NASHUA-MANCHESTER 40818 (CAPITOL CORRIDOR)

APPENDIX F
Environmental Justice and Title VI Compliance/Equity Analysis Technical Report

Prepared for:

New Hampshire Department of Transportation

January 2023

PRE-DECISIONAL

DRAFT

FOR INFORMATION ONLY

Prepared by:
AECOM

Appendix F   Environmental Justice and Title VI Compliance/Equity Analysis Technical Report

Appendix F-1   Environmental Justice and Title VI Compliance/Equity Analysis Technical Report

Appendix F-2   Environmental Justice Population Analysis for Nashua Manchester 40818 Project, NHDOT

APPENDIX F-1

Environmental Justice and Title VI Compliance/Equity Analysis Technical Report

Table of Contents

List of Figures

List of Tables

1.   Introduction

This section describes the affected environment for environmental justice communities within the study area corridor. The study corridor includes the communities adjacent to the proposed Nashua-Manchester rail corridor. Environmental Justice is the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." In the context of the proposed Nashua-Manchester rail corridor this means understanding where vulnerable populations within the corridor may reside and understanding the benefits/impacts they may experience with the development of the rail corridor. Benefits to these communities may include improved access to transit through the development of the rail corridor in addition to indirect benefits associated with increased job opportunities or other economic development activities. Impacts to EJ populations could include noise and vibration impacts from trains, as well as reduced air quality from diesel-hauled coaches.

2.   Regulatory Requirements

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

The FTA Circular states that while the minority or low-income population in an area may be small, this does not eliminate the possibility of a disproportionately high and adverse effect of a proposed action on the Environmental Justice (EJ) population. Disproportionately high and adverse effects, not population size, are the bases for environmental justice.

Minority populations include Black or African American, American Indian/Alaskan, Asian, Native Hawaiian/Pacific Islander, Other Race, Two or more races and Hispanic/Latino races). Low-income is defined based on the Department of Health and Human Services (DHHS) poverty guidelines. For 2020, this is $26,200 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this project.

3.   Existing Conditions

The following analysis used three tools to determine the presence of potential EJ populations in the Nashua-Manchester rail corridor: Minority Population (by city/town) and Low-Income Populations (as measure of federal poverty line and 150% of the federal poverty line) from the 2015-2019 American Community Survey 5-Year Survey, and the EPA EJSCREEN Tool which uses a demographic index to assess relative vulnerability of populations within the study corridor. Additionally, information from the *Environmental Justice Population Analysis for Nashua Manchester 40818 Project* completed by New Hampshire DOT is included to supplement this assessment, the full analysis can be found in Appendix F-2.

3.1   Minority Population

Minority populations include Black or African American, American Indian/Alaskan, Asian, Native Hawaiian/Pacific Islander, Other Race, Two or more races and Hispanic/Latino races). The following table outlines where minority populations reside within corridor communities.

Table 1: Minority Population in the Study Area

	Total population	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some other race	Hispanic or Latino origin (of any race)
New Hampshire	**1,355,244**	**1.60%**	**0.20%**	**2.70%**	**0.00%**	**0.60%**	**3.90%**
Nashua	89,052	3.50%	0.10%	7.60%	0.00%	1.80%	12.50%
Hudson	25,488	1.10%	0.00%	2.30%	0.00%	0.80%	3.50%
Litchfield	8,615	0.00%	1.00%	0.50%	0.00%	0.00%	0.80%
Merrimack	26,353	0.70%	0.00%	4.60%	0.00%	1.80%	4.50%
Londonderry	26,251	1.30%	0.10%	1.80%	0.10%	0.20%	3.10%
Bedford	22,710	0.80%	0.00%	5.40%	0.00%	0.30%	3.20%
Manchester	112,441	5.90%	0.10%	5.30%	0.10%	1.40%	10.70%
Massachusetts	**6,873,003**	**7.50%**	**0.20%**	**6.80%**	**0.00%**	**4.20%**	**12.00%**
Tyngsborough	12,442	0.80%	0.00%	10.60%	0.00%	0.60%	5.00%
Lowell	111,311	8.90%	0.70%	21.20%	0.20%	4.30%	17.90%
Chelmsford	35,239	1.20%	0.10%	8.50%	0.00%	0.80%	3.30%
Region	469,902	4.5%	0.24%	9.40%	0.08%	1.94%	10.33%
United States	**326,569,308**	**12.60%**	**0.80%**	**5.60%**	**0.20%**	**5.10%**	**18.20%**

Source: 2016-2020 American Community Survey 5-Year Estimates

3.2   Low-Income Populations

Moving Ahead for Progress in the 21st Century (MAP-21) defines a "Low-Income Individual" as an individual whose family income is at or below 150 percent of the poverty line published by the US Department of Health and Human Services (DHHS). The DHHS 2020[1] poverty guideline is $26,200 for a family of four making $39,300 150% of the poverty line for a family of four. The US Census Bureau, which defines "poverty thresholds" for statistical purposes, set the 2020 poverty threshold used in their tabulations at $26,496 for a family of four.

