

TOWN OF MIDDLESEX

Office of:

**Town Clerk
Treasurer
Select Board
Listers
Board of Civil Authority
Zoning Administrator
Planning Commission
Board of Abatement**

**5 Church Street
Middlesex, Vermont 05602
Tel. (802) 223-5915
mdxclerk@comcast.net
Fax: (802) 223-1298**

CERTIFIED MAIL

May 16, 2019

TO: The following Chairs of Planning Commissions serving towns abutting the Town of Middlesex, 24 VSA §4384(e)

Karla Nuissl, Chair Berlin Planning Commission, 108 Shed Road, Berlin, VT 05602

Janice Ohlsson, Chair Calais Planning Commission, 3120 Pekin Brook Road
East Calais, Vermont, 05650

Julie Potter, Chair East Montpelier Planning Commission, 40 Kelton Rd, East
Montpelier, VT 05651

Leslie Welts, Chair Montpelier Planning Commission, 39 Main Street
Montpelier, VT 05602

Jonathan Siegel, Chair Moretown Planning Commission, 79 School Street,
Moretown, VT 05660

Mila Lonetto, Chair Stowe Planning Commission, 67 Main Street, PO Box 730
Stowe, VT 05672

Ken Belliveau, Chair Waterbury Planning Commission, 28 North Main Street Suite #1
Waterbury, Vermont 05676

Bill Arrand, Chair Worcester Planning Commission, Drawer 161 Worcester VT 05682

Bonnie Waninger, Executive Director of the Central Vermont Regional Planning
Commission, 29 Main Street, Suite 4, Montpelier, VT 05602.

Commission, Department of Housing and Community Affairs, 1 National Life Drive,
Davis Building, 6th Floor, Montpelier, VT 05602 (Sent electronically.)

FROM: Sarah Merriman, Middlesex Town Clerk

Enclosed you will find a copy of the May 15, 2019, draft of the proposed Middlesex Town Plan 2019-2027. Please be advised that the Middlesex Planning Commission will hold a Public Hearing to solicit comments re: the enclosed draft at 7:00 PM, June 19, 2019 in Middlesex Town Hall, 5 Church Street, Middlesex, Vermont 05602.

We encourage all of the above parties to submit comments or attend the Public Hearing.

Respectfully,

Sarah Merriman, Middlesex Town Clerk/Select Board Assistant

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MIDDLESEX PLANNING COMMISSION NOTICE OF PUBLIC HEARING

The Middlesex Planning Commission will hold a public hearing at 7:00 PM, June 19, 2019, in the Middlesex Town Hall, 5 Church Street, Middlesex, Vermont, to seek comments on the Commission's May 15, 2019, draft of the proposed Middlesex Town Plan 2019-2027. This notice is issued pursuant to 24 VSA §§ 4384 (d) and 4444.

STATEMENT OF PURPOSE:

This Town Plan is an update of Middlesex's current Town Plan. The proposal covers all lands within the Town of Middlesex. Full copies of the draft Town Plan are available from the Middlesex Town Clerk at 5 Church Street, Middlesex, and online at middlesexvermont.org. Topic areas of discussion include:

Chapter 1: A Community that Works for All
Chapter 2: A Landscape that Lasts
Chapter 3: A Place to Gather
Chapter 4: A Strong Foundation
Chapter 5: Achieving the Vision
Chapter 6: Maps and Appendices

For further information, please contact Planning Commission Chair Sandy Levine at 223-1192 or Town Clerk Sarah Merriman at 223-5915.

Dated: May 15, 2019 in Middlesex, Vermont

THE MIDDLESEX PLANNING COMMISSION

Town of Middlesex Planning Commission Proposed Municipal Plan Adoption Report

Report on Draft Plan dated May 15, 2019

In accordance with 24 V.S.A. §4384(c), the Middlesex Planning Commission has prepared the following report regarding the Town's proposed Town Plan.

This plan presents a vision to guide how the Town evolves in the coming years. The plan identifies and recommends a number of actions and strategies that can be undertaken by the town and community to help achieve the goals and objectives therein.

Current Challenges and Vision

Middlesex is a small central Vermont community with limited financial and administrative resources. Middlesex does have a wealth of other resources, however, in its community, landscape, significant emerging opportunities in its Village Center, and a strong foundation in equitable and effective governance. While its citizenry has identified its challenges, the town plan provides the policy framework to utilize and protect the Town's strongest assets, while advancing the Town's vision and goals.

Plan Purpose

The Town Plan documents and assesses the present conditions of key components of life in Middlesex, while also expressing the community's vision for the future. It endeavors to guide growth by directing Town, state, and federal investments in roads, buildings, and recreational facilities to areas where the Town most needs and desires them; informing the revision of land use regulations; and setting out a course of action for the Town's committees and Select Board.

This 2019 Town Plan represents the culmination of a public process led by the Middlesex Planning Commission. It provides the most recent available data on present conditions and projections for the Town's future in each plan element. It also includes results of the 2018 What's Next Middlesex? outreach and report, and early findings of the 2018-2019 Town Plan survey solicited by the Middlesex Planning Commission which assessed the values and priorities of residents. For example, a majority of survey respondents (88%) would recommend Middlesex to a friend or family member as a good place to live.

This plan presents goals and implementation strategies for each section that, if carried out, can achieve the vision that residents have for the future of Middlesex. The Town Plan evaluates key accomplishments as well as areas for improvement. It also reviews current trends and conditions, explores new issues and opportunities and ensures that recommendations contained in the Town Plan are aligned with the community's vision and goals for the future.

Public Outreach and Update Process

Throughout 2018, the citizens and stakeholders of the town came together to participate in one of the most robust community conversations that has ever taken place in Middlesex: to ask and answer What's Next Middlesex, an ambitious and successful vision to action forum. Middlesex embarked on a dynamic series of two-way conversations between community members and local leaders. Extensive planning brought with it an elder/youth oral history project, a creative community-building Story Pot activity involving townspeople and elementary students at Rumney School, a well-attended community dinner, a day and a half of vibrant facilitated discussions, a final report, and four resultant community action committees to focus on economic development and infrastructure, trails, community spaces and events, and outreach/communication. The Planning Commission offered a survey to residents, and the town received more than 300 responses as of May 2019.

Public outreach continued with regular meetings of the Planning Commission, sharing of drafts with community boards, officials and interested townspeople, tremendous input from volunteer community members in drafting sections of the Town Plan and a public outreach meeting held on May 9th. More than a dozen residents came to listen to a presentation, ask questions, and provide input which has been directly incorporated into this Plan.

New Trends and Key Plan Updates

The plan builds on the previous plan but is remarkably distinct from its 2013 predecessor. Key updates include:

- New key themes;
- Incorporating the community conversation, including What's Next Middlesex?
- Updates to goals, objectives, and implementation strategies;
- Refreshed organization;
- Key components not previously discussed, including a future land use map, forest block identification and protection, infrastructure planning;
- Updates to Village Center planning and goals.

Themes and Organization

The 2019 Town Plan is organized around 4 key principles that emerged from the What's Next Middlesex Process.

A Community that Works for All. People, Housing and Livelihoods

A Landscape that Lasts. Protecting Working and Conservation Lands

A Place to Gather. Fostering a Vibrant, Connected Village Center

A Strong Foundation. Equitable and Effective Governance and Services

Consistency with State Goals in 24 V.S.A. sec. 4302

The 2019 Town Plan is consistent with goals of 24 V.S.A. sec 4302 by incorporating the following:

1. Historic Settlement Pattern:
Provides for growth in and around the existing village to maintain the historic settlement pattern of a compact village center surrounded by rural countryside and discouraging strip development in the area of the Interstate Interchange
2. Strong & diverse economy
Provides for expanding opportunities to build and grow businesses in town in ways that accommodate valuable and fragile natural and community resources
3. Access to educational opportunities:
Identifies ways to broaden access to educational opportunities for all residents
4. Transportation:

Provides guidance for expanding transportation options that respect the integrity of the natural environment

5. **Natural Resources:**
Identifies important natural and historic features, including fragile areas, water resources, historic sites
6. **Quality of air, water, wildlife, forests and land resources;**
Provides for maintaining the quality of air, water, wildlife, forests and other natural resources, including identifying significant forest blocks and wildlife crossings reducing water pollution and river hazards.
7. **Energy:**
Encourages efficient use of energy and allows the growth and increased reliance on renewable energy resources to reduce greenhouse gas emissions
8. **Recreation:**
Identifies existing recreational features and encourages planning to continue to allow access to broad recreational resources for the Town
9. **Agriculture and Forestry**
Identifies agricultural resources and opportunities to continue to provide local farm and forest products for Town and regional residents and businesses
10. **Extraction of earth resources**
Provides for continued wise use of earth resources and appropriate extraction of the earth resources and remediation
11. **Affordable housing**
Provides for expanding opportunities for more diverse housing to allow housing to be more available and affordable
12. **Public facilities**
Identifies the current public facilities and services and provides for their continued availability to serve town needs
13. **Child care**
Identifies opportunities to ensure the availability of child care for town residents
14. **Flood resilience**
Identifies flood and erosion hazards and provides for protecting areas to avoid damage

Designation of Land Area

The 2019 Town Plan does not significantly alter the designation of any land area. It provides for a closer look at the boundaries within the Village, Industrial and Mixed Use areas around the Middlesex Village and further exploration of the designation for the Putnamville area.



Town Plan 2019

Middlesex, Vermont

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ADOPTED

[As approved by the voters of Middlesex, **Date**, 2019]

ACKNOWLEDGEMENTS

MIDDLESEX SELECTBOARD

Peter Hood, Chair
 Mary Just Skinner, Vice-Chair
 Phil Hyjek
 Steve Martin
 Liz Scharf

PLANNING COMMISSION

Sandy Levine, Chair
 Elias Gardner, Vice-Chair
 Mitch Osiecki, Secretary
 Richard Alderman
 Theo Kennedy

The Town of Middlesex thanks all of its Selectboard members and Commissioners who served during the development of this Plan.

Cover Photo: The old Webster House in Middlesex Village. Painting by Middlesex artist, Connie D'Anna



ACKNOWLEDGEMENTS

TOWN STAFF

Sarah Merriman, Town Clerk and Selectboard Assistant
Maryke Gillis, Assistant Town Clerk

SUPPORTING GROUPS

Central Vermont Regional Planning Commission
Middlesex Conservation Commission
What's Next Middlesex and resultant working groups

The town thanks all of its volunteers and citizen participants for their assistance in guiding and supplementing the text, vision and goals contained in this Plan.

PHOTO CREDITS

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TOWN PLAN 2019: SUMMARY

Current Challenges and Vision

Middlesex is a small central Vermont community with limited financial and administrative resources. Middlesex does have a wealth of other resources, however, in its community, landscape, significant emerging opportunities in its Village Center, and a strong foundation in equitable and effective governance. While its citizenry has identified its challenges, this town plan is an effort to lay crucial policy groundwork needed to help utilize and protect its strongest assets, while advancing the Town's vision and goals.

Plan Purpose

This Town Plan documents and assesses the present conditions of key components of life in Middlesex, while also serving as an important expression of the community's vision for the future. It lays out the goals and outlines the strategic map to reach that vision.

A plan can then guide growth by: directing Town, state, and federal investments in roads, buildings, and recreational facilities to areas where the Town most needs and desires them; informing the revision of land use regulations; and setting out a course of action for the Town's committees and Select Board.

This 2019 Town Plan represents the culmination of a public process led by the Middlesex Planning Commission. It provides the most recent available data on present conditions and projections for the Town's future in each plan element. It also includes results of the 2018 *What's Next Middlesex?* outreach and report, and early findings of the 2018-2019 Town Plan survey solicited by the Middlesex Planning Commission which assessed the values and priorities of residents. For example, a majority of survey respondents (88%) would recommend Middlesex to a friend or family member as a good place to live.

This plan sets out to do this by presenting goals and implementation strategies for each section that, if carried out, can achieve the vision that residents have for the future of Middlesex.

The Town Plan is an opportunity to evaluate key accomplishments as well as areas for improvement. It also provides an opportunity to review current trends and conditions, explore new issues and opportunities and ensure that recommendations contained in the updated Plan are aligned with the community's vision and goals for the future.

Public Outreach and Update Process

Throughout 2018, the citizens and stakeholders of the town came together to participate in one of the most robust community conversations that has ever taken place in Middlesex: to ask and answer the question *What's Next Middlesex*, an ambitious and successful vision to action forum. Middlesex embarked on a dynamic series of two-way conversations between community members and local leaders. Extensive planning brought with it an elder/youth oral history project, a creative community-building Story Pot activity involving townspeople and elementary students at Rumney School, a well-attended community dinner, a



day and a half of vibrant facilitated discussions, a final report, and four resultant community action committees to focus on economic development and infrastructure, trails, community spaces and events, and outreach/communication. The Planning Commission offered a survey to residents, and the town received more than 300 responses as of May 2019.

Public outreach continued with regular meetings of the Planning Commission, and a public hearing was held on May 9th. More than a dozen residents came to listen to a presentation, ask questions, and provide input which has been directly incorporated into this Plan.

The Planning Commission held a warned public hearing on _____.

The Selectboard held a warned public hearing on _____.

New Trends and Key Plan Updates

Though the update to the plan was completed in a relatively short time period, the plan is remarkably distinct from its 2013 predecessor. While there are many updates in text, data, and vision, a few stand out as critically rejuvenated.

- New key themes;
- Changes in community conversation, including *What's Next Middlesex?*
- Updates to goals, objectives, and implementation strategies;
- Refreshed organization;
- Key components not previously discussed, including a future land use map, forest block identification and protection, infrastructure planning;
- Updates to Village Center planning and goals.

Themes and Organization

This 2019 Town Plan is organized around 4 key principles that emerged from the What's Next Middlesex Process.

A Community that Works for All. People, Housing and Livelihoods

A Landscape that Lasts. Protecting Working and Conservation Lands

A Place to Gather. Fostering a Vibrant, Connected Village Center

A Strong Foundation. Equitable and Effective Governance and Services



What is Next, Middlesex?

This Town Plan will serve as a guide for strengthening and protecting Middlesex here and into the future. While the Plan document may reflect work and tasks to be completed over 8 years, much of the vision contained herein reflects timeless values that represent the beloved community of Middlesex, Vermont.



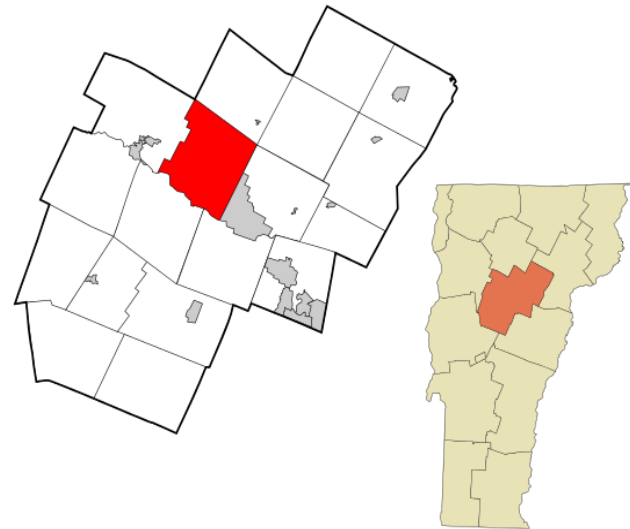
CHAPTER 1: A COMMUNITY THAT WORKS FOR ALL

People, Housing, and Livelihoods

1.1. Overview

Middlesex, Vermont is by some common standards a small municipality: Fewer than 2,000 residents live here in just 752 households, making it the 106th most populous municipality in the state and home to only about 0.2% of Vermont's population. Its small size means that small fluctuations in demographic characteristics can sometimes appear as significant trends in short time periods and pose challenges for understanding temporal changes.

Still, Middlesex is home to immeasurable riches that rival any in the region. Embedded in central Vermont and sustaining nearly 44 square miles of land, it draws people through and in for both its convenient access to nearby places and also for its own majesty, charm and spirit. Its high school educational attainment, household income, median income, median home value and labor force participation rate all easily exceed the state averages.



Middlesex, Washington County, Vermont

Facts About Middlesex:

Total area:	28,173 acres + (44 sq. miles)
Area above 2000 ft.:	1469 acres
Area above 2500 ft.:	501 acres
Area where slope exceeds 15%:	13,470 acres (48% of the Town)

A profile of Middlesex includes its deep history, variety of resources, strength of its people, diversity of livelihoods and stability of its homes.

More than 88% of 2018 resident survey respondents declared that they would recommend Middlesex to a friend or family member as a good place to live.

1.2. History that Shapes Middlesex Today

There has been a Native American presence in the area now known as Vermont for at least the past 11,500 years. Early permanent settlements included the Iroquois and Western Abenaki tribes in the Champlain Basin. Eventually, the Abenaki expanded their presence up the larger river valleys flowing into the eastern shores of Lake Champlain including the river now called the Winooski. The pre-Middlesex area



along the Winooski witnessed early Indian habitation primarily in the form of seasonal hunting and fishing gathering camps.

The remains of early historic sites have been found along the river near and in Middlesex. One site on the town's eastern boundary contained "evidence of an Indian village including a cornfield and burial place where Indian weapons were found." Native Americans lived in the area from 1750-60 before the arrival of explorers and settlers of European descent.

The township of Middlesex was chartered in the name of English King George III on June 8, 1763. Vermont declared itself an independent republic in 1777 and became the 14th state of the United States in 1791.

Middlesex was the first town settled in Washington County, when Thomas Mead arrived in 1783 from Westfield, Massachusetts and staked his claim on the river near the present-day Settlement Farm. By 1796, 60 more settlers had arrived and the 1800 census listed 262 Middlesex inhabitants. By 1810, the population had increased to 401 and by 1830, to 1156. As the population of the town grew, Middlesex Village emerged as a thriving community and commercial center.



Grist and sawmills were constructed along the river beginning around 1800 just upstream from the Middlesex Narrows. Additional mills soon followed, including linseed oil, clothing-dressing, woolen and wood shingle. However, the river proved an unfriendly host for commerce as the mills were destroyed by floods in 1818, 1828, and 1830 and a fire in 1821. The mills were quickly

rebuilt following each catastrophic event. These industries and the town's emerging farming community led to a growing local economy of craftsmen and merchants along with an active civic life centered in the village. The first record of a postmaster in town is in 1826. By 1871, two large hotels had opened in the village.

The Central Vermont Railroad completed its rail line from Windsor, Vermont to Burlington in 1849. The new line included an important station in Middlesex Village. The station depot supported not only local commerce but an active stagecoach route that extended from the village up into the Mad River Valley. Water to the village was supplied from a spring located across the river in Moretown with a pipe that ran under the covered wooden bridge spanning the Narrows. At the height of its development in the late 1800's, the village supported a church, schoolhouse, three stores, three blacksmith shops, a public house and about 200 inhabitants. The majesty of Middlesex Narrows was tamed in 1895 by the



construction of a wooden crib power dam for electricity generation. The bulk of the electricity was transported by poles and wires not to the town or village but upstream to the Capital city of Montpelier and to a rapidly growing granite industry. Much of Middlesex had to wait until the early 1940s and the assistance of the U. S. Department of Agriculture's Rural Electrification Agency before becoming electrified.

20TH CENTURY. Flooding of the Winooski continued to be a frequent occurrence culminating in the Great Flood of 1927. The rampaging waters severely damaged the power dam and took out the High Bridge across the Narrows and the Buck Bridge, a 214' covered doubleway over the river west of the village into Moretown. In his book, *Vermont in Floodtime*, Luther Johnson describes the wet summer and fall of 1927: "On November 3, there was a downpour of eight or nine inches over 24 hours causing the river to rise beyond all expectation and with great rapidity. A huge volume of water rose and bypassed the upstream bend and flowed directly into the lower level of the village, removing structures and excavating the north bank until it scoured the bedrock clean nearly around to the Narrows High Bridge."

The town's original village lost nearly one-third of its buildings. The bridges were later replaced and the power dam repaired but most of the village's commercial facilities lost in the flood were not rebuilt. In addition, the calamity heralded a decline of rail service to and through Middlesex. The decline was hastened in later years by an improving highway system and a growing emphasis on highway travel throughout the state.

SITES OF HISTORICAL SIGNIFICANCE IN TOWN

- Three large cemeteries and many private small burial grounds
- Three church buildings (including the present Town Hall)
- The cluster of homes in Middlesex Village and Putnamville
- Seven former one-room schoolhouses that have become private homes
- Old farmhouses, barns, and cellar holes scattered throughout the rural sections of Middlesex
- Stone walls and old trees lining the town's roads
- Wrightsville Beach and Wrightsville Dam, a recreation area and flood protection area created after the Flood of 1927 which required the state to remove or demolish the buildings in the small hamlet of Wrightsville.

FEDERAL INTERSTATE. Then, in the 1950s, the new Federal Interstate System came to Middlesex in the form of Interstate 89. Although the new divided highway bypasses the village to the north, its arrival has had a profound impact on the village and the town. The construction of the road bisected several large farms and replaced U.S. Route 2 as the primary route between Montpelier and Burlington. Much of the tremendous amount of sand and gravel required was mined from local sources. The extensive removal of this material is still evident on the local landscape. An interchange, Exit 9, was constructed just outside the village where I-89 crosses Center Road. The interchange has proven to be a catalyst for the



Middlesex economy prompting construction of a State Highway maintenance facility, barracks for the Vermont State Police, a State Records facility and a florist distribution center.

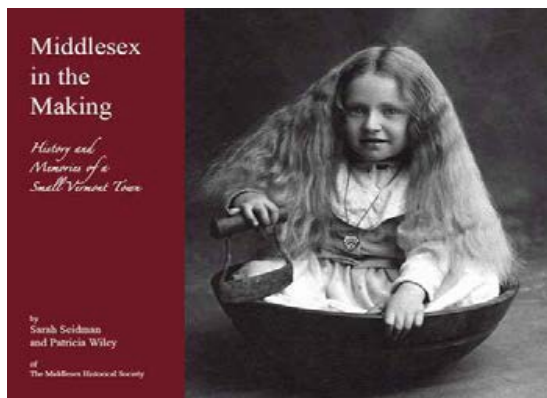
The Welch Park Development was created near Exit 9 in 1993, an eight-lot subdivision initially intended for a mix of commercial and residential uses. Eventually, it became exclusively an industrial park. Bell Atlantic (now Consolidated Communications) constructed a 52,650 square foot regional garage and administrative facility in the park becoming the largest commercial enterprise in town. The town's new fire station was built on another lot in 2009. A lot bordering the river was deeded to the town to be used for public recreation and conservation purposes. In 2011 it was dedicated to a long-time selectboard member and named the Walter H. Kelley Memorial Park.

RECENT DEVELOPMENTS. Discussions for future use and community opportunities are just starting for Camp Meade, a 10-acre property that previously served as a Civilian Conservation Corps campus and sits near the Winooski and Mad Rivers on Route 2. It was purchased in 2017 by a trio of successful and enthusiastic entrepreneurs collectively working through a new company called Planetary Matters. There is a great optimism about the property and its potential positive impact on the town, which may include improved infrastructure, creative economic development, concerts and permanent community spaces which may lend towards serving as a community hub and defacto town center.

The Camp Meade property already boasts a permanent stage and its green hosts a weekly summer series as well as other special events throughout the year, including a successful speaker series.

Middlesex adopted zoning regulations in 1987 with Commercial Zoning mainly confined to lands lying between U.S. Route 2 and the Winooski River both to the west and east of the village. Welch Park takes up most of the Commercial Zone to the west. Another section of commercial development emerged in the east section of the Zone between Cross Road and the Middlesex Town Line mainly in response to property tax incentives issued by the town around 1990. Commercial activity here intermingles with residential uses and currently includes construction, propane storage, trucking, metal and plastic milling and public self-storage. Because of the rich bottomland along the river, the area of Commercial Zoning between this eastern section and the village has remained primarily in agriculture.

Existing written history of Middlesex, such as old maps, books, letters and articles, as well as oral history tapes, have already been compiled. Continuing additional oral history is an ongoing project, to be completed by interested volunteers and school children as well as Middlesex Historical Society members.



In 2006, Sarah Seidman and Patricia Wiley of the Middlesex Historical Society completed an award-winning history of Middlesex called *Middlesex in the Making: History and Memories of a Small Vermont Town*. This book includes a historical map of Middlesex, allowing residents to easily learn the locations of old houses, school houses, cemeteries, and other sites of historic interest in town. It is available at the Town Hall as well as through local bookstores and Society members.



A. SUMMING UP HISTORY: GOALS, OBJECTIVES AND STRATEGIES

Objective 1. To preserve significant historical sites in cooperation with property owners.

- Strategy 1. Using the Middlesex Historical Society (MHS) as an educational resource, owners of sites of historical significance will be encouraged to preserve their property, with assistance as possible from MHS and/or state and federal agencies.
- Strategy 2. The town will work closely with state and federal agencies, as well as with the Middlesex Historical Society, to assist with preservation and community education projects.

Objective 2. To educate residents about the town's history.

- Strategy 3. The Middlesex Historical Society will continue to collect and centralize this material (as their volunteer staffing and funding allow) to make it more easily accessible. The lack of a town facility in which to display the Society's collection of photos, artifacts and written materials continues to significantly hamper the accessibility of this information to residents.
- Strategy 4. The Middlesex Historical Society will continue to work with teachers, staff and volunteers at the Rumney Elementary School to incorporate the study of Middlesex history into the third-fourth grade school curriculum.
- Strategy 5. Rumney School and the Middlesex Historical Society will continue to educate residents about the history of the town through efforts such as regular meetings of the Society, public events, the published History, and continued research (as their volunteer staffing allows) into specific historic sites in town and people important to Middlesex history.

COMMUNITY HISTORY GOALS

1. Significant sites will be preserved in cooperation with property owners.
2. Ongoing preservation efforts will not place a burden on taxpayers.
3. Children will learn about the town's past while they are in elementary school.
4. Historical information will be readily available and centralized so that people can easily find what they are looking for and so that historical artifacts are preserved.
5. Both new and old residents will possess an increased sense of belonging to a community, based on knowledge of the rich traditions and contributions made by those who came before them.



1.3. COMMUNITY PROFILE: WHO WE ARE



In any planning process it is important to know who exactly we are planning for. Population is a basic index of community growth and population projections are a key element in determining a community's growth-management policies. Knowing how many current and future residents will live in Middlesex, what ages they will be, their incomes and education will help the town target limited resources to those services needed most by the greatest number of residents. Schools, roads, emergency services, public infrastructure, recreational opportunities, and tax rates are affected by a community's population.

Understanding current demographics helps us to assess and plan for any changes in population growth. Also, as shown in the survey results and throughout *What's Next Middlesex*, residents bear pride in their community, as well as a desire for some change in community population diversity.

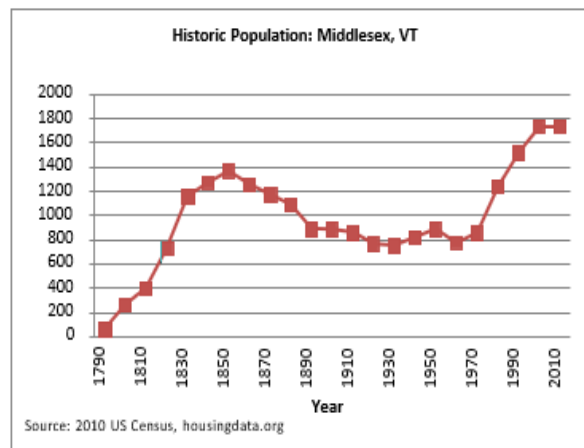
Demographic assessment details residents of Middlesex as demonstrating high school educational attainment, household income, median income, median home value and labor force participation rate which all exceed the state averages. Going into the schools, attending public forums, and meeting our neighbors in the local shops and businesses gives us even greater insight.

In understanding population characteristics, we can identify elements for preservation or change.

