

BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

Jan. 3, 2019

VA DEQ
Piedmont Regional Office,
Re: Buckingham Compressor Station
4949-A Cox Road
Glen Allen, VA 23060
airdivision1@deq.virginia.gov

Comments on Atlantic Coast Pipeline (ACP) compressor station proposed for construction in Buckingham County

PERMIT NAME: Minor Source Construction Permit issued under the authority of the Air Pollution Control Board
APPLICANT NAME AND REGISTRATION NUMBER: Atlantic Coast Pipeline, LLC; 21599
FACILITY NAME AND ADDRESS: ACP – Dominion Energy Buckingham Compressor Station; 5297 S. James River Hwy, Wingina, VA 24599

VA DEQ and State Air Pollution Control Board Members:

I am submitting comments on behalf of the Blue Ridge Environmental Defense League (BREDL) based in Glendale Springs, NC. BREDL is a registered Virginia non-profit corporation. BREDL is a regional, community-based, non-profit environmental organization founded in March 1984. Our founding principles are earth stewardship, environmental democracy, social justice, and community empowerment. BREDL has chapters and members throughout the Southeast including in the impacted area of the proposed ACP compressor station in Buckingham County. BREDL may submit additional comments prior to the deadline for comments. All comments should be considered.

We respectfully request that the Virginia State Air Pollution and Control Board deny the air permit for the ACP compressor station proposed for Buckingham County on the basis the site is unsuitable based on environmental injustice.

Virginia law governing energy development articulates support for environmental justice and equitable development. One of the stated objectives in Commonwealth Energy Policy is “developing energy resources and facilities in a manner that does not impose a disproportionate adverse impact on economically disadvantaged or minority communities.” VAC § 67-101 (12). Further, it states that “To achieve the objectives enumerated in § 67-101, it shall be the policy of the Commonwealth to [e]nsure that development of new, or expansion of existing, energy resources or facilities does not have a disproportionate adverse impact on economically disadvantaged or minority communities.” VAC § 67-102 (A)(11).

DEQ misuse of EPA's EJScreen

VA DEQ's handling of EJScreen goes against the intentions and limitations of this screening tool. VA DEQ continues to highlight the EJScreen runs as if EJScreen is the definitive source on determining environmental justice when EPA has made it known that is not the purpose or its proper use. EPA makes it very clear that EJScreen is just an initial tool when looking at environmental justice and that impacted communities will need further review, analysis, and "local knowledge" to get a better understanding.

As duly noted on the U.S. EPA environmental justice website,¹ "anyone using EJSCREEN should note there is substantial uncertainty in demographic and environmental data, particularly when looking at small geographic areas. EJSCREEN is not intended to provide a risk assessment. Also EJSCREEN does not provide data on every environmental impact and demographic indicator that may be relevant to a particular location, and data may be several years old. Screening results should be supplemented with additional information and local knowledge to get a better understanding of the issues in a selected location. It is important to understand the caveats and limitations when using EJSCREEN."

Why is VA DEQ putting so much weight on a screen tool that uses a small sample to obtain its data?

The Union Hill community is a small geographic area which places a "substantial uncertainty" on the data. VA DEQ has failed to supplement the EJScreen results with "additional information and local knowledge". In fact, VA DEQ is completely ignoring a better understanding by omitting Advisory Council on Environmental Justice (ACEJ) documents and glossing over the further review, analysis and local knowledge aspects of studying affected communities for environmental justice. Instead, VA DEQ contracts out to ESRI for additional information. ESRI used a similar method to EJScreen – use of algorithms to projection estimates.

The EPA website further explains the appropriate uses of EJScreen as "EJSCREEN was developed by EPA to highlight places that may be candidates for further review, analysis or outreach to support the agency's environmental justice work. EPA is releasing EJSCREEN to the public in part to be more transparent about how the agency considers environmental justice in its work. There is no mandate or guidance expressed or implied that state governments or other entities should use the tool or its underlying data."

In addition, at the ACEJ May Buckingham meeting representatives from Dominion Energy clearly misrepresented the environmental justice requirements to the ACEJ members. From the meeting summary – this Q and A between ACEJ members and Dominion Energy representatives:

For example, regarding the census data used in the FERC report, Dominion would like to clarify that the EPA determines the procedure for how they use census blocks for recommendations, and they are compelled to follow that procedure.

Is there a law that says you cannot consider other options for analyzing data?

¹ <https://www.epa.gov/environmentaljustice>

Dominion must follow the law to be consistent with federal regulations.

Could you have gone beyond that federal requirement? For example, could you have noted that the data used were incomplete or misrepresentative of the impacted community?

Dominion followed the law, and we are not going to debate whether the federal law requirements are not adequate. If Dominion were to augment the analysis, it would introduce a burden on the federal agency. If every applicant were to augment every standard with their own data, it would introduce burdensome complications for FERC.

Of course in an ideal world, VA DEQ should ensure that the environmental justice issue has been thoroughly and properly addressed on behalf of the citizens of the commonwealth. However, instead of offering further review and analysis for a better understanding, VA DEQ gives us more of the same.

Local Knowledge

VA DEQ has had ample opportunities to learn about the Union Hill community using “local knowledge” as recommended by EPA regarding the use of the environmental justice tool.

VA DEQ has posted information regarding a local citizens group Friends of Buckingham Preliminary Information Form with the Virginia Department of Historic Resources proposing the Union Hill-Woods Corner Rural Historic District. As posted on their website, “The mission of the Friends of Buckingham is to preserve the natural resources and cultural heritage of Buckingham County.” Information submitted included this:

“The significance of the proposed Union Hill/Woods Corner Rural Historic District stems from the manner in which the parent plantation land became, after Emancipation, a community established after the Civil War by Freedmen (who had acquired their freedom before Emancipation) and a large number of Emancipated African-Americans. A majority of the current residents of Union Hill are descendants of the Freedmen and slaves who started the community.”

During proceedings leading to the approval of a Special Use Permit for the compressor station sited by the proposed ACP in the Union Hill community, Buckingham County heard evidence of environmental injustice from local residents and regional organizations during hearings on the Special Use Permit, and ignored their responsibility to protect communities of color and vulnerable populations. Ruby Laury, a resident of Buckingham County’s 6th District, stated:

“Many studies have shown that hazardous solid waste facilities, power stations and industrial plants like the proposed ACP compressor station are sited disproportionately in communities of color and low income neighborhoods. Most importantly these plants emit toxic air and noise pollution which would have a negative effect on the health and wellbeing of us living in the Union Hill and Wood [Corner] area....[T]he proposed ACP [site] was owned by descendants of a plantation owner and property sold for \$37,000 + per acre. The community...was created by freedmen, freed slaves in about 90% of the adjoining land.... So please deny the special use permit. Please say yes to the citizens you represent. Say yes to protect us from the environmental racism that appears is being thrust upon us.”

John W. Laury, also a resident of Buckingham County's 6th District, stated in opposition to the Permit, before the Board cut off his statement:

"We maintain the compressor station is inconsistent with local ordinances. It is being cited [sic] for an agricultural zone not an industrial zone and it's surrounded by an African American Community. The local residents and regional organization gave evidence of environmental injustice regarding 17 Union Hill Community during the Planning Commission Public Hearing process. The Planning Commission failed with respect to its legal obligation to ensure the ACP compressor station..."(time's up tone sounded)²

ESRI report offers no additional information

As mentioned earlier, EJScreen is to be used mainly as an initial tool. Both EJScreen and ESRI used algorithms of Census 2010 data to estimate demographic data. EJScreen used the American Community Survey (ACS) - that uses small sample surveys - for their results. ESRI used Census 2010 data then applied undisclosed geographic information system tools and algorithms to project estimates.

ESRI Census 2010 data is incorrect when compared to U.S. Census Bureau partner data

On page 14 of the November 28, 2018 - ACP Buckingham Compressor Station Environmental Justice Review document posted on the VA DEQ website, ESRI provides the Census 2010 data that they utilized in their 2018 demographic projection. The ESRI Census 2010 data does not match the Missouri Census Data Center (MCDC) Census 2010 data. We go into more depth regarding MCDC in the next section.

We point out that both the ESRI data and the MCDC 1-mile radius run used the same latitude and longitude coordinates to pinpoint the site of the proposed ACP compressor Station. While both ESRI and MCDC data indicate the exact same amount for population and households, other data do not match. A significant difference in ESRI and MCDC data is the result for minority population. ESRI reports a 29.6% minority population compared to 60.1% with the MCDC data. We ask how can these two differ that much in reporting the minority population especially when the population and household information is the same?

Thus, we question the validity of the ESRI projections. First, the Census 2010 data that ESRI used is incorrect based on the MCDC, a U.S. Census Bureau partner, data. Therefore, any projections would be off. We also question the methodology of ESRI which applies undisclosed GIS tools and algorithms to project estimates of demographic data. It is unclear from the posted information if ESRI uses American Community Survey information, like EJScreen. ESRI has listed numerous issues with using the American Community Survey. In a July 2018 white paper³, ESRI pointed out that:

ACS Sample sizes are smaller than decennial census samples, since the data is collected from continuous surveys of the population, not once every 10 years.

² Buckingham Board of Supervisors January 5, 2017 Public Hearing Transcript at 27.

³ http://downloads.esri.com/esri_content_doc/dbl/us/J10020_American_Community_Survey_2018.pdf

The much smaller sample sizes of the ACS ... affect data reporting and produce much larger sampling errors.

Some values for medians, per capita income, and the aggregates used to determine averages are missing from the ACS database, especially at the block group level.

Sampling errors must be reported as margins of error, because the variability of the estimates is increased with smaller sample sizes. In some cases, the sampling error can exceed the estimate.

Instead of authorizing a thorough review of the environmental justice issue in the Union Hill community, VA DEQ contracted out to ESRI which basically uses the same methodology as EJScreen - algorithm projections to estimate demographic data.

The site of the proposed compressor station is near the intersection of three census tracts [Appendix 1]. The November 28, 2018 ACP Buckingham Compressor Station Environmental Justice Review included a map of the site with a 2 mile radius drawn. This map clearly shows that the area around the proposed compressor station includes a small section of all three census tracts. These tracts can stretch roughly 10 miles from the site of the proposed compressor station. Demographic makeup can change drastically within that amount of distance.

The Three Census Tracts that are within two miles of the site of the proposed compressor station

2010 Census Tract	Population	Minority Population
9302.02-1	1278	34%
9302.02-2	1450	47%
9301.01-2	1133	35%
TOTAL all 3 tracts	3861	39.18%

While we realize that VA DEQ sought out ESRI to satisfy the Virginia State Air Pollution and Control Board's request for additional information, we strongly believe that a method of demographics gathering that will better capture the community is warranted.

MCDC CAPS 2010 data shows huge discrepancy with EJScreen/ESRI 1-mile & 2-mile radius data

Census & ACS

The U.S. Census Bureau conducts a census every ten years and sends out surveys yearly. The American Community Survey (ACS) is conducted every year to provide up-to-date information about the social and economic needs of your community. The Bureau contacts over 3.5 million households to participate in the ACS. The American Community Survey is sent to a small percentage of people on a rotating basis. As part of the ACS sample, you represent many other people. The census is conducted once every 10 years to provide an official count of the entire U.S. population.

As stated on the U.S. Census Bureau's website: "The 2010 census questionnaire was one of the shortest in history - asking just 10 questions of all households in the United States and Island Areas related to name, gender, age, race, ethnicity, relationship, and whether you own or rent your home. Collection of data about education, housing, jobs, etc. collected by previous censuses long-form questionnaires are now collected by the U.S. Census Bureau's annual American Community Survey."

In short, the more accurate way to determine a minority population for a census block would be using the census data, but it is only updated every ten years. The ACS, with the use of algorithms, takes a small sample and estimates the population.

EJScreen uses ACS Data

The EPA EJScreen tool "offers a variety of enhancements relative to previous approaches to EJ mapping and screening or analysis. For example, the tool includes updated demographic information from the American Community Survey (ACS) rather than relying on the Census that is conducted every ten years."⁴ EPA technical documentation on EJScreen further states, "Race and ethnicity, the two items that determine minority status in our approach, are available from the 100% enumeration from the decennial census or the ACS, while all the other measures are only contained in ACS estimates. For the purposes of EJSCREEN, EPA did not believe that the increased precision of the minority measures that might be gained from combining those once per decade data with the other data items from ACS were worth the problems and ambiguities entailed in such a hybrid approach." "All of EJSCREEN's demographic data come from the latest annual update of the five-year average ACS estimates, with some lag time from publication by Census to inclusion in EJSCREEN," as stated in EJScreen documentation.

The U.S. Census Bureau released their latest 5 year ACS data on Dec. 6, 2018. That was for 2013-2017. That means, at best, EJScreen used data from 2012-2016. Therefore, EJScreen used data as old as 2012 and the surveys are based on a very small sample. According to the EPA the Census Bureau sends out roughly 200,000 ACS surveys each month or about 2.4 million each year. Currently, the U.S. population is around 327 million. Therefore, these surveys only cover about 3.67% of the U.S. population and that is over a five year period. Other sources say that 3.5 million surveys are mailed each year that would include about 5% of the U.S. population over a five year period.

On the other hand, the 10 year U.S. Census data is considered a more precise, accurate count of the U.S. population. The 2010 U.S. Census demographic data was rolled out to states concluding on March 31, 2011.

⁴ https://www.epa.gov/sites/production/files/2017-09/documents/2017_eiscreen_technical_document.pdf

MCDC 2010 Census Data

We used the Missouri Census Data Center Circular Area Profiles (CAPS) — 2010 application to look at 2010 census demographic data⁵. This version works with census-block-level data from the 2010 census. This uses exact 2010 U.S. Census tract data with no ACS. The CAPS 2010 application aggregates 2010 census data to approximate circular areas, specified by the user using a point location and radius values. The application also lists the census tract blocks that were used in the results. We used the same latitude, longitude coordinates applied to the EJScreen and ESRI runs to pinpoint the location of the proposed ACP compressor station in Buckingham County. While the CAPS 2010 application does not provide household income data, we were able to compare minority and age population data.

The Missouri Census Data Center (MCDC) website is listed under the U.S. Census Bureau as a Resource for Mapping Census Data⁶. According to the MCDC website, the MCDC Program “operates under a memorandum of understanding between the Office of the Secretary of State and the U.S. Bureau of the Census. The Census Bureau's State Data Center Program celebrated its 30th anniversary in 2008. The Business and Industry Data Center component of the program began in 1988 to enhance use of economic data from the Bureau. A network of more than 1700 agencies nationwide, the Data Center Program has provided access and education on Census Bureau products as well as other statistical resources to millions of data users for more than 30 years.”

We are including both ESRI and EJScreen relevant data as a comparison to the MCDC data runs.

ESRI Demographic Comparison of Union Hill Community

Race and Ethnicity (2018)	0.5 Mile Radius	1 Mile Radius	2 Mile Radius	County	State	United States
White	77.8%	70.7%	71.5%	62.4%	66.0%	69.9%
Minority	22.2%	29.3%	28.5%	37.6%	34.0%	30.1%

EJScreen Data

Race	1 mile radius	2 mile radius	5 mile radius	20 mile radius
Minority	37%	38%	39%	29%

Age	1 mile radius	2 mile radius	5 mile radius	20 mile radius
Under 5	3%	4%	6%	5%
Over 64	22%	22%	21%	18%

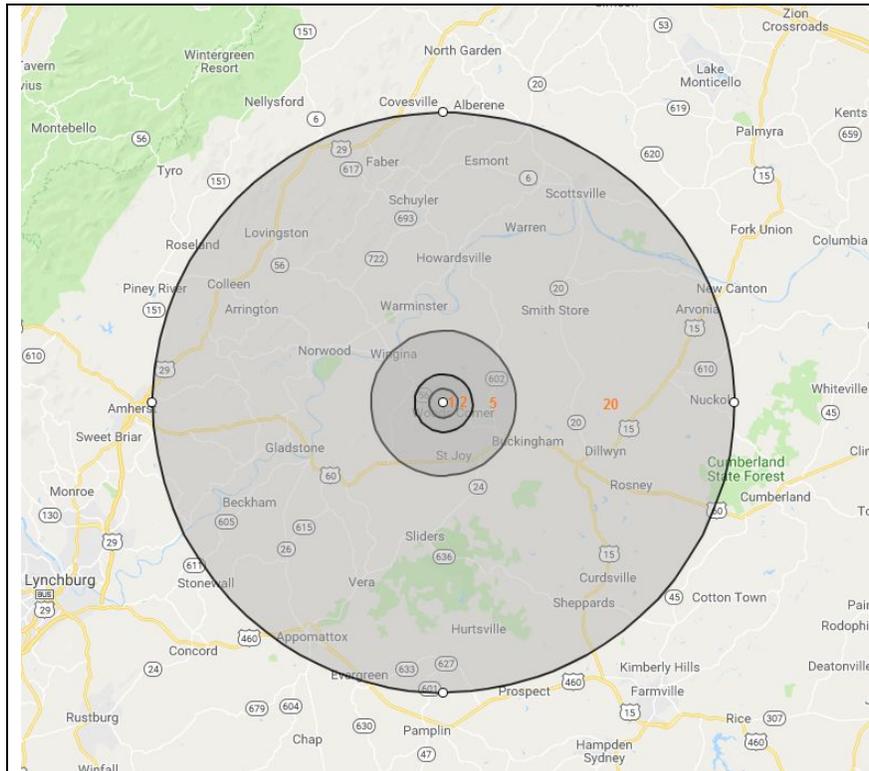
⁵ <http://mcdc.missouri.edu/applications/caps2010.html>

⁶ https://www.census.gov/geo/reference/outside_sources.html

MDCD CAPS 2010 Data

Race	1 mile radius	2 mile radius	5 mile radius	20 mile radius
White	40%	52.6%	63.5%	71.1%
Minority (incl Multi-race)	60.1%	47.5%	36.5%	28.9%
Minority (excl Multi-race)	54.8%	44.2%	34.4%	27.1%
Mult Race	5.3%	3.3%	2.1%	1.8%
Age	1 mile radius	2 mile radius	5 mile radius	20 mile radius
Under 5	3.2%	6.2%	6.4%	5.4%
Over 64	16.9%	21.3%	17.7%	16.0%

The CAPS 2010 data [Appendix 2] shows a high minority population within a 1-mile radius of the site of the proposed compressor station. Minorities make up 60.1 percent (54.8 percent if multi race excluded) within the one mile radius. This compares to 37% from the EJScreen ACS data and 29.3% from the ESRI algorithm projected data. **This huge discrepancy demonstrates that VA DEQ has failed miserably to properly examine this community with regards to environmental justice.** The CAPS 2010 data demonstrates how the minority population decreases as you get further away from the impacted area of the compressor station.