---

[1] 3060 Federal Register / Vol. 85, No. 12 / Friday, January 17, 2020 / Notices

Table 2: Percent Population below Poverty Line in the Study Area

Community	Total Population	% Population below Poverty Line	% Population below 150% Poverty Line
New Hampshire	1,355,244	7.6%	12.7%
Nashua	89,052	8.2%	14.1%
Hudson	25,488	4.9%	6.4%
Litchfield	8,615	1.0%	1.7%
Merrimack	26,353	3.5%	6.2%
Londonderry	26,251	2.0%	4.6%
Bedford	22,710	3.2%	5.3%
Manchester	112,441	13.1%	21.20%
Massachusetts	6,873,003	9.8%	15.6%
Tyngsborough	12,364	6.7%	9.5%
Lowell	111,306	17.3%	26.2%
Chelmsford	35,126	4.3%	6.3%
Region	460,137	9.8%	15.5%
United States	326,569,308	12.8%	21.1%

Source: 2016-2020 American Community Survey 5-Year Estimates

3.3   EPA EJSCREEN TOOL

The EPA EJSCREEN Tool was used to augment previous assessments and the data presented above. The EJSCREEN Tool aggregates multiple indicators into a single framework to provide an index of relative vulnerability. Figure 1 depicts the EJSCREEN Demographic Index results for the Nashua-Manchester rail corridor. The map indicates pockets of vulnerable populations concentrated in the communities of Lowell, Nashua, and Manchester. For Nashua-Manchester station areas, Manchester and Nashua Crown Street have increased concentrations of EJ populations compared with to the other stations areas.
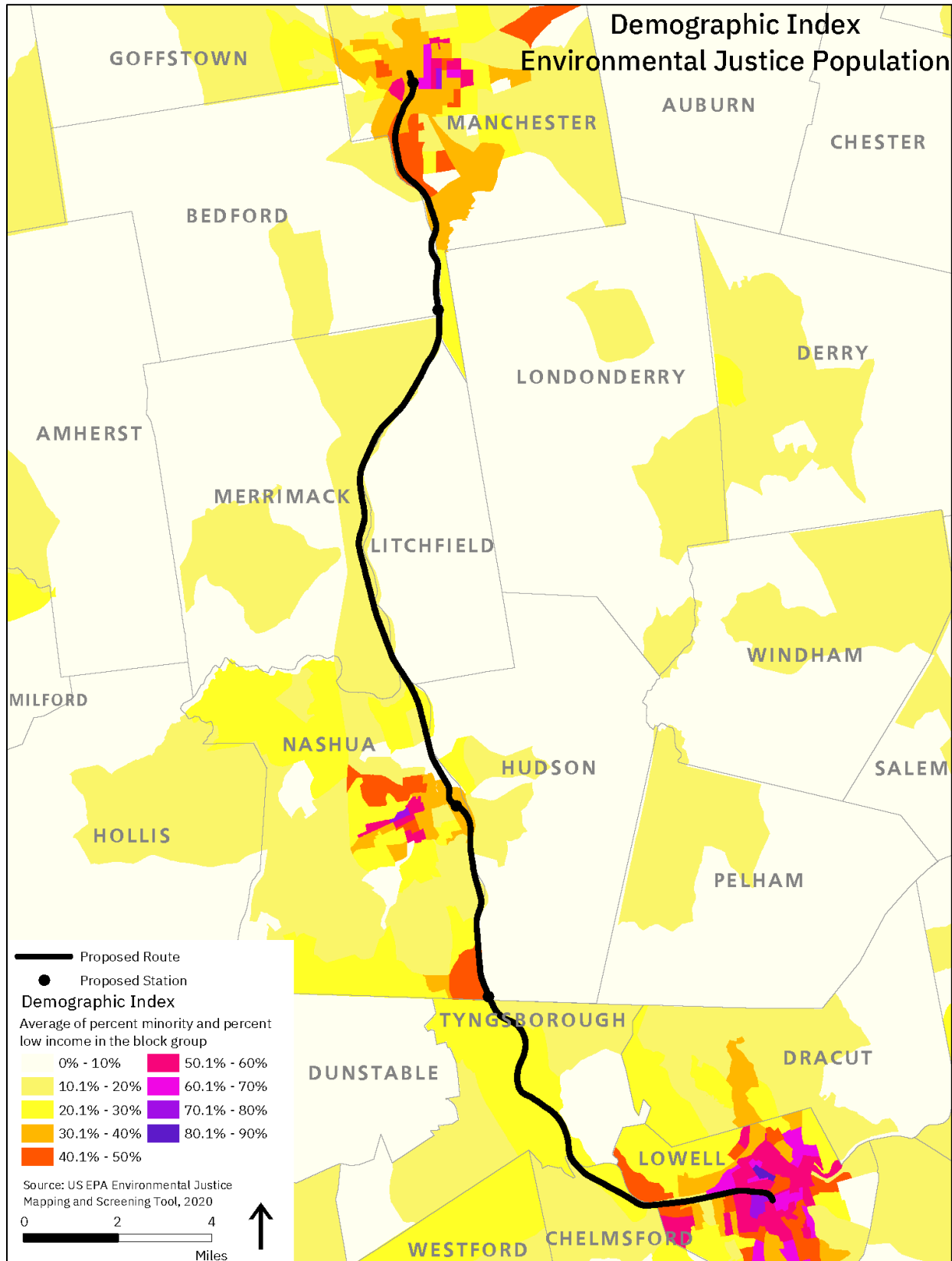
Figure 1 EPA EJSCREEN Tool Mapping for Nashua-Manchester Rail Corridor

