Bennington County Regional Plan 2026

Draft submitted for Pre-Application Consideration:

Adopted by the Board of Regional Commissioners:
Month XX, 2026

Effective: Month XX, 2026

VERMONT
LAND USE REVIEW BOARD

Application #:
RPC02-0001

Exhibit #: 003
Date Received: 5/7/26

Natural Systems
Living and Growing
Supporting Infrastructure
People and Community

BCRC Commissioners

Arlington
Joan Nash
Cynthia Browning

Bennington
Donald Campbell (Vice Chair)

Dorset
David McAneny

Glastenbury
Chad R. Skinner

Landgrove
Harry Lux

Manchester
Gordon Black

Manchester Village
Curan Vanderwielen

North Bennington Village
Dana Rozycki

Old Bennington Village
Ed Woods

Peru
pending

Pownal
Walter Klinger

Rupert
John LaVecchia Jr.
Charles Rockwell

Sandgate
Sheila Kearns (Secretary)
Richard Zoppel

Shaftsbury
Martha Cornwell (Chair)

Stamford
Lisa Gramlin
Deb Burchard

Sunderland
Rick Timmerman
Andrew McKeever

Woodford
Ed Shea
Jock Irons

Conservation
Michael Fernandez

Economic Development
Dimitri Garder
James Salerno (Treasurer)
Brian Lent
Doug Ball
Dixie Zens

Energy
Wayn Goodman

Housing
pending

Local Food/Agriculture
pending

Public Health
pending

Transportation
Bruce Lierman

Effective May 1, 2026

Table of Contents

Executive Summary 9

Introduction 10

Purpose of the Plan 10
Vision 11
Welcome to the Bennington Region: Regional Profile 13
By and for the Community 21
How to Read This Plan 21
What's in This Plan 26
Putting the Plan into Action 27

Natural Systems 30

Natural Resources 31

Water Resources 31
Forest Lands 46
Earth Resources 50
Fish and Wildlife Resources 52
Scenic and Recreational Resources 58
How Can BCRC Help? 62
Natural Resources Goals and Actions 63

Climate Resilience 65

Social Factors 68
Climate Hazards 70
Particular Flood Related Risks 75
Extreme Heat and Drought 81
Planning and Coordinating Emergency Management Response 86
How Can BCRC Help? 89
Climate Resilience Goals and Actions 90

Landscape and Character (Rural) 92

Regional Landscape 92
Rural Agricultural and Forestry 95
Rural Conservation 103
Rural General 106
Resource-based Recreation 111
Hamlets 112
How Can BCRC Help? 113
Rural Land Use Goals and Actions 114

Living and Growing 117

Landscape and Character (Growth) 118

Regional Landscape 118
Downtown and Village Centers 121

Table of Contents, cont'd

Historic Districts and Properties 127
Planned Growth Areas 130
Village Areas 137
Transition/Infill Areas 142
Enterprise 144
How Can BCRC Help? 147
Growth-Oriented Land Use Goals and Actions 148

Housing 151
Housing Units in the Region 152
Housing Cost and Affordability 158
Housing Organizations and Services 161
Special Housing Needs 162
Regional Housing Considerations 164
Housing Targets 173
How Can BCRC Help? 180
Housing Goals and Actions 181

Local Economy 183
Context 183
Industry Mix 189
Workforce 194
Brownfields 197
Poverty 199
How Can BCRC Help? 202
Economic Development Goals and Actions 203

Supporting Infrastructure 205

Mobility and Transportation 206
Highway System 208
Public Transportation 219
Walking and Bicycling 222
Rail and Air Service 233
How Can BCRC Help? 236
Mobility and Transportation Goals and Actions 237

Energy 239
Vermont Energy Policy Framework 240
Current and Future Energy Demand 242
Renewable Energy Generation in the Region 260
Energy Planning and Decision-Making 279
How Can BCRC Help? 280
Energy Goals and Actions 281

Table of Contents, cont'd

Utilities, Facilities, and Infrastructure Services 285
Water Supply and Wastewater Disposal 286
Electricity 291
Solid Waste Management 293
Information and Telecommunication Services 297
Public Safety and Emergency Services 300
Town Halls and Town Garages 303
State Buildings 305
How Can BCRC Help? 305
Utilities, Facilities, and Infrastructure Services Goals and Actions 306

People and Community 308

Wellbeing and Recreation 309
Healthcare Facilities and Services 309
Community Health and Wellbeing 312
Parks and Recreational Facilities 315
How Can BCRC Help? 318
Wellbeing and Recreation Goals and Actions 319
Civic Institutions 320

Community Life 320
Arts and Culture, Community Events 323
How Can BCRC Help? 325
Community Life Goals and Actions 326

Education 327
Educational Context + Schools in the Region 327
Childcare and Early Childhood Education 333
Post-Secondary Education 336
Education Costs 338
How Can BCRC Help? 341
Education and Childcare Goals and Actions 342

Coordination and Implementation 344

Governance and Coordination 345
Municipal Governance 346
Local Organizations 349
Regional, State, and Federal Agencies 350
How Can BCRC Help? 354
Governance/Coordination Goals and Actions 356

Implementation Matrix 357

Table of Contents, cont'd

Appendices 376

Appendix A: Environmental Justice Benefits and Burdens Methodology 377
Appendix B: Regional Energy Methodologies and Analyses 382
Appendix C: Community Engagement Process 388

List of Maps

Map 1: Bennington County Regional Commission Municipalities (2026) 12
Map 2: Population Change by Town (2010–2020) 17
Map 3: Total Migration Net Flows for Bennington (2026) 19
Map 4: Environmental Justice Focus Populations (2026) 24
Map 5: Surface Waters and Community Water Supplies (2024) 33
Map 6: Basins and Watersheds (2024) 37
Map 7: Habitat Blocks (2024) 47
Map 8: Sand and Gravel Deposits (2024) 49
Map 9: Critical Wildlife Habitat Areas (2024) 53
Map 10: Unique Natural Features (2024) 56
Map 11: Climate and Economic Justice Screening Tool (2024) 67
Map 12: Economically Disadvantaged and Rural Communities (2020) 69
Map 13: Flood Hazard Areas and River Corridors (2024) 74
Map 14: Wildfire Urban Interface 82
Map 15: Future Land Use (2026) 93
Map 16: Agriculturally Important Soils (2024) 96
Map 17: Interior Forest and Connectivity Blocks (2024) 99
Map 18: Conserved Lands (2024) 102
Map 19: Designated Centers (2026) 119
Map 20: Designated Neighborhoods (2026) 131
Map 21: Tier 1B Areas (2026) 138
Map 22: Tier 1B Area Inset (2026) 140
Map 23: EJFPs and FLU Growth Areas (2026) 146
Map 24: Housing Density (2024) 153
Map 25: Transportation (2024) 207
Map 26: Public Transit (2024) 220
Map 27: Bicycle and Pedestrian Facilities (2026) 223
Map 28: Bicycle and Pedestrian Facilities – Northshire (2026) 225
Map 29: Bicycle and Pedestrian Facilities – Southshire (2026) 227
Map 30: EV Charging Network (2026) 252
Map 31: Existing Distributed Generation Resources (2024) 261
Map 32: Wind Resources (2026) 263
Map 33: Solar Resources (2026) 268
Map 34: Hydroelectric Resources (2024) 269
Map 35: Potential Biomass Areas (2026) 272
Map 36: Utilities: Water and Wastewater Infrastructure (2026) 287
Map 37: Utilities: Electric Infrastructure (2024) 292
Map 38: Public Facilities: Government Institutions (2024) 301
Map 39: Public Facilities: Health Institutions (2024) 310
Map 40: Public Facilities: Community Institutions (2024) 314
Map 41: Trail Systems (2024) 316
Map 42: Public Facilities: Educational Institutions (2024) 329

List of Tables

Table 1: Population and Median Age by Municipality in the Bennington Region 16
Table 2: Lakes and Ponds in the Bennington Region >5 Acres 35
Table 3: Unique Natural Features in the Bennington Region 57
Table 4: Structures located in mapped Flood Hazard Areas and River Corridors. 78
Table 5: Agricultural Land Use and Production in Bennington County, 2002-2022. 97
Table 6: Household Cost Burden by Municipality in the Bennington Region. 159
Table 7: Housing Targets by Town 172
Table 8: 2050 Housing Targets by Unit Type 173
Table 9: 2050 Targets by Unit Size 174
Table 10: 2050 Housing Targets by Ownership 175
Table 11: Bennington County Economic Sector shifts, 2012-2022, and Average Wages. 184
Table 12: Total jobs, average wages, and share of jobs in BCRC towns, with comparisons to 2012. 186
Table 13: Bennington Region Municipal and State Highway Mileage 208
Table 14: Energy Burden in Bennington County 246
Table 15: Summary of Distributed Renewable Energy Generation in the Bennington Region, 2024 262
Table 17: 2050 Renewable Energy Generation Capacity Targets (in MW) by Town for the Bennington Region. 265
Table 16: Generator Classifications 265
Table 18: Incremental Energy Generation Targets for the Bennington Region 266
Table 19: Wind Capacity and Generation Potential by Town in the Bennington Region 267
Table 20: Solar Capacity and Generation Potential by Town in the Bennington Region, 2024 270
Table 21: Potential Rooftop Solar Capacity and Generation by Town in the Bennington Region 271
Table 22: Distribution of Daycare Facilities in the Bennington Region, 2026 334
Table 24: Distributed Energy Generation (DG) by Town in the Bennington Region, 2024 383
Table 23: Energy Use by Sector in the Bennington Region 383
Table 25: 2025 Incremental Regional Capacity Targets by Town (MW) 384
Table 26: 2035 Incremental Regional Capacity Targets by Town (MW) 385

Executive Summary

The Bennington County Regional Commission (BCRC) presents this regional plan as a celebration of the unique places and people that make up the Bennington Region and a guide for its development, growth, and preservation in the coming years. The BCRC works with seventeen municipalities within Bennington County (Map - Municipalities) on a range of planning topic areas, including land use, community and economic development, environmental issues, housing, transportation, energy, and emergency management. This plan addresses issues across those topics to create a comprehensive tool for policies, programs, and development throughout the region.

This regional plan advances the state's planning goals and incorporates the required elements through an organizational structure that groups topic areas by themes that emerged through community engagement: Natural Systems, Living and Growing, Supporting Infrastructure, People and Community, and Coordination and Implementation. Within these five sections are chapters that explore specific topics. Each chapter incorporates some of what we learned from the public as well as how the BCRC can help municipalities, community organizations, and the region at-large on those issues. The plan also incorporates discussions of environmental justice issues throughout the document, highlighting where inequity has shaped our communities and identifying strategies to more equitably distribute the region's invaluable assets and mitigate the tremendous burdens. Each chapter concludes with goals, policies, and actions that guide the application of the plan, all of which are summarized in an Implementation Matrix at the end of this plan.

This plan is meant to be an action-oriented tool for the BCRC, municipalities, community-based organizations, businesses, and motivated individuals to refer and respond to. The process of preparing this plan has demonstrated that the BCRC is part of a broad community of organizations and people who care deeply about the Bennington region. We hope this plan will help us all work toward an outstanding future.

A bench swing in Pownal Center Village
Photo Credit: BCRC

Introduction

Purpose of the Plan

Planning is a hopeful exercise where we envision resilient, thriving communities with engaged, and healthy citizens, and establish goals and strategies to help us get there. The regional plan should be a living document, used by the BCRC, local governments, state agencies, private developers, and citizens to help shape decisions that support state planning goals as outlined in statute (24 VSA 4302) through policies and actions that are deemed most appropriate for the communities of this region. Effective implementation of the plan will result in enhanced quality of life for residents by promoting community resiliency, equity, and prosperity; by maintaining and developing welcoming, affordable, safe, convenient, and healthy communities; and by protecting the resources that make the Bennington region an outstanding place in which to live.

In practical terms, the regional plan serves as a general guide for the development of municipal plans and helps to ensure that those individual plans are consistent with each other and reflect a regional consensus. In turn, the regional plan may be amended in

A view of the Bennington Battle Monument through the trees. Photo Credit: BCRC

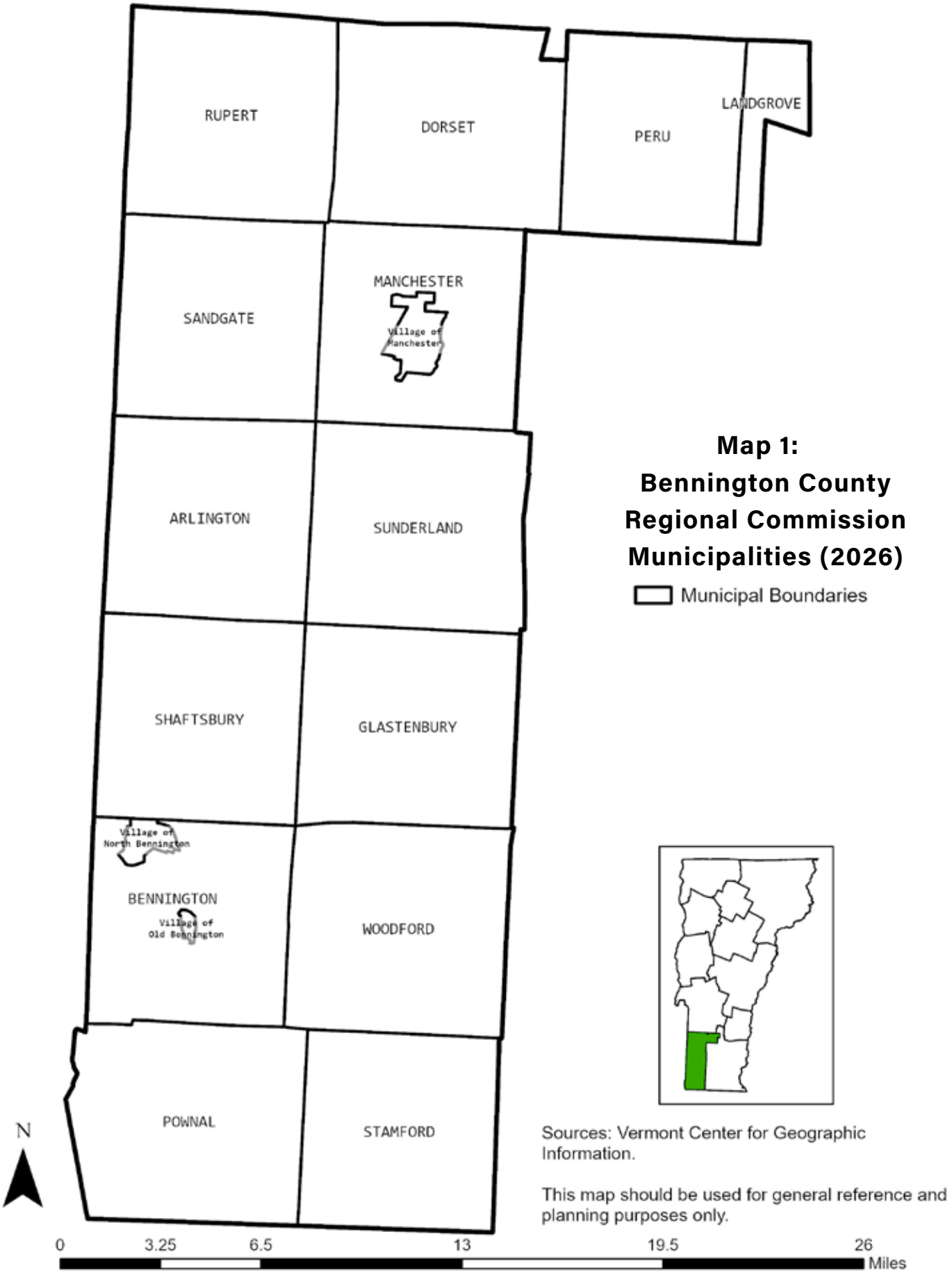
response to changing conditions and needs identified as municipal plans are updated. By defining specific regional policies and priorities, the regional plan also can be used to ensure that state agency plans and projects, and other major public investments, are consistent with the interests of local communities in the Bennington region.

Regional planning commissions are statutory parties to state land use (Act 250) regulatory proceedings and participate in many public utility (Section 248) hearings as well. An effective regional plan ensures that projects subject to those reviews support regional development and conservation objectives. The regional plan also can be used as an important educational and reference document, providing important information about the region, a vision for the future, and practical information about strategies that can help realize that vision.

Vision

The regional plan is intended to provide direction for the region as a whole and for its seventeen unique communities. The following statement is based on aspirations and values that are common to the entire region:

The Bennington region will be a place where all residents have an opportunity to enjoy an outstanding quality of life through an emphasis on its distinctive sense of place. The essential elements of that place include its natural, scenic, cultural, and historic resources; its compact villages and urban centers surrounded by rural open spaces; an active and engaged citizenry; outstanding school systems; efficient and responsive public services; an efficient, safe, and convenient transportation system; a range of housing options that are pleasant and affordable for all residents; and a place where a strong, diverse, and sustainable economy offers opportunities for all residents.



Map 1:
Bennington County Regional Commission Municipalities (2026)

Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

A historic fire engine at Bennington's firehouse
Photo Credit: BCRC

Welcome to the Bennington Region: Regional Profile

The Bennington region lies among the Taconic and Green Mountains of southwestern Vermont. Historic villages are located throughout the rural countryside in the "Valley of Vermont" that runs north and south between the two mountain ranges. Archaeological investigations have revealed evidence that Native Americans hunted and fished in the Bennington region as early as 5,000 BC, with some villages built and occupied along rivers between 1,800 and 1,000 BC. Small groups of Mohican and Abenaki people inhabited the region until the colonial era, and the Iroquois traveled and hunted in the area during this time too.

The first colonial era town established in the region was Bennington, chartered in 1749 by Benning Wentworth, the governor of New Hampshire. Wentworth's purpose in chartering this first town on the western edge of what is today Vermont was to clearly establish New Hampshire's claims in the area, since New York was known to consider much of the land to be under its jurisdiction and control. In 1761, settlers from southern New England were led into the area by Captain Samuel Robinson, who purchased several land grants in Bennington, Shaftsbury, and Pownal. Most

of the remaining towns in the region were subsequently chartered in that same year.

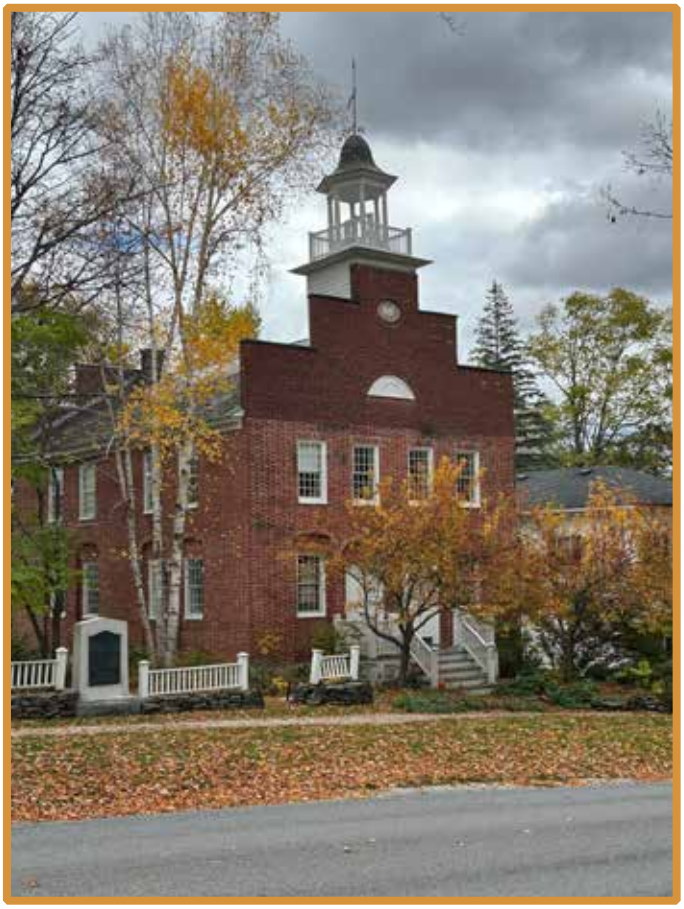
These settlers quickly began shaping their new communities by clearing land for homes and crops, building grist mills and sawmills, and erecting public buildings. The region's natural resources provided for the basic needs of the settlers and supported the earliest industries. The most productive soils were cleared for agriculture, forests were tapped for lumber, potash, and maple products, and by 1790 a marble quarry was operating in Dorset and a paper mill in Bennington. A network of roadways was soon developed to connect the growing communities to each other and to major centers of commerce outside the region. Inns and taverns were sited along the roads to accommodate travelers. Communities in the region grew steadily over the next several decades, with notable concentrations of activity in Bennington and Manchester, both towns having been named shire towns in 1781.

One of the unique and historically important characteristics of the Bennington region is the presence of these two county "shire towns." Bennington County is the only county in Vermont with this distinct political geography, represented by two county courthouses, and prominently identified in the well-established "Northshire" and "Southshire" labels that include the two parts of the region. The Shires concept helps promote the region's assets to tourists and businesses and provides a valued sense of history and place for residents of the region.

The nineteenth century saw continued growth, as numerous small industries sprang up around the region: first grist mills, sawmills, and blacksmith shops, then tanneries, shoemakers, paper mills, cloth manufacturers, iron works, the famous Norton and Fenton potteries, and a manufacturer of carpenter's squares ("Eagle Squares" established in 1823 in Shaftsbury). Many of the largest manufacturing concerns were located along waterways in Bennington and North Bennington. A favorable climate and protective tariffs gave a strong boost to sheep raising in Vermont, and this agricultural enterprise became particularly important in the Bennington region in the first decades of the nineteenth century. Later in the century, a thriving cheese manufacturing industry developed, with nine cheese factories operating in the region by 1880.

A number of other factors in the mid-1800s exerted a strong influence on the future development of the region. The arrival of rail service in 1852 significantly enhanced communication and transportation for residents; the trains also brought in people from outside the region in ever-increasing numbers, leading to the establishment and growth of the tourism industry. The arrival of telephone service in 1881 and electrical service in 1887 also had profound effects on people's lives and the type and character of new development in the region. Electricity spawned a proliferation of trolley car systems in and between villages. These trolley lines enhanced local passenger transportation and also served a number of camp resorts and other vacation spots, such as an inn and casino in Glastenbury. The arrival of the automobile foretold the end of the trolley era, and passenger cars and tractor-trailer trucks would eventually lead to a decline in the use and significance of rail service throughout the twentieth century.

In the 1990s the long-planned limited access highway running from Bennington to



The Old Academy in Old Bennington was built in 1819 as a school but later served as the town library before becoming a private residence.Photo Credit: BCRC

Dorset (Route 7) was completed and Route 279 was constructed providing a bypass route between the east and west sides of Bennington. With the region very accessible to major population centers of the northeastern United States, the vacation and tourism industry continued to grow in importance.

Forestry and related industries have been of great importance to the economy throughout the region's modern history. Tree harvesting was first undertaken to clear land for settlements and cropland, to serve early construction needs, and for potash production. Commercial logging continues to be an important economic activity, both in the Green Mountain National Forest, and on private tracts of forest land. The upland forests also form the scenic backdrop to the region and include vitally important environmental and recreational resources.

The last decades of the twentieth century demonstrated a keen interest throughout the region and state in the conservation of natural resources and active planning for the future that protected these assets. Municipal plans and ordinances, and a number of state laws such as Act 250 and Act 200, were enacted to encourage economically advantageous growth while protecting the open spaces and natural environment that have been so important to the region's history.

In August of 2011 Tropical Storm Irene led to the loss of multiple homes, damaged businesses, and extensive damage to local and state highways and to other important public infrastructure. This storm prompted a statewide reevaluation of where and how buildings and roads are constructed and maintained and focused attention on the need for improved emergency response systems. Since then, heavy rains associated with increasingly frequent storm events have led to major flooding and fluvial erosion damage throughout the region, highlighting the need to consider community resilience in all aspects of local and regional planning.

While the Bennington region has certainly seen profound changes, it is evident that the past has shaped the present and that the region will continue to value and benefit from its rich history. Additional information on the region's history can be found in: The Shires of Bennington: A Sampler of Green Mountain Heritage by Tyler Resch, the main source of the information presented in this chapter.

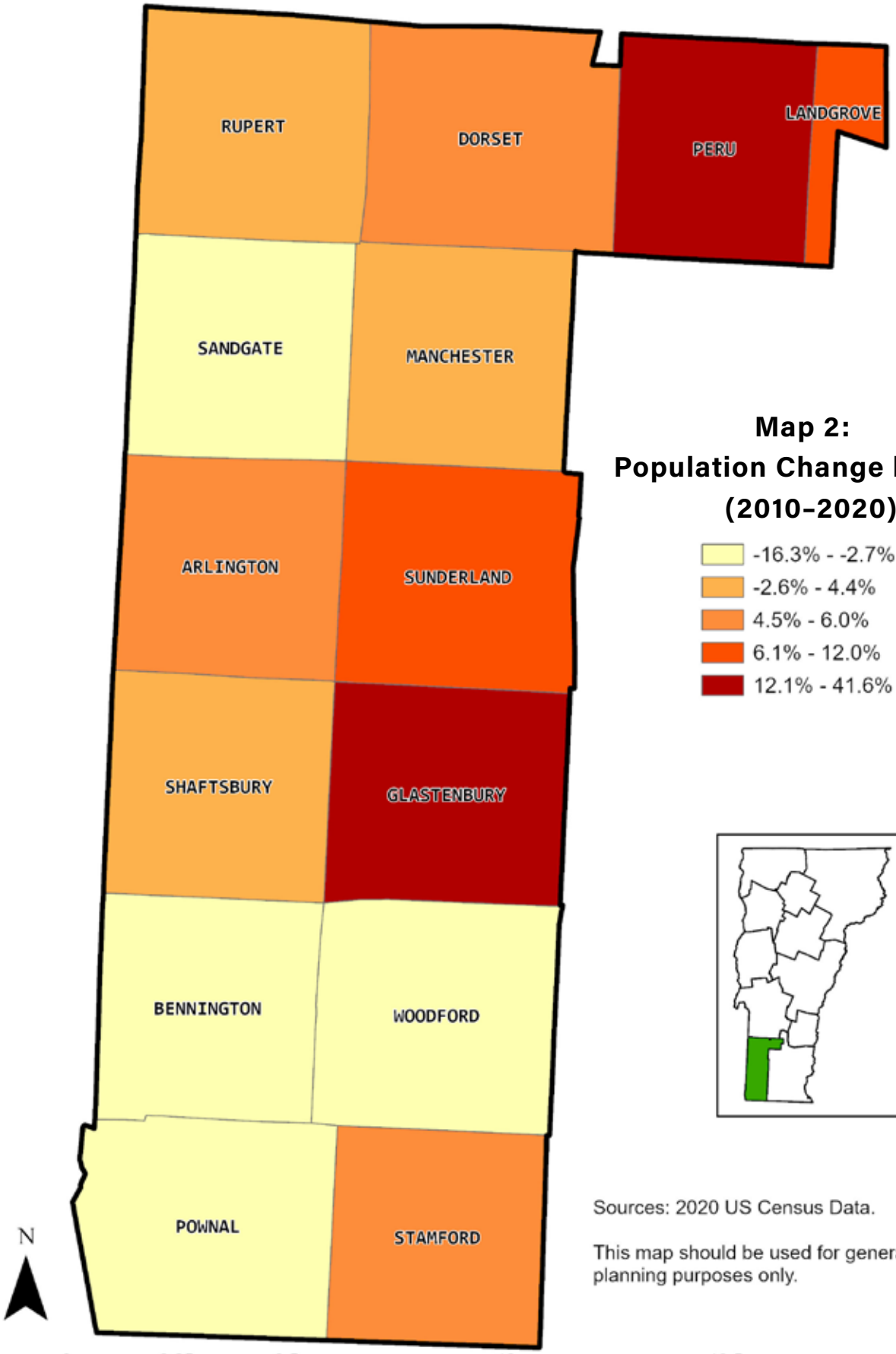
Table 1: Population and Median Age by Municipality in the Bennington Region

Municipality	2020 Population	% Change from 2010	2020 Median Age (Years)	Change from 2010 (Years)
Arlington	2,457	6%	38.3	-6.9
Bennington	15,333	-2.70%	43.7	2.9
N. Bennington Village	-1,716	4.40%	-23.8	1
Old Bennington Village	-156	12.20%	-46.7	-6.7
Dorset	2,133	5%	48.2	2.7
Glastenbury	9	12.50%	NA	NA
Landgrove	177	12%	66.2	12.7
Manchester	4,484	2.10%	53.1	3.9
Manchester Village	-783	8.50%	-64.7	2.8
Peru	531	41.60%	50	2.2
Pownal	3,258	-7.60%	45.5	2.2
Rupert	698	-2.20%	50.4	1.9
Sandgate	387	-4.40%	52.4	6
Shaftsbury	3,598	0.20%	46.2	-0.2
Stamford	861	4.50%	50.2	2.7
Sunderland	1,056	10.50%	47.6	2.3
Woodford	355	-16.50%	54.1	7
Bennington Region	35,337	-0.4	NA	NA
Bennington County	**37,347**	**0.6**	**46.4**	**1.3**
State of Vermont	643,077	2.8	43.2	1.7

Note: the populations of Manchester Village, North Bennington, and Old Bennington are included in the population counts for the two towns.

Who Lives Here?

Bennington County is estimated to have a population of 37,350 based on the 2020 decennial Census. The Bennington region, which includes 17 of the 20 municipalities in Bennington County, has an estimated population of 35,337. The towns of Winhall, Readsboro, and Searsburg, while located within Bennington County, are members of the Windham Regional Commission. While this plan still uses county-level data for broad socioeconomic and demographic analysis, it is worth bearing in mind that these three towns contributed a net gain of 369 residents between 2010 and 2020, while the county added just 222 residents in that time.



Map 2:
Population Change by Town
(2010–2020)

- -16.3% - -2.7%
- -2.6% - 4.4%
- 4.5% - 6.0%
- 6.1% - 12.0%
- 12.1% - 41.6%

Sources: 2020 US Census Data.

This map should be used for general reference and planning purposes only.

After a near-decade of decline, the county experienced significant population growth between 2019 and 2021 (see Map 2: Population Change by Town (2010–2020)). Although most municipalities gained population, the population of the BCRC region still declined slightly in the decade between 2010 and 2020 (-0.4%). Towns experiencing declines in population included Bennington (-2.7%) although its incorporated villages, Old Bennington Village and North Bennington, both experienced increases. Other towns that saw declines were Woodford (-16.5%), Sandgate (-4.4%), Rupert (-2.2%), and Pownal (-7.6%). Peru saw the largest relative increase in population (41.6%) while Shaftsbury saw the smallest relative increase (0.2%).

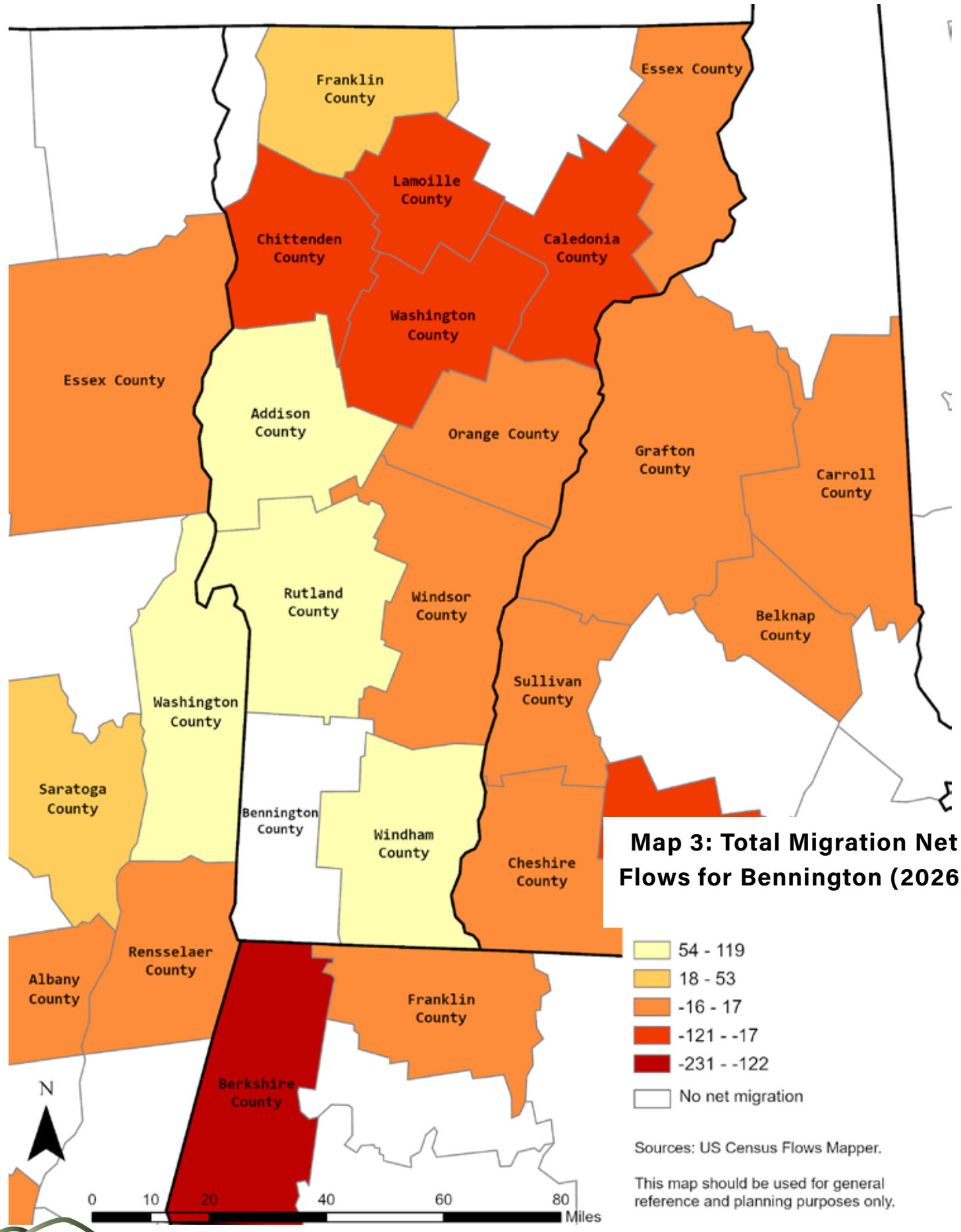
The aging of the region's population continues a trend experienced in the last few decades. The median age of residents increased by 1.3 years between 2010 and 2020. The median age increased in every municipality in the region except for Arlington, Shaftsbury, and Old Bennington (see Map 3: Total Migration Net Flows for Bennington (2026)). Arlington and North Bennington Village have the youngest populations in the region, lower than the state median, while all other communities have median ages close to or above the state and county medians. North Bennington's younger population can likely be attributed to Bennington College students identifying the village as their primary place of residence. Landgrove, Manchester Village, Woodford, and Manchester are characterized by median ages significantly above the county and state medians.

A review of county migration patterns illustrates the shifts that helped stabilize Bennington County's population by the decade's end (see Map 4: Environmental Justice Focus Populations (2026)). American Community Survey data from 2016 to 2020 indicate in that time Bennington County experienced a net increase of almost 600 residents. Prime origins for people moving into Bennington County from out of state were Washington County and Suffolk County in New York, and Bergen County, New Jersey. Prime origins within Vermont were Rutland County, Addison County, and Windham County.

That nearly 20 percent of the net growth in that time is from overseas—unfolding prior to the coordinated efforts around support systems for asylum-seekers, refugees, and immigrants—speaks to the region's value as a destination for new Americans. Furthermore, it underscores the region's reliance on new Americans to mitigate population losses resulting from the unsustainably low birth rate in Bennington County through the 2010s: approximately 76 births for every 100 deaths. This is nearly half the national rate of 149 births for every 100 deaths, and well behind Vermont's low-but-still-positive 105 births for every 100 deaths.

Age

Like the rest of Northern New England, Vermont's median age (42.9 years) exceeds the national median age of 38.5 years. In Bennington County, the median age is notably higher still at 46.7 years. One remarkable distinction within populations is the median age of Bennington County residents born in Vermont, which is just 35.4 years, while the median age of those residents born elsewhere in the United States is 52.6 years. Although the county's margin of error is considerably



Map 3: Total Migration Net Flows for Bennington (2026)

larger than that of Vermont or the nation, the gap is indicative of the region's attractiveness to retirees and second-home owners who eventually make the county their primary place of residence.

Much of the distinction between the region and the state boils down to the county's relative lack of adults under 50 years of age. Within Bennington County, 21.6 percent of the residents are under 20 years of age, fully in line with the state's 21.4 share. But while 36.1 percent of Vermont residents are between 20 and 49 years old, just 30.9 percent of Bennington County residents are in those prime years for establishing and nurturing families and careers.

Race and Ethnicity

Like the state, the racial and ethnic makeup of Bennington County is primarily non-Hispanic White. In 2010, this segment of the county accounted for 95.6 percent of the population. By 2020, however, the figure stood at 90.8 percent of the population. The increasing diversity of Bennington County has been driven by growth in nearly all broad racial and ethnic categories. The Black population grew from less than 1 percent to 1.2 percent of the total (430 individuals); the Asian population grew from less than 1 percent to 1.1 percent (406 individuals); and the presence of "Some Other Race" increased significantly from 20 individuals in 2010 to 323 in 2020, or 0.9 percent of the population. Other racial categories, including American Indian or Alaska Native, and Native Hawaiian and Other Pacific Islander, remained largely unchanged. Meanwhile, the Hispanic population—an ethnicity that is represented in all racial categories—nearly doubled to 2.5 percent of the total (939 individuals). Nationally and throughout New England, multiracial populations are experiencing the most significant growth of any group, a trend present in Bennington County, too. The most visible demographic growth was among individuals with multiracial heritage, a category that included just over one percent of county residents in 2010 but 5.2 percent in 2020 (1,930 individuals).

Income and Affordability

In 2023, the Census Bureau estimated that median household income in Bennington County was $71,494, compared to $78,024 for Vermont overall. The Environmental Justice Focus Population map highlights the census blocks in the region that have a median income below 80% of the state's median income—these areas include southern Pownal, northeastern Bennington, southwestern Shaftsbury, and part of Manchester and Manchester Village.

At the time, the Census Bureau estimated that 11.4% of people in Bennington County were living below the poverty level. This share was even higher for children under 18 years, 15.7% of whom were estimated to be living below the poverty level; Black people, 21.6%; Asian people, 27.4%; and Hispanic or Latino people, 36%. These shares are down slightly since 2013, when 13.9% of people in the region were below the poverty level, including 23.1% of children under 18 years; 29.9% of Black residents; 46.7% of American Indian and Alaska Native residents; and 17.2% of Hispanic or Latino people. See the Local Economy chapter for more on poverty in the region.

By and for the Community

This plan is informed by the participation of community members gathered during an extensive public engagement process. BCRC staff began meeting with municipal planning commissions and legislative bodies to discuss Future Land Use mapping in January 2025 and attended over 30 municipal meetings throughout the year to refine the regional FLU map.

The BCRC also reached out to the broader community for their ideas and input throughout the summer and fall of 2025. This public engagement effort was designed to reach a broader segment of regional residents and stakeholders than the BCRC has reached before. BCRC tabled at public events, released a survey, distributed idea posters at regional public libraries, and held focus groups discussions. Several of BCRC's outreach materials were translated into Dari and Spanish to make them accessible to community members with limited English proficiency.

All of the feedback gathered from the community was synthesized and distilled into key takeaways, and themes that the BCRC used to inform the structure and content of this plan.

BCRC also convened a five-member Regional Plan Advisory Committee to review drafts and offer feedback.

For more information on the community engagement process and results, see Appendix C: Community Engagement Process.

How to Read This Plan

The key takeaways and themes that emerged during the public engagement phase were used to develop a new organizational structure for the regional plan as well as identify important policies and action items that the BCRC should prioritize.

The plan is organized into five larger thematic sections: Natural Systems, Living and Growing, Supporting Infrastructure, People and Community, and Coordination and Implementation. The development of these sections was guided by community priorities and the state-required elements of a regional plan.

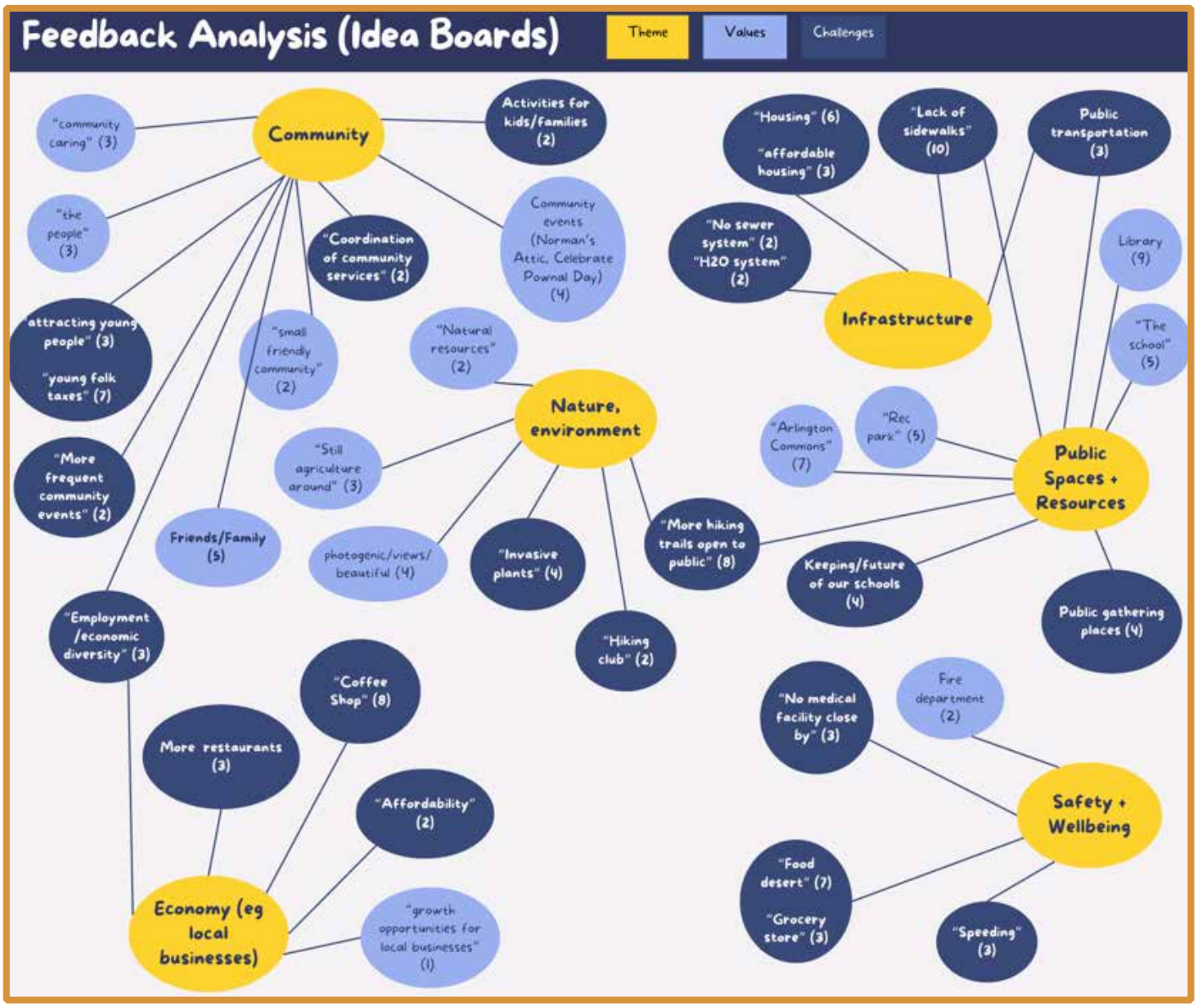
Within each section there are multiple chapters. Each chapter includes a summary of relevant public engagement themes, a discussion of the topic at hand, a discussion of environmental justice considerations, a discussion of how BCRC can assist its municipalities in this planning area, and a list of goals, policies, and action items at the end.

What did we learn from the community?

This section highlights lessons from the plan's public engagement phase. Read it in detail to learn more about how BCRC staff listened to the community on the topic of each chapter. These sections are only intended to be a snapshot of relevant information, full details are found in the community engagement Appendix C: Community Engagement Process.

How Can BCRC Help?

This section, aimed at local officials and members of the public, summarizes BCRC's role in implementing the goals of each



A mindmap of themes shared on Idea Boards during public engagement
Credit: Sabrina Antrosio

chapter in a manner that includes more detail than individual actions. It makes clear how the BCRC can help, not simply what we are available to help with. It clarifies both the institution's latent capabilities, and is meant to improve public understanding of the regional planning commission role in area governance.

Goals, Actions, and Policies

This section includes implementation actions for the chapter, meant to guide the reader in what specific objectives the plan sets out, and how BCRC staff intend to make progress toward them. Goals that guide the implementation of this plan's vision, as well as state planning goals, are located in each chapter of the plan along with policies and actions.