Minority Population decreases as you get further away from the site of the proposed compressor station.

The table below (compiled from MDCD CAPS 2010 Data) displays race demographics within various distances from the site of the proposed compressor station.

Radius	White	Minority (incl mult. race)	Minority (excl mult. race)
1 mile	40.0%	60.1%	54.8%
2 mile	52.6%	47.5%	44.2%
5 mile	63.5%	36.5%	34.4%
20 mile	71.1%	28.9%	27.1%

We point out the huge discrepancies between the MDCD CAPS 2010 and EJScreen minority demographic data especially within the 1 mile radius and the 2 mile radius. These discrepancies are not evident when comparing the age demographic data.

Difference between MCDC CAPS 2010 and EJScreen Minority Demographic Data

Radius	Difference
1 mile	23.1%
2 mile	9.5%
5 mile	2.5%
20 mile	0.1%

Difference between MCDC CAPS 2010 and EJScreen Age Demographic Data

Radius	Difference Under 5	Difference Over 64
1 mile	0.2%	5.1%
2 mile	2.2%	0.7%
5 mile	0.4%	3.3%
20 mile	0.4%	2.0%

Small Sample Survey

The Missouri Census Data Center also offers an American Community Survey application – MCDC CAPS ACS⁷. As explained on the MCDC website: “This is the current production version that works with the latest available data from the ACS (American Community Survey). Uses an algorithm to include or exclude a geographic unit (census tract or block group) within a circle. This module accesses a block-level file with coordinates and 2010 population counts and uses that information to estimate the portion of the unit’s population within the circle. It then applies that *allocation factor* to all the data for that unit. This is referred to as *BBIA* (block-based inclusion algorithm). “

We used the MCDC CAPS ACS application to obtain data for 1, 2, 5 and 20 mile radiuses [Appendix 3]. The ACS uses a very small survey sample of roughly 8 percent to obtain its data. The MCDC CAPS ACS data results were similar to the EJScreen results, which also uses the small survey sample of ACS.

MCDC CAPS ACS Data

Race	1 mile radius	2 mile radius	5 mile radius	20 mile radius
White	63.1%	61.2%	66.0%	70.4%
Minority	36.7%	38.2%	31.7%	27.9%

Age	1 mile radius	2 mile radius	5 mile radius	20 mile radius
Under 5	3.0%	4.2%	6.4%	5.0%
Over 64	22.3%	22.1%	17.7%	17.9%

The MCDC CAPS ACS 1-mile and 2-mile radius runs included the amount of samples completed. The 1-mile radius run only included 4 housing units (8.2%) and 8 persons (8.7%) as its data sample. The 2-mile radius run only included 11 housing units (8.1%) and 21 persons (8.5%) as its data sample.

⁷ <http://mcdc.missouri.edu/applications/capsACS.html>

Difference between MCDC CAPS ACS and EJScreen Minority Demographic Data

Radius	Difference
1 mile	0.3%
2 mile	0.2%
5 mile	7.3%
20 mile	1.1%

Difference between MCDC CAPS ACS and EJScreen Age Demographic Data

Radius	Difference Under 5	Difference Over 64
1 mile	0.0%	0.3%
2 mile	0.2%	0.1%
5 mile	0.4%	3.3%
20 mile	0.0%	0.1%

VA DEQ did not include ACEJ documentation⁸

VA DEQ did not post the Advisory Council on Environmental Justice⁹ (ACEJ) documents on its “Documents Subject to Public Comment” page [Appendix 4] announcing the current public comment period scheduled to end on January 4, 2019. We believe this is a significant oversight. ACEJ has been given various duties to better the commonwealth’s approach on environmental justice. Omitting the ACEJ May 30, 2018 Buckingham meeting summary¹⁰, a meeting that VA DEQ staff attended, and ACEJ’s August 28, 2018 letter to Governor Northam¹¹ from the VA DEQ “limited” commenting is worrisome.

An advisory committee that was specifically established to combat the very environmental injustice that is evident with the siting of the Buckingham ACP compressor station has been thwarted by Governor Northam and flat out ignored by VA DEQ.

In October 2017, Executive Order 73 created the Governor’s Advisory Council on Environmental Justice. The order states, “the Commonwealth requires a consistent, action-oriented approach to incorporating environmental justice into decision-making. Accordingly, I hereby formally convene the Governor’s Advisory Council on Environmental Justice (“Council”) to provide independent advice and recommendations to the Executive Branch.” The order spelled out the duties of the advisory council. The Council shall provide advice and recommendations to the Executive Branch on the following:

⁸ <https://www.deq.virginia.gov/Programs/Air/BuckinghamCompressorStationAirPermit.aspx>

⁹ <https://www.naturalresources.virginia.gov/initiatives/advisory-council-on-environmental-justice/>

¹⁰ https://www.naturalresources.virginia.gov/media/governorvirginiagov/secretary-of-natural-resources/images/ACEJMay30_MeetingSummary.pdf

¹¹ https://www.naturalresources.virginia.gov/media/governorvirginiagov/secretary-of-natural-resources/pdf/ACEJ-Letter~approved-8_28_18.pdf

1. Integrating environmental justice considerations throughout the Commonwealth's programs, regulations, policies, and procedures;
2. Improving the environment and public health in communities disproportionately burdened by environmental pollution and risks;
3. Ensuring transparent, authentic, and equitable engagement in decision-making, building capacity in disproportionately burdened communities, and promoting collaborative problem-solving for issues involving environmental justice;
4. Strengthening partnerships on environmental justice among governmental agencies, including Federal, State, Tribal, and local governments;
5. Enhancing research and assessment approaches related to environmental justice;
6. Receiving comments, concerns, and recommendations from individuals throughout the Commonwealth; and
7. Developing resources and strategies to provide and disseminate information to the public.

At the May 30 meeting, the ACEJ pipeline subcommittee reported that "There is the potential for erasure of African American history through construction of the ACP's planned compressor station in Buckingham. In particular, several slave cemeteries could be impacted with several others not yet identified." Furthermore, they stated, "The FERC report was based on county-wide population data, which does not accurately account for the number of residents who live in the localized "blast zone." The majority of residents in the most impacted area are African-American."

ACEJ Letter to Governor Northam

In its August 28, 2018 letter to Governor Northam, ACEJ made these statements:

"The Council's examination of evidence submitted from the Union Hill in Buckingham County community has revealed to us that this community, like many others within the state, has a significant population fitting the environmental justice criteria. Many of Buckingham's residents, because of their race or color, have been the historical recipients of unequal treatment, for which the above-listed Executive Order was signed to serve as a remedy. "

"ACEJ recommends that the Governor direct DEQ to suspend the permitting decision for the air permit for the Buckingham compressor station pending further review of the station's impacts on the health and the lives of those living in close proximity."

"Union Hill Compressor Station in Buckingham County (ACP CS-2) may have a disproportionate impact on this predominately African American community and could be perceived as exhibiting racism in siting, zoning, and permitting decisions and public health risk."

"State decisions for infrastructure with significant social and ecological risks, like compressor stations, should not be made hastily, particularly in places like Union Hill where the everyday experiences of residents are shaped by historical experience of racial injustice for a population whose ancestry is rooted in slavery."

"ACEJ recommends an Emergency Task Force on Environmental Justice in Gas Infrastructure be convened to assess evidence of disproportionate impacts for people of color and for low-income populations due to gas infrastructure expansion."

“ACEJ recommends that the Governor direct DEQ to suspend the permitting decision for the air permit for the Buckingham compressor station...”

Governor Northam’s response to the ACEJ letter was to threaten abolishment of the advisory committee.

In Summary

In conclusion, VA DEQ failed to consider the Advisory Council on Environmental Justice input. VA DEQ inappropriately used EJScreen, a screening tool, to squash further information, review and analysis regarding the environmental justice issue in the community impacted by the proposed ACP compressor station planned for Buckingham County. VA DEQ further inappropriately used the ESRI results to confirm their misuse of EJScreen. In this case, the small survey sample used by EJScreen and algorithm projections used by ESRI do not represent the community makeup surrounding the site of the proposed ACP compressor station. When larger, more precise, survey samples are used the community minority population demographics are significantly different. VA DEQ has failed to consider “local knowledge” to aid the department in properly determining the environmental justice issue.

Therefore, we respectfully request that the Virginia State Air Pollution and Control Board deny the air permit for the ACP compressor station proposed for Buckingham County on the basis the site is unsuitable based on environmental injustice.

Respectfully submitted,



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APPENDIX 1

November 28, 2018 - ACP Buckingham Compressor Station Environmental Justice Review¹²

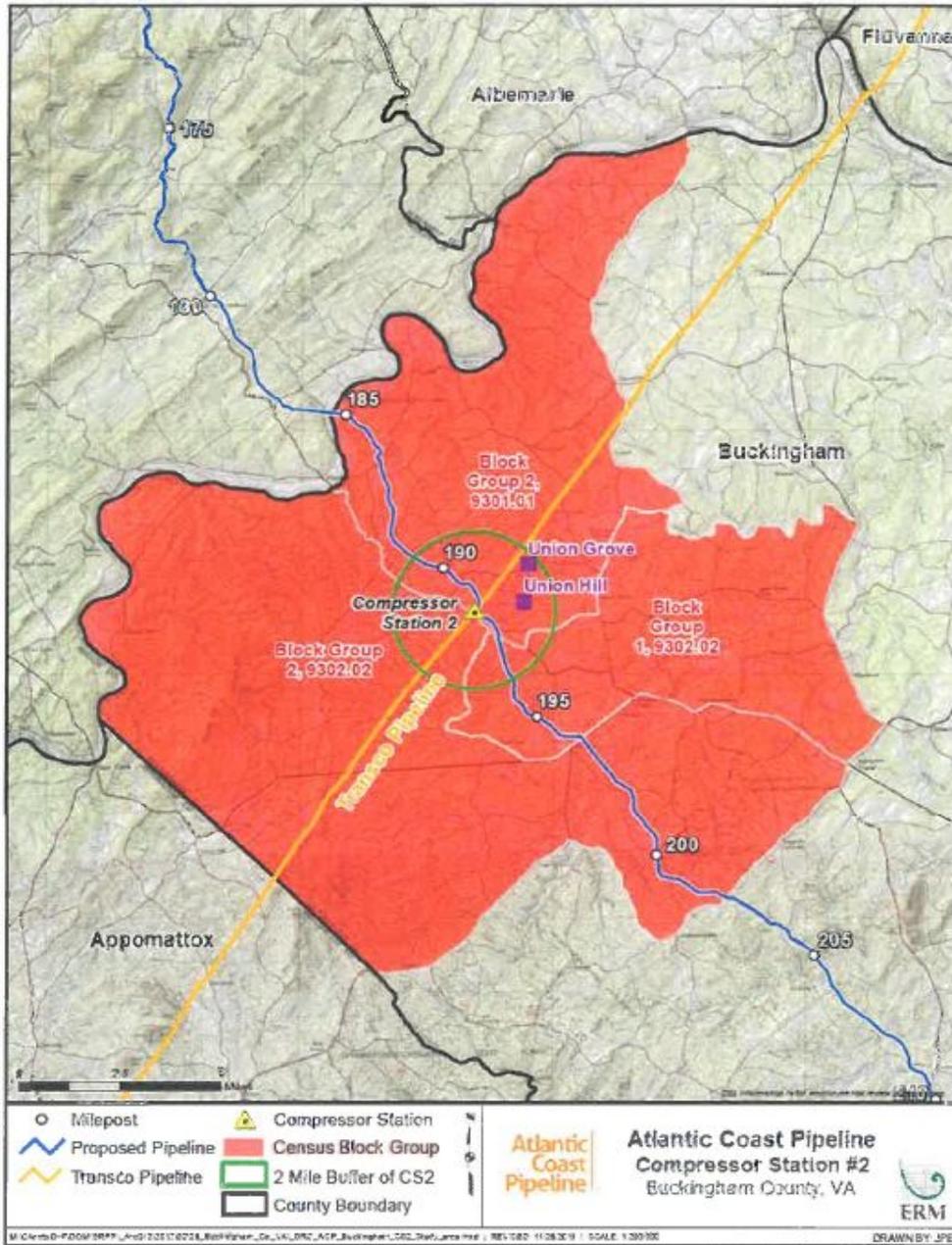


Figure 1 – Demographic Study Area

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https://www.deq.virginia.gov/Portals/0/DEQ/Air/BuckinghamCompressorStation/PUBLIC_COMMENT_DOC_BOS_demographic_and_Community_eng.pdf

APPENDIX 2

MCDC CAPS 2010 runs for 1 mile, 2 mile, 5 mile and 20 mile radius from the site of the proposed ACP compressor station in Buckingham County, VA.

Circular Area Profiles (CAPS) – 2010

Using data from Summary File 1, 2010 Census

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **1**

[\[CSV file of aggregated data\]](#)

1-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
1. Total Population Trends, Etc.		
Universe: Total Population		
Total Population	95	
Total Population 2000	113	
Change in Population 2000-2010	-18	-15.9
Males	44	46.3
Females	51	53.7
Population Density	31.5	
Land Area Sq. Miles	3	
2. Age		
Universe: Population		
Under 5 Years	3	3.2
Age 5 to 9 Years	6	6.3
10 to 14 Years	5	5.3
15 to 17 Years	2	2.1
18 to 19 Years	1	1.1
20 to 24 Years	7	7.4
25 to 34 Years	13	13.7
35 to 44 Years	10	10.5
45 to 54 Years	20	21.1

55 to 59 Years	4	4.2
Age 60 to 64 Years	8	8.4
65 to 74 Years	9	9.5
75 to 84 Years	6	6.3
85 Years and Over	1	1.1
Median Age	45.4	
Age 0 to 17	16	16.8
18 to 24 Years	8	8.4
25 to 44 Years	23	24.2
45 to 64 Years	32	33.7
62 Years and Over	22	23.2
65 Years and Over	16	16.8

3. Race

Universe: Population

One Race	90	94.7
White	38	40.0
Black or African American	44	46.3
American Indian and Alaska Native	3	3.2
Asian	1	1.1
Native Hawaiian and Other Pacific Islander	0	0.0
Some Other Race	4	4.2
Multi Race - Persons reporting more than one race	5	5.3

4. Hispanic or Latino and Race

Universe: Hispanic or Latino Population

Hispanic or Latino (of any race)	4	4.2
Mexican	NA	
Puerto Rican	NA	
Cuban	NA	
Other Hispanic or Latino	NA	
Not Hispanic or Latino	91	95.8
White Alone Not Hispanic	38	40.0

5. Relationship of Persons in Households

Universe: Persons in Households

Total Persons in Households	95	100.0
Householder	41	43.2
Spouse	13	13.7
Child	23	24.2
Own Child Under 18 Years	10	10.5
Other Relatives	7	7.4

Non Relatives	11	11.6
Non-rel Under 18	2	2.1
Non-rel Over 65	0	0.0
Unmarried Partner	NA	
6. Households by Type		
Universe: Households		
Total Households	41	
Family Households (Families)	22	53.7
With Own Children Under 18 Years	5	12.2
Married Couple Family	13	31.7
With Own Children Under 18 Years	2	4.9
Female householder, No Husband Present	6	14.6
With Own Children Under 18 Years	2	4.9
Non Family Households	19	46.3
Unmarried Partner Households	NA	
Same-Sex Unmarried Partner HHs	NA	
Householder Living Alone	13	31.7
Householder 65 Years and Over	14	34.1
Households With Individuals Under 18 Years	10	24.4
7. Group Quarters		
Universe: Population Living in Group Quarters		
Population in Group Quarters	0	0.0
Institutionalized Population	0	0.0
Pop In Correctional Institutions	0	0.0
Pop in Nursing Homes	0	0.0
Pop in Other Institutions	0	0.0
NonInstitutionalized GQ Pop	0	0.0
College Dormitories (Includes college quarters off	0	0.0
Military Quarters	0	0.0
Other NonInstitutional GQ Pop	0	0.0
8. Housing Occupancy and Tenure		
Universe: Housing Units		
Total Housing Units	59	
Occupied Housing Units	41	69.5
Owner Occupied	31	75.6
Renter Occupied	10	24.4
Vacant Housing Units	18	30.5
Vacant for Rent	1	1.7
Vacant for Sale	1	1.7

Vacant for Seasonal, Recreation or Occasional Use	4	6.8
Homeowner Vacancy Rate	3.13	
Rental Vacancy Rate	9.09	
Pop in Owner-occupied Units	69	72.6
Pop in Rented Units	26	27.4
Average Size of Owner-occupied Units	2.22	
Average Size of Renter-Occupied Units	2.60	

Note: Variables showing "NA" are not available at the blocks level. Specify tracts as the units to be aggregated to get values for these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
1	3.02	3.14	0.961

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=1

County Cd	Total population
Buckingham VA	95
	95

Data used in aggregating circular areas

Radius	County Cd	GeoCode	Area name	Total population
1	Buckingham VA	51029-9301.01-2119	Block 2119	3
		51029-9301.01-2120	Block 2120	26
		51029-9301.01-2121	Block 2121	0
		51029-9301.01-2122	Block 2122	43
		51029-9301.01-2133	Block 2133	3
		51029-9302.02-2044	Block 2044	2
		51029-9302.02-2045	Block 2045	7
		51029-9302.02-2046	Block 2046	11
		51029-9302.02-2047	Block 2047	0
		51029-9302.02-2049	Block 2049	0
1	Buckingham VA			95
1				95
				95

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles 2010* [dataset application]. Available from <http://mcdc.missouri.edu/applications/caps2010.html>.