4.   Environmental Consequences

There are EJ populations within corridor communities. According to the EJ Population Analysis prepared by NHDOT for the Nashua-Manchester project, communities in the study corridor meet EJ thresholds for minority population (37.4%), elderly populations (10.46%) and low income (27.74%). Each of these populations are meaningfully greater within a 1-mile radius of the corridor than the surrounding areas (see the *Environmental Justice (EJ) Population Analysis, Project: Nashua Manchester 40818*, September 9, 2021 provided in the Environmental Justice Technical Report included as Appendix F-2).

Low-income populations (both below the poverty line and below 150% of the poverty line) are concentrated in Lowell (17.3% & 26.2%), Nashua (8.2% & 14.1%), and Manchester (13.1% & 21.2%), unemployment follows a similar trend (ACS 2020). The proposed rail corridor would directly serve these communities. Additionally, the EPA EJSCREEN Tool indicates the presence of EJ populations within proximity to each of the corridor stations as well as public and subsidized housing within proximity of all stations except the proposed Bedford MHT station site. Overall, the corridor is majority white, with the highest concentration of minority groups around station areas (within 1-mile) in Lowell (46%), Nashua (18%), and Manchester (21%) (EJSCREEN 2020).

The following outlines the possible benefits and impacts to EJ populations that would result from the completion of a Nashua-Manchester Rail project. The benefits and impacts addressed below are broadly similar to those determined by the original 2014 EA, i.e. that residents would generally experience significant benefits with the possibility of minor but largely mitigable impacts. EJ populations would not experience disproportionately high adverse effects as result of this project.

   a) Residents of the study corridor would largely benefit from the addition of new rail service. The service would facilitate easier transportation into and from the greater Boston area, particularly during peak commuting times. The service is likely to spur economic growth within the corridor through new housing, retail businesses and possible capture of a reverse commute market. (See economic modeling in Appendix H)

   b) The principal impact experienced by corridor residents would be related to noise and vibration during both the initial construction phases as well as ongoing operations related impacts. The 5.8 Noise and Vibration Section in the Environmental Assessment (EA) document details the specifics of noise related impacts and mitigation strategies.

       Generally, operations noise impacts would be caused by the sounding of warning horns (increased over baseline due to the increased number of trains). There would also be impacts from wheel/rail noise, which could be significant where the rail alignment is in close proximity to residential properties.

5.   Potential Mitigation Measures

The project proposes implementation of mitigation strategies which would fully or partially mitigate impacts from construction and operations phases. These strategies are described fully in the EA Noise and Vibration Section and would include wayside horns, home soundproofing (upgraded windows), and sound walls for noise mitigation, and ballast mats or resilient rail fasteners for vibration mitigation.

6.　　Public Engagement

The project has worked to engage communities within the corridor to obtain input on station locations, layover facility location, and the proposed operating plan. To date this has included the following:

- **Public Outreach and Communications Plan:** The project created a Public Outreach and Communications Plan which is intended to help govern how the project conducts engagement and publishes project materials including the items discussed below.

- **Project Website:** The New Hampshire DOT maintains a project webpage which includes all project documentation, meeting materials/summaries, and contact information for the NHDOT project manager.

- **Public Information Meeting:** A public information meeting was held in November 2021 which included a discussion of the Environmental Assessment, proposed infrastructure, the operating plan, estimated ridership, costs and revenues, outline of the financial plan, and the project's next steps. Advertisement for the public meeting included notices directed to all groups listed in the NHDOT EJ analysis list. 116 people attended the meeting in a hybrid in-person/virtual format.

- **Stakeholder Meetings:** The project team has held stakeholder meetings with the cities of Nashua and Manchester to discuss the location and configuration of the four proposed stations and layover facility, and to begin development of the financial plan. The project team has also met with the Manchester-Boston Regional Airport (MHT), MassDOT, MBTA, Pan Am Railways, and CSX.