Goals are active statements that lay out broad intentions toward which progress is attainable and which require multiple discreet steps to achieve. Actions are specific tasks or sets of tasks which require some combination of the BCRC's staff time, attention, and resources to accomplish. Policies are stances of the plan and the institution more broadly. Policies are meant to advance the cause of the section and plan's goals by guiding the actions of the institution, as well as its interactions with outside public processes.

All goals, policies, and actions are also included in the implementation matrix at the end of the document.

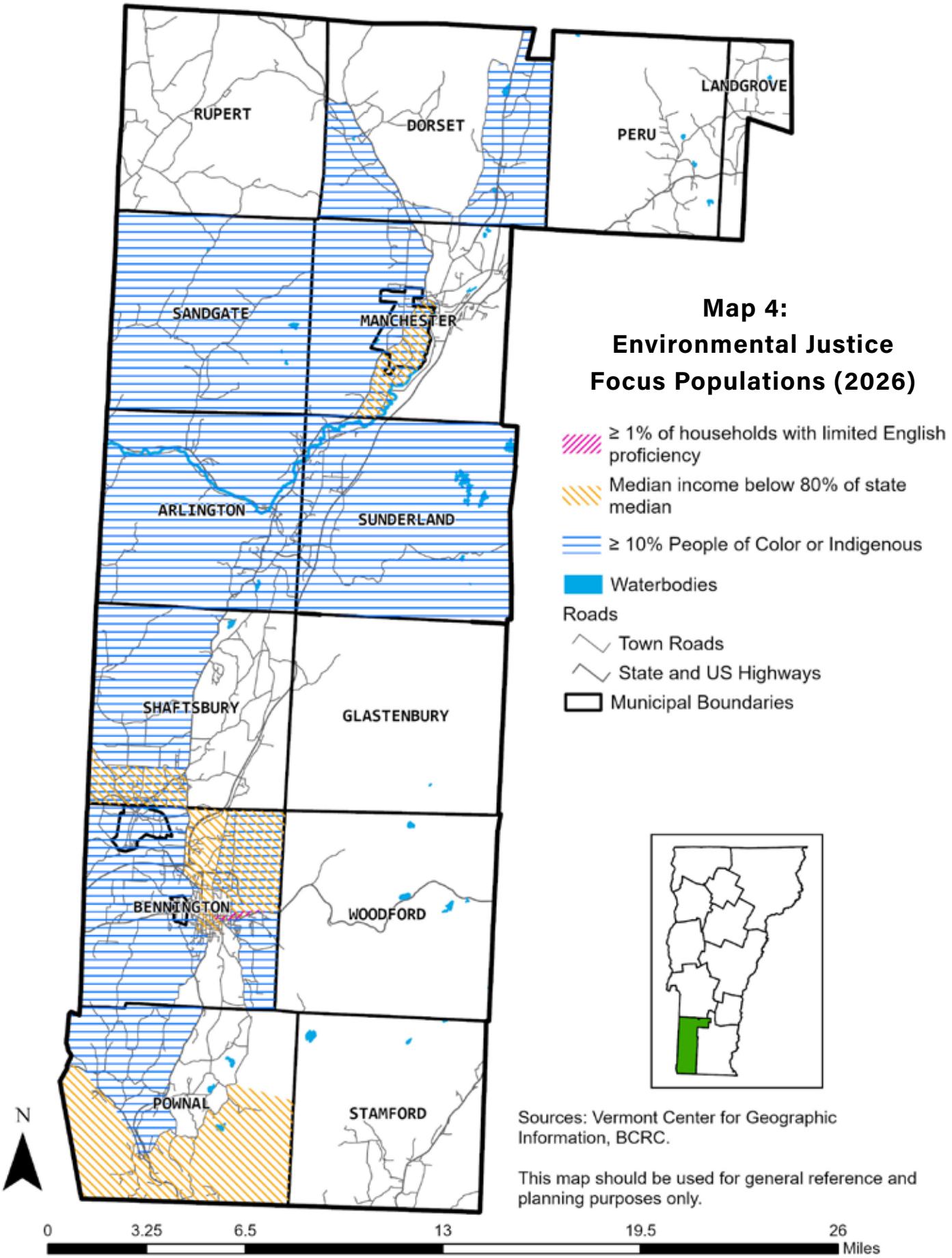
Environmental Benefits and Burdens Considerations

Environmental justice applies to a wide range of issues affecting community well-being, including housing, access to medical care, food security, transportation security, and social connectivity. In 2024, Act 181 added a new state planning goal that requires regional and municipal plans "to equitably distribute environmental benefits and burdens as described in 3 V.S.A. chapter 72."

3 V.S.A. chapter 72 establishes the following definitions:

Environmental Benefits: The assets and services that enhance the capability of communities and individuals to function and flourish in society.

Connecting with the community on their visions for the Bennington region at Manchester Streetfest, July 2025.
Photo Credit: BCRC



Map 4:
Environmental Justice Focus Populations (2026)

- ≥ 1% of households with limited English proficiency
- Median income below 80% of state median
- ≥ 10% People of Color or Indigenous
- Waterbodies

Roads
- Town Roads
- State and US Highways
- Municipal Boundaries

Sources: Vermont Center for Geographic Information, BCRC.

This map should be used for general reference and planning purposes only.

Environmental Burdens: Any significant impact to clean air, water, and land, including any destruction, damage, or impairment of natural resources resulting from intentional or reasonably foreseeable causes.

Environmental Justice Focus Populations are defined as any Census Block Group in which:

- the annual median household income is not more than 80 percent of the State median household income;
- Persons of Color and Indigenous Peoples comprise at least six percent or more of the population; or
- at least one percent or more of households have limited English proficiency

BCRC mapped the Environmental Justice Focus Populations (EJFPs) in the Bennington Region as defined in 3 VSA 6002 (see Map 4: Environmental Justice Focus Populations (2026)). Using this definition results in more than 60% of the Census Block Groups in the region and more than two-thirds of the population being considered Environmental Justice Focus Populations.

This plan includes both quantitative and qualitative analyses of environmental justice considerations. The methodology for and results of the spatial analysis can be found in Appendix A: Environmental Justice Benefits and Burdens Methodology, while narrative discussions of the distribution of environmental benefits and burdens are included throughout the plan under the header 'Environmental Benefits + Burdens.' (Look for the EJ icon!)

The conceptual discussions of the different benefits and burdens consider their impact on the region's residents more broadly than just the focus populations defined in statute. This is because there are many factors that can cause someone to experience marginalization beyond income, race, and level of English proficiency.

After completing the analysis, BCRC developed regional policies and actions in each chapter to address the environmental justice considerations.

Implementation Matrix

An implementation matrix is included at the end of this plan which is intended to serve as a single point of reference for implementation actions that are included in each chapter. Those interested solely in implementation may use this matrix to understand the goals of the plan, the actions the BCRC will take to implement the plan, and all institutional policy positions that support the vision and goals of the plan. Actions which meaningfully impact environmental justice focus populations are indicated. The matrix includes the primary program area for each implementation action intended to guide both staff and the public as to who on the BCRC staff is most responsible for the implementation of said action.

What's in This Plan

Natural Systems describes the region's ecological and rural landscapes, including working lands and rural land use categories. This section also discusses climate resilience and introduces BCRC's approach to equitable distribution of environmental benefits and burdens.

Statutory elements included in this section:

- Natural resources (Goals 5 + 6)
- Recreation (Goal 8)
- Working lands (Goals 9 + 10)
- Flood resilience (Goal 14)
- Future land use (Goal 1)
- Environmental benefits and burdens (Goal 15)

Living and Growing discusses growth-oriented land use categories, historic resources, regional economic development trends, and housing needs, including municipal housing targets.

Statutory elements included in this section:

- Future land use (Goal 1)
- Historic resources (Goal 5)
- Housing (Goal 11)
- Economic development (Goal 2)
- Environmental benefits and burdens (Goal 15)

Supporting Infrastructure describes the various built infrastructure systems and services that are essential to daily life, including transportation, energy, public utilities and facilities, and public safety.

Statutory elements included in this section:

- Transportation (Goal 4)
- Energy (Goal 7)
- Public facilities and services (Goal 12)
- Environmental benefits and burdens (Goal 15)

People and Community discusses the social and civic frameworks that sustain community life, including recreational resources, arts, culture, and civic institutions, and the education system. This section also discusses community health and wellbeing through an analysis of regional public health data.

Statutory elements included in this section:

- Public facilities and services (Goal 12)
- Recreation (Goal 8)
- Education (Goal 3)
- Child care (Goal 13)
- Environmental benefits and burdens (Goal 15)

Coordination and Implementation describes BCRC's relationship with the state agencies, adjacent areas, and local organizations. This section also discusses municipal governance and capacity, and outlines BCRC's implementation program.

Statutory elements included in this section:

- A statement of the relationship with adjacent municipalities and regions
- Implementation program

Putting the Plan into Action

The BCRC was established by its member municipalities in 1967 as enabled by Vermont statute (24 VSA 4341). Accordingly, the purpose of the commission is to provide technical assistance to towns and villages and to promote coordination of planning efforts among those individual communities. Thirteen towns, three villages, and one unorganized town, all located within Bennington County, are the municipal "owners" of the BCRC (see Map - Municipalities). The organization is governed by commissioners appointed by those municipalities, along with representatives of interest groups (including economic development, conservation, housing, transportation, energy, agriculture and local food, local business, and public health) that are elected by the municipal commissioners. There are eleven regional planning commissions in Vermont, coordinating their work at a statewide level through the Vermont Association of Planning and Development Agencies (VAPDA).

In 2016, the BCRC entered into an agreement with the Bennington County Industrial Corporation (BCIC) to provide capacity to that organization in its fulfillment of its obligations as the regional development corporation (RDC) for the Bennington region. This contractual agreement continued until 2020, when the BCIC was formally incorporated into the BCRC and the BCRC was awarded the RDC contract by the Vermont Agency of Commerce and Community Development. The BCRC is one of only two regional agencies in the state that serve as both the RPC and the RDC for their member municipalities. The merger of BCIC and BCRC has strengthened the entity's ability to address the community and economic development needs of the region.

The BCRC began working on its first regional plan in 1968. That effort involved close cooperation among all of the towns and villages in the region. The final product, reflecting the plans of each individual municipality framed within a regional context, was adopted in 1970. This plan represents an update of the 2024 Bennington Regional Plan and incorporates the requirements of Act 181 for regional plans including a regional Future Land Use (FLU) map and an equitable distribution of environmental benefits and burdens as described in 3 VSA Chapter 72.

The BCRC undertakes a wide range of activities to implement the regional plan. This section describes those implementation strategies in general; for specific implementation information, see the "How BCRC can help" sections and goals, policies, actions at the end of each chapter. Implementation steps are also summarized in an implementation matrix that is included at the end of this plan.

Implementation activities described below are organized pursuant to BCRC program areas. There is significant overlap between program areas, and coordination among staff, BCRC committees, and other cooperating entities is crucial.

Comprehensive Municipal Planning

Most of the policies and programs identified in this plan will be most effective when implemented locally. Considerable emphasis, therefore, will continue to be placed on the many local assistance programs that have been a mainstay of BCRC's work program since its inception.

Municipal Plans. The BCRC assists municipalities as they prepare new or updated plans. BCRC staff will help local planning commissions assemble and analyze data, conduct research and surveys, and prepare text and maps. As part of the plan development process, during regular consultations, and when requested by a municipality, the BCRC will review local plans to evaluate their consistency with statutory goals, and their compatibility with the regional plan and the approved plans of other municipalities in the region.

Bylaws. Every municipality in the Bennington region has a zoning bylaw in effect and many have subdivision or unified land use regulations. Many municipalities in the region have also adopted flood hazard and river corridor regulations, either integrated with the zoning regulations or stand-alone. The BCRC works with individual towns and villages to prepare new or amended zoning, subdivision, and other land use regulations as necessary to respond to changing conditions and to implement municipal plans.

Communications. The BCRC prepares and distributes a bimonthly newsletter that contains important information about recent activities and developments in the region, new state initiatives, funding opportunities, regulatory requirements, and upcoming events that may be of interest to local officials. The BCRC also maintains a website and Facebook page to share important resources and information with its member municipalities.

Trainings. The BCRC organizes, sponsors, and conducts workshops and training seminars for local officials. These training sessions may be offered in collaboration with state agencies or other regional planning commissions. Training includes an annual Vermont "land use essentials" seminar and quarterly informal discussions with local planning and zoning officials. Meeting with local boards and commissions is a regular and effective means of outreach, further enabling the BCRC to respond to particular local issues and concerns.

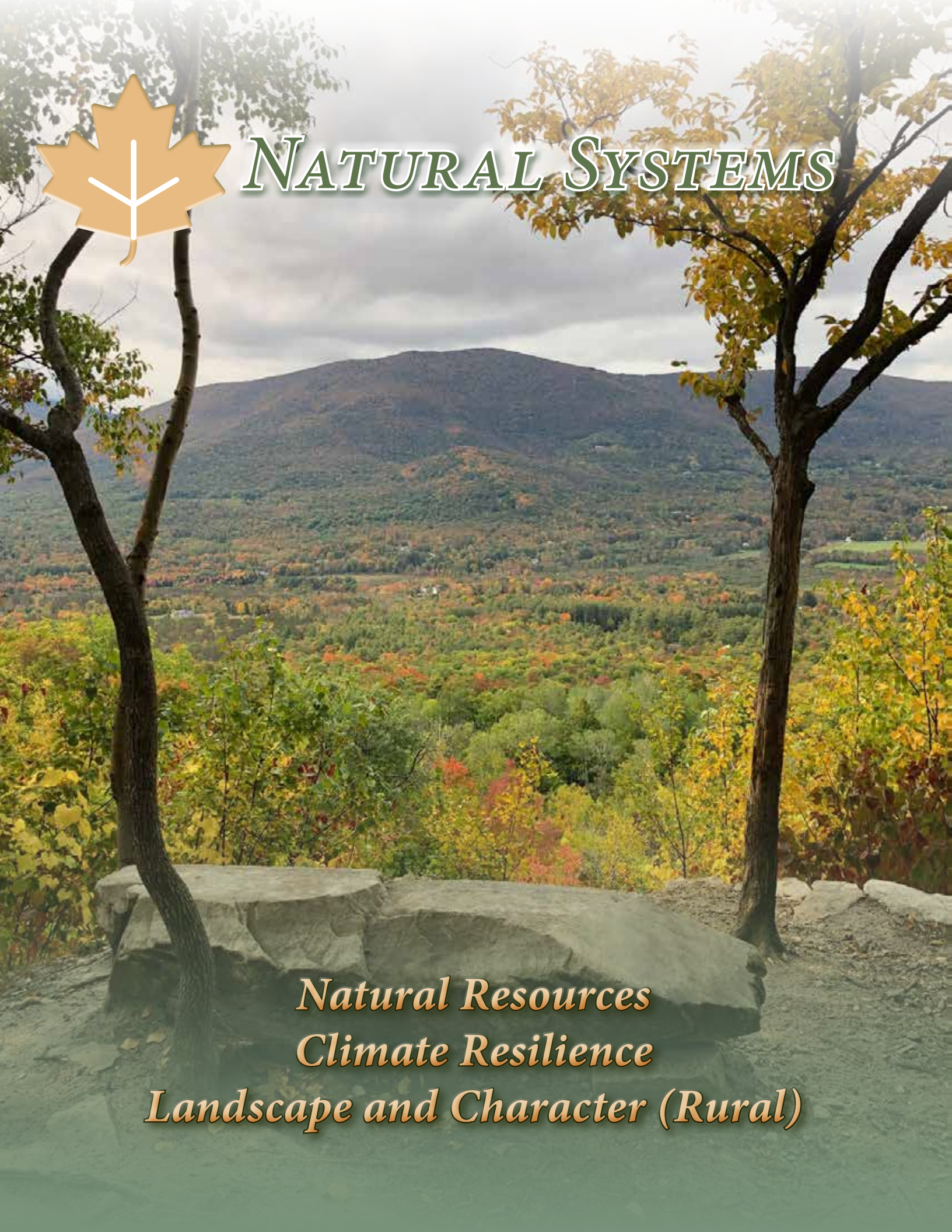
Plantings in the heart of Manchester Village, with the historic Bennington County Courthouse in the background.. Photo Credit: BCRC

Special Projects. The BCRC works with individual towns and villages and with groups of municipalities to conduct special community development and planning studies and projects. These studies may include devising community and economic development strategies, planning for low-impact development, scope proposed transportation projects,

integrating flood resilience with local plans and regulations, capital budgeting, energy plans, natural or historic resource inventories and plans, park and open space planning, and plans to address targeted housing needs. The BCRC is available to assist municipalities, either as a principal consultant or with technical and data support services.

Mapping. The BCRC utilizes a Geographic Information System (GIS) to assist with local and regional planning. A wide range of geographic data is available through the Vermont Center for Geographic Information (VCGI) and other online services that BCRC staff can acquire and use to support local and regional planning and plan implementation projects.

Grant Assistance. The BCRC assists its member municipalities in the preparation of applications for grants to support development of comprehensive or special plans, energy plans, housing initiatives, transportation improvements, environmental projects, economic development programs, infrastructure studies and projects, and other projects designed to implement local plans.



Natural Systems

Natural Resources
Climate Resilience
Landscape and Character (Rural)

Natural Resources

The Bennington region draws its identity from the ecological and rural landscape systems that are inextricably linked to the area's past, present, and future. With its core in the Valley of Vermont, bounded by the Green and Taconic mountains, this region's economy, civic life, and social customs remain grounded in its air, lands, and waters. This section of the plan reviews the region's natural resources, explaining what they are, why they matter, and what the BCRC is doing to help steward them for the future.Water Resources

Water Resources

The quality of surface and ground water resources is vitally important to residents of the region and to the economy. Clean, pure, and abundant water is essential for drinking supplies, agriculture, recreational activities, fish and wildlife habitat, and the scenic quality of the region's landscape. Protection of these resources is an important goal of this plan and is preferable to costly remedial actions that may become necessary following some form of contamination. Several types of water resources, each with special attributes and requiring distinct conservation strategies, are discussed in this section.

Lakes and Ponds

The many small lakes and ponds that dot the landscape of the region (see Map 5: Surface Waters and Community Water Supplies (2024)) are irreplaceable natural resources that serve many important functions. There are 33 lakes and ponds in the region at least five acres in size, the largest being Sucker Pond (aka Lake Hancock) in Stamford and Bourn Pond in Sunderland (see

What did we learn from the community?

Strong community values for the region's mountains, rivers, forests, lakes, and scenic views

Concerns about uneven access to that beauty, especially locally grown food

Concerns about invasive species and blights (Japanese knotweed, emerald ash borer)

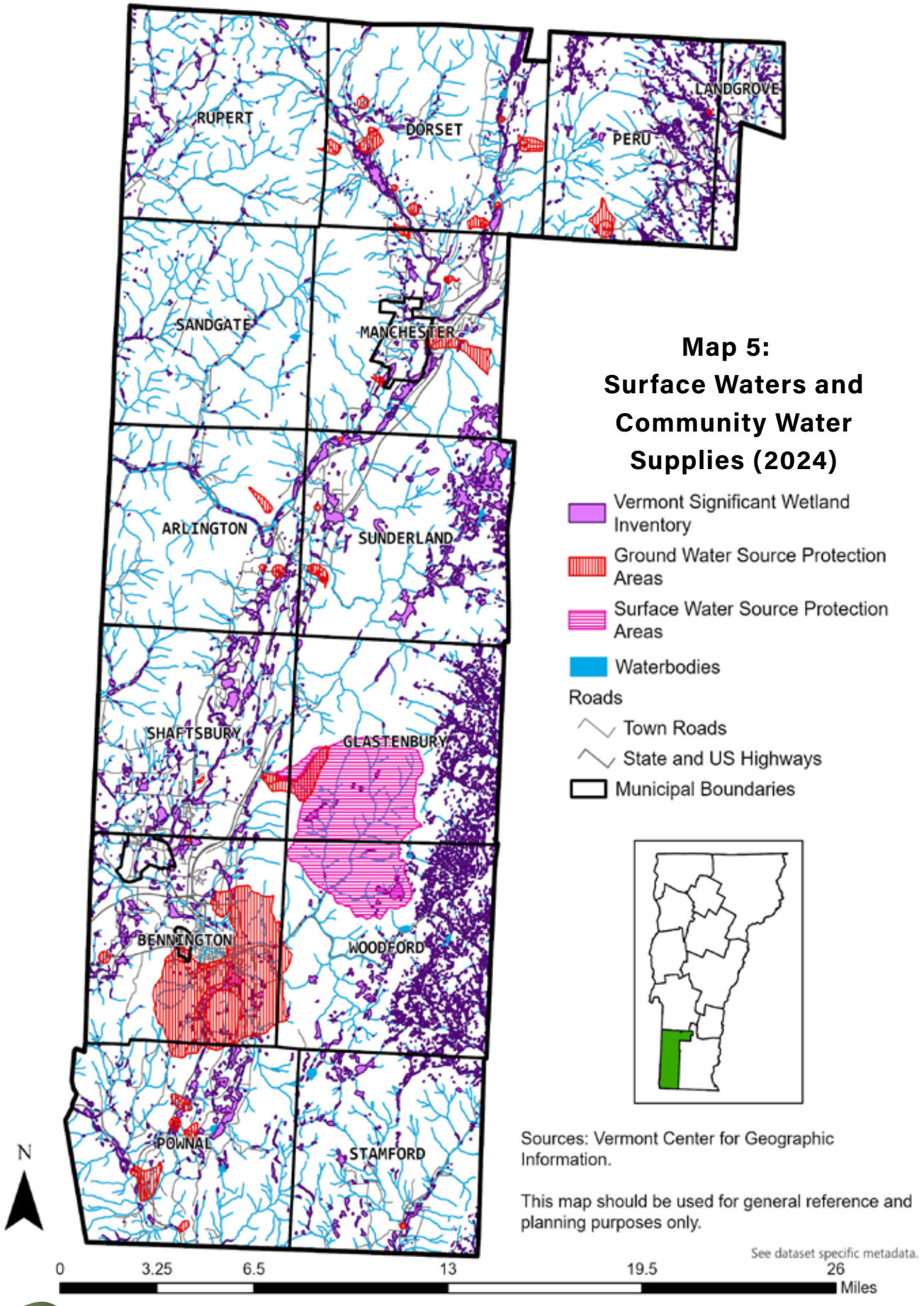
People value existing recreational resources in their communities and would like to see more

A fisherman on Sucker Pond in Stamford.
Photo Credit: Town of Bennington

Table 2: Lakes and Ponds in the Bennington Region >5 Acres). Fishing is a popular activity on several lakes throughout the year, and swimming and boating are important recreational activities during the warmer months. These waterbodies also provide important habitat for waterfowl and many other wildlife species. Moreover, the beauty of glistening ponds nestled among the hills contributes a critical element to the area's scenic values. For all these reasons, it is important to protect the quality of these resources and to ensure that reasonable public access to them is maintained.

Emerald Lake (Dorset), Adams Reservoir (Woodford), and Lake Shaftsbury (Shaftsbury) are located within state parks and have swimming beaches and facilities for boating, hiking, picnicking, and camping. Hapgood Pond, located in the Green Mountain National Forest in Peru, offers a similar array of recreational amenities. A small, but popular park operated by a non-profit organization is located at Lake Paran (just outside North Bennington Village). These parks are all maintained to provide for public recreational use, and their geographic distribution ensures that residents and visitors can conveniently access a lakefront park from anywhere in the region.

It is important that lakes and public lands surrounding them are accessible to the public. Access to state parks should be available throughout the year, not just during the few months when the parks are officially open. Access to other lakes and ponds may be facilitated through the use of conservation or access easements and public acquisition of particularly valuable shoreland areas. Recreational use and access must be managed, however, to ensure that excessive or inappropriate use does not damage the



Map 5: Surface Waters and Community Water Supplies (2024)

- Vermont Significant Wetland Inventory
- Ground Water Source Protection Areas
- Surface Water Source Protection Areas
- Waterbodies

Roads

- Town Roads
- State and US Highways

- Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

See dataset specific metadata.

environment or result in conflicts among different user groups.

All of the lakes and ponds in the region should be afforded a significant level of protection to maintain water quality (see section below on Maintaining Water Quality), but those lying at high elevations should be given special attention. These waterbodies support fragile ecosystems that thrive only in a relatively narrow range of water quality conditions. Disturbances in nutrient flow, water temperature, or water chemistry can have serious ecological effects. Fortunately, most of these lakes and ponds are located within the Green Mountain National Forest or in remote areas where development pressures are minimal. The impacts of logging in these watersheds can be minimized through conformance with the Acceptable Management Practices (AMPs) prepared by the Vermont Agency of Natural Resources. A threat to the water quality in these upland lakes that is more difficult to deal with results from airborne pollutants which originate outside the region, often hundreds of miles distant. These pollutants can cause contamination through acidification of lake water and leaching of chemicals from soils. Such inter-regional and inter-state problems can be effectively addressed only through strong federal air quality standards.

Invasive species present a challenge for management of lakes and ponds in the region. One major concern in this part of the state has been the spread of Eurasian watermilfoil. This plant adversely affects fish and wildlife habitat and can render areas unsuitable for recreational use. The weed can be spread easily when pieces of a plant become attached to boats and other equipment and are subsequently released in another part of the lake or in a different lake. Lake Paran currently is suffering from severe infestation of Eurasian watermilfoil. The Agency of Natural Resources maintains an Aquatic Invasive Species Program to help towns, lake associations, and other lake users manage and control these plants and animals.

Many lakes and ponds in the region have been artificially created through impoundments of streams. Several of these waterbodies have become important scenic and recreational assets, and it is critical that the dams that create them are maintained in good condition. The Dam Safety Program at the Agency of Natural Resources administers a permit program for construction and alteration of non-hydroelectric dams, conducts dam inspections, educates dam owners and the public about public safety issues, and operates and maintains several dams around the state. Occasionally, a dam may no longer be safe or provide significant benefits to communities and the impounded stream may be more valuable in its natural state. In such a case, a procedure is available that will lead to removal of the dam and restoration of the stream to a natural condition. Such a project recently was completed in Manchester, resulting in the drainage of what had been Dufresne Pond on the East Branch of the Batten Kill. A smaller dam on the Walloomsac River in Bennington was also removed, draining a much smaller impounded area, but also enhancing safety and improving fish habitat.

Rivers and Streams

The rivers and streams of the Bennington region always have been of great importance to people in the area. Native American

Table 2: Lakes and Ponds in the Bennington Region >5 Acres

Lake or Pond Name	Location	Surface Area (acres)	Basin Area (acres)	Elevation (Feet)
Warm Brook Pond	Arlington	11	3636	762
Lake Paran	Bennington/Shaftsbury	40	9312	647
Emerald Lake	Dorset	28	3630	711
Prentiss Pond	Dorset	5	207	929
South Village Pond	Dorset	5	85	760
Bullhead Pond	Manchester	5	29	740
Pickerel Pond	Manchester	9	31	740
Equinox Pond	Manchester Village	15	537	1100
Griffith Lake	Peru	18	164	2600
Hapgood Pond	Peru	7	1568	1540
Mud Pond	Peru	10	371	1420
Barber Pond	Pownal	19	170	1103
South Stream Pond	Pownal	24	3456	1100
Thompsons Pond	Pownal	28	548	1406
Barbos Pond	Sandgate	7	48	1844
Lake Madeleine	Sandgate	20	100	2175
Lake Shaftsbury	Shaftsbury	27	2311	848
Sucker Pond	Stamford	51	259	2267
Stamford Pond	Stamford	12	260	2380
Beebe Pond	Sunderland	8	148	2460
Bourn Pond	Sunderland	48	410	2552
Branch Pond	Sunderland	34	330	2632
Lye Brook Pond (N)	Sunderland	10	96	2600
Lye Brook Pond (S)	Sunderland	18	253	2600
Adams Reservoir	Woodford	21	817	2320
Big Pond	Woodford	31	715	2265
Bugbee Pond	Woodford	8	1428	2171
Little Pond	Woodford	16	326	2602
Mill Pond	Woodford	7	988	2040
Mud Pond	Woodford/Stamford	6	23	2240
Red Mill Pond	Woodford	7	1258	2260

encampments and the first white settlements were located near rivers and streams. These waterways provided a travel route through the rugged wilderness and served as a source of drinking water and food. As communities grew, streams were relied upon to power mills and factories and to carry away industrial and domestic wastes. As the importance of waterpower declined, many streamside industrial sites were converted to commercial and residential uses. Most often, these buildings were oriented toward the street, and the rivers and streams were ignored or used only for disposing of wastes. Over time,

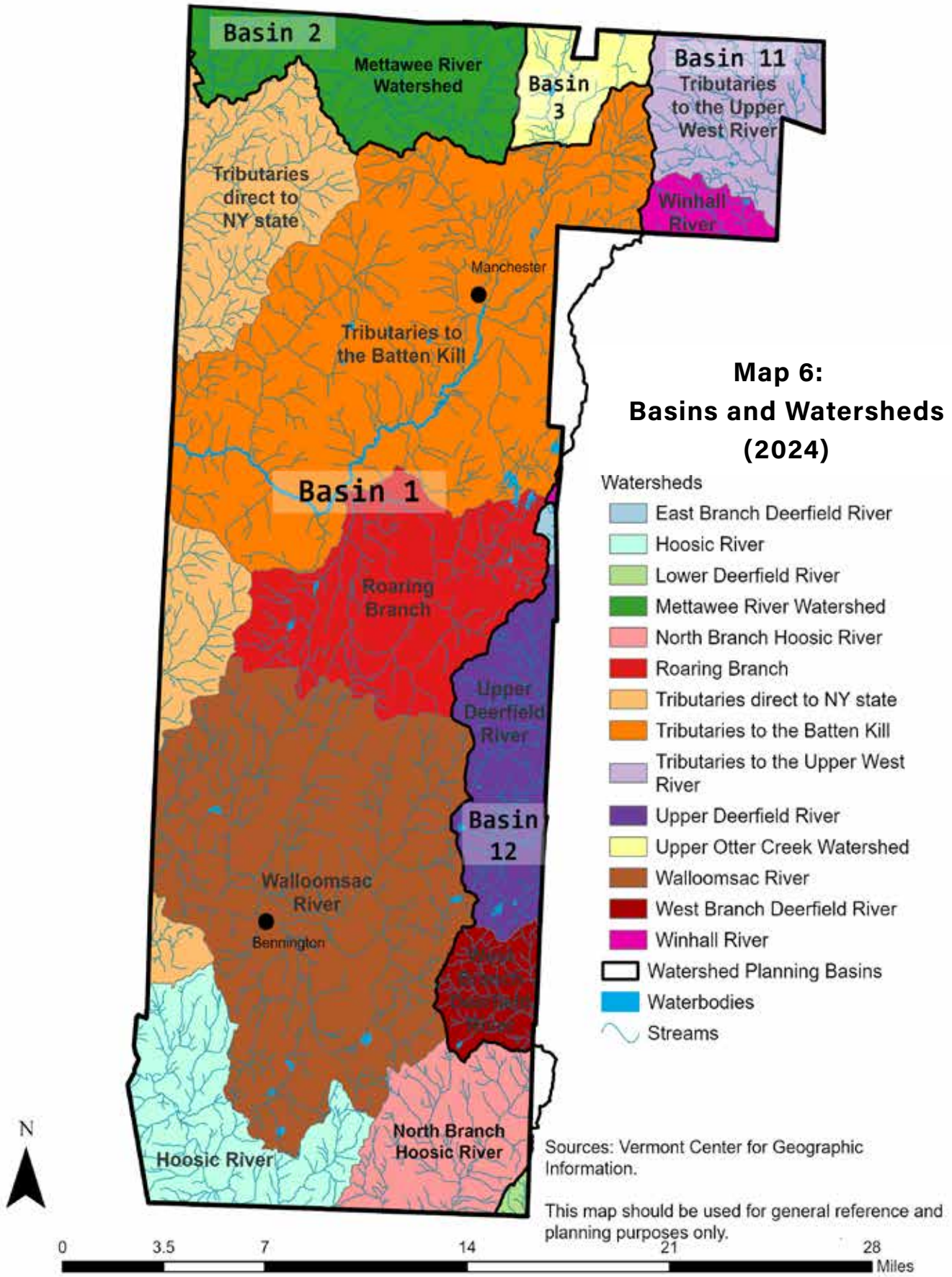
waterways in rural areas became surrounded by agricultural activity occurring on the rich bottomland soils found in the river valleys. Some mountain streams served, and were likely disturbed by the logging industry, while other remote upland streams remained in a relatively pristine state.

In more recent years, considerable emphasis has been placed on maintaining and improving surface water quality. Fishing, swimming, and canoeing have become important recreational activities on many waterways in the region. Rivers and streams also have come to be recognized as important aesthetic resources, particularly since many roads run parallel to them. Considerable development (and redevelopment in some village and urban areas) along rivers and streams has taken place in recent years as waterfront property has become more valued and as land has been removed from agricultural use. The towns of Bennington, Pownal, and Manchester also rely on rivers for the disposal of effluent from municipal wastewater treatment facilities.

Four main river systems drain the Bennington region (see Map 6: Basins and Watersheds (2024)). The Mettawee River rises in Dorset and flows north through Rupert, Pawlet, and New York State where its waters are directed into a canal that leads to Lake Champlain. The Batten Kill also rises in Dorset, but flows south through Manchester, Sunderland and into Arlington, where the river turns west and flows through a gap in the Taconic Range toward its confluence with the Hudson River in New York. The two rivers that drain the southern part of the region, the Hoosic and Walloomsac, also flow westward to meet the Hudson River. A relatively small area within the region, lying east of the spine of the Green Mountain Range, is drained by streams that are in the Connecticut River watershed. And Vermont's longest river, Otter Creek, flows north from its source waters near East Dorset.

The Mettawee River Valley is one of the most productive and well-established agricultural areas in the region. The Vermont Land Trust has been successful in its efforts to preserve farmland along the Mettawee through the acquisition of development rights. Both aesthetically and functionally, the Mettawee River is an intrinsically important element of that agricultural landscape. The Mettawee is also a popular fishing stream, supporting native populations of brown, brook, and rainbow trout. Maintenance of a vibrant agricultural economy in the Mettawee Valley will help to ensure that the river remains a valuable public resource. At the same time, farmers should manage their land to prevent excess run-off of fertilizers, pesticides, and other contaminants into the river, and take measures to protect the stream banks from erosion that can be caused by livestock.

Perhaps the premier recreational resource in the Bennington region is the Batten Kill. This river has been nationally recognized as an outstanding native brook and brown trout stream and in 1991 was the first river designated under Vermont's Outstanding Resource Waters statute (10 VSA section 1424a). Studies in the early 2000s by the Vermont Department of Fish and Wildlife documented a significant decrease in the river's trout population. Factors leading to the decline may have included loss of large woody debris that serve as in-stream habitat and the decrease in vegetated stream banks,



Map 6:
Basins and Watersheds (2024)

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

The Walloomsac River in Bennington.
Photo Credit: Leason Stiles

sedimentation, and an increase in the use of pesticides. The Batten Kill Watershed Alliance (BKWA) was established in 2001 to address these and other concerns. Efforts undertaken by the BKWA and the Bennington County Conservation District, in cooperation with local and state governments, landowners, and other river users, have significantly benefited water quality and improved fish habitats and populations of the Batten Kill.

The same characteristics that make the Batten Kill a productive and attractive fishery—a swift current, cool clear water from mountain tributaries, a gravel substrate, and the beauty of the surrounding landscape—have drawn many people to the river for recreation. Swimming, canoeing, kayaking, tubing, and sightseeing are becoming ever more popular recreational activities in and along the river. The segment of the river lying within the Town of Arlington receives the heaviest use by recreational users. The intensity of use has raised concerns over both potential environmental effects (e.g., litter and stream bank erosion) and conflicts between the various user groups. Providing additional public access opportunities along the Batten Kill and its tributaries may mitigate some of these problems. New access points could disperse some of the use and thus reduce environmental impacts and conflicts among different recreational uses. Of course, regardless of any such efforts, the main channel of the Batten Kill will continue to support intense and varied recreational use. Cooperation among principal users and careful land use planning by local governments will become increasingly important.

The Walloomsac River flows out of the Green Mountains in Woodford, through Bennington, North Bennington, and the southwestern corner of Shaftsbury. While its upper reaches and tributaries lie in relatively undeveloped mountain areas, considerable development has occurred on the banks of the Walloomsac in Bennington since the eighteenth century. The Walloomsac traverses a diverse landscape that ranges from old mills and factories to residential neighborhoods to rural fields and woodlands, all within a few miles. The Walloomsac is stocked with rainbow and brook trout. The Bennington municipal sewage treatment plant also is located on the river. Several projects have been undertaken to better integrate the Walloomsac into the fabric of the community. A new pedestrian bridge has been constructed, a pathway providing access to the river is being planned, and a private landowner has developed a small park and interpretive site on an island near the Paper Mill Covered Bridge. New mixed-use development and rehabilitation of historic structures along the river and additional public greenspace and walkways in suitable locations would serve to direct interest and attention toward this valuable resource.

The North Branch of the Hoosic River runs through the principal north/south valley in the town of Stamford. After merging with several streams and the river's main branch in North Adams, Massachusetts, the Hoosic turns toward the northwest and flows through Pownal. Like the Walloomsac, the Hoosic River flows through a diverse landscape that includes agricultural fields, residential neighborhoods, and industrial developments. Restoration and cleanup of a former tannery site in Pownal has improved water quality, river access, and led to reestablishing hydroelectric generation in North Pownal. A part of the tannery property is now home to the recently completed Pownal Wastewater Treatment Plant. Although these measures have improved water quality in the river, sediment beneath the river remains contaminated with heavy metals and PCBs. The Hoosic River Watershed Association, a tri-state organization, has been formed to determine ways to continue to improve its water quality and to enhance the public's appreciation of the river.

The many smaller streams within the region —the Indian River, Green River, Bourn Brook, Roaring Branch, Roaring Brook, Paran Creek, and Bolles Brook, among them—are very important, both because they directly affect water quality in the larger rivers and because they provide many of the same recreational and environmental protection benefits. Efforts should therefore be made to protect these streams and to provide reasonable public access. Some streams and watersheds, such as Bolles Brook which is a primary source of Bennington's water supply, require special management practices.

Tropical Storm Irene (2011) had a major impact on some of the region's rivers and streams. The most significant damage to streams and adjacent lands and properties occurred along the aptly named Roaring Branch streams in Sunderland, Woodford, and Bennington. While flood and fluvial erosion hazards will be discussed in much greater detail in Chapter 10, it is important to note here that the disruption to the aquatic ecosystems, fisheries, and recreational uses of these streams was profound. Local governments have worked with the Vermont Fish and Wildlife Department and, in the case of

Lake Shaftsbury has been a recreational destiunation for generations.
Photo Credit: Middlebury College VT Postcard Collection

Sunderland, the US Forest Service to develop and implement plans to reconstruct the streams and adjacent floodplain areas in an effort to both restore ecosystem quality and reduce the risk of future flood damage.

Work on the Roaring Branch in Sunderland focused on moving the stream back to its pre-flood course, adding in-stream features to provide suitable habitat, and stabilization of the adjacent road and embankments. In Bennington, an effort has been made to provide a broader area to contain future flooding and erosive events - giving the stream room to move more naturally within its floodplain. Whenever such extensive rehabilitation work is undertaken it is important that stream engineers and environmental experts be involved during the planning and design phase to ensure that a reasonable balance between stream quality and protection of public infrastructure and private property is maintained.

In summary, the guiding principle for river and stream management is that rivers and streams best serve our communities when preserved in their natural state and maintained for the use and enjoyment of the public. In forested mountain areas, this objective may be realized through public acquisition (as in the Green Mountain National Forest) and encouragement of low-impact recreational uses such as fishing, camping, and hiking. In rural areas, planning and development should emphasize the protection of streamside vegetation and wildlife habitats, and public access for recreation. Areas along waterways in village and urban areas should be priority sites for investments in building renovation and reuse, riverfront parks and walkways, and

similar projects that will encourage a renewed focus on these natural resources.

In addition, certain waterways may provide a source of electricity through the development of small and environmentally sound hydroelectric facilities. Planning for any of these land use, ecosystem, recreation, or economic development objectives also must consider the need to minimize the potential for severe flood-related damage.

Wetlands and Floodplains

Wetlands are transitional areas between aquatic and terrestrial systems where the water table is usually at or near the surface or the land is covered by shallow water. A wetland has one or more of the following attributes: (1) at least periodically, the land supports predominantly hydrophytic vegetation; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season each year. Benefits provided by wetlands include flood and storm water control, maintenance of surface and ground water quality, open space and aesthetic appreciation, fish and wildlife habitat (including habitat for many threatened and endangered

Adams Reservoir in Woodford State Park.
Photo Credit: BCRC

species), ecological research and educational opportunities, and sources of nutrients for freshwater food chains.

Concentrations of wetlands in the Bennington region are found in river valleys and on the high plateau of the Green Mountains (see Map 5: Surface Waters and Community Water Supplies (2024)). There are approximately 10,889 acres of wetlands in Bennington County (US Fish and Wildlife Service data); of these, 4,916 acres are forested wetlands and 4,576 acres are of the "scrub-shrub" variety. Open water wetlands, including those characterized by emergent vegetation, cover about 1,253 acres of land.

The Wetlands Program within the Vermont Department of Environmental Conservation is responsible for identifying wetlands and protecting the functions and values they provide. Activities to achieve these goals include education, project review, and enforcement. The Wetlands Program staff is responsible for the administration, implementation, and interpretation of the Vermont Wetland Rules. Wetlands meeting the following criteria are subject to the rules:

- Any wetland on the Vermont State Wetland Inventory (VSWI) map.
- Any wetland contiguous to a VSWI mapped wetland.
- Any wetland one half acre or larger of the same type and size as shown on the VSWI map.
- Any wetland that is:
    - Adjacent to a stream, lake, pond, or river;
    - A vernal pool;
    - A special and unique wetland such as a bog or fen;
    - Above 2,500 feet in elevation; or
    - Adjacent to an impaired water.

Many of the region's wetlands lie in the same lowlands where most future development will occur. Consequently, it is important that any regulated activity that could impact a significant wetland be referred to the Wetlands Program for review. Federal wetland reviews of wetland dredging or filling are conducted by the Army Corps of Engineers, Environmental Protection Agency, and US Fish and Wildlife Service through provisions of the Clean Water Act. Several other federal agencies, including the National Park Service and Natural Resource Conservation Service, administer grant programs that encourage the protection of wetlands.

Local communities may wish to inventory wetlands within their jurisdiction in order to identify particularly important wetlands. This information may be used to improve the effectiveness of the state and federal regulatory process. Municipalities also can include measures in their zoning bylaws to protect wetland areas. One local initiative led the state to reclassify the "Dorset Marsh" to a more strictly protected "Class I" status. Meanwhile, Bennington worked with the Vermont Land Trust, the Bennington County Conservation District, and the BCRC to inventory and permanently protect a large wetland complex located near Morgan Street and the confluence of Jewett Brook and South Stream.

Floodplains are areas adjacent to rivers and streams that are subject to inundation during exceptionally high-water events (see Map – Flood Hazard Areas). Like wetlands, floodplains perform a critical stormwater control function, help to maintain water quality, and provide important habitat for fish and wildlife.

Inappropriate development in floodplains can not only degrade these beneficial functions but can also result in damage to structures through flooding or erosion of land. Such development also can lead to an increase in the amount and severity of downstream flooding when built-up areas are no longer able to retain flood waters adequately. The Rivers Program at the Vermont Department of Environmental Conservation provides technical and regulatory assistance for projects in floodplains to avoid and mitigate flood and fluvial erosion hazards and to restore and protect floodplain functions including stormwater control, retention of sediments, nutrients, and riparian habitat features. Municipalities can obtain assistance through the Rivers Program and the BCRC for development and implementation of flood hazard regulations that restrict development in floodplains while allowing residents and business owners to obtain flood insurance through the National Flood Insurance Program (covered in greater detail in the Climate Resilience chapter).

Surface Water Quality Management

Maintaining and improving the quality of surface water resources requires planning and coordination at the watershed level. All of the land that drains into a body of water is considered its watershed, and a wide range of activities that occur throughout the watershed can affect surface water quality. Discharges from stormwater flows, effluent from municipal sewage treatment plants and private septic systems, building development, road construction and maintenance, agricultural practices, chemicals from residential lawns and golf courses, and logging activities all can increase the flow of sediments, nutrients, or other pollutants into surface waters. Alterations to streams, floodplains, and wetlands within the watershed can increase the rate at which contaminants enter a water body.