The **Missouri Census Data Center** is a [Premier Local Partner](#) of the [U.S. Census Bureau](#) and a sponsored program of the [Missouri State Library](#).



Site published by the [University of Missouri Office of Social and Economic Data Analysis](#).

Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – 2010

Using data from Summary File 1, 2010 Census

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **2**

[\[CSV file of aggregated data\]](#)

2-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
1. Total Population Trends, Etc.		
Universe: Total Population		
Total Population	272	
Total Population 2000	281	
Change in Population 2000-2010	-9	-3.2
Males	137	50.4
Females	135	49.6
Population Density	21.4	
Land Area Sq. Miles	13	
2. Age		
Universe: Population		
Under 5 Years	17	6.2
Age 5 to 9 Years	19	7.0
10 to 14 Years	18	6.6
15 to 17 Years	3	1.1
18 to 19 Years	6	2.2
20 to 24 Years	15	5.5
25 to 34 Years	32	11.8
35 to 44 Years	27	9.9
45 to 54 Years	37	13.6

55 to 59 Years	16	5.9
Age 60 to 64 Years	24	8.8
65 to 74 Years	40	14.7
75 to 84 Years	14	5.1
85 Years and Over	4	1.5
Median Age	42.9	
Age 0 to 17	57	21.0
18 to 24 Years	21	7.7
25 to 44 Years	59	21.7
45 to 64 Years	77	28.3
62 Years and Over	75	27.6
65 Years and Over	58	21.3

3. Race

Universe: Population

One Race	263	96.7
White	143	52.6
Black or African American	112	41.2
American Indian and Alaska Native	3	1.1
Asian	1	0.4
Native Hawaiian and Other Pacific Islander	0	0.0
Some Other Race	4	1.5
Multi Race - Persons reporting more than one race	9	3.3

4. Hispanic or Latino and Race

Universe: Hispanic or Latino Population

Hispanic or Latino (of any race)	4	1.5
Mexican	NA	
Puerto Rican	NA	
Cuban	NA	
Other Hispanic or Latino	NA	
Not Hispanic or Latino	268	98.5
White Alone Not Hispanic	143	52.6

5. Relationship of Persons in Households

Universe: Persons in Households

Total Persons in Households	272	100.0
Householder	117	43.0
Spouse	52	19.1
Child	64	23.5
Own Child Under 18 Years	42	15.4
Other Relatives	23	8.5

Non Relatives	16	5.9
Non-rel Under 18	3	1.1
Non-rel Over 65	1	0.4
Unmarried Partner	NA	
6. Households by Type		
Universe: Households		
Total Households	117	
Family Households (Families)	73	62.4
With Own Children Under 18 Years	21	17.9
Married Couple Family	52	44.4
With Own Children Under 18 Years	11	9.4
Female householder, No Husband Present	12	10.3
With Own Children Under 18 Years	6	5.1
Non Family Households	44	37.6
Unmarried Partner Households	NA	
Same-Sex Unmarried Partner HHs	NA	
Householder Living Alone	35	29.9
Householder 65 Years and Over	42	35.9
Households With Individuals Under 18 Years	29	24.8
7. Group Quarters		
Universe: Population Living in Group Quarters		
Population in Group Quarters	0	0.0
Institutionalized Population	0	0.0
Pop In Correctional Institutions	0	0.0
Pop in Nursing Homes	0	0.0
Pop in Other Institutions	0	0.0
NonInstitutionalized GQ Pop	0	0.0
College Dormitories (Includes college quarters off	0	0.0
Military Quarters	0	0.0
Other NonInstitutional GQ Pop	0	0.0
8. Housing Occupancy and Tenure		
Universe: Housing Units		
Total Housing Units	158	
Occupied Housing Units	117	74.1
Owner Occupied	92	78.6
Renter Occupied	25	21.4
Vacant Housing Units	41	25.9
Vacant for Rent	2	1.3
Vacant for Sale	3	1.9

Vacant for Seasonal, Recreation or Occasional Use	6	3.8
Homeowner Vacancy Rate	3.16	
Rental Vacancy Rate	7.41	
Pop in Owner-occupied Units	204	75.0
Pop in Rented Units	68	25.0
Average Size of Owner-occupied Units	2.22	
Average Size of Renter-Occupied Units	2.72	

Note: Variables showing "NA" are not available at the blocks level. Specify tracts as the units to be aggregated to get values for these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
2	12.71	12.57	1.012

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=2

County Cd	Total population
Buckingham VA	272
	272

Data used in aggregating circular areas

Radius	County Cd	GeoCode	Area name	Total population
2	Buckingham VA	51029-9301.01-2106	Block 2106	13
		51029-9301.01-2118	Block 2118	6
		51029-9301.01-2119	Block 2119	3
		51029-9301.01-2120	Block 2120	26
		51029-9301.01-2121	Block 2121	0
		51029-9301.01-2122	Block 2122	43
		51029-9301.01-2123	Block 2123	16
		51029-9301.01-2129	Block 2129	43
		51029-9301.01-2131	Block 2131	0
		51029-9301.01-2132	Block 2132	0
		51029-9301.01-2133	Block 2133	3
		51029-9301.01-2135	Block 2135	0
		51029-9301.01-2136	Block 2136	0
		51029-9301.01-2137	Block 2137	0
		51029-9302.02-1042	Block 1042	0
		51029-9302.02-1043	Block 1043	13
		51029-9302.02-1047	Block 1047	2
		51029-9302.02-2041	Block 2041	17
		51029-9302.02-2042	Block 2042	2
		51029-9302.02-2043	Block 2043	0
		51029-9302.02-2044	Block 2044	2
		51029-9302.02-2045	Block 2045	7
		51029-9302.02-2046	Block 2046	11
		51029-9302.02-2047	Block 2047	0
		51029-9302.02-2048	Block 2048	5
		51029-9302.02-2049	Block 2049	0
		51029-9302.02-2050	Block 2050	33
		51029-9302.02-2051	Block 2051	1
		51029-9302.02-2052	Block 2052	1
		51029-9302.02-2053	Block 2053	9
		51029-9302.02-2054	Block 2054	6
		51029-9302.02-2055	Block 2055	5
		51029-9302.02-2056	Block 2056	5
51029-9302.02-2065	Block 2065	0		
51029-9302.02-2066	Block 2066	0		
2	Buckingham VA			272
2				272

Radius	County Cd	GeoCode	Area name	Total population
				272

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles 2010* [dataset application]. Available from <http://mcdc.missouri.edu/applications/caps2010.html>.

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Site published by the University of Missouri Office of Social and Economic Data Analysis.

Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – 2010

Using data from Summary File 1, 2010 Census

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **5**

[\[CSV file of aggregated data\]](#)

5-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
1. Total Population Trends, Etc.		
Universe: Total Population		
Total Population	1,321	
Total Population 2000	1,118	
Change in Population 2000-2010	203	18.2
Males	644	48.8
Females	677	51.2
Population Density	17.8	
Land Area Sq. Miles	74	
2. Age		
Universe: Population		
Under 5 Years	85	6.4
Age 5 to 9 Years	82	6.2
10 to 14 Years	68	5.1
15 to 17 Years	54	4.1
18 to 19 Years	34	2.6
20 to 24 Years	75	5.7
25 to 34 Years	131	9.9
35 to 44 Years	148	11.2
45 to 54 Years	202	15.3

55 to 59 Years	84	6.4
Age 60 to 64 Years	124	9.4
65 to 74 Years	143	10.8
75 to 84 Years	70	5.3
85 Years and Over	21	1.6
Median Age	42.7	
Age 0 to 17	289	21.9
18 to 24 Years	109	8.3
25 to 44 Years	279	21.1
45 to 64 Years	410	31.0
62 Years and Over	308	23.3
65 Years and Over	234	17.7

3. Race

Universe: Population

One Race	1,293	97.9
White	839	63.5
Black or African American	432	32.7
American Indian and Alaska Native	5	0.4
Asian	12	0.9
Native Hawaiian and Other Pacific Islander	0	0.0
Some Other Race	5	0.4
Multi Race - Persons reporting more than one race	28	2.1

4. Hispanic or Latino and Race

Universe: Hispanic or Latino Population

Hispanic or Latino (of any race)	15	1.1
Mexican	NA	
Puerto Rican	NA	
Cuban	NA	
Other Hispanic or Latino	NA	
Not Hispanic or Latino	1,306	98.9
White Alone Not Hispanic	828	62.7

5. Relationship of Persons in Households

Universe: Persons in Households

Total Persons in Households	1,321	100.0
Householder	538	40.7
Spouse	260	19.7
Child	348	26.3
Own Child Under 18 Years	225	17.0
Other Relatives	115	8.7

Non Relatives	60	4.5
Non-rel Under 18	8	0.6
Non-rel Over 65	2	0.2
Unmarried Partner	NA	
6. Households by Type		
Universe: Households		
Total Households	538	
Family Households (Families)	365	67.8
With Own Children Under 18 Years	128	23.8
Married Couple Family	260	48.3
With Own Children Under 18 Years	76	14.1
Female householder, No Husband Present	68	12.6
With Own Children Under 18 Years	38	7.1
Non Family Households	173	32.2
Unmarried Partner Households	NA	
Same-Sex Unmarried Partner HHs	NA	
Householder Living Alone	144	26.8
Householder 65 Years and Over	162	30.1
Households With Individuals Under 18 Years	163	30.3
7. Group Quarters		
Universe: Population Living in Group Quarters		
Population in Group Quarters	0	0.0
Institutionalized Population	0	0.0
Pop In Correctional Institutions	0	0.0
Pop in Nursing Homes	0	0.0
Pop in Other Institutions	0	0.0
NonInstitutionalized GQ Pop	0	0.0
College Dormitories (Includes college quarters off	0	0.0
Military Quarters	0	0.0
Other NonInstitutional GQ Pop	0	0.0
8. Housing Occupancy and Tenure		
Universe: Housing Units		
Total Housing Units	687	
Occupied Housing Units	538	78.3
Owner Occupied	435	80.9
Renter Occupied	103	19.1
Vacant Housing Units	149	21.7
Vacant for Rent	6	0.9
Vacant for Sale	8	1.2

Vacant for Seasonal, Recreation or Occasional Use	33	4.8
Homeowner Vacancy Rate	1.81	
Rental Vacancy Rate	5.50	
Pop in Owner-occupied Units	1,051	79.6
Pop in Rented Units	270	20.4
Average Size of Owner-occupied Units	2.42	
Average Size of Renter-Occupied Units	2.62	

Note: Variables showing "NA" are not available at the blocks level. Specify tracts as the units to be aggregated to get values for these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
5	74.61	78.54	0.950

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=5

County Cd	Total population
Buckingham VA	1,321
Nelson VA	0
radius	1,321
	1,321

Data used in aggregating circular areas

Radius	County Cd	GeoCode	Area name	Total population
5	Buckingham VA	51029-9301.01-2072	Block 2072	0
		51029-9301.01-2076	Block 2076	0
		51029-9301.01-2077	Block 2077	11
		51029-9301.01-2079	Block 2079	6
		51029-9301.01-2080	Block 2080	9
		51029-9301.01-2081	Block 2081	2
		51029-9301.01-2082	Block 2082	50
		51029-9301.01-2084	Block 2084	47
		51029-9301.01-2085	Block 2085	0
		51029-9301.01-2088	Block 2088	6
		51029-9301.01-2089	Block 2089	26
		51029-9301.01-2090	Block 2090	0
		51029-9301.01-2091	Block 2091	0
		51029-9301.01-2092	Block 2092	0
		51029-9301.01-2093	Block 2093	0
		51029-9301.01-2094	Block 2094	0
		51029-9301.01-2095	Block 2095	1
		51029-9301.01-2096	Block 2096	0
		51029-9301.01-2097	Block 2097	3
		51029-9301.01-2098	Block 2098	3
		51029-9301.01-2099	Block 2099	0
		51029-9301.01-2100	Block 2100	31
		51029-9301.01-2101	Block 2101	9
		51029-9301.01-2102	Block 2102	0
		51029-9301.01-2103	Block 2103	12
		51029-9301.01-2104	Block 2104	5
		51029-9301.01-2105	Block 2105	6
		51029-9301.01-2106	Block 2106	13
		51029-9301.01-2107	Block 2107	0
		51029-9301.01-2108	Block 2108	0
		51029-9301.01-2109	Block 2109	50
		51029-9301.01-2110	Block 2110	4
		51029-9301.01-2111	Block 2111	0
51029-9301.01-2112	Block 2112	2		
51029-9301.01-2114	Block 2114	0		
51029-9301.01-2116	Block 2116	0		
51029-9301.01-2117	Block 2117	7		

Radius	County Cd	GeoCode	Area name	Total population
		51029-9301.01-2118	Block 2118	6
		51029-9301.01-2119	Block 2119	3
		51029-9301.01-2120	Block 2120	26
		51029-9301.01-2121	Block 2121	0
		51029-9301.01-2122	Block 2122	43
		51029-9301.01-2123	Block 2123	16
		51029-9301.01-2124	Block 2124	35
		51029-9301.01-2125	Block 2125	1
		51029-9301.01-2126	Block 2126	10
		51029-9301.01-2127	Block 2127	0
		51029-9301.01-2128	Block 2128	0
		51029-9301.01-2129	Block 2129	43
		51029-9301.01-2130	Block 2130	0
		51029-9301.01-2131	Block 2131	0
		51029-9301.01-2132	Block 2132	0
		51029-9301.01-2133	Block 2133	3
		51029-9301.01-2134	Block 2134	6
		51029-9301.01-2135	Block 2135	0
		51029-9301.01-2136	Block 2136	0
		51029-9301.01-2137	Block 2137	0
		51029-9301.01-2138	Block 2138	6
		51029-9301.01-2139	Block 2139	0
		51029-9301.01-2140	Block 2140	0
		51029-9302.02-1020	Block 1020	16
		51029-9302.02-1021	Block 1021	20
		51029-9302.02-1028	Block 1028	1
		51029-9302.02-1031	Block 1031	12
		51029-9302.02-1032	Block 1032	46
		51029-9302.02-1033	Block 1033	0
		51029-9302.02-1034	Block 1034	0
		51029-9302.02-1035	Block 1035	4
		51029-9302.02-1036	Block 1036	22
		51029-9302.02-1037	Block 1037	15
		51029-9302.02-1038	Block 1038	0
		51029-9302.02-1039	Block 1039	8
		51029-9302.02-1040	Block 1040	0
		51029-9302.02-1041	Block 1041	1
		51029-9302.02-1042	Block 1042	0
		51029-9302.02-1043	Block 1043	13

Radius	County Cd	GeoCode	Area name	Total population
		51029-9302.02-1044	Block 1044	0
		51029-9302.02-1045	Block 1045	0
		51029-9302.02-1046	Block 1046	0
		51029-9302.02-1047	Block 1047	2
		51029-9302.02-1048	Block 1048	16
		51029-9302.02-1049	Block 1049	0
		51029-9302.02-1050	Block 1050	3
		51029-9302.02-1051	Block 1051	29
		51029-9302.02-1094	Block 1094	10
		51029-9302.02-1095	Block 1095	25
		51029-9302.02-1096	Block 1096	0
		51029-9302.02-1097	Block 1097	2
		51029-9302.02-1098	Block 1098	11
		51029-9302.02-1099	Block 1099	0
		51029-9302.02-1109	Block 1109	0
		51029-9302.02-2000	Block 2000	4
		51029-9302.02-2001	Block 2001	0
		51029-9302.02-2002	Block 2002	24
		51029-9302.02-2011	Block 2011	8
		51029-9302.02-2031	Block 2031	4
		51029-9302.02-2032	Block 2032	3
		51029-9302.02-2033	Block 2033	31
		51029-9302.02-2034	Block 2034	0
		51029-9302.02-2035	Block 2035	0
		51029-9302.02-2036	Block 2036	0
		51029-9302.02-2037	Block 2037	9
		51029-9302.02-2038	Block 2038	3
		51029-9302.02-2039	Block 2039	13
		51029-9302.02-2040	Block 2040	3
		51029-9302.02-2041	Block 2041	17
		51029-9302.02-2042	Block 2042	2
		51029-9302.02-2043	Block 2043	0
		51029-9302.02-2044	Block 2044	2
		51029-9302.02-2045	Block 2045	7
		51029-9302.02-2046	Block 2046	11
		51029-9302.02-2047	Block 2047	0
		51029-9302.02-2048	Block 2048	5
		51029-9302.02-2049	Block 2049	0
		51029-9302.02-2050	Block 2050	33

Radius	County Cd	GeoCode	Area name	Total population
		51029-9302.02-2051	Block 2051	1
		51029-9302.02-2052	Block 2052	1
		51029-9302.02-2053	Block 2053	9
		51029-9302.02-2054	Block 2054	6
		51029-9302.02-2055	Block 2055	5
		51029-9302.02-2056	Block 2056	5
		51029-9302.02-2057	Block 2057	0
		51029-9302.02-2058	Block 2058	4
		51029-9302.02-2059	Block 2059	3
		51029-9302.02-2060	Block 2060	0
		51029-9302.02-2061	Block 2061	11
		51029-9302.02-2062	Block 2062	0
		51029-9302.02-2063	Block 2063	0
		51029-9302.02-2064	Block 2064	0
		51029-9302.02-2065	Block 2065	0
		51029-9302.02-2066	Block 2066	0
		51029-9302.02-2067	Block 2067	0
		51029-9302.02-2068	Block 2068	0
		51029-9302.02-2069	Block 2069	0
		51029-9302.02-2070	Block 2070	0
		51029-9302.02-2071	Block 2071	0
		51029-9302.02-2072	Block 2072	0
		51029-9302.02-2073	Block 2073	23
		51029-9302.02-2074	Block 2074	4
		51029-9302.02-2075	Block 2075	5
		51029-9302.02-2076	Block 2076	0
		51029-9302.02-2077	Block 2077	10
		51029-9302.02-2078	Block 2078	0
		51029-9302.02-2079	Block 2079	0
		51029-9302.02-2080	Block 2080	0
		51029-9302.02-2081	Block 2081	0
		51029-9302.02-2082	Block 2082	0
		51029-9302.02-2083	Block 2083	6
		51029-9302.02-2084	Block 2084	2
		51029-9302.02-2085	Block 2085	0
		51029-9302.02-2086	Block 2086	0
		51029-9302.02-2087	Block 2087	6
		51029-9302.02-2088	Block 2088	0
		51029-9302.02-2089	Block 2089	3