- **Fact Sheets:** To date two fact sheets have been created to help summarize project activities and status. These fact sheets are intended to be easily digestible by the public and communicate components and next steps.

As the project continues to progress engagement with key stakeholders and the public will be ongoing, with updates/communication being published to the project webpage.

APPENDIX F-2

Environmental Justice Population Analysis for Nashua Manchester 40818 Project, NHDOT

DATE: September 9, 2021   *Crystal McIntyre*

FROM: Crystal McIntyre, Title VI Specialist, Office of Federal Compliance

TO: Wendy Johnson, Project Manager, Bureau of Highway Design

RE: Environmental Justice (EJ) Population Analysis, Project: **Nashua Manchester 40818**

The attached analysis and recommendations are provided pursuant to Title VI of the Civil Rights Act of 1964 and Executive Orders 12898 & 13166. The intent of these statutes is to ensure fair and full participation and the equal receipt of benefits under Federally-assisted programs. Your efforts to accommodate and encourage participation by traditionally underserved groups, where significant, will ensure program access and minimize the potential for disproportionate project impacts on protected groups.

The table entitled "EJ Population Analysis" shows the presence of protected groups that might be impacted by the project. Personnel responsible for project planning/design and the coordination of public meetings/hearings should use this analysis to guide their outreach efforts under Title VI and in support of developing a context sensitive solution. Based on the availability of information and where appropriate, we have included specific outreach recommendations to facilitate public comment from underrepresented groups.

Please note that US Census Bureau, American Community Survey (ACS) 2014-2018 data is used to provide to an EJ Population analysis for the project. If you have questions regarding this analysis, please contact me at 603-271-2467.

Encls: EJ Population Analysis Supportive Documentation

cc: M. Winters, Bureau of Aeronautics, Rail and Transit
        R. Martin, Bureau of Environment

EJ Population Analysis for Project: NASHUA MANCHESTER 40818

STUDY AREA	AVG % Minority Population	AVG% Elderly Population	AVG% LEP	AVG % Low-income Population
Commuter Rail Extension from MA to NH 1 Mile Radius	***37.74%**	***10.46%**	8.62%	***27.74%**
Surrounding Area – 3 Mile Radius of Project Area	***20.95%**	***14.57%**	3.70%	***13.21%**
REMARKS: * The population percentage identified is meaningfully greater than the surrounding area and constitutes an EJ population. Characteristics of this particular study area indicate that targeted outreach efforts to solicit public participation should be taken. ** Low-income population for this analysis is defined as household income of less than $25,000. **LEP Definition:** Where there is a population of people who speak English as a second language less than well (as indicated by the U.S. Census data). When a particular LEP language group constitutes 5% (or 1,000 people) of the impacted population, the Department is required to translate public information meeting notices and take appropriate measures to ensure language access. If this requirement exists, the Project Manager should contact the Title VI Specialist for further assistance.				

Impacted Area: The impacted area was defined by the project limits and a 1-mile radius of the immediate vicinity.

Surrounding Area: The surrounding area was defined by a 3-mile radius (excluding the impact area) of the project area.

Special Considerations: Special consideration should be given to any project features that affect pedestrian accessibility. This project constitutes an alteration in accordance with Title II of the Americans with Disabilities Act. As such, minimum ADAAG accessibility requirements apply, unless deemed technically infeasible. ADAAG was adopted as the 2010 Standards for Accessible Design on July 23, 2010 by the DOJ:

http://www.ada.gov/reg3a.html#Anchor-Appendix-52467

For more information, I have provided a link to the Draft Public Rights-of-Way Guidelines (PROWAG). The Draft PROWAG (Revised Draft Guidelines for Accessible Public Rights-of-Way) was released in November 2005 and has not been adopted by DOJ or FHWA. In 2006, FHWA issued a statement that the Draft PROWAG is to be considered best practice for making public rights-of-way accessible:

http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/background/revised-draft-guidelines

The Draft PROWAG includes specifications for detectable warnings and gives detailed information regarding their installation on curb ramps and on blended curbs, including at street corners, at cut-through islands and medians, and in front of buildings. It also has sections on accessible pedestrian signals (APS), roundabouts, channelized turn lanes, protruding objects, channelizing devices and barriers, and tactile and print signs.

Outreach Recommendations: The data used in this analysis shows a high percentage of **minority, elderly and low-income populations** in the impacted and surrounding area. Please refer to figures in Bold from the table above. Below is the contact information for community outreach. These contacts should be included in your notification list for the project.