The Watershed Management Division of the Vermont Department of Environmental Conservation is responsible for protecting, maintaining, enhancing, and restoring the quality of the state's surface waters. Toward that end, the Watershed Management Division conducts a wide range of activities including assessment and planning for individual watersheds (structured around 17 basins statewide), regulating stormwater and wastewater discharges, carrying out ecosystem restoration projects, and implementing regulations and projects for the protection of rivers, streams, wetlands, and lakes and ponds. The basis for these programs and specific activities is the Vermont Water Quality Standards that outlines the process for developing basin management plans and includes classifications and management standards for all of the state's surface water resources. Water quality types are identified as Class A or B and are managed according to criteria established for each Class: A1 and A2, and B1, B2, and B3. Class A waters are managed for enjoyment of water in its natural condition, including high quality waters with significant ecological values (A1) and waters that serve as public drinking water sources (A2). Class B waters are managed for a variety of uses that may require additional treatment or control, but are still suitable for fishing, swimming, and consumption (with treatment), and agriculture applications. Portions of Class B waters may be designated as "Mixing Zones" or "Waste Management Zones" to allow for proper management of wastewater system effluent and other direct discharges.

A variety of activities result in contamination of surface waters from "nonpoint" sources such as agricultural runoff, stormwater runoff from impervious surfaces, streambank destabilization and erosion (often resulting from removal of vegetation), and various development activities. The Watershed Management Division requires state permits for certain agricultural and construction activities that will lead to increased stormwater discharges and municipalities can include stormwater management criteria and low impact low impact development requirements in their local zoning and subdivision regulations. When incorporated as part of a site design the result is improved water quality, aquatic habitat protection, reduction of peak runoff flow and rate, reduced risk of flooding, improved community value and aesthetics, and long-term cost savings from reduced infrastructure maintenance.

Municipalities can also regulate through zoning and subdivision, and work with river, lake, and watershed interests, to maintain and enhance vegetation along and near lakeshores and streambanks. Buffers of natural vegetation in these areas are essential to water quality in streams, rivers, lakes, and ponds. These buffers provide the following benefits:

- Support the soil and prevent erosion;
- Intercept and filter pollutants;
- Reduce surface runoff;
- Maintain cooler water temperatures;
- Provide food and shelter for fish and wildlife;
- Increase wildlife diversity; and
- Reduce the impacts of flood damage.

Riparian buffer zones along rivers and streams should be from 50 to 100 feet in width, although a narrower or wider buffer may be recommended through an on-site investigation conducted by an environmental professional. Riparian areas may be viewed in the Agency of Natural Resources Atlas. The buffer zone should generally be at least 100 feet from the shore of a lake. In general, wider buffer zones are needed in areas characterized by steep slopes, the presence of critical natural resources, or when developments being proposed could pose a significant threat to water quality. The Vermont Department of Fish and Wildlife maintains information on riparian buffer standards that can be useful to municipalities.

Groundwater

Groundwater is an important natural resource in Vermont. A significant percentage of the state's population depends on groundwater for its drinking water supply. Groundwater is also used for manufacturing, agriculture, commercial enterprises, and supports aquatic habitat. Groundwater is dynamic, responding to internal and external conditions, its quantity and quality varying with climate, precipitation, overlying land use, and the rock and soil types through which it moves. Vermont's geology, characterized by multiply deformed (folded, faulted, fractured) rock and a variety of unconsolidated glacial deposits, is the vessel for Vermont's groundwater resources.

A number of public or community water supplies (water systems with at least 10 service connections or serving at least 25 individuals) are located in the region (see Map 5: Surface Waters and Community Water Supplies (2024)). Some of those systems

Autmn at Equinox Pond in Manchester.
Photo Credit: BCRC

are privately owned, and some are owned by municipalities. Major municipal systems exist in Pownal, Bennington, North Bennington (also serving South Shaftsbury), Manchester, and Dorset. The Town of Arlington acquired the assets of the Arlington Water Company in recent years. Arlington completed major line upgrades addressing much of the company's substantial deferred maintenance and water loss, and modernized the utility's administration. All these systems, and the many private systems that serve smaller neighborhoods and individual developments, rely on a sufficient quantity of clean ground water.

Some of those water supply systems obtain water from springs, some from wells that draw water from aquifers, and some from surface waters that are fed by various groundwater sources. All of these sources require protection from contamination that could degrade groundwater quality, making it unusable or requiring costly treatment.

The state's Drinking Water and Groundwater Protection Division establishes source protection areas and administers regulations and technical assistance programs for operators of public water systems. The division also has published a Groundwater Protection Handbook for Local Officials that provides

information measures that local governments can take over the short and long term to protect groundwater sources. A particularly important responsibility of local government, discussed in the handbook, is regulation of land use within source protection zones.

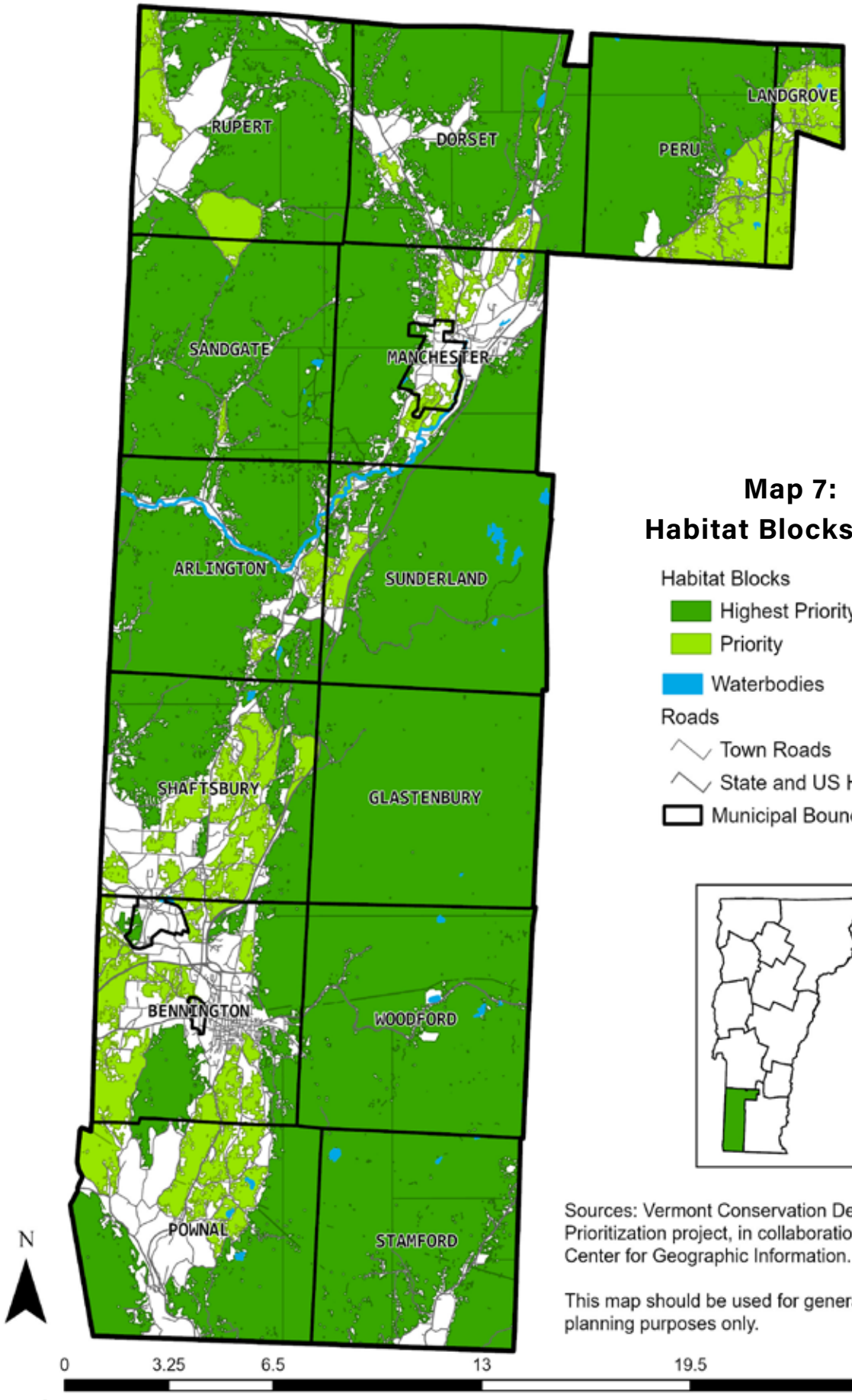
Of course, many residents and businesses rely on individual on-site wells to serve their water needs. Protection of these water supplies is also of great importance and is best accomplished through strict adherence to municipal and state health regulations. Since many of these private wells are in areas that are not served by public wastewater disposal systems, proper design, installation, and maintenance of on-site wastewater disposal systems is essential, as are maintaining regulatory isolation distances from wells.

Forest Lands

The forests that cover much of the region's landscape represent an important part of the area's history, contribute to the unique character of our communities, and represent a significant economic asset. The Landscape-Based Forest Stewardship Plan (BCRC, July 2012) for the Bennington region includes a comprehensive description of regional forest resources, issues, and conservation strategies. That plan, and any amendments to it that are adopted by the BCRC, are incorporated into and considered an integrated part of this regional plan.

Extensive unbroken forests cover much of the high elevation and remote areas in the Green and Taconic Mountain ranges, while woodlots, wooded riparian corridors, and other forested landscapes are found throughout the region's valleys and lower elevation hills. Many people interact most directly with the smaller isolated wooded areas that exist in and adjacent to town and village centers. All of these forest landscapes are important, and the conservation and wise use of the resources they contain present challenges that differ according to physical and political geographies. The overriding objective of planning for forest landscape stewardship in the region, however, is to identify key resources, understand and address threats and constraints to the use of those resources, and to provide effective strategies to ensure that those areas provide maximum benefits to our communities.

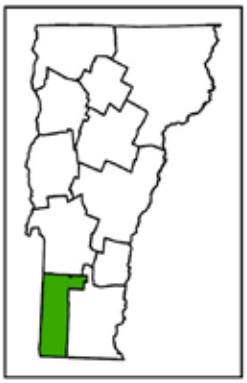
The Vermont Conservation Design project has mapped lands and waters throughout the state that represent the highest priority areas for "maintaining ecological integrity." Habitat Blocks are a key underlying element of this



Map 7:
Habitat Blocks (2024)

Habitat Blocks
- Highest Priority
- Priority
- Waterbodies

Roads
- Town Roads
- State and US Highways
- Municipal Boundaries



Sources: Vermont Conservation Design Prioritization project, in collaboration with Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

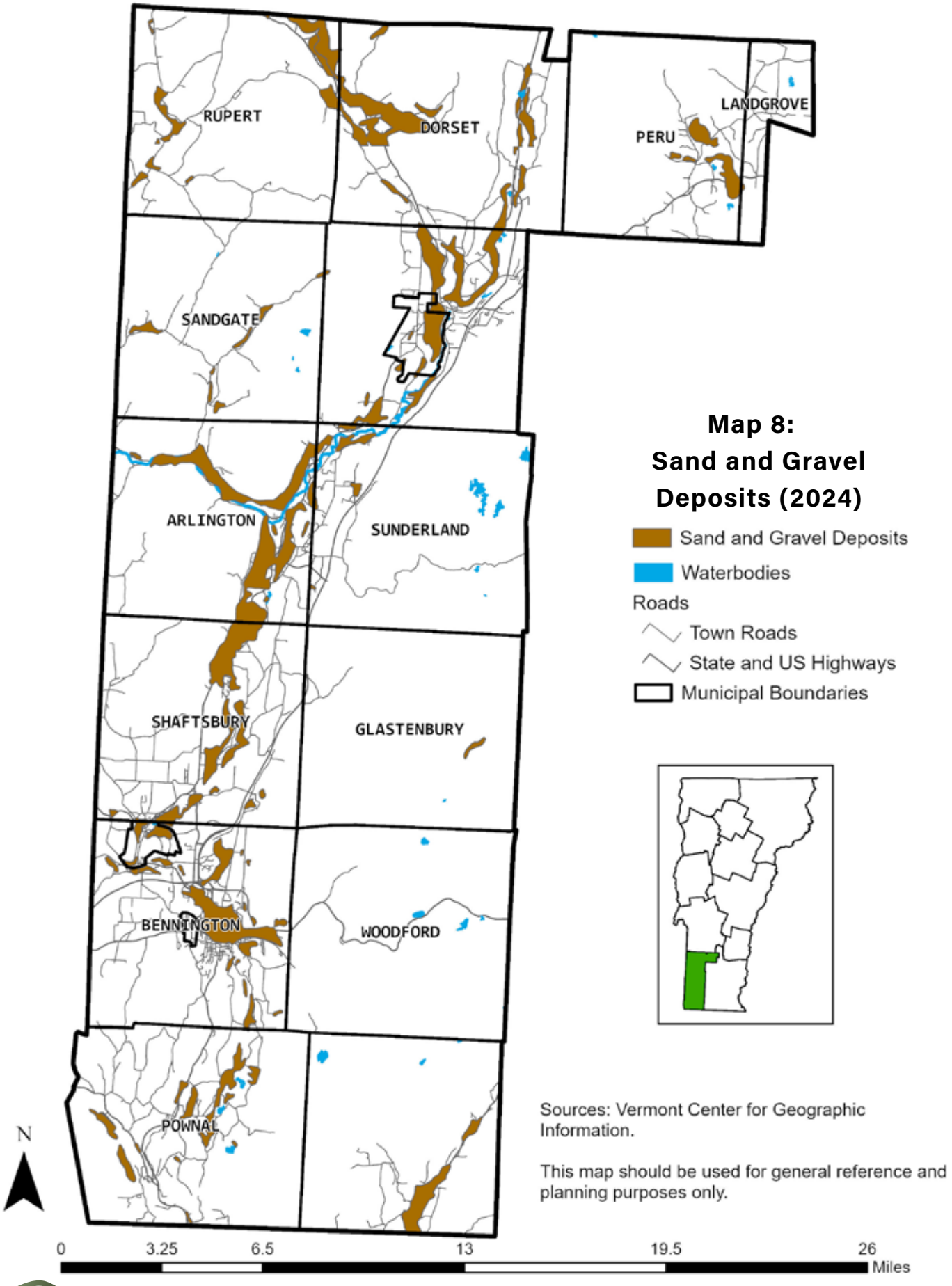
initiative to illustrate the comprehensive network of ecosystems in Vermont, as they are an essential way of visualizing large areas of connected natural resources (see Map 7: Habitat Blocks (2024)). As defined by the Vermont Agency of Natural Resources (ANR), a Habitat Block "is an area of natural cover" (including forest, wetland, shrubland, rivers, streams, lakes & ponds). It is bounded by roads, development and agriculture." All lands identified in the Vermont Conservation Design initiative are significant. Those areas designated as "highest priority" reflect their additional importance relative to their regional context. Habitat Blocks can vary in size, but within the VCD project, all identified Habitat Blocks are larger than 20 acres.

In the Bennington region, there are about 220 Habitat Blocks ranging from 20 acres to 96,600 acres. Habitat Blocks are significant both for the natural elements they include and for their large size, as many wildlife species rely on large areas of contiguous forest to survive and thrive. Additionally, as ANR also points out, these areas are also crucial for sustaining the rural working landscapes that are essential to Vermont's natural and cultural heritage.

A number of strategies can be employed to help retain forest cover and to maintain and enhance their values. Ownership of land by a public or non-profit entity is an effective strategy that has been widely used in the region; a large percentage of the region's forests has been conserved through acquisition. Other public investments, ranging from conservation easements to taxation programs such as the Use Value Appraisal program, also have benefited large areas of forest land in the region. Municipal local land use regulations, coordinated through effective regional planning, have played a major role in limiting the potential for scattered development, particularly in upland forest areas. Historical markets for forest products and emerging markets for use of forest lands have provided economic benefits that help landowners maintain their forested lands. Recreational use and management of forests for lumber, pulp, and biomass for energy provide both economic and social reasons for conserving important forest lands. The potential for meeting a significant percentage of the region's space heating energy needs with the use of locally sourced woody biomass fuels is particularly compelling.

A variety of new strategies also can support forest stewardship objectives. Regulatory tools such as transferable development rights, planned unit developments, and clearly defining forest resource-based land uses as permitted uses in local plans and bylaws can all be very effective. Education at various levels also has a key role to play. Forest landowners should be educated about existing programs designed to assist with forest management. Students need to be exposed to forest science and forestry in their curriculum, and appropriate training programs set up and supported. Finally, the general public needs to be better informed about the benefits of forest land conservation and resource management. Another strategy for maintaining forests is the use of landowner cooperatives to reduce costs and open up new opportunities for marketing products.

The Vermont Natural Resources Council (VNRC) has compiled a toolbox of strategies, including all of the items described above, that municipalities, landowners, businesses, and other interest groups can use to advance



Map 8: Sand and Gravel Deposits (2024)

Sand and Gravel Deposits

Waterbodies

Roads

Town Roads

State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Foresters survey the Y Woods, a 30 acre municipal forest in Bennington. Photo Credit: Town of Bennington

forest stewardship objectives. The report, Community Strategies for Vermont's Forests and Wildlife: A Guide for Local Action, provides descriptions, examples, and links to useful resources and information.

Earth Resources

Extraction and use of various earth resources in the region have been important at different times in the past. Mining and processing of marble was once an important economic activity in the area. The abandoned marble quarries of Dorset, many marble sidewalks in area towns, and the bed of the former Manchester-Dorset-Granville railroad are reminders of those days. The mining and processing of slate was important in parts of Rupert, and several businesses still operate nearby along the Stone Valley Byway (Route

30 north of Manchester), named to recognize the historic importance of these industries.

The Valley of Vermont, lying between the Green and Taconic Mountain Ranges, was once covered by a large glacial lake and the streams that flowed into it left thick deposits of sand and gravel at their mouths (see Map 8: Sand and Gravel Deposits (2024)). These deposits have proven to be important earth resources, and considerable extraction and processing continues at this time. The largest and most heavily utilized sand and gravel deposits are located in Shaftsbury and Manchester, although many deposits and active sites are found in towns throughout the region. These extraction operations provide direct employment and also support the area's construction industry. It is important to protect these resources and plan for their use to ensure that they remain available in the future. Identifying important deposits and limiting land uses that would conflict with extraction of the sand and gravel or render those resources inaccessible will help maintain their viability.

Some gravel has been extracted from streambeds, but an extremely high level of scrutiny must be exercised over any such operation because of the potential for downstream pollution and damage to the stream's ecosystem. The extraction, processing, and transportation of these earth resources can be damaging to the environment and to public infrastructure if carried out improperly.

Potential negative impacts of sand and gravel extraction operations include:

- Excessive dust and noise that affects nearby residential areas;
- Improper site management leading to soil erosion;
- Failure to follow proper extraction procedures and inadequate site restoration that leaves visual blights on the landscape;
- Deterioration of town and state highways resulting from frequent trips by heavy trucks; and
- Wildlife habitat deterioration, particularly from streambed extraction.

Most municipal zoning regulations contain special provisions designed to minimize the environmental impacts of earth products removal and to require restoration of the site once work is completed. Several large sand and gravel pits pre-date local and state regulations that require rehabilitation. Landowners can work with local governments and the Natural Resource Conservation Service to develop rehabilitation plans that will stabilize the sites and allow for appropriate new land uses.

Fish and Wildlife Resources

Wildlife

The diverse natural environments in the region provide habitat for a wide range of wildlife species. Mature softwood and hardwood forests, young second growth woods, open fields, streams, lakes, wetlands, and special areas such as transitional habitat edges, and rock outcroppings and cliffs support populations of large and small mammals, amphibians, reptiles, songbirds, raptors, upland game birds, and waterfowl.

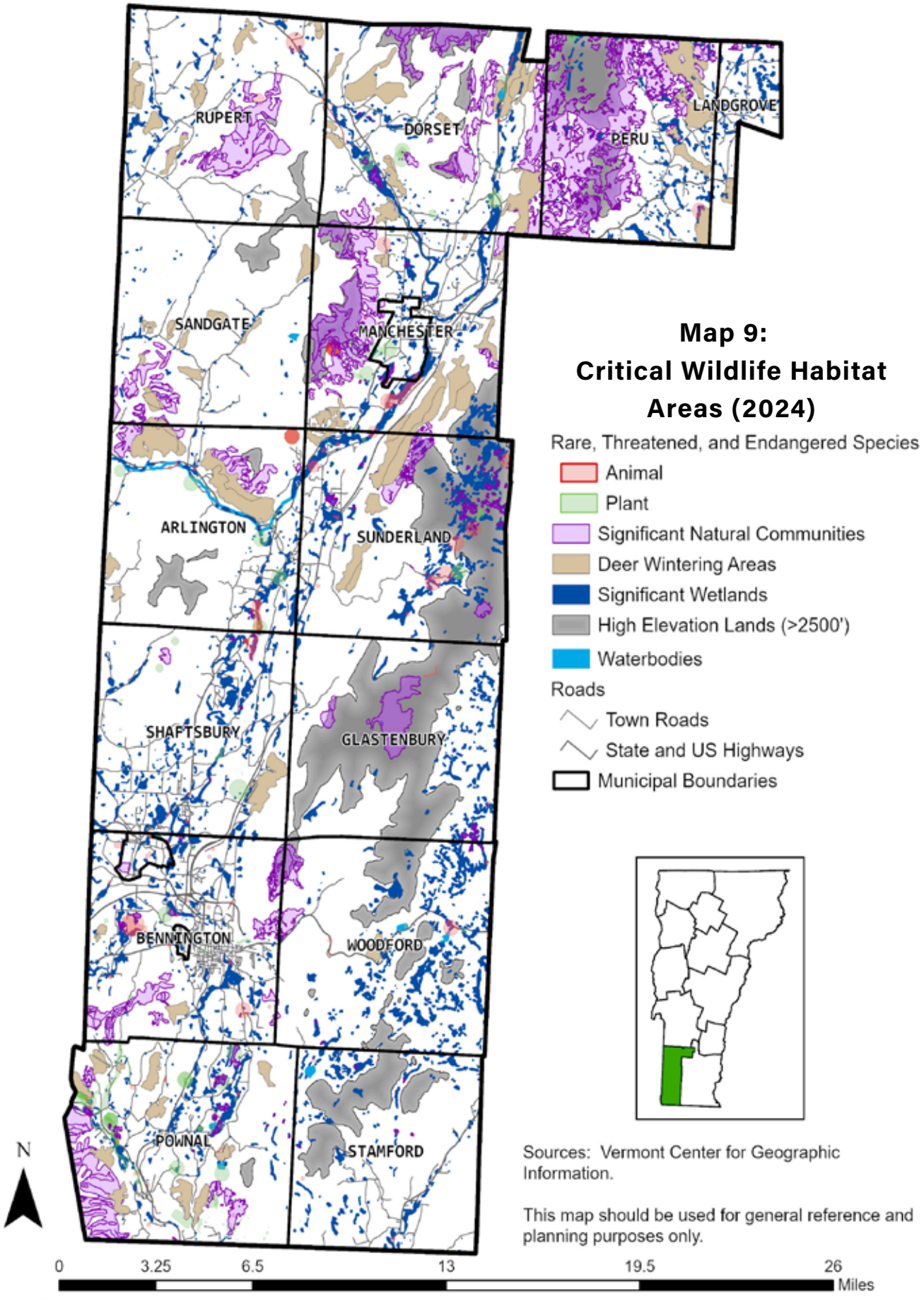
Many large native species such as the white tail deer and black bear have thrived in the region as the landscape has become characterized by more forestland and old farm fields. Moose have become relatively plentiful as populations have moved south through the Green Mountains. Other native species such as the wild turkey, pine marten, and fisher, have been reintroduced. The turkey population in particular is doing very well in the region. Wildlife species are valued for many reasons. Some people enjoy hunting, and rely on game for food or income, while others appreciate the aesthetic value of wildlife and the important roles they play in maintaining the quality of physical and biotic ecosystems.

The quantity and quality of specific habitats are the most important factors in maintaining healthy and diverse populations of wildlife. The Vermont Department of Fish and Wildlife has identified critical wildlife habitat areas (see Map 9: Critical Wildlife Habitat Areas (2024)) and developed strategies for their protection. Critical habitats are necessary for the survival of a particular species at any stage of its life and include areas that support the food, shelter, or breeding needs of those species. Special attention is given to critical habitats of species that are identified as rare, threatened, or endangered in Vermont, homes to significant natural communities in the state, wintering areas for deer, significant wetlands, and high elevation areas (greater than 2,500' in elevation).

Loss of critical habitat can result from environmental factors such as climate change, infestations of destructive insect pests, or rapid colonization by non-native invasive species. Land clearing and development also can impact habitat and cause the displacement of wildlife species. Municipalities can limit the loss of important wildlife habitat by identifying such areas, working with conservation organizations to preserve the most critical areas, and requiring new development to:

- Maintain or create buffer zones between developed areas and wildlife habitat;
- Maintain vegetated corridors along streams, shorelines, wetlands, and to connect otherwise separated blocks for similar habitat types; and
- Utilize construction practices that minimize environmental disturbances.

The Bennington region contains many plant species, animal species, and natural communities that warrant special recognition and protection. The Vermont Natural Heritage Inventory program has identified those areas and has set up a system for people to identify new species and ecological sites to add to the inventory. The plants and animals in these areas are rare because they have very particular habitat requirements, they are at the edge of their range, or because they are especially vulnerable to disturbance. Protecting these species and natural communities helps to maintain ecological diversity and the health



Map 9: Critical Wildlife Habitat Areas (2024)

Rare, Threatened, and Endangered Species
- Animal
- Plant
- Significant Natural Communities
- Deer Wintering Areas
- Significant Wetlands
- High Elevation Lands (>2500')
- Waterbodies

Roads
- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

of the natural systems that surround us. Identification of the approximate location of these plants and animals in plans and special environmental studies can help target conservation efforts and avoid accidental destruction during development activities.

Lands lying more than 2,500 feet above sea level in the Bennington region are important natural environments that support wildlife diversity (see Map 9: Critical Wildlife Habitat Areas (2024)). Those areas are characterized by thin soils, vegetation that is sensitive to environmental perturbations, low average annual temperatures, and above average precipitation and wind. With limited exceptions for carefully planned public utility infrastructure development, outdoor recreation, and forestry activities, these areas should be preserved in their natural state.

Deer wintering areas, or "deer yards," provide protection from the deep snow, cold temperatures, and wind chill of harsh winters. These critical habitats are often associated with a softwood forest cover, face toward the south or west, are at moderate elevation, and have little human disturbance. Deer travel great distances to use the wintering areas and if the habitat conditions are maintained the deer will return to the same sites every year. Conservation efforts can target these areas and municipalities can limit development and require mitigation and habitat restoration.

Black bears rely heavily on remote forested habitat areas and large tracts of which are essential for their survival and reproduction. Fragmentation of expansive areas of unbroken forest would lead to a significant decline in the region's bear population. Critical back bear habitat elements within these forested areas include stands of beech trees, oak trees, and wetlands. In addition, undeveloped forest corridors that link two or more otherwise isolated bear habitat areas are crucial to maintaining the population's range and genetic diversity. Recognizing and maintaining these habitat elements is crucial to the health of the region's black bears.

Fisheries

The region's rivers and streams provide cold water habitat for brook, brown, and rainbow trout, smallmouth bass, and several other species of fish, while many of the lakes and ponds provide habitat for largemouth bass, perch, pickerel, and other warm water fish species. In general, all of these water bodies must provide adequate oxygen and support the plant, animal, and insect life that are needed by native fish species.

A number of factors can degrade water quality and fish habitat. Development activities and road maintenance and construction can produce runoff that results in sedimentation and turbidity, affecting the substrate that is critical for supporting invertebrate life and fish breeding habitat, and the quality of the water itself. Unfiltered discharges of stormwater from impervious surfaces and nutrient rich runoff from agricultural operations, lawns and other fertilized fields can introduce damaging chemicals and lead to algae blooms that result in significant drops in dissolved oxygen content. Of course, direct discharges from toxic spills or industrial sites also can threaten fisheries. The Vermont Department of Environmental Conservation oversees water pollution control regulations, including an aggressive program to minimize and mitigate stormwater discharges. Climate change is also a meaningful water quality stressor.

Certain activities of streamside property owners can significantly affect water quality as well. Clearing native vegetation, including trees that overhang and shade the streams, can increase water temperature, destabilize stream banks and cause erosion, and reduce the amount of organic matter that enters the base of the aquatic food chain. Similarly, construction of ponds along or adjacent to streams tends to raise water temperature and reduce dissolved oxygen content and may lead to the introduction of disruptive non-native species. Impacts from these activities can be minimized by following best practice pond management guidelines and by maintaining buffer zones of native vegetation along stream banks. Public access to rivers and streams should be carefully managed as well, with defined areas of access that are designed to avoid erosive damage.

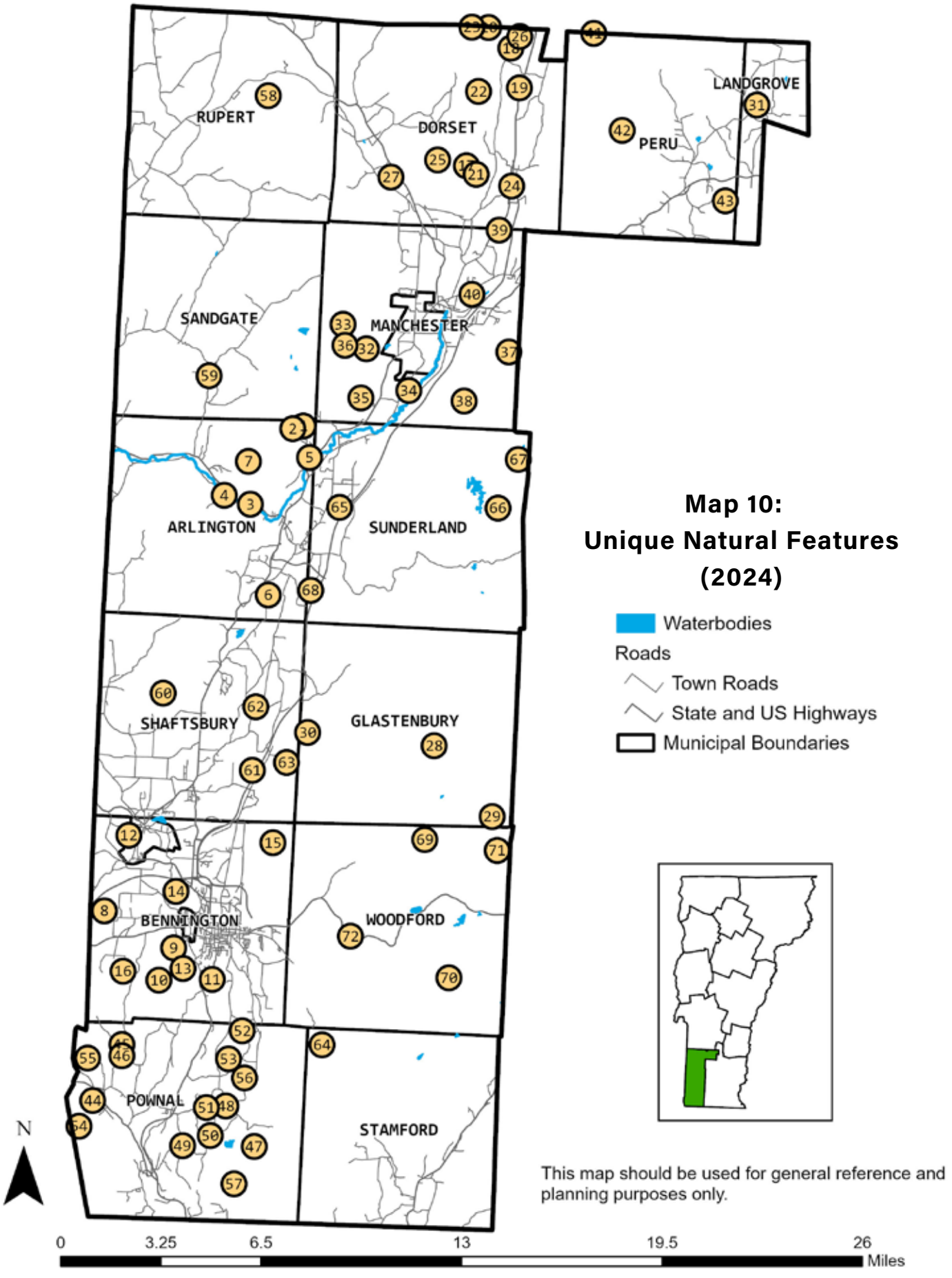
Stream crossing structures—bridges and culverts—can have a significant impact on the health of fisheries by affecting the stream's substrate and by creating barriers to fish passage, thus restricting access to spawning and refuge areas. Bridges and bottomless plate arches are preferred because they minimize habitat disturbance and are not a barrier to fish passage. When other structures are used, it may be appropriate to minimize impacts to fish habitat by over-sizing the culverts, installing baffles, or burying the culvert below streambed level.

Invasive species also can affect water quality and fish habitat. The Agency of Natural Resource's Aquatic Invasive Species Program has information regarding aquatic invasive species, nonnative species whose introduction can cause environmental or economic harm or harm to human health, and nuisance species (native species that reach proportions of abundance that may cause economic harm or harm to human health). Priority species of concern currently include Eurasian watermilfoil (a significant problem in Lake Paran), purple loosestrife, didymo, water chestnut, alewife, and several other species.

Unique Natural Features

The waterfalls, caves, glens, rock outcroppings, mountain summits, and other unique geological, botanical, and hydrological features of the Bennington region's landscape contribute to its special character and should be protected from incompatible development. Many of these landscape features are recreational draws and also contribute to ecological diversity in the region. An inventory that includes many of these features has been compiled and mapped by the BCRC (see Map 10: Unique Natural Features (2024) and Table 3: Unique Natural Features in the Bennington Region), and more information on these resources is available through the Vermont Agency of Natural Resources.

A Loon defends a nest in Woodford State Park. Photo Credit: BCRC



Map 10: Unique Natural Features (2024)

Waterbodies

Roads

Town Roads

State and US Highways

Municipal Boundaries

This map should be used for general reference and planning purposes only.

Table 3: Unique Natural Features in the Bennington Region

Map Number	Town	Natural Features
1	Arlington	Kents Cave
2	Arlington	Falls on Red Mountain Stream
3	Arlington	Arlington Folds
4	Arlington	Batten Kill
5	Arlington	Canfield Pines
6	Arlington	Warm Brook Pond
7	Arlington	Hidden Falls
8	Bennington	Whipstock Hill
9	Bennington	Everett Cave
10	Bennington	Mount Anthony
11	Bennington	Jewett Brook Marsh
12	Bennington	McCullough (Mile-Around) Woods
13	Bennington	Bennington Tulip Trees
14	Bennington	Silk Road Alluvial Forest
15	Bennington	Stratton Brook Falls
16	Bennington	Pit of Misery
17	Dorset	Green Peak (Mount Aeolus)
18	Dorset	Emerald Lake Natural Bridge
19	Dorset	Emerald Lake Beach
20	Dorset	Dorset Peak Caves
21	Dorset	Dorset Bat Caves
22	Dorset	Ketchum Meadows
23	Dorset	Dorset Mountain
24	Dorset	Dorset Dikes
25	Dorset	Owl's Head Mountain
26	Dorset	Falls Cliff and Tallow Caves
27	Dorset	Dorset Marsh
28	Glastenbury	Glastenbury Mountain
29	Glastenbury	Castle Meadows
30	Glastenbury	East Mountain Red Spruce
31	Landgrove	Utley Flats
32	Manchester	Cook Hollow
33	Manchester	Equinox Mountain
34	Manchester	Batten Kill
35	Manchester	Dyer Quarry
36	Manchester	Skinner Hollow Cave

Map Number	Town	Natural Features
37	Manchester	Downer Glen
38	Manchester	Lye Brook Falls
39	Manchester	Bullhead Pond
40	Manchester	Barnumville Punch Bowl
41	Peru	Griffith Lake
42	Peru	Mad Tom Notch
43	Peru	Mud Pond
44	Pownal	Kreiger Rocks
45	Pownal	The Tubs on Bathtub Brook
46	Pownal	Hemlock Gorge
47	Pownal	The Dome
48	Pownal	Barber School Meadows
49	Pownal	Chalk Pond
50	Pownal	Swamp of Oracles
51	Pownal	Cranberry Bog
52	Pownal	Maple Grove Swamp
53	Pownal	Middle Pownal Road Swamp
54	Pownal	Pownal Mount Laurel
55	Pownal	Peckham Hill
56	Pownal	South Stream Waterfowl Area
57	Pownal	Pownal Red Pines
58	Rupert	Merck Forest
59	Sandgate	Green River Valley
60	Shaftsbury	West Mountain
61	Shaftsbury	Shaftsbury Cobbles
62	Shaftsbury	Trumbull Mountain
63	Shaftsbury	Basin Brook Falls
64	Stamford	Sucker Pond
65	Sunderland	Beaver Meadows
66	Sunderland	Branch Pond
67	Sunderland	Bourn Pond
68	Sunderland	Beaver Valley
69	Woodford	Little Pond
70	Woodford	Stamford-Woodford Plateau
71	Woodford	Mill Pond Meadows
72	Woodford	Bennington Road Cut

Peter Basta leads a workshop at the Battenkill Fly Fishing Festival. Photo Courtesy: Arlington Common

Scenic and Recreational Resources

Scenic Resources

The scenic quality of the landscape is one of the region's most important assets. The visual appearance of the natural and built environment of our towns and villages, and the quality of life that it represents, is important to residents, tourists, businesses, and to future economic development.

The region is characterized by its expansive valleys that have been able to support a rich variety of rural and urban development. That development has occurred in close proximity to distinctive upland features which have themselves limited and channeled the direction of such growth. The varied nature of the valley landforms and built environment juxtaposed with natural green mountainsides gives the Bennington Region its unique sense of place.

Many individual factors come together to create these special visual landscapes. Particular scenic elements reflect both characteristics that are unique to the region and

individual communities as well as certain features that are widely recognized as adding visual interest to a landscape. Bennington, Manchester Village, and Peru have completed scenic resource inventories and assessments that discuss each of these elements in detail: open fields, mountains, water, distant views, gateways, scenic roads and public places, historical sites and districts, and other unique local features. The scenic resource studies also discuss how those features are organized in the landscape to create pleasing views. The visual qualities of landscape contrast, order and harmony, focal points, spatial quality, and intactness that make a particular view special and unique to the community must be protected to retain the integrity of the resource.

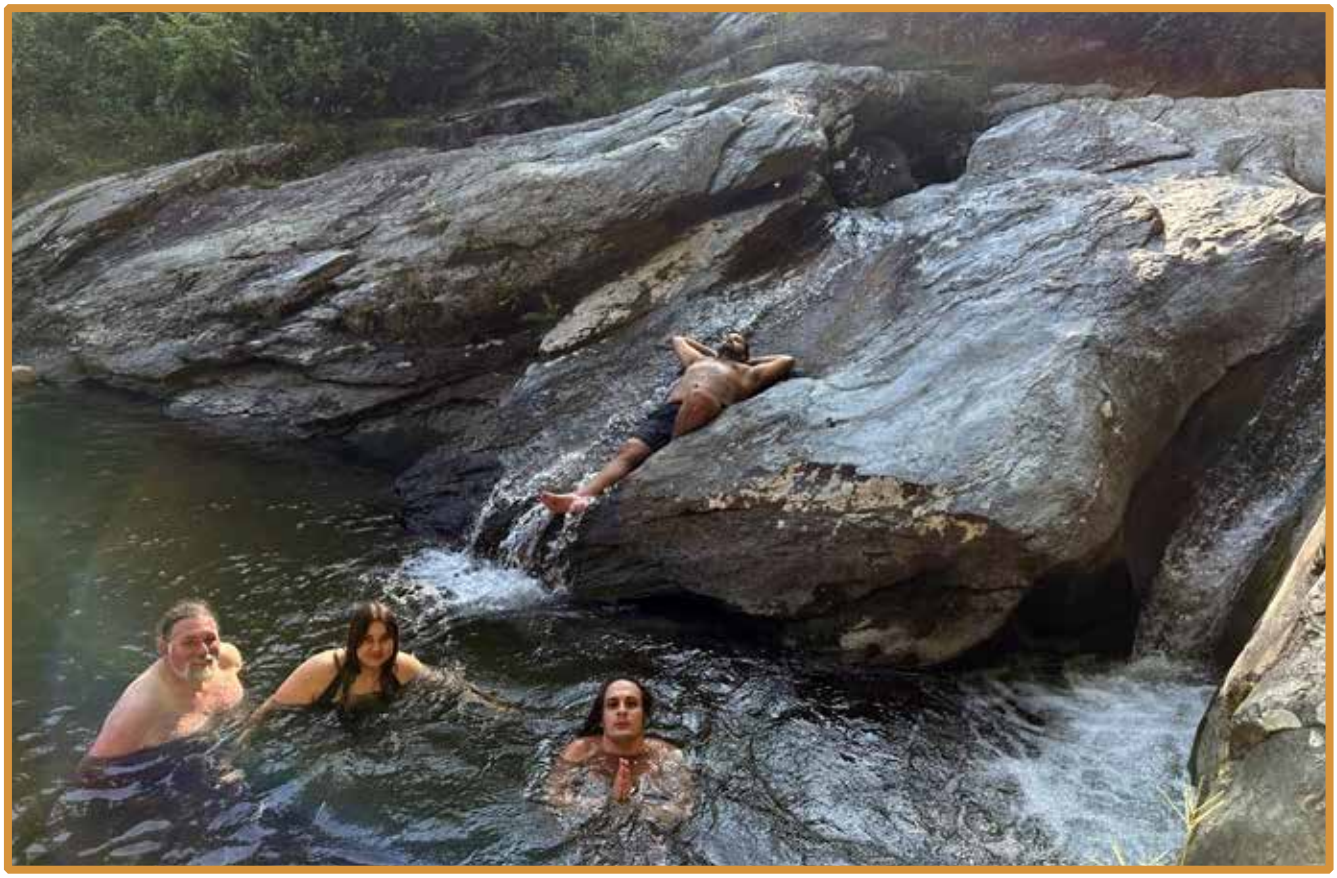
The scenic quality of a landscape can be affected, positively or negatively, by change. A number of landscape features are particularly sensitive to change, among them: views across open fields, prominent ridgelines or hillsides, historical buildings and districts and gateways to those districts, and scenes that include important contrasting elements such as water.

Municipal land use plans and regulations can reinforce the scenic quality of the landscape by focusing development in historical village centers and by preserving the rural character of the outlying countryside. Several local communities have adopted special regulations that preserve scenic resources by requiring aesthetically sensitive design of subdivisions and commercial buildings. In addition, zoning regulations can establish very specific standards and review procedures for new and altered buildings in designated historic design review districts.

Nonregulatory tools also can be used to protect identified scenic resources. Towns and villages should work with conservation organizations such as the Vermont Land Trust to acquire properties, or conservation or scenic easements to properties that have particular scenic significance to the community. Local and state designated scenic roads, including the region's three state designated byways, can help provide support for preserving and promoting scenic roadway corridors.

Special attention should be given to visual gateways: points of transition along a public highway where it is evident that the traveler is arriving at a unique place. Gateways are located at entry points to historical downtowns and village centers and at places along rural highways where significant visual elements of the landscape first appear. These features can be improved through effective planning of adjacent land uses and integration of site features such as landscaping and careful placement of historic district signs.

Recent interest in the development of renewable energy resources raises a number of important issues. Commercial-scale wind turbines will be highly visible and should be located only in locations approved by local communities. Commercial-scale solar energy facilities occupy large open areas and should not be sited at important gateway locations or in the foreground of viewsheds that have been identified by communities as being of particular value. Biomass (wood) heating and electric generation involve significant tree harvesting and may include plants with smokestacks and visible plumes of steam. The environmental and scenic impacts of those operations must be considered. Finally, small-scale hydroelectric generation can impact stream water



Bathers enjoy the Tubs on Bathtub Brook in Pownal; one of the regions Unique Natural Features. Photo Credit: BCRC

quality, fish habitat, and aesthetics; restricting development to existing dam sites will greatly minimize any such concerns.

Outdoor Recreational Resources

The region's natural environment provides a wide variety of outdoor recreation experiences; camping, hiking, running, hunting, fishing, road and mountain biking, snowmobiling, snowshoeing, downhill and cross-country skiing, and swimming and boating are enjoyed by both residents and tourists. Many of these outdoor recreational pursuits rely on the willingness of landowners to allow access to private lands. While public recreational use of private lands is important, vandalism, littering, and a general disregard for private property can lead to more and more land being restricted. Landowners must feel confident that their land will be respected by the public if these areas are to continue to be used for recreational activities.

The Bennington region also contains extensive public land and land owned by nonprofit organizations that are widely used for recreation. Portions of the Appalachian Trail, Long Trail, Catamount Trail, Taconic Crest Trail, and the D&H Rail Trail all traverse the region. The Green Mountain National Forest occupies much of the upland forests in the region, and three state parks, several wildlife management and fishing access areas, and numerous

town-owned parks and forests mean that recreational opportunities on public land are never far away. These public and conserved lands are economic assets and contribute to the quality of life of the region's residents. Acquisition of additional land well suited for outdoor recreation by local, state, or federal agencies, and by private conservation organizations, can be beneficial to the region. In general, publicly owned lands should include areas that are managed for multiple uses to accommodate a variety of recreational activities.