A. POPULATION CONDITIONS AND PROJECTIONS

HISTORIC POPULATION & POPULATION CHANGE. As the Historic Population table shows, Middlesex experienced a decline in population between 1850 and 1970. However, since the 1970s the population has been steadily increasing at an average rate of 25% every ten years. Middlesex's 0.12% growth rate between the last two Censuses in 2000 and 2010, was below that of Washington County (2.78%) and the state (2.78%)

The town's 2010 population is 1,731 according to the 2010 U.S. Census. Because Middlesex has less than 2,500 residents, under the Vermont Municipal Planning and Development Act, it is classified as rural.



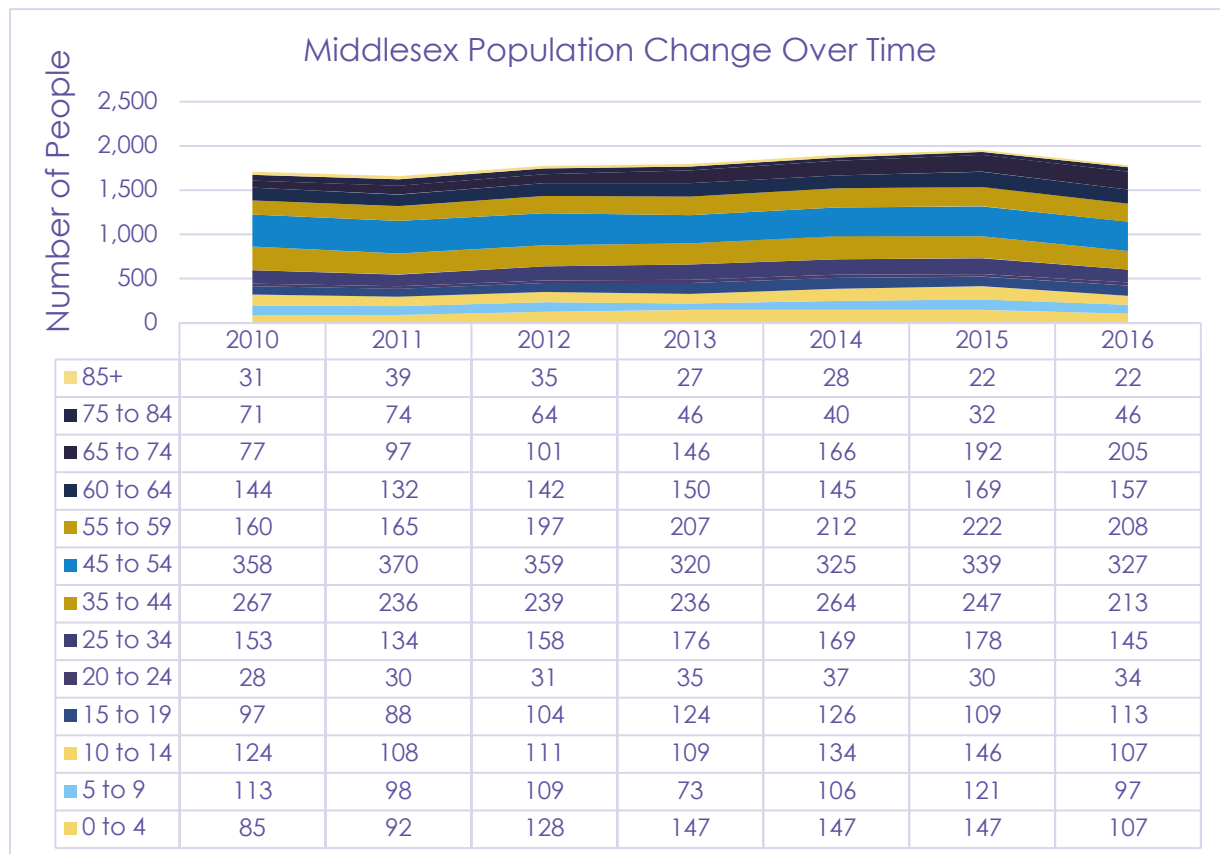
Source: 2010 US Census



Middlesex's population as of 2016 is 1,781 residents. Population trends across the last six years should be cautiously considered. Given the small community size, the inflow or outflow of just a few families or the addition of a few new housing units can appear to reflect a significant percentage change.

To analyze trends in housing and population, this portion of the report reviews and presents several different kinds of regional indicators over time, including population change, household composition, and household unit value, all within Middlesex, VT.

POPULATION GROWTH. We observe that Middlesex's overall population gradually increased from 2010 to



Source: CVRPC from US Census Bureau, 2010-2016 American Community Survey 5-year estimates

2015, only to drop significantly from 2015 to 2016. These trends do not seem to be symptomatic of any significant loss or gain confined to any particular age group demographic - indeed, the increases and decreases in the overall population appear to be congruent with the respective gains and losses across the different age groups of Middlesex residents each year. The proportion of Middlesex residents aged 0 to 4 years experienced a net increase over time, as did the proportion of Middlesex residents aged 15 to 19 years, 20 to 24 years, 55 to 59 years, and 60 to 64 years, rising 26%, 16%, 25%, 30%, and 9%, respectively, from 2010 through 2016. The most significant increase occurred within the proportion of residents aged 65 to 74 years, as the amount of these individuals residing in Middlesex nearly tripled from 2010 through 2016. Net declines occurred within the proportions of residents aged 5 to 9 years, 10 to 14 years, 25 to 34 years,



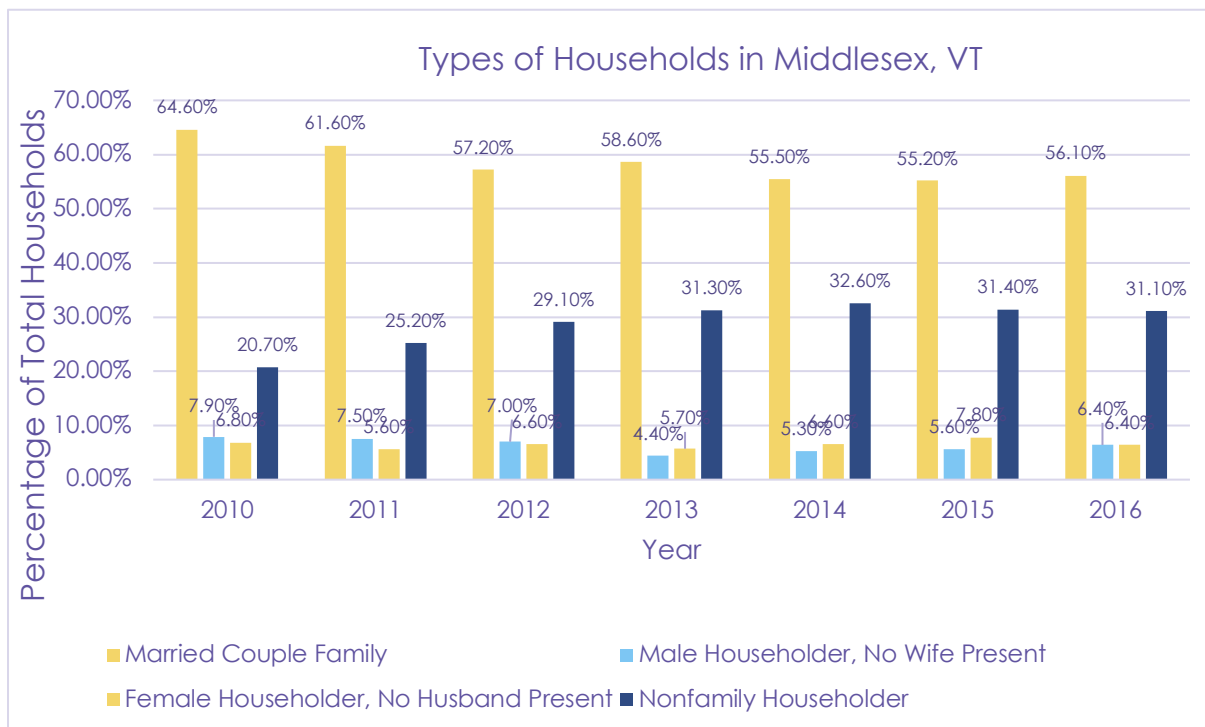
35 to 44 years, 45 to 54 years, 75 to 84 years, and 85 years and over. The corresponding declines from 2010 through 2016 for these age groups were 14%, 14%, 5%, 20%, 9%, 35%, and 29%, respectively. Again, all of these trends should be reviewed with caution given the small size of the population.

B. HOUSEHOLDS

An analysis of Middlesex's overall household composition reveals a general downward trend in married couple householders and a general upward trend in nonfamily householders. This is generally consistent with broad national trends towards non-married households due to an increased divorce rate and a trend towards later age for first marriage. These patterns generally remained consistent year after year over the time frame of the research, while the patterns concerning single male householders and single female householders remained slightly more mixed.

Regarding net changes, there were 8.5% fewer married couple householders in 2016 than in 2010, and 10.4% more nonfamily householders in 2016 than in 2010. There were roughly 1.5% fewer single male householders in 2016 than in 2010, and 0.4% fewer single female householders.

The 2010 census found that a little over half of the town's residents were native to Vermont. Only 1.4% of the town's residents were born in a different county.



Source, CVRPC from US Census Bureau, 2010-2016 American Community Survey 5-year estimates



C. EDUCATIONAL ATTAINMENT

Judiciously measuring educational attainment in any municipality involves keeping patterns in perspective with population changes.

With this in mind, the data in Figure 6 reveal some trends. For example, while 28.8% of Middlesex residents aged 18 to 24 years possessed a high school diploma or higher in 2010, the proportion had climbed to 42.4% in 2016. At the same time, the proportion of individuals within the same age group that possessed a Bachelor's Degree or higher dropped 6.8% from 2010 to 2016. In other words, while the proportion of Middlesex's young adults in possession of a high school diploma increased, the proportion of those in possession of a Bachelor's Degree decreased over time.

Year	2010	2011	2012	2013	2014	2015	2016
Population 18 to 24 years	52	52	73	89	93	85	85
High School Graduate (Includes Equivalency)	28.80%	21.20%	28.80%	22.50%	28.00%	43.50%	42.40%
Bachelor's Degree or Higher	11.50%	19.20%	13.70%	13.50%	12.90%	3.50%	4.70%
Population 25 Years and Over	1,261	1,247	1,295	1,308	1,349	1,401	1,323
Percent High School Graduate or Higher	92.10%	91.80%	94.30%	95.90%	97.60%	97.40%	97.70%
Percent Bachelor's Degree or Higher	50.30%	50.40%	48.60%	49.00%	49.60%	49.30%	49.80%
Population 25 to 34 Years	153	134	158	176	169	178	145
High School Graduate or Higher	95.40%	94.00%	93.00%	95.50%	97.60%	97.80%	97.20%
Bachelor's Degree or Higher	44.40%	50.00%	44.30%	50.60%	54.40%	61.20%	66.20%
Population 35 to 44 Years	267	236	239	236	264	247	213
High School Graduate or Higher	95.10%	93.60%	95.80%	97.50%	98.90%	96.80%	96.20%
Bachelor's Degree or Higher	52.80%	55.10%	50.60%	44.50%	45.80%	46.20%	42.30%
Population 45 to 64 Years	662	667	698	677	682	730	692
High School Graduate or Higher	97.30%	97.60%	99.00%	98.40%	98.70%	98.60%	99.10%
Bachelor's Degree or Higher	58.60%	56.50%	53.00%	51.70%	51.50%	48.50%	48.40%
Population 65 Years and Over	179	210	200	219	234	246	273
High School Graduate or Higher	65.90%	70.00%	77.00%	86.80%	92.70%	93.90%	95.20%
Bachelor's Degree or Higher	20.70%	26.20%	34.00%	44.30%	44.90%	45.90%	50.50%

Educational Attainment in Middlesex. Source CVRPC.

TRENDS. The trends are equally mixed for Middlesex residents aged 25 years and over. While 1.8% more 25 to 34-year-old residents were in possession of a high school diploma in 2016 than in 2010, a full 21.8% more 25 to 34-year-olds were in possession of a Bachelor's Degree or higher in 2016 than in 2010. Meanwhile, those aged 35 to 44 years were 1.5% more likely to have a high school diploma in 2016 than in 2010, but 10.5% less likely to have a college degree. A similar pattern existed among those aged 45 to 64 years, as nearly every Middlesex resident in that age group possessed a high school diploma by 2016, but 10.2% fewer possessed a Bachelor's Degree or higher.



The most significant gains concerning educational attainment in Middlesex involved the town's oldest residents: nearly 30% more residents aged 65 years and over had acquired a high school diploma in 2016 compared to 2010, and nearly 30% more had acquired a college degree. This is consistent with national trends with this age cohort less likely to have been deployed overseas and more likely to have finished high school or attended college.

Overall, the educational attainment patterns in Middlesex are mixed. While there was a positive general trend across all age groups concerning the acquisition of a high school diploma over time, the opposite appeared to be true for procuring a Bachelor's Degree or higher.

D. CULTURAL DIVERSITY

The average Middlesex resident is 46 and non-Hispanic white. This is slightly older than the state average (43). Ethnic and cultural diversity in Middlesex is less than the state and national averages, with 97% of residents self-identifying as Non-Hispanic White, compared to 93% and 62% respectively. Participants in *What's Next Middlesex* identified lack of ethnic diversity as a concern, as did those surveyed in 2018, where 26% of respondents listed it as one the most pressing issues in Middlesex.

Employment choices for those living in town are diverse, ranging from agriculture to retail to finance and other professional industries. Many residents are able to commute to nearby employment centers, with an average commute to work time of more than 26 minutes.

Residents identify the town as beautiful and in stating so refer to its fields, forests, peaks, trails, wildlife, waterways, history, culture, and people. Residents also have stout pride in the community, expansively identified to include friendly neighbors, accessible government, strong schools, boundless civic relationships and opportunities and its 'makers and creators'.

1.4. Livelihoods: What We Do, Where We Work, What We Earn

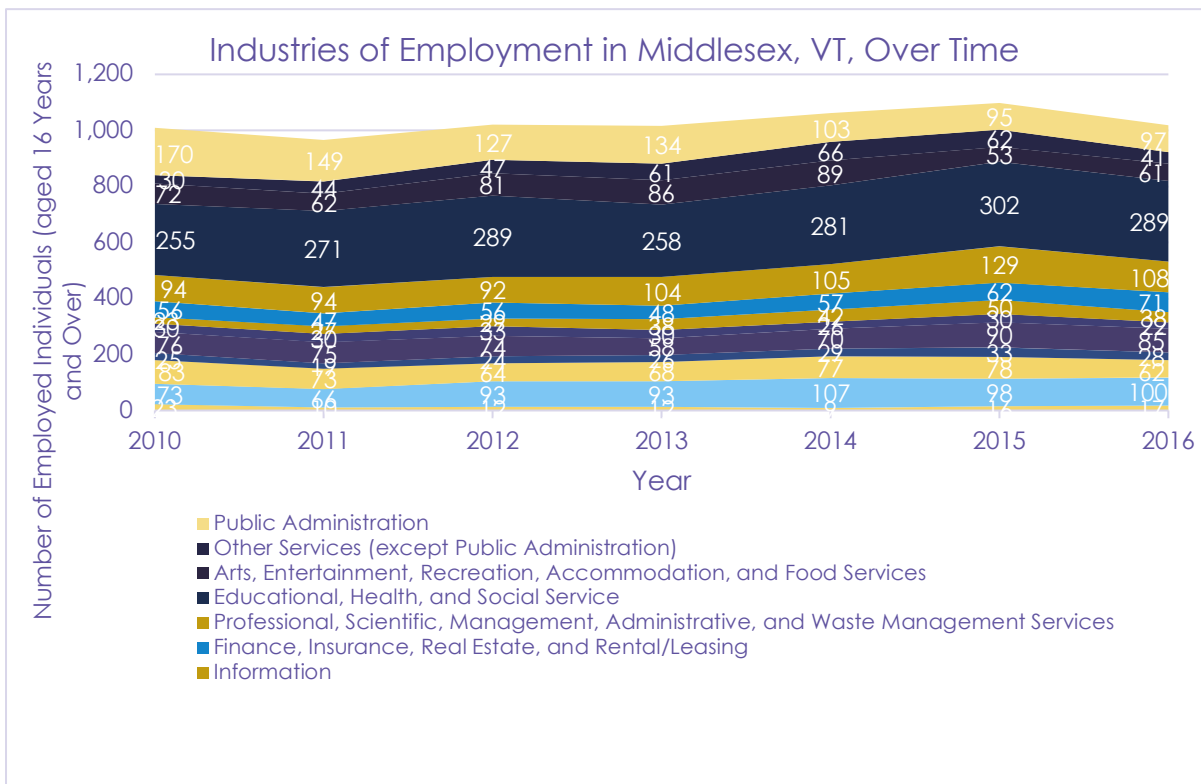
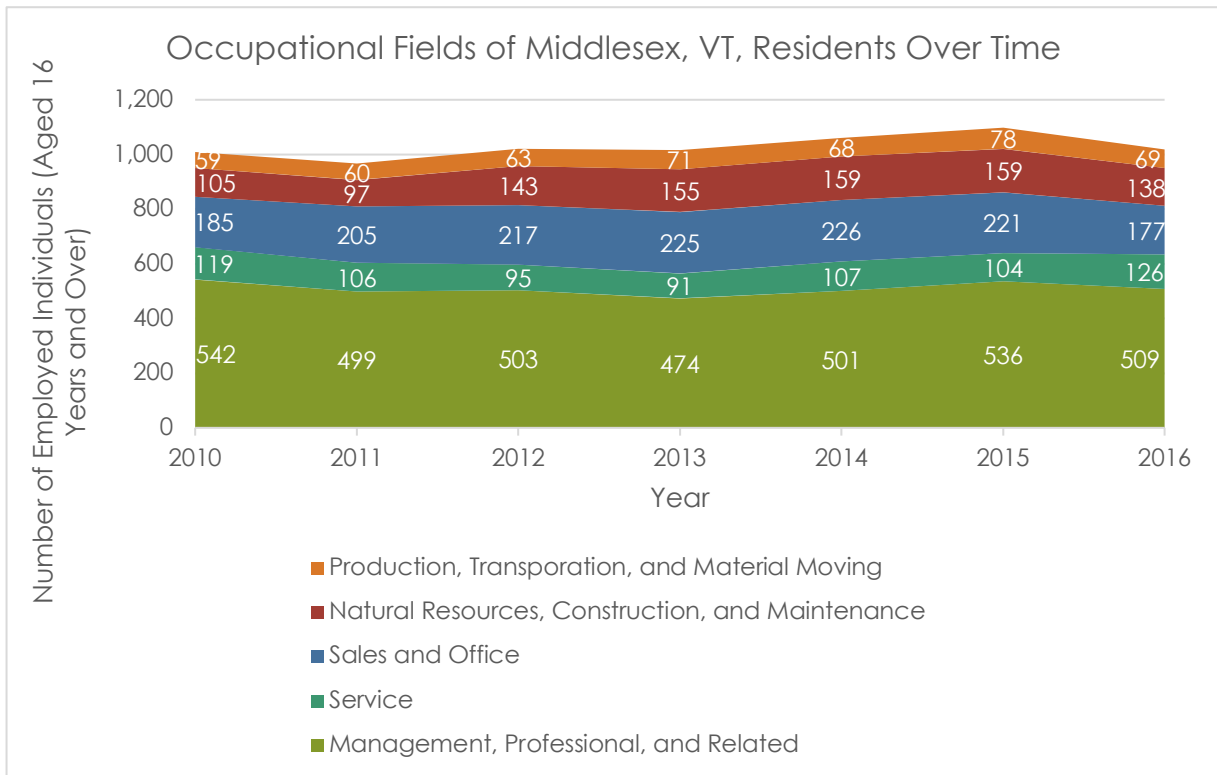
A. EMPLOYMENT AND INCOME

Middlesex residents are centrally located between two employment centers in Waterbury and the state's Capital of Montpelier. They participate in a variety of employment fields, ranging from Service to Construction to Management and other professional fields. Though Middlesex residents enjoy the farmland scenes in town, less than one percent of working residents have made their living this way.

Occupational Fields of Middlesex, VT Residents displays the occupational fields in which residents of Middlesex worked from 2010 to 2016. Considering the fluctuations within all five listed occupational fields, the 31.4% increase in the proportion of Middlesex residents working in the Natural Resources, Construction, and Maintenance field was the most significant fluctuation over the course of the research. The other four fields listed in the graph experienced mild to moderate fluctuations over time: The Management, Professional, and Related field lost a net 6% of its Middlesex-based personnel, while the Service field increased its Middlesex-based workforce by 6%. Meanwhile, the Sales and Office field increased its



personnel by 4%, and the Production, Transportation, and Material Moving field increased its Middlesex-based workforce by 17% from 2010 through 2016.



Industries of Employment provides a closer look at the data by breaking down the occupational fields into more specific “industries of employment”. This permits a view of the more subtle aspects of the aforementioned fluctuations, such as the 65% increase in the proportion of Middlesex residents working in the Information industry. Other significant changes from 2010 to 2016 included the 26% decrease in the proportion of residents working in the Manufacturing industry; the 46% decrease in the proportion of residents working in the Public Administration industry; and the 37% increase in the proportion of residents working in Other Services.

B. COMMUTING

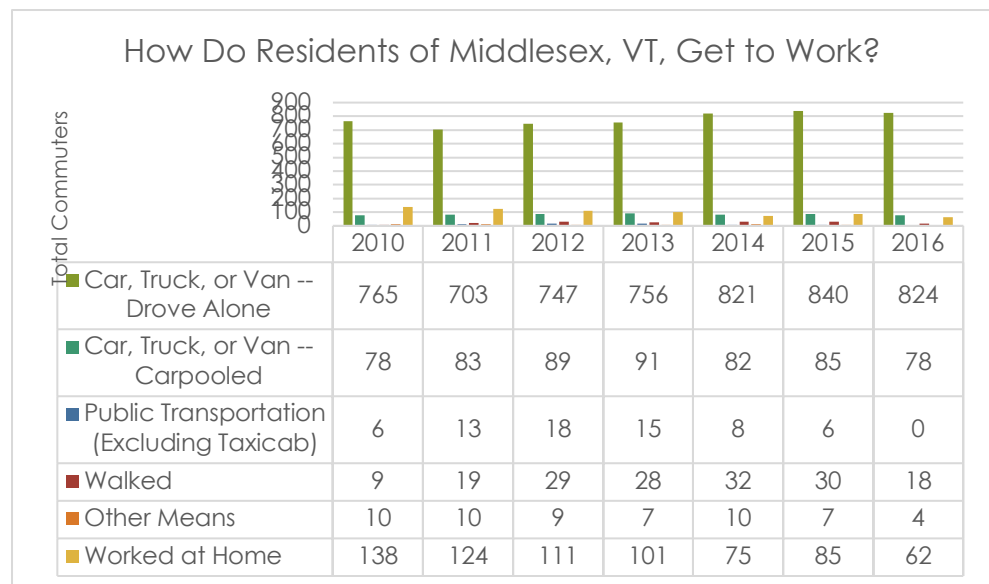
Like most of Vermont, the vast majority of Middlesex residents regularly used a car, truck, or van to commute alone to work between 2010 and 2016, as seen in Figure 11. (In fact, 8% more workers commuted alone to work in 2016 than in 2010.)

While the dominance of solo commuters never wavered throughout the time frame of the research, almost all other forms of commuter travel experienced a fluctuation of some kind.

Although the number of carpoolers in Middlesex was exactly the same in 2016 as it was in 2010, the number of employees that walked to work doubled, and the number of people that took public transportation to work dropped to zero. 60% fewer Middlesex residents used other means, such as a bicycle, to get to work in 2016 than in 2010, and the number of people that worked from home dropped 55% from 2010 to 2016.

AVERAGE COMMUTE TIME.

The average commute time to work for Middlesex residents was 26.7 minutes, exceeding the state average of 21.5 minutes. Promoting economic development in Middlesex, coupled with an increasing trend towards the ability to work from home could decrease the time Middlesex residents spend in their vehicles.



Commuting Options for Residents of Middlesex. Source: 2010-2016 American Community Survey 5-year estimates

Again, these numbers should be assessed cautiously given the small population size and large margin of error in statistical extrapolation.



C. EMPLOYERS IN MIDDLESEX

Understanding the town's current economic conditions will assist the town in planning for the types of economic development that best suits the town and its residents. Appropriate forms of economic development will:

- Preserve the town's rural and agricultural character,
- Increase tax revenues,
- Present employment opportunities, and
- Provide services for town residents.



The survey results tell us that Middlesex residents believe in the importance of increasing local employment and small businesses in town. The goals and policies for future economic development in Middlesex reflect this priority.

Middlesex currently has a mix of businesses including some light industry, a laboratory, several excavating businesses, forestry businesses, several livestock enterprises, a produce and nursery business, a restaurant, a B&B, a building supply business, a utility, a state warehouse, self-storage units, floral supply, and a number of home businesses.

CAMP MEADE. The Red Hen Bakery opened a café in the former Camp Meade diner building in early 2008, and soon after shared the building with a chocolate shop and pottery school and store, and later again by a retail shop selling locally produced arts and crafts. The property has grown into a thriving community hub.

The Camp Meade property has been a welcome addition to the character and livability of Middlesex. The Red Hen Bakery is well-known statewide and is a popular attraction for Vermonters and tourists who are passing through the area. Operating 363 days per year, the Bakery employs more than 40 people full time, bakes an average of 2,200 loaves of bread each day, and delivers to an average of 65 local stores and restaurants. Open seven days per week, the café is also successful and is often a lively spot for locals to gather or grab a pastry, sandwich, or beverage.

According to the Vermont Department of Labor, there were 55 town employers in 2011 employing 371 workers.

The new owners of the Camp Meade complex have also purchased the former Champlain Oil gas station across the road (currently operating as a consignment shop). Owners are considering a number of options, including developing the site as a station for a light commuter rail service.



In 2018, Kingsbury Construction received approval to subdivide and sell a portion of their Center Rd property to Vermont Patient Alliance, which will be the site of a secure medical marijuana grow facility. When both sites are fully built out, the two businesses could employ upwards of 60 people.

In 2018, the 100-year-old Middlesex railroad station and property was purchased by an artist and entrepreneur who hopes to contribute to the village renaissance by renovating and opening parts of the station as a public gallery. Most recently, the old Middlesex Country Store was purchased with plans to reopen as a commercial produce market.

MIDDLESEX THERAPEUTIC COMMUNITY RESIDENCE. When the flooding from Tropical Storm Irene forced the closure and temporary relocation of many of the state's buildings, the Middlesex Therapeutic Community Residence opened in Middlesex in 2013. It employs more than 30 full-time staffers.

JOB EXPORTS. Middlesex is a job exporting town, with the town having more workers than it does jobs. This is typical of a bedroom community and while residents have expressed interest in having more local job opportunities, there is no expectation that Middlesex will become the job importer the way of several of its neighbors.

Montpelier, Berlin, and Waterbury are the job importing towns which surround Middlesex, meaning that these towns have more jobs than workers. According to the 2010 Census there were 1,027 workers residing in Middlesex who were 16 years or older and 76% of them worked in jobs outside of Middlesex. This affects the length of time residents have to commute to work as shown in other sections of this Town Plan.

Commute times did not appear to be a significant concern expressed in either the What's Next Middlesex outreach or the town survey responses. Residents did list proximity to the interstate and the state Capital as important features of town, though local jobs and affordable co-working also appeared as desired goals.

D. INDUSTRIAL AREAS

There are two industrial areas in town. Along Route 2 just northwest of Middlesex Village is Welch Industrial Park. Here, off Welch Park Drive, several businesses operate with several dozen employees. The buildings here are largely unobtrusive, hidden from the busier road by a row of trees. The industrial park is also home to a town recreational area and the town's volunteer fire station. It could likely accommodate some future commercial expansion or additional growth.

