more | 6.0 | 0.1 | 3.0 | 0.4 |
|  |  |  |  |  |
| $\begin{aligned} & \hline \text { Median income } \\ & \text { (dollars) } \\ & \hline \end{aligned}$ | 56,642 | 280 | 51,580 | 1,749 |
| Mean income (dollars) | 79,620 | 412 | 69,461 | 1,948 |
| Per Capita Income | 31,993 | 182 | 27,944 | 756 |
| Source: US Census, 2020 ACS 5-Year Estimates, S1901 All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the County compared to the State |  |  |  |  |

## Local Setting

Median income in two of four census tracts were lower than the state and Alamance County median income. Per capita income in the one-mile facility radius of $\$ 27,488$ was similar to Alamance County per capita income of $\$ 27,944$.

The household income range for Census Tract 211.01 with the highest percent $\$ 35,000$ to $\$ 49,999$ at $25.6 \%$ (MOE +/- $8.9 \%$ ) (Table 18). The median income was $\$ 43,066$ and the mean income was $\$ 52,840$. The income ranges Less than $\$ 10,000, \$ 15,000$ to $\$ 24,999$, and $\$ 35,000$ to $\$ 49,999$ had a greater than $10 \%$ difference when compared to the county and the state. The income range $\$ 50,000$ to $\$ 74,999$ had a greater than $10 \%$ difference when compared to the county.

The household income range for Census Tract 212.01 with the highest $\$ 50,000$ to $\$ 74,999$ at $20.3 \%$ (MOE +/- $5.8 \%$ ) (Table 18). The median income was $\$ 39,053$ and the mean income was $\$ 55,094$. The income ranges Less than $\$ 10,000, \$ 15,000$ to $\$ 34,999$, and $\$ 50,000$ to $\$ 74,999$ had a greater than $10 \%$ difference when compared to the county and the state.

The household income range for Census Tract 212.04 with the highest percent $\$ 50,000$ to $\$ 74,999$ at $20.0 \%$ (MOE +/- $5.9 \%$ ) (Table 18). The median income was $\$ 62,043$ and the mean income was $\$ 73,491$. The income ranges $\$ 35,000$ to $\$ 79,999$ and $\$ 100,000$ to $\$ 149,999$ were $10 \%$ difference when compared to either the county and the state.

The household income range for Census Tract 212.06 with the highest percent $\$ 75,000$ to $\$ 99,999$ at $17.9 \%$ (MOE +/- $5.6 \%$ ) (Table 18). The median income was $\$ 58,606$ and the mean income was $\$ 67,600$. The income ranges $\$ 15,000$ to $\$ 24,999$, and $\$ 75,000$ to $\$ 99,999$ were $10 \%$ difference when compared to either the county and the state.