Radius	County Cd	GeoCode	Area name	Total population
		51029-9302.02-2090	Block 2090	6
		51029-9302.02-2091	Block 2091	0
		51029-9302.02-2092	Block 2092	18
		51029-9302.02-2093	Block 2093	9
		51029-9302.02-2094	Block 2094	0
		51029-9302.02-2095	Block 2095	2
		51029-9302.02-2096	Block 2096	0
		51029-9302.02-2097	Block 2097	0
		51029-9302.02-2098	Block 2098	8
		51029-9302.02-2099	Block 2099	33
		51029-9302.02-2100	Block 2100	19
		51029-9302.02-2101	Block 2101	16
		51029-9302.02-2102	Block 2102	0
		51029-9302.02-2103	Block 2103	10
		51029-9302.02-2104	Block 2104	0
		51029-9302.02-2105	Block 2105	12
		51029-9302.02-2106	Block 2106	2
		51029-9302.02-2108	Block 2108	0
		51029-9302.02-2115	Block 2115	11
		51029-9302.02-2116	Block 2116	3
		51029-9302.02-2146	Block 2146	0
		51029-9302.02-2147	Block 2147	0
		51029-9302.02-2149	Block 2149	63
		51029-9302.02-2150	Block 2150	1
		51029-9302.02-2158	Block 2158	32
		51029-9302.02-2159	Block 2159	18
		51029-9302.02-2160	Block 2160	5
		51029-9302.02-2162	Block 2162	2
		51029-9302.02-2166	Block 2166	1
		51029-9302.02-2167	Block 2167	0
		51029-9302.02-2198	Block 2198	0
		51029-9302.02-2199	Block 2199	0
		51029-9302.02-2339	Block 2339	5
		51029-9302.02-2340	Block 2340	5
		51029-9302.02-2342	Block 2342	0
5	Buckingham VA			1,321

Radius	County Cd	GeoCode	Area name	Total population
5	Nelson VA	51125-9501.00-1274	Block 1274	0

Radius	County Cd	GeoCode	Area name	Total population
		51125-9501.00-1275	Block 1275	0
		51125-9501.00-1277	Block 1277	0
		51125-9501.00-1292	Block 1292	0
		51125-9501.00-1311	Block 1311	0
5	Nelson VA			0
5				1,321
				1,321

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles 2010* [dataset application]. Available from <http://mcdc.missouri.edu/applications/caps2010.html>.

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Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – 2010

Using data from Summary File 1, 2010 Census

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **20**

[\[CSV file of aggregated data\]](#)

20-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
1. Total Population Trends, Etc.		
Universe: Total Population		
Total Population	41,688	
Total Population 2000	38,366	
Change in Population 2000-2010	3,322	8.7
Males	21,422	51.4
Females	20,266	48.6
Population Density	33.2	
Land Area Sq. Miles	1,254	
2. Age		
Universe: Population		
Under 5 Years	2,263	5.4
Age 5 to 9 Years	2,317	5.6
10 to 14 Years	2,563	6.1
15 to 17 Years	1,540	3.7
18 to 19 Years	951	2.3
20 to 24 Years	2,319	5.6
25 to 34 Years	4,710	11.3
35 to 44 Years	5,520	13.2
45 to 54 Years	6,800	16.3

55 to 59 Years	3,072	7.4
Age 60 to 64 Years	2,984	7.2
65 to 74 Years	3,920	9.4
75 to 84 Years	2,022	4.9
85 Years and Over	707	1.7
Median Age	43.0	
Age 0 to 17	8,683	20.8
18 to 24 Years	3,270	7.8
25 to 44 Years	10,230	24.5
45 to 64 Years	12,856	30.8
62 Years and Over	8,391	20.1
65 Years and Over	6,649	15.9

3. Race

Universe: Population

One Race	40,939	98.2
White	29,646	71.1
Black or African American	10,697	25.7
American Indian and Alaska Native	115	0.3
Asian	152	0.4
Native Hawaiian and Other Pacific Islander	20	0.0
Some Other Race	309	0.7
Multi Race - Persons reporting more than one race	749	1.8

4. Hispanic or Latino and Race

Universe: Hispanic or Latino Population

Hispanic or Latino (of any race)	836	2.0
Mexican	NA	
Puerto Rican	NA	
Cuban	NA	
Other Hispanic or Latino	NA	
Not Hispanic or Latino	40,852	98.0
White Alone Not Hispanic	29,225	70.1

5. Relationship of Persons in Households

Universe: Persons in Households

Total Persons in Households	39,240	94.1
Householder	15,922	38.2
Spouse	7,996	19.2
Child	10,581	25.4
Own Child Under 18 Years	7,227	17.3
Other Relatives	2,733	6.6

Non Relatives	2,008	4.8
Non-rel Under 18	223	0.5
Non-rel Over 65	102	0.2
Unmarried Partner	NA	
6. Households by Type		
Universe: Households		
Total Households	15,922	
Family Households (Families)	10,988	69.0
With Own Children Under 18 Years	4,092	25.7
Married Couple Family	7,996	50.2
With Own Children Under 18 Years	2,642	16.6
Female householder, No Husband Present	2,157	13.5
With Own Children Under 18 Years	1,050	6.6
Non Family Households	4,934	31.0
Unmarried Partner Households	NA	
Same-Sex Unmarried Partner HHS	NA	
Householder Living Alone	4,155	26.1
Householder 65 Years and Over	4,352	27.3
Households With Individuals Under 18 Years	4,861	30.5
7. Group Quarters		
Universe: Population Living in Group Quarters		
Population in Group Quarters	2,448	5.9
Institutionalized Population	2,366	5.7
Pop In Correctional Institutions	2,194	5.3
Pop in Nursing Homes	172	0.4
Pop in Other Institutions	0	0.0
NonInstitutionalized GQ Pop	82	0.2
College Dormitories (Includes college quarters off	0	0.0
Military Quarters	0	0.0
Other NonInstitutional GQ Pop	82	0.2
8. Housing Occupancy and Tenure		
Universe: Housing Units		
Total Housing Units	18,863	
Occupied Housing Units	15,922	84.4
Owner Occupied	12,254	77.0
Renter Occupied	3,668	23.0
Vacant Housing Units	2,941	15.6
Vacant for Rent	276	1.5
Vacant for Sale	268	1.4

Vacant for Seasonal, Recreation or Occasional Use	781	4.1
Homeowner Vacancy Rate	2.14	
Rental Vacancy Rate	7.00	
Pop in Owner-occupied Units	30,374	72.9
Pop in Rented Units	8,866	21.3
Average Size of Owner-occupied Units	2.48	
Average Size of Renter-Occupied Units	2.42	

Note: Variables showing "NA" are not available at the bgs level. Specify tracts as the units to be aggregated to get values for these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
20	1264.28	1256.64	1.006

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=20

County Cd	Total population
Albemarle VA	4,351
Amherst VA	3,694
Appomattox VA	7,357
Buckingham VA	17,146
Fluvanna VA	948
Nelson VA	7,181
Prince Edward VA	1,011
radius	41,688
	41,688

Data used in aggregating circular areas

Radius	County Cd	GeoCode	Area name	Total population
20	Albemarle VA	51003-0114.00-1	Block Group 1	1,126
		51003-0114.00-2	Block Group 2	697
		51003-0114.00-3	Block Group 3	1,411
		51003-0114.00-4	Block Group 4	1,117
20	Albemarle VA			4,351

Radius	County Cd	GeoCode	Area name	Total population
20	Amherst VA	51009-0101.00-1	Block Group 1	1,451
		51009-0102.00-4	Block Group 4	2,243
20	Amherst VA			3,694

Radius	County Cd	GeoCode	Area name	Total population
20	Appomattox VA	51011-0401.00-1	Block Group 1	987
		51011-0401.00-2	Block Group 2	1,430
		51011-0401.00-4	Block Group 4	767
		51011-0402.00-1	Block Group 1	999
		51011-0402.00-2	Block Group 2	1,203
		51011-0403.00-1	Block Group 1	1,144
		51011-0403.00-2	Block Group 2	827
20	Appomattox VA			7,357

Radius	County Cd	GeoCode	Area name	Total population
20	Buckingham VA	51029-9301.01-1	Block Group 1	2,722
		51029-9301.01-2	Block Group 2	1,223
		51029-9301.02-1	Block Group 1	1,060
		51029-9301.02-2	Block Group 2	991
		51029-9301.02-3	Block Group 3	1,026
		51029-9302.01-1	Block Group 1	2,904
		51029-9302.01-2	Block Group 2	1,716
		51029-9302.01-3	Block Group 3	1,049
		51029-9302.02-1	Block Group 1	1,194
		51029-9302.02-2	Block Group 2	1,723
		51029-9302.02-3	Block Group 3	1,538
20	Buckingham VA			17,146

Radius	County Cd	GeoCode	Area name	Total population
20	Fluvanna VA	51065-0203.00-3	Block Group 3	948

Radius	County Cd	GeoCode	Area name	Total population
20	Nelson VA	51125-9501.00-1	Block Group 1	1,581
		51125-9501.00-2	Block Group 2	1,326
		51125-9501.00-3	Block Group 3	980
		51125-9501.00-4	Block Group 4	1,809
		51125-9503.00-1	Block Group 1	1,485
20	Nelson VA			7,181

Radius	County Cd	GeoCode	Area name	Total population
20	Prince Edward VA	51147-9302.02-1	Block Group 1	1,011
20				41,688
				41,688

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles 2010* [dataset application]. Available from <http://mcdc.missouri.edu/applications/caps2010.html>.

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APPENDIX 3

MCDC CAPS ACS runs for 1 mile, 2 mile, 5 mile and 20 mile radius from the site of the proposed ACP compressor station in Buckingham County, VA.

Circular Area Profiles (CAPS) – ACS

Using data from 5-year period estimates, vintage 2016

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **1**

[\[CSV file of aggregated data\]](#)

1-mile radius of specified point (Site for Proposed Compressor Station)

- **4** housing units were sampled (about 8.2%)
- **8** persons were sampled (about 8.7%)

Subject	Number	Percent
D1. AGE		
Universe:		
Total population	86	
Under 5 years	3	3.0
5 to 9 years	7	7.7
10 to 14 years	4	5.2
15 to 19 years	3	3.0
20 to 24 years	6	6.7
25 to 34 years	9	10.7
35 to 44 years	10	11.4
45 to 54 years	13	15.0
55 to 59 years	6	7.2
60 to 64 years	7	7.7
65 to 74 years	12	14.4
75 to 84 years	5	5.7
85 years and over	2	2.2
Median age in years	46.0	

5 years and over	N	97.0
15 years and over	73	84.1
Under 18 years of age	16	18.8
18 years and over	70	81.2
21 years and over	68	79.1
25 years and over	64	74.3
62 years and over	24	28.2
65 years and over	19	22.3
D2. AGE AND SEX		
Universe:		
Total population	86	
Male	48	55.9
18 years old and over	N	76.4
65 years old and over	8	17.2
Female	38	44.1
18 years old and over	N	87.4
65 years old and over	11	28.6
D3. RACE		
Universe:		
Total population	86	
One race	86	99.8
White alone	60	69.1
Black or African American	24	27.4
American Indian and Alaska Native	0	0.0
Asian	1	1.3
Native Hawaiian and Other Pacific Islander	0	0.0
Some other race	2	2.1
Two or more races	0	0.2
White (alone or in combination)	60	69.2
Black (alone or in combination)	24	27.6
American Indian (alone or in combination)	0	0.0
Asian (alone or in combination)	1	1.3
Native Hawaiian (alone or in combination)	0	0.0
Some other race (alone or in combination)	2	2.1
D4. HISPANIC OR LATINO (ANY RACE)		
Universe:		
Total population	86	
Hispanic or Latino of any race	7	8.0
Not Hispanic or Latino	79	92.0

White alone	54	63.1
Black or African American alone	24	27.4
American Indian and Alaska Native alone	0	0.0
Asian alone	1	1.3
Native Hawaiian and Other Pacific Islander alone	0	0.0
E1. HOUSEHOLD INCOME AND BENEFITS		
Universe:		
Total households	38	
Less than \$10,000	4	11.4
\$10,000 to \$14,999	3	7.8
\$15,000 to \$24,999	5	14.0
\$25,000 to \$34,999	8	20.6
\$35,000 to \$49,999	2	5.8
\$50,000 to \$74,999	11	28.2
\$75,000 to \$99,999	2	5.9
\$100,000 to \$149,999	2	5.5
\$150,000 to \$199,999	0	0.8
\$200,000 or more	0	0.0
With earnings	26	68.9
With social security	17	43.9
With retirement income	11	28.8
With supplemental security income	2	4.5
With cash public assistance income	0	0.1
With food stamp benefits in the past 12 months	N	N
Median household income	\$34,018	
Mean household income	\$42,070	
Mean household earnings	\$36,941	
Mean household social security income	\$17,388	
Mean household retirement income	\$23,732	
Mean household supplemental security income	\$6,464	
Mean household cash public assistance income	N	
E2. FAMILY INCOME AND BENEFITS		
Universe: Total households		
Family households	22	58.7
Less than \$10,000	1	4.1
\$10,000 to \$14,999	2	10.8
\$15,000 to \$24,999	2	6.9
\$25,000 to \$34,999	5	21.0
\$35,000 to \$49,999	2	6.9

\$50,000 to \$74,999	7	30.3
\$75,000 to \$99,999	2	9.4
\$100,000 to \$149,999	2	9.4
\$150,000 to \$199,999	0	1.4
\$200,000 or more	0	0.0
Median family income	N	
Mean family income	\$51,841	
E3. OTHER INCOME MEASURES		
Universe:		
Per-capita income	\$19,843	
Nonfamily households	16	41.3
Median nonfamily income	\$24,926	
Mean nonfamily income	\$28,007	
All full-time workers	N	
All male full-time workers	N	N
All female full-time workers	N	N
Median earnings for workers	N	
Median earnings for male full-time, year-round workers	N	
Median earnings for female full-time, year-round workers	N	
E4. POVERTY STATUS OVER THE LAST 12 MONTHS		
Universe:		
Persons for whom poverty status is determined	1,450	
Persons below poverty	21	24.3
Persons under 18 for whom poverty status is determined	N	
Persons under 18 in poverty	N	N
Persons aged 18 to 64 for whom poverty status is determined	N	
Persons aged 18 to 64 in poverty	N	N
Persons over 65 for whom poverty status is determined	N	
Persons over 65 in poverty	N	N
Persons in families for whom poverty status is determined	69	N
Unrelated individuals for whom poverty status is determined	N	
Persons in families in poverty	16	23.6
Family households in poverty	4	19.5
Unrelated persons in poverty 15 years and over	N	N
Poverty ratio under 0.5	7	7.5
Poverty ratio in 0.5 to 0.99	14	16.8
Poverty ratio in 1 to 2	15	17.5
Poverty ratio in 2 and over	50	58.2
E5. EMPLOYMENT STATUS		

Universe:		
Population 16 years and over	72	
In labor force	41	4.2
Civilian labor force	41	4.2
Employed civilians	37	6.5
Unemployed civilians	4	0.7
In military	0	0.0
Not in labor force	31	3.1
Females 16 years and over	N	N
Females in labor force	N	N
Females in civilian labor force	N	N
Employed females	N	N
E6. CHILDREN WITH ALL PARENTS WORKING		
Universe:		
(Own) children under 6	4	
All parents working	2	52.6
(Own) children aged 6 to 17	11	
All parents working	9	77.1
E7. COMMUTING TO WORK		
Universe:		
Workers 16 years and over	37	
Workers 16+ who commute to work	36	96.5
Car, truck, or van; drove alone	29	78.9
Car, truck, or van; carpoled	5	12.6
Public transportation (excluding taxicab)	0	0.6
Walked to work	1	3.9
Other means of commuting	0	0.7
Worked at home	1	3.5
Mean travel time to work in minutes	N	
E8. WORKERS BY OCCUPATION		
Universe:		
Civilian employed population 16 years and over	37	
Management, business, science, and arts occupations	9	25.3
Service occupations	9	25.2
Sales and office occupations	10	26.2
Farming, fishing, and forestry occupations	0	0.0
Construction, extraction, installation, maintenance, and repair oc	5	14.6
Production, transportation, and material moving occupations	3	8.7
E9. WORKERS BY INDUSTRY		

Universe:		
Civilian employed population 16 years and over	37	
Agriculture, forestry, fishing and hunting, and mining	2	4.1
Construction	5	13.2
Manufacturing	2	6.0
Wholesale trade	1	1.5
Retail trade	2	5.0
Transportation and warehousing, and utilities	0	1.0
Information	0	0.0
Finance and insurance, and real estate and rental and leasing	1	2.6
Professional, scientific, management, and administrative	6	15.4
Educational services, and health care and social assistance	9	23.2
Arts, entertainment, and recreation, and accommodation and food se	4	11.0
Other services, except public administration	2	4.8
Public administration	5	12.2
E10. CLASS OF WORKER		
Universe:		
Civilian employed population 16 years and over	37	
Private wage and salary workers	23	62.2
Government workers	7	19.1
Self-employed workers in own not incorporated business	7	17.9
Unpaid family workers	0	0.8
E11. INSURANCE COVERAGE		
Universe:		
Civilian noninstitutionalized persons	N	
Under 65 years of age	N	N
Without insurance coverage	N	N
With public insurance	N	N
With private insurance	N	N
Under 18 years of age	N	N
Without insurance coverage	N	N
S1. HOUSEHOLDS BY TYPE		
Universe:		
Total households	38	
Family households	22	58.7
With own children under 18 years	7	17.8
Married-couple families	14	38.3
With own children under 18 years	4	11.4
Male householder, no wife present	4	10.8