There is also a developed industrial area in the eastern section of town. This area lies partially in the flood hazard overlay and mapped river corridor area. Future land use planning will monitor whether there are any hazards threatening the properties in this industrial zone.



E. SUMMING UP COMMUNITY AND LIVELIHOODS: GOALS, OBJECTIVES AND STRATEGIES

Objective 3. Plan for future economic growth.

- Strategy 6. Create an Economic Development Advisory Committee to develop an economic development plan for approval by the Planning Commission and the Selectboard which will address light industry, small scale commercial/service uses, and agriculture and forestry.
- Strategy 7. The Advisory Committee should also develop a plan for retail and service business growth to meet expected population growth, while retaining an emphasis on affordability, community-scale, and unique sense of place.
- Strategy 8. Examine the town's Zoning Map and update as needed.

Objective 4. Promote small home-based businesses that faithfully maintain the rural nature of the residential sections of town.

- Strategy 9. Amend zoning regulations as needed to make the permitting process for home-based businesses clear, easy and affordable.

Objective 5. Assist in enabling affordable child care in town.

- Strategy 10. Examine zoning regulations as needed to ensure that childcare centers are permissible where appropriate and make the permitting process clear, easy and affordable.

Objective 6. Support agricultural enterprises, while preserving natural and agricultural resources, fragile features, and the scenic and rural character.

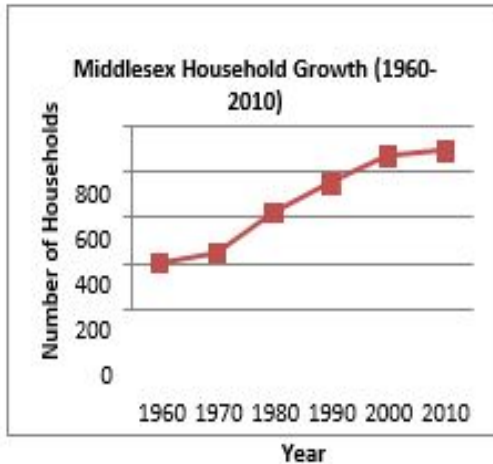
- Strategy 11. Examine the town's Zoning Map and update as needed. The zoning map should respect the areas identified for resource conservation.
- Strategy 12. Provide access to business capital and support for grant funding, tax incentives and events and programs to attract and nurture emerging agricultural and forestry enterprises.

ECONOMIC DEVELOPMENT GOALS

- 6. Encourage economic development that will provide good-paying, highly skilled jobs and desired services to town residents.
- 7. Promote an active retail and service center in the Village District which is scaled to reflect a traditional historic village downtown.
- 8. Support agriculture and forestry-based businesses.
- 9. Promote accessible and affordable child care in town.



1.5. Housing: Where We Live



Housing is important to every family in Middlesex. Housing needs often change over a resident's lifetime. A younger resident may need rental housing or an affordable home for beginning a family. An older resident may want to retire to a townhouse or condominium where there is less space to take care of. Middlesex strives to provide a range of housing opportunities to meet the needs of all residents.

This section describes the town's current housing stock and future housing demand. It then proposes strategies to meet the demand for housing in a way that also meets the goals listed in other sections of this report and preserves the town's current high

quality of life for all residents.

INCREASE IN HOUSING UNITS. Housing units commonly exceed the proportional growth of population as the average household size is decreasing. This results in an increased number of households as residents spread themselves out in a greater number of housing units.

A. HOUSEHOLD UNITS BY OCCUPANCY.

Data from the US Census divulges the dominance of owner-occupied household units in Middlesex over time, a characteristic that remained steady from 2010 through 2016, with a peak in 2015 of 718 household units. The fluctuations shown are almost certainly the result of sampling bias. Both figures show nearly identical fluctuations for the years 2014-2016. Due to the small population in Middlesex, the margin of error is proportionally very high.

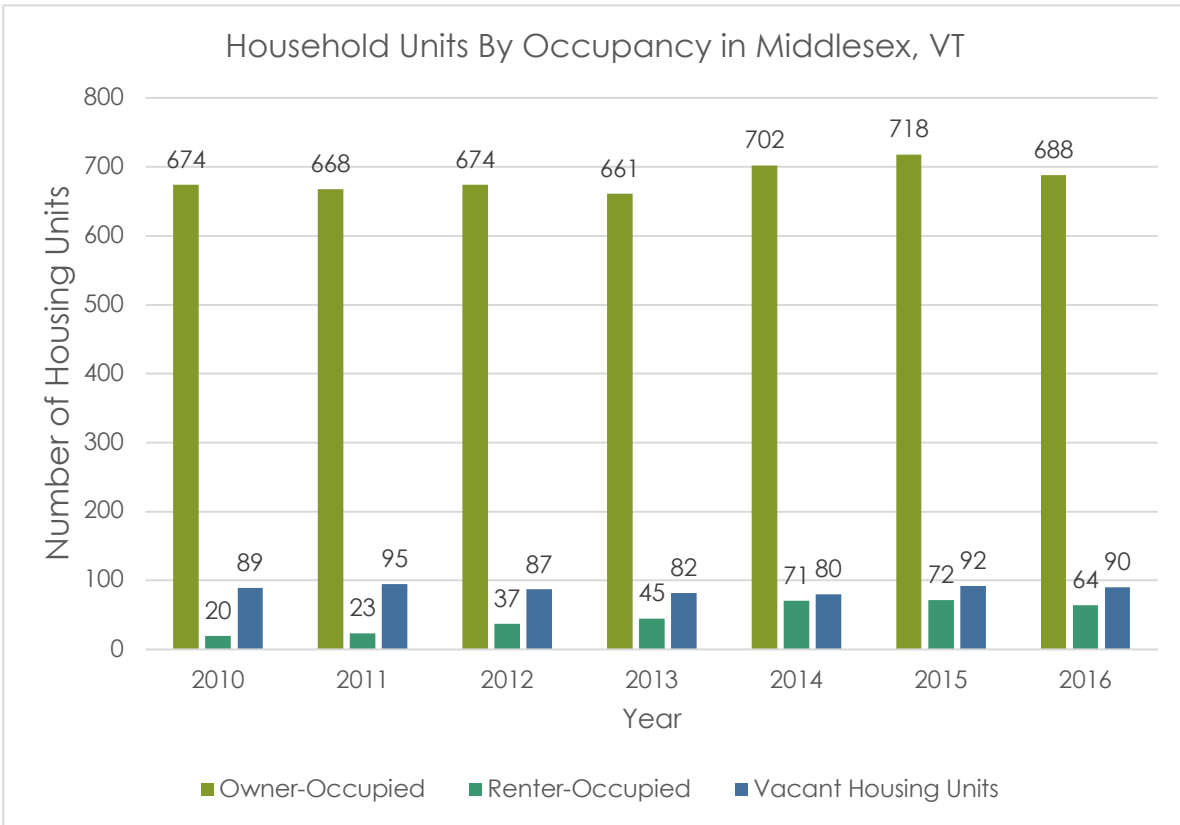
Total	Owner 618	Renter 69
1-person household	93	27
2-person household	261	27
3-person household	119	12
4-person household	112	3
5-person household	22	0
6-person household	6	0
>6-person household	5	0
SOURCE: US Census 2010		

Household Size by Tenure

Concerning net trends, there were 2% more owner-occupied household units in 2016 than in 2010, along with 320% more renter-occupied units and 1% more vacant units. Again, it is important to temper a reading of these statistics with the small population and likelihood of sampling bias.



Middlesex issues very few housing permits per year. A five-year average shows less than 6 single family dwelling units per year, with no single year more than 8. Only one permit for a multifamily dwelling unit has been issued in the years 2013-2018.



Source: CVRPC

B. YEAR ROUND VERSUS SEASONAL OCCUPANCY

A significant majority of the housing units in Middlesex (82%) are primary residences. 5.5% are vacation homes, and an additional 9% of the homes are mobile homes. Almost 60% of all primary residences are located on more than 6 acres of land.

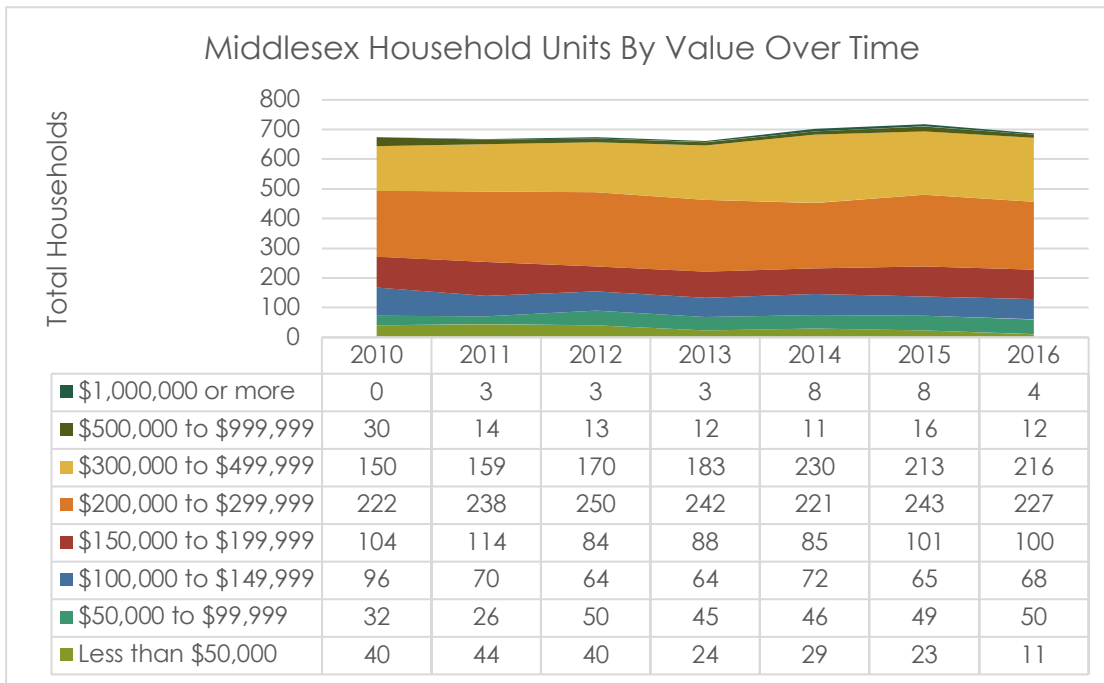
There are a number of known accessory dwelling units in town. Though the state of Vermont has enabling legislation to require municipalities to allow them, some appear to be unpermitted in town. The town is working with property owners to ensure all can come into compliance.

Property Type	Number	Percent
Primary Residences < 6 acres	256	33.5%
Primary Residences > 6 acres	378	49.1%
Vacation homes < 6 acres	10	1.2%
Vacation homes > 6 acres	33	4.3%
Mobile homes with land	61	8%
Mobile homes without land	6	2.9%
Total Housing Units	764	100%
SOURCE: 2012 Municipal Listed Values Report – VT Department of Taxes		



There are very few shared lot buildings in town, with only a handful of duplex and triplex buildings; most are in the village, though the town has recently permitted a multifamily unit building through its Planned Unit Development provisions.

Middlesex is an attractive location with its proximity to the state's Capital, various ski resorts, and other outdoor amenities. The town plans to closely monitor any increase in vacation homes or temporary rentals of homes and evaluate needs as they arise for any new related policies.



Source: CVRPC for US Census Bureau, 2010-2016 American Community Survey 5-year estimates

C. HOUSING SUPPLY AND AFFORDABILITY

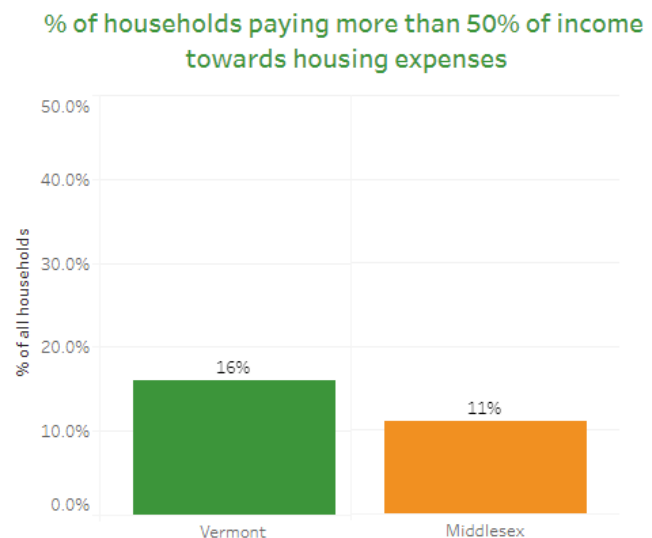
HOUSEHOLD UNITS BY VALUE. Generally speaking, Figure 9 illustrates the decline in the amounts of the highest- and lowest-valued household units in Middlesex over time. There were four more household units valued at \$1,000,000 or more in 2016 than there were in 2010; 60% fewer households valued between \$500,000 and \$999,999; and 73% fewer households valued under \$50,000. Proportionally, the most significant increase involved the 44% gain in households valued between \$50,000 and \$99,999; quantifiably, the addition of 66 household units valued between \$300,000 and \$499,999 between 2010 and 2016 was the most significant. Overall, there were slightly more household units in Middlesex in 2016 than in 2010. Rising from \$233,500 in 2010 to \$252,900 in 2016, the median household unit value increased by \$19,400 over six years.



Interestingly, the median home value exceeds the state and national average, while the gross monthly rent is currently slightly below the state and national average. It is noteworthy that there are very few multi-family dwelling units in town- the first was a 4-unit condominium permitted in 2010.

Despite the town's rich history, the housing stock in town is generally newer. The median construction year of homes in Middlesex is 1976, significantly newer than the county average of 1964.

HOUSING AFFORDABILITY. Affordable housing helps to retain and attract a qualified work force and provides an opportunity for first-time home buyers and older residents to remain in town. Housing affordability is measured by how much of a household's income is spent on housing costs. If a household spends more than 30% of its income on housing, the home is considered unaffordable for that homeowner or renter. In 2017, 26% of mortgage ownership households and 71% rental households were paying more than 30% of their incomes on housing costs in Middlesex. 11 % of households were paying more than 50% of their income to housing costs while 43% of renters were paying more than 50% of their income to housing costs! (Source: VHFA)



Although these numbers fall slightly below the state average, it still indicates that many households are severely cost burdened with housing costs.

ACCESSORY HOUSING UNITS & DIVERSITY OF HOUSING TYPES. To meet the town's goals for diversity and affordability, a wider spectrum of housing will have to be built in Middlesex. There are options available to do this that Middlesex plans to consider and pursue: small multi-family buildings and accessory dwelling units. There are not currently many multi-family dwelling units in Middlesex, even though they are permitted within several zoning districts, most especially the Village and Mixed-Use districts. A closer examination will be needed to understand what is preventing landowners from constructing these types of buildings.

Accessory housing units are a beneficial tool in the provision of affordable housing in towns of all sizes. They may provide housing opportunities for an elderly population that could not otherwise live independently, provide extra income to the homeowner to enable affordability of the home, and supply affordable housing for single persons or couples, a growing segment of the Vermont population which is now the majority.

Vermont's law on equal treatment of housing requires municipalities to allow homeowners to add one Accessory Dwelling Unit (ADU) to their house as a permitted use as long as certain conditions are met. Accessory dwelling units are accordingly permitted in Middlesex. However, admittedly, very few have sought permits. Middlesex endeavors to increase awareness of this allowance and continue to assist



homeowners seek to create an accessory dwelling unit within their home or on their property. This includes utilizing the Vermont Department of Economic and Community Development's brochure *Adding an Apartment to Your House*.

D. REGIONAL PLANNING PROJECTIONS

Middlesex is one of 23 member municipalities of the Central Vermont Region, supported by the Central Vermont Regional Planning Commission (CVRPC). Like municipalities, the CVRPC is similarly obligated to create a plan in accordance with Vermont Statutes and statewide planning goals. The CVRPC adopted its current (2016) plan in June of 2018.

The Regional Plan recognizes challenges in housing affordability and supply, noting that housing costs are increasing at a faster rate than family income.

CVRPC's REGIONAL HOUSING DISTRIBUTION PLAN: MIDDLESEX. In 2008, the Central Vermont Regional Plan adopted a Housing Distribution Plan as part of its Regional Plan. It reaffirmed the same Housing Distribution Plan and language in 2018 as part of its 2016 Regional Plan.

CVRPC's Housing Committee developed the Plan to encourage the development of more meaningful and practical local housing plans and to promote the sustainable and efficient distribution of housing region-wide. It was formulated with the aim of ensuring that all towns continue to contribute similar percentages of the Region's total housing in the future as they did in the year 2000. By doing so, it is hoped that the burdens and benefits of providing housing can be balanced among Central Vermont communities and sprawling, inefficient patterns of growth can be curtailed.

That document asks municipalities to plan for a future estimated housing need through the year 2020. Specifically, it asks municipalities to provide:

- A detailed map or maps of the town showing the town's preferred locations for future housing units - consistent with current or proposed zoning - for 80 percent of the anticipated 10 to 15-year housing allocation.
- Mapping updates that identify the locations and number of housing units created in the town since the previous town plan adoption.

While municipalities are under no obligation to comply with the guidelines of Distribution Plan, inclusion of the above items will be necessary in order for any plan adopted after January 1, 2009 to receive regional "approval" (per Chapter 117, Section 4350).

Middlesex Housing Distribution per CVRPC Regional Plan

<i>2000-04</i>	<i>2005-09</i>	<i>2010-14</i>	<i>2015-20</i>	<i>Total</i>
76	68	84	151	379

It is important to emphasize that CVRPC views the Town's response to the Distribution Plan as a planning exercise. According to CVRPC: "The projected housing demand numbers are not quotas or targets and we will not be requiring implementation. We are most interested in knowing that municipalities are cognizant



of where housing growth is currently occurring, and thinking about where it should occur in the future, in their respective communities.” As such, it makes sense for the Town to plan for this growth, as the housing market is subject to change and such growth is likely to come eventually.

The Distribution Plan allocates 235 new housing units to Middlesex through the years 2010-2020. With less than one dozen homes built each year, Middlesex has not produced the CVRPC’s forecast of 379 units. However, Middlesex does endeavor to locate 80% of its actual growth in the Village, Mixed Use, and Medium Density Zoning Districts.

Accordingly, a map showing preferred locations for accommodating 80% of allocated future units from 2010 through 2020 and the difference from 2000 to 2010 (or 267 units in Middlesex’s case) will be included in the Municipal Plan.

Middlesex’s 2019 Town Plan is compatible with the Regional Planning Commission’s housing goals and projections to the extent that they are current. Middlesex’s Town Plan endeavors to plan for 10-20 years of planning. Expiring in 2027, it will exceed the regional housing projections which are not yet forecast past 2020.

E. TRENDS, IMPLICATIONS, AND COMMUNITY RESPONSE

GROWTH AND DEVELOPMENT. Middlesex has a relatively low level of growth and development in town. The town employs a part time zoning administrator, and only a few dozen permits are issued each year.

Middlesex Zoning Permit Activity -- 5-Year Average

Project Type	2014	2015	2016	2017	2018	5-yr ave	Frequency
Subdivision (add'l lots)	4	3	5	2	4	3.6	9%
Boundary Line Adjustment	0	2	4	1	3	2.0	5%
Single Family Dwelling	5	8	7	3	6	5.8	14%
Multi-Family Dwelling	0	0	1	0	0	0.2	0%
Mobile Home	1	2	1	2	1	1.4	3%
Garage/Barn	5	7	6	4	5	5.4	13%
Carport	0	2	0	1	1	0.8	2%
Deck	4	5	4	6	0	3.8	9%
Porch	4	1	2	1	5	2.6	6%
Addition/Alteration	5	10	3	3	2	4.6	11%
Shed/Accessory Structure	3	10	11	6	6	7.2	18%
Commercial Building	4	0	3	0	1	1.6	4%
ZBA Hearing	1	2	2	2	2	1.8	4%

Source: Town of Middlesex Zoning Officer

Middlesex hopes to manage its growth in housing and population as a necessary strategy for achieving the objectives in this plan. Thus, we do not seek to grow to a target size, but rather to keep growth within limits that allow maintain the rural character of town. Opportunities for more development in areas closer to the



Village District where there are good roads and access should be encouraged, while new development in the more rural areas of town must respect the existing rural character of the area and be very carefully planned such that they are in alignment with the stated goals of this Plan.

AFFORDABILITY. If the demand for housing in Middlesex is not met, prices will continue to rise and the number of homes that become unaffordable will increase. Residents with low or moderate incomes will likely be forced to leave the community.

In response to the 2018 survey, Middlesex residents overwhelmingly listed “Affordability” as the most pressing issue in town, with more than 65% ranking that as their first priority. The increased median age of the average Middlesex resident, and the increased median home value may indicate that it is becoming increasingly difficult for younger households to afford housing in town.

Measurable impacts on housing affordability will need be multi-faceted. Increasing housing stock in the village areas may be helpful, but will not be enough on its own. The town will strive to work with community and state partners to obtain access to funding sources. A dedicated town commission or subgroup will be necessary to help outline ideas and seek practical solutions.

ZONING. Middlesex’s re-zoning of March 23, 2010 created a mixed-use district that allows multifamily homes and higher density, as well as provisions to manage density, rather than lot size to allow smaller lot sizes, and generous allowances for accessory apartments, are measures that can make development less expensive and provide business for local stores and restaurants in the village center.

Most of the property in the mixed-use district is owned by a few land owners and some development has begun; two new businesses in new buildings now call Middlesex home. This land is extremely attractive in that it provides easy access to the interstate and as such the town anticipates that more proposals may soon be made. Residents and town leaders continue to approve of and support the land use plan for this area and anticipate positive outcomes related to housing and employment. No changes to the zoning are anticipated for this area at this time.

The Regional Housing distribution map identifies Mixed Use, Rural Residential and Medium Residential, as well as Village District zones as targets for new housing developments. When asked what types of housing development should be promoted in Middlesex, survey respondents were direct.

Single Family	206
Starter Home	148
Tiny Homes	145
Cluster Development	107
Assisted Living	104
Low Income	98
Condominiums	67
Other	52
Mobile Home Park	24
Multi-Family	0

The town acknowledges that the current zoning regulations may not sufficiently address or permit the housing types indicated as desirable in the survey, which also generated comments suggesting that co-



housing could help with affordability concerns. The town endeavors to examine the zoning regulations and seek to align them with promoting the goals herein.



F. SUMMING UP HOUSING: GOALS, OBJECTIVES, AND STRATEGIES

Objective 7. Implement the goals of the Town Plan and support the continued fit between housing and tax supported systems such as schooling and roads, and between housing and the natural environment.

Strategy 13. Align zoning regulations to reflect targeted areas of increased or decreased housing density.

Objective 8. To increase education in the home-building process.

Strategy 14. Provide information about energy conservation, sewage systems, road access and compliance with zoning regulations for owners who want to undertake new construction.

Objective 9. To maintain low density, rural character outside of the Village as a matter of policy.

Strategy 15. Limit housing types to single family and two-family use throughout the rural areas of town, while promoting small-scale, small-footprint multifamily units in the village center and mixed-use areas.

Objective 10. To increase affordable housing options in Middlesex.

Strategy 16. Ensure that accessory dwelling unit provisions in the zoning code meet state legislating requirements.

Strategy 17. Consider additional options towards increasing housing affordability within the town as part of the Planning Commission's 3-year work plan.

Strategy 18. Target the Mixed Use, Medium Density Residential, and Village zoning District as targets for 80% of new housing, including a diversity of housing types.

HOUSING GOALS

10. Manage the growth of housing in Middlesex in order to protect the town's rural character and quality of life.

11. Meet the needs of residents for affordable housing and special needs housing.

12. Ensure that any new housing does not exceed the abilities of existing or planned infrastructure.

13. Housing growth should minimize impacts on the natural environment.



CHAPTER 2: A LANDSCAPE THAT LASTS

Protecting Working and Conservation Lands

2.1. Overview

This section covers the mountains, waters, forests, fields, plants, and animals that comprise the physical character of Middlesex. From wildlife habitat to farmland, the natural beauties and wonders are an essential part of what make Middlesex what it is, and what residents most often cite when describing their home.



The health of the Town's natural resources is important, as is their pivotal role in the land-use occupations they support, the outdoor recreation they provide, and the opportunities for learning about our natural world so close to home. These natural resources provide recreational opportunities, wildlife habitat, groundwater recharge and even flood water storage.

In order to protect and encourage responsible use of natural resources, Middlesex's goals and policies will aim to encourage the manufacturing and marketing of value-added agriculture and forest products; the use of locally grown products; the use of best resource management practices; and the planning of public investment to minimize development pressures on agricultural and forest lands.

RIDGELINES. The Town recognizes the importance of preserving its ridgelines for future generations to enjoy. These high mountain areas play a vital role in the water cycle. There are greater amounts of precipitation that filter through the thin soils, eventually reaching major ground water supplies. Uses which result in the removal of vegetation and soil cover are especially detrimental to the natural drainage of water. These same areas are the natural habitat for a variety of birds and animals, which could be impacted, were development to occur.



2.2. Forests and Fields

The combination of forests and fields are a significant element in determining the rural character of Middlesex. The views of these open spaces to a large extent define the character of rural living. The forests are used by many residents for logging, as well as hunting, hiking, skiing, and other recreational pursuits. Most of the land is privately owned.

Middlesex has significant large forested areas, currently undeveloped, which are interrupted only by the occasional logging road or trail. The Putnam State Forest runs along the western boundary of the town, part way up the slope of the Worcester Range. As detailed in this report, Middlesex has a protected Town Forest.

The State of Vermont's Agency of Natural Resources has identified both "Highest Priority" and "Priority" interior forest blocks in their 2016 Biofinder application. These exist throughout much of the town of Middlesex. These landscape scale components are not unique to just Middlesex and are likely included as highest priority because they provide such valuable linkages throughout the state.

The Biofinder resource also highlights priority connectivity blocks to be found throughout the State of Vermont and in Middlesex. These consume nearly the entire town. Careful attention will need to be given as to how land within these overlays is regulated.

When these layers are combined, Middlesex is able to quickly see the highest priority community and species scale data, as well as the highest priority landscape scale components. Together, these represent overall priorities in Vermont Conservation Design.

These layers are mapped and shown in Map 1.6 in the appendix of this Plan. A description of the highest priority landscape scale elements can also be found in the appendix of this Plan.

A. LAND USE, CURRENT USE, CONSERVATION STATUS

CURRENT USE. There are approximately 86 privately owned parcels in the town currently enrolled in the State of Vermont's 'Current Use' program as of 2018. This popular program provides tax relief to landowners who keep their land in forestry or agricultural uses for a minimum amount of time, allowing the valuation and taxation of the farm or forest land to be based on its value of such use, rather than its value in the market place.



B. PRODUCTIVE AGRICULTURAL LANDS AND FOOD SYSTEMS



SMALL FARMS. Middlesex currently hosts a variety of agricultural operations. Persons Farm on Center Road has chickens, horses, and cows and sells eggs, vegetables, and meat. Osprey Hill Farm in Putnamville sells lamb, sheep pelts, yarn, raw wool, and wool blankets.

Settlement Farm along Route 2 has operated intermittently and has offered a multitude of vegetables grown on the farm including a dazzling array of chrysanthemums, pumpkins and corn. Christmas trees are available at Meadow Ridge Farm and Sunnybrook Farm. Sunnybrook Farm also offers eating and seed garlic. Maple sugaring occurs throughout Middlesex, including the yearly batch made with the help of Rumney Memorial School students. Pease Farm on Culver Hill Road sells mulch hay and operates as a stable for horse riding lessons, therapeutic riding programs, leasing, and boarding. Newer to Middlesex is the growing of hemp, with several residents growing and harvesting small crops.