Table 22. Local Setting - Household Income

| Subject | Census Tract 211.01 |  | Census Tract 212.01 |  | Census Tract 212.04 |  | Census Tract 212.06 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households |  | Households |  | Households |  | Households |  |
|  | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- | Estimate | Margin of Error +/- |
| Total | 1,295 | 176 | 2,218 | 217 | 1,927 | 182 | 2,027 | 292 |
| Less than \$10,000 | 8.8 | 5.9 | 8.5 | 3.6 | 5.6 | 3.7 | 3.9 | 3 |
| \$10,000 to \$14,999 | 4.9 | 4.6 | 2.4 | 1.3 | 0.8 | 0.9 | 1.8 | 2.3 |
| \$15,000 to \$24,999 | 14.4 | 8 | 16.7 | 4.9 | 8.7 | 4.1 | 16.2 | 11.4 |
| \$25,000 to \$34,999 | 8.6 | 4.6 | 16.2 | 6.6 | 9.1 | 4.3 | 8.7 | 4.4 |
| \$35,000 to \$49,999 | 25.6 | 8.9 | 13.4 | 4.5 | 17.4 | 6 | 14.2 | 6.2 |
| \$50,000 to \$74,999 | 19.7 | 7.2 | 20.3 | 5.8 | 20.0 | 5.9 | 16.3 | 6 |
| \$75,000 to \$99,999 | 10.0 | 4.3 | 7.2 | 2.6 | 11.9 | 4.5 | 17.9 | 5.6 |
| \$100,000 to \$149,999 | 1.3 | 1.8 | 13.6 | 5.9 | 18.3 | 5.2 | 13.5 | 5.9 |
| \$150,000 to \$199,999 | 4.2 | 4.4 | 0.3 | 0.4 | 5.7 | 3.4 | 5.5 | 3.6 |
| \$200,000 or more | 2.3 | 2.6 | 1.4 | 1.3 | 2.5 | 1.4 | 2.0 | 1.8 |
| Median income (dollars) | 43,066 | 5,174 | 39,053 | 6,953 | 62,043 | 10,432 | 58,606 | 17,845 |
| Mean income (dollars) | 52,840 | 7,911 | 55,094 | 6,964 | 73,491 | 6,589 | 67,600 | 9,036 |
| Per Capita Income | 24,865 | 3,686 | 21,311 | 2,817 | 30,220 | 2,662 | 25,653 | 2,315 |

Source: US Census, 2020 ACS 5-Year Estimates.
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

Table 23. Local Setting - Household Income

| Subject | Project Area - 1 mile |
| :---: | :---: |
|  | Number |
| Number of Households | 147 |
| Per Capita Income (dollars) | 27,488 |
| Source: EJSCREEN 2.2 |  |

## Per Capita Income

Per Capita Income data (combined income divided by the total population) 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 Alamance County was $\$ 27,944$. The estimate for Census Tract 211.01 was $\$ 24,865$. The estimate for Census Tract 212.01 was $\$ 21,311$. The
estimate for Census Tract 212.04 was $\$ 30,220$. The estimate for Census Tract 212.06 was \$25,653.

For the 1-mile radius surrounding the facility site, Per Capita Income data was obtained through EJScreen 2.2, from 2021 American Community Survey 5-Year estimates. Within the 1-mile radius, the estimate was $\$ 27,488$ (Table 19). All Per Capita Income estimates were lower than that of the state.

### 5.6 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. People are identified as having Limited English Proficiency (LEP) when they self-identify that they speak English "less than 'very well'". 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.

The following tables (Table 20, 21, and 22) were compiled using data from the Census Table S1601, Language Spoken at Home 2020 American Community Survey 5-Year Estimates for North Carolina. Alamance County had a total population age 5 and over with greater than $5 \%$ Limited English Proficiency.

Census tract 212.01 has a limited English proficiency population of $11.1 \%$, which is with greater than 5\% Limited English proficiency (Table 21 \& 22). Census tract 212.01 has a limited English proficiency population which primarily speaks Spanish or Spanish Creole.

Table 24. Regional Setting - Limited English Proficiency

| Population Who Speaks English "less than very well" | North Carolina |  |  |  | Alamance County |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | Margin of Error | Percent of language group who speak English "less than very well" | Margin of Error | Estimate | Margin of Error | Percent of language group who speak English "less than very well" | Margin of Error |
| Total population 5 years and over | 434,577 | 6,049 | 4.4 | 0.1 | 8,032 | 623 | 5.1 | 0.4 |
| Language spoken at home |  |  |  |  |  |  |  |  |
| Speak only English | (X) | (X) | (X) | (X) | (X) | (X) | (X) | (X) |
| Spanish or Spanish Creole | 299,813 | 4,674 | 40.7 | 0.6 | 7,076 | 545 | 43.3 | 3.1 |
| Other Indo- <br> European languages | 46,244 | 2,934 | 25.3 | 1.2 | 227 | 118 | 13.4 | 6.5 |
| Asian and Pacific Island languages | 68,299 | 2,859 | 40.2 | 1.2 | 635 | 226 | 52.6 | 11.6 |