With own children under 18 years	0	1.2
Female householder, no husband present	4	9.6
With own children under 18 years	2	5.3
Nonfamily households	16	41.3
Householder living alone	N	N
65 years and over living alone	N	N
Households with one or more people under 18 years	9	23.6
Households with one or more people 65 years and over	15	38.6
Average household size	2.28	
Average family size	3.13	
S2. PERSONS BY HOUSEHOLD TYPE / GROUP QUARTERS		
Universe:		
Total population	86	
Household population	86	99.4
Living in family households	69	5.9
Living in nonfamily households	16	1.4
Living alone	N	N
Living in group quarters	0	0.6
S3. RELATIONSHIP		
Universe: Household population		
Household population	86	99.4
Householder	38	3.2
Spouse	14	1.2
Child	23	1.9
Other relatives	10	0.9
Nonrelatives	1	0.1
Unmarried partner	0	0.0
Unmarried-partner HHs per 1000	9	
S4. MARITAL STATUS		
Universe:		
Persons 15 years and over	73	
Never married	24	32.8
Now married, except separated	35	48.0
Separated	1	1.5
Widowed	4	5.2
Divorced, and not currently married	9	12.5
S5. FERTILITY		
Universe:		
Women 15 to 50 years old	N	

Unmarried women 15 to 50 years old	N	N
Women 15 to 50 years old who had a birth in the past 12 months	N	N
Unmarried women who gave birth	N	N
Women 15 to 19 years of age	N	N
Women 20 to 34 years of age	N	N
Women 35 to 50 years of age	N	N
Per 1,000 unmarried women	N	
Per 1,000 women 15 to 50 years old	N	
Per 1,000 women 15 to 19 years old	N	
Per 1,000 women 20 to 34 years old	N	
Per 1,000 women 35 to 50 years old	N	
S6. GRANDPARENTS AS CAREGIVERS		
Universe:		
Grandparents living with own grandchildren under 18 years	N	
Grandparents responsible for grandchildren	N	N
Less than 1 year	N	N
1 or 2 years	N	N
3 or 4 years	N	N
5 or more years	N	N
S7. SCHOOL ENROLLMENT		
Universe:		
Population 3 years and over	84	
Population 3 years and over enrolled in school	19	22.6
In nursery school, preschool	1	3.2
In kindergarten	2	8.7
In elementary school, grades 1-8	8	39.7
In high school, grades 9-12	4	20.9
In college or graduate school	5	27.6
S8. EDUCATIONAL ATTAINMENT		
Universe:		
Population 25 years and over	64	
Less than 9th grade	8	13.1
9th to 12th grade, no diploma	4	5.8
High school graduate (includes equivalency)	17	26.6
Some college, no degree	17	27.1
Associates degree	5	7.7
Bachelors degree	6	9.6
Graduate or professional degree	6	10.0
High school graduate or higher	52	81.1

Bachelor degree or higher	13	19.7
S9. VETERAN STATUS		
Universe: 18 years and over		
Civilian population 18 years and over	70	100.0
Civilian veterans	6	7.9
S10a. DISABLED BY AGE		
Universe:		
Civilian noninstitutionalized persons	N	
With a disability	N	N
Persons under 18	N	N
With a disability	N	N
Persons 18 to 64 years	N	N
With a disability	N	N
Persons 65 years and over	N	N
With a disability	N	N
S11. RESIDENCE 1 YEAR AGO		
Universe:		
Population 1 year and over	N	
Same house	N	N
Different house in the U.S.	N	N
Same county	N	N
Different county (any)	N	N
Different county (same state)	N	N
Different state	N	N
Lived abroad 1 year ago	N	N
S12. PLACE OF BIRTH AND CITIZENSHIP STATUS		
Universe:		
Total population	86	
U.S. native	N	N
Born in United States	N	N
Born in state of current residence	N	N
Born in different state than current residence	N	N
Born in Puerto Rico, U.S. Island areas, or born abroad to Am	N	N
Foreign born	N	N
Naturalized U.S. citizen	N	N
Not a U.S. citizen	N	N
S13. YEAR OF ENTRY		
Universe: Total population		
Population born outside the United States	N	N

Native, born outside U.S.	N	N
Entered U.S. 2000 or later	N	N
Entered U.S. before 2000	N	N
Foreign born	N	N
Entered U.S. 2000 or later	N	N
Entered U.S. before 2000	N	N
S14. WORLD REGION OF BIRTH OF FOREIGN BORN		
Universe: Total population		
Foreign-born population, excluding population born at sea	N	N
Europe	N	N
Asia	N	N
Africa	N	N
Oceania	N	N
South and Central America (includes Mexico)	N	N
Northern America	N	N
S15. LANGUAGE SPOKEN AT HOME		
Universe: Total population		
Population 5 years and over	N	97.0
English only	N	N
Language other than English	N	N
Speaks English less than very well	N	N
Speak Spanish	N	N
Speaks English less than very well	N	N
H1. HOUSING OCCUPANCY AND TENURE		
Universe: Total households		
Total housing units	51	N
Occupied housing units	38	73.7
Owner-occupied	28	75.3
Renter-occupied	9	24.7
Average household size of owner-occupied unit	2.40	
Average household size of renter-occupied unit	1.87	
Vacant housing units	13	26.3
For sale	4	26.9
For rent	0	1.9
For seasonal, recreational, or occasional use	3	25.4
Total owner units	32	
Homeowner vacancy rate	11.3	
Total rental units	10	
Rental vacancy rate	2.7	

People living in owned homes	68	79.2
People living in rental homes	17	20.3
H2. UNITS IN STRUCTURE		
Universe:		
Total housing units	51	
Single-family units	31	60.4
Single unit, detached	31	99.8
Single unit, attached	0	0.2
Duplexes	1	1.2
3 or 4 units	0	0.7
5 to 9 units	0	0.0
10 to 19 units	0	0.0
20 or more units	0	0.0
Mobile home	19	37.7
Boat, RV, van, etc.	0	0.0
Mobile homes per 1000 HUs	377	
H3. YEAR STRUCTURE BUILT		
Universe:		
Total housing units	51	
Built 2010 or later	2	4.7
Built 2000 to 2009	14	28.1
Built 1990 to 1999	11	20.8
Built 1980 to 1989	4	8.6
Built 1970 to 1979	4	8.2
Built 1960 to 1969	5	10.4
Built 1950 to 1959	4	8.2
Built 1940 to 1949	3	6.3
Built 1939 or earlier	2	4.7
H4. YEAR HOUSEHOLDER MOVED INTO UNIT		
Universe:		
Occupied housing units	38	
Moved in 2010 or later	7	18.2
Moved in 2000 to 2009	13	34.8
Moved in 1990 to 1999	10	26.7
Moved in 1980 to 1989	2	6.0
Moved in 1979 or earlier	5	14.4
H5. VEHICLES AVAILABLE		
Universe:		
Occupied housing units	38	

No vehicles available	2	5.4
1 vehicle available	13	34.9
2 vehicles available	10	27.3
3 or more vehicles available	12	32.4
H6. HOUSE HEATING FUEL		
Universe:		
Occupied housing units	38	
Utility gas	1	2.5
Bottled, tank, or LP gas	10	25.4
Electricity	19	51.1
Fuel oil, kerosene, etc.	1	2.3
Coal or coke	0	0.0
Wood	7	18.7
Solar energy	0	0.0
Other fuel	0	0.0
No fuel used	0	0.0
H7. SELECTED CHARACTERISTICS		
Universe:		
Occupied housing units	38	
Lacking complete plumbing facilities	0	0.3
Lacking complete kitchen facilities	0	0.3
No telephone service available	0	0.5
H8. OCCUPANTS PER ROOM		
Universe:		
Occupied housing units	38	
1.00 or less	37	96.9
1.01 to 1.50	1	3.1
1.51 or more	0	0.0
H9. HOME VALUES		
Universe:		
Owner-occupied units	28	
Less than \$50,000	2	6.8
\$50,000 to \$99,999	7	26.3
\$100,000 to \$149,999	8	29.5
\$150,000 to \$199,999	2	8.3
\$200,000 to \$299,999	6	20.1
\$300,000 to \$499,999	2	6.7
\$500,000 to \$999,999	1	2.4
\$1,000,000 or more	0	0.0

\$2,000,000 or more	0	0.0
Median home value	\$115,641	
Average home value	\$148,422	
H10. SELECTED MONTHLY OWNER COSTS		
Universe:		
Owner-occupied units	28	
Housing units with a mortgage	14	48.5
Owner costs 30% or more of HH income	4	30.6
Median owner costs	\$1,050	
Housing units without a mortgage	15	51.5
Nonmortgage owner costs 30% or more of HH income	1	6.3
Median owner costs	\$296	
H11. GROSS RENT		
Universe:		
Renter-occupied units	9	
Paying cash rent	7	78.5
Paying no cash rent	2	21.5
Median rent	\$604	
Average gross rent	\$677	
Gross rent 30% or more of HH income	6	65.5
Gross rent of \$750 or more	2	25.8

Note: Variables showing "N" are not available at the bgs level. Specify tracts as the units to be aggregated to get values for at least some of these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
1	3.02	3.14	0.961

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=1

County Cd	Total population
Buckingham VA	2,583
	2,583

Data used in aggregating circular areas

TotPopAlloc is portion of total population allocated to circle.

Radius	County Cd	Tract	Block group	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
1	Buckingham VA	9301.01	2	Block Group 2	1,133	0.061	69.5	75

Radius	County Cd	Tract	Block group	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
1	Buckingham VA	9302.02	2	Block Group 2	1,450	0.012	16.8	20
1	Buckingham VA				2,583		86.3	
1					2,583		86.3	
					2,583		86.3	

Data used in this report is from the American Community Survey 5-year period estimates data for 2012-2016. This [metadata report](#) provides some background information on the data items appearing in the report. Block Group-level data were used with the [BBIA algorithm](#) for apportioning data to the circular areas.

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles — ACS* [dataset application]. Available from <http://mcdc.missouri.edu/applications/capsACS.html>.

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Site published by the [University of Missouri Office of Social and Economic Data Analysis](#).

Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – ACS

Using data from 5-year period estimates, vintage 2016

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **2**

[\[CSV file of aggregated data\]](#)

2-mile radius of specified point (Site for Proposed Compressor Station)

- **11** housing units were sampled (about 8.1%)
- **21** persons were sampled (about 8.5%)

Subject	Number	Percent
D1. AGE		
Universe:		
Total population	245	
Under 5 years	10	4.2
5 to 9 years	17	7.0
10 to 14 years	16	6.4
15 to 19 years	9	3.6
20 to 24 years	14	5.5
25 to 34 years	29	11.7
35 to 44 years	28	11.3
45 to 54 years	31	12.8
55 to 59 years	17	6.9
60 to 64 years	20	8.3
65 to 74 years	34	14.1
75 to 84 years	14	5.6
85 years and over	6	2.5
Median age in years	43.6	

5 years and over	N	95.8
15 years and over	202	82.5
Under 18 years of age	51	20.8
18 years and over	194	79.2
21 years and over	189	76.9
25 years and over	180	73.3
62 years and over	69	28.3
65 years and over	54	22.1
D2. AGE AND SEX		
Universe:		
Total population	245	
Male	133	54.1
18 years old and over	N	76.9
65 years old and over	24	18.0
Female	112	45.9
18 years old and over	N	81.8
65 years old and over	30	26.9
D3. RACE		
Universe:		
Total population	245	
One race	243	99.2
White alone	161	65.4
Black or African American	71	29.1
American Indian and Alaska Native	0	0.0
Asian	2	1.0
Native Hawaiian and Other Pacific Islander	0	0.0
Some other race	9	3.8
Two or more races	2	0.8
White (alone or in combination)	162	66.1
Black (alone or in combination)	73	29.9
American Indian (alone or in combination)	0	0.0
Asian (alone or in combination)	3	1.1
Native Hawaiian (alone or in combination)	0	0.0
Some other race (alone or in combination)	9	3.8
D4. HISPANIC OR LATINO (ANY RACE)		
Universe:		
Total population	245	
Hispanic or Latino of any race	20	8.1
Not Hispanic or Latino	226	91.9

White alone	150	61.2
Black or African American alone	71	29.1
American Indian and Alaska Native alone	0	0.0
Asian alone	2	1.0
Native Hawaiian and Other Pacific Islander alone	0	0.0
E1. HOUSEHOLD INCOME AND BENEFITS		
Universe:		
Total households	103	
Less than \$10,000	11	10.3
\$10,000 to \$14,999	7	6.7
\$15,000 to \$24,999	15	14.7
\$25,000 to \$34,999	20	19.5
\$35,000 to \$49,999	7	6.6
\$50,000 to \$74,999	28	27.2
\$75,000 to \$99,999	7	6.3
\$100,000 to \$149,999	7	7.0
\$150,000 to \$199,999	2	1.6
\$200,000 or more	0	0.0
With earnings	73	70.5
With social security	47	45.9
With retirement income	30	28.6
With supplemental security income	5	4.6
With cash public assistance income	0	0.2
With food stamp benefits in the past 12 months	N	N
Median household income	\$37,381	
Mean household income	\$45,268	
Mean household earnings	\$40,627	
Mean household social security income	\$17,518	
Mean household retirement income	\$22,934	
Mean household supplemental security income	\$6,464	
Mean household cash public assistance income	N	
E2. FAMILY INCOME AND BENEFITS		
Universe: Total households		
Family households	64	62.5
Less than \$10,000	2	3.3
\$10,000 to \$14,999	6	8.8
\$15,000 to \$24,999	6	9.6
\$25,000 to \$34,999	13	19.4
\$35,000 to \$49,999	4	6.9

\$50,000 to \$74,999	19	29.1
\$75,000 to \$99,999	6	9.2
\$100,000 to \$149,999	7	11.2
\$150,000 to \$199,999	2	2.6
\$200,000 or more	0	0.0
Median family income	N	
Mean family income	\$55,304	
E3. OTHER INCOME MEASURES		
Universe:		
Per-capita income	\$20,441	
Nonfamily households	39	37.5
Median nonfamily income	\$25,149	
Mean nonfamily income	\$28,047	
All full-time workers	N	
All male full-time workers	N	N
All female full-time workers	N	N
Median earnings for workers	N	
Median earnings for male full-time, year-round workers	N	
Median earnings for female full-time, year-round workers	N	
E4. POVERTY STATUS OVER THE LAST 12 MONTHS		
Universe:		
Persons for whom poverty status is determined	1,450	
Persons below poverty	54	22.2
Persons under 18 for whom poverty status is determined	N	
Persons under 18 in poverty	N	N
Persons aged 18 to 64 for whom poverty status is determined	N	
Persons aged 18 to 64 in poverty	N	N
Persons over 65 for whom poverty status is determined	N	
Persons over 65 in poverty	N	N
Persons in families for whom poverty status is determined	202	N
Unrelated individuals for whom poverty status is determined	N	
Persons in families in poverty	42	20.9
Family households in poverty	11	17.3
Unrelated persons in poverty 15 years and over	N	N
Poverty ratio under 0.5	16	6.5
Poverty ratio in 0.5 to 0.99	38	15.6
Poverty ratio in 1 to 2	44	18.0
Poverty ratio in 2 and over	147	59.9
E5. EMPLOYMENT STATUS		

Universe:		
Population 16 years and over	201	
In labor force	113	11.1
Civilian labor force	113	11.1
Employed civilians	101	17.8
Unemployed civilians	11	2.0
In military	0	0.0
Not in labor force	88	8.7
Females 16 years and over	N	N
Females in labor force	N	N
Females in civilian labor force	N	N
Employed females	N	N
E6. CHILDREN WITH ALL PARENTS WORKING		
Universe:		
(Own) children under 6	14	
All parents working	7	51.6
(Own) children aged 6 to 17	34	
All parents working	27	77.7
E7. COMMUTING TO WORK		
Universe:		
Workers 16 years and over	100	
Workers 16+ who commute to work	96	96.1
Car, truck, or van; drove alone	78	78.7
Car, truck, or van; carpoled	12	11.7
Public transportation (excluding taxicab)	1	1.1
Walked to work	3	2.9
Other means of commuting	2	1.7
Worked at home	4	3.9
Mean travel time to work in minutes	N	
E8. WORKERS BY OCCUPATION		
Universe:		
Civilian employed population 16 years and over	101	
Management, business, science, and arts occupations	27	26.9
Service occupations	24	23.8
Sales and office occupations	25	24.3
Farming, fishing, and forestry occupations	0	0.1
Construction, extraction, installation, maintenance, and repair oc	16	15.4
Production, transportation, and material moving occupations	10	9.4
E9. WORKERS BY INDUSTRY		

Universe:		
Civilian employed population 16 years and over	101	
Agriculture, forestry, fishing and hunting, and mining	6	5.7
Construction	14	14.0
Manufacturing	5	5.2
Wholesale trade	2	1.8
Retail trade	6	6.4
Transportation and warehousing, and utilities	1	0.9
Information	0	0.0
Finance and insurance, and real estate and rental and leasing	2	2.3
Professional, scientific, management, and administrative	13	12.6
Educational services, and health care and social assistance	25	24.3
Arts, entertainment, and recreation, and accommodation and food se	10	9.4
Other services, except public administration	5	5.1
Public administration	12	12.2
E10. CLASS OF WORKER		
Universe:		
Civilian employed population 16 years and over	101	
Private wage and salary workers	65	63.9
Government workers	21	20.4
Self-employed workers in own not incorporated business	15	15.0
Unpaid family workers	1	0.6
E11. INSURANCE COVERAGE		
Universe:		
Civilian noninstitutionalized persons	N	
Under 65 years of age	N	N
Without insurance coverage	N	N
With public insurance	N	N
With private insurance	N	N
Under 18 years of age	N	N
Without insurance coverage	N	N
S1. HOUSEHOLDS BY TYPE		
Universe:		
Total households	103	
Family households	64	62.5
With own children under 18 years	23	22.1
Married-couple families	44	42.2
With own children under 18 years	15	14.1
Male householder, no wife present	12	11.5