Local trail networks, sidewalks, bike paths, and bike lanes also are important outdoor recreational resources—especially when those walking and biking facilities extend throughout a municipality and connect users to an even wider range of outdoor recreational opportunities. Towns and villages should seek opportunities to develop new bicycle and pedestrian facilities and connect them to form networks and to provide access to existing trail networks and outdoor recreational sites. New developments can be planned to include facilities that encourage walking and should be designed to allow for continued use of existing trails in the area.

The region's rivers and lakes offer opportunities for swimming, fishing and boating, all of which require public access for parking or boat launching. Emerald Lake, Lake Shaftsbury, and Woodford State Parks, the Hapgood Pond Recreation Area in the Green Mountain National Forest, and the recreation center at Lake Paran all offer facilities for recreation on small lakes, and their geographic distribution ensures that no resident of the region is far from one of the parks. Public fishing access areas are available on the Mettawee River, Batten Kill, Walloomsac River, and Hoosic Rivers, and public access for boating and swimming have been developed in certain areas along these rivers as well. Recreational use of these resources, and access to them, must be managed to ensure that excessive or inappropriate use does not damage the environment or result in conflicts among different user groups.

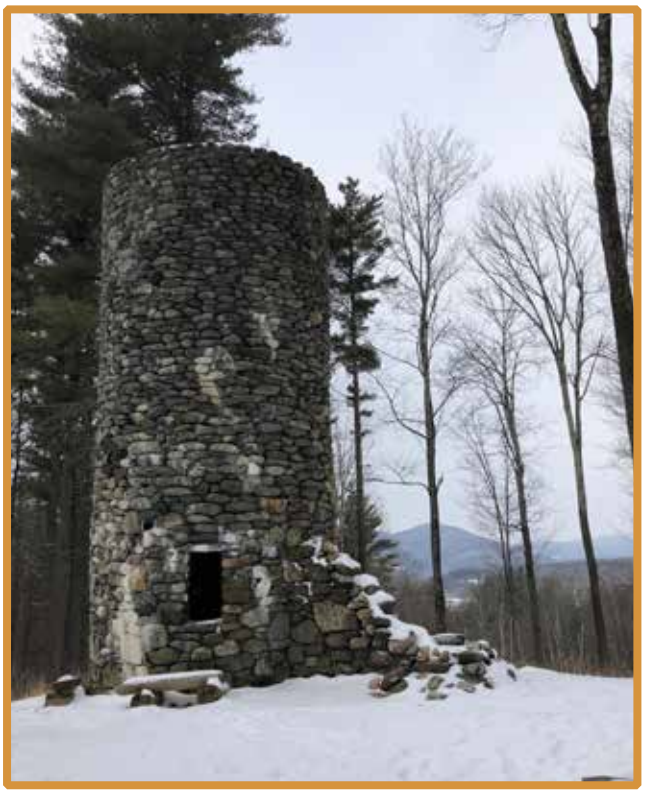
It is important that public parks and conserved natural areas remain accessible to the public throughout the year. While maintained park facilities generally are open only for a few months in the summer, these resource areas offer outstanding opportunities that should be available to residents throughout the year. Local officials should work with state and federal resource managers to ensure that residents have year-round access to these lands and waters. Municipal plans, such as the Woodford Town Plan, can include specific references to off-season use at parks located within their borders.

Environmental Benefits + Burdens

Access to green spaces describes situations where residents have nearby or usable natural areas, such as parks, forests, river paths, or other open lands. When green spaces are difficult to reach, communities miss out on the environmental and health benefits they provide, including shade, pollution buffering, stormwater absorption, opportunities for recreation, and places that support physical and mental well-being.

Regional Context

Although the Bennington Region has abundant outdoor recreational resources, they are not equally accessible to all residents. Many people are unable to access these resources



Pinnacle Tower in Dorset is a popoular hiking destination. Photo Credit: BCRC

due to distance, lack of transportation, or the costs involved in entrance fees, equipment, etc. Efforts have already been made to reduce barriers to outdoor recreation, and the BCRC supports the continuation and expansion of these measures. Some of the measures already in place include passes available for checkout at several local libraries that provide free or reduced cost entry to state parks and other regional recreational facilities, and the Park Access Fund which provides free day-use entry to state parks for eligible Vermonters.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with the Environmental Justice icon.

How Can BCRC Help?

The BCRC engages in a variety of environmental programs, cooperating with the Bennington County Conservation District, US Forest Service, Vermont Agency of Natural Resources, regional watershed alliances, the Vermont Land Trust, and other organizations. Projects include river basin plans, land and water conservation projects, water quality studies, and regional forest plans. Results of studies are presented at workshops, in technical bulletins, and directly to local officials by BCRC staff. The BCRC administers a brownfields redevelopment program, with activities subject to receipt of grant funding, focusing on assessment and remediation plans for properties with known or suspected environmental contamination in designated growth centers, villages, and downtowns, and at potential renewable energy generation sites.

Natural Resources Goals and Actions

Goals

- Maintain protective riparian and shoreland buffers and wildlife corridors, and avoid habitat fragmentation
- Advocate for careful regulation of potential sources of air quality impairment by state and municipal officials
- Concentrate development in compact centers to avoid resource impairment

Actions and Policies

The BCRC...

- Should support the preservation of the region's natural characteristics and values of the region's surface water resources.
- Supports and provides technical assistance to municipalities in their adoption of an undisturbed vegetated buffer, generally at least 50 feet in width, between developed areas and rivers, streams, lakes, ponds, or wetlands to ensure the protection of water quality and natural ecosystems.
- Shall support adherence to agricultural and forestry best management practices to minimize degradation of water quality.
- Supports recreational uses such as fishing, boating, and swimming as appropriate in natural settings in and along rivers, streams, lakes, ponds, and wetlands and development planning that includes provisions for public access to these resources, with provisions that the intensity of use and access points should be limited in particularly fragile ecological areas.
- Strongly discourages the construction of in-stream ponds and other activities that disturb aquatic ecosystems or degrade water quality.
- Encourages the removal of existing dams that no longer serve a useful purpose, and which do not have significant potential for energy generation.
- Supports water quality maintenance through comprehensive watershed management activities, including enforcement of appropriate standards for stormwater discharges, and direct and indirect discharges from highway maintenance and land development.
- Supports protection of aquifers and groundwater recharge areas, including all source protection areas, from activities or development that would adversely affect the quantity or quality of these waters including strict enforcement of municipal subdivision and health ordinances, and state regulations.
- Opposes land development and other activities that would significantly degrade local or regional air quality. Traffic associated with new housing development pursuant to regional housing targets shall not be considered to constitute significant degradation.
- Supports a pattern of compact development to discourage the loss or fragmentation of important agricultural and forest lands.
- Supports the consideration of viability of important agricultural or forest soils in land development decisions

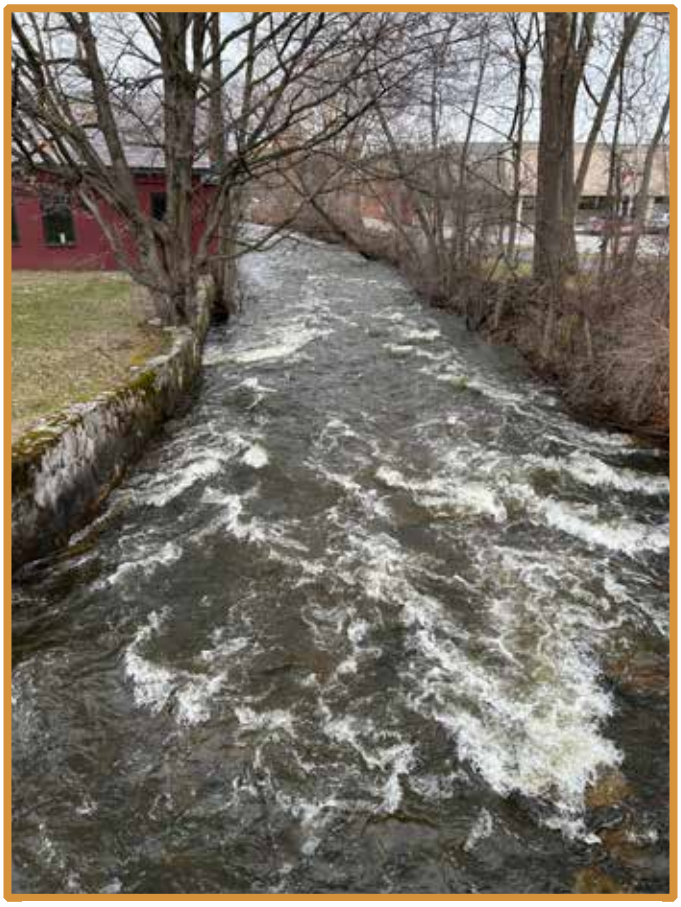
- Provides technical assistance to municipalities in their regulation of agricultural and forestry-based businesses in the region to facilitate local and regional markets for primary and value-added products.
- Acknowledges that developments should be planned and permitted in a manner that will not preclude the future utilization of important earth resources.
- Supports state regulations and permit conditions that ensure the extraction and processing of earth resources and the disposal of wastes do not have an unduly harmful impact on the environment or surrounding land uses and that upon completion of extraction and processing, extraction sites should be restored and left in a condition suited for an approved alternative use.
- Provides technical assistance to municipalities in their regulation of activity or development in the vicinity of important natural areas, fish habitat, or wildlife habitat to avoid adverse impacts to the resources.
- Provides technical assistance to municipalities in their regulation of new building construction on visually prominent shorelines, hillsides, mountains, and ridgelines to include provisions for siting and screening structures to protect important scenic values.
- Supports prioritization of maintaining and improving public access to important outdoor recreational areas and sites in rural areas, acknowledging that redevelopment of waterfront properties in developed areas for residential, commercial, or recreational use is appropriate but must consider incorporating flood safety measures as appropriate.
- Supports municipalities in their promotion of the Vermont Use Value Appraisal Program.
- Participates in cooperative planning for regional natural resources. Such planning may consider issues related to environmental quality, public health, recreational use and public access, fish and wildlife habitat, agriculture and forest productivity, and scenic values, and should involve representatives of local governments, special interest groups, and other interested parties.
- Acknowledges that acquisition of important forest lands and other valuable resource lands by the U.S. Forest Service, local and state government, land trusts, or private conservation organizations is a valuable way to maintain, enhance and conserve resource values and opportunities.

Dorset Overlook.
Photo Credit: BCRC

Climate Resilience

The importance of preparing for, responding to, and recovering from serious climate events has become increasingly apparent in recent years, as communities all over the world have faced extreme heat waves, dangerously poor air quality, record amounts of rain in short periods of time, and consequential flooding. Vermont and the Bennington region in particular are not exempt from these impacts of the climate crisis.

This new reality was brought into sharp focus in the Bennington region, and throughout Vermont, when Tropical Storm Irene hit the area in August 2011. After a wet year left soil moisture in southern and eastern Vermont at the 90th percentile, the torrents of rain that came down on August 28 caused catastrophic damage in many communities. The Bennington region sustained damage to homes, automobiles, and businesses in the flood-impacted areas. The most extensive damage was to municipal and state transportation infrastructure and public utilities. The VT Route 9 bridge in Woodford was destroyed, closing the only highway connecting Bennington to points east and the Kelly Stand Road in Sunderland was completely destroyed. The multimillion-dollar project to rebuild that road was completed, and the road reopened, in October 2014.



The Walloomsac River in downtown Bennington after a heavy rainstorm in 2026. Photo Credit: BCRC

As serious as the damage was in the Bennington region, other parts of the state suffered even more severe losses. Entire downtown districts suffered major damage

What did we learn from the community?

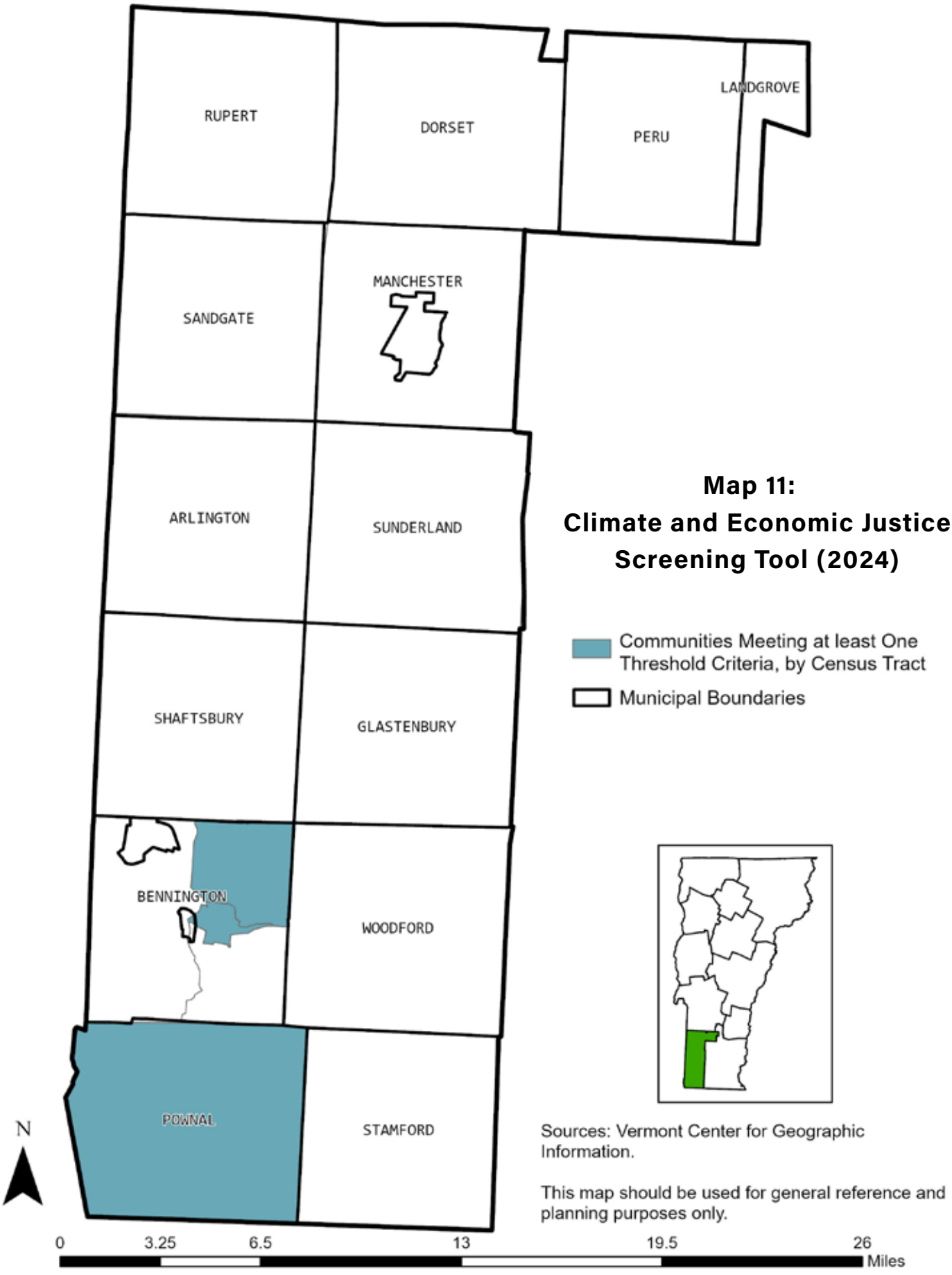
More than half of survey respondents do not think the region is sufficiently prepared for natural disasters

and business loss, several communities were completely cut-off from outside road access for weeks, and entire riverside neighborhoods were destroyed, unfortunately with some loss of life. If the center of Tropical Storm Irene had followed a line just a few miles further west, the damage in communities within the Bennington region could have been much more severe.

In July 2023, Vermont experienced another devastating rain event that also unleashed destructive floods. After an exceedingly rainy June, similar to the lead up to Tropical Storm Irene, ground moisture levels were high and the soil's capacity to absorb further rainfall was depleted. Heavy rain over the days of July 9, 10, and 11 was non-stop and widespread. Rainfall amounts of 3 to 9 inches were recorded throughout the state. The July event was followed by heavy rain and snow melt in December that caused similar flooding.

While the 2023 storms primarily impacted the central part of the state, homeowners, businessowners, and other community members in the Bennington region faced damages as well. Roads in Dorset and Landgrove were washed out and needed extensive repairs. Homes and businesses were flooded along Mad Tom Brook in Dorset, Bourn Brook in Manchester, and the Batten Kill in Arlington. Stamford also experienced impacts from the 2023 storms including flooding homes and some washed out roads needing repairs. In comparison to Irene, southern Vermont fared better after the 2023 events—in part thanks to actions, such as culvert upsizing, that were implemented after Irene. However, with comparable catastrophic events occurring in the state just twelve years apart, it highlights the importance of prioritizing mitigation actions. Additionally, flooding in December 2023 and July 2021, while not as catastrophic, still had severe impacts on the Bennington region and points to the increasing frequency of such events.

Changing climate conditions mean that extreme weather events are likely to occur with much greater frequency. It is imperative, therefore, that communities properly prepare to minimize future damage and develop the capacity for climate resilience. Climate resilience extends beyond acknowledging the rise of natural disasters and bolstering physical resources, though; resilience also means supporting the most vulnerable members of our community so that we can all be prepared when the next storm comes. This chapter aims to address the primary climate disasters that the Bennington region will face in the coming decades—flooding and extreme heat—with both physical and social factors in mind.



Map 11:
Climate and Economic Justice Screening Tool (2024)

Communities Meeting at least One Threshold Criteria, by Census Tract

Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Social Factors

In addition to environmental hazards, our communities may be at increased risk due to social factors that limit community resilience in response to climate disasters. The disproportionate impact of the climate crisis on marginalized and vulnerable communities is the focus of the field of environmental justice. At the state level, Vermont's environmental justice policy requires "providing a proportional amount of resources for community revitalization, ecological restoration, resilience planning, and a just recovery to communities most affected by environmental burdens and natural disasters."[1]

In Bennington County, about 28 percent of the population lives in disadvantaged communities as indicated by census tract data compiled in the Climate and Economic Justice Screening Tool (CEJST). According to this tool, many of the most vulnerable members of our community are living in Pownal and downtown and northeast Bennington (see Map 11: Climate and Economic Justice Screening Tool (2024)). These neighborhoods have higher concentrations of low-income residents, as well as people facing transportation barriers, high asthma rates, high energy burdens, closer proximity to superfund sites, and projected flood risks.[2] Such interrelated risks mean that people living in these areas are especially vulnerable to climate hazards, and less likely to be able to quickly and safely recover.

Additionally, the 2023 Vermont State Hazard Mitigation Plan identifies three Economically Disadvantaged and Rural Communities (EDRCs) in the Bennington region: Rupert, Sandgate, and Woodford (see Map 12: Economically Disadvantaged and Rural Communities (2020)).[3] These communities were identified as EDRCs because they have populations of less than 3,000 and their average community income does not exceed 80% of the national per capita income. According to the State Hazard Mitigation Plan, an EDRC is eligible for both federal and non-federal cost sharing for mitigation planning, in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act.[4] Such resources help to lessen the cost of hazard mitigation planning, and also work to identify communities in the region that may be especially vulnerable to climate hazards. The BCRC will assist these communities to secure this funding for hazard mitigation planning.

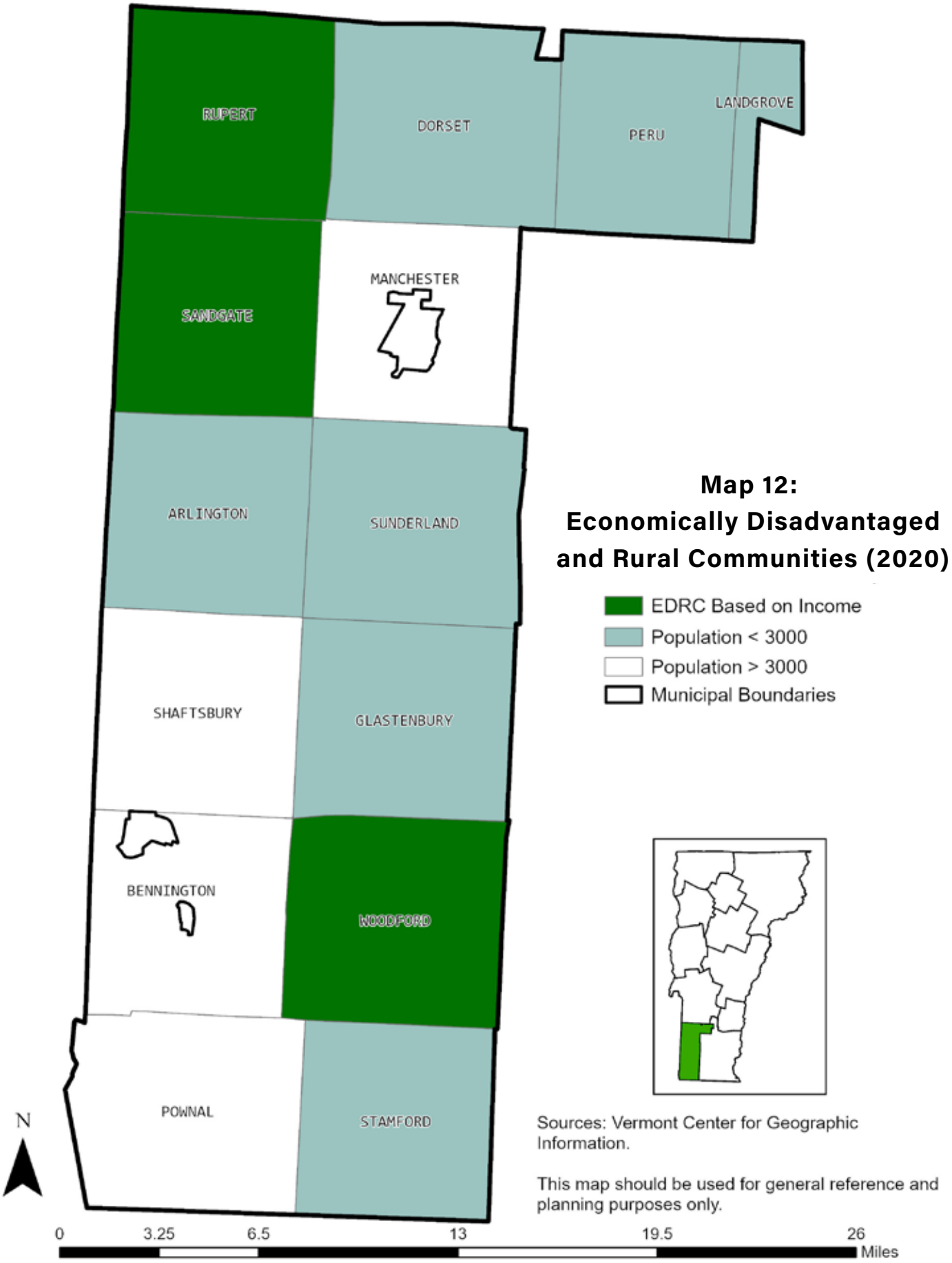
When developing mitigation and response strategies for the number of environmental hazards the Bennington region may face, the BCRC will consider strategies that can support the most vulnerable community members to bolster resilience from the ground up. To assist with this local and regional resilience planning, the state developed the Vermont Municipal Climate Change Vulnerability Indicators Tool (MVI) to help assess communities' vulnerability to climate change based on several socioeconomic and environmental factors.

1 2023 Vermont State Hazard Mitigation Plan (SHMP) xiii

2 https://screeningtool.geoplatform.gov/en/methodology#9.57/13.0371/-99.4344

3 SHMP (2023) 25

4 SHMP 25



Map 12: Economically Disadvantaged and Rural Communities (2020)

- EDRC Based on Income
- Population < 3000
- Population > 3000
- Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Climate Hazards

Study of storms in the Bennington region occurring throughout the last 30 years reveals that heavy precipitation (including lightning, rain, hail, and heavy snow), floods, and freezes have been among the most damaging weather events experienced in the past 30 years. While the region has been mostly spared from widespread damage that other areas of the state suffered under Irene and the July and December 2023 storms, the Bennington region still experienced costly damage from flash floods and winter storms.

In the coming years, the primary hazards the Bennington region will face include warming temperatures—which may verge on extreme heat; extended droughts; and increased precipitation leading to more flooding. In the 2022 state climate summary for Vermont, the National Centers for Environmental Information (NCEI) identified these climate features as the three main anticipated hazards for Vermont as a whole.[5] The NCEI summary for Vermont mentioned that "2010 to 2020 was the warmest 11-year period on record" in Vermont, and determined that Vermont will face increasing temperatures coupled with more frequent extended drought and extreme rainfall events throughout the remainder of this century.[6] The following sections will dive more deeply into those specific hazards to understand the threats they pose to the Bennington region.

High water at the Benedict Crossing bridge in Arlington in July 2023.
Photo credit: BCRC

Environmental Benefits + Burdens

A stable regional climate means more consistent weather patterns, decreased likelihood of extreme weather events that threaten lives, livelihoods, infrastructure, and property. Impacts of global temperature increase include changes in rainfall (leading to more floods, droughts, or intense rain), as well as more frequent and severe heat waves and extreme weather events. These changes may result in human health risks, lower crop yields, and losses of buildings, agricultural land, and biodiversity.

Regional Context

Climate hazards have a disproportionate impact on marginalized populations in the

5 https://statesummaries.ncics.org/chapter/vt/
6 Ibid

region, including but not limited to low-income people, the elderly, people with disabilities, people experiencing homelessness, Black, Indigenous, people of color (BIPOC) communities, and people with limited English proficiency. These impacts will vary according to the specific climate hazard and population, for example, people who are homeless and unsheltered are especially vulnerable to extreme temperatures. Some other examples to consider include: people with limited English proficiency may not be able to access emergency preparedness resources and communications if they are provided solely in English, and people with disabilities and the elderly may not be able to evacuate their homes easily in an emergency. Municipalities should consider community members who may be disproportionately impacted by climate hazards in their local emergency and hazard mitigation planning and develop strategies to support them.

As BCRC and its municipalities engage in emergency management planning, it is important to consider that people have variable access to resources, information, and social support structures which affect their ability to respond to and recover from climate hazards. EJFPs and other marginalized populations may have less access to resources they need to recover from hazards. Strengthening access to these assets for everyone, but especially the most vulnerable community members, can help build social resilience. Communities can use the Community Resilience Assessment or similar tools, to supplement hazard mitigation and emergency management planning.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Clean Air

Air is a resource that, although critical to our well-being, is generally taken for granted until it becomes polluted. Air quality in the Bennington region is generally excellent. Maintaining and improving air quality serves to protect public health and supports economic prosperity by making the region attractive for new residents and tourists and by ensuring that new businesses can locate in the area. If air quality conditions deteriorate, certain businesses may be impacted as it becomes difficult or expensive for them to operate without causing violations of ambient air quality standards, exceeding prevention of significant deterioration (PSD) increments, or by impacting the federal Class I air quality area in the Lye Brook Wilderness area.

The Air Quality and Climate Division of the Vermont Department of Environmental Conservation is responsible for monitoring air quality in the state and for ensuring that activities are regulated to limit emission of air pollution.

Several sources of air pollution are of particular concern in the Bennington region. Wildfires, which may not occur in the region and may be hundreds or thousands of miles away, can create significant air quality impacts due to winds driving the smoke across the region and then the settling of smoke into the long valley that runs north to south.

Disposing of trash through backyard burning was a fairly common practice in rural areas that, although much reduced, still occurs

with some frequency. The chemicals that are created and released by burning trash increase the risk of many health problems including headaches, heart disease, asthma, emphysema, and cancer. The proximity of the source of the pollution to affected people, including children who experience a greatly elevated risk of illness and disease, makes this practice particularly dangerous. More on the hazards associated with backyard burning of trash, the rules for open burning, and informational resources for town and village officials can be found on the department's Backyard Burning webpage

New regulations, capital costs, and environmental concerns associated with the use of oil and propane for space heating has caused some shift toward the use of wood as a heating fuel. Modern and efficient wood and wood pellet stoves and furnaces and large-scale wood chip-based heating systems are relatively clean-burning and do not result in a net increase in greenhouse gas emissions (discussed further in the Energy chapter). On the other hand, older wood-burning stoves, furnaces, and especially outdoor wood-fired boilers produce heavy smoke and large amounts of dangerous fine particulate pollution (up to 90% more than modern state-certified models). The Department of Environmental Conservation has adopted regulations governing outdoor wood-fired boilers and oversees an incentive program for people to replace old and inefficient systems with new units. Energy efficient siting, design, and construction of new buildings, and weatherization retrofits to existing buildings will reduce all fuel use and resulting air pollution.

Pollution from motor vehicles are among the most serious and difficult to control sources of air pollution, including emissions and particulates from tire and brake wear. In fact, because vehicles are so ubiquitous, transportation is the leading contributor to air pollution in Vermont. Emissions testing and standards have reduced pollution produced by individual vehicles, but because the number of vehicles on the road, and the total miles traveled, have increased, total air pollution from automobiles continues to rise. The most effective action that can be taken to reduce air pollution resulting from the combustion of transportation fuels is to reduce the amount of gasoline and diesel fuel used. Reducing the number of miles traveled, improving the efficiency of internal combustion engines, and using alternative transportation systems all can help in this regard. Compact mixed-use development and transportation infrastructure that encourages walking and biking, efficient public transportation, greater utilization of electric vehicles, and improved access and expanded use of freight and passenger rail provide the means for achieving those objectives. Given the relatively low cost of transportation fuels and the convenience afforded by personal automobiles and frequent truck deliveries, it has been difficult to make consequential progress in these areas. While significant increases in fuel prices eventually will provide the necessary incentives for change, the United States could follow the lead of many nations that have enacted higher transportation fuel taxes to both pay for alternative transportation systems and to motivate behavioral changes. Only efforts to induce modal shift away from cars and trucks can meaningfully impact particulates from tire and brake wear.

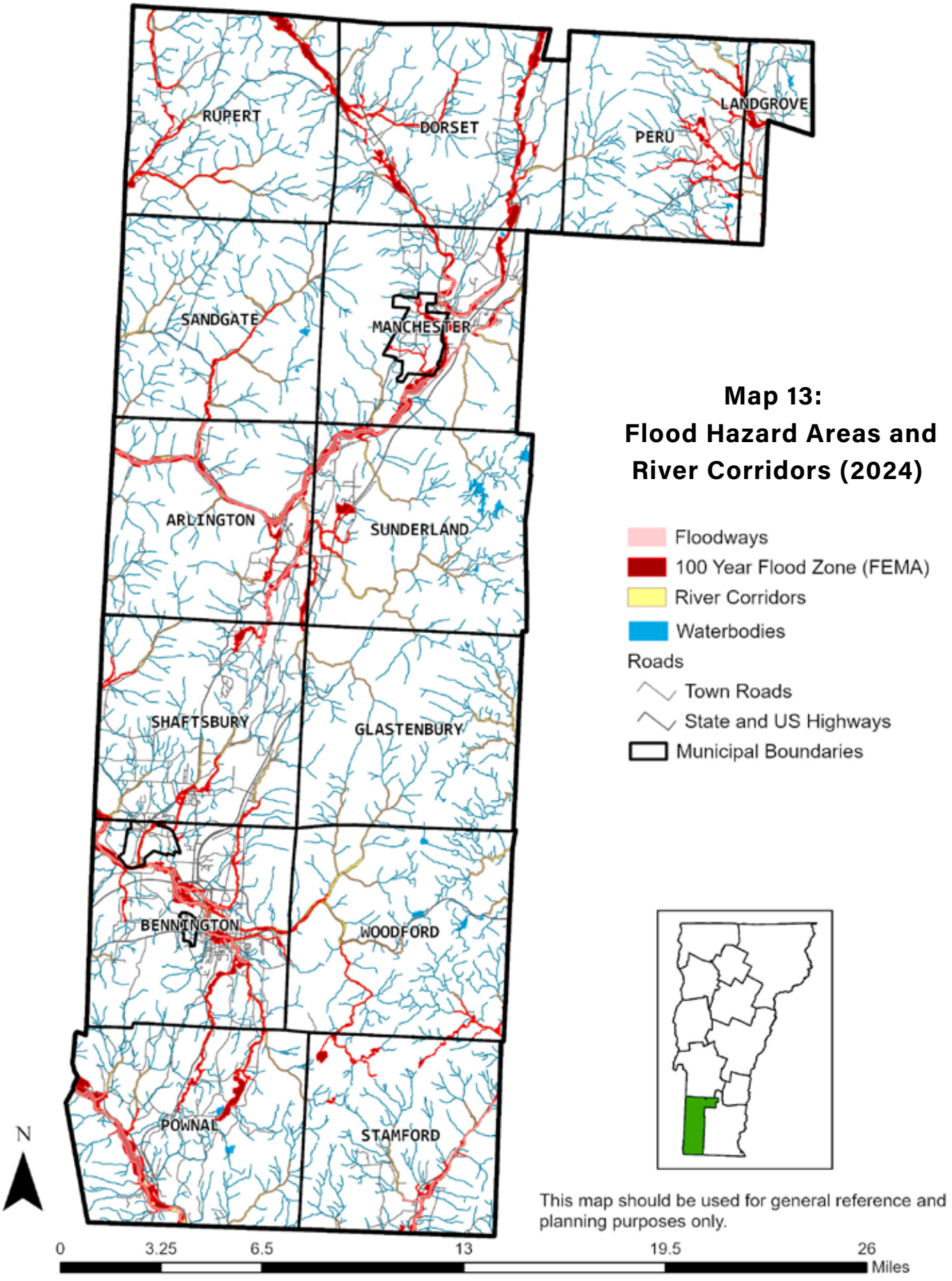
Air pollution from motor vehicles is just one of many types of air pollution that can

A bridge over a stream at the intersection of Mill and Tatro Roads in Stamford.
Photo credit: BCRC

have significant impacts on our region and state even if the emissions occur in another region, state, or in another part of the world. A long-standing concern has been the deposition of acidic precipitation on the mountain slopes and in the watercourses of the region. Most of the nitrogen and sulfur oxides that contribute to this "acid rain" originate from vehicles and fossil fuel burning power plants far to the west of the Bennington region. Similarly, "greenhouse gases" such as carbon dioxide and methane that are released during the production and burning of fossil fuels contribute to the warming of the earth's climate regardless of their source. While cooperation at a national and international scale will be necessary to address such global pollutants, it is important for communities in the Bennington region to participate in efforts to reduce pollution levels. The region also should participate, through the BCRC, in any regulatory proceedings involving industrial point sources that may affect air quality in the region.

Environmental Benefits + Burdens

Access to clean, unpolluted air is essential for a healthy life. Polluted air can be detrimental to human health, causing physical discomfort, and increasing respiratory and cardiovascular risks, especially for vulnerable populations.



Map 13: Flood Hazard Areas and River Corridors (2024)

- Floodways
- 100 Year Flood Zone (FEMA)
- River Corridors
- Waterbodies

Roads

- Town Roads
- State and US Highways

Municipal Boundaries

This map should be used for general reference and planning purposes only.

Regional Context

Downtown Bennington and Northeastern Bennington are considered to be disadvantaged Census tracts according to the CEJST, which means they are "marginalized by underinvestment and overburdened by pollution." These Census Tracts are considered disadvantaged because they have high rates of asthma as well as other environmental and socioeconomic burdens. The areas may experience higher rates of air pollution due to increased vehicle traffic, and commercial/industrial operations. Both tracts also have high proximity (within 5 kilometers) to Superfund sites.

Some populations are more vulnerable to the effects of air pollution, including children, the elderly, people with disabilities and health issues, and people who primarily work outside.

Top 3 Towns with highest percentage of elderly residents according to the MVI tool:

- Landgrove – 55%
- Rupert – 33%
- Dorset – 26%

Top 3 Towns with highest percentage of disabled residents:

- Bennington – 26%
- Woodford – 17%
- Pownal – 15%

Top 3 Towns with highest percentage of outdoor workers:

- Peru – 19%
- Pownal – 16%
- Stamford – 15%

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Particular Flood Related Risks

According to the 2023 Vermont State Hazard Mitigation Plan (SHMP) "fluvial erosion and inundation flooding continue to be the first and second most significant natural hazards" in the state.[7] Flooding can stem from both *riverine inundation*, during which river water levels rise, and *fluvial erosion*, during which streambed and streambank erosion occur, resulting in shifting dimensions of stream channels.[8] Fluvial erosion is the most common cause of flood-related damage in Vermont.[9]

The floodplain is the overall area where flooding occurs. As noted in the State Hazard Mitigation Plan, "FEMA defines the portion of the floodplain inundated by the 1% annual chance flood [also described as the "100-year flood zone"] as the Special Flood Hazard Area (SFHA); the area where the National Flood Insurance Program (NFIP) floodplain management regulations must be enforced and where the mandatory purchase of flood insurance applies for federally secured loans."[10]

Except in Old Bennington and Glastenbury, which have no mapped flood hazards, municipalities in the Bennington region have effective Digital Flood Insurance Rate Maps (DFIRM) and flood hazard areas, both of which are viewable on the Vermont Planning Atlas. It is acknowledged that flooding is not limited to mapped areas, but these areas encompass areas of greatest vulnerability. Most municipalities in the Bennington region have identified flood hazard areas in their comprehensive plans and have land use regulations that control the type of development

7 SHMP (2023) x
8 SHMP (2023) 65
9 SHMP (2023) 68
10 SHMP (2023) 66

Bend in Chunks Brook with fluvial erosion damage evident along the far bank. Sandgate, VT. Photo credit: BCRC

that occurs there. In several communities, however, a large number of existing structures are located in these areas (see Table 4: Structures located in mapped Flood Hazard Areas and River Corridors.). Bennington, for example, is located on an alluvial fan where several streams merge from various directions and has several hundred structures located in the flood hazard area. Pownal includes several dense housing developments, primarily mobile home parks, that are located in the flood hazard area, and several important commercial areas in Manchester's downtown, where the east and west branches of the Batten Kill meet, also lie in areas threatened by floodwater inundation.

River corridors require special attention because of the potential for flood-related damage to buildings and critical infrastructure resulting from the erosive force of floodwaters. River corridors include the areas adjacent to rivers that are required to accommodate meanders and changes in course that are needed to maintain dynamic equilibrium over time. River corridor maps have been developed based on scientific, location-specific assessment of the geomorphic (or physical) condition of a river developed by the Vermont Rivers Program. The Department of Environmental Conservation delineated river corridor maps (see Map 13: Flood Hazard Areas and River Corridors (2024)), demarcating "the width of the meander belt of a river and an additional 50' buffer."[11] For small streams, river corridors are not mapped but do include a 50' buffer from the top of the bank of streams with a watershed less than two square miles.[12]

As noted above, most flood-related damage in Vermont results from the erosive power of water causing damage to buildings and critical public infrastructure such as roads, bridges, and culverts (i.e., structures within river corridors). Public water and sewer systems, parks, and important historic sites also have been damaged by flood-related erosion. Where stream meanders are confined by human activity, the waterways lose their equilibrium and become steeper, straighter and more powerful, significantly increasing the risk for damage.

11 https://dec.vermont.gov/watershed/rivers/river-corridor-and-floodplain-protection/river-corridor-and-floodplain-maps

12 *ibid*

A culvert outlet in North Bennington before repair. Photo credit: BCRC

A culvert outlet in North Bennington after repair. Photo credit: BCRC

Housing

Because of Vermont's historic development patterns that have centered around rivers, housing in floodplains and river corridors is a common risk throughout the state. In particular, this problem has an even more damaging effect on residents of manufactured homes. One study estimates that while manufactured homes made up only 7% of the state's housing stock in 2011, they constituted 15% of the housing damaged by Hurricane Irene.[13] Working with community-owned or -led parks to prepare for emergencies, and working with state agencies to expand financial support for residents of manufactured homes after disasters hit are important steps to take for these members of the regional community.

Transportation Network

Roads and stream crossing structures (culverts and bridges) are particularly vulnerable to damage from flooding. Many existing culverts are too small to carry flood waters and too narrow to accommodate the stream channel, causing a back-up of sediments and creating plunge pools that damage roads and imperil nearby properties. It is important for communities to assess the physical and geomorphic condition of their culverts and bridges, to maintain a record of the status of

13 Irene: Reflections on weathering the storm (2013) 27.

this infrastructure, and to develop a plan for needed upgrades.

The Vermont Transportation Resilience Planning Tool (TRPT) is especially designed to help communities identify vulnerable elements of their transportation network. A web-based application, this tool considers risk and criticality of roads, bridges, and culverts to identify especially vulnerable areas. The tool also suggests potential mitigation measures for at-risk road segments. All municipalities should use TRPT to identify the most vulnerable parts of the transportation network at a localized scale; then, they can use recommended mitigation efforts to prioritize interventions. Additionally, to correctly size replacement structures, towns and villages should adopt the most current Vermont Agency of Transportation "Orange Book" road and bridge standards.

Table 4: Structures located in mapped Flood Hazard Areas and River Corridors.

Municipality	Structures in Special Flood Hazard Area	Structures in River Corridor
Arlington	**96**	**182**
Bennington	494	380
N. Bennington Village	**9**	**41**
Old Bennington Village	0	0
Dorset	**29**	**37**
Glastenbury	0	1
Landgrove	**1**	**9**
Manchester	70	120
Manchester Village	**4**	**10**
Peru	0	7
Pownal	**158**	**86**
Rupert	13	45
Sandgate	**1**	**40**
Shaftsbury	12	27
Stamford	**19**	**34**
Sunderland	5	42
Woodford	**0**	**76**

Dams

Occasionally flooding can result from a more specific infrastructure problem, like a dam failure. In the Bennington region, Lake Paran and Paran Creek in the Village of North Bennington have been identified as having high-risk dam inundation areas.[14] Funding administered through the state can help support municipalities with the safety and upkeep of dams, to prevent against increased risk.

Preventative Steps

Several towns in the region have adopted regulations to protect river corridors as mapped by the Agency of Natural resources, formerly mapped as fluvial erosion hazard (FEH) zones. Existing structures along a stream or river that is far out of an equilibrium condition are at risk. However, the most important reason to protect river corridors is to allow the river to adjust to the changing levels of water, sediment, and energy, and thereby dissipate its destructive potential through flooding prior to impacting concentrations of private structures or critical public infrastructure. It is equally important that new local or state infrastructure be located outside hazard

14 SHMP (2023) 71

areas, or when that is impossible (as with the case of some highway, bridge, and water treatment facilities) that it be designed and constructed to mitigate risk. Towns and villages can learn more at the municipal planning section of the Flood Ready Vermont Website.

Several communities in Vermont, including Bennington, participate in the FEMA Community Rating System (CRS). Because these communities have taken extra steps to reduce flood damage, flood insurance policies through the National Flood Insurance Program (NFIP) are discounted from 5% to 45%. Additional information about CRS and other flood hazard initiatives is available from the Watershed Management Division of the Agency of Natural Resources.

Natural Mitigation

Elements of the natural environment play an important role in minimizing the extent of the risk from flooding. Upland forests help to retain water during storms and minimize the erosive forces that would add sediment and debris to river channels. Wetlands, both upland and those adjacent to lowland surface waters, retain stormwater and protect water quality during and after heavy rains. The Natural Resources chapter of this plan documents the region's extensive forest cover as well as the location of wetland areas.

Incorporating strategies for preservation of these natural features into local and regional planning is vital to developing long-term flood resilience in the region. Continued mapping of flood hazard areas and river corridors, resource conservation, and outreach to municipalities and property owners will ensure that risks are located and understood. To assist in this effort, the Vermont Department of Environmental Conservation created the Functioning Floodplain Initiative, a web-based mapping tool and accompanying resources that allows users to identify and prioritize nature-based solutions to protect the health and functionality of waterbodies in Vermont.25F[15]

Another program created to protect river corridors and their surrounding communities is the River Corridor Easement Program, which aims to create a financial incentive for landowners to transfer their river channel management rights. Through the easement, the river corridor is then protected from any further development and additional riparian buffers are put into place.

Insuring Residual Risk

All of the region's communities except the unorganized town of Glastenbury and the very small village of Old Bennington, which has no mapped flood hazards, have flood hazard regulations generally included as part of their zoning bylaws. These regulations allow communities to participate in the National Flood Insurance Program (NFIP) and, through that program, for property owners to have access to flood insurance. Under federal law, lenders must ensure that mortgages for structures in the FEMA-defined special flood hazard area are insured for flood risk. However, many structures in special flood hazard areas do not carry flood insurance and many structures are not fully insured to receive "replacement value" after a disaster. If a structure is not insured the owner assumes the entire risk of property loss. In the event of a flood disaster a landowner may be eligible for Individual and Households Program (IHP) assistance

15 See also: https://ffi.stone-env.net/home

through FEMA but this funding will not cover any losses that could have been insured.

A community's historic structures present another flood insurance related concern for municipalities. Historic structures must pay actuarial flood insurance rates like any other structure. Many community regulations provide an exemption for historic structures from the requirement to elevate when substantially improved (such as during restoration). However, a building with a basement or a low floor below base flood elevation may have a very high flood insurance rate. This may add to the cost burdens of maintaining historic structures.

Flood insurance information is available for consumers at FEMA's Floodsmart website. The site will help identify properties in areas of defined flood risk, explain the FEMA map products, and outline insurance options. Recent federal legislation that requires the NFIP to pay accumulated debt and build a reserve fund to handle the costs of large disasters resulted in increased cost of flood insurance, but insurance for affected properties remains available through the NFIP.