Source: US Census, 2020 ACS 5-Year Estimates.
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State

Table 25. Local Setting - Limited English Proficiency

| Population Who Speaks English "less than very well" | Census Tract 211.01 |  |  |  | Census Tract 212.01 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | Margin of Error | Percent of language group who speaks English "less than very well" | Margin of Error | Estimate | Margin of Error | Percent of language group who speaks English "less than very well" | Margin of Error |
| Total population 5 years and over | 8 | 12 | 0.3 | 0.5 | 623 | 207 | 11.1 | 3.5 |
| Language spoken at home |  |  |  |  |  |  |  |  |
| Speak only English | (X) | (X) | (X) | (X) | (X) | (X) | (X) | (X) |
| Spanish or Spanish Creole | 8 | 12 | 4.8 | 8.3 | 620 | 207 | 52.2 | 11.6 |
| Other IndoEuropean languages | 0 | 13 | 0 | 100 | 0 | 19 | - | ** |
| Asian and Pacific Island languages | 0 | 13 | - | ** | 3 | 5 | 100 | 100 |

Source: US Census, 2020 ACS 5-Year Estimates.
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

Table 26. Local Setting - Limited English Proficiency (cont'd)

| Population Who <br> Speaks English "less than very well" | Census Tract 212.04 |  |  |  | Census Tract 212.06 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | Margin of Error | Percent of language group who speaks English "less than very well" | Margin of Error | Estimate | Margin of Error | Percent of language group who speaks English "less than very well" | Margin of Error |
| Total population 5 years and over | 172 | 110 | 3.8 | 2.3 | 202 | 156 | 3.8 | 2.9 |
| Language spoken at home |  |  |  |  |  |  |  |  |
| Speak only English | (X) | (X) | (X) | (X) | (X) | (X) | (X) | (X) |
| Spanish or Spanish Creole | 162 | 109 | 37.9 | 9.4 | 143 | 141 | 51.6 | 36.3 |
| Other Indo-European languages | 10 | 16 | 26.3 | 44.3 | 0 | 19 | 0 | 65.8 |
| Asian and Pacific Island languages | 0 | 13 | - | ** | 37 | 57 | 100 | 54.1 |

Source: US Census, 2020 ACS 5-Year Estimates.
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

The following project area - 1-mile radius data are based on 2021 American Community 5-Year Estimates and were obtained from EJScreen 2.2. Within the 1-mile radius surrounding the

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facility, an estimated 1\% of households were Limited English Speaking (meaning all household members age 14 and over speak English "less than 'very well'") (Table 23). Of these Limited English Speaking households, all spoke Spanish at home (Figure 4). Among all households within the 1 -mile radius (including all levels of English proficiency), an estimated 23\% spoke a language other than English at home, including 22\% Spanish and 1\% Arabic (Table 24).

Table 27. Local Setting - Limited English Speaking Households

| Project Area - 1 Mile |  |
| :--- | :---: |
|  | Percent |
| Limited English Speaking Households | 1 |
| Source: US Census Bureau, 2017-2021 ACS Obtained |  |

Source: US Census Bureau, 2017-2021 ACS. Obtained through EJSCREEN 2.2


Figure 3. - Local Setting - Limited English Proficiency, Source: EJScreen

Table 28. Language Spoken at Home for Project Area - 1 Mile - Source: EJScreen

| LANGUAGE | PERCENT |
| :--- | :---: |
| English | $77 \%$ |
| Spanish | $22 \%$ |
| Arabic | $1 \%$ |
| Total Non-English | $23 \%$ |

### 5.7 Educational Attainment

Regional Setting
The following data was obtained through the US Census Bureau Table S1501, American Community Survey 2020 5-Year Estimates (Table 25). Alamance County had a higher percentage of high school graduates compared to the state.