With own children under 18 years	3	3.3
Female householder, no husband present	9	8.8
With own children under 18 years	5	4.7
Nonfamily households	39	37.5
Householder living alone	N	N
65 years and over living alone	N	N
Households with one or more people under 18 years	29	27.6
Households with one or more people 65 years and over	41	39.3
Average household size	2.36	
Average family size	3.13	
S2. PERSONS BY HOUSEHOLD TYPE / GROUP QUARTERS		
Universe:		
Total population	245	
Household population	243	99.1
Living in family households	203	16.4
Living in nonfamily households	41	3.4
Living alone	N	N
Living in group quarters	2	0.9
S3. RELATIONSHIP		
Universe: Household population		
Household population	243	99.1
Householder	103	8.5
Spouse	44	3.5
Child	68	5.5
Other relatives	26	2.2
Nonrelatives	3	0.2
Unmarried partner	2	0.1
Unmarried-partner HHs per 1000	16	
S4. MARITAL STATUS		
Universe:		
Persons 15 years and over	202	
Never married	64	31.6
Now married, except separated	100	49.3
Separated	4	1.8
Widowed	12	5.9
Divorced, and not currently married	23	11.4
S5. FERTILITY		
Universe:		
Women 15 to 50 years old	N	

Unmarried women 15 to 50 years old	N	N
Women 15 to 50 years old who had a birth in the past 12 months	N	N
Unmarried women who gave birth	N	N
Women 15 to 19 years of age	N	N
Women 20 to 34 years of age	N	N
Women 35 to 50 years of age	N	N
Per 1,000 unmarried women	N	
Per 1,000 women 15 to 50 years old	N	
Per 1,000 women 15 to 19 years old	N	
Per 1,000 women 20 to 34 years old	N	
Per 1,000 women 35 to 50 years old	N	
S6. GRANDPARENTS AS CAREGIVERS		
Universe:		
Grandparents living with own grandchildren under 18 years	N	
Grandparents responsible for grandchildren	N	N
Less than 1 year	N	N
1 or 2 years	N	N
3 or 4 years	N	N
5 or more years	N	N
S7. SCHOOL ENROLLMENT		
Universe:		
Population 3 years and over	240	
Population 3 years and over enrolled in school	54	22.5
In nursery school, preschool	3	5.9
In kindergarten	3	6.2
In elementary school, grades 1-8	23	41.8
In high school, grades 9-12	13	23.5
In college or graduate school	12	22.6
S8. EDUCATIONAL ATTAINMENT		
Universe:		
Population 25 years and over	180	
Less than 9th grade	27	15.0
9th to 12th grade, no diploma	13	7.3
High school graduate (includes equivalency)	48	27.0
Some college, no degree	43	23.8
Associates degree	12	6.9
Bachelors degree	21	11.4
Graduate or professional degree	15	8.6
High school graduate or higher	140	77.7

Bachelor degree or higher	36	20.0
S9. VETERAN STATUS		
Universe: 18 years and over		
Civilian population 18 years and over	194	100.0
Civilian veterans	17	8.9
S10a. DISABLED BY AGE		
Universe:		
Civilian noninstitutionalized persons	N	
With a disability	N	N
Persons under 18	N	N
With a disability	N	N
Persons 18 to 64 years	N	N
With a disability	N	N
Persons 65 years and over	N	N
With a disability	N	N
S11. RESIDENCE 1 YEAR AGO		
Universe:		
Population 1 year and over	N	
Same house	N	N
Different house in the U.S.	N	N
Same county	N	N
Different county (any)	N	N
Different county (same state)	N	N
Different state	N	N
Lived abroad 1 year ago	N	N
S12. PLACE OF BIRTH AND CITIZENSHIP STATUS		
Universe:		
Total population	245	
U.S. native	N	N
Born in United States	N	N
Born in state of current residence	N	N
Born in different state than current residence	N	N
Born in Puerto Rico, U.S. Island areas, or born abroad to Am	N	N
Foreign born	N	N
Naturalized U.S. citizen	N	N
Not a U.S. citizen	N	N
S13. YEAR OF ENTRY		
Universe: Total population		
Population born outside the United States	N	N

Native, born outside U.S.	N	N
Entered U.S. 2000 or later	N	N
Entered U.S. before 2000	N	N
Foreign born	N	N
Entered U.S. 2000 or later	N	N
Entered U.S. before 2000	N	N
S14. WORLD REGION OF BIRTH OF FOREIGN BORN		
Universe: Total population		
Foreign-born population, excluding population born at sea	N	N
Europe	N	N
Asia	N	N
Africa	N	N
Oceania	N	N
South and Central America (includes Mexico)	N	N
Northern America	N	N
S15. LANGUAGE SPOKEN AT HOME		
Universe: Total population		
Population 5 years and over	N	95.8
English only	N	N
Language other than English	N	N
Speaks English less than very well	N	N
Speak Spanish	N	N
Speaks English less than very well	N	N
H1. HOUSING OCCUPANCY AND TENURE		
Universe: Total households		
Total housing units	142	N
Occupied housing units	103	72.5
Owner-occupied	77	74.3
Renter-occupied	27	25.7
Average household size of owner-occupied unit	2.48	
Average household size of renter-occupied unit	2.00	
Vacant housing units	39	27.5
For sale	10	25.3
For rent	2	4.8
For seasonal, recreational, or occasional use	11	28.5
Total owner units	87	
Homeowner vacancy rate	11.5	
Total rental units	28	
Rental vacancy rate	6.6	

People living in owned homes	190	77.5
People living in rental homes	53	21.7
H2. UNITS IN STRUCTURE		
Universe:		
Total housing units	142	
Single-family units	90	63.1
Single unit, detached	90	99.6
Single unit, attached	0	0.4
Duplexes	1	0.9
3 or 4 units	1	0.5
5 to 9 units	0	0.2
10 to 19 units	0	0.1
20 or more units	0	0.3
Mobile home	49	34.7
Boat, RV, van, etc.	0	0.0
Mobile homes per 1000 HUs	347	
H3. YEAR STRUCTURE BUILT		
Universe:		
Total housing units	142	
Built 2010 or later	6	4.0
Built 2000 to 2009	35	24.9
Built 1990 to 1999	30	21.3
Built 1980 to 1989	15	10.8
Built 1970 to 1979	13	9.2
Built 1960 to 1969	15	10.4
Built 1950 to 1959	9	6.3
Built 1940 to 1949	9	6.0
Built 1939 or earlier	10	7.2
H4. YEAR HOUSEHOLDER MOVED INTO UNIT		
Universe:		
Occupied housing units	103	
Moved in 2010 or later	20	19.7
Moved in 2000 to 2009	37	35.7
Moved in 1990 to 1999	24	22.9
Moved in 1980 to 1989	7	6.8
Moved in 1979 or earlier	15	14.9
H5. VEHICLES AVAILABLE		
Universe:		
Occupied housing units	103	

No vehicles available	7	7.0
1 vehicle available	32	31.1
2 vehicles available	30	29.6
3 or more vehicles available	33	32.4
H6. HOUSE HEATING FUEL		
Universe:		
Occupied housing units	103	
Utility gas	3	2.5
Bottled, tank, or LP gas	22	21.2
Electricity	55	53.4
Fuel oil, kerosene, etc.	5	4.5
Coal or coke	0	0.0
Wood	19	18.3
Solar energy	0	0.0
Other fuel	0	0.0
No fuel used	0	0.0
H7. SELECTED CHARACTERISTICS		
Universe:		
Occupied housing units	103	
Lacking complete plumbing facilities	1	0.6
Lacking complete kitchen facilities	0	0.5
No telephone service available	1	0.9
H8. OCCUPANTS PER ROOM		
Universe:		
Occupied housing units	103	
1.00 or less	101	97.7
1.01 to 1.50	2	2.3
1.51 or more	0	0.0
H9. HOME VALUES		
Universe:		
Owner-occupied units	77	
Less than \$50,000	7	9.1
\$50,000 to \$99,999	21	27.2
\$100,000 to \$149,999	21	27.1
\$150,000 to \$199,999	8	10.3
\$200,000 to \$299,999	13	17.1
\$300,000 to \$499,999	5	7.1
\$500,000 to \$999,999	2	2.2
\$1,000,000 or more	0	0.0

\$2,000,000 or more	0	0.0
Median home value	\$114,264	
Average home value	\$144,227	
H10. SELECTED MONTHLY OWNER COSTS		
Universe:		
Owner-occupied units	77	
Housing units with a mortgage	39	51.5
Owner costs 30% or more of HH income	10	25.2
Median owner costs	\$987	
Housing units without a mortgage	37	48.5
Nonmortgage owner costs 30% or more of HH income	2	6.5
Median owner costs	\$280	
H11. GROSS RENT		
Universe:		
Renter-occupied units	27	
Paying cash rent	20	75.4
Paying no cash rent	7	24.6
Median rent	\$630	
Average gross rent	\$705	
Gross rent 30% or more of HH income	15	57.6
Gross rent of \$750 or more	7	26.2

Note: Variables showing "N" are not available at the bgs level. Specify tracts as the units to be aggregated to get values for at least some of these vars.

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
2	12.71	12.57	1.012

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=2

County Cd	Total population
Buckingham VA	3,861
	3,861

Data used in aggregating circular areas

TotPopAlloc is portion of total population allocated to circle.

Radius	County Cd	Tract	Block group	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
2	Buckingham VA	9301.01	2	Block Group 2	1,133	0.125	141.7	153

Radius	County Cd	Tract	Block group	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
2	Buckingham VA	9302.02	1	Block Group 1	1,278	0.013	16.1	15
			2	Block Group 2	1,450	0.060	87.5	104
2	Buckingham VA	9302.02			2,728		103.6	
2	Buckingham VA				3,861		245.3	
2					3,861		245.3	
					3,861		245.3	

Data used in this report is from the American Community Survey 5-year period estimates data for 2012-2016 . This [metadata report](#) provides some background information on the data items appearing in the report. Block Group-level data were used with the [BBIA algorithm](#) for apportioning data to the circular areas.

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles — ACS* [dataset application]. Available from <http://mcdc.missouri.edu/applications/capsACS.html>.

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Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – ACS

Using data from 5-year period estimates, vintage 2016

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **5**

[\[CSV file of aggregated data\]](#)

5-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
D1. AGE		
Universe:		
Total population	1,327	
Under 5 years	85	6.4
5 to 9 years	65	5.0
10 to 14 years	96	7.2
15 to 19 years	76	5.8
20 to 24 years	70	5.3
25 to 34 years	159	12.0
35 to 44 years	149	11.2
45 to 54 years	183	13.8
55 to 59 years	107	8.0
60 to 64 years	104	7.8
65 to 74 years	146	11.0
75 to 84 years	71	5.4
85 years and over	17	1.2
Median age in years	43.8	
5 years and over	1,242	93.6
15 years and over	1,081	81.4
Under 18 years of age	296	22.3

18 years and over	1,031	77.7
21 years and over	984	74.1
25 years and over	935	70.5
62 years and over	289	21.8
65 years and over	234	17.7
D2. AGE AND SEX		
Universe:		
Total population	1,327	
Male	684	51.5
18 years old and over	523	76.5
65 years old and over	116	16.9
Female	643	48.5
18 years old and over	508	78.9
65 years old and over	118	18.4
D3. RACE		
Universe:		
Total population	1,327	
One race	1,292	97.3
White alone	890	67.1
Black or African American	359	27.1
American Indian and Alaska Native	0	0.0
Asian	9	0.7
Native Hawaiian and Other Pacific Islander	0	0.0
Some other race	34	2.5
Two or more races	35	2.7
White (alone or in combination)	918	69.2
Black (alone or in combination)	389	29.4
American Indian (alone or in combination)	1	0.1
Asian (alone or in combination)	17	1.2
Native Hawaiian (alone or in combination)	0	0.0
Some other race (alone or in combination)	37	2.8
D4. HISPANIC OR LATINO (ANY RACE)		
Universe:		
Total population	1,327	
Hispanic or Latino of any race	52	3.9
Not Hispanic or Latino	1,275	96.1
White alone	876	66.0
Black or African American alone	359	27.1
American Indian and Alaska Native alone	0	0.0

Asian alone	9	0.7
Native Hawaiian and Other Pacific Islander alone	0	0.0
E1. HOUSEHOLD INCOME AND BENEFITS		
Universe:		
Total households	507	
Less than \$10,000	41	8.1
\$10,000 to \$14,999	30	5.9
\$15,000 to \$24,999	54	10.7
\$25,000 to \$34,999	66	13.0
\$35,000 to \$49,999	70	13.7
\$50,000 to \$74,999	127	25.1
\$75,000 to \$99,999	48	9.5
\$100,000 to \$149,999	58	11.5
\$150,000 to \$199,999	12	2.4
\$200,000 or more	1	0.2
With earnings	391	77.2
With social security	194	38.3
With retirement income	104	20.5
With supplemental security income	21	4.1
With cash public assistance income	4	0.8
With food stamp benefits in the past 12 months	82	16.2
Median household income	\$47,718	
Mean household income	\$54,493	
Mean household earnings	\$53,294	
Mean household social security income	\$18,479	
Mean household retirement income	\$19,119	
Mean household supplemental security income	\$8,937	
Mean household cash public assistance income	N	
E2. FAMILY INCOME AND BENEFITS		
Universe: Total households		
Family households	345	68.1
Less than \$10,000	7	2.1
\$10,000 to \$14,999	22	6.4
\$15,000 to \$24,999	35	10.2
\$25,000 to \$34,999	47	13.7
\$35,000 to \$49,999	40	11.7
\$50,000 to \$74,999	93	26.8
\$75,000 to \$99,999	46	13.4
\$100,000 to \$149,999	44	12.7

\$150,000 to \$199,999	9	2.7
\$200,000 or more	1	0.3
Median family income	\$58,441	
Mean family income	\$61,005	
E3. OTHER INCOME MEASURES		
Universe:		
Per-capita income	\$21,758	
Nonfamily households	162	31.9
Median nonfamily income	\$29,259	
Mean nonfamily income	\$36,625	
All full-time workers	412	
All male full-time workers	230	55.9
All female full-time workers	182	44.1
Median earnings for workers	\$29,214	
Median earnings for male full-time, year-round workers	\$43,036	
Median earnings for female full-time, year-round workers	\$34,534	
E4. POVERTY STATUS OVER THE LAST 12 MONTHS		
Universe:		
Persons for whom poverty status is determined	1,317	
Persons below poverty	236	18.0
Persons under 18 for whom poverty status is determined	286	
Persons under 18 in poverty	55	19.4
Persons aged 18 to 64 for whom poverty status is determined	797	
Persons aged 18 to 64 in poverty	127	15.9
Persons over 65 for whom poverty status is determined	234	
Persons over 65 in poverty	54	23.3
Persons in families for whom poverty status is determined	1,074	N
Unrelated individuals for whom poverty status is determined	243	
Persons in families in poverty	159	14.7
Family households in poverty	46	13.3
Unrelated persons in poverty 15 years and over	78	32.1
Poverty ratio under 0.5	58	4.4
Poverty ratio in 0.5 to 0.99	178	13.5
Poverty ratio in 1 to 2	236	18.0
Poverty ratio in 2 and over	844	64.1
E5. EMPLOYMENT STATUS		
Universe:		
Population 16 years and over	1,065	
In labor force	631	59.2

Civilian labor force	627	58.9
Employed civilians	579	92.3
Unemployed civilians	48	7.7
In military	3	0.4
Not in labor force	434	40.8
Females 16 years and over	522	49.0
Females in labor force	289	27.1
Females in civilian labor force	285	26.7
Employed females	270	94.7
E6. CHILDREN WITH ALL PARENTS WORKING		
Universe:		
(Own) children under 6	92	
All parents working	49	53.2
(Own) children aged 6 to 17	178	
All parents working	133	74.5
E7. COMMUTING TO WORK		
Universe:		
Workers 16 years and over	573	
Workers 16+ who commute to work	550	95.9
Car, truck, or van; drove alone	448	78.1
Car, truck, or van; carpoled	70	12.2
Public transportation (excluding taxicab)	3	0.6
Walked to work	5	0.8
Other means of commuting	24	4.1
Worked at home	24	4.1
Mean travel time to work in minutes	36.3	
E8. WORKERS BY OCCUPATION		
Universe:		
Civilian employed population 16 years and over	579	
Management, business, science, and arts occupations	165	28.5
Service occupations	116	20.0
Sales and office occupations	122	21.0
Farming, fishing, and forestry occupations	19	3.3
Construction, extraction, installation, maintenance, and repair oc	101	17.3
Production, transportation, and material moving occupations	57	9.9
E9. WORKERS BY INDUSTRY		
Universe:		
Civilian employed population 16 years and over	579	
Agriculture, forestry, fishing and hunting, and mining	46	8.0

Construction	66	11.4
Manufacturing	37	6.4
Wholesale trade	16	2.8
Retail trade	53	9.1
Transportation and warehousing, and utilities	27	4.7
Information	7	1.1
Finance and insurance, and real estate and rental and leasing	28	4.8
Professional, scientific, management, and administrative	28	4.8
Educational services, and health care and social assistance	151	26.1
Arts, entertainment, and recreation, and accommodation and food se	37	6.3
Other services, except public administration	35	6.1
Public administration	48	8.3
E10. CLASS OF WORKER		
Universe:		
Civilian employed population 16 years and over	579	
Private wage and salary workers	419	72.4
Government workers	104	17.9
Self-employed workers in own not incorporated business	53	9.2
Unpaid family workers	3	0.5
E11. INSURANCE COVERAGE		
Universe:		
Civilian noninstitutionalized persons	1,324	
Under 65 years of age	1,089	82.3
Without insurance coverage	205	18.8
With public insurance	231	21.2
With private insurance	679	62.3
Under 18 years of age	296	22.3
Without insurance coverage	11	3.7
S1. HOUSEHOLDS BY TYPE		
Universe:		
Total households	507	
Family households	345	68.1
With own children under 18 years	144	28.5
Married-couple families	250	49.2
With own children under 18 years	88	17.3
Male householder, no wife present	50	9.8
With own children under 18 years	34	6.7
Female householder, no husband present	46	9.1
With own children under 18 years	23	4.5