Environmental Benefits + Burdens

Increases in frequency and magnitude of flood events and stormwater flows pose threats to ecosystems and human safety. Flood events can damage homes and infrastructure, destroy crops, displace people, impair water quality, and increase soil erosion. Increases in stormwater that flows into streets, can overflow sewers and contaminate local waterways with bacteria, sediment, trash, or nutrients.

Regional Context

The impact of flooding can be especially devastating to low-income residents who lack the financial resources to rebuild or relocate. The destruction of homes due to flooding also exacerbates Vermont's housing shortage and can worsen homelessness and financial insecurity. As discussed above, flooding has also disproportionately impacted manufactured housing communities throughout the state, which serve as important sources of affordable housing. The Vermont Manufactured Home Communities Flood Risk Assessment states that "manufactured housing communities (MHCs) are one of those communities where socioeconomic vulnerabilities intersect with physical proximity to hazards." The Assessment found that of the 27 MHCs in the Bennington Region, ten of them have land within a FEMA flood hazard area.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Extreme Heat and Drought

Extreme heat is an increasingly pressing problem throughout the United States. According to an online storymap developed by the Climate Mapping for Resilience & Adaptation (CMRA) program, "heat has been the leading cause of weather-related deaths in the United States" in the past 30 years.[16] In addition to posing a major health risk, extreme heat also impacts commercial and agricultural businesses, and infrastructure.[17] While Vermont has not borne the brunt of the rising temperatures, there is a history of extreme heat in the state and in the Bennington region. On July 1, 2018, NOAA recorded an excessive heat event in Bennington and Windham Counties.[18] Extreme heat events are expected to continue to occur with increasing frequency in Vermont in the coming years.

Between the late nineteenth century and 2022, the average annual temperature in Vermont increased by 3.6°F (0.2°F per decade).[19] This warming has happened at a heightened pace in the past 60 years. Summer temperatures are estimated to have increased 0.2°F per decade and winter temperatures by 0.7°F per decade.[20] As reflected in the CMRA online tool, this trend is projected to continue through the end of the 21st century, with predictions that Bennington County will experience 11 to 31 days annually with temperatures above 90 degrees, 2 to 12 days annually with temperatures above 95 degrees, and 0 to 4 days annually with temperatures above 100 degrees (the range reflecting low- and high-emissions scenarios).[21] These increased temperatures have severe implications for public health, as well as natural systems, agricultural practices, local economies, and infrastructure.

While increasing drought seems contradictory to the more intense precipitation and floods Vermont has already experienced in recent years, the two phenomena are actually closely linked. The CMRA tool predicts increasing amounts of average annual total precipitation combined with an average decrease in the number of wet days per year, meaning Vermont is expected to receive more rain (4-6 more inches per year compared to 1976-2005 levels) over fewer days (3-6 fewer) with increasing dry periods.[22] In the Fall of 2024, portions of Vermont experienced moderate to severe drought, including the Bennington Region. Between September and November 2024, the Town of Bennington only received 3.7 inches of rain compared to the average of more than 9 inches. This dry period was preceded by a wetter than average summer. This was followed by another major drought period in the Summer and Fall of 2025, which led to the USDA designating seven Vermont Counties, including Bennington, as Natural Disaster Areas for drought and heat.

Heat Illness

The impacts of heat-related illnesses are relative: the risks of heat-related health impacts depend greatly on how acclimated people are to hot weather.[23] In a place like

16 https://storymaps.arcgis.com/stories/5e482f11d2514191bb89c20638d98b3c
17 SHMP (2023) 99
18 SHMP (2023) 101-102
19 SHMP (2023) 103
20 SHMP (2023) 103
21 CMRA - Climate Mapping for Resilience and Adaptation (arcgis.com)
22 CMRA - Climate Mapping for Resilience and Adaptation (arcgis.com)
23 SHMP (2023) 105

Map 14: Wildfire Urban Interface

A map of the wildfire-urban interface (WUI) in the region. Image: US Forest Service

Vermont, that has historically been relatively cool, even a lower heat index value could have serious consequences, especially for vulnerable populations (see 'Environmental Benefits + Burdens' below).

In addition to individual health impacts, extreme heat can also exacerbate the spread of disease and bacteria in the natural environment, with resulting consequences on people's health. Shorter winters and subsequently longer warmer seasons in Vermont have correlated with rising cases of tick- and mosquito-borne illnesses, such as Lyme's disease and West Nile Virus.[24] Warmer temperatures also impact water bodies, leading to cyanobacteria blooms that can result in rashes, digestive problems, or serious health issues when people spend time in the affected water.

Urban Heat Island Effect

The "Urban Heat Island Effect" is the phenomenon of having higher temperatures in more urbanized areas because of the greater concentration of impervious surfaces (such as sidewalks, roads, and parking lots), the lack of

24 SHMP (2023) 107

The splash pad in downtown Bennington offers a fun way for kids to stay cool during warmer months. Photo credit: Town of Bennington

tree coverage, and the lack of water. While the heat island effect is not a widespread issue in the Bennington region, it does contribute to the inequitable impacts of climate change. In our region, this is particularly true in the Town of Bennington, where larger areas of impervious surfaces and greater concentrations of low-income community members coincide.

Infrastructure

The stability of the electric grid is a paramount concern for all aspects of climate resilience, and especially when thinking about the impacts of extreme heat. Loss of power from a storm or an overloaded electrical grid would threaten the health and safety of the affected populations, and steps should be taken to mitigate these risks. Extreme heat also threatens built infrastructure, especially in the realm of transportation. Effects can include expansion of steel and concrete in bridges, softening of road asphalt, buckling of concrete pavement, and bending or buckling of railway tracks.[25]

Natural Resources

Wildfire threat is relatively low in Vermont. However, with increasing temperatures and heightened periods of drought, communities in the region should remain vigilant for potential wildfire conditions. One metric of wildfire risk is determined by looking at the wildfire-urban interface (WUI), an "area where structures and other human development meet or intermingle with wildland creating an environment where fire can readily move from a forests and grasslands to neighborhoods."[26] The Bennington region includes a large stretch of WUI (see Map 14: Wildfire Urban Interface) that has been identified as either interface or intermix—designations that depend on the density of housing

25 SHMP (2023) 108
26 Vermont Forest Action Plan (2017) 41

developments.[27] The Vermont Forest Action Plan observes that the WUI leads to human/wildland interactions that degrade the natural environment, including native habitat loss, forest fragmentation, establishment of invasive exotic species, predation or interference from domestic pets, and degradation of water quality. The plan concludes: "These trends will threaten biodiversity and ecosystem health if WUI residents and communities are not attentive to the potential harms and actively caring for the environment around their homes."[28]

While wildfires may not be pervasive within Vermont, the effects of increasing wildfires elsewhere in the world still have an impact on Vermonters' quality of life and health. In June 2023, smoke from Canadian wildfires blanketed much of the east coast of the United States, including Vermont. The air quality during that period of time was considered unhealthy for all populations. The air quality index in the Bennington region was particularly poor—record high particulate matter concentrations were measured at the Morse Airport in Bennington on June 6 and 7.[29] Feeling the impacts of far-flung natural disasters in Vermont can only be expected to increase in the coming years.

Economies

Vermont's economy may likewise be affected by extreme heat and its related impacts. Agricultural industries, like maple sugar production, produce farming, and dairy production, are all susceptible to the effects of extreme heat, drought, and wildfire. Low yields or crop destruction would have severe consequences for people's livelihoods, tourism draws, and the state's overall economy.

Maple sugaring is a particularly important agricultural industry in the Bennington region, with dozens of sugaring operations throughout the region. Although technological advances have made maple sugaring much more efficient and productive, climate change has already impacted the industry in Vermont. The sugaring season has shifted, beginning earlier, and its duration has contracted by about 10%. In addition, it may be more susceptible to disturbance as three warm days with temperatures of 65 to 75°F can end the season early, as invasive pests gain ground when winter temperatures fail to fall low enough to kill them off, or as trees are put under stress by drought or devastating storm events.41F[30]

Preventative Steps

Urban Heat Island Mitigation

To reduce the Urban Heat Island effect, municipalities should incorporate green infrastructure into regular street upgrades and public space improvement projects. Increasing trees and vegetation throughout more urbanized areas will help to mitigate the effect of the higher impervious surface coverage.42F[31] Larger or more urban munici-

27 Wildland Urban Interface: 2020 (Map Service) | US Forest Service - Geospatial Data Discovery (arcgis.com)

28 Vermont Forest Action Plan (2017) 41

29 SHMP (2023) 183

30 See: Claire Potter, March 6, 2022, Valley News, Climate change is already impacting the maple sugaring industry. and Lexi Krupp, February 9, 2024, Vermont Public, Some maple producers are collecting sap during this warm spell. But it is not a guarantee.

Michael J. Caduto, March 21, 2024, The Barton Chronicle, Maple sugaring adapts to a changing climate.

31 https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect#:~:text=%22Urban%20heat%20

palities in the Bennington region could pursue urban forestry plans, if desired, to strategize increased tree canopy in developed areas on a community-wide scale.

In addition to municipal leadership on tree planting, initiatives like the Vermont Urban & Community Forestry Program provide support for individual households to plant trees and improve natural cooling in their neighborhoods.

Weatherization Programs

Improving indoor cooling capabilities is also an important step to mitigating the impacts of extreme heat, especially for more vulnerable community members. Weatherization not only keeps homes warmer in the winter, but also cooler in the summer. Weatherization, paired with heat pumps, which provide both space heating and cooling, can significantly improve year-round comfort. However, many residents cannot afford these measures (or implement them at all if they are renters). Municipalities can help connect residents with cooling resources including low-cost weatherization services, and cooling center locations. They can also plan for extreme heat by including a heat annex in their Local Emergency Management Plan (LEMP).

Connecting community members with non-profit resources could mean the difference between a safe, comfortable home or a trip to the hospital during a heatwave.

Environmental Benefits + Burdens

Extreme heat can cause physical discomfort and negatively impact human health, especially for vulnerable populations.

islands%22%20occur%20when,heat%2Drelated%20illness%20and%20mortality.

Regional Context

Older adults are at particularly high risk for heat-related illnesses, as well as young children, people who are pregnant, outdoor workers, people with chronic health conditions, people with disabilities, unhoused people, people living alone or in isolation, people struggling with addiction, and people living in more urbanized areas. The impacts of high heat are further exacerbated when typical homes and other structures lack air conditioning or other cooling technologies. These unequal impacts raise serious equity concerns around the effects of extreme heat on already vulnerable populations in Vermont.

In 2016, the Vermont Department of Health developed a heat vulnerability index using data on demographics, socioeconomic status, health status, environmental characteristics, ability to acclimate, and emergency room visits to determine each town's vulnerability to extreme heat. Eight towns in the Bennington region were considered more vulnerable than the state mean, with Bennington scoring in the most vulnerable category.[32] Although the Vermont Heat Vulnerability Index data is now several years old, communities throughout the region should keep track of any updates from the state and work to mitigate elements within their control, such as anti-poverty social services, environmental factors (tree canopy, impervious surfaces, housing availability), and chronic public health conditions.

Several municipalities have begun to incorporate hot weather planning into their hazard mitigation and local emergency management plans, including plans for cooling centers

32 The other more vulnerable towns include Rupert, Sandgate, Manchester, Arlington, Shaftsbury, Pownal, and Stamford. See: Vermont Heat Vulnerability Index.

A firefighter participates in a training exercise in Bennington.. Photo credit: Town of Bennington

during extreme heat events. Bennington recently added a Heat Annex to their LEMP which could serve as a model for other municipalities.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Planning and Coordinating Emergency Management Response

In the face of increasing climate-related stresses, planning is one of the most crucial steps we can take to mitigate harms and encourage resilience. The BCRC supports hazard mitigation planning and emergency management planning, working with state and municipal officials to identify risks and prepare for worst-case scenarios. The BCRC also works to coordinate responses to natural disasters when they do occur.

Local Hazard Mitigation Plans

Local hazard mitigation plans identify local hazard issues, prioritize the steps needed to mitigate risk, and provide access to a funding source through the FEMA Flood Mitigation Assistance Program. To be effective, the local hazard mitigation plan must clearly identify and prioritize specific projects. The BCRC has worked with several towns to develop these plans and is available to offer continuing assistance with new and updated hazard mitigation plans. Funding to implement mitigation projects may be available through the Hazard Mitigation Grant Program (HMGP) in Vermont or through other FEMA flood hazard mitigation assistance programs.

Local Emergency Management Plan

Once a flood or other emergency situation occurs, it is imperative that municipalities have a consistent and reliable system for coordinating response. A Local Emergency Management Plan (LEMP) is an effective way to coordinate local response and facilitate contact with other towns and agencies. The LEMP provides a list of local names, numbers

and assigned roles, resources available in nearby communities and contact information, and provides a framework for coordination with support services available at the state and federal level. The LEMP must be updated annually after Town Meeting Day and a copy submitted to the Vermont Department of Emergency Management and Homeland Security. The BCRC is available to assist with preparation of these documents.

Response

Once damage from an extreme event has occurred, it is important that communities have the capacity to effectively recover. Following through on risk reduction strategies is critical at this stage, as is the ability to effectively access financial and other support from federal and state government agencies. The BCRC has played an important role during the recovery from recent extreme weather events and it is important that its responsibilities are clearly identified and implemented, along with the roles of local leaders and state and federal agencies.

During widespread disasters multiple towns may collaborate, sharing staff, equipment, and other resources to achieve the most rapid and cost-effective response. The Bennington County Regional Emergency Management Committee (REMC) provides an ongoing forum for intermunicipal communication and preparedness planning for the Bennington region. Municipalities also can execute formal intermunicipal mutual aid agreements that specify procedures for support service requests, cost sharing, and other issues. Having formal agreements in place will not only assist in the response phase of an emergency, but also can help recover reimbursable costs through FEMA in the event of a federal declaration.

Additionally, the BCRC works with the Vermont Department of Emergency Management and Homeland Security, the Vermont Agency of Transportation, the Vermont Agency of Natural Resources, and the Vermont Agency of Commerce and Community Development during the response to an emergency by serving as a liaison between local governments and state and federal agencies, providing immediate damage reporting and mapping, and helping to staff the State Emergency Operation Center (SEOC) when required.

Funding

Following the immediate response to a natural disaster, communities often are faced with significant costs. Indeed, municipalities are generally the entities that suffer the costliest damage during a disaster. After a federally-declared disaster, qualified losses may be reimbursed through the federal Public Assistance program supplemented by the Vermont Emergency Relief and Assistance Fund (ERAF). Other programs may apply in certain situations, such as the Emergency Relief for Federally Owned Roads (ERFO) program, which provided financial support to the Town of Sunderland covering the multi-million dollar reconstruction of the Kelly Stand Road following Tropical Storm Irene. FEMA's Hazard Mitigation Program also may provide funding to support, buyouts, relocation, or elevation of some of the structures located in the floodplain.

The Vermont ERAF program provides state funds to communities after a declared disaster to cover a portion of the cost of repair and

restoration work not covered by federal funds. Communities receive a greater amount of state funding if they have taken specific steps to reduce the current risk (an additional five percent for steps 1-4, below, and another five percent for also implementing step 5, below):

- Participate in the National Flood Insurance Program (NFIP).
- Adopt road and bridge standards that meet or exceed the 2013 template in the current *VTrans Orange Book: A Handbook for Local Officials*.
- Adopt a Local Emergency Management Plan (LEMP) annually after Town Meeting Day and before May 1.
- Adopt a FEMA- or Vermont Emergency Management-approved Local Hazard Mitigation Plan (LHMP).

Adoption of River Corridor Bylaws, or enrollment in the FEMA Community Rating System (CRS).

As of January 2026, nine communities in the Bennington region met the requirements for the highest ERAF rate of 17.5%: Bennington, Dorset, Manchester, North Bennington, Rupert, Sandgate, Shaftsbury, Stamford, and Sunderland. Arlington and Landgrove are the only towns with a 12.5% rate, and all other municipalities in the region are at the 7.5% rate.

Another source of funds for resiliency activities is the Flood Resilient Communities Fund established by the Vermont legislature in 2021 to improve "landscape and community resilience and [reduce] the future public safety and water quality impacts of climate-related flood hazards in Vermont, focusing on buyouts of flood-vulnerable properties."43F[33] In the Bennington region, two scoping studies have been funded through the program to evaluate alternatives for reducing flood risks in the alluvial fans of Bourne Brook and Lye Brook in Manchester. The BCRC was instrumental in applying for the funds, managing the scoping studies, and presenting alternatives to the town selectboard.

Environmental Benefits + Burdens

Funding and technical assistance from government agencies can help communities build local capacity to respond to and recover from emergencies and strengthen resilience. Without this support, many communities lack the necessary resources and capacity to accomplish these goals on their own.

Regional Context

As discussed in a previous Environmental Justice section, environmental and climate-related hazards disproportionately impact certain community members. Municipalities should identify vulnerable community members during their local emergency management and hazard mitigation planning and actively engage with these communities during the process. Emergency management planning and response efforts should expand access to resources and information, especially for the most vulnerable community members.

Municipalities in the region have historically relied on technical assistance and grant funding from BCRC and Vermont Emergency Management (VEM), to engage in emergency management and resilience planning, but

33 Flood Resilient Communities Fund | Vermont Emergency Management

these services are subject to the availability of federal and state funding. Reductions in government funding affect the entire region, but the region's small, rural communities are especially impacted, due to lower levels of capacity and resources. In the absence of state funding and technical assistance, municipalities can continue work cooperatively through mutual aid agreements and other forms of collaboration to improve resilience and emergency preparedness. Municipalities can also partner with organizations such as the Medical Reserve Corps of Southwestern Vermont and the Red Cross.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

The BCRC assists towns and villages in completing local emergency management and hazard mitigation plans. The BCRC provides training and support for development of local food resilience plans and related intermunicipal agreements, support for the Regional Emergency Management Committee and its emergency response exercises, and special implementation projects funded through the hazard mitigation grant program. The BCRC provides staff support to the State Emergency Operations Center (SEOC) during an emergency and assists with damage reporting and recovery planning as needed.

Climate Resilience Goals and Actions

Goals

- Limit the physical impacts of flooding and related climate hazards
- Improve preparedness for and resilience in the face of flooding, extreme heat, and other climate hazards

Actions and Policies

The BCRC . . .

- Works cooperatively with municipalities and the Vermont Agency of Natural Resources to complete and maintain flood and fluvial erosion hazard maps and to identify specific areas of concern that should be targeted for mitigation actions.
- Works cooperatively with municipalities, state and regional agencies, and conservation and watershed organizations to maintain and enhance the ecological integrity of rivers, streams, wetlands, and upland forests.
- Facilitates acquisition by public entities or conservation organizations of critical buffers and land within erosion hazard zones, especially those identified in hazard mitigation and river corridor plans.
- Assists municipalities to maintain up-to-date regulations to limit and control development in flood hazard areas and river corridors. Such regulations are designed to protect property and the health and safety of the population against the hazards of flood inundation and erosive damage that may be incurred when unsuitable development occurs in areas prone to flooding or erosion. New development in special flood hazard areas and fluvial erosion hazard zones should be avoided. Any new development that does occur must be designed and sited so as to avoid any increase in flooding or erosion.
- Advocates for municipalities to adopt river corridor standards or to require establishment of undisturbed buffers of natural vegetation between rivers, streams, and other waterbodies to maintain water quality and to attenuate overland flow. This buffer should reflect state river corridor mapping or be at least 50 feet wide for streams with minimal potential for lateral or vertical adjustment and 100 feet wide for streams with significant potential for such adjustment.
- Advocates that municipalities adopt the most recent Orange Book standards for municipal roads and bridges. Bridge and culvert repairs and replacements should be designed based on hydraulic studies to avoid constrictions that would accelerate flow and cause damage to public infrastructure and private property.
- Facilitates reconstruction or replacement of existing local and state bridges and culverts that would impede flow during flooding events as part of regular scheduled maintenance or through special hazard mitigation initiatives.
- Provides education and outreach to municipalities and property owners within flood zones to encourage flood-proofing or buy-outs of structures subject to repeated flooding and eligible for funding under the FEMA hazard mitigation grant program.
- Recommends municipalities participate in FEMA's Community Rating System program and assist

municipalities to implement standards that will lead to rate reductions in flood insurance premiums for residents and businesses.

- Assists municipalities to encourage or require owners of property in flood hazard zones to secure propane tanks, firewood, boats, and other items that could float away in a flood, thereby creating hazards for people, property, and infrastructure downstream.

Tracks state heat and drought warning systems and works cooperatively with municipalities to implement mitigating measures that are within municipal control. This could involve boosting anti-poverty social services, supporting public health programs addressing chronic health conditions (such as diabetes, asthma, hypertension, and obesity), and improving environmental mitigating factors (such as increasing tree canopy, decreasing impervious surfaces, and increasing housing availability).

Seeks to study urban tree canopy in the region's downtowns and villages centers, especially with an eye toward equity. Based on study results, encourage tree planting in downtown and village areas with canopy gaps that contribute to inequitable heat island effect.

Assists municipalities to provide adequate shade coverage and water sources at outdoor public facilities such as parks, playgrounds, and public transit stops.

- Encourages and assists municipalities to meet requirements of the Emergency Relief and Assistance Fund (ERAF).
- Encourages municipalities to maintain Hazard Mitigation Plans. HMPs help municipalities qualify for more funds after a disaster through ERAF and allow municipalities to become eligible for FEMA grant assistance. The BCRC will assist municipalities to complete grant applications under the Hazard Mitigation Funding Program and will respond to municipal RFPs to develop HMPs.
- Facilitates municipalities to maintain and submit Local Emergency Management Plans (LEMP) for emergency response and hazard preparedness by the annual June 1 deadline.
- Facilitates participation by municipal representatives at all Regional Emergency Management Committee (REMC) meetings.
- Encourages municipal leaders to assess their community's risk by reviewing the Community Report section on the Flood Ready website.
- Facilitates attendance by municipal leaders at Incident Command System (ICS) trainings, Emergency Management Director (EMD) trainings, National Incident Management System (NIMS) trainings, and other necessary trainings listed on the Vermont Learning Management System.

Assists municipal leaders to encourage community members to sign up for Vermont Alert to receive emergency alerts by text, email, or phone call.

Assists municipalities to provide emergency information on municipal websites, such as shelter information, weather alerts, and how to make an emergency kit.

Works to provide additional support to Economically Disadvantaged and Rural Communities (EDRCs).

Landscape and Character (Rural)

The landscape of the Bennington region is predominantly rural in character with relatively compact centers of development lying among rural and agricultural valleys. The forested slopes of the Green and Taconic Mountain Ranges provide a natural backdrop to these valleys, creating a diverse landscape of open and forested lands. Regional Landscape

Regional Landscape

One of the central objectives of both Vermont state land use policy and this regional plan is to reinforce this development pattern, directing most new growth into discretely bounded centers and villages while preserving the open rural lands surrounding and between those centers.

The state reaffirmed this goal with the adoption of Act 181 in 2024. The new law included many provisions to address land use regulation and development in the state, including reforms to Act 250 and the designation program. A significant emphasis of the law is on the regional planning process and the development of Future Land Use (FLU) maps (see Map 15: Future Land Use (2026)). The FLU map included in this plan uses the same ten land use categories as all of the other regional planning commissions in the state. These categories (listed below) are defined in Vermont state statute, and the methodology behind their mapping at the municipal and regional scales was established collaboratively between regional planners throughout the state.

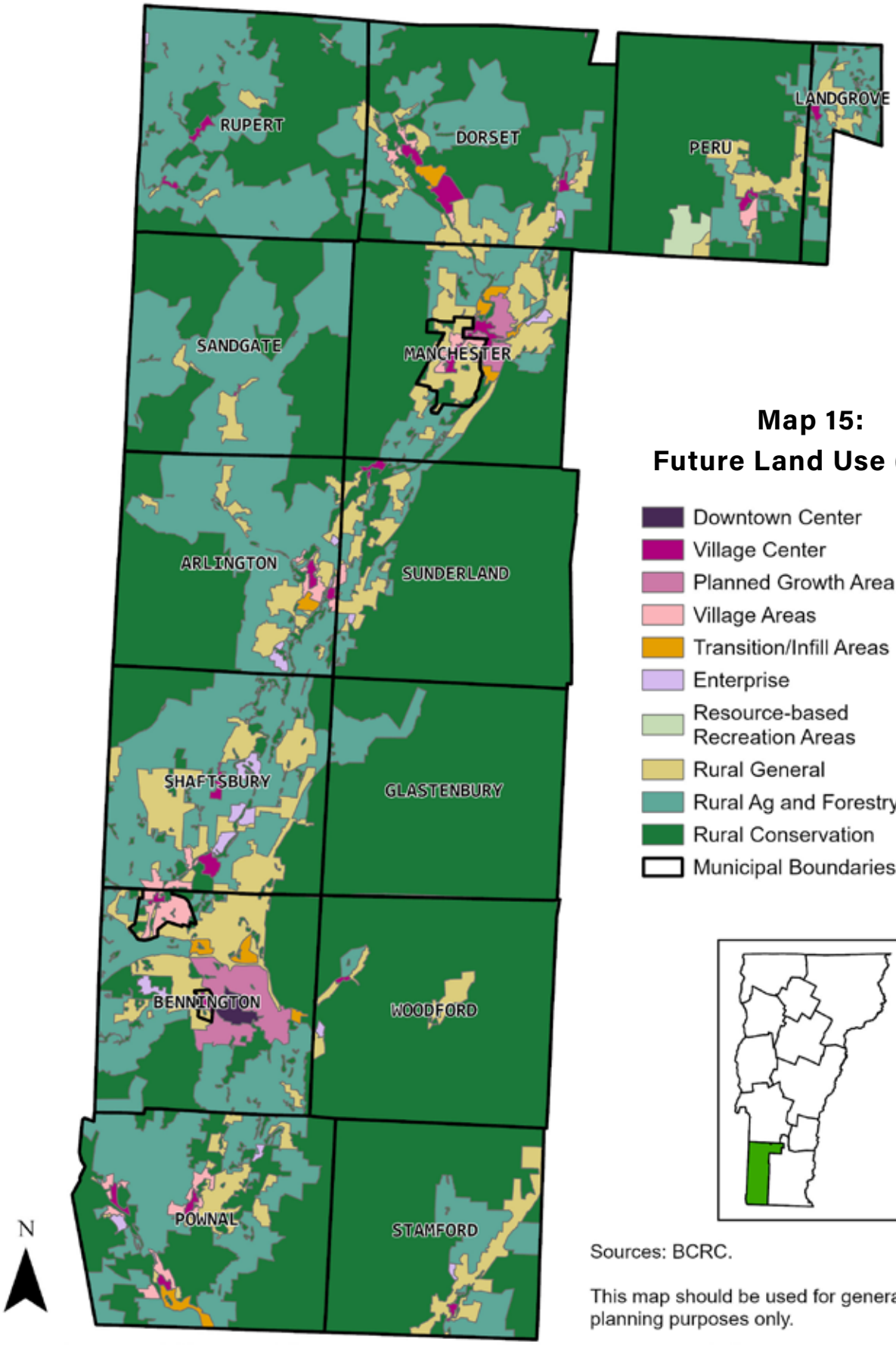
To develop this regional FLU map, planners at BCRC looked at the statutory definitions, the mapping methodology, local land use plans and zoning regulations, state data, and direct conversations with planning commissions, select boards, boards of trustees, and community members to understand the needs, desires, ambitions, and investments of each municipality. The FLU map and accompanying land use sections of this plan are intended to provide a clear framework for growth and redevelopment in our regional centers and growth areas, while ensuring that

What did we learn from the community?

"Breathtaking scenery"

Rural character and small-town feel identified as one of the greatest strengths of the region

People appreciate the proximity to agriculture and local farms, but there are concerns about uneven access and affordability



Map 15:
Future Land Use (2026)

- Downtown Center
- Village Center
- Planned Growth Area
- Village Areas
- Transition/Infill Areas
- Enterprise
- Resource-based Recreation Areas
- Rural General
- Rural Ag and Forestry
- Rural Conservation
- Municipal Boundaries

Sources: BCRC.

This map should be used for general reference and planning purposes only.

Randall cows in a field on Mountainview Road in a Rural Ag and Forestry area of Sunderland. Photo credit: BCRC

municipal land use plans are consistent with its overall policy and compatible with one another.

Maintaining clear demarcation between centers of compact development and the surrounding rural landscape is a particularly important component of this land use strategy. If development sprawls outward from the centers and the villages that form the heart of many of the region's towns, the intervening open lands will be compromised and the area will lose much of its unique character. If sprawl were to become pervasive, it would draw vitality from downtowns, neighborhoods, and villages, making it more difficult for those critical community centers to thrive and, in turn, attract additional desirable development. A dispersed development pattern also reduces the ability of towns to provide efficient and economical services and leads to unnecessary and excessive energy use. All the land use policies and strategies discussed in this chapter, and throughout this regional plan, should be considered in light of the central goal of encouraging new mixed-use development in compact village and town centers and

protecting the natural and scenic quality of the rural landscape.

The regional land use plan is organized around ten land use districts:

- Rural Agricultural and Forestry
- Rural Conservation
- Rural General
- Resource-Based Recreation Areas
- Hamlets
- Downtown and Village Centers
- Planned Growth Areas
- Village Areas
- Transition/Infill Areas
- Enterprise Areas

Characteristics, opportunities, and limitations specific to each district, and policies to guide various types of development activity are presented in the next two chapters—one is focused on rural areas and one on growth-oriented areas. Every municipality but one—Glastenbury—has a mix of rural and growth-oriented land uses.

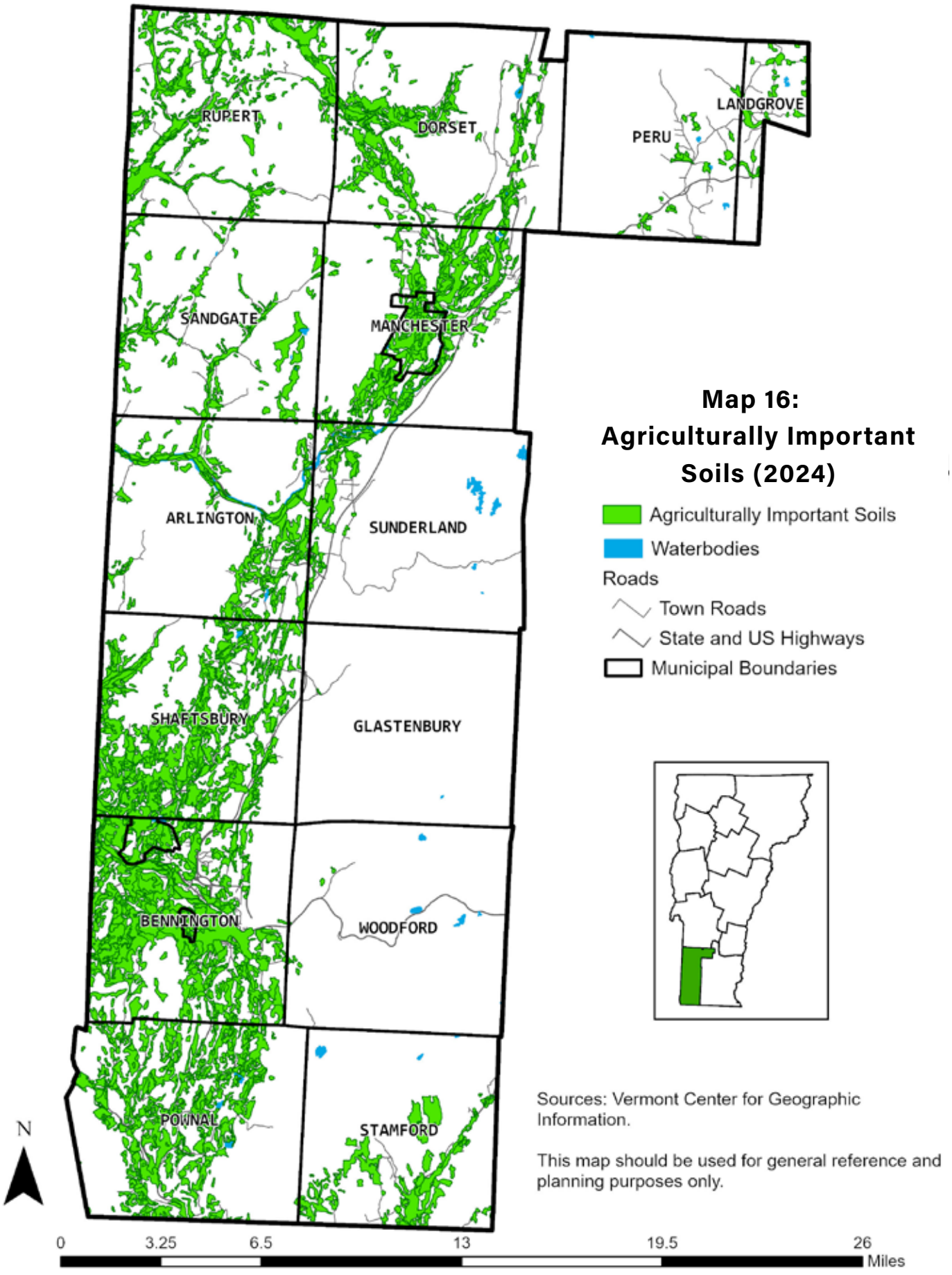
An apple tree at Mad Tom Orchard in Dorset
Photo credit: BCRC

Rural Agricultural and Forestry

"These areas include blocks of forest or farmland that sustain resource industries, provide critical wildlife habitat and movement, outdoor recreation, flood storage, aquifer recharge, and scenic beauty, and contribute to economic well-being and quality of life. Development in these areas should be carefully managed to promote the working landscape and rural economy, and address regional goals, while protecting the agricultural and forest resource value." (Act 181)

Municipalities affected: **All except** Manchester Village and Old Bennington Village

Preserving the Bennington region's working lands and rural areas is just as important



Map 16: Agriculturally Important Soils (2024)

Agriculturally Important Soils
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

as bolstering its lively centers. The Future Land Use map indicates areas where municipalities should protect the long-term viability of working lands (natural-resource-based industries) by preserving rural open spaces, agricultural lands, and forests through good stewardship of the land. Locally, these areas are covered by many different types of rural districts, and may have areas of clustered small parcel settlement typical of historic agricultural areas.

Agricultural Lands

Agriculture is a vital part of the Bennington region's rural heritage and economic future. The working agricultural landscape maintains the region's rural character, contributes an essential element to its scenic quality, and is an important component of the regional economy. The characteristic mix of open fields and woodlands also provides habitat necessary to sustain a large and diverse wildlife population. Productive agricultural soils are found throughout the region in lowland valleys (see Map 16: Agriculturally Important Soils (2024)). Although some level of farming activity occurs in every town in the region, significant concentrations of farms and actively harvested cropland are found in Pownal, Bennington, Shaftsbury, and in the Mettawee Valley in Rupert.

The USDA Agricultural Census documents changes in agriculture every five years and reports findings by county. Table 5: Agricultural Land Use and Production in Bennington County, 2002-2022. shows numbers of farms, farm acreage, and value of agricultural products sold for 2002, 2012, and 2022. Between 2012 and 2022, the number of farms fell back toward 2002 levels and the total amount of farmland also fell, while farm size rebounded a little bit and total cropland fell significantly. These trends can be explained by the fact that many people now farm part-time and are involved in more diverse and specialized products. Between 2002 and 2012, the total value of agricultural products sold in the region nearly doubled and the average sales per farm increased by almost 50 percent. These trends continued in the last ten years with a 50% increase in the total value of agricultural products sold and average sales per farm increasing by more than 80 percent.

Maintaining the potential for the region's best agricultural soils to be used for growing and raising agricultural products is a

Table 5: Agricultural Land Use and Production in Bennington County, 2002-2022.

	2002	2012	2022
Total Number of Farms	**228**	**305**	**251**
Total Farm Acreage	41126	41387	37248
Average Farm Size (acres)	**180**	**136**	**148**
Total Cropland Acreage	13379	11165	7114
Total Value of Agricultural Products Sold.	**$7.8 million**	**$15.1 million**	**$22.5million**
Average Value of Agricultural Sales per Farm	34292	49421	89830

Source: USDA Census of Agriculture.Photo credit: BCRC

Chickens at Wing and Prayer Farm in Shaftsbury. Photo credit: BCRC

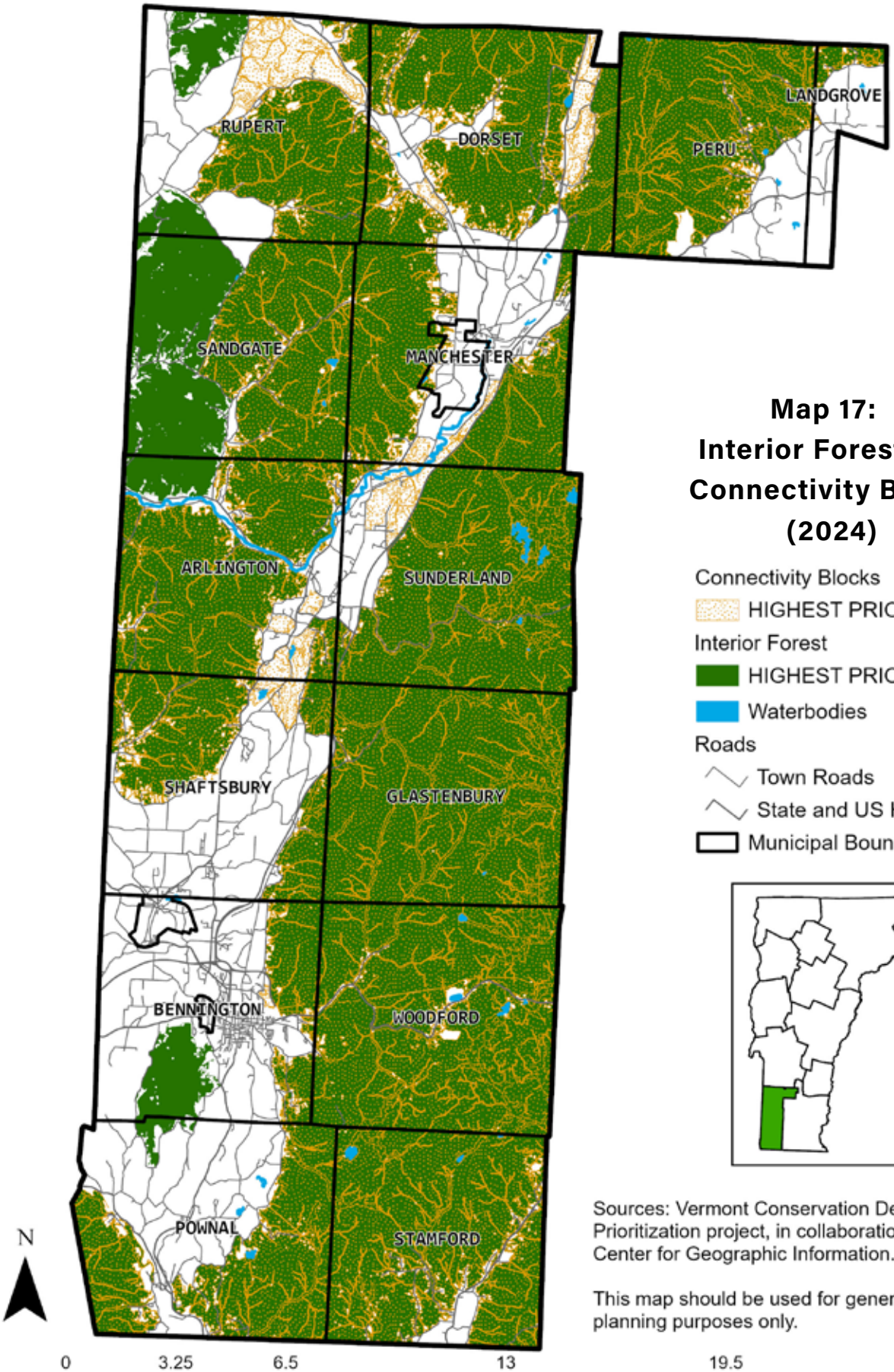
statewide and regional priority. Many people prefer to obtain food from local sources due to economic development and environmental concerns. Moreover, the Vermont Farm to Plate Strategic Plan points out that approximately two billion dollars are spent on food in the state every year (close to $100 million dollars in the Bennington region) so local production of food has the potential for lending strong support to the regional economy.

Preserving agricultural land and expanding local production also contributes to environmental quality in a number of ways. Utilization of prime agricultural soils for food production ensures that those lands remain open and part of the working landscape. Properly managed farmlands—as outlined in the state's Required Agricultural Practices—maximize use, reuse, and recycling of local natural resources, thus limiting waste and pollution. Those same practices reduce the need to use petrochemical fertilizers, while increased local production reduces fossil fuel use related to transportation and processing.

In addition to local regulations that work to preserve agricultural lands, non-regulatory strategies also can be effective approaches. The Vermont Use Value Appraisal program allows owners of farmland to be taxed based on their property's use for agriculture rather than on its development potential. Acquisition of development rights to agricultural lands, through gift or purchase, by a qualified land trust or other conservation organization is another proven way to preserve agricultural land. The Vermont Land Trust has conserved a large amount of agricultural and forest land in the region. The Vermont Housing and Conservation Board's Farmland Preservation Program is a significant source of funding for these preservation efforts.

Supporting the economic viability of farming in the region will make it easier and more desirable for owners of good agricultural land to maintain those resources as part of the working landscape. Local farmer's markets, community-supported agriculture (CSA) farms, and programs to ensure that locally produced foods are available in local stores and offered in area restaurants are essential to ensuring that strong markets exist for foods from the region's agricultural lands. Improved food storage, processing, and distribution systems also will support local farmers and help to maintain the agricultural component of the region's working landscape.

In 2018, the state included a provision in Act 143 that allows accessory on-farm businesses

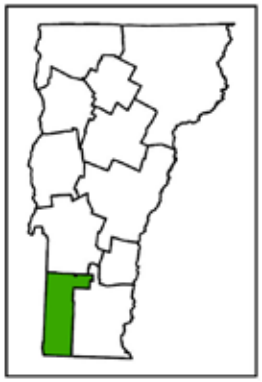


Map 17: Interior Forest and Connectivity Blocks (2024)

Connectivity Blocks
- HIGHEST PRIORITY

Interior Forest
- HIGHEST PRIORITY
- Waterbodies

Roads
- Town Roads
- State and US Highways
- Municipal Boundaries



Sources: Vermont Conservation Design Prioritization project, in collaboration with Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

A scenic view from Route 313 W in Arlington on the border of the Rural General and Rural Ag and Forestry areas. Photo credit: BCRC

by right anywhere that a principle agricultural business is in operation; in 2024, the legislature further expanded the scope of what counted as an accessory on-farm business, in an effort to give farmers and agricultural business owners more ways to keep their operations viable.

Forestry

Forested lands cover much of the Bennington region. These forests stabilize soils and slopes, prevent flooding, provide valuable timber, wildlife habitat, and recreational resources, filter air pollutants, and have important recreational, economic, and aesthetic value.

Much of the forested land in the region is part of the Green Mountain National Forest, which is categorized as Rural Conservation in the region's Future Land Use Map (**Map 15: Future Land Use (2026)**). However, there are large areas of the GMNF that allow for some extraction of forestry materials. Upland forests provide many tangible benefits and economic opportunities. These forests have long been used for wood harvesting. Expansion of forest resource use supports regional economic development objectives. When working in upland forests, it is particularly important for loggers to adhere to the Acceptable Management Practices (AMPs) prepared by the Vermont Department of Forests, Parks, and Recreation.

While national forest lands do not need to comply with Vermont's state regulations, businesses on private lands are encouraged to balance the needs of their operations with state guidelines to protect natural resources. Logging, timber, and forestry activities must, at a minimum, follow the state's Accepted Management Practices for maintaining water quality. In addition, loggers should employ strategies that ensure a long-term sustainable yield of timber, maintain and enhance the ecological integrity of forest ecosystems, and minimize or prevent adverse impacts upon the land.

The region's forests contain vast biomass energy resources. As residential, commercial, industrial, and institutional uses all begin to reduce utilization of fossil fuels for space heating, greater use of wood obtained from the region's forests can be expected. Biomass resource extraction can continue to be supported by the region's forests in the future, provided logging practices avoid damage to critical resources and surface waters, and soil nutrient levels are not depleted. Some level of biomass processing, especially for wood chip and cord wood production, is also appropriate in the upland forests. For more information about biomass as an energy source, and policies regarding biomass facilities, see the Energy chapter.