Table 29. Regional Setting-Educational Attainment (above 25 years old)

| Subject | North Carolina |  |  |  | Alamance County |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  | Percent |  | Number |  | Percent |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- |
| Total Above 25 | 7,096,773 | 1,493 | (X) | (X) | 111,693 | 121 | (X) | (X) |
| Less than 9th grade | 301,823 | 5,184 | 4.5 | 0.1 | 5,410 | 555 | 4.8 | 0.5 |
| 9th to 12th grade, no diploma | 513,393 | 7,840 | 7.7 | 0.1 | 8,562 | 740 | 7.7 | 0.7 |
| High school graduate (includes equivalency) | 1,806,403 | 11,352 | 25.7 | 0.2 | 31,196 | 994 | 27.9 | 0.9 |
| Bachelor's degree or higher | 2,273,890 | 16,159 | 31.3 | 0.2 | 28,301 | 1,211 | 25.3 | 1.1 |

Source: US Census, 2020 ACS 5-Year Estimates.
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the County 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 211.01 had a higher percentage of individuals who had attained high school graduate (includes equivalency) when compared to the county and the state (Table 26). The percentage of individuals who attained a bachelor's degree or higher was lower when compared to the county and the state.

Census Tract 212.01 had a higher percentage of individuals who had attained less than $9^{\text {th }}$ grade education when compared to the state; additionally, $9^{\text {th }}$ to $12^{\text {th }}$ grade (no diploma), and high school graduate (includes equivalency) was higher when compared to the state or both the county and the state (Table 26). The percentage of individuals who attained a bachelor's degree or higher was lower when compared to the county and the state.

Census Tract 212.04 had all percentages of educational attainment were lower than 10\% when compared to the county and the state (Table 27). Census Tract 212.06 had a higher percentage of individuals who had Bachelor's degree or higher when compared to the county and the state (Table 27).

Data for the project radius was obtained through EJScreen 2.2, from 2021 American Community Survey 5-Year Estimates. The project radius contains a population of $17 \%$ with less than a high school education, which is higher than the proportion of the
population with a less than high school graduate education at both the state and Alamance county levels. (Table 28).

Table 30. Local Setting-Educational Attainment (above 25 years old)

| Subject | Census Tract 211.01 |  |  |  | Census Tract 212.01 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  | Percent |  | Number |  | Percent |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- |
| Total Above 25 | 2,014 | 291 | (X) | (X) | 3,806 | 370 | (X) | (X) |
| Less than 9th grade | 43 | 50 | 2.1 | 2.4 | 386 | 136 | 10.1 | 3.4 |
| 9th to 12th grade, no diploma | 103 | 67 | 5.1 | 3 | 367 | 147 | 9.6 | 3.6 |
| High school graduate (includes equivalency) | 831 | 209 | 41.3 | 7.3 | 1,414 | 213 | 37.2 | 4.9 |
| Bachelor's degree or higher | 467 | 133 | 23.2 | 7 | 329 | 99 | 8.6 | 2.7 |

Source: US Census, 2020 ACS 5-Year Estimates
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

Table 31. Local Setting- Educational Attainment (above 25 years old) (cont'd)

| Subject | Census Tract 212.04 |  |  |  | Census Tract 212.06 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  | Percent |  | Number |  | Percent |  |
|  | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- | Estimate | MOE +/- |
| Total Above 25 | 3,478 | 364 | (X) | (X) | 3,539 | 501 | (X) | (X) |
| Less than 9th grade | 148 | 103 | 4.3 | 2.9 | 99 | 93 | 2.8 | 2.6 |
| 9th to 12th grade, no diploma | 251 | 103 | 7.2 | 2.8 | 129 | 115 | 3.6 | 3.3 |
| High school graduate (includes equivalency) | 1,059 | 230 | 30.4 | 5.7 | 487 | 127 | 13.8 | 3.6 |
| Bachelor's degree or higher | 952 | 233 | 27.4 | 5.8 | 1,227 | 248 | 34.7 | 8 |