Nonfamily households	162	31.9
Householder living alone	142	87.9
65 years and over living alone	47	28.9
Households with one or more people under 18 years	163	32.1
Households with one or more people 65 years and over	160	31.5
Average household size	2.61	
Average family size	3.11	
S2. PERSONS BY HOUSEHOLD TYPE / GROUP QUARTERS		
Universe:		
Total population	1,327	
Household population	1,321	99.6
Living in family households	1,132	85.6
Living in nonfamily households	190	14.4
Living alone	142	87.9
Living in group quarters	6	0.4
S3. RELATIONSHIP		
Universe: Household population		
Household population	1,321	99.6
Householder	507	38.4
Spouse	250	18.9
Child	402	30.4
Other relatives	77	5.9
Nonrelatives	85	6.4
Unmarried partner	29	2.3
Unmarried-partner HHs per 1000	58	
S4. MARITAL STATUS		
Universe:		
Persons 15 years and over	1,081	
Never married	344	31.9
Now married, except separated	519	48.0
Separated	45	4.2
Widowed	83	7.6
Divorced, and not currently married	90	8.3
S5. FERTILITY		
Universe:		
Women 15 to 50 years old	257	
Unmarried women 15 to 50 years old	129	50.0
Women 15 to 50 years old who had a birth in the past 12 months	16	6.0
Unmarried women who gave birth	10	65.8

Women 15 to 19 years of age	0	0.0
Women 20 to 34 years of age	14	91.9
Women 35 to 50 years of age	1	8.1
Per 1,000 unmarried women	80	
Per 1,000 women 15 to 50 years old	60	
Per 1,000 women 15 to 19 years old	N	
Per 1,000 women 20 to 34 years old	136	
Per 1,000 women 35 to 50 years old	25	
S6. GRANDPARENTS AS CAREGIVERS		
Universe:		
Grandparents living with own grandchildren under 18 years	24	
Grandparents responsible for grandchildren	15	60.5
Less than 1 year	0	0.0
1 or 2 years	3	19.1
3 or 4 years	1	9.5
5 or more years	10	71.4
S7. SCHOOL ENROLLMENT		
Universe:		
Population 3 years and over	1,291	
Population 3 years and over enrolled in school	279	21.6
In nursery school, preschool	13	4.7
In kindergarten	7	2.6
In elementary school, grades 1-8	129	46.3
In high school, grades 9-12	70	24.9
In college or graduate school	60	21.5
S8. EDUCATIONAL ATTAINMENT		
Universe:		
Population 25 years and over	935	
Less than 9th grade	127	13.5
9th to 12th grade, no diploma	104	11.1
High school graduate (includes equivalency)	331	35.4
Some college, no degree	177	18.9
Associates degree	66	7.1
Bachelors degree	87	9.3
Graduate or professional degree	43	4.7
High school graduate or higher	705	75.4
Bachelor degree or higher	130	14.0
S9. VETERAN STATUS		
Universe: 18 years and over		

Civilian population 18 years and over	1,028	99.6
Civilian veterans	104	10.2
S10a. DISABLED BY AGE		
Universe:		
Civilian noninstitutionalized persons	1,324	
With a disability	220	16.7
Persons under 18	296	22.3
With a disability	23	7.6
Persons 18 to 64 years	793	60.0
With a disability	107	13.5
Persons 65 years and over	234	17.7
With a disability	91	38.8
S11. RESIDENCE 1 YEAR AGO		
Universe:		
Population 1 year and over	1,314	
Same house	1,181	89.9
Different house in the U.S.	133	10.1
Same county	91	68.3
Different county (any)	42	31.7
Different county (same state)	34	25.5
Different state	8	6.3
Lived abroad 1 year ago	0	0.0
S12. PLACE OF BIRTH AND CITIZENSHIP STATUS		
Universe:		
Total population	1,327	
U.S. native	1,295	97.6
Born in United States	1,290	99.6
Born in state of current residence	1,024	79.4
Born in different state than current residence	266	20.6
Born in Puerto Rico, U.S. Island areas, or born abroad to Am	5	0.4
Foreign born	32	2.4
Naturalized U.S. citizen	21	63.5
Not a U.S. citizen	12	36.5
S13. YEAR OF ENTRY		
Universe: Total population		
Population born outside the United States	37	2.8
Native, born outside U.S.	5	12.8
Entered U.S. 2000 or later	0	5.3
Entered U.S. before 2000	5	100.0

Foreign born	32	2.4
Entered U.S. 2000 or later	6	18.6
Entered U.S. before 2000	26	81.4
S14. WORLD REGION OF BIRTH OF FOREIGN BORN		
Universe: Total population		
Foreign-born population, excluding population born at sea	32	2.4
Europe	9	26.5
Asia	14	42.3
Africa	0	0.0
Oceania	0	0.0
South and Central America (includes Mexico)	10	31.3
Northern America	0	0.0
S15. LANGUAGE SPOKEN AT HOME		
Universe: Total population		
Population 5 years and over	1,242	93.6
English only	1,184	95.3
Language other than English	58	4.7
Speaks English less than very well	20	35.0
Speak Spanish	30	2.4
Speaks English less than very well	7	22.5
H1. HOUSING OCCUPANCY AND TENURE		
Universe: Total households		
Total housing units	658	N
Occupied housing units	507	77.1
Owner-occupied	378	74.5
Renter-occupied	130	25.5
Average household size of owner-occupied unit	2.63	
Average household size of renter-occupied unit	2.55	
Vacant housing units	151	22.9
For sale	23	15.2
For rent	12	8.1
For seasonal, recreational, or occasional use	39	25.6
Total owner units	400	
Homeowner vacancy rate	5.7	
Total rental units	142	
Rental vacancy rate	8.6	
People living in owned homes	991	74.7
People living in rental homes	331	24.9
H2. UNITS IN STRUCTURE		

Universe:		
Total housing units	658	
Single-family units	429	65.1
Single unit, detached	426	99.5
Single unit, attached	2	0.5
Duplexes	1	0.2
3 or 4 units	1	0.1
5 to 9 units	5	0.8
10 to 19 units	2	0.4
20 or more units	7	1.0
Mobile home	209	31.7
Boat, RV, van, etc.	4	0.6
Mobile homes per 1000 HUs	317	
H3. YEAR STRUCTURE BUILT		
Universe:		
Total housing units	658	
Built 2010 or later	20	3.0
Built 2000 to 2009	138	20.9
Built 1990 to 1999	117	17.8
Built 1980 to 1989	142	21.7
Built 1970 to 1979	76	11.6
Built 1960 to 1969	51	7.7
Built 1950 to 1959	13	2.0
Built 1940 to 1949	25	3.8
Built 1939 or earlier	76	11.5
H4. YEAR HOUSEHOLDER MOVED INTO UNIT		
Universe:		
Occupied housing units	507	
Moved in 2010 or later	123	24.2
Moved in 2000 to 2009	195	38.5
Moved in 1990 to 1999	85	16.8
Moved in 1980 to 1989	53	10.5
Moved in 1979 or earlier	51	9.9
H5. VEHICLES AVAILABLE		
Universe:		
Occupied housing units	507	
No vehicles available	37	7.3
1 vehicle available	121	23.8
2 vehicles available	166	32.8

3 or more vehicles available	183	36.1
H6. HOUSE HEATING FUEL		
Universe:		
Occupied housing units	507	
Utility gas	8	1.5
Bottled, tank, or LP gas	83	16.4
Electricity	303	59.8
Fuel oil, kerosene, etc.	33	6.6
Coal or coke	0	0.0
Wood	75	14.7
Solar energy	0	0.0
Other fuel	4	0.7
No fuel used	1	0.1
H7. SELECTED CHARACTERISTICS		
Universe:		
Occupied housing units	507	
Lacking complete plumbing facilities	4	0.8
Lacking complete kitchen facilities	7	1.5
No telephone service available	5	1.0
H8. OCCUPANTS PER ROOM		
Universe:		
Occupied housing units	507	
1.00 or less	501	98.8
1.01 to 1.50	6	1.2
1.51 or more	0	0.0
H9. HOME VALUES		
Universe:		
Owner-occupied units	378	
Less than \$50,000	56	14.8
\$50,000 to \$99,999	87	23.1
\$100,000 to \$149,999	91	24.1
\$150,000 to \$199,999	58	15.4
\$200,000 to \$299,999	53	13.9
\$300,000 to \$499,999	28	7.5
\$500,000 to \$999,999	5	1.3
\$1,000,000 or more	0	0.0
\$2,000,000 or more	0	0.0
Median home value	\$122,915	
Average home value	\$137,794	

H10. SELECTED MONTHLY OWNER COSTS

Universe:		
Owner-occupied units	378	
Housing units with a mortgage	215	57.0
Owner costs 30% or more of HH income	45	21.1
Median owner costs	\$1,057	
Housing units without a mortgage	162	43.0
Nonmortgage owner costs 30% or more of HH income	9	5.6
Median owner costs	\$270	

H11. GROSS RENT

Universe:		
Renter-occupied units	130	
Paying cash rent	96	74.4
Paying no cash rent	33	25.6
Median rent	\$669	
Average gross rent	\$791	
Gross rent 30% or more of HH income	55	42.7
Gross rent of \$750 or more	30	23.3

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
5	74.61	78.54	0.950

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=5

County Cd	Total population
Buckingham VA	8,543
Nelson VA	5,140
radius	13,683
	13,683

Data used in aggregating circular areas

TotPopAlloc is portion of total population allocated to circle.

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
5	Buckingham VA	9301.01	Census Tract 9301.01, Buckingham County, Virginia	4,298	0.127	545.8	501

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
5	Buckingham VA	9302.02	Census Tract 9302.02, Buckingham County, Virginia	4,245	0.184	781.3	820
5	Buckingham VA			8,543		1327.2	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
5	Nelson VA	9501.00	Census Tract 9501, Nelson County, Virginia	5,140	0.000	0.0	0
5				13,683		1327.2	
				13,683		1327.2	

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See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles — ACS* [dataset application]. Available from <http://mcdc.missouri.edu/applications/capsACS.html>.

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Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

Circular Area Profiles (CAPS) – ACS

Using data from 5-year period estimates, vintage 2016

Request details:

- Center point name: **Site for Proposed Compressor Station**
- Latitude **37.588144**
- Longitude **-78.658180**
- Selected radii: **20**

[\[CSV file of aggregated data\]](#)

20-mile radius of specified point (Site for Proposed Compressor Station)

Subject	Number	Percent
D1. AGE		
Universe:		
Total population	41,064	
Under 5 years	2,062	5.0
5 to 9 years	2,365	5.8
10 to 14 years	2,495	6.1
15 to 19 years	2,318	5.7
20 to 24 years	2,528	6.2
25 to 34 years	4,914	12.0
35 to 44 years	4,797	11.7
45 to 54 years	5,984	14.6
55 to 59 years	3,220	7.8
60 to 64 years	3,017	7.4
65 to 74 years	4,477	10.9
75 to 84 years	2,261	5.5
85 years and over	626	1.5
Median age in years	43.4	
5 years and over	39,002	95.0
15 years and over	34,141	83.1
Under 18 years of age	8,453	20.6

18 years and over	32,611	79.4
21 years and over	31,327	76.3
25 years and over	29,296	71.4
62 years and over	9,054	22.0
65 years and over	7,364	17.9
D2. AGE AND SEX		
Universe:		
Total population	41,064	
Male	21,190	51.6
18 years old and over	16,823	79.4
65 years old and over	3,462	16.3
Female	19,874	48.4
18 years old and over	15,788	79.4
65 years old and over	3,901	19.6
D3. RACE		
Universe:		
Total population	41,064	
One race	40,338	98.2
White alone	29,532	71.9
Black or African American	10,216	24.9
American Indian and Alaska Native	60	0.1
Asian	143	0.4
Native Hawaiian and Other Pacific Islander	11	0.0
Some other race	377	0.9
Two or more races	726	1.8
White (alone or in combination)	30,194	73.5
Black (alone or in combination)	10,731	26.2
American Indian (alone or in combination)	226	0.5
Asian (alone or in combination)	246	0.6
Native Hawaiian (alone or in combination)	20	0.0
Some other race (alone or in combination)	410	1.0
D4. HISPANIC OR LATINO (ANY RACE)		
Universe:		
Total population	41,064	
Hispanic or Latino of any race	1,058	2.6
Not Hispanic or Latino	40,006	97.4
White alone	28,901	70.4
Black or African American alone	10,209	24.8
American Indian and Alaska Native alone	52	0.1

Asian alone	143	0.4
Native Hawaiian and Other Pacific Islander alone	11	0.0
E1. HOUSEHOLD INCOME AND BENEFITS		
Universe:		
Total households	15,210	
Less than \$10,000	1,401	9.2
\$10,000 to \$14,999	933	6.1
\$15,000 to \$24,999	1,515	10.0
\$25,000 to \$34,999	1,755	11.5
\$35,000 to \$49,999	2,302	15.1
\$50,000 to \$74,999	3,117	20.5
\$75,000 to \$99,999	2,007	13.2
\$100,000 to \$149,999	1,621	10.7
\$150,000 to \$199,999	356	2.3
\$200,000 or more	204	1.3
With earnings	10,989	72.3
With social security	6,057	39.8
With retirement income	3,478	22.9
With supplemental security income	749	4.9
With cash public assistance income	331	2.2
With food stamp benefits in the past 12 months	2,240	14.7
Median household income	\$48,535	
Mean household income	\$59,381	
Mean household earnings	\$60,307	
Mean household social security income	\$17,911	
Mean household retirement income	\$19,707	
Mean household supplemental security income	\$9,108	
Mean household cash public assistance income	\$2,080	
E2. FAMILY INCOME AND BENEFITS		
Universe: Total households		
Family households	10,542	69.3
Less than \$10,000	572	5.4
\$10,000 to \$14,999	337	3.2
\$15,000 to \$24,999	872	8.3
\$25,000 to \$34,999	1,156	11.0
\$35,000 to \$49,999	1,560	14.8
\$50,000 to \$74,999	2,368	22.5
\$75,000 to \$99,999	1,820	17.3
\$100,000 to \$149,999	1,351	12.8

\$150,000 to \$199,999	315	3.0
\$200,000 or more	191	1.8
Median family income	\$58,410	
Mean family income	\$68,379	
E3. OTHER INCOME MEASURES		
Universe:		
Per-capita income	\$22,823	
Nonfamily households	4,668	30.7
Median nonfamily income	\$26,385	
Mean nonfamily income	\$34,013	
All full-time workers	12,433	
All male full-time workers	6,637	53.4
All female full-time workers	5,796	46.6
Median earnings for workers	\$29,697	
Median earnings for male full-time, year-round workers	\$42,098	
Median earnings for female full-time, year-round workers	\$35,761	
E4. POVERTY STATUS OVER THE LAST 12 MONTHS		
Universe:		
Persons for whom poverty status is determined	38,577	
Persons below poverty	6,357	16.5
Persons under 18 for whom poverty status is determined	8,132	
Persons under 18 in poverty	1,792	22.0
Persons aged 18 to 64 for whom poverty status is determined	23,308	
Persons aged 18 to 64 in poverty	3,578	15.4
Persons over 65 for whom poverty status is determined	7,138	
Persons over 65 in poverty	986	13.8
Persons in families for whom poverty status is determined	31,771	N
Unrelated individuals for whom poverty status is determined	6,807	
Persons in families in poverty	4,311	13.6
Family households in poverty	1,260	12.0
Unrelated persons in poverty 15 years and over	2,046	30.0
Poverty ratio under 0.5	3,062	7.9
Poverty ratio in 0.5 to 0.99	3,295	8.5
Poverty ratio in 1 to 2	7,664	19.9
Poverty ratio in 2 and over	24,556	63.7
E5. EMPLOYMENT STATUS		
Universe:		
Population 16 years and over	33,589	
In labor force	18,690	55.6

Civilian labor force	18,646	55.5
Employed civilians	17,454	93.6
Unemployed civilians	1,192	6.4
In military	44	0.1
Not in labor force	14,898	44.4
Females 16 years and over	16,204	48.2
Females in labor force	9,091	27.1
Females in civilian labor force	9,072	27.0
Employed females	8,526	94.0
E6. CHILDREN WITH ALL PARENTS WORKING		
Universe:		
(Own) children under 6	2,302	
All parents working	1,517	65.9
(Own) children aged 6 to 17	5,322	
All parents working	3,863	72.6
E7. COMMUTING TO WORK		
Universe:		
Workers 16 years and over	17,114	
Workers 16+ who commute to work	16,228	94.8
Car, truck, or van; drove alone	13,324	77.8
Car, truck, or van; carpooled	1,990	11.6
Public transportation (excluding taxicab)	138	0.8
Walked to work	268	1.6
Other means of commuting	508	3.0
Worked at home	886	5.2
Mean travel time to work in minutes	33.1	
E8. WORKERS BY OCCUPATION		
Universe:		
Civilian employed population 16 years and over	17,454	
Management, business, science, and arts occupations	5,367	30.8
Service occupations	3,609	20.7
Sales and office occupations	3,713	21.3
Farming, fishing, and forestry occupations	230	1.3
Construction, extraction, installation, maintenance, and repair oc	2,249	12.9
Production, transportation, and material moving occupations	2,286	13.1
E9. WORKERS BY INDUSTRY		
Universe:		
Civilian employed population 16 years and over	17,454	
Agriculture, forestry, fishing and hunting, and mining	763	4.4