Forest Blocks and Habitat Connectors

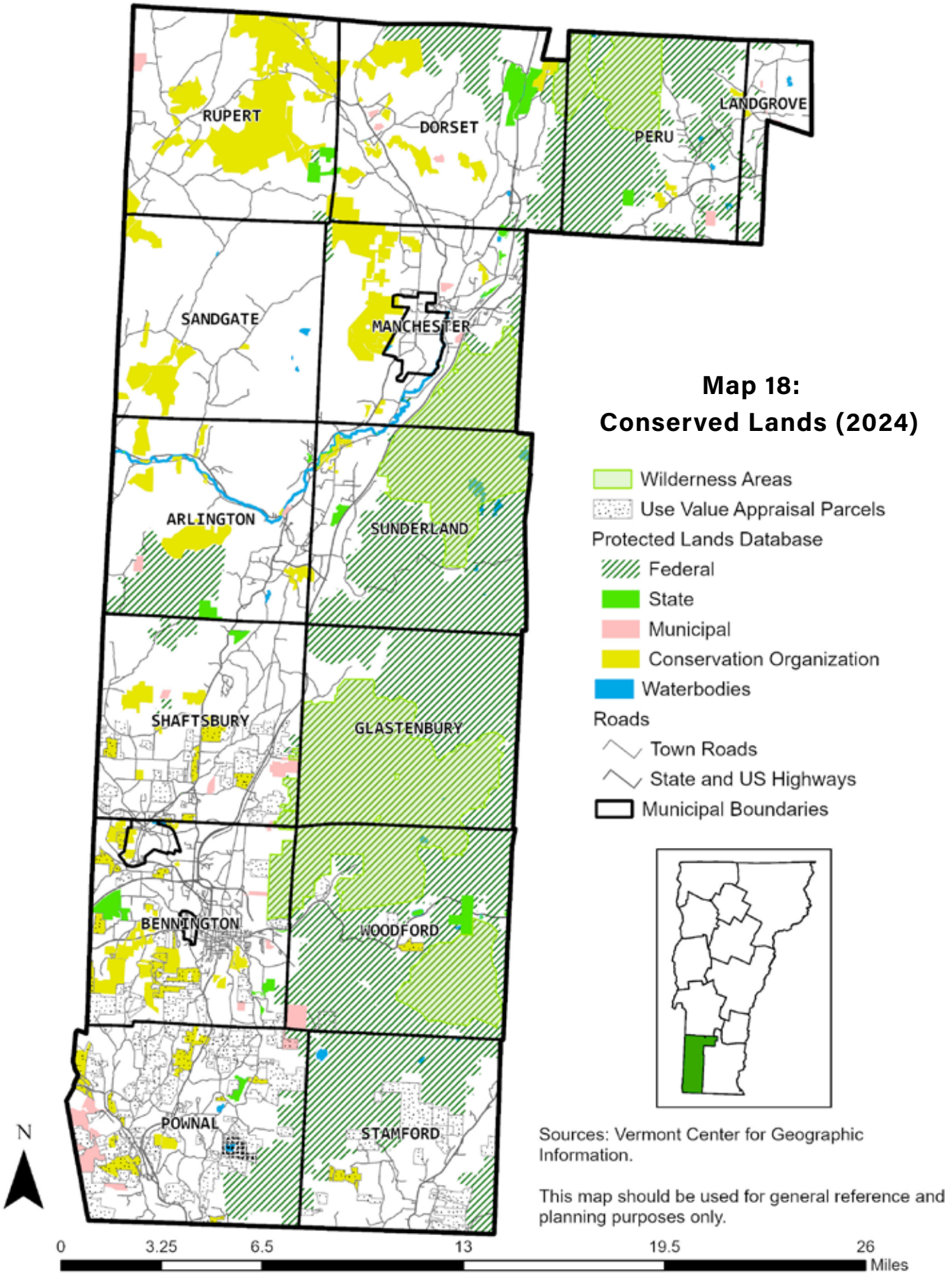
Another concern regarding forested lands in the region, and Vermont as a whole, is forest fragmentation. While Vermont has seen the state largely reforested in the last 100 years, development outside of downtown and village centers could fragment forest lands. This type of fragmentation occurs incrementally, until

An owl rests on a street sign in Landgrove. Photo credit: Town of Landgrove

eventually the contiguous forest is reduced to scattered and isolated forest islands surrounded by land uses that threaten the health, function, and value of these forests as animal and plant habitat.

A healthy forest pattern is one in which an area's largest forest blocks connect to one another via smaller forest blocks and riparian areas. Such continuity can help sustain viable populations of native plant and animal species for future generations and can help an ecosystem withstand and recover from catastrophic events like storms or wildfires, support breeding populations, and provide habitat for species sensitive to human disturbance.

Habitat connectors refer to land or water that link larger patches of habitat within a landscape to allow for the movement, migration, and dispersal of animals and plants. They can be a forest block, riparian area, or a specific road crossing that wildlife repeatedly use. Without connectors, habitats become fragmented ecological islands that cannot



Map 18: Conserved Lands (2024)

- Wilderness Areas
- Use Value Appraisal Parcels

Protected Lands Database

- Federal
- State
- Municipal
- Conservation Organization
- Waterbodies

Roads

- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Peru Peak Wilderness is part of the Green Mountain National Forest.
Photo Credit: BCRC

sustain wildlife, leading to long-term declines in biodiversity and ecosystem health.

Highest priority interior forest and connectivity blocks are considered to be the highest priority because of their interior or core forest conditions (Forest Blocks) or because of their connectivity function (Connectivity Blocks) (see Map 17: Interior Forest and Connectivity Blocks (2024)). These areas are critically important to create enough connectivity among populations of single species, allowing for genetic exchange between wildlife populations.

In all forested lands throughout the region—actively harvested forests and areas of protected natural resources—municipalities should embrace best practices in limiting and/or prohibiting development that could lead to forest fragmentation.

Rural Conservation

"These are areas of significant natural resources, identified by regional planning commissions or municipalities based upon existing Agency of Natural Resources mapping that require special consideration for aquifer protection; for wetland protection; for the maintenance of forest blocks, wildlife habitat, and habitat connectors; or for other conservation purposes. The mapping of these areas and accompanying policies are intended to help meet requirements of 10 V.S.A. chapter 89."

Municipalities affected: All municipalities

The Bennington region's natural resources are deeply valued by the community and should continue to be protected. The regional Rural Conservation land use area comprises the most extensive land use area in the Bennington region, with more than 210,000 acres total, or 60% of the region's total land area. This area includes the remote and rugged lands of the Green and Taconic Mountains, as well as isolated valleys such as Black Hole Hollow in Arlington, Shaftsbury Hollow, the Kelly Stand in Sunderland, and multiple hollows in Peru (see Map 18: Conserved Lands (2024)).

Upland Forests

Uplands forests are one of the areas most notably included in the Rural Conservation land use area. Most towns in the region have zoned these areas as "Forest," "Forest and Recreation," or "Forest Conservation" districts where most permanent development is either prohibited or allowed only in certain areas on very large lots with strict environmental controls. Such stringent regulations are

A rural farmstead in Bennington
Photo credit: BCRC

appropriate because of conditions characteristic to these primarily upland forest areas: steep slopes, high elevations, and shallow soils predominate. Year-round roads and structures designed for sustained use are largely absent, and population centers and public services are quite distant.

Conservation of these forest resource areas protects important groundwater recharge areas and sources of clean surface waters while helping to prevent soil erosion and downstream flooding. The region's upland forests are critical to its scenic character and provide a natural backdrop to rural valleys, farmland, and historic settlements. These remote areas also contain critical wildlife habitat and important archaeological sites and resources that should be protected from incompatible development.

The United States Forest Service is the predominant land holder in the upland forest area, particularly in the Green Mountains. The Green Mountain and Finger Lakes National Forests, with a regional office in Mendon and a ranger station in Manchester, oversees management of these lands. The

Green Mountain National Forest Plan stresses multiple uses of upland forest areas, including timber production, wildlife habitat, wilderness preservation, and recreational uses. The US Forest Service seeks input from local officials and the BCRC when developing management plans and implementation projects, and when identifying parcels suitable for acquisition.

Numerous outdoor recreational activities benefit from the region's extensive forest areas. Hiking, camping, hunting (including camps for hunting or other occasional use), fishing, cross-country skiing, snowmobiling, and horseback riding are a few of the many recreational activities that are appropriate in the region's forested lands. Limited commercial natural resource-based recreation facilities (e.g., campgrounds, cross-country ski centers, alpine ski trails) may be appropriate in areas with adequate access roads. Such facilities also may include lodging and other commercial and recreational facilities associated with carefully planned national or state parks.

Particular care must be observed in areas above 2500 feet in elevation to avoid damage to fragile environments and ecosystem. Lands 2500 feet or more above sea level (all of which are included in the Rural Conservation land use area) demand special attention. In addition to the limiting characteristics noted above, lands at such high elevations are very fragile because of a relatively cold and moist climate, shallow, poorly drained, and easily eroded soils, and the presence of delicate ecological communities.

Scenic Resources

The scenic quality of the landscape is one of the region's most important assets. The visual appearance of the area's natural settings and the quality of life that it represents is important to residents, tourists, businesses, and the environment alike.

Many individual factors come together to create each municipality's special visual landscapes. These "scenic elements" reflect characteristics that are unique to each town and village and features that are widely recognized as adding visual interest to a landscape.

A number of landscape features are particularly sensitive to change, among them: views across open fields, prominent ridgelines or hillsides, and historical buildings, districts, and gateways to those districts. One area for municipalities to focus on is regulations around scenic views. The towns of Bennington and Landgrove maintain specific regulations of scenic viewsheds.

Many of the strategies to protect the region's working lands from sprawl also overlap with actions to protect the region's critical natural and scenic resources. Collaborating with conservation organizations to acquire properties—or secure conservation or scenic easements on properties with particular scenic significance—could advance these goals. Also, land use and development regulations that require clustering and strategic siting of new development to the greatest extent practicable may preserve forests, waterways, and wildlife connections, in addition to scenic hillsides.

Groundwater and Wetlands

The region counts substantial groundwater resources among its natural resource endowment. These resources are key to maintenance of the area's plants and wildlife, as

well as human activity. Most municipal water systems in the area rely on ground, rather than surface, water resources to provide their residents with drinking water. The western slopes of the Green Mountains in particular are the major source for many of these systems, while some—including Manchester—maintain wellheads in valley bottoms and others source water from the eastern slopes of the Taconic Mountains.

Wetlands constitute the most common instance of Rural Conservation mapping on the Future Land Use map. Only wetlands greater than 5 acres are mapped as Rural Conservation, while smaller wetlands are mapped alongside their adjacent FLU areas owing to substantial uncertainty in the location of small wetland areas. Wetlands greater than 5 acres are present in every municipality in the region. Wetland areas provide important wildlife habitat, serve as habitat connectors between forest blocks, and provide important flood storage capacity. Of note are the unique "Class 1" Dorset Marsh wetlands in West Dorset, which are of particular natural significance. Towns maintain wetlands protection regulations which typically require a 50-foot buffer from wetlands, and these areas are subject to state permits.

Rural General

"These areas include areas that promote the preservation of Vermont's traditional working landscape and natural area features. They allow for low-density residential and some limited commercial development that is compatible with productive lands and natural areas. This may also include an area that a municipality is planning to make more rural than it is currently."

Municipalities affected: All except Glastenbury

Low-density, rural residential areas are widespread throughout the region—every municipality but Glastenbury can identify some land that balances the uses of limited residential and commercial development with the preservation of working lands and natural resource areas.

While new development should be directed to established centers and villages, some development has occurred, and will continue to occur, in rural areas outside of centers and growth areas. Such growth must be planned to avoid impacts on the region's rural character and environmental quality and must not result in excessive costs to municipalities.

Existing Rural Development

Historically, rural homesteads were established in conjunction with farms, sawmills, or other businesses associated with the working landscape. In recent decades, residential subdivisions have created new concentrations of settlement in rural areas. These developments are generally entirely residential, with self-contained road networks and on-site wells and septic systems. (Some subdivisions, particularly those with multi-unit or

A historic home in the Rural General area of Shaftsbury
Photo credit: BCRC

clustered units, may have community water supplies and wastewater disposal systems.) Subdivisions in rural areas range in size from a few to several dozen lots and may consist of single-family homes on parcels of one to ten or more acres, clustered single-family homes on smaller lots, or multi-unit condominiums. A few examples of the many rural subdivisions in the region include Dorset Orchard (Dorset), Bromley Brook Woods (Manchester), Wilcox Road (Arlington), the Bacon Hollow/Flynn Hollow area developments (Sunderland), and Hidden Valley (Shaftsbury). Subdivisions must be carefully planned to provide a desirable living environment for residents and to ensure that the rural character and natural resources of the area are protected. In areas containing important natural resources, including productive agricultural soils, proposals for residential developments must retain the integrity of those resources.

Significant amounts of scattered development in remote areas with poor access to town centers can be avoided by promoting development in and around centers and by using regulatory and non-regulatory techniques to maintain rural open spaces. In addition, municipal plans and bylaws can be structured to require that new developments in rural areas reflect historical settlement patterns. New subdivisions can be planned to incorporate the positive characteristics of earlier rural settlements, such as community identity, public open spaces, and preservation of important resources. Many of these objectives can be realized by clustering lots to create a hamlet-type character around the homes, while setting aside a portion of the project area aside as open space reserved for agriculture, forestry, or public recreation. In considering requirements for setting aside lands, towns should consider the effect these lands will have on future infill development opportunities to discourage disconnected "leapfrog" subdivision development. Such clustered developments are economically efficient because roads and other infrastructure are less extensive or and therefore less costly to construct and maintain than conventional subdivisions.

Properly planned residential development may be developed at overall densities of up to two acres per dwelling unit in valley areas where there are few physical or economic impediments to growth. Rural developments also must comply with local and state regulations pertaining to water supply and wastewater disposal to ensure protection of public health and the environment. In any case, rural

A large home in a rural area of Manchester
Photo credit: BCRC

development must not be widely scattered throughout the countryside but should occur as relatively compact and cohesive units that serve to reinforce, rather than to replace, the region's rural character.

Rural Infill / Sprawl Repair

Infill development—or building on vacant, underused land within existing developed areas—allows for growth without creating substantial demands for new services. Most development in these areas consists of housing, although the Rural General land use area encompasses many types of existing developed areas. Outside of centers and their surrounding growth areas, these areas are the most preferred for future housing development, which may be accompanied by home-based businesses.

A key objective for planning in Rural General areas is to allow for the gradual, planned intensification of use in order to "repair" sprawl. This can be done by incorporating existing development into nearby town and village centers, or by transforming existing rural development into center- or hamlet-style development. Where Rural General areas lie just beyond the reach of existing utility systems, they are good candidates for future remapping to Transition or Planned Growth Areas, acknowledging that utilities extension may be speculative or decades into the future. Similarly, some areas in Rural General have elements that could be the nucleus of future center-style development, but lack key factors like utilities or civic infrastructure. This can include areas where residential development surrounds a general store or other commercial asset, but lacks civic infrastructure nearby or a historic hamlet to center the area. In both cases, there is reason to encourage housing development on or adjacent to existing developed areas, particularly along existing paved municipal or state roads.

Two of the most common methods of rural infill are the use of Accessory Dwelling Units (ADU) and Planned Residential Development (PRD). Accessory dwelling units are the simplest method of rural land use intensification, and are already universally allowed where residential development is allowed, per Act 179 passed in 2020. ADUs are fundamentally limited by water and wastewater capacity of properties, but are often viable on rural lots where onsite septic soil ratings are Class 2 or better and existing wells have excess capacity. This is true on lots as small as 1-2 acres, typical of many existing developed areas in the Rural General mapping category. Planned Residential Developments can play a key role in sprawl repair where they are used to allow development between existing disconnected rural subdivisions. These projects can be used to knit existing rural developments together, "repairing" sprawling development into areas that encourage pedestrian and cycling

circulation, allow access to rural commercial uses, and potentially facilitate future utilities expansion or connection.

Home-based businesses / accessory commercial

Occupations that are customarily practiced in residential areas, and which do not affect the character of those areas, are a common form of small-scale commercial use in rural areas. Small professional offices, antique shops, and craft studios are examples of such "customary home occupations." These home-based businesses are protected by state law, and most municipal land use regulations (i.e., zoning) allow them and clearly define the parameters within which they may operate. A key growth area for home-based businesses is rural retail, which may include home-based bakeries and stands selling products of home agriculture. It is important that municipalities understand the limits of rural retail businesses and set a precise definition in their zoning bylaws. As these businesses are highly sensitive to regulatory burdens, allowing for limited and well-defined onsite retail activities by right, rather than as a conditional use is recommended.

Other traditional rural businesses that are often co-located with rural homes are small building trades and property management businesses. These often consist of a primary tradesperson or property manager who may employ a small number of other individuals, disproportionately including spouses and other relatives. These businesses include carpenters, plumbers, electricians, landscapers, and excavators or small-scale construction companies. These businesses play an important role in the local economy, and the availability of trades and property management services is a necessary precondition for the region achieving its housing targets and maintaining that housing, once built. Local bylaws unevenly regulate these types of businesses, leading to a substantial fraction of such businesses not seeking permits from municipalities. Like rural retail, these businesses are sensitive to conditions imposed during conditional use review, particularly hours of operation and those related to employee parking. Improved clarity in zoning bylaws, including allowing trades businesses as a permitted rather than conditional use under certain pre-approved rules, would encourage more trades and property management businesses to obtain legal permits and encourage the location of these businesses in rural areas where what nuisances they may create are attenuated.

Rural Commercial

A limited amount of commercial development, properly planned and sited, can be accommodated in rural areas. The "country store" is, after all, a characteristic feature of rural Vermont. Although shopping centers (as defined the Landscape and Character (Growth) chapter) are not appropriate outside of centers, small general stores, service stations, and similar uses that provide goods and services for nearby residents may be located in rural areas.

Small-scale or low-density lodging accommodations catering to outdoor recreation-oriented tourists may also be appropriate in rural areas. Municipalities should limit the size of such establishments to prevent a proliferation of scattered commercial development that does not serve the needs of the community.

Skiers at Bromley Mountain in Peru.
Photo credit: BCRC

In the past, more extensive commercial development was planned for and sited in certain rural areas that lie alongside principal state highways. These areas are found in current or former "roadside commercial" zoning districts that were established specifically in response to a perceived need to cater to tourists traveling by car.

There appears to be an increasing demand for rural event venues such as wedding barns, inns on working agricultural lands, and similar uses. Hill Farm Inn in Sunderland and Hildene's newly expanded celebration venue, and the recently permitted expansion of Boorn Brook Farm in Manchester are just a few examples in the Bennington region. All of these outdoor recreation-based developments are appropriate and economically important land uses in rural and other areas characterized by open space and low-density development. The associated commercial and residential uses complement the principal recreational uses and are also appropriate in these areas. These ancillary uses, however, must remain in scale with and in close physical proximity to the primary use. Secondary development associated with these areas should never lead to sprawl or growth patterns that adversely affect the viability of important natural resources or the vibrancy of villages or downtowns, or result in high costs to local governments.

Recreation

With its beautiful mountain slopes, attractive villages, and proximity to metropolitan areas, southern Vermont is an important recreation destination. Ski areas, golf courses, and other outdoor recreation centers are important forms of development in the region's rural areas.

Southern Vermont is home to several downhill ski areas, including one in the Bennington region, Bromley Mountain in Peru. Such major alpine centers include significant levels of recreational, commercial, and residential development. Due to the relatively greater intensity of this development, this type of land

use is discussed in more detail below, in the ***Resource-Based Recreation*** section.

The region is home to two cross country skiing centers—Prospect Mountain in Woodford and Wild Wings in Peru. These facilities have extensive trail systems and base lodges, but relatively little other commercial or residential development. Other facilities may also groom cross-country ski trails for public use, such as Hildene in Manchester, and the Dorset Field Club, which allows free use of the groomed trails to the public.

Several golf courses throughout the region are located in rural areas, or constitute more low-density land uses within their municipalities. Other important outdoor recreation centers that include some level of land development in rural areas include the Merck Forest and Farmland Center in Rupert, the Equinox Preserve and Hildene in Manchester, and the region's three state parks, in Dorset, Shaftsbury, and Woodford. Golf courses, cross country ski centers, and other outdoor recreational centers represent an economically viable means of maintaining rural open spaces with little secondary development. Expansion and development of new outdoor recreational centers such as these are consistent with the regional land use plan provided impacts to existing important or critical natural resources are avoided or appropriately mitigated.

Resource-based Recreation

"These areas include large-scale resource-based recreational facilities, often concentrated around ski resorts, lakeshores, or concentrated trail networks, that may provide infrastructure, jobs, or housing to support recreational activities."

Municipalities affected: Peru

The region's only Resource-based Recreation area centers on Bromley Mountain in Peru, including its associated ski village and the adjacent general store. The area is a destination resort, containing a large and diverse array of land uses. The resort has developed a number of attractions and facilities to promote year-round use, economic activity, and employment. These activities are economically beneficial to the region and should be carefully planned to complement the natural and built environment and the area's scenic landscape. The Town of Peru has developed specific ski area planning guidelines and regulations in its municipal plan and land use regulations to ensure that development at the resort is consistent with town goals. Future growth at Bromley Mountain, compliant with local plans and bylaws, is consistent with the regional land use plan. The focus of alpine ski area development in the region should remain on the expansion of existing facilities (Bromley and nearby areas such as Stratton and Mount Snow) rather than development of new ones.

The covered bridge in West Arlington is a scenic destination in one of the region's Hamlets. Photo credit: Town of Arlington

Hamlets

"Small historic clusters of homes and may include a school, place of worship, store, or other public buildings not planned for significant growth; no public water supply or wastewater systems; and mostly focused along one or two roads."

Municipalities affected: Arlington, Landgrove, Sandgate, Shaftsbury, Sunderland

Clarksville (Landgrove), Sunderland Borough, West Arlington, Shaftsbury Hollow, West Sandgate

The hamlets scattered throughout the region are important remnants of historic development. These small settlements—consisting of a small cluster of homes and perhaps a school, church, store, or some other public building—sprang up at many rural crossroads and other locally convenient sites. Today, the remaining rural hamlets are important as focal points for local communities and contribute to the diversity of the rural landscape. For the most part, hamlets have no public water supply or sewage disposal systems, and most of the buildings are located along one or two roads. The BCRC also considered whether there remains a sense of a hamlet as a distinct place in its mapping of these locations. In recent years three hamlets have gained village center status, including Center Shaftsbury, East Rupert, and Sunderland.

Environmental Benefits + Burdens

Residents have good access to land when they have the ability to engage with the surrounding landscape in meaningful and practical ways. This includes open spaces, working lands, or conserved areas that communities can steward and use to support their livelihoods and enjoy for its recreational/scenic qualities.

Regional Context

Land conservation is an important strategy in Vermont for protecting forests, wildlife habitats, and clean air and water, as well as protecting the scenic, rural character that the state is known for. Many conserved lands also provide recreational opportunities for the region's residents and visitors. Conserved lands should be well-distributed throughout the region, in both rural and more urbanized areas, so that their benefits can be widely enjoyed by everyone.

Many Vermonters earn a living from the land as farmers, foresters, and maple sugar cultivators, however, access to working lands is not equal across the state or the Bennington region. In recognition of this, the Vermont legislature enacted Act 182 in 2022 which created the Land Access and Opportunity Board (LAOB). The mission of this board is "to recommend new opportunities to improve access to woodlands, farmland, and land and home ownership for Vermonters from historically marginalized or disadvantaged communities who continue to face barriers to land and home ownership." The LAOB is supported by the Vermont Housing & Conservation Board. Cultivating a new generation of farmers in the region, as well as

supporting existing local farms, could help generate more affordable local food in the region, and create economic opportunities for new and existing residents.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Environmental Benefits + Burdens

There are many benefits to rural living including scenic views, less noise, and less pollution. But residents of these areas are also farther away from services and amenities such as healthcare facilities, grocery stores, and public transit. The sprawling nature of rural communities and the presence of fewer public gathering spaces can also lead to social isolation and disconnection.

Regional Context

In the Bennington Region, approximately 25% of residents live in a rural town of fewer than 2,500 people. The distance from amenities and services, and social isolation can be especially significant for older people, disabled people, and those without a car. Increased connectivity between rural residential areas and service centers as discussed in 'Rural Infill/Sprawl Repair' can help mitigate these issues while preserving the rural character that residents value. Rural communities can foster social connection through the creation/revitalization of community centers and events that bring people of all ages together. For more on community spaces and programs see the Community Life chapter.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

BCRC staff are available to provide technical assistance, attend local meetings, and otherwise help municipalities better plan for rural areas and protection of natural resources. Staff can review proposed bylaw and plan changes, provide model language, and undertake substantial projects to revise plans in accordance with regional goals and policies and state planning objectives.

Rural Land Use Goals and Actions

Goals

- Maintain the region's general character of compact centers surrounded by sparsely-developed rural lands
- Work to repair existing sprawling and linear development by supporting development that integrates such areas with growth areas and/or connects low-density rural areas
- Support working lands by allowing appropriate and traditional rural land and resource-based uses
- Promote conservation of areas far from developed centers, in areas with high elevation and steep terrain, river corridors, floodplains, and wetlands

Actions and Policies

Rural Agricultural and Forestry

The BCRC . . .

- Encourages development in and around existing village and urban centers to relieve the pressure to develop in outlying agricultural areas
- Supports municipal land use policies and regulations in rural areas containing productive soils that permit those uses, density levels, and development patterns that will not detract from rural character or substantially reduce the viability of current and future agricultural use
- Supports local zoning and subdivision regulations that provide for innovative practices such as transferable development rights and planned unit developments that require or encourage preservation of important agricultural soils
- Encourages member municipalities to promote the Use Value Appraisal program and conservation and preservation programs with local and statewide organizations as viable options for farmland preservation
- Shall assist municipalities to make sure their land use regulations clearly comply with updated state laws about accessory on-farm businesses and shall provide relevant language to member planning commissions
- Shall work to make local producers aware of funding opportunities from the Vermont Agency of Agriculture, Food, and Markets, and foster connections between local farmers and local and regional businesses (especially restaurants and stores) to bolster financial viability of farming operations
- Encourages member municipalities to adopt land use regulations that require subdivision and development plans and/or Planned Residential and Planned Unit Developments that preserve agricultural resources, preserve open space, protect scenic resources, and efficiently provide public services in areas where the future land use map depicts this land use category.

Rural Conservation

The BCRC . . .

- Shall support municipal plans to identify and map wildlife habitats, agricultural lands, scenic ridgelines, and other scenic resources, and establish appropriate guidelines for protecting those resources
- Supports the efforts of conservation organizations to preserve lands containing critical or vulnerable natural resources, such as mountain ridgelines, headwaters, wetlands, river corridors and flood hazards, surface waters, and forest blocks and wildlife habitat connectors in areas the future land use map depicts in this land use category
- Encourages municipalities to identify scenic resources that are most important to them, and develop protections accordingly, as part of the municipal plan development process

Rural General

The BCRC . . .

- Discourages zoning that allows commercial uses that generate significant traffic volumes along sections of highway that have structural limitations because of poor visibility, steep grades, poor alignment, or other factors
- Encourages local zoning regulations to include standards that will ensure that existing roadside commercial areas do not deteriorate into unsafe or unsightly "strip" developments. These standards should include provisions for adequate and efficient vehicular parking, ingress, and egress; parking lots located to the rear or side of buildings; minimum lot size and road frontage; building siting and design; restrictions on signs, lighting, and other site structures; and landscaping.
- Supports a standard rural zoning district lot size of one acre, and never more than two acres in areas where Rural General is the predominant future land use category

Supports municipal bylaws that allow accessory dwelling units in rural areas at sizes larger than Vermont's statutory minimum, and opposes owner-occupancy requirements for such units

Does not oppose allowing a second accessory dwelling unit per lot in zoning bylaws, particularly in areas where onsite septic suitability ratings are Class 2 or better

- Supports municipal definition of the types of businesses appropriate to co-locate on residential lots and the categorization of businesses that meet these criteria as a permitted rather than conditional use, including but not limited to food businesses serving off-site customers, food businesses with retail stands, trades businesses serving off-site customers, and property management businesses

Supports additional housing and mixed-use developments in areas where Rural General is the predominant future land use category where such developments act to complement or extend existing Village Center, where they lie between centers and existing rural subdivisions such that they would act to tie existing subdivisions into existing centers via infill development, or where such development add depth to existing strip development

Discourages new roadside commercial designations, and supports municipalities working to remap such existing zoned areas to their general "rural" or "rural residential" zoning districts, add depth from the associated road, and transform them into "village center" districts if a Village Center is depicted on the FLU map

- Provides technical assistance on best practices in regulation of traditional rural nonresidential uses including construction, trades, retail, and other businesses.

Living and Growing

Landscape and Character (Growth)
Housing
Economic Development

Landscape and Character (Growth)

The Bennington region's commercial and civic centers are crucially important places for gathering, defining each municipality's identity, and directing future growth. All of the centers identified throughout the region are anchored by a historic site or settlement; the structures that are standing in each of those centers today—whether it is one schoolhouse or ten civic institutions—reflect generations of use and confer a special significance on those places. Regional Landscape

Regional Landscape

In 2024, Act 181 changed the state's designation programs, which are now simplified into two categories: centers and neighborhoods. The boundaries for those areas are established through the Future Land Use map included in this regional plan, which was developed in conversation with municipalities and is subject to approval by the statewide Land Use Review Board (LURB). Within the designated centers, there are three steps, indicating beginner, intermediate, and advanced centers. Each step allows the municipality to access an increasing number of benefits. This shift in the designation process has allowed for the recognition of more historic centers in some of the region's smaller municipalities.

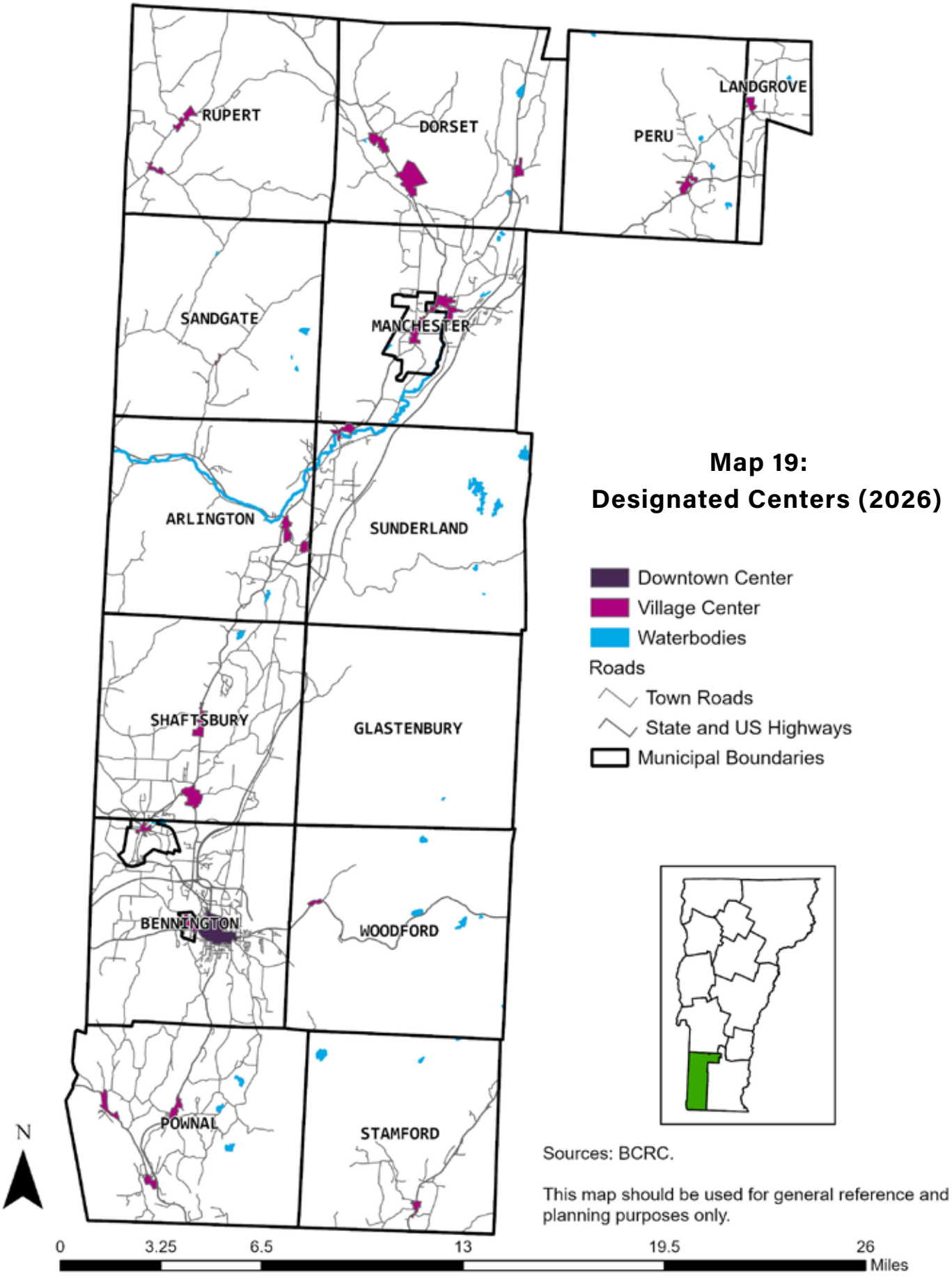
The regional FLU mapping process also recognizes the prevalence of historic settlement, civic institutions, and mixed-use centers throughout the region, even in some of the most rural towns. This recognition reinforces one of the central objectives of both state land use policy and this regional plan—to direct most new growth into downtowns, village centers, planned growth areas, and village areas, while preserving the open rural lands surrounding and between those more urban centers. Within the umbrella category of centers, this plan distinguishes between downtown and village centers (as does Act 181), and further between growth-oriented and historic and civic-oriented village centers. This distinction prioritizes growth in the parts of the region best suited for increased density, while continuing to recognize smaller centers and recommending an appropriate scale of growth there.

All municipalities in the region except Glastenbury have at least a Village Center

What did we learn from the community?

Almost 70% of survey respondents identified village centers as the best places for our communities to grow; followed by 60% saying downtowns

Community values historical architecture and sites, like the Bennington Battle Monument



Map 19: Designated Centers (2026)

Downtown Center
Village Center
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries

Sources: BCRC.

This map should be used for general reference and planning purposes only.

Route 7A passes through the Village Center of Manchester Village which includes several businesses such as the Equinox Resort. Photo Credit: BCRC

(see Map 19: Designated Centers (2026)). Glastenbury merits special mention here, as the Future Land Use mapping criteria set a high bar for a town to not have a mapped Village Center. But Glastenbury is a special place. As a disincorporated town, the municipality is under state oversight, and is home to less than 10 people. It has no civic infrastructure and only one road. As such, Glastenbury lacks the civic infrastructure to warrant a mapped center or other growth-oriented area.

The designated center and neighborhood boundaries are also important for the municipalities seeking exemptions from Act 250 in their developed areas. In addition to those mapped areas setting the boundaries for designated areas going forward, the downtowns, village centers, planned growth areas, and village areas are eligible for consideration as Tier 1B jurisdiction, which exempts mixed-use projects and housing projects of 50 or fewer units on sites of ten acres or less. Downtowns and planned growth areas are also eligible for consideration as Tier 1A jurisdictions, which exempts all subdivisions, developments, or changes to existing permitted projects from Act 250 permitting in applicable areas. Instead, municipalities with Tier 1A jurisdiction will assume the responsibility of adding existing Act 250 permit conditions to

municipal land use permits. Requests for Tier 1B are submitted to the LURB by the regional planning commission as part of the regional planning approval and adoption process. To establish Tier 1A jurisdiction, a municipality must apply directly to the LURB.

These exemptions are critical in the six municipalities in the region that have been planning for increased housing development in and around their municipal centers—Arlington, Bennington, Manchester, North Bennington, and Shaftsbury.

In addition to designated centers, Planned Growth Areas, and Village Areas, the region includes Transition/Infill areas and Enterprise areas. Transition/Infill areas are areas that expansion of water and/or wastewater utilities are planned or likely in the future. While relatively few in number, they represent important areas to plan for future growth. Enterprise areas represent a combination of active mines and areas reserved for industrial uses that provide key resources and jobs. Due to the concentration of environmental and nuisance burdens in these areas, they are generally intended to be incompatible with housing except where carefully planned or after economically recoverable earth resources have been exhausted.

Downtown and Village Centers

"These areas are the mixed-use centers bringing together community economic activity and civic assets. They include downtowns, villages, and new town centers previously designated under chapter 76A and downtowns and village centers seeking benefits under the Community Investment Program under section 5804 of this title. The downtown or village centers are the traditional and historic central business and civic centers within planned growth areas, village areas, or may stand alone. Village centers are not required to have public water, wastewater, zoning, or subdivision bylaws."

Downtown Center

Municipalities affected: Bennington

Bennington's downtown center is the most established mixed-use area in the region. Anchored by a commercial core with strong civic and historic elements, this center is also supported by a downtown organization (the Better Bennington Corporation) and regulated by design review in the central historic district and form-based code throughout the downtown and surrounding areas. While Manchester's robust and lively center was considered for a Downtown designation, it does not quite meet Act 181's criteria at this time.

Bennington's downtown is served by public water supply and wastewater disposal systems, allowing for greater concentrations of residential and commercial/industrial development than is possible in most other parts of the region. Businesses in the downtown provide employment and a broad range of goods and services to people in the region

A mix of housing and commercial buildings in Bennington's Downtown Center
Photo Credit: BCRC

more broadly. As the largest regional population center, Bennington is home to a relatively large local government and important cultural and institutional sites and activities.

Village Centers

Municipalities affected: Arlington, Dorset, Landgrove, Manchester, Manchester Village, North Bennington Village, Old Bennington, Peru, Pownal, Rupert, Sandgate, Shaftsbury, Stamford, Sunderland, Woodford

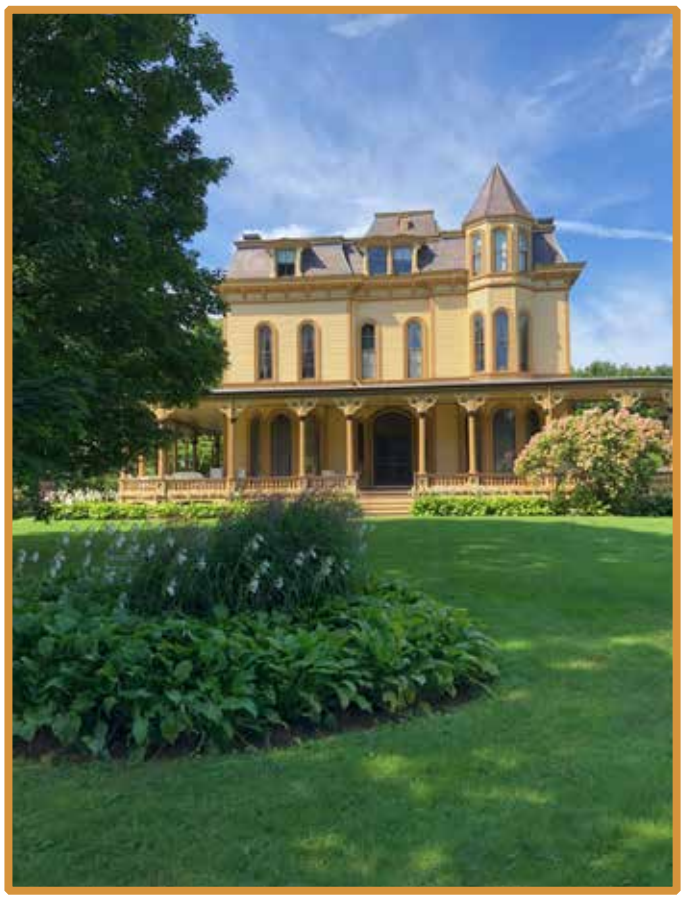
The region's village centers are vital centers of community life in each of their municipalities. Growth-oriented village centers are key to properly focusing growth and development within each town and village. Historic and civic-oriented village centers provide rural communities with a unique sense of place and contribute to the historic and scenic quality of the entire region. While differing in size and extent, village centers generally include compact development with residential densities higher than the surrounding countryside, some commercial development, and important community facilities such as town halls, churches, schools, and post offices. A small network of public roads is generally present and some, but not all, villages are served by

a public water supply system and, less commonly, by a public sewer system.

Act 181 reconfigured the Village Center designation to apply more broadly than the previous Village Center designation program. This designation affords designated village centers with significant benefits in terms of historic preservation funding, enhanced opportunities for grants and tax credits, and other community development benefits and financial incentives. This plan identifies Village Center land use districts in towns throughout the region (Map 19: Designated Centers (2026)). Factors in mapping included local road network and availability of public utility infrastructure, relatively dense development and smaller lot sizes, a mix of land uses, and a distinct separation from surrounding rural areas.

For the purposes of this plan, the BCRC divides Village Centers into two categories. Growth-Oriented Village Centers are typical of larger regional towns. They typically have one or more public utility services which afford capacity for growth, and their governments typically have greater capacity, including a full-time town manager, town administrator, or board executive assistant. These village centers are also typically larger in geographic size.

Historic & Civic Village Centers are primarily historic and/or civic-oriented are predominant in smaller, more rural municipalities. They often have very few commercial establishments, and instead are characterized by municipal and civic structures, like town offices, post offices, schools, historic churches, and other cultural resources. While we distinguish these two types of village centers for explanatory purposes, it is understood that some centers could fit into either category. Where there is debate, we have placed centers in the growth-oriented category. We also note that, respecting Vermont's overriding idea of concentrating development in village centers, no matter the size or constraints, housing targets later in this section do not distinguish between the two village center subcategories.



The Park McCullough Historic Governor's Mansion at the western tip of the North Bennington Village Center. Photo Credit: BCRC

Growth-Oriented Village Centers

Village Centers: Arlington, East Arlington, South Dorset, (West) Dorset, Manchester, Manchester Village, North Bennington, Pownal Center, North Pownal, South Pownal, South Shaftsbury

These areas indicate the centers in most of the larger towns in the region. In all cases, water or wastewater utilities are present or soon planned. All of these centers, except for South Dorset, were previously recognized as village centers in the state's designation program.

The two Arlington centers and two Dorset centers share some similarities. Both towns have made substantial efforts to plan for growth. Arlington acquired the water system serving its centers and has made substantial upgrades, as well as undertaking repeated studies and efforts to find a wastewater solution to facilitate growth. Dorset's efforts focus on planning for housing development in its new South Dorset Village Center, near to but distinct from its historic (West) Dorset Village Center, which will require substantial water and wastewater investments. The proposed South Dorset Village Center is already the site of the town's new town offices, as well as a robust trail network. Both municipalities have also undertaken substantial shared-use path studies and made investments in other civic infrastructure in these centers.

Manchester's Village Center stands out from the group as having water and wastewater, a robust local government, and substantial infill potential. However, the town currently lacks a dedicated downtown organization, keeping it from designation as a Downtown Center. Like Bennington and unlike all other

A mix of commercial and residential uses in the South Shaftsbury Village Center.
Photo Credit: BCRC

village centers, this center is surrounded by a Planned Growth Area, as it has substantial bicycle and pedestrian infrastructure, a robust water and wastewater system, and substantial existing zoned capacity. It also stands out as having a large amount of redevelopment potential for existing commercial sites which have begun experiencing high vacancy rates. The center was expanded southward to encompass civic infrastructure that anchors the town's growth to the south.

North Bennington and Manchester Village have meaningful growth opportunities owing to wastewater systems run by their surrounding towns. Pownal's three village centers have growth opportunities fueled by the wastewater system they share. Similarly,

The entrance to the Skyline Drive road to the top of Mount Equinox in Sunderland Village Center. Photo Credit: BCRC

North Bennington's water system supplies South Shaftsbury and cooperation on water infrastructure is key to future growth in both Village Centers.

More generally, the recent trend in growth-oriented Village Centers is a shift from commercial to residential use. Manchester's outlets have seen substantial vacancies, while retail in other centers has also declined. At the same time, the combination of remote work and shortened delivery times from online shopping has made life in walkable downtowns both more affordable and viable for more people, even with less local retail.

The other key trend is investment in infrastructure to ensure the village centers in the region's mid-size towns remain viable. Each town with a center listed in this section has spent substantial time, effort, and money in recent years to acquire, improve, or add to its water or wastewater system. Each has acknowledged that without these utilities, existing dense clusters of structures will slowly fall out of use as Village Center water and onsite wastewater disposal soils are exhausted or face the need for costly property-by-property upgrades.

A third key trend is study or construction of bicycle and pedestrian infrastructure. Most centers listed in this group have at least one ongoing, planned, or recently completed study to improve bicycle and pedestrian access to its center.

Historic and Civic-Oriented Village Centers

Village Centers: East Dorset, Landgrove, Old Bennington, Peru, Rupert, East Rupert, Sandgate, (North) Center Shaftsbury, Stamford, Sunderland, Woodford

These centers are important civic and historic places in many of the smaller municipalities in the region. This group of centers share many similarities despite substantial variation in their overall nature. Seven of these centers were previously recognized as such by the state's designation program. The four new centers (Landgrove, Old Bennington, Sandgate, and Woodford) recognize historic settlements and important civic and cultural assets, and highlight opportunities for renewed investment in placemaking and limited, context-specific development.