Source: US Census, 2020 ACS 5-Year Estimates
All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the census tract compared to the County

Table 32. Local Setting- Educational Attainment (above 25 years old) (cont'd)

| Project Area - 1 Mile |  |
| :---: | :---: |
| Indicator | Percent |
| Less Than High School Education | 17 |

Source: US Census Bureau, 2017-2021 ACS. Obtained through EJSCREEN 2.2 All orange and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the project area compared to the State
All blue and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the project area compared to the State and the County
All green and bolded highlighted cells indicate a percentage increase of $10 \%$ or more in the project area compared to the County

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## 6 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), Alamance County ranks $37^{\text {th }}$ in health outcomes and $51^{\text {st }}$ in health factors (see Figure 5).


Figure 4. County Health Rankings for Health Factors in North Carolina provided by University of Wisconsin Public Health Institute.

According to the NC Department of Health and Human Services (DHHS) NC Health Trends map, ${ }^{6}$ the health outcomes for causes of death were similar in Alamance County compared to the state average as displayed in Table 29 (no difference >10\%). (see Table 29).

[^3]Table 33. Health Outcomes for Alamance County

| Cause of Death | Alamance County <br> Age-Adjusted Death <br> Rate/100,000 People 2011- <br> 2015 | North Carolina <br> Age-Adjusted <br> Death <br> Rate/100,000 <br> People 2011-2015 |
| :--- | :---: | :---: |
| Lung Cancer | 49.5 | 48.9 |
| Heart Disease | 164.2 | 163.7 |
| Stroke | 41.8 | 43.1 |
| Cardiovascular Disease | 223.7 | 221.9 |
| Diabetes | 22.9 | 22.8 |

Health indicators from EJScreen are identified in Table 30 for the estimated percent of people affected for low life expectancy and prevalence for heart disease, asthma, and cancer in the selected area compared to the state average. Low life expectancy, heart disease, asthma, and cancer indicators are similar to the state average (Table 30).

Table 34. 1-Mile Radius Health Data- Source: EJScreen

| HEALTH INDICATORS |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| INDICATOR | HEALTH VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
| Low Life Expectancy | $12 \%$ | $21 \%$ | 1 | $20 \%$ | 3 |
| Heart Disease | 7 | 6.5 | 57 | 6.1 | 69 |
| Asthma | 9.6 | 9.4 | 58 | 10 | 43 |
| Cancer | 6.5 | 6.2 | 51 | 6.1 | 54 |

## 7 Cumulative Impacts

CDC / ATSR's EJ Index
Centers for Disease Control and Prevention (CDC) / the Agency for Toxic Substances and Disease Registry (ATSDR) developed a tool titled The Environmental Justice Index (EJI), which is intended to evaluate the cumulative impacts of environmental injustice on health by ranking census tracts based on combined social, environmental burden, and health vulnerability indicators. Social vulnerability indicators include racial/ethnic minority status, socioeconomic status, household characteristics, and housing type. Environmental burden indicators include air pollution, potentially hazardous and toxic sites, built environment, transportation infrastructure, and water pollution. Health vulnerability is determined based on pre-existing chronic disease burden. The EJI delivers a single score for each census tract to identify areas most at risk for the health impacts of environmental burden. For more information about the specific indicators for CDC's EJI, go to Environmental Justice Index Indicators (cdc.gov) ${ }^{7}$.

According to the CDC's EJI, census tract 212.01 has a high EJI Rank of 0.93, interpreted that $93 \%$ of census tracts in the state are less vulnerable than census tract 212.01 and that $7 \%$ of tracts in the state are more vulnerable. The adjacent census tract 212.04 has a low to moderate EJI Rank of 0.25 (see Figure 6).