Eggs can be purchased along at least 5 roadways through town, and sometimes eggs can be seen for sale by neighbors directly across the road from each other, as on East Hill. Blueberries can be picked at a farm on North Bear Swamp Road. Backyard farms offer for sale honey, eggs, and chickens, pigs, and other meat which can often be seen advertised on Front Porch Forum or on signs posted around town. The barter of home-grown vegetables can also be seen on FPF each harvest season. Someone always has too many zucchinis or is looking for more cucumbers to pickle.

The small scale of Middlesex's farms serves local residents by providing healthy and affordable food and provides educational opportunities for the community's children and adults.

While most of Middlesex is hilly, there remains some higher quality agricultural soils in the town. These soils often are valuable for agriculture, and are also suitable for siting septic systems. As housing increases in town, efforts to support and allow the continued use of fields for agriculture should be encouraged.



Middlesex farms, both commercial and backyard, play a valuable role in the conservation of Middlesex's natural resources and in ensuring soil health, and maintaining water quality. Town efforts can support agricultural planning that aligns with statewide water quality goals - supporting farmers and encouraging homestead, hobby operations, and homeowners to adopt best practices that reduce pollution. These include soil, nutrient and manure management strategies that limit nitrogen, phosphorus and sediment from flowing into streams, and

sequester carbon to help mitigate the impacts of extreme weather events. This can include sharing information about lawn and garden practices (keeping grass longer, not having bare soil in gardens) and layout of barns and barnyards and paddocks at the "homestead" or "hobby" level to reduce runoff.



Farmers in Middlesex have worked with Rumney Memorial School students, inviting them to their farms so they can understand the connection and dependence that humans have to the land and animals. Going forward opportunities to expand this sharing of information and knowledge about farming resources with school-age children should be encouraged.

C. TOWN FOREST AND MANAGEMENT PLAN

TOWN FOREST. In January 2009 the Town acquired a 403-acre parcel at the end of Notch Road that has been designated as the Middlesex Town Forest. The Town of Middlesex owns the Middlesex Town Forest property and is responsible for its long-term management. Vermont Land Trust (VLT) and Vermont Housing and Conservation Board (VHCB) hold the Conservation Easement, which permanently protects the natural resources on the property and removes all development rights from the property. The Vermont Land Trust and Vermont Housing and Conservation Board require an approved Management Plan for the property. The Middlesex Town Forest Planning Committee, a sub-committee of the Middlesex Conservation Commission, was created to solicit input from Middlesex residents and draft a Management Plan that was later approved by the Town.

The Plan describes management strategies for natural resource protection, sustainable forestry, community recreation and education. The Plan is intended to increase the continuity of management over time by providing the Town with background information and a consistent policy framework. The Plan is a living document that can be revised periodically as new information is gathered, as forest conditions change, and as management strategies improve. Upon adoption of the Management Plan, all future management issues will be decided or delegated by the Middlesex Select Board. To help the Select Board fulfill their responsibilities, the Select Board and the Conservation Commission created a Town Forest Stewardship Committee (TFSC) that acts as a subcommittee of the Conservation Commission. The TFSC is responsible for the day-to-day management of the Town Forest.



The Management Plan is a guiding document to help Middlesex steward its Town Forest in perpetuity. The Town of Middlesex recognizes that forests are an essential component of Vermont's healthy ecosystems and healthy communities. The Town Forest will be managed in a manner that promotes the health of both, and that encourages all members of our community to learn about, enjoy, and gather in our Town Forest. The plan's primary objective is to balance human uses of the Town Forest with protection of its natural resources, according to the legal requirements of the property's Conservation Easement and the desires of all Town residents.

D. WILDLIFE AND PLANT COMMUNITIES AND CORRIDORS

PLANTS AND ANIMALS. A great diversity of wildlife species makes their home in Middlesex or travels through it, providing residents with ample opportunities to view wildlife. The species range from song birds



and small mammals such as red squirrels and raccoons to large mammals such as deer, bear and moose. Among the important habitats in town are vernal pools that are important breeding sites for amphibians such as wood frogs and spotted salamanders and marshy areas in the northern end of Wrightsville Reservoir that are home to a healthy population of beaver and other animal and bird life. Five main deer wintering areas in Middlesex have been identified by the VT Department of Fish and Wildlife. The relatively intact forests of the Worcester Range in Middlesex provide important habitat connectivity with the rest of the range extending to the north in Worcester and Elmore. The entirety of the Worcester Range is a crucial link to the extensive forest areas found in the Northeast Kingdom.

The Natural Heritage Program of the VT Department of Fish and Wildlife lists three sites in Middlesex that are known locations of rare plants or plant communities. Detailed information about these sites is available from this agency.

Other community and species scale component data is readily available from the State of Vermont which helps us to understand the presence, movement, and habitat for the state's wildlife. In considering impacts on natural resources, Middlesex will assess the presence of vernal pools, wetlands, surface waters, wildlife crossings, grasslands, mast stands, and rare and uncommon species and natural communities.

Priority interior forest blocks and connectivity blocks shown in this report contribute directly to the health and sustenance of the state's wildlife. Fragmentation of these blocks can have disastrous impacts to these creatures.

E. PRIORITY CONSERVATION PARCELS

The future land use map indicates priority conservation parcels identified by the town. These are preliminary assessments based on known resources and community priorities. We recognize that further data collection and community outreach is needed to both finalize this list and to determine the appropriate methods for conservation of these parcels. These methods may range from Land Trust involvement, purchase, third party easements or restrictive zoning. Where development is permitted, subdivision regulations will need to be updated to objectively detail the limits imposed and the expectations, in order to minimize adverse impacts to site specific community and species scale resources as well as landscape scale forest and connectivity blocks.



F. SUMMING UP: FOREST & FIELDS GOALS, OBJECTIVES, AND STRATEGIES

Objective 11. Development should be planned and carried out to ensure the continued use of forests and fields, and avoid fragmentation of identified forest blocks and connectivity.

Strategy 19. Align zoning regulations to reflect this goal. This could include a change to developable areas, as well as enhanced resource specific standards.

Strategy 20. Amend the town zoning regulations to ensure that they preserve and protect the Town's ridgelines.

Objective 12. To maintain the quality and use of existing conserved lands

Strategy 21. Coordinate with natural resource agencies, organizations and outdoor recreation planners to manage conservation plans for publicly owned lands in Middlesex.

Strategy 22. Work with private land owners to encourage shared use for hunting, hiking, or other recreational uses.

Objective 13. Support the ability of farmers to provide locally grown food for residents

Strategy 23. Maintain the availability of affordable land for agricultural operations.

Strategy 24. Encourage educational opportunities on Middlesex farms.

Strategy 25. Support farmers efforts to protect natural resources including wetlands, water quality and clean air.

Objective 14. Encourage and support farming and other natural resource-based occupations.

Strategy 26. Evaluate and explore opportunities to help landowners keep their lands open for forest and agricultural uses in Middlesex.

LANDSCAPE RESOURCE GOALS

14. Protect identified natural resource features.

15. Avoid fragmenting important natural resources.

16. Recognize the carrying capacity of our natural resources and accommodate development that does not jeopardize these resources.

17. Support a range of home and backyard farming operations.



2.3. Waters and Waterways

A. STREAMS AND RIVERS: ASSESSMENTS, CORRIDOR OVERLAY, RIPARIAN BUFFERS



Middlesex is cradled in the confluence of the Winooski River and its major tributary, the North Branch. The north and east parts of town drain toward the North Branch, which is largely impounded within Middlesex as the Wrightsville Reservoir. The North Branch watershed in Middlesex is largely comprised of the Martins Brook drainage (a.k.a., Shady Rill), with its two main tributaries: Patterson Brook in the north, and Herrick Brook flowing into Martins from the south. The south and

western third of Middlesex drain directly to the mainstem of the Winooski River. The principle tributaries flowing south to the Winooski are the Notch, Great, and Sunny brooks.

Where the Winooski River flows by the Middlesex village and into the gorge it is already one of Vermont's largest rivers. For its size, the Winooski flows in a relatively narrow valley, and when a major flood event occurs, the River's fast-moving flood water inundates most of the valley bottom lands along its corridor. Tributary streams in Middlesex also drain through narrow valleys and different geologic settings off the flanks of the Worcester Mountains and East Hill. When the glaciers retreated over 10,000 years ago, a vast glacial lake extended into the hills of Middlesex. When the ice dam broke and the glacial lake receded, deep layers of clayey silts and sands that had collected on the lake bottom were exposed within the lower elevations of Middlesex. Rivers and streams have been eroding down through glacial tills and these glacial lake sediments ever since. The steeper brooks have beautiful cobble-boulder and woody debris streambeds. The rivers have sand and gravel beds.

The Winooski River, on Middlesex's southern town boundary, shares its valley with a major state transportation corridor (I-89, State Route 2, the Central Vermont Railroad) and lands that have long been used for commercial-industrial businesses, agriculture, and the Middlesex Village. More severe storms from climate change and impervious-surface stormwater and wastewater discharges from developed lands, including Montpelier just up-river, impact the water quality of the Winooski River. The mainstem was historically straightened through Middlesex as well, but the bedrock of the gorge and flow regulation at Wrightsville and East Barre flood control dams have moderated the river's response to this channelization.

EXISTING CONDITIONS AND HUMAN STRESSORS. Several Middlesex brooks are also followed by roads, and nearly all have culverts or bridge crossings. There are exceptions, but the brooks are predominately buffered from the town's dirt roads with strips of trees or woodland valleys that provide cooling shade, runoff



filtration, fish and wildlife habitat, and stable streambanks. Even those roads and lands set back from the streams may be hydrologically-connected, however, through the road-side ditches that deliver sediments and contaminants to surface waters during rainstorms, especially where gullies have formed. The other stressor to Middlesex brooks is the close placement of homes, driveways, and utilities, so that channel armoring must be used to try and stop the brooks from moving. Streams are dynamic systems, and extensive efforts to stop their movement lead to more movement (i.e., erosion) downstream.

The Great Brook deserves special mention. Driving slowly along the Brook Road, one will notice the many, many trees tilting over the brook. What is harder to see are the numerous landslides occurring along the Brook bringing large quantities of silty-clays down with the trees (see figure 2). The Great Brook runs milky gray during and after most rainstorms. The natural downward stream erosion into the old glacial lake beds mentioned above is partly the cause of these landslides. As the stream cuts down, the toe of the streambank is over-steepened, and the hillside fails. These natural processes are exacerbated by road runoff and stream channelization practices to protect the road and houses that deepen or constrain the Brook, thereby increasing the energy of flood flows.

Impacts will increase with more severe storms from climate change. Eventually, the landslides will widen the Great Brook valley and new pockets of floodplain will lessen the Brook's erosive power under flood conditions. In the meantime, however, there are flood-related hazards that should be a concern to landowners and the town in maintaining the road, bridges, and culverts.

Map 5 details the water resources and flood hazard potential within Middlesex.

SURFACE WATER USE AND ENJOYMENT. Middlesex Residents and visitors enjoy: taking a woods walk along the brook; having a family picnic at Shady Rill; watching the falls and cascades of the North Branch; finding stream bugs with Rumney school children; catching perch or smallmouth bass in the evening when the beaver slap their tails off the shores of Wrightsville; taking a summer dip in the pool below a culvert; and canoeing the Winooski River, maybe all the way to Lake Champlain. The waters in Middlesex's natural landscape are an immense part of its culture.

Land along the Winooski River is mostly in industrial, commercial, and agricultural use. ANR's Biofinder application easily shows the town's riparian areas: riparian wildlife connectivity, highest priority surface water and riparian areas, and priority surface waters and riparian areas.

POTENTIAL FOR RECLASSIFICATION. Two streams in Middlesex have been identified by the Vermont Department of Environmental Conservation (DEC) to have the potential for reclassification under the revised Vermont Water Quality Standards. These streams are Martins Brook and Herrick Brook and data collected by the Vermont Department of Fish and Wildlife show that these streams have high quality fisheries and therefore have the potential to be reclassified. The updated water quality standards have included a higher level of protection for waters that meet certain criteria for specified uses. For instance, if a community has a stream section that meets the criteria for high quality for fishing, the stream can be reclassified to a higher level for that use. Martins Brook and Herrick Brook meet such criteria for a higher classification (B1) for fishing. The Central Vermont Regional Planning Commission (CVRPC) presented this information to the Middlesex Conservation Commission in early 2019 and laid out the process for Middlesex



to follow with the DEC. Middlesex is in support of the reclassification of these waters, which will be essential to move forward with the process with Department of Environmental Conservation.

B. PAST DAMAGE AND CONCERNS

The town's streams, rivers, and lakes are a valuable resource for the community, providing a source of fresh water, natural beauty, and recreational opportunity. However, they have and can pose a flood risk to the community. These risks must be continually assessed and the hazards adequately planned for.

Middlesex has not been immune to seasonal or storm flooding. Most in town know of the great flooding of 1927. Though the Wrightsville Dam was later constructed to mitigate this, the Winooski River still carries a great deal of water during storm events. In 2011, Tropical Storm Irene led to flooding of almost all of Vermont's waterways. There was vast and expensive damage to surrounding communities, but the structure of this particular storm and the elevations above the river left Middlesex relatively unscathed.

Middlesex is committed to planning for these areas and these storms should it not be as fortunate during future storms or above-average seasonal flooding.

C. MAPPED FLOODPLAIN INUNDATION AREAS, FEH AREAS



River Corridors refer to the land area adjacent to a river that is required to accommodate the natural flow and maintenance of rivers. They identify the area that the stream or river needs to maintain physical / geomorphic equilibrium. These dynamic areas are also where a great deal of damage occurs during flooding disasters and will likely increase due to climate change. River Corridor data can be used along with Floodplain data to direct new structures to safer locations.

It is important to understand and map these corridors- the channels and adjacent lands-

so that new and existing structures may be protected from natural channel migration and so that channel migration may be as natural as possible.

The State of Vermont has been working diligently towards mapping new floodplain inundation areas, updating the models to show not just where rivers and streams currently exist, but also including where they are likely to move, meander, and where their banks have the potential to overflow. This 'River Corridor' data replaces the former 'Fluvial Erosion Hazard Areas' and became available to municipalities in 2019.



Middlesex respects these delineations and is committed towards local regulations which carefully consider restrictions in these floodplains and appropriate levels of development in river corridors. Middlesex is also committed to working with local landowners to advise them of their location within these areas as the conditions and related mapping delineations change.

D. PONDS AND WETLANDS

Wetlands are places where land and water meet. They may be inundated by water for a few weeks of the year or may have shallow water year-round. These wetlands are protected under the State Wetlands Rules (those on the National Wetland Inventory Maps) where they provide significant functions and values, or where a buffer is needed to protect them. They are shown on Map 5. It is possible that noteworthy wetlands may exist that are not shown on the NWI Maps. Field delineation is expected for all development applications. The current zoning regulations prohibit land development in the wetlands and defer to state regulations as part of Act 250 review.

E. GROUNDWATER

Groundwater is an extremely important public health and safety resource. It begins as precipitation that infiltrates through the soil to the water table. In the saturated zone, below the water table, groundwater occupies pore spaces between rocks or within fractures. Generally following the topography, groundwater slowly flows downgradient and is a source of recharge to lakes and ponds, rivers and streams, and wetlands. Groundwater also supplies thousands of Vermonters with drinking water. This is especially true in rural areas where springs, dug wells, and drilled wells serve single family homes.



Everyone should be knowledgeable about their water system. To protect groundwater, homeowners must be mindful of where their drinking water supplies are located with respect to potential source of contamination. For instance, water supplies need to be an appropriate distance from a septic system and away from the path of leachate, wells should not be placed near roads to prevent salt contamination, pesticide and fertilizer use should be limited around drinking water sources, while oil spills and leaking fuel tanks can pollute drinking water. The State of Vermont offers a drinking water testing service.

Areas around water sources are critical to keeping water safe and clean. These source water protection areas are monitored and, in most cases, regulated by the State of Vermont Department of Environmental Conservation.

Middlesex has several Non-Transient Non-Community (NTNC) Water Systems. These systems by definition regularly serve at least 25 of the same people daily for more than six months per year. Rumney School serves more than 200 users, while the General Services Complex and Welch Park Association serve a combined 100 users. Private wells in Middlesex are also non-transient. These water sources are vitally important to the people of Middlesex and afforded high levels of protection.



The Planetary Matters property (currently Red Hen, Nutty Steph's), and Wrightsville Beach are part of a Transient Non-Community Water System (TNC). While the risk of effects from contamination are slightly lower than in a NTNC because most users are not consuming the water for sustained periods of time, Middlesex is nevertheless committed to ensuring clean and safe water for its residents, employees and visitors.

Middlesex is also committed to planning for future municipal groundwater needs. It does not currently have a Public Community Water System, but recognizes that the need may arise with population growth or economic growth in the village and multiuse districts. Middlesex should identify these future areas and plan now for groundwater protections, regulating accordingly.

F. PLANNING AND REGULATORY NEEDS

Land Use Regulations (last updated January, 2017) defer to the State of Vermont for some of its regulations related to surface waters, hazard areas, and wetlands. Site plan and Planned Residential Development review does provide for general overview of all classes of wetlands, with broad authority given to the Planning Commission to impose appropriate conditions on development to protect wetlands and floodplains where there may be adverse impacts.

PRD review is in place in the town's Land Use Regulations such that clustering is encouraged: greater concentrations of development may be permitted on less environmentally sensitive land in order to protect those areas with greater ecological resources.

Some specific uses, including salvage yards and similar, are also regulated with increased setbacks to important fluvial features. Conditional use review is another tool employed by the town to provide a more detailed assessment of a development's impact on critical resources.



G. SUMMING UP WATERS AND WATERWAYS: GOALS, OBJECTIVES, AND STRATEGIES

Objective 15. Keep waterways clean and free of pollution.

Strategy 27. Invest in road maintenance and other practices that provide for natural absorption of pollutants and resilience to climate change impacts.

Strategy 28. Maintain best practice standards for septic and manure management systems to avoid pathogen discharges that adversely affect swimming and other contact recreation.

Objective 16. Prepare for future flood hazards.

Strategy 29. Keep new buildings, utilities and other infrastructure set back from streams and rivers so that flood flows are neither restricted nor diverted to the detriment of others.

Strategy 30. Adopt stormwater management best practices.

Strategy 31. Replace town culverts to meet state stream alteration standards.

Strategy 32. Develop a hazard mitigation plan for the Great Brook and Brook Road corridors.

Objective 17. Protect the natural quality of streams, rivers, and wetlands.

Strategy 33. Require the preservation of adequate vegetated buffers along streams and wetlands during the development process. Tree removal should be limited to those that are hazardous.

Strategy 34. Educate residents about property management and stream ecosystems.

Strategy 35. Restore and maintain the flows of Middlesex streams and rivers to the greatest extent feasible.

Objective 18. Plan for and protect future water sources

Strategy 36. Explore opportunities for a public water supply source

Strategy 37. Protect existing wells and groundwater source protection areas

Strategy 38. Explore potential Class 2 protections of drinking water sources

Strategy 39. Continue to require state permitting of private wells

WATERS AND WATERWAYS GOALS

18. Continue to ensure clean surface waters for drinking and recreational enjoyment.

19. Plan for flood resiliency.

20. Maintain riparian areas along waterways.

21. Restore natural water flows.



2.4. Community Lands

Outdoor recreation opportunities provide some of the greatest benefits of living in Middlesex. From the spine of Vermont's Worcester Range to the waters of Vermont's largest river, Middlesex has something for everyone. The ability to enjoy the natural beauty of Vermont within walking distance of one's home is one of the aspects of a rural life style that Middlesex residents highly value. In the 2012 town wide survey, 87% of Middlesex residents feel that a rural lifestyle is either important or highly important and close proximity to outdoor recreation is a manifestation of this lifestyle.

The residents who attended What's Next Middlesex strongly supported the importance of trails to the future of the town. Not only are they a valued recreation resource, they also have the potential to be an economic driver (as shown in nearby towns) and a transportation system for the future that will help cut greenhouse gas emissions. The development of a cohesive trail system that separates fast moving vehicles on our Class 2 and 3 roads from pedestrian and other slower moving users is essential for safety, health, and livability.

This topic was of such strong interest that it was designated as one of only four working groups that are continuing to meet to create timelines and identify projects that can advance these goals. There is hope that Middlesex will maintain and expand its recreation trails, develop trails that connect key locations in town (such as Rumney School, the Village, and Wrightsville), and ultimately connect with adjoining towns in a central Vermont trail network. The trails group is already working closely with the Conservation Commission and the Recreation Director towards these goals.

A. TOWN OR STATE SPONSORED RECREATIONAL LANDS

The Middlesex Grand List shows that there is a total of 2,523 acres of State-owned public lands in Town.

State Owned Lands			
Owner	Description	Location	Acres
Department of Fish & Wildlife	Middlesex Notch WMA	TH 33 Notch Road	580.00
Department of Forests, Parks & Rec.	Putnam State Forest	NW Corner Middlesex	76.00
Department of Forests, Parks & Rec.	Putnam State Forest: I-89 Tract	US 2	127.00
Department of Forests, Parks & Rec.	Putnam State Forest: Densmore Mountain Tract	NW Corner Middlesex	125.80
Department of Forests, Parks & Rec.	Putnam State Forest	TH 41	329.00
Department of Forests, Parks & Rec.	Wrightsville Dam: Fee Lands	VT 12	675.90
Department of Forests, Parks & Rec.	Wrightsville Dam: Flowage Rights Only	VT 12	112.30
Department of Forests, Parks & Rec.	Putnam State Forest	NW Corner Middlesex	496.70
Department of Forests, Parks & Rec.	Putnam State Forest: Parking Lot TH #7	TH 41 North Bear Swamp Road	1.00
Total			2523.70



PUTNAM STATE FOREST. The Putnam State Forest is made up of several parcels on opposite corners of the town: 127 acres on the I-89 Tract, 329 acres that can be accessed from North Bear Swamp Road and Notch Road and 496 acres in the northwest corner of Middlesex.

HUNGER MOUNTAIN HEADWATERS PROJECT. In 2018, the Trust for Public Land (TPL) acquired approximately 1700 acres of forestland in the towns of Middlesex, Worcester and Stowe which surround and support the Hunger Mountain Headwaters. The TPL is in the process of transferring this land to the State of Vermont and may become part of the Putnam State Forest.



The land has significant forest resources, wildlife habitat, and outdoor recreational value, including over one mile of the popular trail that ascends White Rock and Hunger Mountains.

WRIGHTSVILLE RESERVOIR. The next largest parcels of land include the Wrightsville Reservoir and surrounding lands. This reservoir offers more than 150 acres of surface water with hundreds more acres in the surrounding area. The reservoir is a great outdoor recreational asset to the Town. There are miles of trails surrounding the reservoir, a disc golf course, a picnic area with tables, two shelters, and a public beach. The shelters can be reserved.

Wrightsville Beach is managed by the four member municipalities of the Wrightsville Beach Recreation District Board (Middlesex, Montpelier, East Montpelier and Worcester). The Water Resources Board rules allow personal watercraft, motorboats, and airplanes to use the water body. An area north of the narrows is a no wake zone; motor crafts are required to maintain a speed of less than 5 mph. The Shady Rill Picnic Area is also part of this property and is located off Shady Rill Road along Martin's Brook. It has a picnic area and shelter. Use of these facilities is on a first-come, first-served basis.



The Department of Fish and Wildlife owns and manages 600 acres of lands available for hunting, trapping, wildlife watching, fishing and hiking. Motorized vehicles are not allowed. Middlesex owns a total of 506.81 acres. There are two landlocked parcels owned by the Town of 21 and 11 acres located adjacent to the Town Forest that for management purposes are included in the Town Forest.

WALTER KELLEY MEMORIAL PARK. River enthusiasts can access the Winooski River from the Walter Kelley Memorial Park, next to the Consolidated Communications garage. Anglers and boaters can launch from here. While there is a picnic shelter and several picnic benches in the largely grassed area, a steep slope to the riverfront may serve as a barrier to some users. Opportunities exist to improve this parcel.



Town Lands				
Owner	Description	Description	Location	Acres
Middlesex		23 Acres	TH 2 Brook Road	0.23
Middlesex	Community Use (tennis and basketball)	14.75 Acres & Bor Garage	TH 2 Shady Rill Road	14.75
Middlesex	Landlocked	21 Acres Chandler Lot	TH 33 Notch Road	21
Middlesex	Landlocked	11 Acres Vaughn Pitch Lot	TH 33 Notch Road	11
Middlesex	Active	30.2 Acres Gravel Pit	TH 33 Notch Road	30.2
Middlesex		0.7 Acres Village Cemetery	TH 34 Notch Road	0.7
Middlesex		.6 Acres & Town Hall & "Old" Fire Station	TH 34 Gallagher Road	0.6
Middlesex		3.03 Acres & Fire Station	5 Church Street	3.03
Middlesex		.7 Acres Village Cemetery	Welch Park	0.7
Middlesex		4 Acres North Branch	US 2	4
Middlesex	Forest	403 Acres Town Forest	Portal Road	403
Middlesex	School	20.08 Acres & School	TH 33 Notch Road	20.08
Middlesex		1.52 Acres	US 2	1.52
Total				506.81

B. TRAILS AND EASEMENTS ON PRIVATE LANDS

For many Middlesex residents, class 2 or 3 roads often serve as multipurpose paths; many residents use them for walking, hiking, pet exercise, running, biking, and even cross-country skiing. As traffic has increased on our roads and vehicles travel faster, these roads may no longer be appropriate for multipurpose uses. The time is right for Middlesex to develop a trail network that allows residents and visitors a safe and reliable option for getting around town. One that will encourage healthy alternatives to driving and provide opportunities for neighbors to meet and strengthen our community.



CLASS 4 ROADS AND LEGAL TRAILS. Middlesex has 9.43 miles of Class 4 roads and approximately 3.32 miles of legal trails. The roads and trails are a valuable resource to the Town. Class 4 roads are legal rights of ways. They are often part of the Town's transportation history, having served as main travel routes prior to the construction of railroads, state highways and federal interstate roads. Over the years they have been downgraded from primary travel routes to Class 4, the lowest tier of road in the Town road classification system. Legal trails are the next and last tier down. Class 4 roads and legal trails are not eligible for state highway funding.

It is rare to see a municipality create a new Class 4 road, although they have the right to do so. New development requiring new roads are created at the Class 3 level or higher, since it is in the Town's best interest due to state highway funding criteria. Class 4 roads and legal trails are therefore rare resources which become more vulnerable as development increases. The Select Board has ultimate authority over the management and classification of Class 3 & 4 roads and legal trails. The Select Board may elect to reclassify a Class 4 road to Class 3 or a legal trail or they may choose to discontinue the road and forfeit all public rights of way.

Vermont statutes state that all highways including Class 4 roads: "... shall be three rods wide (49.5') unless otherwise properly recorded. Any highway which had been designated as a trail prior to July 1, 1967 and later becomes a trail shall retain the same width of right-of-way as a trail as it had as a highway, but not exceeding three rods."

Many residents in the community also enjoy the trails for mountain biking and snowmobiling. Several property owners participate in the VAST program which provides seasonal access to their lands.

C. OTHER RECREATIONAL OFFERINGS AND OPPORTUNITIES

The Town employs the services of a part-time Recreation Director for 5 hours per week.

The Recreation Director administers the Learn-to-Swim program, which receives financial support from the Town. This program makes affordable swim lessons available to children from ages 4 to 12.

Opportunities for field and court sports are found at the Rumney Memorial School. The school owns 20 acres and the Town owns 14 acres adjoining it. Recreation facilities include a basketball gymnasium, a playground, an outdoor skating rink (subject to availability of a volunteer to maintain it) and a nature trail. The outdoor basketball court, two outdoor tennis courts, and baseball/soccer field are owned by the Town and maintained under the supervision of the Recreation Director. Priority is given to school activities but the facilities are available for all town residents.

Use of the indoor facilities is based on availability and the Principal's approval. There may be a fee charged if the activity will result in work for the custodial staff. The playground and nature trail can be used by town residents at any time.