The historic East Dorset center has a water system and formerly hosted the town office, but has limited new growth potential. (North) Center Shaftsbury similarly played a large

Homes in the Pownal Center Village
Photo Credit: BCRC

civic role in the town's history, but growth is hemmed in by preserved farmland and the town has shifted its attention to South Shaftsbury for more intense development.

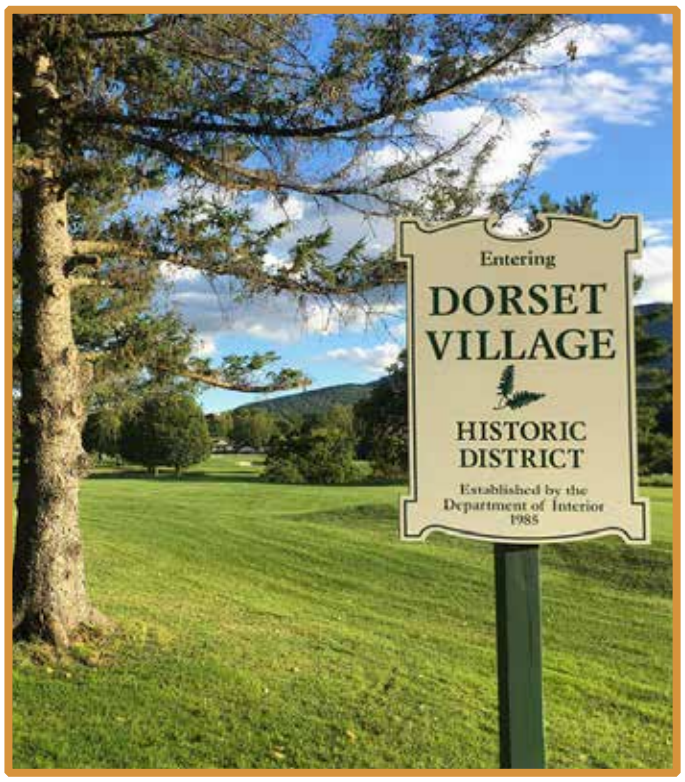
Peru's center is mostly built-out, with remaining developable area mostly mapped in the adjacent Village Area. The Rupert and East Rupert centers constitute the core of a relatively dense area for a town of its size. The town has explored town-led wastewater solutions to reinforce this, invested in adding amenities to its town green, and strengthened connection to the D&H Rail Trail, which connects Rupert to Rutland County and towns in New York. The Stamford and Sunderland centers are centered on state highways, but growth is limited by adjacent wetlands.

Landgrove's village center is anchored by its town hall, the Landgrove Inn, and its new salt shed, but is limited by wastewater capacity and its location in a key scenic vista overlay area. Sandgate's center is likewise anchored by its town hall, as well as a cemetery, and is the smallest Village Center in the region. Woodford's village center houses the town office, a church, and the Bennington water plant but is bound tightly by steep terrain and is mostly in a river corridor. Old Bennington's center has meaningful growth potential but the presence of a currently-expired plan, historic structures, and undevelopable civic properties like the Battle Monument and Old First Church limit growth potential despite the presence of water and wastewater.

A key trend for the historic and civic centers is a focus on building community identity.

Historic main street in Arlington Village Center
Photo Credit: BCRC

Many centers in this group are in towns where the existing civic infrastructure has begun to fray, where town positions sit vacant or projects to reinforce the center need dedicated leadership. Individuals in towns including Rupert, Sandgate, Stamford, and Sunderland have made efforts to bring the community together to build a shared vision that works to give an identity to these independent towns and drive volunteerism. Some municipalities have recently undertaken more robust planning efforts, including Old Bennington, Rupert, Stamford, and Sunderland, while others have come together to update Hazard Mitigation Plans.



Signage welcomes visitors to the Dorset Village Historic District..
Photo Credit: Town of Dorset

Historic Districts and Properties

Preserving the region's historic, archeological, and cultural resources is an important prerogative for the Bennington region. The region's urban centers, villages, and hamlets contain numerous historic structures that reflect the rich history and architectural heritage of its communities. Several historic village centers—Dorset, Manchester Village, Old Bennington, Bennington, North Bennington, and Arlington—have achieved special recognition by being placed on the National Register of Historic Places. In addition, many historically significant structures and sites are found throughout the rural countryside in the region.

Preservation of the region's historic resources has many benefits. The unique historic character of each community provides residents with an important sense of

The historic Walloomsac Inn located in the Old Bennington Village Center. Photo Credit: BCRC

their heritage and link with the past, thus promoting a sense of community identity and pride. The area's historic rural character, in large part attributable to those early sites and structures, is also a key ingredient driving the success of tourism-related businesses in the region.

An important first step in any effort to preserve historic resources is to identify them. Fortunately, the Vermont Division for Historic Preservation, with support from local residents and historical societies, has completed comprehensive inventories of historic and archaeological sites and districts in the region. These inventories document historic sites and architecturally significant structures in several identified historic districts and cover individual sites and buildings throughout the region. Communities may wish to expand upon or refine these inventories so that they better serve local planning purposes.

Regulatory tools can help municipalities preserve historic resources. The Vermont Municipal and Regional Planning and Development Act (V.S.A. Title 24, Chapter 117) enables municipalities to protect their historic resources by designating historic districts and landmarks under their municipal land use and development (i.e., zoning) regulations. When a local historic district regulation is in place, approval of the municipality is required before new construction may occur and before modifications are made to the exterior appearance of an existing structure within the district. Plans involving the demolition or movement of an historic structure are also subject to such local review and approval in these historic districts.

Design review districts, which may be created to give municipalities some control over the appearance of discrete areas of historical, architectural, or cultural significance, or other areas in which there is a concentration of community interest, can also help to protect historic resources and community character. A design advisory board may be created to assist the local planning commission or development review board in evaluating design proposals for new or altered buildings in those districts. Several towns and villages in the region currently have design control ordinances in effect. Performance standards covering the siting and design of buildings in site plan and conditional use review can also support re-enforcement of historic development patterns and forms within these districts. State land use permit review (Act 250) also allows municipal input on the design of major development projects.

Nonregulatory approaches to historic preservation are of equal importance. Local historical societies provide research, documentation, education, and advocacy on behalf of local historic resources and preservation. Developers can be encouraged to incorporate historic structures and important architectural details into their project planning. The adaptive reuse of old buildings that no longer serve their original function is often preferable to the destruction and replacement of those buildings. There are opportunities for historic preservation grants and investment tax credits for developers or property owners who wish to rehabilitate historic structures. The Preservation Trust of Vermont is a valuable partner organization that has worked throughout the region, and state, to protect and revitalize historic structures.

Historic district marker in the Pownal Center Village
Photo Credit: BCRC

Despite the available incentives and regulatory tools, maintaining the viability of historic structures remains a serious challenge in many of our communities. A combination of strategies is necessary to effectively preserve and utilize historic assets.

Planned Growth Areas

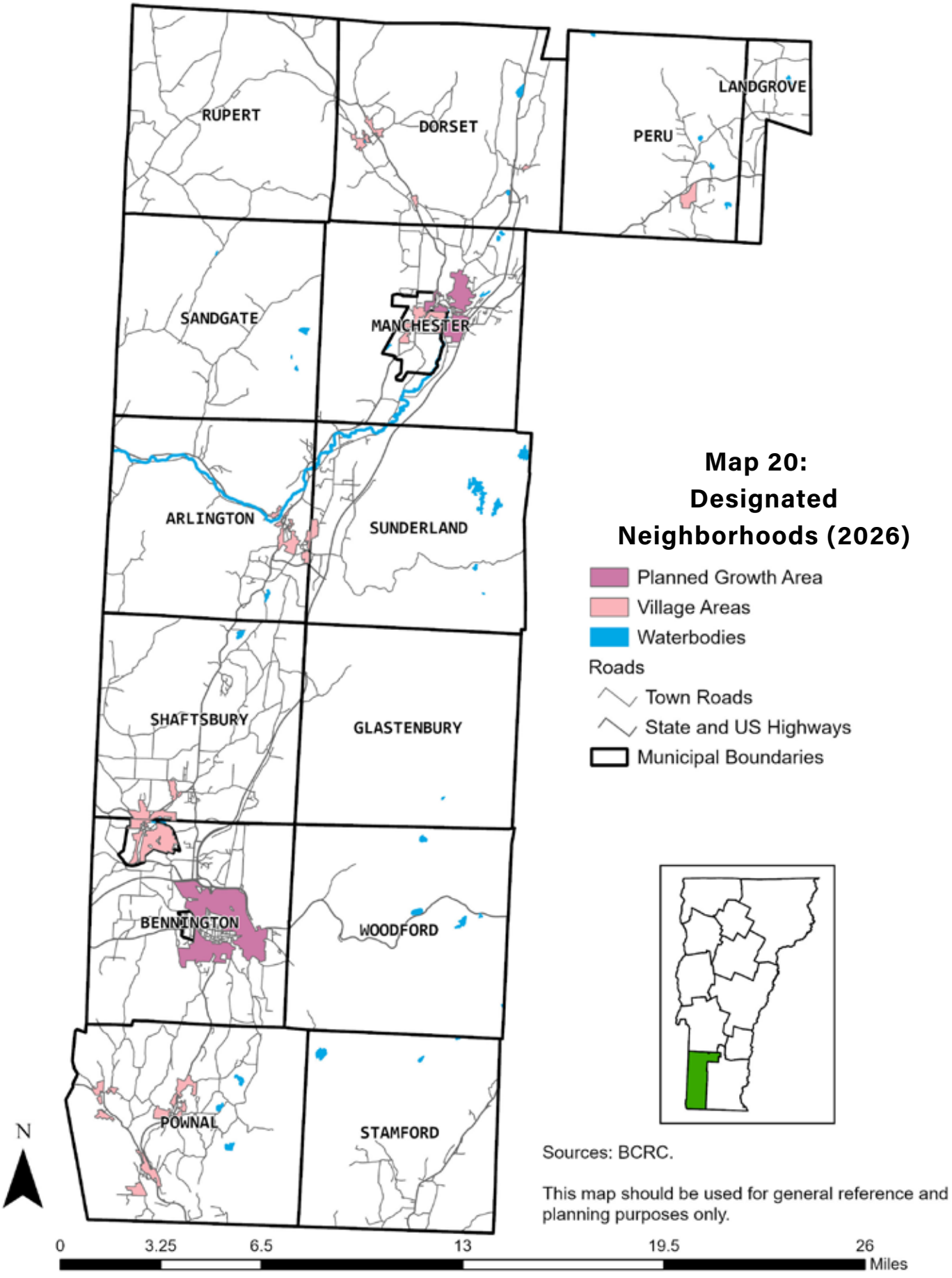
"These areas include the high-density existing settlement and future growth areas with high concentrations of population, housing, and employment in each region and town, as appropriate. They include a mix of historic and nonhistoric commercial, residential, and civic or cultural sites with active streetscapes, supported by land development regulations; public water or wastewater, or both; and multimodal transportation systems. These areas include new town centers, downtowns, village centers, growth centers, and neighborhood development areas previously designated under chapter 76A of this title. These areas should generally meet the smart growth principles definition in chapter 139 of this title and the following criteria:

- (i) The municipality has a duly adopted and approved plan and a planning process that is confirmed in accordance with section 4350 of this title and has adopted bylaws and regulations in accordance with sections 4414, 4418, and 4442 of this title.
- (ii) This area is served by public water or wastewater infrastructure.
- (iii) The area is generally within walking distance from the municipality's or an adjacent municipality's downtown, village center, new town center, or growth center.
- (iv) The area excludes identified flood hazard and river corridor areas, except those areas containing preexisting development in areas suitable for infill development as defined in section 29-201 of the Vermont Flood Hazard Area and River Corridor Rule.
- (v) The municipal plan indicates that this area is intended for higher-density residential and mixed-use development.
- (vi) The area provides for housing that meets the needs of a diversity of social and income groups in the community.
- (vii) The area is served by planned or existing transportation infrastructure that conforms with "complete streets" principles as described under 19 V.S.A. chapter 24 and establishes pedestrian access directly to the downtown, village center, or new town center. Planned transportation infrastructure includes those investments included in the municipality's capital improvement program pursuant to section 4430 of this title.

Municipalities affected: Bennington and Manchester

The region has two substantial Planned Growth Areas, surrounding Bennington's Downtown Center and Manchester's Village Center. Both areas, combined with their associated center, are the key economic drivers of the region and are areas where a disproportionate share of new development in the region is expected to take place.

The Bennington Planned Growth Area (PGA) surrounds its downtown and covers a modestly expanded area from the previous state designated growth center. Manchester's Planned Growth Area is located around its designated village center and previous neighborhood development area (NDA). These state designations provide regulatory, financial, and other incentives to encourage compatible development within their boundaries. The PGA boundaries (see Map 20: Designated Neighborhoods (2026)) were established by delineating the areas surrounding the state



Map 20: Designated Neighborhoods (2026)

Planned Growth Area
Village Areas
Waterbodies

Roads
Town Roads
State and US Highways

Municipal Boundaries

Sources: BCRC.

This map should be used for general reference and planning purposes only.

A residential neighborhood that borders the Downtown Center and Planned Growth Area in Bennington. Photo Credit: BCRC

designated areas that are fully served by municipal water and sewer infrastructure, a roadway network that includes pedestrian facilities that promote walking, and a mix of residential, commercial, industrial, and institutional uses, as well as public open spaces. Both PGAs also include regulated historic and design review districts.

Bennington's central downtown is surrounded by vibrant, mixed-use neighborhoods that offer a variety of residential, commercial, and civic assets. Immediately surrounding the downtown are concentrated residential neighborhoods served by a traditional grid network of streets. Newer, moderate-density residential areas supported by municipal water and sewer services lie further from the downtown, but largely within the town's previous growth center boundary. High-volume commercial activities are found north of the downtown along the Northside Drive and Kocher Drive corridors and adjacent to the Vermont 279 interchange. These include supermarkets, big box retailers, car dealerships, fast food restaurants, motels, and other retailers. This northern area also includes a number of manufacturing plants and two industrial parks, placing many jobs withing walking distance of residential areas along high-quality infrastructure. The varying uses, densities, and characteristics of these neighborhoods in Bennington's compact settlement area

contribute many of the amenities that people love and want to see flourish.

Manchester's Planned Growth Area extends northeast, south, and west from its expanded Village Center. They encompass residential neighborhoods, retail establishments, professional offices, civic spaces, and some light industrial facilities. All areas are supported by municipal water and sewer systems, and existing or capital planned sidewalks or shared use paths. Like Bennington, the area includes a number of properties where substantial development is expected in coming years, allowing the town to make meaningful progress toward meeting its share of the region's housing targets.

Maintaining a compact urban center is an important planning element that is imperative to sustaining and improving the vitality of Bennington, Manchester, and the region. In maintaining neighborhood areas around their centers, Bennington and Manchester are supporting Vermont's traditional land use pattern, as well as smart growth principles, which emphasize creating livable, sustainable, and equitable communities.

In addition to the designated downtown, Bennington's adjacent urban area was recognized as a designated growth center (established in 2008). The Growth Center Program provided incentives for municipalities to plan for growth in and around downtowns, and to preserve the surrounding working landscape. Similarly, in Manchester the areas surrounding the designated village center were recognized as a Neighborhood Development Area; this program encouraged new and infill housing in the area within walking distance of a designated center. Per Act 181, the growth center and neighborhood development area designations will be replaced with the "neighborhood" designation, which is delineated in the Future Land Use Map (see Map 20: Designated Neighborhoods (2026)). This aligns Bennington's and Manchester's land use priorities with state planning goals to promote the development of missing middle and infill housing, new housing, rehabilitated housing, senior housing, and transitional housing throughout their central urban settlement areas to meet established housing targets.

A defining characteristic of the Planned Growth Area is that it is served by both public water and sewer. This provision of public utilities makes development easier throughout these neighborhoods by eliminating the costs of adding wells or septic systems to new residential projects. Additionally, in Act 47 (2023) the state recognized the advantages of developing in areas served by both public water and sewer and established statewide land use minimums for those dually served areas where residential development is already allowed. These statewide changes include a minimum residential density of 5 units per acre, the allowance of 3- and 4-unit dwellings by right, and the provision of density bonuses for affordable housing developments.

Both Planned Growth Areas include portions that are impacted by flood hazard and river corridor areas. Bennington's Downtown was developed on the floodplain and in the river corridor of the Walloomsac River, with a substantial confluence with its Roaring Branch in the northwest corner of the Planned Growth Area. Manchester's Village Center lies at the confluence of the Batten Kill and its West branch, with its southern boundary at its confluence with Bourne Brook. While central

areas of both towns are susceptible to flooding and fluvial erosion, both town centers and surrounding Planned Growth Areas are substantially built out, with major public works that make them areas where infill development remains appropriate. That said, both Planned Growth Areas lie primarily outside of areas of meaningful flood and fluvial erosion risk, and such areas are the preferred location for future development.

While sharing many physical characteristics and functions, the two PGAs also differ in many ways. Bennington has a much larger year-round population than Manchester. Both communities have diverse local economies, but Manchester's historic association with tourism has resulted in a larger number of stores, lodging facilities, and restaurants that cater to people who travel to the area from outside the region. Bennington, on the other hand, includes a higher proportion of businesses that principally serve the population of southwestern Vermont and nearby communities in New York and Massachusetts. This distinction is most apparent along the highway corridors outside the centers, where commercial development in Manchester consists mostly of restaurants and motels and some professional offices. In Bennington (especially along Northside Drive), those highways include shopping plazas with department and grocery stores, furniture stores, automobile parts and service businesses, restaurants, and other uses that provide convenient goods and services for residents. These distinctions may become less pronounced as the Northshire and Southshire work together to jointly market the region's economy and expand tourism, while Manchester focuses its economic development efforts on strengthening local businesses and markets.

Form-Based Land Use Regulations

Form-based zoning was developed to overcome the problems of sprawl created by use-based codes. Form-based code regulates land development with an emphasis on controlling the form of development with less focus on controlling land uses. Features regulated under form-based codes, such as "SmartCode," include lot dimensions, size of blocks, building setbacks, building masses, height, and placement on lots, and location of parking, pedestrian facilities, landscaping, and other developed features on a site.

Form-based regulations may serve as unified land development codes that can include zoning, subdivision regulations, streetscape, sign, landscaping, and basic architectural standards.

One of the basic principles of form-based codes is that towns should be structured as a series of walkable neighborhoods. Such neighborhoods require a mix of land uses (residential, office, and retail), public spaces, and pedestrian-oriented transportation design.

The zones within a form-based regulatory scheme are designed to create complete human habitats ranging from the very rural to the very urban. Where conventional zoning categories are based on different land uses, form-based zoning categories are based on their rural-to-urban character. All categories within a form-based code allow some mix of uses. These zoning categories ensure that a community offers a full diversity of building types, thoroughfare types, and civic space types, and that each has characteristics appropriate for its location.

A number of tools are available to Manchester and Bennington to help encourage compact mixed-use development in their PGAs, including regulatory incentives, public investments, infrastructure improvements, downtown and business organizations (such as the Better Bennington Corporation and the Manchester Business Association), support for historic preservation, and governmental assistance for private initiatives that further local development priorities. These tools should be used to ensure that the PGAs contain a variety of commercial, professional, residential, industrial, and public uses that contribute to a diverse and stable economic base for the towns and surrounding communities. In fact, the Putnam Block redevelopment in Bennington and the Factory Point Place redevelopment in Manchester exemplify the use of many of these tools to realize the goals of pedestrian-oriented, mixed-use development in the two urban cores. A mix of uses that supports a human-scale and pedestrian environment is appropriate for these areas and can be encouraged with flexible zoning that also permits compact development patterns with residential densities ranging from five to twenty units or more per acre, based on neighborhood character, local regulations, and infrastructure capacity.

Each municipality should be innovative in its efforts to ensure the full use and appreciation of these PGAs. Any such effort should consider the historic character and unique physical design of the centers and surrounding areas. Design review regulations can help ensure the continued appeal and vitality of these key community assets. The use of innovative tools such as "form-based code" is also a valuable approach for protecting historic and pedestrian-oriented character of the built

Shopping Centers

A shopping center may include one or multiple stores, in single or multiple ownership, functioning together as one integrated complex. For the purposes of the Regional Plan, the following definitions apply:

Convenience Shopping Center: A shopping center with a store or stores that sell daily living needs and convenience goods such as food, medicine, clothing, and hardware, and may also include service businesses (e.g., laundry, hair salon, bank, auto or bicycle shops). These centers range in size from 10,000 to 30,000 square feet of gross leasable floor area.

Community Shopping Center: A shopping center with a store or stores that sell a broad range of goods (such as food, clothing, furniture, appliances, sporting goods) and which also may include personal and professional service establishments. Large grocery stores, department stores, and movie theaters are often found in these centers. Gross leasable floor area in a community shopping center may range from 30,001 to 300,000 square feet.

Regional Shopping Center: A shopping center (or "shopping mall") including stores that sell a wide variety of merchandise and services—similar to but larger and more extensive than a community shopping center—usually built around one or more large anchor department stores. These centers exceed 300,000 square feet in gross leasable floor area.

environment (see box above). Bennington has form-based regulations in place in its downtown and surrounding neighborhoods, encouraging dense, pedestrian-oriented development of mixed-use and residential areas throughout the town's core.

Another way to protect historic integrity while promoting new growth is through the adaptive reuse of buildings, often in developments that combine a range of commercial uses with upper floor residences. A significant residential population in the urban centers is critical to their vibrancy and long-term success, so a range of quality housing options in new, historic, and mixed-use buildings should be an important part of local land use planning. The natural resources that fostered the growth of these urban centers are also important to their future. Therefore, waterways and other natural features should be protected and integrated with the urban design to increase the attractiveness of the areas and to provide opportunities for outdoor activities. Both Bennington and Manchester have highlighted the rivers that are central to their towns through riverwalk projects that create beautiful natural experiences and facilitate connections from one part of the center to another.

Shopping Centers

Shopping centers (see box above) represent a form of commercial development that grew in prevalence in and around urban centers in the 20th century. Different types and sizes of shopping centers are appropriate in different local planning areas. In Planned Growth Areas, any of the shopping center types—convenience shopping centers, community shopping centers, and regional shopping centers—are acceptable provided they are designed in accordance with the guidelines for commercial development included in this plan and the requirements of local land use plans and regulations. The specific location of a new shopping center within a PGA is particularly important since significant increases in traffic flow can be expected, potentially spawning additional commercial development in the area and changing the character of adjacent neighborhoods. A new large shopping center, or cluster of shopping centers, developed distant from established business centers can damage the vibrancy of existing commercial businesses. Consequently, shopping center development should be used to reinvigorate existing commercial areas rather than to create new ones.

Shopping centers initially were developed to be primarily accessible by auto, with the resulting development patterns emphasizing parking lots and vehicles over community character and people. To produce a more desirable physical environment, new and redeveloped shopping centers should include design elements such as those contained in the Town of Bennington's design guidelines for projects located within the town's "planned commercial district" and the Town of Manchester's design guidelines for its commercial and historic districts. Those standards include placement of buildings closer to the road with parking areas to the side and rear of the lot, attractive building design, landscaping, application of access management principles, and provisions of pedestrian facilities accessing the center and within the center.

Community and regional shopping centers often contain large "big box" retail spaces, with single tenants that may occupy 50,000

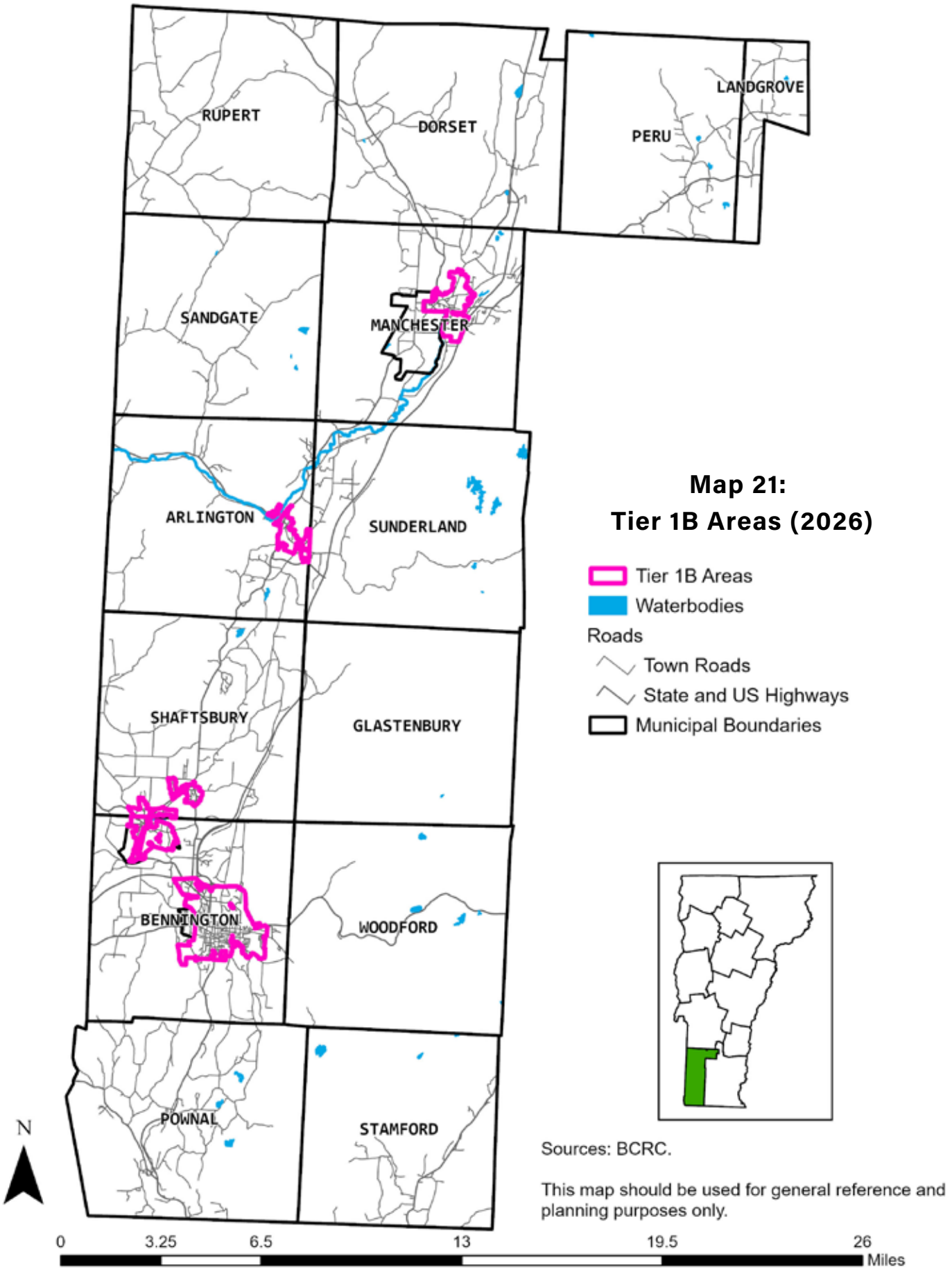
The Equinox on the Battenkill Community is included as part of Manchester Village's Village Area. Photo Credit: BCRC

to 200,000 square feet, or more, of floor space. Although these large retailers provide jobs and offer consumers a variety of often low-priced goods, concerns persist about the relatively low-wage and low-benefit nature of most of these "big-box" retail jobs as well as the impacts of these large retailers on smaller and locally owned businesses in the community. The potential impacts of such developments should be considered carefully, therefore, and should be permitted only if they include exemplary building and site design and are determined to have a net beneficial impact based on an independent economic and community impact study that may be requested by the town or the BCRC.

Village Areas

"These areas include the traditional settlement area or a proposed new settlement area, typically composed of a cohesive mix of residential, civic, religious, commercial, and mixed-use buildings, arranged along a main street and intersecting streets that are within walking distance for residents who live within and surrounding the core. These areas include existing village center designations and similar areas statewide, but this area is larger than the village center designation. Village areas shall meet the following criteria:

- The municipality has a duly adopted and approved plan and a planning process that is confirmed in accordance with section 4350 of this title.
- The municipality has adopted bylaws and regulations in accordance with sections 4414, 4418, and 4442 of this title.
- Unless the municipality has adopted flood hazard and river corridor bylaws, applicable to the entire municipality, that are consistent with the standards established pursuant to 10 VSA 755b (flood hazard) and 10 VSA 1428(b) (river corridor), the area excludes identified flood hazard and river corridors, except those areas containing preexisting development in areas suitable for infill development as defined in 29-201 of the Vermont Flood Hazard Area and River Corridor Rule.
- (iv) The municipality has either municipal water or wastewater. If no public wastewater is available, the area must have soils that are adequate for wastewater disposal.
- (v) The area has some opportunity for infill development or new development areas



Map 21:
Tier 1B Areas (2026)

Tier 1B Areas
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries

Sources: BCRC.

This map should be used for general reference and planning purposes only.

where the village can grow and be flood resilient."

Municipalities affected: Arlington, Dorset, Manchester Village, North Bennington, Peru, Pownal, Shaftsbury, Sunderland

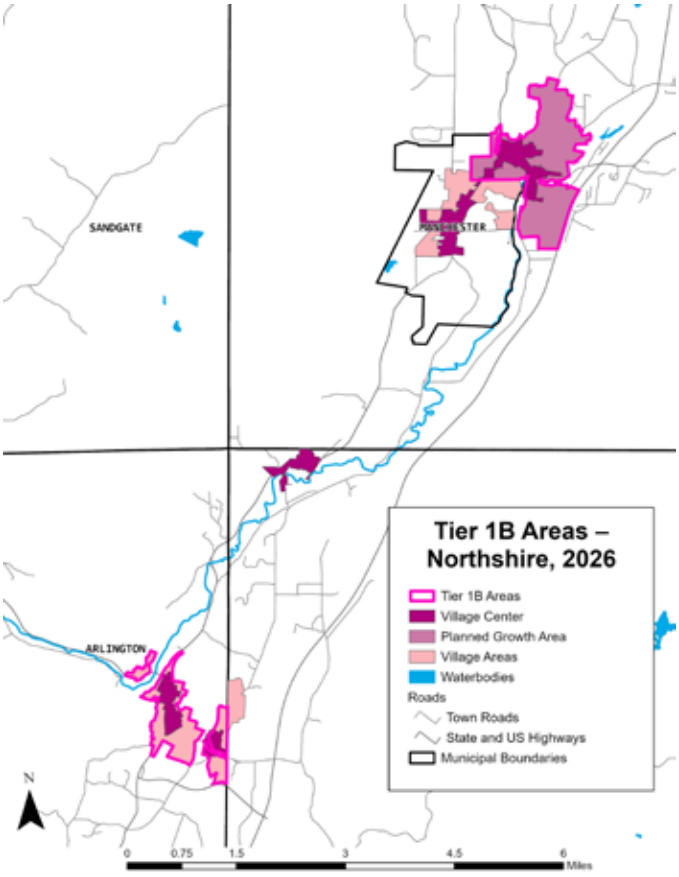
Village Areas are suitable locations for relatively dense development. New development in these areas reinforces historical settlement patterns, is economically efficient, and reduces the amount of scattered growth that can lead to undesirable levels of sprawl in the countryside and inefficient provisions of municipal services. A variety of residential, commercial, industrial, public, and institutional land uses are appropriate in Village Areas, but at a smaller scale than in the region's Village Centers. Residential densities may vary from one to six or more units per acre or slightly more on individual properties, depending on the character of the neighborhood and the availability of public infrastructure to support the denser use. In Village Areas, additional development can be accommodated by allowing mixed uses (e.g., commercial with upper floor residential) without requiring additional land area for the new uses, based on local land use regulations and environmental restrictions. Convenience shopping centers, designed to complement the historic character and support community vibrancy, are appropriate in Village Areas. However, community and regional shopping centers as defined in this plan are not appropriate in Village Areas.

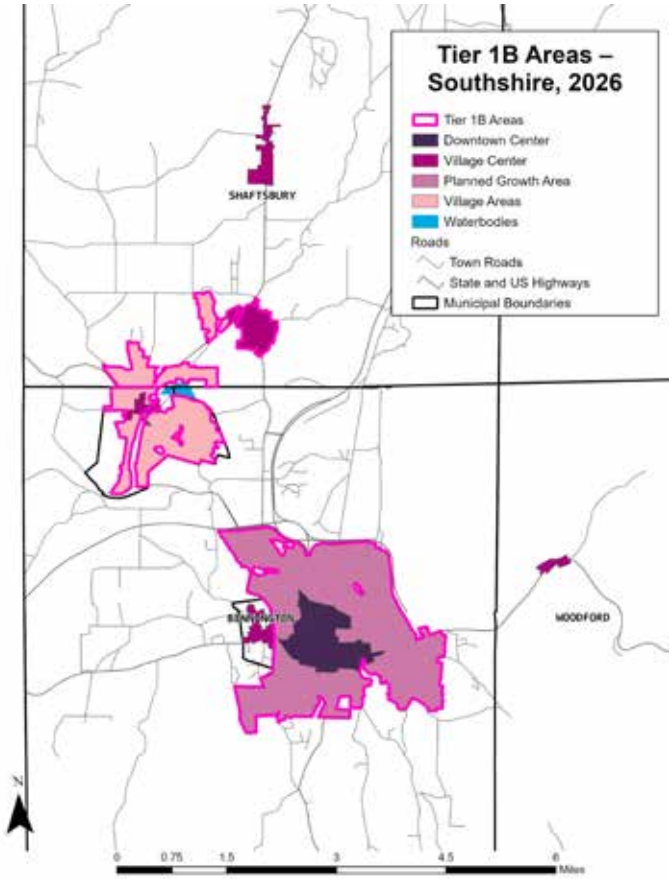
Communities are faced with several challenges when planning for and promoting compact mixed-use development in villages. Frequently, the most difficult barrier to overcome is the lack of a public wastewater disposal system, and in some cases, limited availability of a public water supply system. The BCRC and its member municipalities should assess existing conditions, future service areas, alternative designs, and funding sources for new or expanded water and sewer systems to support desired growth in village areas.

Furthermore, identification of corridors for new roads or road segments in and around planned village areas as part of a local planning process, and support for construction of those roads and utility infrastructure, can help drive growth in a way that supports compact center development. In concert with the Future Land Use mapping process, the BCRC has produced conceptual bicycle and pedestrian infrastructure maps that lay out corridors and areas where future bicycle and pedestrian infrastructure will be needed to support existing and future development. All Village Areas have some form of walkability—either existing or proposed on regional maps. In some cases, walkability is along existing sidewalks or shared-use paths. In many cases, walkability consists of access to village centers along low-traffic neighborhood streets, but in others access is along flat shoulders or greater-than-necessary lane width of existing roads. The lack of sidewalks and crosswalks along key state roads including Route 30 in Dorset, Route 7 in Pownal, and Route 11 in Peru are noted barriers to walkability in mapped Village Areas. A study on a shared use path on Route 30, was completed in recent years, Pownal was awarded funding for a scoping study in Pownal Center on Route 7 in 2025, and Peru is expecting to consider a scoping study in the near future.

The region's Village Area boundaries were produced during the Future Land Use

Map 22:
Tier 1B Area Inset (2026)





mapping process, which sought to map all areas where designation would be appropriate per the definitions outlined in Act 181. Village Areas are present in eight municipalities and associated with 13 individual Village Centers. In all cases but two, Village Areas have public water, wastewater, or both.

Village Areas are, appropriately, prominent in the region's incorporated villages of North Bennington and Manchester Village. Village Areas are the dominant FLU category in North Bennington. This area represents one of the region's most prominent infill opportunities owing to extensive water and wastewater service. Notably, Bennington College is the northern terminus of the Walloomsac Paths Network at the Town of Bennington's border with North Bennington Village, and the village seeks to further integrate areas east of the college into the village core with walkable, dense development in the future. Village areas also feature prominently in Manchester Village, which has similarly extensive utilities service, but is limited by golf courses adjacent to the Village Center (which are unlikely to be available for redevelopment for the period this plan is in place). North Bennington sought Tier 1B status while Manchester Village did not (see Map 21: Tier 1B Areas (2026) and Map 22: Tier 1B Area Inset (2026)).

Arlington and Shaftsbury have extensive Village Areas mapped where water service is available surrounding their Village Centers. Shaftsbury bears special mention. In addition to the Village Center and Village Area in South Shaftsbury, it hosts a large Village Area associated with the North Bennington Village Center and the village's water system. Each of these Village Areas represent substantial infill development opportunities, even if the scale of individual projects is small and limited by wastewater capacity.

Dorset's three Village Areas differ from each other substantially. East Dorset's Village Area is located along the existing water line and represents larger parcels uphill from the village center that could see some development. (West) Dorset's Village Area surrounds its Village Center and is associated with its water system, but the system faces capacity constraints (currently under study) that limit growth potential. The South Dorset Center's Village Area is based solely around a cluster of suitable soils where there is infill potential to complement growth in the new center.

Pownal has Village Areas associated with each of its three Village Centers mapped in association with the town's wastewater system. In this case, not all potentially-eligible areas are mapped due to long transmission lines that run between the centers through rural areas that are distant from other public services and where road capacity could be a limiting factor. Pownal also has a small area associated with its fire district system that is not on the wastewater system. Outside North Bennington, Pownal's Village Areas have the most growth potential due to open land parcels adjacent to the wastewater system.

Sunderland and Peru are the smallest towns where Village Areas are located. Sunderland's area of Chiselville is associated with the Arlington water system and East Arlington Village Center. Peru's small village area is associated with its Village Center and represents the town's very small future growth area to take advantage of these soils in an area of the region where such soils are scarce.

Like the growth-oriented Village Centers, the key trend in village areas is planning infrastructure needs and investments. Most areas on this list will require infrastructure to realize their infill growth potential. This is made more complicated by the fact that many Village Areas are adjacent to municipal borders or rely on infrastructure controlled by neighboring municipalities, so the need for cooperative and regional planning for growth is particularly relevant. A key determinant of how successful Village Areas will be at supporting housing growth is whether and how municipalities can work together to address regional housing needs in Village Areas.

Tier 1A and 1B

Act 181 (2024) created the "tier" system within the Act 250 regional development review process. Tier 1A and Tier 1B are areas where portions of municipalities will be exempt from this process. These areas include designated centers, Planned Growth Areas, and Village Areas, but exclude all other future land use categories. Tier 1B would lift the Act 250 process from projects of less than 50 units on less than 10 acres of land, while Tier 1A would remove these scale restrictions and allow all housing projects to bypass the process. At the time of this writing, Tier 1 is an opt-in process. In this region, a number of municipalities have opted to into Tier 1B, including Arlington, Bennington, Manchester, North Bennington, and Shaftsbury. Most small municipalities do not have the administrative capacity to viably take part in the Tier 1 process, where Tier 1 was potentially chose not to participate at the time of plan submission to the Land Use Review Board, Manchester Village and Pownal. No municipalities have pursued Tier 1A, although there has been some appetite to consider Tier 1A in Bennington should the legislature choose to adjust certain aspects of its rules.

Transition/Infill Areas

"These areas include areas of existing or planned commercial, office, mixed-use development, or residential uses either adjacent to a planned growth or village area or a new stand-alone transition or infill area and served by, or planned for, public water or wastewater, or both. The intent of this land use category is to transform these areas into higher-density, mixed-use settlements, or residential neighborhoods through infill and redevelopment or new development. New commercial linear strip development is not allowed as to prevent it negatively impacting the economic vitality of commercial areas in the adjacent or nearby planned growth or village area. This area could also include adjacent greenfields safer from flooding and planned for future growth."

Municipalities affected: Arlington, Bennington, Dorset, Manchester Center, Pownal

Transition/Infill Areas largely represent areas where utilities expansions are planned, or areas adjacent to planned growth or village areas where utility expansion is likely in the future. Like the Rural General category, a key goal for Transition Areas is to provide for intensification of use to integrate the areas as part of nearby developed areas. The areas differ in the fact that the transformation of Transition Areas is expected to be sooner, with a known path toward this intensification. The BCRC also uses Transition Areas to identify industrial areas adjacent to Planned Growth Areas where utilities are not currently present, but Enterprise mapping is not allowed in statute; utilities expansion would facilitate transformation of these specific areas from standalone industry to mixed-use in the future.

Large-scale commercial spaces along Northside Drive in Benningotn. Photo Credit: BCRC

Bennington and Manchester have the region's most notable Transition Areas. In Bennington, each of three Transition Areas lie just beyond the borders of the existing Planned Growth Area, but each has existing water and wastewater service for most of its area, with some minor expansion needed to reach the edges. These areas represent places where linear development requires work to be integrated with the nearby Planned Growth Area. Two areas are separated from the Planned Growth Area by wide highway rights of way. One of these, adjacent to the regional middle school, is connected via Bennington's shared-use path network to the downtown. The other, along Northside Drive, is awaiting completion of the Walloomsac Paths Network and other sidewalk improvements to facilitate transformation from linear strip development into a more-cohesive part of the town. The third, on the town's east end, represents the easternmost edge of the town's potential growth but will need future sidewalk investments to connect to the downtown.

In Manchester, four Transition Areas abut the Planned Growth Area. One centers on a park area north of the Village Center, which would be expected to see gradual intensification of recreational use. A second area to the northeast captures the rest of the park, a gravel pit to be built upon after exhaustion, and a portion of Main Street beyond the reach of existing utilities service. A third Transition Area lies east of the center, isolated by floodplains from much of the core, where some water service exists but wastewater extension is necessary to integrate and transform this linear development. A final transition area lies south of the proposed major Airport Road development site that sets the southern edge of the Planned Growth Area, where water service exists but wastewater extensions are needed to transform existing subdivisions into a cohesive southern edge of the town.

Elsewhere, transition areas are present in Arlington, Dorset, and Pownal. Arlington's area is on a hill south of its water tower on industrial lands that could be integrated with the Village Center and Village Area with the addition of new water mains and expansion of the town's available water capacity. Dorset's area lies between the (West) Dorset Village Center and South Dorset Village Center, along a proposed water line that would run from the latter to the former. This area is characterized by commercial and residential uses. Pownal's Transition Area reaches from South Pownal Village Center to the Massachusetts border, where the town desires to facilitate infill development along Vermont Route 7. A small portion of the area includes an independent public water system that could be expanded northward, and there is both water and wastewater service in the Village Center to the north.

The key trend among Transition Areas is planning for the future. Each town where such areas are present has recently or is imminently ready to undertake substantial town planning efforts that would consider the future of these areas as part of the town's overall future plans.

Enterprise

"These areas include locations of high economic activity and employment that are not adjacent to planned growth areas. These include industrial parks, areas of natural resource extraction, or other commercial uses that involve larger land areas. Enterprise areas typically have ready access to water supply, sewage disposal, electricity, and freight transportation networks."

Municipalities affected: Arlington, Bennington, Dorset, Manchester, Pownal, Rupert, Shaftsbury, Stamford, Sunderland, Woodford

Enterprise areas are reserved for industry during this planning period. In the Bennington region, Enterprise areas represent sites of extractive industry with intent to preserve the use for the life of the resource, or to preserve key industrial sites to avoid further job sprawl to outlying areas. Notably, not all industrial areas are mapped as Enterprise areas, particularly those adjacent to Planned Growth Areas, and factories are present in most FLU map categories. Enterprise areas are present in most towns, owing particularly to the region's extensive sand and gravel resources.

The largest of these areas lie in Shaftsbury, where sand and gravel resources are extensively mined to feed a large preform concrete and associated retail sand and gravel business that is a major source of materials for the region's highway departments. Elsewhere, there are smaller sand and gravel pits in Enterprise areas in Woodford, Stamford, Pownal, Arlington and Manchester. In Rupert, the region's sole slate mine operates in an Enterprise area, similar to Enterprise areas in the Rutland region.

A display of precast concrete products at the W.W. Dailey plant in Shaftsbury. Photo Credit: BCRC

Key industrial locations lie in other towns. In Dorset, an industrial park and railroad transload facility lie in Enterprise areas. Sunderland's South Road industrial area is a key utilities site that also houses an ice cream factory. Arlington and Pownal have major factory sites in Enterprise areas. While most industrial areas in Bennington lie in the Planned Growth Area, Bennington's airport is mapped as an Enterprise area.

The key trend in Enterprise areas is preservation of resources and industrial lands from residential development. The goal with this mapping category is to indicate areas that are incompatible with residential development over the life of the plan. This dovetails with the category being assigned zero housing target weight in acknowledgement that the BCRC intends to not support residential development on these sites; this is with the hope that they serve as resources for extraction and industrial sites to provide jobs, except for when resource extraction is complete or industrial uses become nonviable.