Agency/Organization/Resident	Address	Telephone Number
Nashua Housing Authority	40 East Pearl St Suite 101 Nashua, NH 03060	603-882-8811
Nashua City Hall	PO Box 2019 229 Main St Nashua, NH 03061	603-589-3010
Southern New Hampshire Services	134 Allds Street Nashua, NH 03060	603-889-3440
Nashua Public Library	2 Court St Nashua, NH 03060	603-589-4600
NH Health & Human Services	3 Pine Street Extension, Suite Q Nashua, NH 03060	603-883-7726

Nashua Senior Activity Center	70 Temple Street Nashua, NH 03060	603-889-6155
USPS Nashua	38 Spring Street Nashua, NH 03060	603-882-7515
VFW Post 483	2 Quincy Street Nashua, NH 03060	603-880-7874
American Legion	11 Court Street Nashua, NH 03060	603-889-9833
City of Manchester	One City Hall Plaza Manchester, NH 03101	603-624-6455
Manchester City Library	405 Pine Street Manchester, NH 03104	603-624-6550
Amoskeag Millyard –Low income families	3 Newell St Manchester, NH 03101	603-778-6300
Amoskeag Residences Group Home	34 Brown Ave Manchester, NH 03101	603-668-4111
Latin American Center	521 Maple Street Manchester, NH 03101	603-669-5661
FaithBridge Church	301 South Main St Manchester, NH 03102	603-623-5292
Holy Cross Family Learning Ctr	438 Dubuque St Manchester, NH 03102-3546	603-622-9250
Amoskeag Health	145 Hollis Street Manchester, NH 03101	603-626-9500
Greater Manchester Chamber of Commerce	54 Hanover St Manchester, NH 03101	603-792-4100
William B Cashin Senior Activity Center	151 Douglas St Manchester, NH 03101	603-624-6533

USPS	955 Goffs Falls Rd Manchester, NH 03103	603-626-3681
Town of Bedford	24 North Amherst Road Bedford, NH 03110	603-472-4573
Bedford Public Library	3 Meetinghouse Road Bedford, NH 03110	603-472-2300
EngAGING NH -Seniors	9 Eagle Drive Bedford, NH 03110	Engagingnh@gmail.com
City of Lowell City Hall	375 Merrimack Street Lowell, MA 01852	978-674-4000
City of Lowell Neighborhood Services	375 Merrimack Street 1st Floor Room 34 Lowell, MA 01852	978-674-4030
City of Lowell Library	401 Merrimack Street Lowell, MA 01852	978-674-4120
Lowell Police	50 Arcand Drive Lowell, MA 01852	978-937-3200
Lowell Senior Center	276 Broadway Street Lowell, MA 01852	978-674-4131
Lowell Veteran's Services	276 Broadway Street 2nd Floor Lowell, MA 01852	978-674-4066

Location: User-specified linear location

Ring (buffer): 1-miles radius

Description:

Summary of ACS Estimates	2014 - 2018
Population	134,263
Population Density (per sq. mile)	2,670
People of Color Population	50,668
% People of Color Population	38%
Households	49,257
Housing Units	53,008
Housing Units Built Before 1950	25,691
Per Capita Income	27,725
Land Area (sq. miles) (Source: SF1)	50.28
% Land Area	97%
Water Area (sq. miles) (Source: SF1)	1.30
% Water Area	3%

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	134,263	100%	1,037
Population Reporting One Race	130,375	97%	2,780
White	99,393	74%	997
Black	9,534	7%	574
American Indian	536	0%	140
Asian	15,659	12%	553
Pacific Islander	91	0%	73
Some Other Race	5,162	4%	443
Population Reporting Two or More Races	3,887	3%	276
Total Hispanic Population	23,018	17%	804
Total Non-Hispanic Population	111,244		
White Alone	83,595	62%	715
Black Alone	8,267	6%	574
American Indian Alone	483	0%	140
Non-Hispanic Asian Alone	15,608	12%	553
Pacific Islander Alone	18	0%	28
Other Race Alone	522	0%	213
Two or More Races Alone	2,750	2%	249
Population by Sex			
Male	68,744	51%	594
Female	65,519	49%	560
Population by Age			
Age 0-4	8,272	6%	235
Age 0-17	30,210	23%	393
Age 18+	104,053	77%	435
Age 65+	14,050	10%	184

Data Note: Detail may not sum to totals due to rounding.   Hispanic population can   be   of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018 ·