Generated by NC DEQ, July 2023
Figure 5. CDC and ATSDR Environmental Justice Index Rankings for NC Census Tracts, 2018

[^4]Figure 7 displays the EJ Index generated using EJScreen and represents data from within the 1 -mile radius of the facility. The EJ Index combine data related to the listed environmental indicators and demographic data, in order from left to right in Figure 7: particulate matter, ozone, diesel particulate matter, air toxics cancer risk, air toxics respiratory hazards index (HI), toxic releases to the air, traffic proximity, lead paint, superfund proximity, Risk Management Program (RMP) facility proximity, hazardous waste proximity, underground storage tanks, and wastewater discharge. The EJ Index analyzes the relative potential environmental justice concern for the area as compared to the state, as well as the U.S., in the form of a percentile from 0 to 100. The higher the EJ Index, the higher the percentile, and the more vulnerable an area. More information on the EJScreen Environmental Justice Indexes can be found on EPA's website. ${ }^{8}$

The area within one mile of the facility is in the top 25 percentile in the state for RMP facility proximity and wastewater discharge, indicating that $75 \%$ of other areas in the state have lower EJ Indexes compared to the area near the facility (Figure 7).

EJ INDEXES FOR THE SELECTED LOCATION


Figure 6. Environmental Justice Indexes for Project Area - 1 Mile- Source: EJScreen

[^5]
## 8 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 and near the one-mile radius surrounding the facility location, the following sensitive receptors were identified (Figure 8):

- Alamance-Burlington Middle/Early College
- Alamance Community College
- Alamance Community School
- Hawfields United Church
- Riverside Church
- Greenway Park Church
- North Graham Elementary

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


Figure 7. Sensitive receptors surrounding the proposed facility.

## 9 Local Industrial Sites

According to the NC Community Mapping System Environmental Justice Tool, within the one-mile radius of the facility, there are 7 permits and 17 incidents (as of July 17, 2023) (Figure 9).

- 1 Air Quality Permit Site (the Stericycle facility)
- 1 Pre-Regulatory Landfill Site
- 9 Underground Storage Tank Incidents
- 8 Above Ground Storage Tank Incidents (including one from the Stericycle facility)
- 3 Underground Storage Tank Active Facilities
- 2 NPDES Stormwater Permits


Figure 8. Permitted facilities and incidents within the one-mile radius surrounding the facility.

## 10 Conclusion

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (US EPA).

This Draft EJ report examined the demographic and environmental conditions in North Carolina and the one-mile radius around Stericycle, Inc. encompassing Census Tracts 211.01, 212.01, 212.04, and 212.06 in Alamance County.

Limitations: It is important to keep in mind that based on the available data, the following are 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 identification of sociodemographic indicators for every population; and the smaller the population in a census tract, the larger the margin of error such that it is not clear whether there are or are not significant differences at the census tract compared to county and state geographic scales. As such, DEQ uses best estimates and cannot determine exact demographic or socioeconomic information within a one-mile radius around the facility.

Summary: The Department assessed the available demographic and socioeconomic data of the community surrounding the Stericycle facility regarding its permit application.

- Potentially Underserved Community: The site is located within one mile of a block group identified as potentially underserved based on NC DEQ's definition ${ }^{9}$ (See Figure 10). DEQ recommends consulting the Enhanced Engagement Methods to Reach Underserved Communities section of DEQ's Public Participation Plan ${ }^{10}$
- Poverty and Household Income: More than one census tracts have minority populations experiencing poverty (>20\% poverty). Two of the four census tracts have a population experiencing poverty for which there is a percentage increase of $5 \%$ or more compared to Alamance County and/or the state. Median income in two of four census tracts were lower than the state and Alamance County median income. Per capita income in the one-mile facility radius of $\$ 27,488$ was similar to Alamance County per capita income of \$27,944.
- Race/Ethnicity: Three of four census tracts have a minority population of Black or African American, American Indian or Alaska Native, or Hispanic or Latino (of any race) for which there is a percentage increase of $10 \%$ or more compared to

[^6]Alamance County and/or state. Additionally, the total minority population is greater than $50 \%$ in two of the four census tracts.