Respondents to a survey indicated that they plan on staying in Middlesex through their retirement years. National health and recreation trends demonstrate that as people retire from work, they are more active and

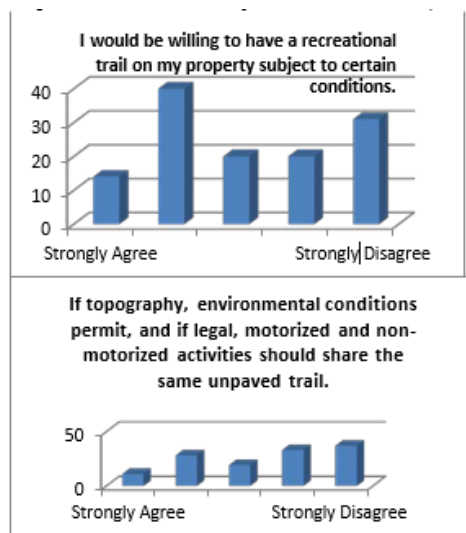


healthier than ever before. For these two reasons, the use of and demand for Middlesex lands for recreation purposes will likely increase. This indicates that recreation planning in Middlesex is of strong value.

The Recreation Director is working to maintain and improve existing recreational facilities in Town, and continually exploring ways to partner with neighboring communities to continue to provide affordable recreational opportunities to the Town.

D. PLANNING NEEDS, COORDINATION AND OPPORTUNITIES

A 2012 survey asked full time residents about trail use and desires. The survey revealed the survey respondents being divided as to whether there is a need for more trails. Thirty-eight percent thought there was an adequate supply of trails in town while 28% felt there should be more.



The survey asked residents whether motorized and non-motorized activities should share the same unpaved trail. The majority of respondents (55%) felt the uses should be separate while 30% thought they could share the same trail.

When asked if they would allow a trail on their private property for public use, slightly more respondents indicated they would host a trail (43%) than those who would not (41%). Forty-six percent of those responding stated that they would be willing to have a public trail on their land under certain restrictions.

Keeping an accurate inventory of the Town's Class 4 roads and ensuring they are not lost or forgotten over the years is wise public policy. As growth increases and property is subdivided, Class 4 roads and legal trails become a valuable recreation resource. If the trend in Middlesex is for more people to own smaller house lots, then our residents will require more trail opportunities off of their property.

Class 4 roads are currently Town-owned assets that can meet this demand at little or no cost to the Town other than ensuring they are not lost to development or simply forgotten. Class 4 roads are important in providing access to timber for harvesting and to agricultural fields; in that sense, they are also important economic development assets.



E. SUMMING UP COMMUNITY LANDS: GOALS, OBJECTIVES AND STRATEGIES

Objective 19. Maintain existing trails and trail opportunities.

- Strategy 40. Develop an inventory of legal trails.
- Strategy 41. The Conservation Commission should work on delineating all Class 4 roads and legal trails on the ground in Middlesex.
- Strategy 42. To work with willing landowners in strategic locations to establish cooperative agreements leading toward sustained long-term use of trails.
- Strategy 43. Work with the Conservation Committee, Recreation Director, and interested community volunteers to maintain these resources so they remain usable for recreational purposes.

Objective 20. Explore the potential for creating additional trails on public lands or with willing private landowners.

- Strategy 44. Educate landowners regarding liability issues and the protections afforded them through the State of Vermont when permitting the public to traverse private property.
- Strategy 45. Explore possible connections with trail systems in adjoining towns.
- Strategy 46. Support pedestrian/bicycle transportation, especially where located near public transportation routes to reduce vehicle emissions and use of fuel.
- Strategy 47. Identify potential trails that will connect and form loops with existing Class 4 roads and legal trails.
- Strategy 48. Identify potential trail routes that can serve as safer and more inviting transportation corridors that pedestrians, bikers, skiers, etc. can use to get around the town. For example, an off-road path from Rumney School to the village or to Wrightsville.

COMMUNITY LANDS GOALS

22. To protect and preserve the town's existing resources of Class 4 roads and legal trails.

23. To plan for additional trails.

24. Seek to provide non-vehicular connections between community hubs.



2.5. Earth Resources and Extraction

The Town supports small scale operations. Historically, small deposits of sand and gravel have been excavated in the Town. If sand and gravel are not available locally, they would have to likely be hauled in from distant locations at a greater expense. There is one privately-owned active permitted pit in the Town. There remain limited areas of sand and gravel deposits in the Town.

Because sand and gravel are important for the Town for road maintenance and construction projects, the Town anticipates continued extraction of these resources. Local and State regulations as well as careful site planning, operation and reclamation can address the adverse impacts of earth resources extraction. In order to mitigate or avoid social and environmental impacts on the Town and neighboring properties, the Town should evaluate each proposed operation on a case-by-case basis to determine its compatibility with the Town Plan. The Town acknowledges that an Act 250 Permit is required for extraction of all-natural resources and drilling of oil/gas wells, and in accordance with the Zoning Regulations.

2.6. Air Quality

Clean air is critical resource, now and into the future. This Plan provides for a multi-faceted approach to prioritizing access to clean air; objectives and strategies can be found throughout the Plan that aim to facilitate global, regional, and local impacts. This includes a reduction of fossil fuels through promotion and prioritization of renewable energy infrastructure, clustered development and infrastructure planning which reduces needs for new paved roads, conservation of natural resources including trees and waterways, and promotion of non-motorized and multi-modal transportation alternatives. Improvements in energy efficiency and energy sources will enable Middlesex to do its share to improve local and regional air quality.

Middlesex is committed to continued focus in these areas, with appropriate relationships to other local and state regulatory documents.

2.7. Energy



Energy is a pervasive influence on our lives. We use energy to heat homes and offices, power industry, and to transport people, goods and services from place to place. Energy costs are a major line item in government, business, and personal budgets.



Common sense dictates that we attempt to decrease overall energy demands, use current supplies more efficiently, and begin to shift demand to renewable sources such as small-scale hydropower, wind, solar, and biomass. While these alternatives are not completely benign in their impacts, they are generally less harmful than fossil fuels and are available in perpetuity at more stable costs.

Land use policies are important in facilitating energy conservation and the development of renewable energy resources. Land use planning can save energy that would otherwise be lost through inefficient site designs and settlement patterns. Standards to consider include encouraging building development on southern slopes, in areas sheltered from the wind, use of vegetation as wind blocks and shade, and flexible lot layouts encouraging planned unit developments with the above considerations according to topography, soils and aesthetic considerations. Directing new growth toward areas with existing infrastructure and services can also reduce energy demands.

Although, the energy picture often appears abstract and beyond the influence of individual communities, local planning can play a positive and effective role in guiding energy decisions. By promoting efficient land use patterns, participating in energy development decisions, facilitating alternative transportation options, and encouraging energy conservation strategies, even small towns can do much to bring about a sustainable energy future.

A. CURRENT SOURCES AND USE

In Vermont, fossil fuels are the primary source of our energy, accounting for 75 percent of all energy use. Our reliance on fossil fuels contributes to our dependency on foreign countries, the accumulation of "greenhouse gases" in the atmosphere, acid precipitation, and human health hazards resulting from declining air quality. Continued dependency on fossil fuels over the long term will ultimately create severe environmental problems and the potential for economic hardship when supplies dwindle or are cut off.

The three main sources of energy consumption in Middlesex are household heating, private vehicles, and electricity.

Current Municipal Transportation Energy Use

Transportation Data	In Middlesex
Total # of Vehicles (ACS 2011-2015)	1,478
Average Miles per Vehicle per year (Vtrans)	12,500
Total Miles Traveled	18,475,000
Average Gallons Used per Vehicle per Year (VTrans)	576
Total Gallons Use per Year	993,280
Transportation BTUs (Billion)	120



Average Cost per Gallon of Gasoline (RPC)	2.31
Gasoline Cost per Year	\$2,294,476.00

This table uses data from the American Community Survey (ACS) and Vermont Agency of Transportation (VTrans) to calculate current transportation energy use and energy costs.

Current Municipal Residential Heating Energy Use

Fuel Source	Municipal Households (ACS 2011-2015)	Municipal % of Households	Municipal Square Footage Heated	Municipal BTU (in Billions)
Natural Gas	3	0.4%	5,952	0.36
Propane	196	25.4%	368,302	22.10
Electricity	3	0.4%	5,952	0.36
Fuel Oil	269	34.8%	522,074	31.32
Coal	0	0.0%	0	0.00
Wood	283	36.6%	537,334	32.24
Other (Includes Solar)	19	2.5%	30,544	1.83
No Fuel	0	0.0%	0	0.00
Total	557	100%	1,470,158	88.21

This table displays data from the ACS that estimates current municipal residential heating energy use.

Current Municipal Commercial Energy Use

	Commercial Establishments in Municipality (VT DOL)	Estimated Thermal Energy BTUs per Commercial Establishment (in Millions) (VDPS)	Estimated Thermal Energy BTUs by Commercial Establishments in Municipality (in Millions)
Municipal Commercial Energy Use	56	572	32,032

This table uses data available from the Vermont Department of Labor (VT DOL) and the Vermont Department of Public Service (DPS) to estimate current municipal commercial establishment energy use in the municipality.



Current Electricity Use

Use Sector	Current Electricity Use
Residential (Efficiency Vermont) (kWh)	5,245,430
Commercial and Industrial (kWh)	5,437,045
Total (kWh)	10,682,475

This table displays current electricity use within the municipality. This data is available from Efficiency Vermont (EVT).

B. RENEWABLE ENERGY

In Middlesex, home heating costs and energy use can be dramatically reduced and climate pollution lessened through auxiliary solar systems, passive solar design, and building orientation. In recent years, a growing number of Middlesex households have had solar systems installed. In addition, proper insulation/weatherization of both new and existing structures yields returns far greater than the investment required over the life of most buildings. New construction can and should utilize these appropriate renewable energy techniques.



Existing Renewable Generation

Renewable Type	MW	MWh
Solar	0.26	316.12
Wind	0.01	29.13
Hydro	0.00	0.00
Biomass	0.00	0.00
Other	0.00	0.00
Total Existing Generation	0.27	345.24

Table shows existing renewable generation in the municipality, in MW and MWh, based on information available from the Vermont Department of Public Service.



Renewable Generation Potential

Renewable Type	MW	MWh
Rooftop Solar	1.05	1,291
Ground-mounted Solar	829.71	1,017,562
Wind	132.43	406,015
Hydro	0.00	0
Biomass and Methane	0.00	0
Other	0.00	0
Total Renewable Generation Potential	963.19	1,424,868

Renewable generation potential is based on mapping completed by the regional planning commission that is based on the Municipal Determination Standards and associated guidance documents developed by DPS. The renewable generation potential is expressed in MW and MWh by the type of renewable resource (solar, wind, hydro, etc.).

C. ENERGY EFFICIENCY TARGETS

Given the continued costly reliance on fossil fuels, there is likely to be increased interest in developing renewable projects in Middlesex. While the Town encourages the use of solar and small-scale wind, a delicate balance must be sought in deciding the placement of solar and wind energy equipment.

In the 2012 survey, Middlesex residents expressed the most interest in solar power as a renewable energy source and the least support for wind towers on ridge tops.

Middlesex has not yet developed an Enhanced Energy Plan. However, it is committed to working towards targets for energy use and efficiency. The targets below are a draft to help set future discussion of benchmarks and plan for the next 30 years and should be viewed as guidance at this time.

Middlesex plans to work towards an Enhanced Energy Plan by 2022.

Residential Thermal Efficiency Targets

	2025	2035	2050
Residential – Increased Efficiency and Conservation (% of municipal households to be weatherized)	20%	42%	92%



This table displays targets for thermal efficiency for residential structures based on a methodology developed by DPS using data available from the regional Long-range Energy Alternatives Planning (LEAP) analysis and ACS. The data in this table represents the percentage of municipal households that will need to be weatherized in the target years.

Commercial Thermal Efficiency Targets

	2025	2035	2050
Commercial - Increased Efficiency and Conservation (% of commercial establishments to be weatherized)	22%	33%	61%

This table sets a draft target for commercial thermal efficiency. Information from the VT DOL is required to complete this target.

Electricity Efficiency Targets

	2025	2035	2050
Increase Efficiency and Conservation	1.5%	7.3%	15.2%

Data in this table displays a target for increased electricity efficiency and conservation during the target years. These targets were developed using regional LEAP analysis.

Use of Renewables – Targets for Transportation

	2025	2035	2050
Renewable Energy Use - Transportation	9.6%	31.3%	90.2%

This data displays targets for the percentage of transportation energy use coming from renewable sources during each target year. This data was developed using the LEAP analysis.

Use of Renewables – Targets for Heating

	2025	2035	2050
Renewable Energy Use - Heating	52.4%	66.6%	92.5%

This data displays targets for the percentage of heating energy use coming from renewable sources during each target year. This data was developed using information from the LEAP analysis.

Use of Renewables – Targets for Electricity

	2025	2035	2050
Renewable Energy Use – Electricity (MWh)	2,785	4,456	11,140



This data displays targets for MWh generation coming from renewable sources within the municipality during each target year. This data was developed using information from the regional planning commission and DPS.

Renewable Generation Targets

	2025	2035	2050
Total Renewable Generation Target (in MWh)	2,785	4,456	11,140

Renewable generation targets for municipalities were developed by the regional planning commission.

D. FACILITY SITING

Sufficient Land

	Y/N
Solar	Y
Wind	Y

This table shows whether or not there is sufficient land in the municipality to meet the renewable generation targets based on the renewable generation potential in the municipality.

Middlesex fully recognizes and respects the importance of renewable energy sources and is dedicated to working towards state and federal goals of a clean and sustainable future. Middlesex also recognizes that there may at times be competing goods, where the presence of these facilities can disrupt important wildlife corridors or damage important public scenic views.

Middlesex believes that these goods can work in concert if facility siting is thoughtful and, as such, wishes to provide guidance to applicable regulatory agencies in making these decisions. Siting of large-scale wind or solar projects can be categorized as follows:

PREFERABLY PROHIBITED SITES: The town will not support installations at these sites because of the scenic, significant natural resource, or cultural values of the specified areas.

- Highest priority forest blocks as delineated by the Agency of Natural Resources;
- Areas with endangered or uncommon species;
- Class I and Class II wetlands;
- Ridgelines of the Worcester Mountain range within the town of Middlesex. Ridgelines are defined as (a) those lands above 1,500 feet elevations, including but not limited to the main range of the Worcester Mountains (west of Center Road and Bear Swamp Road) and (b) all land above an elevation of 1,400 feet on Dumpling Hill.



POTENTIALLY SUITABLE SITES: The town will give cautionary consideration to installations at these sites; careful consideration should be given to context and availability of lands with similar resource constraints.

- Areas with Prime Agricultural soils;
- Lands in agricultural production;
- Lands with slopes over 25%.

PREFERRED SITES: The town will support installations at these sites:

- Industrial areas;
- In or near landfills, parking lots, previously paved surfaces and brownfields;
- Near schools and community spaces to offer increased awareness and potentially serve as an educational opportunity;
- On rooftops of existing and proposed buildings.



E. SUMMING UP ENERGY: GOALS, OBJECTIVES AND STRATEGIES

Objective 21. Promote the use of renewable energy resources in town which are aligned with other goals of this Plan.

- Strategy 49. Reinforce smart growth patterns to reduce energy consumption in the transportation, energy and land use sectors.
- Strategy 50. Promote small scale, individual and group net-metered and community-based energy projects which are compliance with this Plan.
- Strategy 51. Efforts should be made to limit the adverse environmental and social impacts of renewable energy projects.
- Strategy 52. Work with the Vermont Public Utility Commission to site facilities which respect the specific energy facility siting conditions outlined in this Plan.

Objective 22. Encourage energy efficiency and conservation in municipal construction projects.

- Strategy 53. Consider removal and/or replacement of conventional street lights with LED fixtures.
- Strategy 54. Continue to analyze results of past municipal energy audits and perform recommended upgrades to buildings.
- Strategy 55. Complete an Enhanced Energy Plan by 2022.

ENERGY GOALS

- 25. Decrease overall energy demands and use current supplies more efficiently.
- 26. Encourage small scale and appropriately sited renewable energy generation facilities.
- 27. Work with the region and the State of Vermont towards its renewable energy goals.



CHAPTER 3. A PLACE TO GATHER

Fostering Community and a Vibrant and Connected Village Center

3.1. Overview

The residents of Middlesex place a high value on a strong sense of community. Every other element of this plan is intended to support that value. Middlesex recognizes, however, that there are still improvements which can be made to better enhance the community's ability to gather in public places and participate in shared community events. When asked what uses should expand in Middlesex, residents overwhelmingly included small retail uses, restaurants and café spaces, recreation fields and walking paths.



3.2. Land Use Districts

The Town's Zoning Bylaws establish and regulate development according to six land use districts, as follows:

Village District. Allows residential, commercial, office, and public uses on 1 acre lots (1/4 with public sewer or water). This includes areas just south and east of Exit 9 and the part of town known as Putnamville.

Mixed Use District. Allows uses complementary to the Village in an area just north and west of Exit 9. There is no minimum lot size but overall density in the zone "must be" equivalent to one building per two acres.

Industrial District: This zoning district includes a small area south and west of Exit 9 and the area along Route 2 from the Village to the Montpelier line. Industrial uses are encouraged. There are limited agricultural uses in this zone. The minimum lot size is 1 acre.

Medium Density Residential District. A minimum lot size of 2 acres is required in this primarily residential zone. This district occurs in the vicinity of Shady Rill and Rumney School and along Route 2 north and west of the Exit 9 and along Middlesex Center Road.

Rural Residential District. Allows similar use on lot sizes of 2 acres provided a 5-acre density is maintained.



Conservation District. Allows residential and other low intensity uses on 4 acre lots provided a 10-acre density is maintained.

The town also recognizes a Flood Hazard Overlay District.

A. SUMMING UP: COMMUNITY BUILDING AND LAND USE PLANNING GOALS, OBJECTIVES, AND STRATEGIES

Objective 23. To maintain a future land use plan and keep zoning regulations up to date and aligned with the Town goals outlined in this plan.

Strategy 56. Prioritize zoning updates which relate to the development of housing subdivisions, uses in the Village, business parks, home-based businesses, commercial/retail zones, and residential zones and cluster housing.

Strategy 57. The Town shall maintain, and update as needed, a comprehensive zoning map that is coordinated with zoning regulations.

Objective 24. To identify and promote land to be zoned for productive use.

Strategy 58. Recommend zoning regulations, ordinances, and tax policies to support agriculture and forestry in the best interest of land owners, users, and the community as a whole.

Strategy 59. The Town's industrial and commercial areas should have adequate parking and well-planned traffic flow.

Objective 25. To plan for the future of the area of town known as Putnamville and assess its village status.

Strategy 60. Host a community conversation to consider whether any zoning changes are appropriate for the Putnamville area.

3.3. Middlesex Village

MIDDLESEX VILLAGE/EXIT 9: LAND USE AND DEVELOPMENT PLAN. In October 2001, Middlesex completed the "Middlesex Village/Exit 9 Land Use and Development Plan" to guide actions in those areas. The 2013 Town Plan incorporated this plan by reference. While some elements of the Village Plan would benefit from updated technical studies, many of the goals and desires remain applicable.

COMMUNITY BUILDING & LAND USE PLANNING GOALS

32. The Town's Zoning Regulations should effectively support and regulate growth management and land use that meets the goals set out in his plan.

33. Lands employed in production will be recognized as potential assets to the community and zoning will promote land use that benefits owners and the community.



Included herein are a selection of the most relevant and timely pieces in 2019.

TRAFFIC PEDESTRIAN SAFETY AND CIRCULATION. Currently there are no sidewalks, cross walks or other pedestrian or recreation paths within the village or larger planning area. Pedestrians and bicycles are required to use road shoulders. The new Route 100B and bridge designs do not incorporate sidewalks but do retain their paved width through the residential area near the bridge.

The straightened alignment of 100B does bring concerns as well. State routes are typically designed to carry larger volumes of traffic and could encourage higher traffic speeds into the village. Additional traffic calming may be necessary in these areas, including curbing, sidewalks, and crosswalks; reduced lane widths and other road design modifications, curb-cut consolidations, and off-street path networks for pedestrians. Future development in the village should be served by existing roads and new curb cuts and development roads should be carefully considered.

STREETSCAPE AND VILLAGE CHARACTER. As noted in the Vermont State Standards for roadway design, small villages such as Middlesex historically have been sited along road corridors which often serve as the community's Main Street. Given the importance of village centers to community identity, the state is now promoting, within village and urban areas, road and bridge designs that enhance rather than detract from their historic pedestrian setting. Design options include:

- Pedestrian scaled lighting
- Street trees
- Landscaping to define access roads, gateways and adjoining public spaces
- Coordinated signs
- Aesthetic treatments of bridges, abutments, and retaining walls to emphasize gateways and prominent features
- The integration of historic features and design elements

The current configurations of Route 2 and 100B tend to overwhelm the historic and pedestrian character of Middlesex Village. Existing and future rehabilitation and reconstruction projects should incorporate village streetscape and traffic calming improvements.

Public Transit Services. Public transit services are currently limited. It's reasonable to expect that a Middlesex stop could be added to existing bus/van routes to Waterbury, Montpelier and the Mad River Valley, if a safe stop or pullover areas can be located within the village. Given that these are the principal commuter destinations for Middlesex residents, regular bus service could also afford an alternative, more cost-effective means of getting to work. In the long term, commuter rail service through Middlesex may also be a possibility, if warranted by the potential ridership between larger, regional shopping and employment centers.

HISTORIC VILLAGE. It is important that Middlesex retain a traditional village. To this end, any future development or growth in the village should exhibit these traits:

- A compact settlement pattern, with most lots of less than one acre;
- A comfortable walking distance- the distance from the village center at the intersection of Church Street and Route 2 to village edges is less than a five-minute walk;
- A concentration of residential uses;
- A defined village streetscape where buildings are set relatively close to the road;



- A mix of uses- the greatest concentration, and variety, of land uses within the planning area;
- Small and human scale, defined by architecture and associated land uses;
- Locally owned businesses providing products and services valued by Middlesex residents;
- A wealth of historic resources; and
- Clear entrances or gateways.

VILLAGE-WEST. The character of land west of the historic village (or, alternatively, west of Center Road) differs considerably from the historic village. This area is physically separated from the much more heavily developed historic village by extensive Agency of Transportation rights-of-way and heavily wooded, undeveloped land along Route 2. This area has not been developed at the density, or with the mix of uses that characterize the historic village. Defining characteristics of the area include lower densities, scattered low density residential development, fewer historic structures and more vacant land.

The community has continually supported well managed development within much of this area.

NORTH OF EXIT 9. The area north of I-89 is sparsely developed. In many respects, this area serves as the rural contrast to the more heavily developed Village District. It also stands in stark contrast to the poorly planned unsightly development pattern that has come to dominate many highway interchanges throughout the state and nation. The current land use reflects the state goals to plan development so as to maintain the historic settlement pattern of compact villages and urban centers separated by rural countryside and to discourage strip development along highways.

Due to its proximity to I-89, favorable development potential west of Center Road and large parcel sizes which enhance landowner flexibility, this area presents a relatively clean slate for development. The rural character and residential nature of the surrounding land and lack of infrastructure raise significant concerns regarding how this land should be developed and potential impacts to the surrounding community.

PUTNAMVILLE. In the northeast corner of town lies a small area known as Putnamville. This area is currently zoned with a Village zoning designation, the same as is used in the historic village area of Route 2. This area is of historical significance to the town, as noted in chapter 1 of this Plan. Here there lies a historic schoolhouse, evidence of the area's importance as a community gathering spot and village area. With new and successful development along Route 2 and closer to the interstate, Putnamville has seen little change.

The future of Putnamville is an active area of discussion. In the 2018-2019 survey, residents were largely split as to whether the area should remain under village zoning. It is sure to be an area of discussion in the next few years, under the duration of this Plan.



A. SUMMING UP: MIDDLESEX VILLAGE CONSIDERATIONS

Objective 26. Update the 2001 Village Plan.

Strategy 61. Secure funding and professional assistance to update the 2001 Village Plan.

Strategy 62. By 2020, itemize and collate implementation strategies from the 2001 Village Plan that exceed those included in this Plan and that remain relevant to the Town.

Objective 27. Assess the appropriate boundaries of the historic village area, predominately along Route 2.

Strategy 63. Consider potential amendments to the zoning map to expand the village zoning district or create new transitional zoning areas along Route 2.

Objective 28. Plan for vehicular traffic while enhancing pedestrian access and safety.

Strategy 64. Pursue streetscape feasibility study for the Village area.

Strategy 65. More clearly define village gateways or entrances through the use of attractive landscaping and signs.

Strategy 66. Develop traffic calming and access management plans for the Route 2 corridor and Exit 9 interchange area.

Objective 29. Provide increased access to regular public transit options.

Strategy 67. Work with the state and regional partners to maintain and supplement bus and van routes through the village.

Strategy 68. Evaluate the feasibility of a commuter rail stop in Middlesex.

Objective 30. Maintain the historic village as a commercial, cultural and civic center of the community.

Strategy 69. Avoid strip development around the interchange that detracts from the vitality of the historic village.

Strategy 70. Protect aesthetic and scenic character of the Center Road and I-89 corridor.

Strategy 71. Address the Mixed-Use District as related but distinct from the Village Zoning District.

Strategy 72. Apply for Village Center designation through the State of Vermont.

MIDDLESEX VILLAGE GOALS

28. Middlesex Village shall continue to be recognized as the hub of the community, with growth targeted and permitted accordingly.

29. Encourage small-scale commercial development in the Village District characterized by compact and mixed-use development, while preserving natural and agricultural resources, fragile features, and the scenic and rural character.

30. Enhance vehicular and pedestrian access and circulation within the Village area.

31. Plan for the area surrounding the interchange to promote appropriately scaled growth that doesn't detract from the nearby village center.



Objective 31. Plan for and promote appropriately scaled growth near the I-89 Interchange.

Strategy 73. Give strong consideration to the strategies presented in the Vermont Interstate Interchange Planning and Development Guidelines Manual.

3.4. Transportation and Connectivity

Transportation is a key element of Middlesex's residential and commercial health. Transportation systems should be designed to provide residents, visitors, employees, merchants, and suppliers access to diverse alternatives for getting to their desired destinations. In addition, transportation systems should provide for the orderly and continued economic growth of our community. It is critical that the improvements and expansion of transportation systems provide for safe and convenient access and should proceed in a way that is efficient and complements the pattern of existing and proposed land uses, natural resources, and energy goals.

AIR AND RAIL TRAVEL. Although roadways are the main mode of transportation, Middlesex is in close proximity to two airports - Burlington International Airport located in Burlington, VT for main commercial travel; as well as Knapp Airport, located in Berlin, VT for private transportation. The closest rail stations are in Waterbury and Montpelier along Amtrak lines which transports passengers as far north as St. Albans, VT or as far south as Washington, DC.



Middlesex acknowledges that these modes of transportation are useful in providing long distance travel alternatives to traditional automobile transportation. The town will look for additional opportunities to increase use of these modes such as encouraging additional public transit routes and stops through Middlesex that stop at the train stations and airports.

ROADWAYS. With respect to transportation and land use factors, Middlesex understands the two are very much intertwined. Past development has shown the location and condition of town roads can be an important factor in determining where people build new homes or start a business. The locations of new roads, or conversion of Class IV to Class III roads can also determine which natural resources are conserved or developed by allowing or limiting access to an area.