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	86,236	100%	535
Less than 9th Grade	7,818	9%	175
9th - 12th Grade, No Diploma	8,213	10%	138
High School Graduate	28,883	33%	333
Some College, No Degree	21,721	25%	240
Associate Degree	6,965	8%	161
Bachelor's Degree or more	19,601	23%	236
Population Age 5+ Years by Ability to Speak English			
Total	125,991	100%	938
Speak only English	87,119	69%	556
Non-English at Home[1+2+3+4]	38,872	31%	580
[1]Speak English "very well"	20,300	16%	423
[2]Speak English "well"	7,708	6%	254
[3]Speak English "not well"	7,557	6%	304
[4]Speak English "not at all"	3,307	3%	212
[3+4]Speak English "less than well"	10,864	9%	318
[2+3+4]Speak English "less than very well"	18,571	15%	398
Linguistically Isolated Households*			
Total	4,956	100%	162
Speak Spanish	2,237	45%	162
Speak Other Indo-European Languages	1,170	24%	84
Speak Asian-Pacific Island Languages	1,162	23%	86
Speak Other Languages	387	8%	101
Households by Household Income			
Household Income Base	49,257	100%	247
< $15,000	8,198	17%	172
$15,000 - $25,000	5,465	11%	173
$25,000 - $50,000	10,269	21%	164
$50,000 - $75,000	8,065	16%	158
$75,000 +	17,260	35%	234
Occupied Housing Units by Tenure			
Total	49,257	100%	247
Owner Occupied	20,584	42%	167
Renter Occupied	28,673	58%	255
Employed Population Age 16+ Years			
Total	107,678	100%	629
In Labor Force	71,091	66%	539
Civilian Unemployed in Labor Force	4,753	4%	129
Not In Labor Force	36,587	34%	331

Location: User-specified linear location

Ring (buffer): 1-miles radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	121,458	100%	632
English	83,734	69%	842
Spanish	14,872	12%	795
French	2,567	2%	470
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	164	0%	53
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	6,839	6%	615
Chinese	966	1%	190
Japanese	N/A	N/A	N/A
Korean	85	0%	52
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	1,632	1%	318
Other Asian	6,193	5%	343
Tagalog	172	0%	57
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	1,125	1%	303
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	2,287	2%	264
Total Non-English	37,725	31%	1,040

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.
*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: User-specified linear location

Ring (buffer): 3-miles radius

Description:

Summary of ACS Estimates	2014 - 2018
Population	327,256
Population Density (per sq. mile)	1,917
People of Color Population	91,094
% People of Color Population	28%
Households	120,775
Housing Units	128,099
Housing Units Built Before 1950	45,833
Per Capita Income	32,541
Land Area (sq. miles) (Source: SF1)	170.72
% Land Area	97%
Water Area (sq. miles) (Source: SF1)	4.97
% Water Area	3%

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	327,256	100%	1,037
Population Reporting One Race	319,502	98%	2,827
White	260,381	80%	997
Black	16,319	5%	574
American Indian	1,036	0%	140
Asian	33,736	10%	553
Pacific Islander	187	0%	120
Some Other Race	7,844	2%	443
Population Reporting Two or More Races	7,754	2%	276
Total Hispanic Population	35,087	11%	804
Total Non-Hispanic Population	292,169		
White Alone	236,162	72%	715
Black Alone	14,382	4%	574
American Indian Alone	817	0%	140
Non-Hispanic Asian Alone	33,602	10%	553
Pacific Islander Alone	38	0%	31
Other Race Alone	1,146	0%	213
Two or More Races Alone	6,022	2%	249
Population by Sex			
Male	163,171	50%	594
Female	164,085	50%	560
Population by Age			
Age 0-4	19,323	6%	235
Age 0-17	70,260	21%	393
Age 18+	256,996	79%	435
Age 65+	42,167	13%	184

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	220,132	100%	535
Less than 9th Grade	13,313	6%	175
9th - 12th Grade, No Diploma	15,662	7%	138
High School Graduate	67,575	31%	333
Some College, No Degree	58,366	27%	257
Associate Degree	19,118	9%	195
Bachelor's Degree or more	65,216	30%	308
Population Age 5+ Years by Ability to Speak English			
Total	307,933	100%	938
Speak only English	234,053	76%	556
Non-English at Home[1+2+3+4]	73,880	24%	580
[1]Speak English "very well"	41,354	13%	423
[2]Speak English "well"	14,937	5%	254
[3]Speak English "not well"	12,598	4%	304
[4]Speak English "not at all"	4,990	2%	234
[3+4]Speak English "less than well"	17,589	6%	318
[2+3+4]Speak English "less than very well"	32,526	11%	398
Linguistically Isolated Households*			
Total	8,024	100%	162
Speak Spanish	2,885	36%	162
Speak Other Indo-European Languages	2,267	28%	125
Speak Asian-Pacific Island Languages	2,186	27%	99
Speak Other Languages	686	9%	101
Households by Household Income			
Household Income Base	120,775	100%	247
< $15,000	12,819	11%	172
$15,000 - $25,000	10,294	9%	173
$25,000 - $50,000	22,583	19%	164
$50,000 - $75,000	20,568	17%	164
$75,000 +	54,512	45%	234
Occupied Housing Units by Tenure			
Total	120,775	100%	247
Owner Occupied	68,782	57%	167
Renter Occupied	51,993	43%	255
Employed Population Age 16+ Years			
Total	265,513	100%	629
In Labor Force	181,609	68%	539
Civilian Unemployed in Labor Force	9,744	4%	161
Not In Labor Force	83,904	32%	331

Data Note: Datail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified linear location