- Tribe: While the facility is not within one mile of a tribal statistical area, the facility is within Alamance County, which encompasses land within the Occaneechi Band of the Saponi Nation, a state-recognized Tribe.
- Limited English Proficiency: The site is in an area with limited English proficiency (Spanish) because one of the four census tracts has a population $>5 \%$ which speaks English less than very well. Additionally, 22\% of the population within one mile of the facility speaks Spanish at home. DEQ recommends any company and any state or local government consult DEQ's Limited English Proficiency Language Access Plan and conduct outreach in both English and Spanish.
- Cumulative Impact Potential: The CDC identifies one of the four census tracts as having a high EJ index, signifying potential for high environmental burden, social vulnerability, and/or health vulnerability. There are 7 existing permits, including one for the Stericycle facility, and 17 incidents, including one aboveground storage tank incident for the Stericycle facility, within one mile of the site that could contribute to cumulative impacts to sensitive receptors within and outside the one-mile buffer.


## Outreach Recommendations

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

- Consideration for Spanish translation services in accordance with the Department LEP-Language Access Plan.
- Creation of a one-page, easy to understand flyer in both English and Spanish.
- Communication and outreach through Spanish news media outlets with coverage in the relevant communities.
- Outreach and engagement with the list of identified sensitive receptors.
- Provision of a call-in option for people to leave comments on a voicemail line in case of lack of internet access.
- Distribution of project information to county and municipal government officials in Alamance County and government-to-government outreach to the Occaneechi Band of the Saponi Nation.
- Consultation with known community leaders for additional outreach options and recommendations.

[^7]
[^0]:    ${ }^{1}$ Racial composition: Share of nonwhites is over fifty percent OR Share of nonwhites is at least ten percent higher than county or state share. AND Poverty rate: Share of population experiencing poverty is over twenty percent AND Share of households in poverty is at least five percent higher than the county or state share.
    ${ }^{2}$ DEQ 2022 Public Participation Plan: https://deq.nc.gov/ej/deq-public-participation-plan-2022-
    update/download?attachment
    Page | 4

[^1]:    ${ }^{3}$ DEQ 2022 Language Access Plan: https://deq.nc.gov/ej/limited-english-proficiency-plan/download Page | 5

[^2]:    ${ }^{4}$ https://www.thebalance.com/federal-poverty-level-definition-guidelines-chart-3305843
    ${ }^{5}$ 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.

[^3]:    ${ }^{6}$ NC DHHS NC Health Trends map:
    https://nc.maps.arcgis.com/apps/MapSeries/index.html?appid=7234a5a1778248688d0c666fa2ba27d0

[^4]:    ${ }^{7}$ CDC ATSDR EJI metadata: https://www.atsdr.cdc.gov/placeandhealth/eji/docs/EJI-2022-Indicators-508.pdf Page | 43

[^5]:    ${ }^{8}$ EJScreen EJ Index Metadata: https://www.epa.gov/ejscreen/ej-and-supplemental-indexesejscreen\#What

[^6]:    ${ }^{9}$ Racial composition: Share of nonwhites is over fifty percent OR Share of nonwhites is at least ten percent higher than county or state share. AND Poverty rate: Share of population experiencing poverty is over twenty percent AND Share of households in poverty is at least five percent higher than the county or state share.
    ${ }^{10}$ DEQ 2022 Public Participation Plan: https://deq.nc.gov/ej/deq-public-participation-plan-2022-
    update/download?attachment
    Page | 49

[^7]:    ${ }^{11}$ DEQ 2022 Language Access Plan: https://deq.nc.gov/ej/limited-english-proficiency-plan/download Page | 50