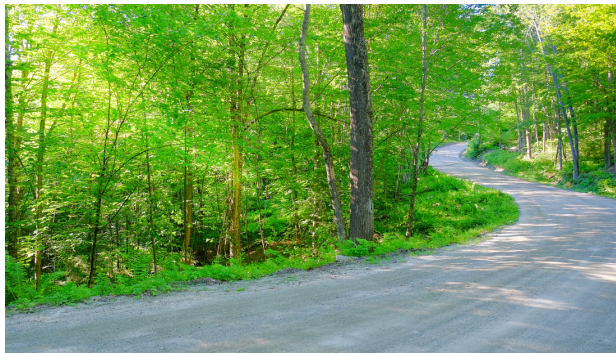


There has frequently been discussion about the possibility of paving more town roads. However, these desires are often tempered by concern about travel speeds on rural roads, road widening, increased washouts, and great expense. Where safety is not an issue, maintaining the rural character of the roads will take precedence over improving road surfaces or motorists' sight lines. Roads should be maintained to support car travel within the posted speed limit and not be widened or straightened unless such changes maintain existing rural character or are absolutely necessary for safety reasons.

Middlesex participates in culvert and bridge inventories conducted by CVPRC. These inventories allow Middlesex to better understand culvert and bridge conditions in order to plan for future replacement, upgrade and repair projects. Road maintenance should include protection of stone walls and mature trees in the road right of way.

The I-89 exit in Middlesex is along the most heavily traveled section of highway in the state and the Middlesex exit is one of the least commercially developed exits in central Vermont. Further industrial and mixed-use development of this area is possible and encouraged by the town given the sites close proximity to existing infrastructure and location on a public transit route. However, given that this is the gateway to the community and the historic village district, the development here needs to be appropriate to the scale and rural character of the community.

The new bridge to Moretown and the widening of Route 100B is complete. This has helped to define the edge of the Village and has created an improved intersection, but lacks pedestrian infrastructure. The lanes here are remarkably wide, and there is hope that sidewalks or paths can be added in the future.



In Middlesex today, cars are the primary means of transportation and the biggest source of greenhouse gas emissions that contribute to climate change. The condition of our roads and opportunities to reduce gasoline use and car travel are important to all of us. Middlesex has no town-owned class one roads. We have 14.2 miles of class two, 33.8 miles of Class 3, an estimated 11.8 miles of Class 4, 3 miles of legal trails, 16.9 miles of State highways, and several miles of interstate highway. We also have two railroad

sidings in the Town.

Class II, III and IV roads provide Middlesex residents with the opportunity to recreationally explore Middlesex via bicycle, walking, horseback riding or hiking (in the case of Class IV roads). This is addressed in Chapter 2 of this Plan.



A. SUMMING UP: TRANSPORTATION AND CONNECTIVITY GOALS, OBJECTIVES, AND STRATEGIES

Objective 32. To have detailed information, updated regularly, about the condition of its roads, its rights of way, and the types and volume of traffic using them.

- B. Continue using the mapping technology available through the Regional Planning Commission, the town should continue to update information on town roads, culverts, traffic loads, and an annual maintenance schedule. The areas where access for emergency vehicles and school buses are limited should be identified.

Objective 33. Class 4 roads should be kept available for public access and use.

- C. Conduct a survey of all Class 4 town roads and public rights of way and develop a plan to ensure public access for recreation, forestry, and to prevent further deterioration whenever practical.

Objective 34. The town shall set road construction and maintenance standards to protect its investment, the environment, and to promote safety for the traveling public.

- D. Use road maintenance and construction standards prescribed by the State for road construction projects.
- E. Scenic vistas, roadsides, and bridges that are publicly owned should be maintained as part of the regular road maintenance program.
- F. Continue to incorporate a capital budget to meet the current and future needs of residents.
- G. Every effort should be made to minimize erosion from roads, particularly near streams and wetlands. Chemicals, including salt, should not be used unless authorized by the Select Board after consideration of potential damaging impacts on surface water, ground water, plants and animals.

Objective 35. Commuter parking should continue to be available at the Interstate 89 interchange.

- H. Provide for electric vehicle charging at commuter parking areas and where accessible to local and interstate travelers.

Objective 36. The Town shall maintain a long-range plan, schedule, and associated budget for the location, capacity and installation of public services and facilities that voters will want and need.

COMMUNITY BUILDING & LAND USE PLANNING GOALS

34. Roads should be considered a strong community asset and shall be given the appropriate investments.

35. Infrastructure should support the cultural, environmental and economic development goals of this Plan.

36. The Town shall continue to plan for long term infrastructure and transportation needs.



3.5. Supporting Infrastructure

ALTERNATE MODES OF TRANSPORTATION. The Waterbury Commuter run by GMTA runs through Middlesex with stops along Route 2 between Waterbury and Montpelier. This route serves as an important mode of transportation for workers commuting to Montpelier and Waterbury. Additionally, the route connects riders to routes that go to Chittenden County and St. Johnsbury. Although the Waterbury Commuter is the only public transit route that stops in Middlesex at the time, the Town would like to see expanded routes that allow residents to travel to other employment centers such as the Stowe area, the Mad River Valley and Burlington.

Many roads in Middlesex are not paved and do not contain sidewalks; however, some have lower levels of traffic and are ideal for walking, hiking and biking. Some students walk and bike to school. For commuting purposes, Route 2 has a wide enough shoulder to afford cyclists room to ride. There are several cyclists who use the roads for commuting to work. The road was recently repaved and traffic is minimal during off commuting hours.

PARKING FACILITIES. A park n' ride is available in Middlesex. This park and ride is located at the interchange area to allow for easy access to I-89 and in Middlesex Village. The lot is well lit, paved, and has handicapped parking for disabled residents. The lot offers Level 2 Electric Vehicle charging, and, if notified in advance, the commuter bus will stop at the lot.

3.6. Opportunities & Priorities



The key to solving our future transportation problems will be to anticipate and plan for the inevitable growth of the Town and to understand that decisions about our roads will be an important factor in determining if this growth will have positive or negative effects. It is important that Middlesex acknowledges the

relationships among energy, land use and transportation in order to provide multiple modes of transportation for all residents and have an effective and efficient transportation system.

Although road maintenance represents the largest portion of the Town budget, and the second largest use of property tax revenues, Middlesex strives for multimodal transportation options for its residents. This includes:

- Public transit options and paths for pedestrians and cyclists. By increasing and encouraging alternate modes of transportation, Middlesex can more effectively and efficiently provide safe, convenient, economic and energy efficient transportation for its residents.
- Increased access to public transportation

BROADBAND INTERNET. The Town of Middlesex recognizes that improving residential access to broadband internet service is critical to ensuring its economic vitality and keeping it a desirable place to live. While



broadband cable internet service is available along the Interstate 89 corridor and on many of the town's more populous roads, an estimated half of residents are forced to rely on dial-up internet service or DSL, with widespread complaints about slow, deteriorating or nonexistent service. The town shall embrace opportunities to:

- Lobby the state to pressure internet service providers to broaden its reach to rural customers;
- Encourage the state to make incentives available to groups and municipalities working to improve internet service; and
- Stay abreast of and support efforts to develop municipal service providers.

STREETSCAPE FEASIBILITY STUDY. A theme that emerged out of the Town's 2018 "What's Next Middlesex?" community forum was the recognition of the need to plan for a Village District. One of the committees resulting from What's Next Middlesex has taken important steps to engage the public in creating a dynamic, well-planned future for the Village District. In 2001, the Middlesex Village/Exit 9 Land Use and Development Plan was prepared, starting the process of envisioning the area as a mixed-use center and multi-modal transportation system. Subsequently, there have been material changes to the Village: Route 100B was relocated and a new bridge over the Winooski was constructed; the Camp Meade property was sold and several adjacent parcels consolidated into it; and new vitality and traffic have come as Red Hen Bakery and other businesses have grown and changed. Now is an opportune time to look at the Village's future anew and begin the process of outlining specific and realistic steps toward implementation.

While the Village District and Camp Meade have long functioned as centers for the Town, with the Town Offices, church and a mix of commercial and residential uses present, the lack of streetscape, parking, and other visual markers along Route 2 has always made this area feel like a "pass-through" rather than a destination. There are numerous transportation features in and near the Village District, including the Exit 9 interchange, the beginnings of a path system in areas north of the Village District along Route 2, the former railroad stop on the east side of Route 2, and the "stub" of Old Route 100B that now dead-ends near the Winooski River. Public transit comes through the Village, as highlighted in the Town Plan.

There is also potential for access to the beautiful stretch of the Winooski River that runs behind the Camp Meade property. To date however, the Town has not had the resources or the direction to evaluate where and how these elements can be improved and tied together through paths, streetscape improvements, and river access.

New funding opportunities will allow the Town to obtain professional help to catalog and evaluate the potential options and order-of-magnitude costs for streetscape improvements, pathway routes and connections, and utility upgrades in the Village District. While not a full engineering or design evaluation, compiling information, options and cost ranges will address the greatest "unknown" in planning for Village District and allow the Town and its partners to identify detailed planning needs, and move forward with other planning and implementation steps.

The town endeavors to apply for funding for the studies outlined in this plan, beginning with the streetscape feasibility study outlined above.



FUTURE LAND USE PLAN. A land use plan for Middlesex is a significant tool for achieving the goals set out in this plan.

The major land use tool in Middlesex today is its Zoning Regulations. These regulations have recently been updated and should be periodically reviewed to make sure they achieve our priority goals. This Land Use section of the Town Plan does not specify details of which areas of Town should be used for particular purposes. Instead it identifies the decisions the Town should make about land use and proposes a process for gathering information necessary to help make these decisions.

A land use plan is a key tool for managing the effects of residential and commercial growth so that these effects are positive and do not adversely affect the Town. This land use plan and the actions it anticipates are designed to:

- Plan for the possible allocation of lands, if needed, for public facilities and services
- Strike an equitable balance between the interests of property owners and public purposes when there is potential for conflict in the use of land; and
- Employ land use tools, as appropriate and approved by the citizens, to achieve the Town's goals.

Future land use planning for Middlesex seeks to include areas of both residential and non-residential growth, as well as areas for conservation and more restricted growth. Given the rural nature of town, the existing historic villages, and the limited roads, it is possible to examine the future land use goals in just a few broad categories, which include:

- ❖ **Low Intensity Residential Growth Areas.** This includes areas of town where there is a desire for relatively low density, low intensity residential growth. This should be zoned to preclude non-residential uses. It should be noted that the use of “low” density here is relative. While it should reflect what is considered low density compared to some surrounding communities, these areas are still targeted to accommodate most of the single-family residential growth in town.
- ❖ **Non-Residential Growth Areas.** These areas are intended to reflect future growth for non-residential uses that would exist outside of a typical village setting, including larger office park and industrial areas. Given the potential nuisance qualities of these uses, these areas are generally not intended for residential use, though it is not the intention of this plan to indicate that they would be expressly prohibited.
- ❖ **Mixed Use Growth.** These areas reflect a desire to incorporate a mix of uses, both through a traditional village setting and also in areas where a more modern mixing of residential and non-residential uses could occur and be complementary to each other. This area may include what is or will become zoned transition areas from surrounding residential and non-residential growth areas.
- ❖ **Conservation and Limited Growth.** This area reflects areas where the lowest density residential uses should be located, along with areas desired to be of the highest levels of conservation zoning in Middlesex. These areas also include some larger hazard areas, including in some cases river corridors and Flood Hazard Areas.

The future land use plan for Middlesex is not a zoning map, but does reflect the aspirational land use goals of development and conservation. As such, future zoning will be expected to align with these goals.



As included in Chapter 2 of this Plan, the Town of Middlesex has significant holdings of and access to forested and park lands.



CHAPTER 4. A STRONG FOUNDATION

Equitable and Effective Governance and Services

4.1. Overview

The town of Middlesex strongly values its small community which provides a common elementary school, community town hall, and easy access to its volunteer government. Town Meeting honors tradition as residents are able to gather, speak directly with each other, and cast personal votes from the floor. Emergency services are provided by community volunteers, many of whom are known to those who call them for assistance.

4.2. Education

This section discusses the Town's public schooling, including the quality and cost of educating our students. It also recognizes opportunities for continued learning and community interaction with and for all residents.

RUMNEY SCHOOL. Middlesex residents have been strong supporters of the local Rumney Elementary School, which provides pre-K through grade 6 education for Middlesex residents. The school serves as both the center for education of young Middlesex residents and a community center. Town meeting is held at the Rumney School as well as local events, including a Fall Harvest Dinner, Pie Breakfast and school fair. Outside the school, the Town owns the recreation fields used by students and a gazebo that hosts weekly outdoor concerts throughout the summer.



BUDGET. Due to school consolidation, the most recent budget was approved on April 9, 2019 through a special vote for the Rumney budget. The budget is designed to address the academic, social, and functional needs of Middlesex students in a cost-efficient manner. Going forward, if consolidation is finalized, the budget will be determined by vote as part of the broader district. Votes occur by Australian Ballot.

The community has consistently provided strong support for the school including supporting a bond vote for school improvements in 2014, supporting school budgets by wide margins, and community members providing volunteer services throughout the year.

FACILITY, STUDENTS & INSTRUCTIONAL STAFF. Rumney School is a single-story structure with 29,000 square feet. The student to teacher ratio at the school is 14:1, which is higher than the Vermont State average of 12:1 but does vary depending upon student enrollment and needs. Other teachers and instructional aides are employed to provide services, the number of which fluctuates depending upon



student enrollment and need. Rumney provides special education services through employees and contracted services. Student assessments are conducted annually.

188 students attended Rumney School in 2018-2019, which has been fairly stable with only moderate and sustainable growth over the past decade. Minority enrollment in the 2018-2019 school year was 6%, compared to the State of Vermont average of approximately 9%. The school offers free and reduced lunches to those students who are in need.

Rumney consistently ranks among the top third of schools in Vermont in overall test scores.

U-32 HIGH SCHOOL. Seventh through twelfth graders attend Union High School (U-32) in East Montpelier, the designated high school of Middlesex, Berlin, Calais, East Montpelier, and Worcester. Total enrollment at U-32 for the five towns it serves was 768 students in 2018.

U-32 School is a two-story structure that underwent a significant expansion and renovation which was completed by the 2002-3 school year. At U-32, student assessment is conducted annually. Aggregate test results generally are reported to school boards and are available to the public. Existing student performance measurements focus mainly on academic areas. The school has a graduation rate of 85%, which is more than the 50th percentile for the state.

Some Middlesex students attend area private schools or are home schooled.

The Middlesex School Board is primarily responsible for developing policies and budgets designed to achieve the Town's educational goals of providing a challenging, quality education for each student in a safe, respectful, and caring environment. The School Board's mission is to meet its obligations to Middlesex students and community members through periodic reassessment of its goals and policies in light of qualitative and quantifiable results.

SCHOOL CONSOLIDATION CONSIDERATIONS. In recent years, the prospect of a merger of school districts has been a topic of discussion by residents and the school board. The state board of education rejected the governance proposal advanced by the Washington Central Supervisory Union towns and directed Middlesex to merge with other nearby districts. While that decision is being appealed, a merged board has been created with school directors being elected on May 21, 2019.

A survey in 2017 showed that Middlesex valued high quality education affordability and a positive/supportive school culture for students, teachers and staff.

CONTINUING EDUCATION, VOCATION, AND NEARBY ADULT EDUCATION OPPORTUNITIES. Although there are no colleges in Middlesex, there are several public and private traditional and nontraditional higher education institutions located in Montpelier. These institutions include: New England Culinary Institute, Community College of Vermont, Vermont College of Fine Arts, University of Vermont Extension, and Goddard College in Plainfield, VT. There are also numerous higher education institutions in Burlington, which can be reached via car or the commuter bus routes. Warren, VT in the Mad River Valley also hosts Yestermorrow Environmental Design/Build School and Northfield, VT hosts Norwich University. Vocational opportunities for high school students are offered at the Barre Technical School as well.



Adult basic education programs are available at the Central Vermont Adult Basic Education Center in Waterbury. This program provides educational services to adults in their homes or at the Center. Programs aim to improve job related reading, writing and math skills or help those who are wishing to take their General Education Development (GED) exam. The Center also provides computer trainings.

The *What's Next Middlesex* effort is exploring educational opportunities beyond those provided by the school, including coordinating volunteers to host a yoga class, provide a class on dream interpretation, a training on using Excel, and other subjects, as there are volunteers to provide and community interest to participate.

STUDENT ATTRIBUTES. Middlesex hopes for success for all of its students. As such, the community aspires to the following attributes for all of its public-school graduates:

1. Basic Academic Skills - Students should reach their full potential in reading, writing, and mathematics. Their skills should be comparable to skills of students in other towns, states and countries, and are appropriate for later employment or education;
2. Citizenship - Students should be intellectually prepared and motivated to participate actively and intelligently in the democratic process at the local, state and national level. Students should be prepared to participate as community members in energy conservation, preservation of the environment, and the preservation of community history;
3. Knowledge of the Physical World - Students should understand and be capable of interacting creatively with their physical surroundings. Suitable to their ability, they should have a basic understanding of the natural, physical, and chemical processes that surround them, and of how natural laws limit human activities. Students intending to pursue higher education in science should be suitably qualified;
4. Personal, Family and Group Skills - Students are prepared to lead safe, healthy and productive lives as individuals, as members of social groups, and as principal partners in new family units;
5. Creativity - Students should have knowledge and skills that permit them to express their creative impulses in socially useful and personally rewarding ways; and
6. Transition to Work - Students are prepared to enter skilled employment with career opportunities, undertake a business occupation, or enter an institution of higher education. Special needs students are prepared to enter an employment, educational, or home setting that allows them to develop to their full potential.

PRESCHOOL OPPORTUNITIES. Vermont's Act 166 mandates funding for 10 hours of universal pre-K for all 3 to 5-year-olds in Vermont in a prequalified program for 35 weeks in a school year. Regardless of parental income or circumstance, all children who are age 3-5 on or before September 1st of the applicable year are eligible to receive this early learning experience. For 2019/20 the Act 166 funding is equal to \$3356 per child. Local preschool classes are hosted at the Rumney School.



A. SUMMING UP: EDUCATION GOALS, OBJECTIVES, AND STRATEGIES

Objective 37. Educate and advance Middlesex public school students towards achievements in academics; citizenship; world knowledge; personal, family and group skills, creativity; and a strong foundation to enable transition to work.

- I. The School Board should continually evaluate and establish expectations for each of these student objectives towards student outcomes and measurable performance expectations.

Objective 38. Foster continued use of and access to the Rumney school building as a community resource for community events and activities.

- J. The Town and School Board should endeavor to maximize the use of the facilities, including the library, the gym, and the grounds by Town residents.

Objective 39. The Town shall support educational opportunities provided by community volunteers for a range of Middlesex residents.

Objective 40. Continue to support early learning educational opportunities for Middlesex residents of preschool age.

EDUCATION GOALS

37. Maintain high quality, affordable education in a supportive environment for all Middlesex students.

38. Champion local access to budgeting and decision-making in education.

39. Foster a strong relationship between the community and the school.

40. Cultivate educational opportunities outside of the traditional classroom structure.



4.3. Emergency Services



Emergency services in Middlesex are provided through a volunteer fire department and the Vermont State Police. The nearest hospital is located approximately 10 miles away in Berlin, Vermont.

THE MIDDLESEX VOLUNTEER FIRE DEPARTMENT. Emergency medical services are accessible to residents through the Middlesex Volunteer Fire Department (MVFD), with mutual aid to and from the neighboring towns. The MVFD operates from two stations: Station 1 is the three-bay main headquarters located on Welch Park Drive and Station 2 is the two-bay facility located on Shady Rill between the Rumney Elementary School and the Town shed.

The stations and vehicles are owned by the Town.

Equipment includes one engine, one tanker and one rescue vehicle at Station 1, one 4x4 engine and a utility vehicle at Station 2. The MVFD has approximately 10 members, 9 of whom are active firefighters. There are four members of the Fast Squad, who are also firefighters. The membership is comprised of Middlesex residents and residents of surrounding towns.

The MVFD is a member of the Capital Fire Mutual Aid System serving other towns in Central Vermont. The Mutual Aid System works through a pre-planned arrangement between and among neighboring towns. The active firefighting members of the MVFD have received a basic level of training regarding response to hazardous material incidents. This training prepares the firefighters to keep people away from the scene, to stay away themselves, and to contact the proper state authorities who are trained and equipped to deal directly with such situations.

Police coverage is supplied by the Vermont State Police and ambulance coverage is purchased from the Montpelier Fire Department.



Funding for the Department includes both an annual appropriation and debt service by the Town for its new building, pumper truck and vehicles, private donations, and fundraising activities conducted by the MVFD to supplement the Town appropriated funds. The Town is confident that it can provide continued protection for all Middlesex residents, businesses, and travelers on our highways, but will continue to evaluate its ability to keep up with services against future growth.

CENTRAL VERMONT MEDICAL CENTER. The nearest hospital is easily accessible for most Middlesex residents and employees. Central Vermont Medical Center (CVMC) is located approximately 10 miles away in Berlin, Vermont. CVMC provides emergency services as well as care for primary care, pregnancy and childbirth, rehabilitation and nursing, laboratory access, dialysis, as well as several specialty fields such as cancer care, cardiology and neurology.

While there are currently no family medical offices located within the town of Middlesex, residents have access to dozens in the surrounding towns of Montpelier, Berlin, Barre, and Waterbury.

MIDDLESEX THERAPEUTIC COMMUNITY RESIDENCE. When the flooding from Tropical Storm Irene forced the closure and temporary relocation of many of the state's buildings, the Middlesex Therapeutic Community Residence opened in Middlesex in 2013. It is a relatively small building with only seven beds, but is a secure facility with perimeter fencing intended to treat a portion of the region's psychiatric patients who are transitioning through levels of care. While the initial lifespan of the space was stated for three years, the facility is still in use as of the adopted date of this 2019 Plan.



A. SUMMING UP: EMERGENCY SERVICE GOALS, OBJECTIVES, AND STRATEGIES

Objective 41. Provide the best emergency service possible

- K. The MVFD should strive to conform to the National Fire Fighting Code.
- L. Provide continuous fire training for service, safety, and use of equipment, using accepted best practices and seeking certification whenever possible.
- M. The Town should minimize risk by working toward the goal of being able to reach every building in Middlesex within 20 minutes of a call for assistance.
- N. Prioritize the use of up-to-date communications technology.
- O. Develop emergency plans for Middlesex including transportation of toxic wastes and hazardous materials on the interstate.

Objective 42. Prepare for capital needs

- P. Continually work with the Selectboard towards a 5-year capital budget and coordinated development plan.
- Q. The Department should be primarily publicly financed based on its needs as approved by the voters.
- R. Both the MVFD and Fast Squad should seek supplemental forms of financing whenever possible.

Objective 43. Routinely monitor new development proposals and expansions for safety compliance.

- S. Work with the Planning Commission to develop procedures and authorization for a review of industrial processing, building safety relating to fire and other emergencies, and a procedure for approval of planned access to new buildings to assure access by the Fire Department.

Objective 44. The Middlesex Fire and Emergency Department will cooperate with a regional emergency management agency.

- T. Actively participate in regional emergency management agency discussions and tasks, including training.

EMERGENCY SERVICE GOALS

41. To provide adequate fire protection and emergency medical service for the community and its residents.

42. To balance fiscal awareness and responsibility with adequate service and equipment needs.

43. Expand emergency services if growth in demand dictates.

44. Consider regional coordination of emergency management.



4.4. Child Care

The Town recognizes that safe and affordable child care is an important resource for working families. The provision of safe, local, and accessible childcare and pre-school is an important element in attracting families to Middlesex and supporting the Middlesex workforce. As such, the Town endeavors to ensure that childcare is as permissible and accessible as possible within its borders.

The Town supports use of federal and state funds to assist with the development of child care facilities, programs and small businesses. The Town will strive to maintain an inventory of all child care programs in the Town and their capacity.

The Vermont Department for Children and Families regulates daycare facilities. Vermont law requires any person who cares for children from more than two families, other than their own children, to be registered or licensed by the Department for Children and Families. Day care providers operating out of private homes who care for a maximum of six children under the age of six years old (only two of those six can be under the age of two years old), and four school age children must be licensed with the State of Vermont.

Those day care facilities not operating out of the care provider's home must be licensed by the State. A licensed facility is allowed to provide care to a larger number of children. The State regulates the licensed facilities and does periodic inspections.

HOME CHILDCARE. Middlesex currently defines Home childcare as:

a state-registered or licensed child care home serving 6 or fewer children on a full-time basis, and up to 4 additional children on a part-time basis, which is conducted within a single-family dwelling by a resident of that dwelling. A child care home as defined shall be considered a permitted use of a single-family dwelling.

DAYCARE CENTERS. Day Care Centers are defined as:

All state registered or licensed day care facilities which do not meet the definition of "home child care," including nonresidential child and adult day care facilities, and home-based child care facilities that serve more than six children on a full-time basis. See also Home Child Care, Residential Care Facility.

As of early 2019, there were no home child care operators in Middlesex that are registered with the State. The preschool, pre-K, and before and after school programs located at Rumney Memorial School are the only licensed facility operators in the Town.

Other than allowing for the use of the elementary school, the Town has not been involved in providing childcare to local residents. It is not anticipated that the Town's role will change.

Home child care is one of the most widely permitted uses in town, allowed in the Village, Mixed Use, Industrial, Medium Density Residential, Rural Residential, and the Conservation District. It is even permitted within the Flood Hazard Area Overlay District.



Day care centers are permitted either as of right or as a conditional use within most zoning districts, excepting the rural and conservation districts.

Publicly funded preschool through Act 166 provides all families of preschool age children with access to preschool programs and preschool funding. The funding model is also credited with reducing the weekly childcare costs for working families, as the state preschool funding is utilized in many childcare programs towards the weekly cost, thus reducing the tuition burden on families with children in this age cohort.

4.5. Groundwater and Solid Waste Management and Resource Recovery

This section discusses plans for adequate supplies of safe drinking water, and for adequate systems for every building that generates waste to treat and dispose of domestic sewage and other wastewaters. Middlesex fully recognizes that water supplies are critical to fire protection services and to business and agriculture.

DOMESTIC WATER SUPPLIES. Middlesex groundwater aquifers are being used as drinking water. Individual well systems and springs are being used with no filtration, with mechanical filtration systems, or chemical filtration and disinfection systems. It is not known to what extent these different treatment levels are being used. Little is known about the quality of the groundwater in Middlesex. Some wells in the Village on Route 2 are known to be contaminated from a petroleum leak. A pollution remediation plan has been completed. Middlesex's waste, wastewater and sewage are treated and disposed of with individual septic systems.

A water and wastewater survey for the village was completed in 2001. That survey indicated that the village did not have a wastewater problem, it had a water problem. A preliminary design for a water system was completed. Due to a lack of State or Federal funding it was unfeasible to go forward at that time.

COMMUNITY WATER AND SEWAGE SYSTEMS. Middlesex groundwater aquifers that could serve the needs of concentrated residential, commercial, or industrial development, including future Middlesex schools, are most likely located along the Winooski River/Route 2 corridor. The soils, sands, and gravel deposits that, using existing technology, could serve the sewage disposal needs of concentrated residential, commercial, or industrial development and future Middlesex schools are mostly located in the same southern fringes of Town. The Middlesex Village Plan addresses future water needs and goals in more detail.

SOLID WASTE. Solid waste is any material that is discarded after use by residential, commercial, industrial, and agricultural generators. Middlesex currently relies on out-of-town landfills and a regional solid waste district for management of its solid waste.

Residential - Many families practice recycling by bringing recyclable materials to drop-off centers in Montpelier, Worcester, or elsewhere. Recycling, in conjunction with trash pickup, is offered by some local haulers. Additional recycling and waste reduction is also accomplished by households that use backyard composting. Trash disposal is handled



similarly to recycling: either by drop-off at a landfill, transfer station or other drop-off location.

Commercial and Industrial - Commercial and industrial operations generally rely on commercial trash haulers for trash disposal and pick-up of conventional recyclables. Special wastes and recyclable materials require special attention by businesses.

Schools- Rumney's school food program actively composts food waste.