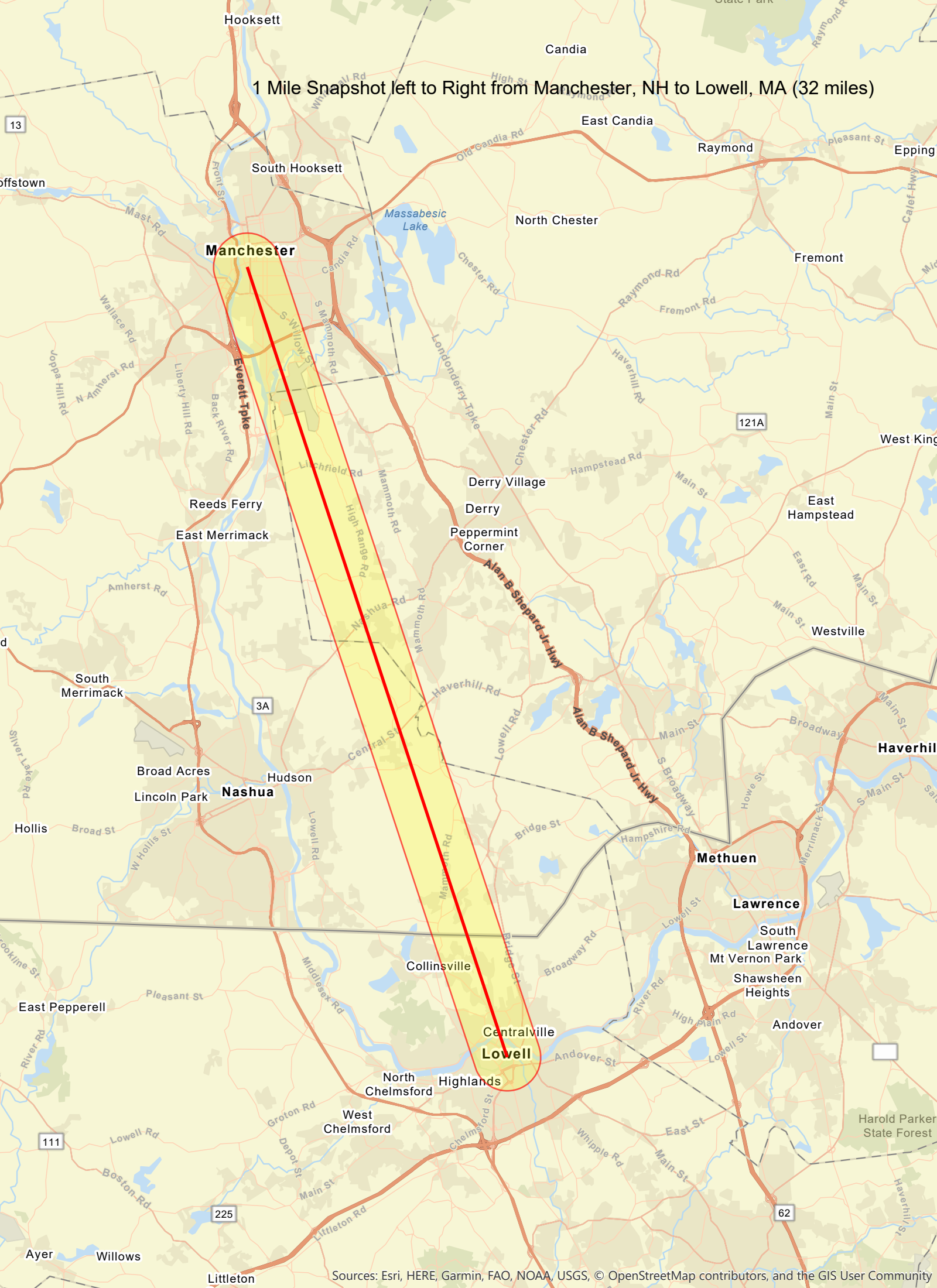Ring (buffer): 3-miles radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	304,637	100%	632
English	230,625	76%	842
Spanish	23,098	8%	795
French	6,144	2%	470
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	465	0%	80
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	16,124	5%	615
Chinese	2,086	1%	190
Japanese	N/A	N/A	N/A
Korean	202	0%	65
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	3,103	1%	318
Other Asian	15,038	5%	420
Tagalog	452	0%	95
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	2,069	1%	303
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	3,673	1%	344
Total Non-English	74,012	24%	1,040