Construction	1,684	9.7
Manufacturing	1,522	8.7
Wholesale trade	368	2.1
Retail trade	1,990	11.4
Transportation and warehousing, and utilities	731	4.2
Information	188	1.1
Finance and insurance, and real estate and rental and leasing	806	4.6
Professional, scientific, management, and administrative	1,125	6.4
Educational services, and health care and social assistance	4,618	26.5
Arts, entertainment, and recreation, and accommodation and food se	1,371	7.9
Other services, except public administration	1,111	6.4
Public administration	1,179	6.8
E10. CLASS OF WORKER		
Universe:		
Civilian employed population 16 years and over	17,454	
Private wage and salary workers	12,583	72.1
Government workers	3,433	19.7
Self-employed workers in own not incorporated business	1,405	8.1
Unpaid family workers	33	0.2
E11. INSURANCE COVERAGE		
Universe:		
Civilian noninstitutionalized persons	38,947	
Under 65 years of age	31,809	81.7
Without insurance coverage	4,881	15.3
With public insurance	6,576	20.7
With private insurance	21,153	66.5
Under 18 years of age	8,439	21.7
Without insurance coverage	461	5.5
S1. HOUSEHOLDS BY TYPE		
Universe:		
Total households	15,210	
Family households	10,542	69.3
With own children under 18 years	3,922	25.8
Married-couple families	7,520	49.4
With own children under 18 years	2,399	15.8
Male householder, no wife present	924	6.1
With own children under 18 years	477	3.1
Female householder, no husband present	2,098	13.8
With own children under 18 years	1,045	6.9

Nonfamily households	4,668	30.7
Householder living alone	3,929	84.6
65 years and over living alone	1,827	39.1
Households with one or more people under 18 years	4,692	30.8
Households with one or more people 65 years and over	5,117	33.6
Average household size	2.55	
Average family size	3.01	
S2. PERSONS BY HOUSEHOLD TYPE / GROUP QUARTERS		
Universe:		
Total population	41,064	
Household population	38,741	95.8
Living in family households	32,940	85.0
Living in nonfamily households	5,801	15.0
Living alone	3,929	84.6
Living in group quarters	2,323	5.7
S3. RELATIONSHIP		
Universe: Household population		
Household population	38,741	95.8
Householder	15,210	39.3
Spouse	7,503	19.4
Child	10,893	28.1
Other relatives	2,832	7.3
Nonrelatives	2,303	5.9
Unmarried partner	922	2.4
Unmarried-partner HHs per 1000	61	
S4. MARITAL STATUS		
Universe:		
Persons 15 years and over	34,141	
Never married	10,436	30.6
Now married, except separated	16,461	48.2
Separated	1,077	3.2
Widowed	2,408	7.0
Divorced, and not currently married	3,758	11.0
S5. FERTILITY		
Universe:		
Women 15 to 50 years old	8,176	
Unmarried women 15 to 50 years old	4,162	50.9
Women 15 to 50 years old who had a birth in the past 12 months	451	5.5
Unmarried women who gave birth	165	36.7

Women 15 to 19 years of age	18	4.0
Women 20 to 34 years of age	348	77.3
Women 35 to 50 years of age	84	18.7
Per 1,000 unmarried women	40	
Per 1,000 women 15 to 50 years old	55	
Per 1,000 women 15 to 19 years old	86	
Per 1,000 women 20 to 34 years old	121	
Per 1,000 women 35 to 50 years old	44	
S6. GRANDPARENTS AS CAREGIVERS		
Universe:		
Grandparents living with own grandchildren under 18 years	1,030	
Grandparents responsible for grandchildren	401	39.0
Less than 1 year	87	21.6
1 or 2 years	81	20.1
3 or 4 years	28	6.9
5 or more years	206	51.4
S7. SCHOOL ENROLLMENT		
Universe:		
Population 3 years and over	39,925	
Population 3 years and over enrolled in school	8,930	22.3
In nursery school, preschool	482	5.4
In kindergarten	332	3.7
In elementary school, grades 1-8	3,991	44.7
In high school, grades 9-12	2,304	25.8
In college or graduate school	1,821	20.4
S8. EDUCATIONAL ATTAINMENT		
Universe:		
Population 25 years and over	29,296	
Less than 9th grade	2,335	8.0
9th to 12th grade, no diploma	3,313	11.3
High school graduate (includes equivalency)	11,238	38.3
Some college, no degree	5,482	18.7
Associates degree	1,954	6.7
Bachelors degree	2,948	10.1
Graduate or professional degree	2,024	6.9
High school graduate or higher	23,647	80.7
Bachelor degree or higher	4,973	17.0
S9. VETERAN STATUS		
Universe: 18 years and over		

Civilian population 18 years and over	32,567	99.9
Civilian veterans	3,210	9.9
S10a. DISABLED BY AGE		
Universe:		
Civilian noninstitutionalized persons	38,947	
With a disability	6,203	15.9
Persons under 18	8,439	21.7
With a disability	538	6.4
Persons 18 to 64 years	23,370	60.0
With a disability	3,102	13.3
Persons 65 years and over	7,138	18.3
With a disability	2,564	35.9
S11. RESIDENCE 1 YEAR AGO		
Universe:		
Population 1 year and over	40,643	
Same house	37,118	91.3
Different house in the U.S.	3,444	8.5
Same county	1,433	41.6
Different county (any)	2,011	58.4
Different county (same state)	1,547	44.9
Different state	465	13.5
Lived abroad 1 year ago	81	0.2
S12. PLACE OF BIRTH AND CITIZENSHIP STATUS		
Universe:		
Total population	41,064	
U.S. native	40,328	98.2
Born in United States	40,099	99.4
Born in state of current residence	29,912	74.6
Born in different state than current residence	10,187	25.4
Born in Puerto Rico, U.S. Island areas, or born abroad to Am	229	0.6
Foreign born	735	2.4
Naturalized U.S. citizen	345	46.9
Not a U.S. citizen	391	53.1
S13. YEAR OF ENTRY		
Universe: Total population		
Population born outside the United States	964	2.3
Native, born outside U.S.	229	23.7
Entered U.S. 2000 or later	71	30.9
Entered U.S. before 2000	213	93.1

Foreign born	735	2.4
Entered U.S. 2000 or later	232	31.5
Entered U.S. before 2000	504	68.5
S14. WORLD REGION OF BIRTH OF FOREIGN BORN		
Universe: Total population		
Foreign-born population, excluding population born at sea	735	1.8
Europe	194	26.4
Asia	151	20.5
Africa	42	5.8
Oceania	0	0.0
South and Central America (includes Mexico)	296	40.3
Northern America	52	7.1
S15. LANGUAGE SPOKEN AT HOME		
Universe: Total population		
Population 5 years and over	39,002	95.0
English only	37,817	96.9
Language other than English	1,185	3.1
Speaks English less than very well	422	35.6
Speak Spanish	678	1.7
Speaks English less than very well	260	38.4
H1. HOUSING OCCUPANCY AND TENURE		
Universe: Total households		
Total housing units	19,034	N
Occupied housing units	15,210	79.9
Owner-occupied	11,575	76.1
Renter-occupied	3,635	23.9
Average household size of owner-occupied unit	2.56	
Average household size of renter-occupied unit	2.49	
Vacant housing units	3,823	20.1
For sale	235	6.2
For rent	212	5.5
For seasonal, recreational, or occasional use	963	25.2
Total owner units	11,811	
Homeowner vacancy rate	2.0	
Total rental units	3,847	
Rental vacancy rate	5.5	
People living in owned homes	29,670	72.3
People living in rental homes	9,071	22.1
H2. UNITS IN STRUCTURE		

Universe:		
Total housing units	19,034	
Single-family units	14,282	75.0
Single unit, detached	14,100	98.7
Single unit, attached	182	1.3
Duplexes	197	1.0
3 or 4 units	134	0.7
5 to 9 units	197	1.0
10 to 19 units	86	0.5
20 or more units	205	1.1
Mobile home	3,892	20.4
Boat, RV, van, etc.	40	0.2
Mobile homes per 1000 HUs	204	
H3. YEAR STRUCTURE BUILT		
Universe:		
Total housing units	19,034	
Built 2010 or later	593	3.1
Built 2000 to 2009	3,588	18.8
Built 1990 to 1999	3,459	18.2
Built 1980 to 1989	2,610	13.7
Built 1970 to 1979	2,866	15.1
Built 1960 to 1969	1,719	9.0
Built 1950 to 1959	1,440	7.6
Built 1940 to 1949	688	3.6
Built 1939 or earlier	2,070	10.9
H4. YEAR HOUSEHOLDER MOVED INTO UNIT		
Universe:		
Occupied housing units	15,210	
Moved in 2010 or later	3,749	24.6
Moved in 2000 to 2009	5,105	33.6
Moved in 1990 to 1999	3,051	20.1
Moved in 1980 to 1989	1,369	9.0
Moved in 1979 or earlier	1,937	12.7
H5. VEHICLES AVAILABLE		
Universe:		
Occupied housing units	15,210	
No vehicles available	907	6.0
1 vehicle available	4,013	26.4
2 vehicles available	5,120	33.6

3 or more vehicles available	5,170	34.0
H6. HOUSE HEATING FUEL		
Universe:		
Occupied housing units	15,210	
Utility gas	274	1.8
Bottled, tank, or LP gas	1,900	12.5
Electricity	9,777	64.3
Fuel oil, kerosene, etc.	1,239	8.2
Coal or coke	0	0.0
Wood	1,861	12.2
Solar energy	12	0.1
Other fuel	70	0.5
No fuel used	78	0.5
H7. SELECTED CHARACTERISTICS		
Universe:		
Occupied housing units	15,210	
Lacking complete plumbing facilities	91	0.6
Lacking complete kitchen facilities	158	1.0
No telephone service available	280	1.8
H8. OCCUPANTS PER ROOM		
Universe:		
Occupied housing units	15,210	
1.00 or less	14,944	98.3
1.01 to 1.50	153	1.0
1.51 or more	113	0.7
H9. HOME VALUES		
Universe:		
Owner-occupied units	11,575	
Less than \$50,000	1,064	9.2
\$50,000 to \$99,999	2,353	20.3
\$100,000 to \$149,999	2,213	19.1
\$150,000 to \$199,999	1,970	17.0
\$200,000 to \$299,999	2,361	20.4
\$300,000 to \$499,999	1,137	9.8
\$500,000 to \$999,999	388	3.4
\$1,000,000 or more	64	0.6
\$2,000,000 or more	25	0.2
Median home value	\$154,989	
Average home value	\$183,221	

H10. SELECTED MONTHLY OWNER COSTS

Universe:		
Owner-occupied units	11,575	
Housing units with a mortgage	6,957	60.1
Owner costs 30% or more of HH income	1,850	26.6
Median owner costs	\$1,089	
Housing units without a mortgage	4,619	39.9
Nonmortgage owner costs 30% or more of HH income	567	12.3
Median owner costs	\$323	

H11. GROSS RENT

Universe:		
Renter-occupied units	3,635	
Paying cash rent	2,770	76.2
Paying no cash rent	865	23.8
Median rent	\$745	
Average gross rent	\$767	
Gross rent 30% or more of HH income	1,337	36.8
Gross rent of \$750 or more	1,238	34.1

Summary of true areas of circles vs. that of areas selected to estimate them

This report indicates how well we were able to approximate the circular area.

Radius	Estimated	True area	Ratio of estimate to true area
20	1263.46	1256.64	1.005

Auxiliary report: Counties contributing to circular areas, by concentric ring areas

Coordinates: 37.588144, -78.658180

Outer radius of ring (or circle)=20

County Cd	Total population
Albemarle VA	10,196
Amherst VA	15,397
Appomattox VA	15,314
Buckingham VA	17,030
Cumberland VA	9,769
Fluvanna VA	4,785
Nelson VA	14,831
Prince Edward VA	6,947
radius	94,269
	94,269

Data used in aggregating circular areas

TotPopAlloc is portion of total population allocated to circle.

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Albemarle VA	0113.01	Census Tract 113.01, Albemarle County, Virginia	5,675	0.020	112.7	107

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Albemarle VA	0114.00	Census Tract 114, Albemarle County, Virginia	4,521	0.873	3948.5	3800
20	Albemarle VA			10,196		4061.1	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Amherst VA	0101.00	Census Tract 101, Amherst County, Virginia	4,743	0.255	1210.0	1349

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Amherst VA	0102.00	Census Tract 102, Amherst County, Virginia	7,700	0.191	1468.1	1380

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Amherst VA	0106.00	Census Tract 106, Amherst County, Virginia	2,954	0.000	0.0	0
20	Amherst VA			15,397		2678.1	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Appomattox VA	0401.00	Census Tract 401, Appomattox County, Virginia	6,527	0.647	4222.8	4173

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
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Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Appomattox VA	0402.00	Census Tract 402, Appomattox County, Virginia	4,443	0.620	2756.5	2607

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Appomattox VA	0403.00	Census Tract 403, Appomattox County, Virginia	4,344	0.396	1719.1	1710
20	Appomattox VA			15,314		8698.4	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Buckingham VA	9301.01	Census Tract 9301.01, Buckingham County, Virginia	4,298	1.000	4298.0	3945

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Buckingham VA	9301.02	Census Tract 9301.02, Buckingham County, Virginia	3,008	0.802	2411.7	2467

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Buckingham VA	9302.01	Census Tract 9302.01, Buckingham County, Virginia	5,479	1.000	5479.0	5669

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Buckingham VA	9302.02	Census Tract 9302.02, Buckingham County, Virginia	4,245	1.000	4245.0	4455
20	Buckingham VA			17,030		16434	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
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Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Cumberland VA	9301.00	Census Tract 9301, Cumberland County, Virginia	6,113	0.004	24.4	26

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Cumberland VA	9302.00	Census Tract 9302, Cumberland County, Virginia	3,656	0.147	538.7	521
20	Cumberland VA			9,769		563.1	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Fluvanna VA	0203.00	Census Tract 203, Fluvanna County, Virginia	4,785	0.254	1216.3	1350

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Nelson VA	9501.00	Census Tract 9501, Nelson County, Virginia	5,140	1.000	5140.0	5696

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Nelson VA	9502.00	Census Tract 9502, Nelson County, Virginia	5,063	0.023	118.6	115

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Nelson VA	9503.00	Census Tract 9503, Nelson County, Virginia	4,628	0.353	1635.0	1559
20	Nelson VA			14,831		6893.5	

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Prince Edward VA	9302.01	Census Tract 9302.01, Prince Edward County, Virginia	3,330	0.000	0.0	0

Radius	County Cd	Tract	Area name	Total population	Apportioning factor	TotPopAlloc	blkpop_
20	Prince Edward VA	9302.02	Census Tract 9302.02, Prince Edward County, Virginia	3,617	0.144	519.6	513
20	Prince Edward VA			6,947		519.6	
20				94,269		41064	
				94,269		41064	

Data used in this report is from the American Community Survey 5-year period estimates data for 2012-2016 . This [metadata report](#) provides some background information on the data items appearing in the report. Tract-level data were used with the [BBIA algorithm](#) for apportioning data to the circular areas.

See the [CAPS index page](#) for other versions of this program.

Citation: Missouri Census Data Center. (2018). *Circular Area Profiles — ACS* [dataset application]. Available from <http://mcdc.missouri.edu/applications/capsACS.html>.

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Site published by the [University of Missouri Office of Social and Economic Data Analysis](#).

Please send comments/questions about this site to Glenn Rice (riceg@missouri.edu).

APPENDIX 4

List from VA DEQ website: Screenshot from Dec. 28, 2018 at 9:43 PM

Documents subject to Public Comment Period

[December 14, 2018 - Union Hill Household Study Site and Methods Report](#)

[December 7, 2018 - Letter from Southern Environmental Law Center regarding Demographic and population study for the proposed Buckingham Compressor Station](#)

[December 3, 2018 EJScreen Report](#)

[November 28, 2018 - Buckingham Compressor Station Alternatives Analysis](#)

[November 28, 2018 - ACP Buckingham Compressor Station Environmental Justice Review](#)

[November 21, 2018 - Letter from Virginia Chapter of the NAACP](#)

[November 2018 - Articles of Incorporation of The Greater Union Hill Community Development Corporation](#)

[October 2, 2018 - Excerpt from The Commonwealth of Virginia's 2018 Energy Plan](#)

[March 13, 2018 - Letter from Dominion Energy Regarding Submittal Addressing Updated NRHP Finding](#)

[January 9, 2018 - Atlantic Coast Pipeline, LLC Plan for the Unanticipated Discovery of Historic Properties or Human Remains During Construction in Virginia-Revision 3](#)

[January 2018 - Programmatic Agreement Among FERC, PA, WV VA and NC State Historic Preservation Officers, NPS, USDA Forest Service, ACHP for ACP](#)

[July 1, 2017 - Excerpts from the Federal Regulatory Commission \(FERC\), ACP Final Environmental Impact Statement, Volume I](#)

[Email Regarding Union Hill Historic District Study](#)

[May 12, 2017 - Comments from Marc C. Wagner, Senior Architectural Historian, Virginia Dept. of Historic Resources, Based on Review and Site Visit](#)

[May 12, 2017 - Department of Historic Resources-Preliminary Information Form Completed By Friends of Buckingham with Comments from Marc C. Wagner, VDHR](#)

[May 2017 - Phase I Historic Architectural Survey of the Atlantic Coast Pipeline Project and July 31, 2017 Letter from Roger W. Kirchen, Director, Review and Compliance Division, Department of Historic Resources](#)

[April 11, 2017 - Atlantic Coast Pipeline, LLC and Dominion Transmission, Inc. Response to Data Request](#)

[January 11, 2017 - Board of Supervisors Special Use Permit](#)

[Memorandum of Agreement for Mitigation of Virginia Forest Fragmentation Impacts of Atlantic Coast Pipeline](#)

[Racial, Ethnic, and Poverty Statistics for Census Tracts Within 1 Mile of the Atlantic Coast Pipeline and Supply Header Project \(Appendix U-FERC FEIS Report, Volume III, Part 2\)](#)

[Summary of Cultural Resource Findings and Recommendations for the Buckingham Compressor Station](#)

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