Agricultural - Agricultural operations can offer a model for the rest of the Town. Vermont farms can be nearly zero-waste operations: manure is used as fertilizer, paper is used as bedding, cardboard is reused as package for saleable products, and food waste is often fed to livestock. Farm-grown products require minimal or no packaging. The waste that farms do have is generally handled in the manners described for residential generators.



Middlesex residents recognize that untreated or poorly treated wastewaters and sewage put at risk their own health, the health of their neighbors, the prosperity of agriculture, and the Town's ability to attract business. For these reasons, individual and community investments should be made to treat wastewater and sewage and properly dispose of these and other wastes to ensure that water supplies are ample and pure and that Middlesex's natural resources are protected. These investments will be offset by savings in the costs required to treat polluted groundwater and surface waters at the levels safe for human consumption.

CENTRAL VERMONT SOLID WASTE MANAGEMENT DISTRICT. The CVSWMD was formed in the early 1980s to provide a cooperative negotiating entity with local private landfills serving the Barre-Montpelier area. In 1987, with the passage of a significant solid waste legislation, the district expanded its scope to encompass planning and development of solid waste facilities, and its membership rose to as much as 33 member communities. Since that time the District has successfully developed some small recycling and trash transfer facilities, completed some educational programs, instituted some special waste programs, written and published a regional solid waste plan, and continues to negotiate with private facilities for recycling and disposal services.



A. SUMMING UP: GROUNDWATER AND WASTEWATER GOALS, OBJECTIVES, AND STRATEGIES

Objective 46. The Town shall ensure that there is adequate provision of water for future development goals.

- U. Middlesex should inventory potential water supplies for municipal needs including firefighting and the Village center.
- V. Groundwater, aquifers, aquifer recharge areas, surface waters, and soils that have the potential to serve the water supply and sewage disposal needs of concentrated residential, commercial, or industrial development should, if needed, be identified, protected, and maintained.

Objective 47. Manage solid waste where the benefits of reduced cost, sound environmental practices and greatest efficiency can be obtained.

- W. Strive to reduce the total quantity of solid waste generated, encourage the integration of reusability into current practices, return materials to source or other locations where it may be recycled into new materials or products.
- X. The Selectboard should review periodically the solid waste management options of the Town and reevaluate or reaffirm its decision to participate in the Central Vermont Solid Waste Management District.

WATER AND SEWER GOALS

45. Waste, wastewater, and sewage should be treated and disposed of in a manner that ensures the integrity of Middlesex's natural resources and so that groundwater aquifers are protected for use as drinking water with no more than filtration treatment in accordance with State Regulations.

46. Ensure adequate water supply for future development needs.



4.6. Citizen Engagement, Participation and Town Communication

Middlesex places a high value on civic engagement. Citizen participation is likely to produce more well-rounded, sustainable decisions, and it strengthens our sense of community, civic skills and democracy. Middlesex residents have made these values known through the recent 2018-2019 survey, (Appendix 1.10) as well as a variety of community efforts.

In recent years, Town leaders have encouraged a well-informed citizenry through the implementation of an official Town website (www.middlesexvermont.org), the active adoption of the Front Porch Forum online community forum, the publication of the *Middlesex Operator's Manual*, and other initiatives.

Middlesex has worked to increase participation and engagement in our annual Town Meeting by implementing an all-volunteer Remote Town Meeting Participation process so that people with mobility issues or who are abroad for public service reasons can participate by phone and internet; by moving to a larger more accessible meeting space (Rumney School); by creating informational budget pie charts and discretionary funding background materials; by collaborating on child care and a community meal after Town Meeting; and other efforts.



Photo Credit: Delia Clark

TOWN SURVEY. The Town has sent surveys to residents in advance of the 2013 and 2019 Town Plans. Selectboard members and Planning Commissioners felt strongly that all citizens should be able to participate, regardless of access to technology, and made available the funding such that surveys could be mailed to all town residents. The participation rate of over 300 (18 percent) is impressive and reflects an active citizenry.

WHAT'S NEXT MIDDLESEX. In 2018, residents came together to ask and answer *What's Next Middlesex*, an ambitious and successful vision to action forum with a goal of strengthening and diversifying community engagement. The town embarked on a dynamic series of two-way conversations between community members and local leaders.



Extensive planning brought with it an elder/youth oral history project, a creative community-building Story Pot activity involving townspeople and elementary students at Rumney School, a well-attended community dinner, a day and a half of vibrant facilitated discussions, a final report, and four resultant community action

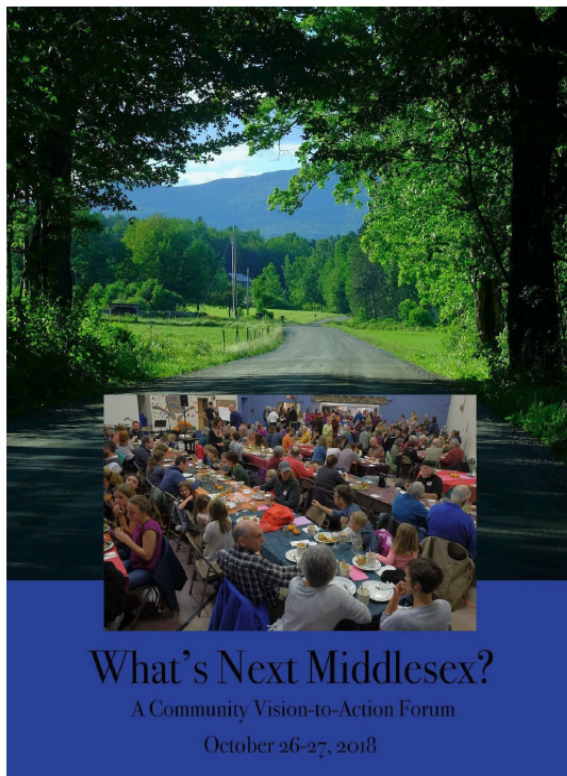


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*THIS HANDOUT WAS PROVIDED AS BACKGROUND INFORMATION TO ALL DISCUSSION GROUPS	

committees to focus on economic development and infrastructure, trails, community spaces and events, and outreach/communication. Volunteers met more than a half dozen times as a full group, with additional meetings in smaller committees, over the course of several months in 2018.

Citizen participation was the overarching goal. The planning team worked to raise interest in this event through as many different means as possible. Volunteers staffed a booth and talked with neighbors at many Middlesex Bandstand and Camp Meade concerts throughout the summer, on Primary Day at Town Hall, and at multiple Rumney events. Volunteers created a high-quality, informative website which was publicized widely and linked to the town website.

The team distributed posters to all public bulletin boards in town, and posted regular updates and invitations through Front Porch Forum and the Rumney newsletter/calendar. Planning team members met with existing town committees to keep them informed on event planning, and initiated conversations with as diverse an array of neighbors as possible, to help spread the word with as wide a group as possible. Sandwich boards were placed at key Middlesex intersections reminding all passersby of the upcoming weekend events. Volunteers worked with the planning team to create a colorful event flyer featuring a wide array of Middlesex faces, which was mailed, courtesy of the Selectboard, to every household.



To raise interest in registering (either online or by mail), all registrants were entered in a raffle to win prizes. To allow young families to participate, planners used grant funds to arrange with Community Connections to offer free child care for the entire event. Food helped to keep participants satiated.



More than 200 Middlesex residents attended the dinner, with 90 staying to participate in the small group sessions on Friday evening. 40 people participated in events on the following day. This participation rivals or exceeds that of regional towns with larger populations and budgets. Middlesex residents can be proud of their commitment to strengthening community, sharing their ideas, and participating in setting the town's goals.

Throughout it all, residents concurred: Middlesex is and strives to be a *Successful Community*, bearing:

- Effective community leadership
- Informed citizen participation
- Strong social capital
- Vibrant arts, cultural heritage, and recreation
- High quality educational opportunities for all ages
- Adequate physical infrastructure
- Equitable and adequate social services and health care
- High quality environment and natural resources
- Strong and stable local economy
- Carefully planned growth and development

As a partner event to the What's Next Middlesex outreach, the Town hosted a "Middlesex Makers and Creators" event in late 2018, focusing on the makers and creators of Middlesex. Over 40 "Middlesex Makers" (both professionals and hobbyists), from builders and excavators to quilters and poets, shared their work in this well attended community celebration.

The *What's Next Middlesex* community events resulted in four continued volunteer working groups:

- Middlesex Outreach Team;
- Trails;
- Economic Development & Infrastructure
- Community Spaces and Events

These citizen working groups will continue to work towards the goals identified by community members participating in the What's Next Middlesex vision to action forum, for the benefit of Middlesex.



A. SUMMING UP: CITIZEN PARTICIPATION GOALS, OBJECTIVES, AND STRATEGIES

Objective 48. Provide access and transparency through Middlesex's committee work.

- Y. Middlesex shall continue to post notice of meetings and hearings that meet or exceed statutory requirements.

Objective 49. Actively engage citizenry.

- Z. To the extent that volunteers are available, and that it does not compromise the experience of those attending Town Meeting in person, Middlesex should make an effort to offer technological methods to participate in Town Meeting to those whose health or other situations would constrain their ability to attend in person.
- AA. Encourage informed, civil, face-to-face deliberation in forums such as the annual Town Meeting.
- BB. Invest in technology to advance access to information, including website design and management and locally broadcast public hearings.
- CC. Continue to empower and engage the Middlesex Town Solutions Committee and other volunteers.

CITIZEN PARTICIPATION GOALS

- 47. Continue to provide well informed, inclusive, deliberative, empowered participation in Middlesex's public issues.



CHAPTER 5. ACHIEVING THE VISION

Implementing the Town Plan

5.1. Authority and Purpose

The authority to prepare and implement the comprehensive plan is granted to the Town of Middlesex through the Vermont Planning and Development Act, Title 24 of the Vermont Statutes Annotated, Chapter 117. It is the purpose of the Act to “... encourage the appropriate development of all lands in this state... in a manner which will promote the public health, safety against fire, floods, explosions and other dangers ... and to provide means and methods for the municipalities and regions of this state to plan for the prevention, minimization and future elimination of such land development problems as may presently exist or which may be foreseen and to implement those plans when and where appropriate.”

The Vermont Statutes also specifically detail a series of elements that are required to be included in any local plan, and include a series of statewide planning objectives which local plans are encouraged to be consistent with.

5.2. Duration

The vision for this plan extends as far as 20 years.

This plan, once adopted, will be in effect for a period of eight (8) years.

Middlesex recognizes that if the plan expires, bylaws and capital investment programs cannot be updated or amended and that an expired plan cannot be considered in local or state regulatory proceedings. Furthermore, the town acknowledges that an expired plan cannot be confirmed in the local planning process, a requirement for qualification in a number of state grants and designation programs.

5.3. Regulatory Effect & Implementation- How the town plans to use the plan

The 2019 Middlesex Town Plan is a framework and guide for accomplishing community aspirations and intentions. It states goals and objectives and recommends courses of action for future growth, development and conservation of land, treatment of public facilities and services, and protection of the environment. Plan includes three levels of policy statements: Goals, Objectives, and Strategies.

- ◆ **GOALS.** These are intended to be broad statements of the direction that the town is headed towards. Goals, by definition, are not measurable.



♦ **OBJECTIVES.** These are intended to set intentions and, where possible, targets. They are organized by subject area and are contained within each chapter. Objectives strive to follow multiple Goals.

♦ **STRATEGIES.** These are specific statements of policies and/or types of work to be done to meet the Objectives laid out in the Plan. They do not reach the detailed level of a regulation or a management policy.

The plan is implemented through various town ordinances and regulations, fiscal practices including budgeting and capital planning, involvement and coordination with state and federal agencies, zoning and other land development regulations, and interactions with residents and other stakeholders.

The Plan recommends a number of actions and practices that should be undertaken in order to achieve the goals. It is important to note that these recommendations are not mandates but rather well-informed guidelines in order to help steer the operations of the Town and its citizens. This plan and its recommendations are intended to aid the town as it prepares and adopts regulations, prepares capital budgets and annual work programs, and forms citizen committees to study particular concerns. These recommendations shall be implemented only after considerable thought, discussion and analysis.

5.4. Regional Coordination & Compatibility

The town of Middlesex recognizes its role within a larger regional context and shall plan in cooperation with neighboring municipalities and other towns in the region. The development of the Middlesex Town Plan involved consideration of compatibility with the plans of adjoining municipalities and the region. The proposed plans of adjoining municipalities and the CCRPC were advised of the Plan and discussions were held with regional staff planners.

ADJACENT TOWNS. Development in Middlesex has had little impact on surrounding towns. Although Middlesex has two small industrial areas, most of the development has been in the form of residential construction. Housing growth in Town is strongly influenced by our proximity to Montpelier and our interstate access to Barre, Berlin, and Burlington. In particular, the growth in business activity and state government in Montpelier and Berlin has increased the demand for housing in the region, and we expect this demand to continue.

To the north, Middlesex abuts Worcester, and at present both towns have conservation zoning districts along the North Branch. A change in zoning in this valley by either town would have significant impact on its neighbor.

To the south Middlesex abuts Moretown and Berlin, with a mixture of industrial, village and residential zones. A new bridge over the Winooski River and the widening of Route 100B in Moretown may increase traffic in this area. At present, no major zoning changes are contemplated along this border.



To the west, Middlesex borders the town of Waterbury along the eastern slope of the Worcester Mountain range. This is a rugged area that has not yet come under development pressure. This area is currently used primarily for recreation and the harvesting of timber. Any future use of this portion of Middlesex would have little impact on Waterbury. The Town road that once connected the two communities through the Middlesex Notch is no longer passable by motor vehicles due to erosion and extensive beaver dams.

To the east, the Town borders Montpelier and East Montpelier. Middlesex residents rely on Montpelier for shopping, employment and a wide range of other services. Montpelier's stated economic development plan, if successful, could have a major impact on the demand for housing in Middlesex.

REGIONAL COOPERATION. The Town of Middlesex is committed to working cooperatively with neighboring towns to address issues of mutual concern. Middlesex cooperates with other towns in a number of areas, including schools (as part of the Washington Central Supervisory Union), emergency services (as a member of the Capital West Mutual Aid System), and solid waste (as part of the Central Vermont Solid Waste Management District). As a member of the Central Vermont Regional Planning Commission, Middlesex participates along with all Washington County towns and three Orange County towns. The opportunity exists for the towns abutting the Worcester Mountains to develop a long-term plan for the range.

The 2019 Middlesex Town Plan is compatible with the plans of adjoining municipalities and that of the CVRPC. As Middlesex takes steps to implement its plan, adjoining municipalities will be consulted and invited to comment on projects and studies which may affect an adjoining town or city.

5.5. Compatibility with Regional Plan

Middlesex is one of 23 member municipalities of the Central Vermont Region, supported by the Central Vermont Regional Planning Commission (CVRPC). Like municipalities, the CVRPC is similarly obligated to create a plan in accordance with Vermont Statutes and statewide planning goals. The CVRPC adopted its current plan in June of 2018.

COMPATIBILITY STATEMENT. The Middlesex Town Plan as proposed is unlikely to have an adverse impact on the plans of neighboring towns. The Central Vermont Regional Planning Commission and the Planning Commissions of all neighboring towns have been provided with a copy of this proposed Plan.

The Middlesex 2019 Town Plan is in conformance with the 2018 Central Vermont Regional Plan.



CHAPTER 6. MAPS AND APPENDICES

THE MAPS

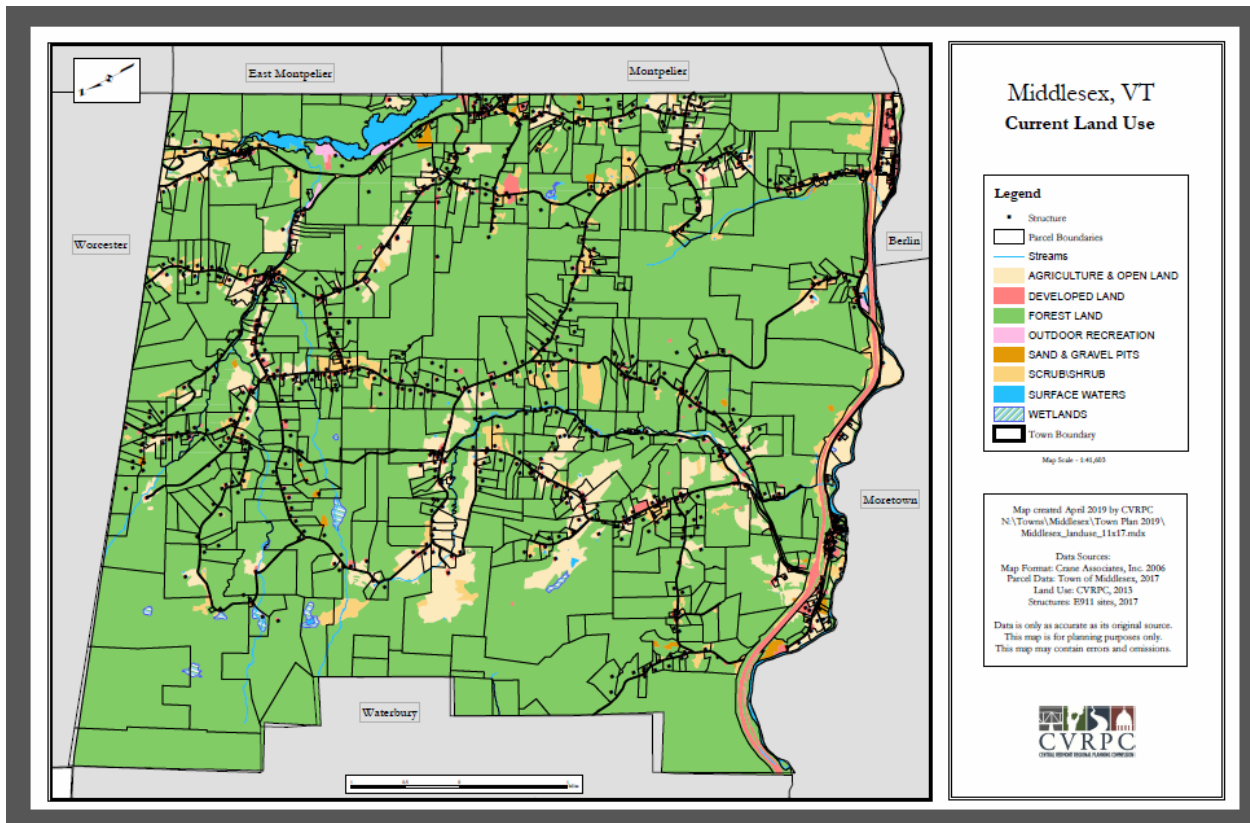
- Map 1: Current Land Use
- Map 2: Future Land Use-
- Map 3: Transportation Infrastructure
- Map 4: Utilities and Public Facilities
- Map 5: Water Resources and Flood Resilience
- Map 6: Forest Blocks and Wildlife Habitat
- Map 7: Agriculture
- Map 8: Future Housing

Appendixes

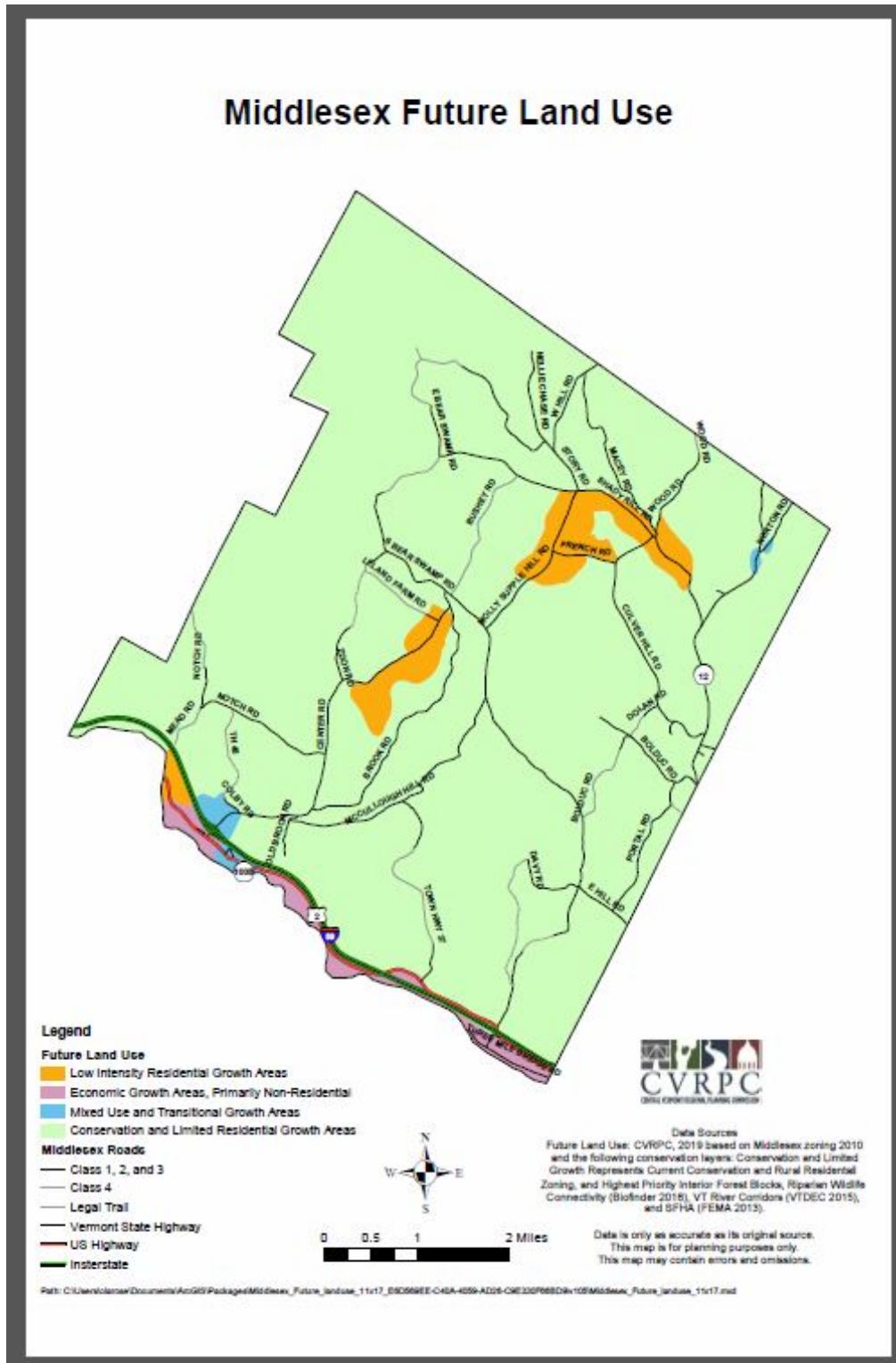
- 1.9 What's Next Middlesex? Links and Highlights
- 1.10 2018-2019 Town Survey
- 1.11 References and Other Plans