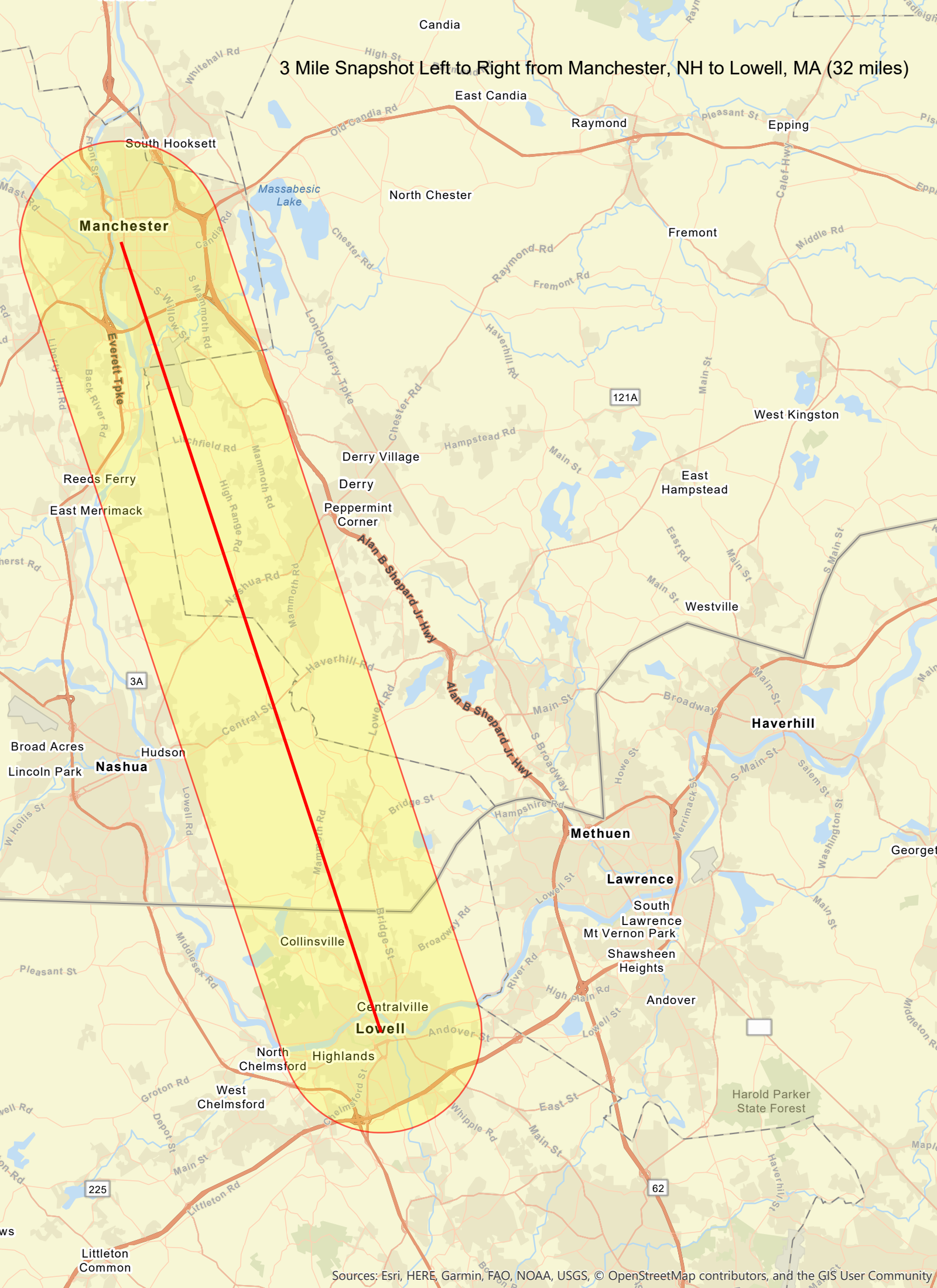**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.
*Population by Language Spoken at Home is available at the census tract summary level and up.

1 Mile Snapshot left to Right from Manchester, NH to Lowell, MA (32 miles)

3 Mile Snapshot Left to Right from Manchester, NH to Lowell, MA (32 miles)

NH Capitol Corridor Alternatives Analysis and Service Development Plan

Legend:
- Bus Stops
- ✈ Airport
- ⊙ City
- Ⓣ MBTA Stations
- ▬ Rail Corridor
- ▬ Limited Access Highways
- ▬ Other Major Routes
- ┼┼ Other Rail
- ▬ State Border
- ▬ Merrimack River
- ▭ Town Lines
- ▭ Regional Planning Commissions

New Hampshire DOT
Department of Transportation

0 2 4 8 12 16
Miles

Map labels: Manchester, Manchester - Canal Street, N. Londonderry (Exit 5), Manchester Boston Regional, Derry, Londonderry (Exit 4), 93, Salem (Exit 2), Nashua (Exit 8), Nashua, Hudson, Pelham, 3, Tyngsborough (Exit 35), 495, Gallagher Transit Terminal, Lowell, 93, North Billerica, 28, 3, Wilmington, 128, Anderson RTC, Mishawum, 95, Winchester, Wedgemere, 1, West Medford, 20, North Station, South Station, Boston, Logan International, 90, 9, 3