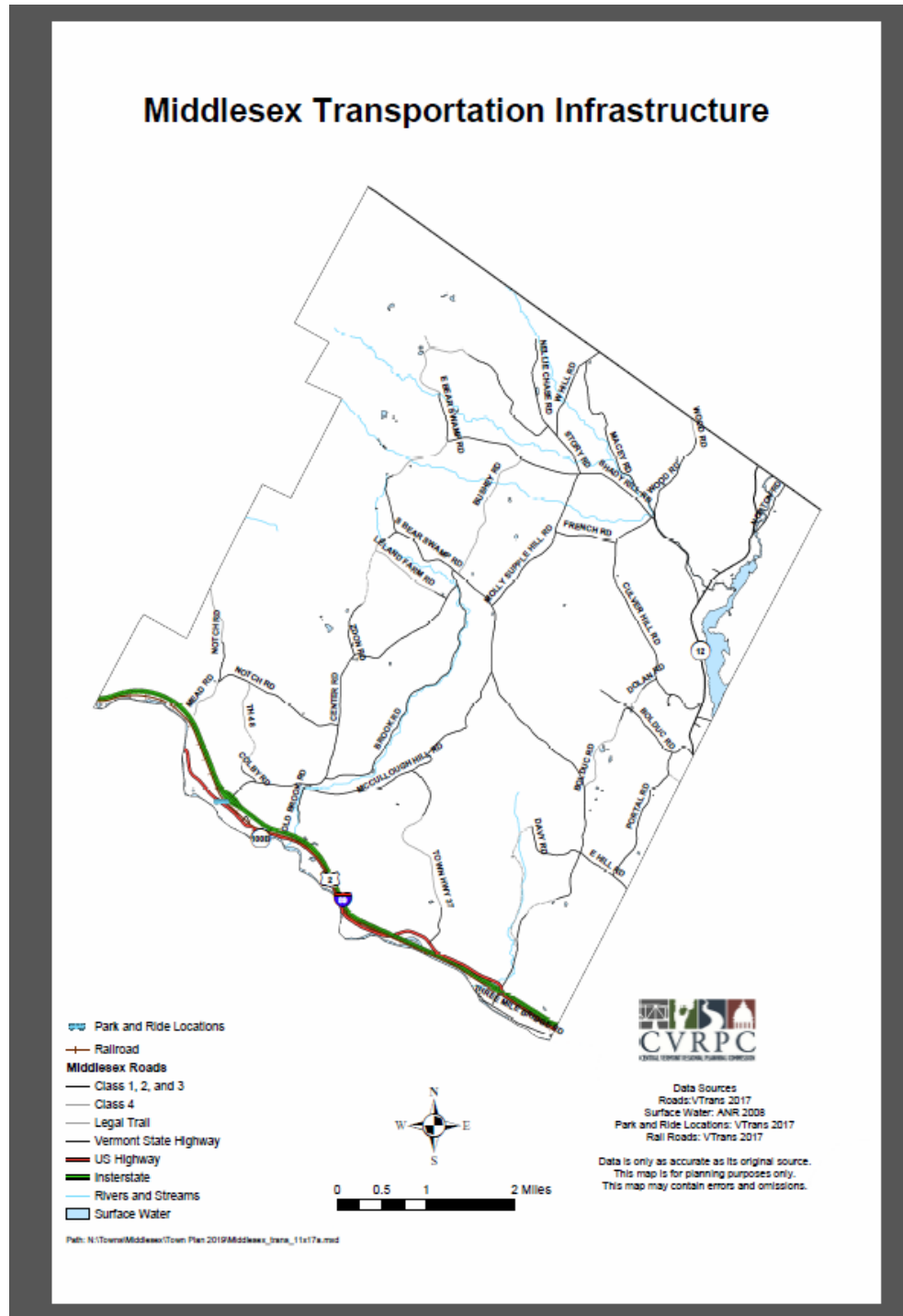
1.1. CURRENT LAND USE MAP



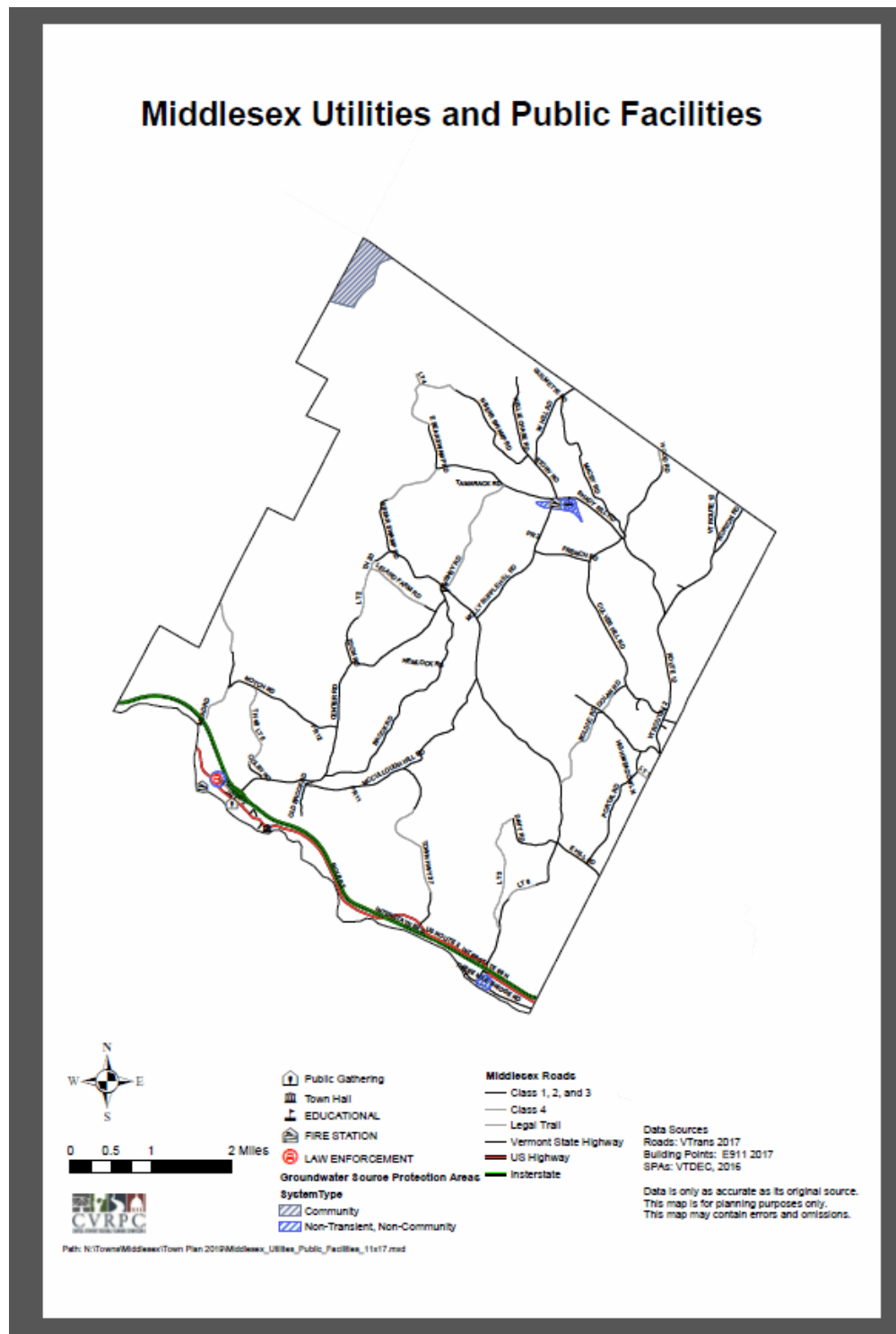
1.2. FUTURE LAND USE MAP-



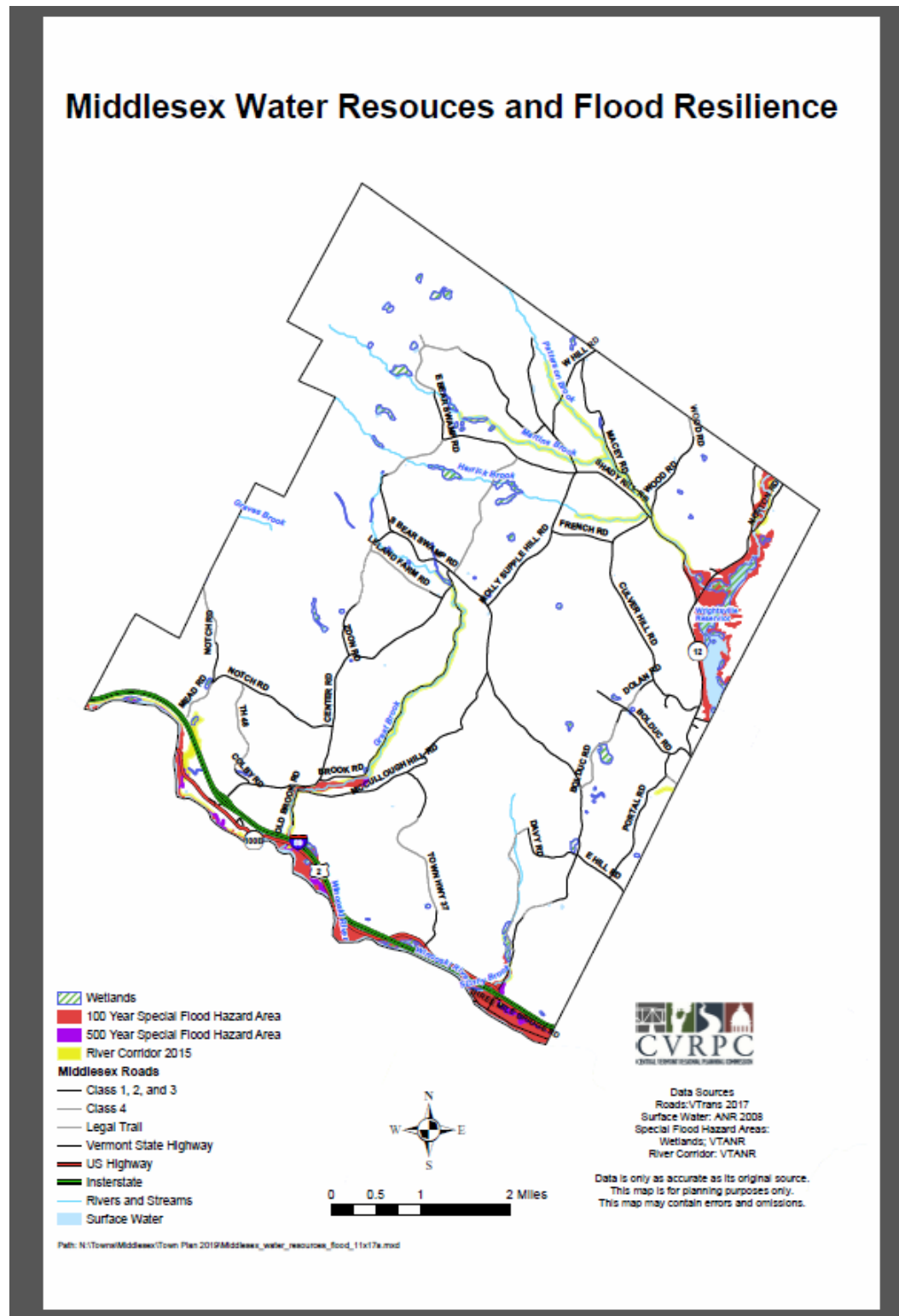
1.3. TRANSPORTATION INFRASTRUCTURE MAP



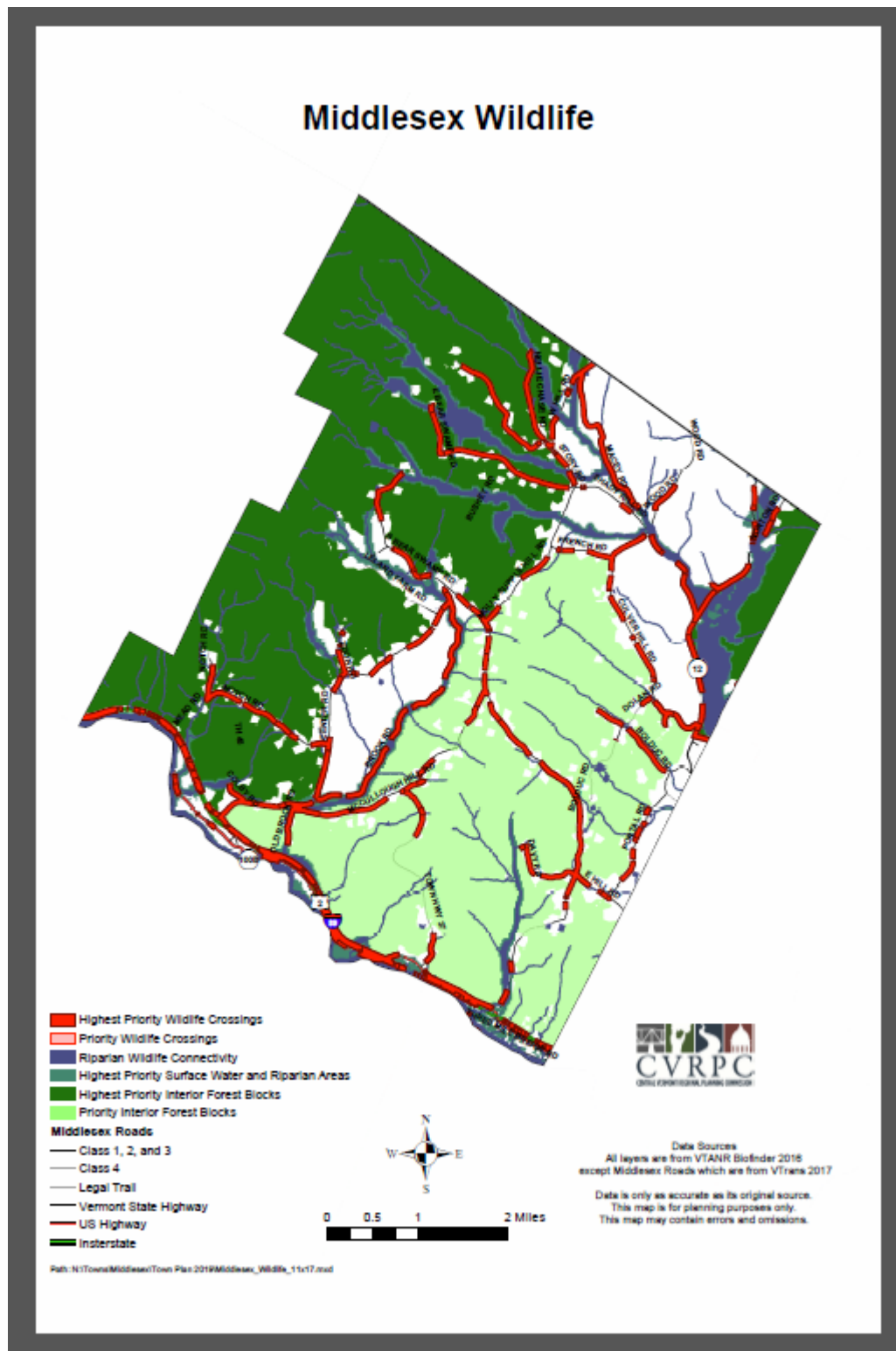
1.4. UTILITIES AND PUBLIC FACILITIES MAP



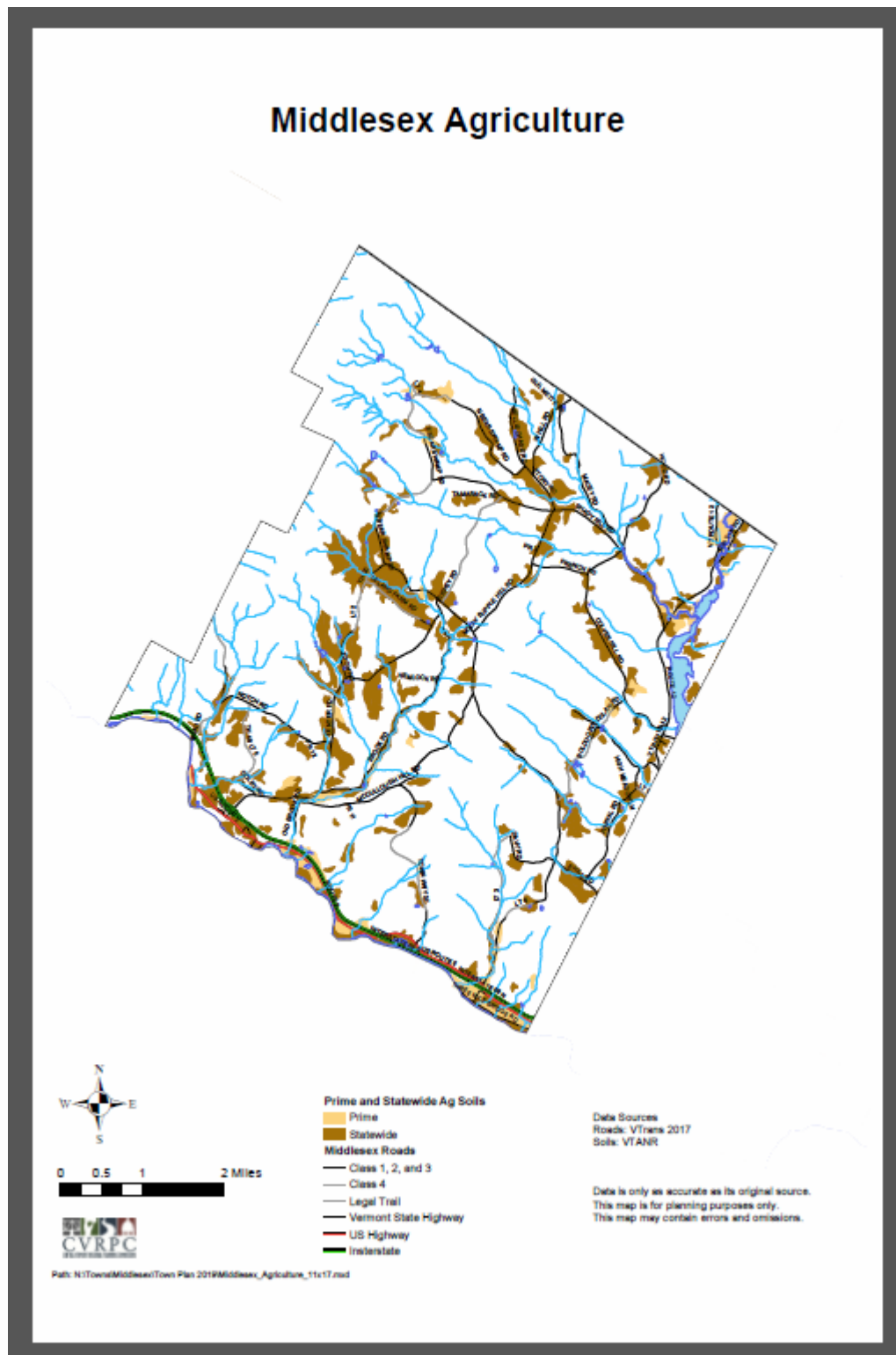
1.5. WATER RESOURCES AND FLOOD RESILIENCE MAP



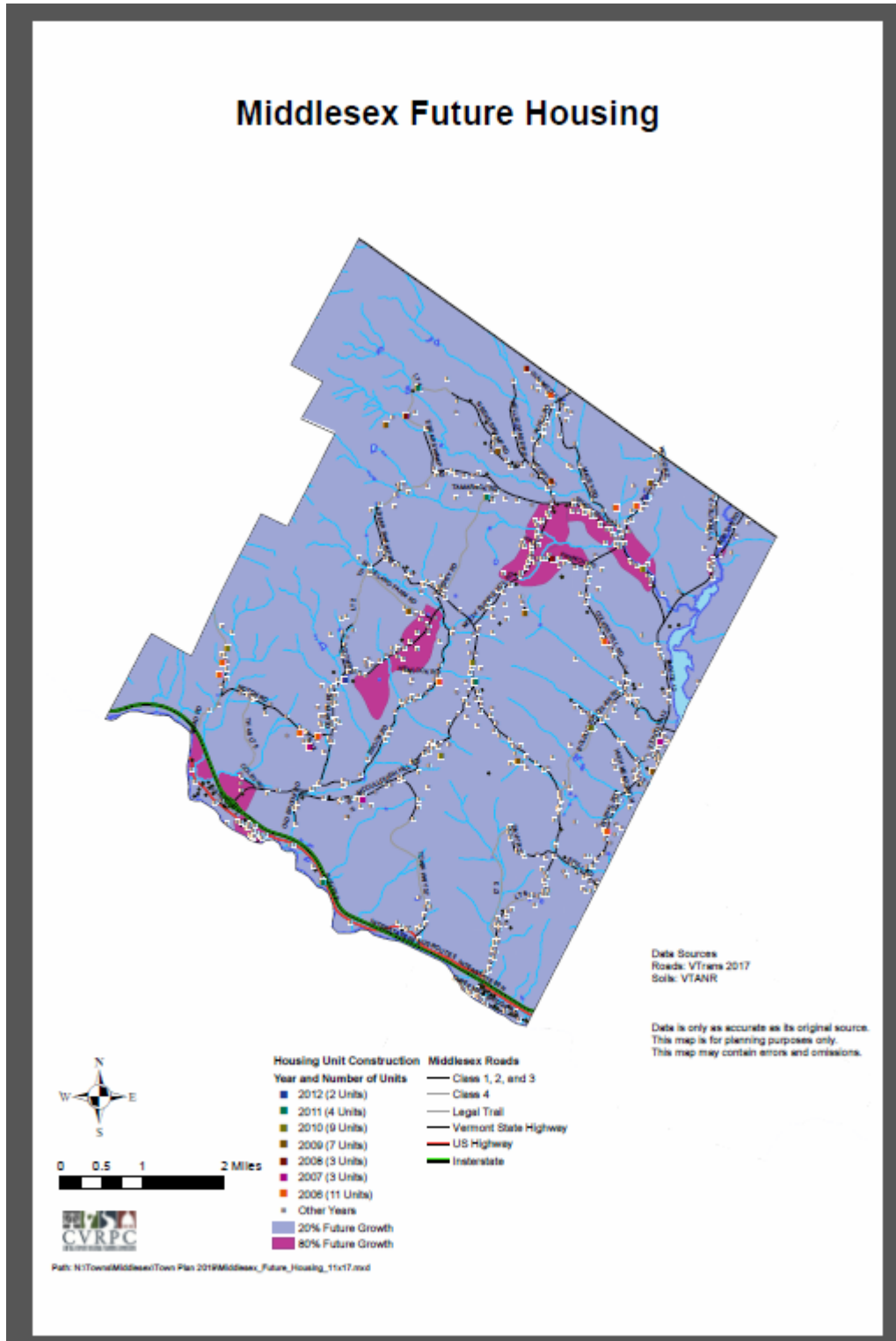
1.6. FOREST BLOCKS AND WILDLIFE HABITAT MAP



1.7. AGRICULTURE MAP



1.8. FUTURE HOUSING MAP



1.9. What's Next Middlesex: Links and Highlights from Report

<http://middlesexvermont.org/whats-next-middlesex/>

www.WhatsNextMiddlesex.org

Excerpted from What's Next Middlesex Final Report (2019):

The Mosaic: What is Middlesex like today?

- Spread out
- Great school
- Shitty internet
- Summer concerts
- Barns
- Cross-country skiing/snowshoeing
- Good friends
- Close to Montpelier
- Winooski
- Local firewood
- Hunting camps
- Settlement Farm
- Disc golf
- Need a disco!
- Pie Breakfast
- Volunteer Fire Department
- Local foods for school lunches
- Accessible politicians
- Help from neighbors with plowing, etc.
- Heaven
- Friendly
- Beautiful views
- Too quiet
- Community
- Pretty safe
- Great kids
- Politically engaged
- Fearful of school merger
- Harvest Dinner
- Trusted neighbors
- Near the mountains
- Rural
- Heavily forested
- Sunny and cool
- Neighbors
- Wildlife
- Great coffee shop
- Engaged
- Deer
- “Makers”
- Dirt roads
- Town Hall
- Need a Post Office
- Good quality roads
- Close ski mountains
- Good neighbors
- Sally’s thrift shop (Sally’s Second Act)
- Bear Swamp Vet
- Riverside park
- Close to state capital
- Bears
- Food shelf
- Far from ocean (close?)
- Chocolate shop (Nutty Steph’s)
- Lack of accessible trails
- Peace and quiet
- Salamander crossing
- Interstate access
- No town green
- The bear swamps
- Good vet
- Pease Farm and therapeutic riding
- Bears
- Lots of turkeys
- Near Montpelier
- Near the mountains
- Fast drivers
- Walkers
- Bikers
- Hilly
- Expensive
- Turkeys
- Potholes
- Many ponds
- Slow internet
- Poor cell service
- Home
- Beautiful
- New homes
- Mud season
- No gas stations
- No grocery stores
- Hunger Mountain
- Sugaring at school
- Wrightsville Beach
- Class IV roads
- E911 signs



- Kayaking
- Wood stoves
- Swimming holes
- Rumney
- Sugaring
- Feels supportive
- Feels peaceful
- Discarded trash on roadways
- Not racially diverse

- Lacking public transportation
- Great parents/grandparents
- Independent
- Politically engaged
- Town hall meeting
- Generous
- Will live here forever

- Spacious
- No shared community space
- Lots of posted land
- Deep-rooted Vermont native families
- Cultural division
- Great Rumney theater productions

The Vision: What do we want Middlesex to be like in the future?

- Business space
- Fiber internet
- Local control of our school
- Youth in leadership roles
- An ultimate Frisbee team
- Local jobs
- Rural
- Global warming has reversed itself
- Intact forests
- Ash trees
- Public shooting range
- Ordinance against noise pollution in our own yards
- More moose
- Fewer porcupines
- No lost cats
- Strengthened communication between neighbors
- Tolerance

- Diversity
- Public transportation
- Woods, and lots of 'em!
- It still snows
- Sidewalks/crosswalks in village
- Affordable childcare
- Late-night coffee
- Bike paths connecting school
- Community center with outdoor spaces
- Successful farms
- Great healthcare
- Affordable healthcare
- Progressive care center
- Good cell coverage
- Secure wetlands
- Post Office
- Local train stop in village
- More time!
- More childcare
- Community trails
- Community garden

- Non-polluting cars
- Community speaker series
- More meat raised in town
- Preserved farm land
- Downhill ski area
- Affordable co-working
- Safe dirt roads
- Independent schools
- Help for young families
- Community pool
- Trails
- Combination community space (music venue, coffee shop, Post Office)
- Young helping old/old helping young
- Kids coming home to raise families
- More free community events
- Clearinghouse for home services



- Local Vermont brewery with pub
- Protect Worcester Range
- No hungry neighbors
- Community sledding hill
- Support for teachers and staff
- High-speed internet
- Lower property tax
- Rumney gym converted to concert space
- Preserve land surrounding Hunger Mountain trails
- Paved roads
- Rumney open to community after school hours
- Pizza pub
- Gas station and convenience store
- Community art projects
- More possums (to eat ticks)
- Dark night sky
- Freedom for the dogs!
- Continued traditional uses of our woods



1.10. 2018-2019 Town Survey

Town Plan Survey Summary

As of 5/12/2019, the survey has received 305 responses.

1. Would you recommend Middlesex to a friend or family member as a good place to live?

Yes	272
No	31
No answer	2

2. Which of the following uses do you think should be expanded in Middlesex?

Biking/Walking Paths	201
Small Retail	197
Restaurant/Café	163
Gas Station	156
Parks/Recreation Fields	147
Nature Center	97
Other	95
Commercial Business	81
Health Club/Fitness Center	46
Large Retail	17

3. What types of uses would be acceptable at the Exit 9 interchange?

Small Retail	228
Small Gas Station (4 pumps)	222
Restaurant/Cafe	208
Transit Center	126
Low cost Housing	118
Rest Area	117
Hotel/Motel	77
Other	74
Contractor's Yard	69
Warehouse	52
Large Retail	35



4. Should Putnamville continue to be zoned as a Village District or changed to Medium Density Residential?

Village District	107
Medium Density Residential	105
No Opinion	90

5. What types of housing should Middlesex promote?

Single Family	241
Starter Homes	173
Tiny Homes	169
Cluster Development	122
Assisted Living	121
Low Income	115
Condominiums	79
Other	58
Mobile Home Park	26

6. Should Middlesex encourage the development of renewable energy resources?

Residential Solar	269
Residential Wind	175
Commercial Solar	148
Commercial Wind	89
Other	49

7. Should Middlesex have a say in determining the siting for a commercial utility?

Yes	277
No	11
No Opinion	17

8. Are recreational activities in Middlesex adequate?

No	129
Yes	117
No Opinion	54

9. What do you feel are the most pressing issues in Middlesex?

Affordability	180
---------------	-----



Other	95
Renewable Resources	85
Cultural Diversity	80
Lack of Housing	52
Underdevelopment	35
Having my voice heard	33
Overdevelopment	29

10. Do current zoning regulations allow for an appropriate level of growth in town?

Yes	110
No	37
No Opinion	150

11. Would you be interested in helping Middlesex by serving on a committee?

Town Forest Committee	27
Conservation Commission	25
Planning Commission	23
Historical Society	22
Advisory Committee	22
Solutions Committee	12
Budget Committee	10
Facilities Committee	10

12. Should Middlesex create an economic advisory committee to develop new zoning techniques and subdivision regulations to allow for greater development of agricultural/forest-based industries?

Yes	187
No	65
No Opinion	51



1.11. References and other plans

2016 Central Vermont Regional Plan:

<http://centralvtplanning.org/wp-content/uploads/2012/03/2016-Central-Vermont-Regional-Plan-ADOPTED-06.12.2018-Reduced.pdf>

Vermont Act 166 Relating to Childcare:

<https://www.vtpublicprek.info/act-166>

Accessory Dwelling Unit Information, State of Vermont:

<https://accd.vermont.gov/housing/planning/adu>

Vermont Interstate Interchange Planning and Development Guidelines Manual

<https://accd.vermont.gov/sites/accdnew/files/documents/CD/CPR/DHCD-Planning-Interchange-Development-Design-Guidelines.pdf>

Vermont Flood Ready

<https://floodready.vermont.gov/>

https://floodready.vermont.gov/assessment/vt_floodready_atlas

1.12. Vermont Agency of Natural Resource *Biofinder* References

<https://anr.vermont.gov/maps/biofinder>

Highest Priority Landscape Scale Elements include:

- **Interior Forest Blocks** - *Interior forest blocks support the biological requirements of many native plants and animals. They support viable populations of wide-ranging animals, including bobcat, American Marten, and black bear, that require large areas to survive by allowing access to important feeding habitat, the ability to move and find mates for reproduction, and as a result ensure genetic integrity of populations.*
- **Connectivity Blocks** - *Movement of animals from one habitat patch to another is the most common function associated with connecting habitat. This function is particularly important for*



wide-ranging animals, such as bobcats and black bears, or for animals that require a great deal of space to meet their daily life needs, such as barred owls or otter. Although connecting habitat is often associated with wide-ranging mammals, it is equally important for animals with relatively small ranges and even for plants over long time periods as climate changes. Spotted salamanders, for example, use connecting habitat in spring to move from their hibernation sites to breeding pools, sometimes crossing roads or agricultural fields.

- **Surface Waters and Riparian Area** - *While Vermont's rivers, streams, lakes, and ponds cover a small percentage of Vermont's area, they provide vital habitat for a rich assemblage of aquatic species, including fish, amphibians, reptiles, invertebrates (e.g., insects, mussels, snails, worms, freshwater sponges), and plants. This represents an enormous contribution to Vermont's biological diversity. All of Vermont's rivers, streams, lakes, and ponds are important for the aquatic biota that they support. As aquatic species are mobile, it is important to maintain connected aquatic habitats in order to protect the diversity of species. Water quality and temperature of upstream reaches directly influences the ability of downstream receiving waters to support aquatic assemblages. Fish and other aquatic populations may travel extensively throughout the lake and stream network for seasonal and life cycle needs. Therefore, it is critical to protect the entire aquatic network in order to maintain the ecological processes necessary to sustain these aquatic populations and assemblages*

- **Riparian Corridors** - *The riparian connectivity component represents the vegetated portions of river and stream valley bottoms and lakeshores which provide numerous ecological functions relating to surface water quality, flood attenuation, and shoreline stability. It also includes floodplain forests and other riparian natural communities that together provide habitat for many rare species represent a concentration of biological diversity.*

- **Physical Landscapes** - *(otherwise known as enduring features) are important for understanding biological diversity and informing conservation planning because they can serve as a surrogate, or substitute, for information on natural communities and species when that information is not available. Conserving and providing stewardship for the diversity of enduring features will in turn help protect the diversity of natural communities and species.*



Drafted with the assistance of Cathyann LaRose, AICP