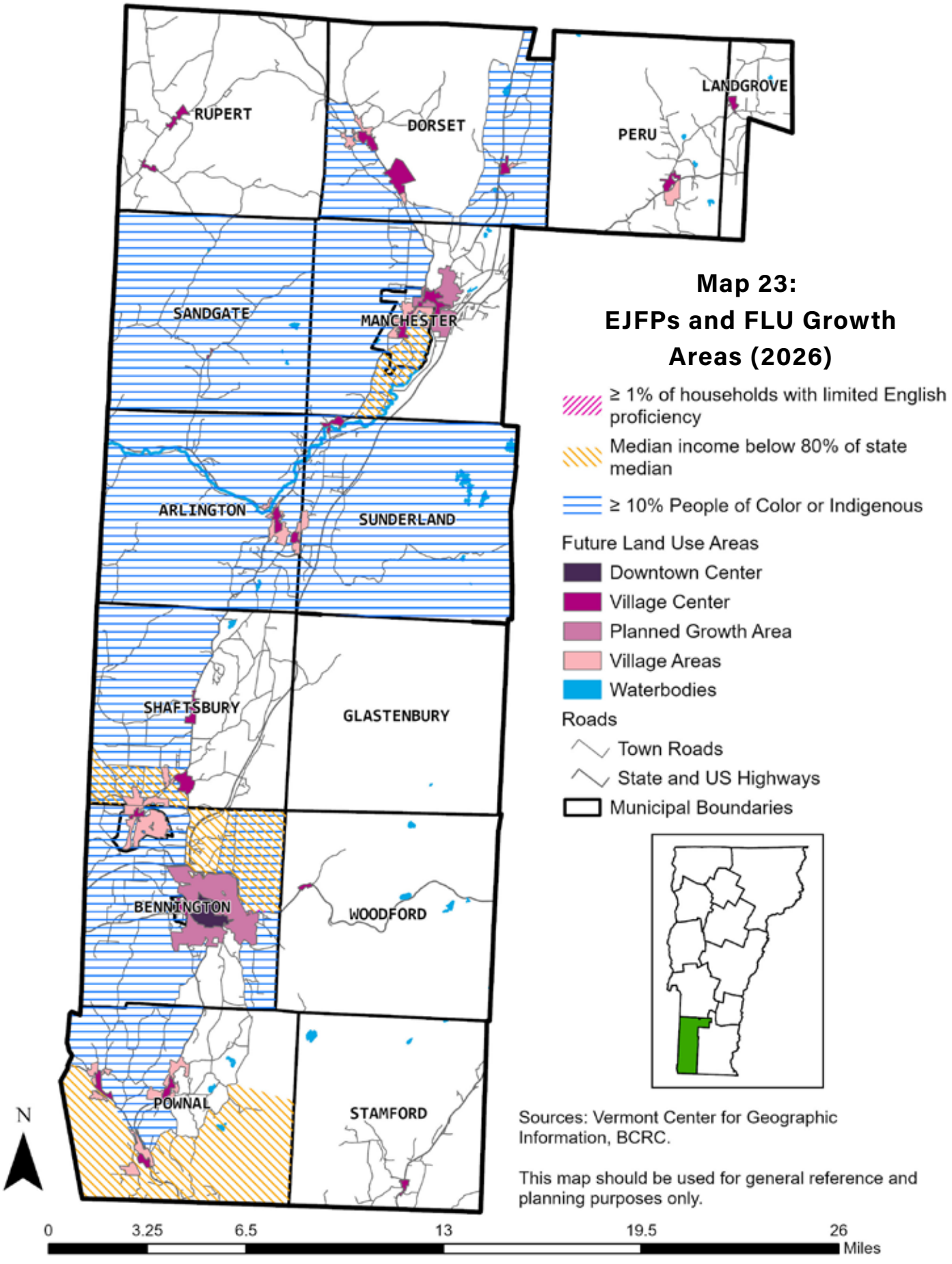
Environmental Benefits + Burdens

Residents living in many of the growth-oriented and urban areas of the region benefit from a density of homes, jobs, retail, medical and other health/social services, and amenities in central places. However, residents in urban areas may experience more noise and air pollution from traffic, construction, industrial activity, and other sources, which can cause stress and reduce quality of life.

Regional Context

The region's growth-oriented areas have some of the highest concentrations of environmental justice focus populations, and many of the Census Block Groups in these areas meet multiple EJFP thresholds (see Map 23: EJFPs and FLU Growth Areas (2026)). Below are several considerations that are relevant to these growth-oriented areas.

Amenities and services in growth areas should be well connected by bike and pedestrian infrastructure and public transit so that people can access them without needing a personal vehicle. This is especially important in towns that have a relatively high



Map 23: EJFPs and FLU Growth Areas (2026)

≥ 1% of households with limited English proficiency

Median income below 80% of state median

≥ 10% People of Color or Indigenous

Future Land Use Areas

- Downtown Center
- Village Center
- Planned Growth Area
- Village Areas
- Waterbodies

Roads

- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information, BCRC.

This map should be used for general reference and planning purposes only.

percentage of households that lack access to a vehicle, like Bennington, where nearly 14% of households do not have a vehicle (2024 American Community Survey).

Providing access to green spaces and greenery in urban areas is important for residents' physical and mental health and to mitigate the urban heat island effect discussed in the Climate Resilience chapter. Well-connected public parks and playgrounds that residents can walk, bike, or take public transit to are important elements of urban, growth-oriented areas.

The region's centers and neighborhoods are eligible for a variety of benefits through the state designation program, including tax credits and priority for grant funding, which can help catalyze investment and revitalization in these areas. These funding mechanisms can be especially powerful in communities that have historically experienced disinvestment. Municipalities with designated areas should seek to equitably distribute the benefits of the designation program to areas in the community where it is most needed.

The impacts of increased noise and pollution in more urbanized areas should be mitigated by separating out industrial uses from centers and residential areas. It is also important that municipalities don't use nuisances associated with temporary housing or infrastructure construction activities including noise, dust, and restrictions to parking to avoid zoning for growth in designated centers and neighborhoods.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

BCRC staff are available to provide technical assistance and undertake substantial projects to aid member municipalities as they address their planning needs and work to provide for growth in line with state and regional priorities. BCRC staff monitor changing legislation, follow national planning developments, and undertake regular training to understand how to best help their members. BCRC offers regular training opportunities to members to share this knowledge and help municipalities operate in line with state and regional planning laws, goals, and policies on a day-to-day basis.

Growth-Oriented Land Use Goals and Actions

Goals

- Maintain the region's general character of compact centers surrounded by sparsely-developed rural lands
- Encourage dense, walkable, mixed-use development in Downtowns, Village Centers, Planned Growth Areas, and Village Areas
- Support the protection and preservation of important historic features throughout the region
- Support research and investment into expanded water and wastewater facilities in growth-oriented areas, including Transition/Infill Areas
- Protect Enterprise Areas as sites of employment, industrial use, and resource extraction

Actions and Policies

Downtown and Village Centers

The BCRC . . .

Shall support the addition of housing in designated centers pursuant to regional housing targets

- Shall provide GIS services for the extension of "village" and other highest-density zoning categories available in a member municipality to the boundaries of mapped designated centers, Village Areas, and/or Planned Growth Areas
- Shall, when requested, assist municipalities with revising zoning district boundaries to reflect the requirements of Act 47, and/or create an overlay district that maps where both public water and sewer are available
- Encourages identification of historic resources at the municipal level using state and local resources, where available
- Encourages member municipalities to consider the designation of historic districts or design review districts to provide for appropriate local oversight in areas with several or significant historic resources
- Supports adaptive reuse projects and other efforts to rehabilitate historic structures, especially when disuse, dilapidation, and neglect threaten destruction

Encourages member municipalities with designated areas to equitably distribute the benefits of the designation program throughout eligible areas community

Planned Growth Areas

The BCRC . . .

Shall support the addition of housing in Planned Growth Areas pursuant to regional housing targets

Shall support local planning and regulations that implement "complete streets" principles as required in state law, through development standards, capital planning, or other transportation planning initiatives

- Shall maintain maps of planned and potential bicycle and pedestrian projects that would ensure all Planned Growth Areas will be served by non-car infrastructure

Encourages updating land use regulations to remove unnecessary barriers to higher density housing developments and innovative uses in commercial and mixed-use areas.

- Shall, when requested, advise municipalities on how they can provide for simplified regulation of commercial and mixed-use activity typical of Planned Growth Areas, including clarifying performance standards and shifting uses subject to conditional use and site plan review to permitted uses subject to administrative review.
- Supports provisions in municipal bylaws that make public buildings or those providing important public services including but not limited to town offices, parks, fire, police, and/or ambulance stations, water and wastewater infrastructure, and transit stops a permitted rather than conditional use.

Village Areas

The BCRC . . .

Shall support the addition of housing in Village Areas pursuant to regional housing targets

- Shall, when requested, advise municipalities on how they can provide for simplified regulation of commercial and mixed-use activity typical of Village Areas, including clarifying performance standards and shifting uses subject to conditional use and site plan review to permitted uses subject to administrative review.

Shall support local planning and regulations that prioritize "complete streets" principles as required in state law, through development standards, capital planning, or other transportation planning initiatives

Transition/Infill Areas

The BCRC . . .

Shall generally support the addition of housing in Transition/Infill areas pursuant to regional housing targets, except for where staff believe such development would impede progress toward the housing target after utilities have been extended, including low-density infill on large potential development sites

- Shall remain apprised of planned water and wastewater infrastructure projects in member towns

Enterprise Areas

The BCRC

Shall not support the addition of housing in enterprise areas except for after earth resources that justified the area's designation are exhausted or where such projects have been designed in a manner to limit environmental justice impacts from existing enterprise activity and not preclude

existing or expected industrial development projects.

- Shall support continued industrial development in existing Enterprise areas that have achieved all other required environmental protection permits.

Housing

Housing remains the most important issue among citizens of the region, and every municipality has a role to play in addressing housing needs. Factors like cost of materials and interest rates may not be under municipal control, but forward-thinking local leaders are working to invest in housing-supporting infrastructure and ensuring local zoning and subdivision bylaws don't stand in the way of progress toward housing targets.

Data Sources and Municipal Capacities

The US Census Bureau's American Community Survey (ACS) collects and analyzes housing data and reports housing related estimates by county and municipal jurisdictions. However, the data are not considered to be entirely reliable, particularly as reported for smaller jurisdictions. Nonetheless, the Vermont Housing Finance Agency (VHFA) and Department of Housing and Community Development (DHCD) rely on the ACS as the basis for publishing housing targets by county in the Vermont Housing Needs Assessment, which is renewed every five years.

Before presenting the municipal targets, however, we will present a general picture of the regional housing market largely based on US Census Bureau data. Some data are reported by county, and others by municipal jurisdiction. Because the county data will include data from the towns of Winhall, Readsboro, and Searsburg, which are not part of the Bennington region as served by the BCRC, in some cases the municipal data will be aggregated to reflect the regional picture as distinct from the county.

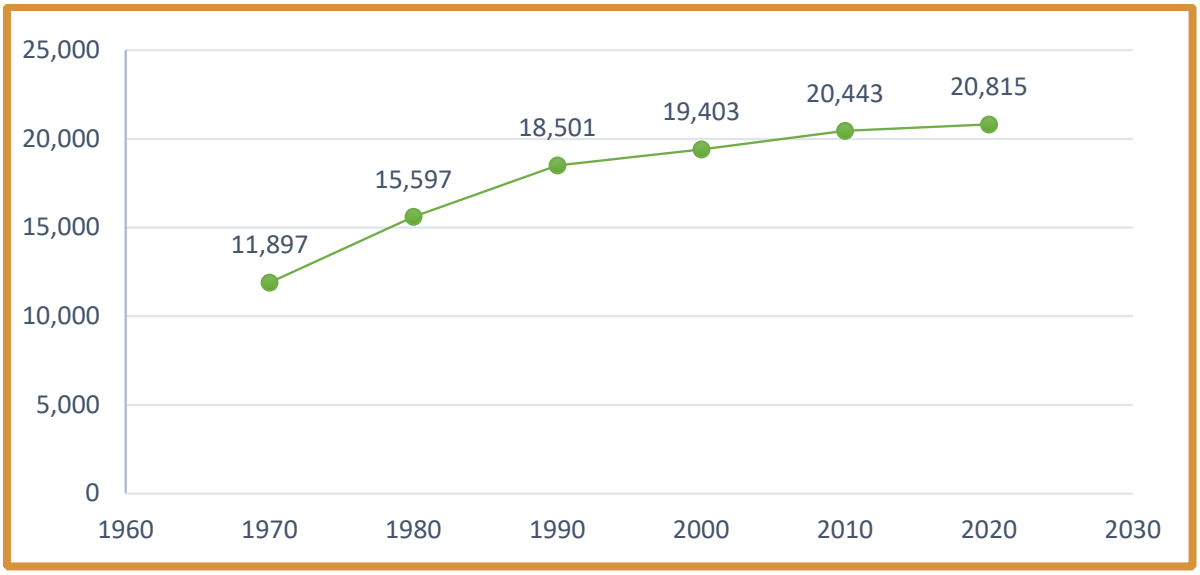
What did we learn from the community?

Housing affordability and availability identified as one of the greatest challenges of the region

Biggest housing challenges in the region: lack of low/middle income homes and lack of rental units

Biggest barrier to housing growth in the region: cost to build relative to the market

Figure 1: Housing Units in Bennington County, 1970-2020.

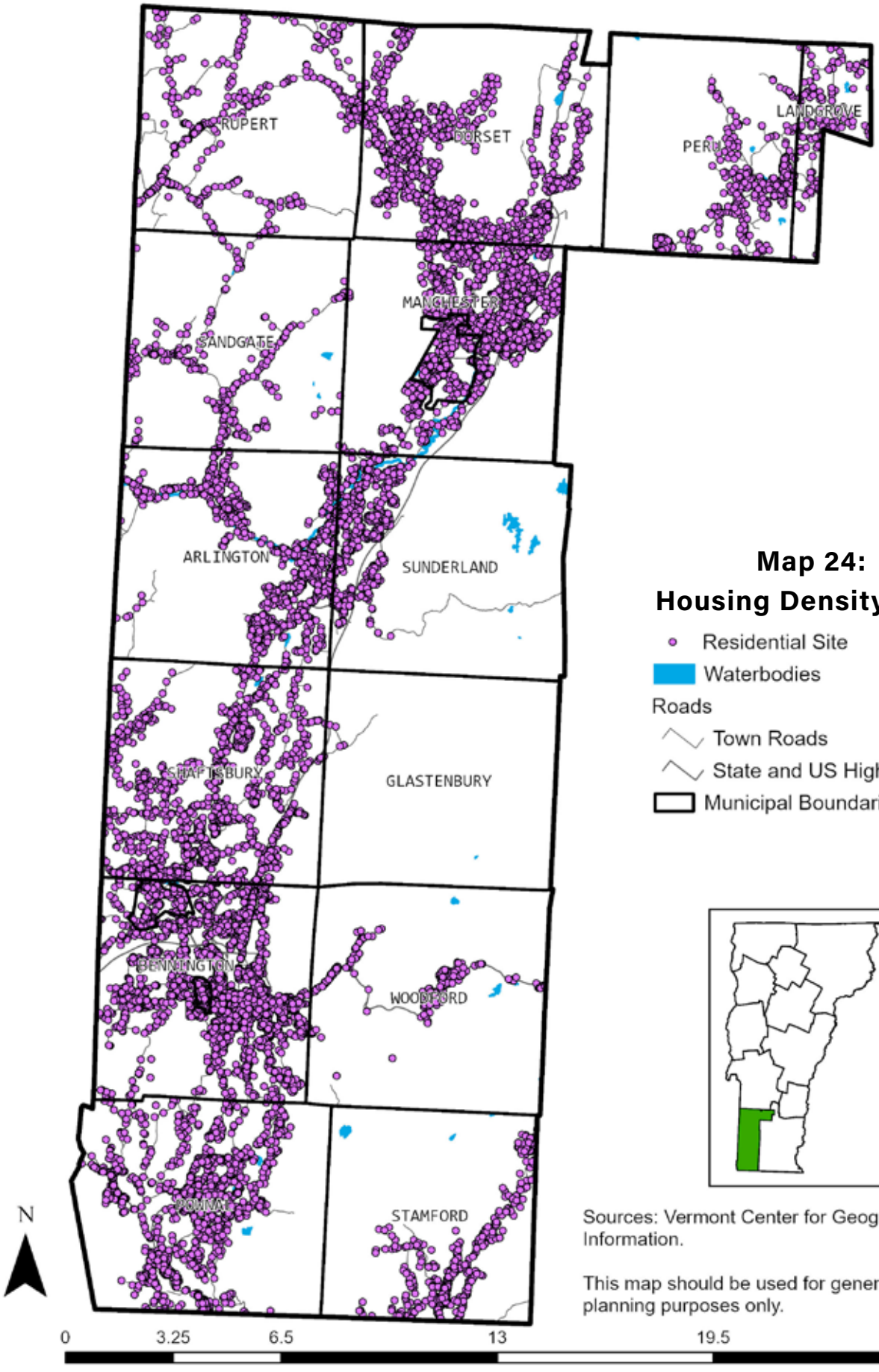


Source: US Census Building Permit Survey

Housing Units in the Region

US Census Bureau decennial census data indicate that the number of housing units in Bennington County increased steadily from 1970 until 1990 (see Figure 1: Housing Units in Bennington County, 1970-2020.). However, after 1990, and particularly after the 2006–2007 national recession, the rate of increase declined. The US Census Building Permit Survey shows little change in the rate of new housing development in the county since 2010 with an average of 46 units permitted annually in the county (see Figure 2: New Units by Year in Bennington County 1990-2022). Housing development has not kept up with demand as older stock is lost in Bennington County. This reflects a national pattern and is a significant factor in the current housing crisis. As of the 2020 US Census there were 20,815 housing units of all types in Bennington County; excluding housing units in Winhall, Readsboro, and Searsburg, there were 18,520 housing units in the Bennington region.

Predictions made for 2023 and 2028 by Environmental Systems Research Institute. Inc. (the geographic information system software company doing business as Esri) based on US Census data indicate little change in relative numbers of occupied and vacant housing units in Bennington County with about a 75% occupancy. The occupancy of units is expected to change slightly with owner occupancy growing from 54.4% in 2020 to 57.2% in 2028 and renter occupancy decreasing from 21% in 2020 to 18.3% in 2028 (the portion of vacant units is expected to remain relatively unchanged at 24.5% in 2028). Vacant units in 2020 were primarily seasonal homes (71.4% of vacant units), while 8.2% of vacant units were for rent, and 4.2% for sale (2020 Decennial Census data). Less than fifteen percent (12.7%) of the total



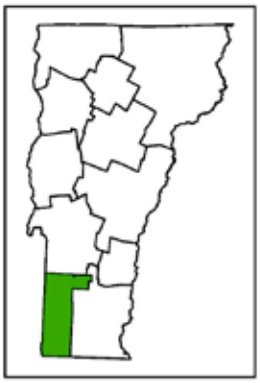
Map 24:
Housing Density (2024)

- Residential Site
- Waterbodies

Roads

- Town Roads
- State and US Highways

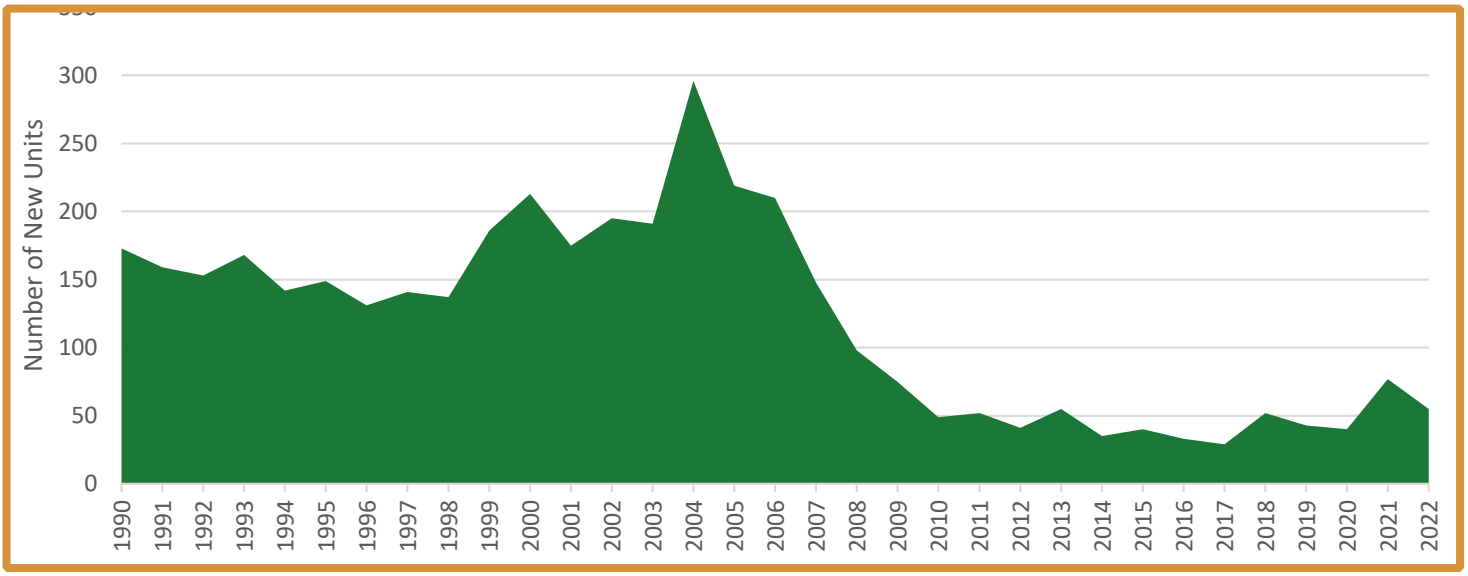
- Municipal Boundaries



Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Figure 2: New Units by Year in Bennington County 1990-2022



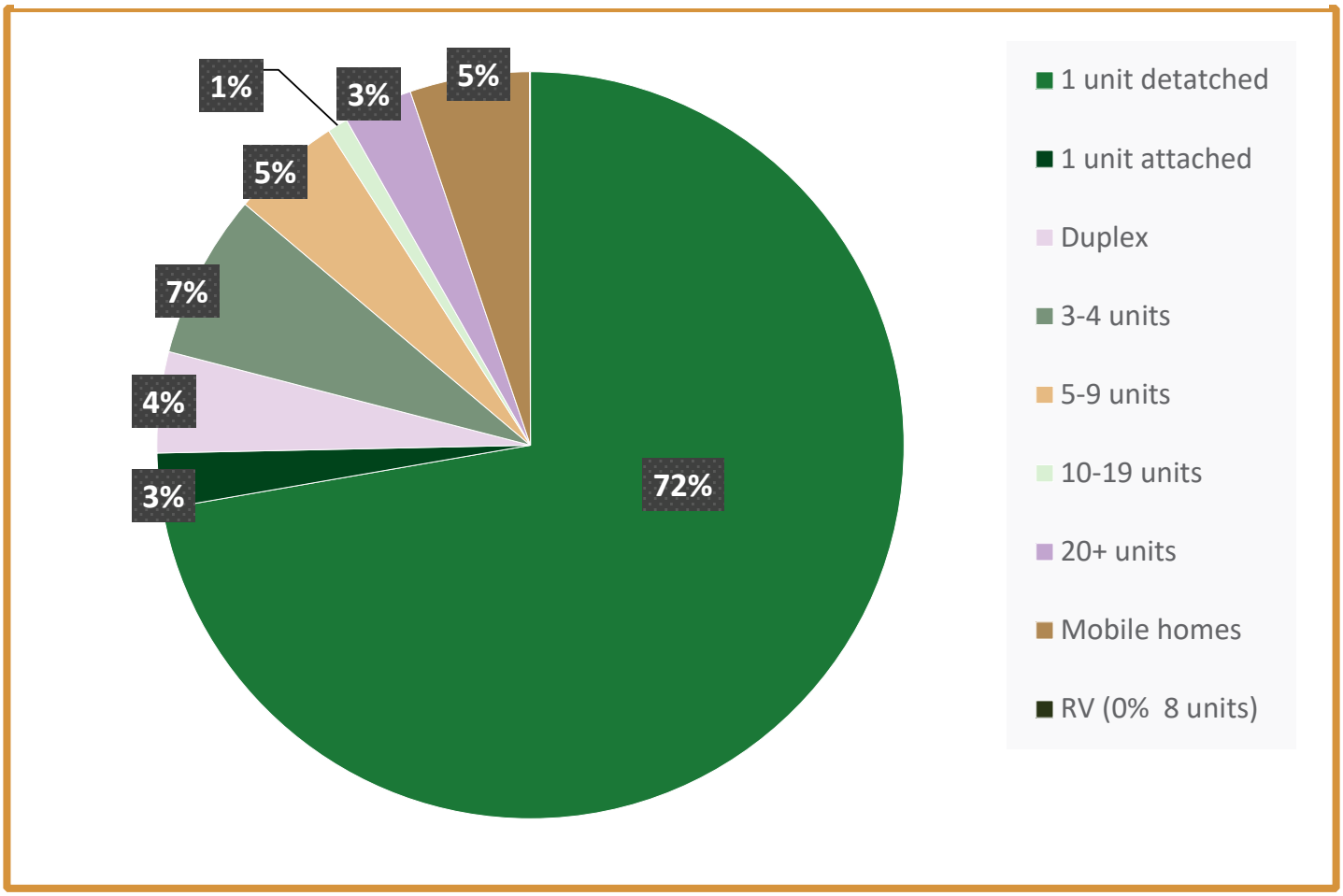
Source: US Census Building Permit Survey

housing stock in the fourteen Bennington region towns is seasonal.

According to the decennial US Census (see Figure 3: Housing Unit Types in Bennington County, 2020), occupied housing units in the county in 2020 were primarily single-unit detached homes (74.2% of occupied housing units). Duplexes constituted 4% of occupied units, while 7.2% of occupied units were in buildings containing three to four units, and 8.2% in buildings of five or more units. Mobile homes made up 5% of the occupied housing stock in Bennington County in 2020 according to the decennial census. US Census Bureau ACS estimates for 2018 through 2022 indicate that most of the housing stock in the Bennington region had two and three bedrooms (22% and 40% respectively), while 23% had four or more bedrooms, and 14% were studio or one-bedroom homes. In short, most homes in the region (63%) contain three or more bedrooms.

There are some clear differences in the composition of housing among towns and villages within the Bennington region according to decennial census data. Approximately two-thirds of the mobile homes in the region are located in the Southshire communities of Pownal (23.8% of that town's total housing stock), Bennington (4.1% of the housing stock), and Woodford (9.3% of the town's housing stock). The status of homes as occupied and primary residential or seasonal residential also varies throughout the region (see Figure 4: Occupied, Seasonal and Vacant Units in the Bennington Region, 2020.). A number of Northshire towns, notably the mountain towns of Peru and Landgrove, but also to a lesser degree Dorset and Manchester, include large percentages of seasonal homes, while the portion of seasonal dwellings in Bennington and the larger Southshire communities of Pownal and Shaftsbury is low. Sixty percent (60%) of the homes in Peru, home to the Bromley Mountain

Figure 3: Housing Unit Types in Bennington County, 2020



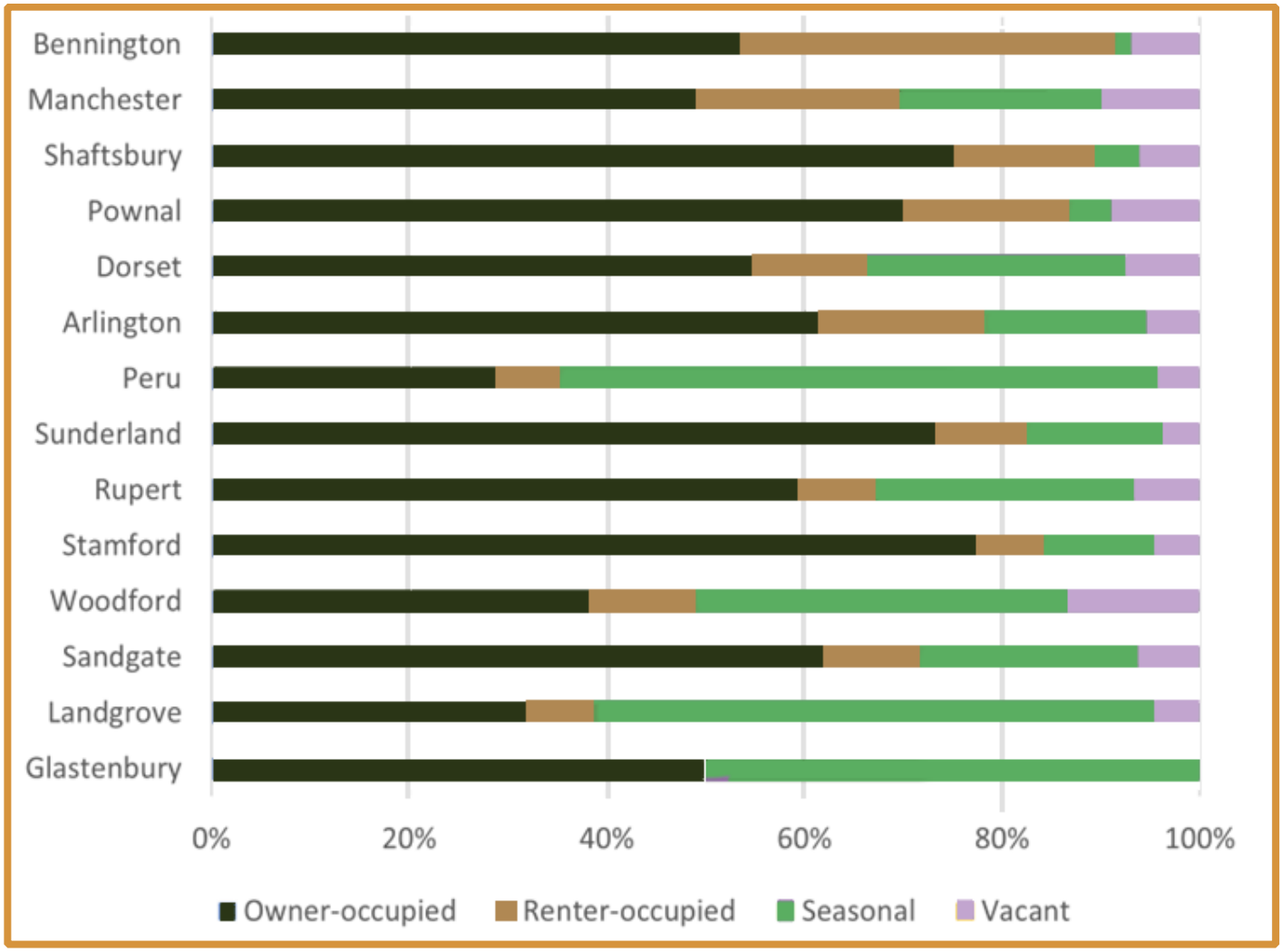
Source: US Census

Resort, are seasonal residences, and Peru also has the highest portion of short-term rentals (14.2% of total housing stock).[1] In the Southshire, Woodford, a high elevation town with most of its land in the Green Mountain National Forest, also includes a significant portion of seasonal dwellings (38%).

Based on data from the decennial census, the largest numbers of rental properties are in the most populous communities in the region, particularly in Bennington, where approximately four out of ten housing units are rentals, although quite a large number are located in Manchester (approximately three of ten units). The vacancy rate—housing units for sale or rent—generally ranges from one to three percent for municipalities in the Bennington region as reported by the 2020 decennial census. Manchester Village (6.3%) and Manchester (4.3%) are the only municipalities with vacancy rates above three percent (although a more targeted 2020 study indicated a smaller vacancy rate in

1 2022 ACS data indicate that a major proportion (80%) of the housing stock in the Town of Winhall are seasonal homes. Winhall is included in county ACS data, but Winhall is not part of the Bennington region, so countywide census data on seasonal homes is skewed upward relative to that of the region.

Figure 4: Occupied, Seasonal and Vacant Units in the Bennington Region, 2020.



Source: US Census

Manchester of about 2%).[2] Glastenbury is the only municipality with a vacancy rate below one percent with a rate of zero (Glastenbury has only four housing units, two of which are seasonal). A rental vacancy rate of five percent is considered healthy, allowing for choice and movement within the market. Given the recent Manchester study together with the 2020 Census data, it is likely that no municipality in the region currently has a rental vacancy rate considered healthy.

Countywide, the rental vacancy rate has decreased steadily while rents have increased over the last decade. These trends are reported in the 2021 Energizer Reuse Study by Camoin Associates and the BCRC. The study examined the housing market for Bennington and its labor market area (LMA) and concluded that low vacancy rates reflect an

2 Downtown Manchester Mixed Use Development Market Feasibility Study. 2020. Doug Kennedy Advisors.

"extremely tight market and the existence of rental demand that is not currently being met in the market. New rental units are needed to restore a healthy balance in the market and meet this unmet demand."[3] This market demand was demonstrated as all thirty-one residential units in Bennington's Putnam Block redevelopment were fully leased before opening in December of 2020 and there has been a waiting list ever since.

A 2020 study by Doug Kennedy Advisors[4] looked at all rental listings in Manchester in May and August of 2019 and concluded a tight rental market with an estimated vacancy rate of 1.8 to 2.0% for the town. The Kennedy housing market analysis for Manchester and the Manchester LMA concluded that a downtown project of thirty to thirty-five residential units would be fully absorbed within a year and that a downtown Manchester mixed-use development should include forty to forty-five residential units at a mix of sizes and for a mix of incomes.

A second study by Doug Kennedy Advisors focused on the short-term rental (STR) market in Manchester (both the town and village). Although STR units are less likely to be a factor in the Bennington housing market in which seasonal homes are not as prevalent, in Manchester they seem to comprise a steady 6% of housing stock and largely part of already high seasonal home market.[5] This portion of housing stock seems to represent a leveling off after rapid growth in the Manchester STR market that occurred from 2015 to 2018. The Kennedy study indicated that the Manchester STR trend appears to mirror that of Bennington County and the state as a whole. Although it is a contributing factor to the crisis, unless trends change significantly, the STR market does not seem to be currently exacerbating the housing availability problem in the region's second largest community. Nonetheless, in a housing market as tight as that which we are experiencing now, keeping a close eye on the STR market may be an important aspect of addressing housing needs in the region. The BCRC recommends that municipalities concerned about STR impact on housing availability consider enacting a registry to track the market and ensure that units are safe and meet other community standards. The Towns of Peru, Sunderland, and Dorset and the Village of Manchester have recently enacted such regulations and others are considering regulations that can serve as models for others.

3 Energizer Reuse Study. 2021. Camoin Associates & Bennington County Regional Commission. P.68.

4 Downtown Manchester Mixed-Use Development Market Feasibility Study. 2020. Doug Kennedy Advisors.

5 Short Term Rental Impact Study. 2023. Doug Kennedy Advisors.

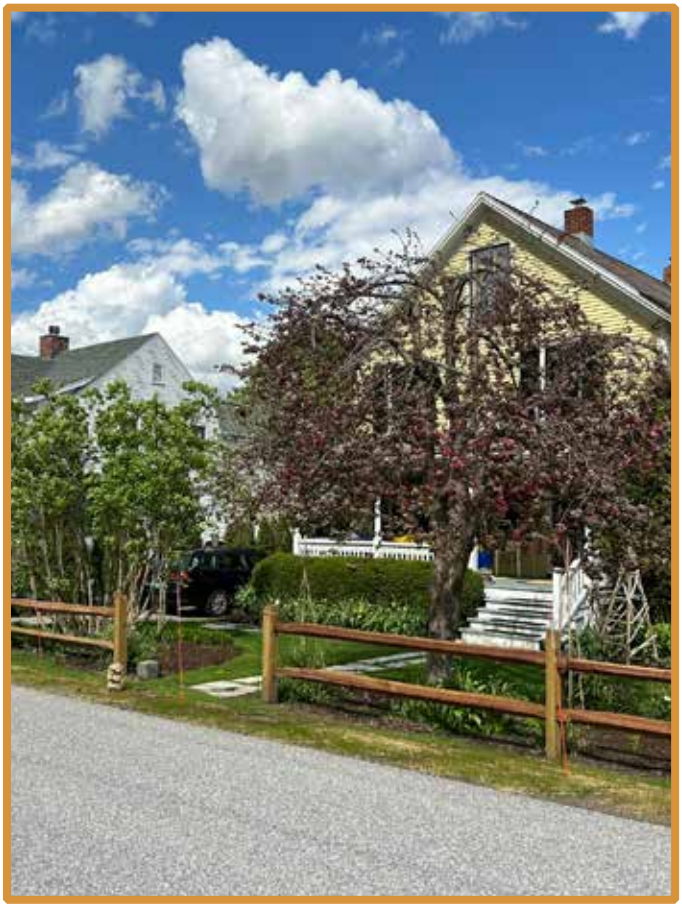
Housing Cost and Affordability

When seeking a place to live, people consider the location, quality, and cost of available housing. Many factors weigh on desired location, but a leading issue for many residents is proximity to work, schools, and services. It is important that good quality housing—for purchase and rent—be available in a variety of types and price ranges within the region's communities. Nonetheless, housing has become a persistent problem in the region largely because new housing construction has not kept pace with the loss of housing stock and the demand from new residents. This is despite a stagnant or declining population. This lack of housing stock contributes to higher housing costs and higher rates of homelessness, compounding the housing crisis.

Housing is a fundamental need and one that represents a major cost to any individual, family, or household. The cost of home ownership consists of the purchase price of a home (down payment and closing costs) plus recurring costs that include mortgage principal and interest, property taxes, insurance, and heating and utility costs. While most occupied housing units in the Bennington region are owner-occupied (72%), the rental market is significant (28% of occupied units), particularly in the larger towns as already noted.

People need to have sufficient income to pay all housing costs with enough additional income to cover the cost of food, clothing, transportation, and other necessities. As estimated by the US Census ACS, in 2023 median household income in the county is $68,558, with considerable variation around the region, north and south. Housing affordability is most often assessed by whether a household pays over 30% of its income toward housing costs. While households paying more than 30% may be covering their housing costs, they often are strained in meeting other basic needs with their remaining income and are at risk of missing mortgage or rent payments if other unexpected expenses arise. Over 50% of renters in Bennington County are in this category and about a third of homeowners. The situation is most pronounced—in Bennington and countywide—in households with three or more family members.

Consequently, the cost of housing relative to income in the Bennington region is quite high. Home values vary across the region; in general, values are lower in the Southshire



Denser residential neighborhoods, like this one in Manchester Village, exist in village centers throughout the region. Photo Credit: BCRC

Table 6: Household Cost Burden by Municipality in the Bennington Region.

Municipality	Median Home Value	Median Gross Rent	Median Household Income	Owners Paying >30% Income	Renters Paying >30% Income
Arlington	$ 205,600	$ 1,139	$ 62,448	21.3%	55.30%
Bennington	$ 191,200	$ 1,010	$ 58,253	23%	65.10%
North Bennington	$ 251,400	$ 1,141	$ 62,125	22.10%	51.40%
Old Bennington	$ 367,600	No Data	$ 146,250	18.60%	50%
Dorset	$ 423,500	$ 806	$ 74,957	29.70%	57.70%
Landgrove	$ 673,600	$ 1,094	$ 128,750	29.10%	20%
Manchester	$ 389,600	$ 769	$ 87,985	30.80%	53%
Manchester Village	$ 450,800	$ 491	$ 33,750	39.90%	61.80%
Peru	$ 418,200	$ 1,203	$ 112,159	20.60%	52%
Pownal	$ 201,200	$ 924	$ 71,382	21.90%	13.80%
Rupert	$ 288,200	$ 858	$ 52,457	27%	58%
Sandgate	$ 178,800	No Data	$ 67,656	22%	20%
Shaftsbury	$ 260,100	$ 873	$ 103,938	13.30%	48%
Stamford	$ 258,500	$ 1,167	$ 78,000	68%	41.20%
Sunderland	$ 241,400	$ 1,402	$ 78,333	20.30%	68%
Woodford	$ 182,300	No Data	$ 58,875	28.90%	No Data

Source: US Census ACS, 2022

(Woodford, Pownal, and Bennington have the lowest home values in the region) and higher in some of the Northshire communities (Manchester Village, Dorset, and Landgrove having the highest valued homes in the region). There are exceptions, of course, as in Old Bennington Village, with its large and relatively expensive homes. Rental costs are more consistent, but the quantity and quality of rentals may vary from town to town. Table 6: Household Cost Burden by Municipality in the Bennington Region. reports US Census ACS data for 2022 for Bennington region municipalities. As indicated earlier, there are problems with the ACS data.[6] Nonetheless, the trends described are relatively accurate for different parts of the region. Note that the ACS data do not include utilities, so the cost burdened portion of households throughout the region could be higher than that indicated in the table.

Often overlooked when considering the cost and affordability of housing is the cost of energy. The Energy chapter contains detailed recommendations for reducing home energy consumption and cost.

6 For example, we know from targeted studies of the housing markets in Manchester and Dorset that rents are higher in those towns than they are in Bennington, but the ACS Data do not reflect this reality.

The Norton House Family Shelter in Bennington is operated by the Bennington County Coalition for the Homeless, and includes 9 individual units of emergency housing for families with children under 18. Photo Credit: BCRC

Weatherization of existing homes, new construction meeting "Energy Star" guidelines, and switching to cost-efficient renewable energy sources (e.g., wood or cold climate heat pumps for heat) can significantly reduce the cost of housing for people. It is noted that many weatherization projects, particularly those requiring scarce carpentry labor such as re-cladding of walls and replacement of windows, regularly have decades-long time periods over which weatherization investments reach a net decrease in costs.

The location of housing also plays an important role in energy use and cost. Transportation fuel use adds to the household energy burden. Living closer to work, school, and services can significantly reduce fuel use and expense. The same principles apply in the region's downtown and village centers. Indeed, with less multiunit housing and longer travel distances to work and services, the costs tend to be even higher for the more rural parts of the region.

Housing Organizations and Services

A number of programs and organizations exist to help address the high cost of housing in the region. Cornerstone Housing is a nonprofit housing organization serving the Bennington and Rutland regions that has developed quality and perpetually affordable housing, with an emphasis on housing for people in the local workforce. Cornerstone was formed by a merger of the Housing Trust of Rutland County, Shires Housing, and Neighborworks of Western Vermont. The organization owns approximately 400 rental units in the region.

Statewide supporting organizations include the Vermont Housing and Conservation Board, Vermont Housing Finance Agency, Vermont Community Loan Fund, and Evernorth. Evernorth (formerly Housing Vermont) was instrumental in the rehabilitation of 104 units of affordable housing in Bennington. Those units, in the Applegate complex in Bennington, are an important community asset, and responsive and effective long-term management of the project is critical. Other private developers and local organizations with similar missions also play important parts in the region's affordable housing milieu. All of these organizations pursue housing development to support vibrant communities in a number of important ways:

- Creating new affordable rental units and homeownership opportunities
- Promoting a sense of pride in the community by upgrading existing neighborhoods through renovation and restoration of existing housing stock
- Restoring and reusing—as mixed-use buildings whenever feasible—distressed historic buildings and other infill projects to create vibrant centers
- Expanding the local tax base by increasing property values
- Making investments that act as catalysts for additional improvements by other property owners in the neighborhood
- Using energy efficient construction practices
- Spending construction and operating dollars in the community and on local contractors

Housing organizations also offer other important services in the region. For example, Cornerstone provides a range of services to communities in southwestern Vermont, offering education, counseling, and access to affordable loans needed to purchase, improve, and help low-income community members keep their homes. An important home energy efficiency service, the "Heat Squad," operated by Cornerstone, provides discounted home energy audits and assistance with home weatherization projects. The Bennington Rutland Opportunity Council (BROC) maintains an office in Bennington and offers a variety of services to income-eligible residents. Housing-related programs include housing counseling and transitional housing, recovery from damage to homes, and home weatherization and renewable energy projects.

A number of area residents receive federal "Section 8" vouchers that provide substantial long-term rental subsidies for eligible people. The Bennington Housing Authority owns 195 housing units serving low-moderate income families and seniors and manages over 200 of these vouchers. Forty-nine housing units for

A senior housing complex in Bennington owned by Cornerstone Housing Partners. Photo Credit: BCRC

low-income seniors and people with disabilities are also available in Manchester Village at the Meadows and Fields apartments, where rental costs are set at 30% of residents' incomes. The availability of these vouchers and units, however, is limited and does not meet the current demand for housing by very low-income residents of the region.

Special Housing Needs

The region's growing population of seniors has increased the demand for specialized senior housing facilities and services. A number of residential developments serving the senior community exist in the region. In addition to nursing homes in Bennington, Brookdale Fillmore Pond, Washington Elms, Bennington Housing Authority's Walloomsac Apartments, and Cornerstone's Cora B. Whitney House offer apartments for seniors and people with disabilities. The Vermont Veteran's Home accommodates veterans in need of nursing care in Bennington. Equinox Village, Equinox Terrace, and Bromley Manor offer assisted and independent living for seniors, while

Arlington Village Center in Arlington and Spruce Brook Apartments, The Meadows, and Manchester Fields offer low-income affordable apartments for seniors in Manchester.

Senior housing options are limited in the region's more rural towns, where limitations on the ability to provide regular transportation to services poses an additional challenge. Consequently, there is value to concentrating new senior housing development near the center of larger communities where services are more readily available to a population with limited mobility. Additional senior housing for all incomes is needed throughout the region but particularly for seniors with very low incomes. Cornerstone has taken a lead in providing services to seniors through the "Seniors Aging Safely at Home" (SASH) program. SASH coordinators work with program participants to provide health support, education, and social activities that help seniors live healthy and fulfilling lives in their own homes.

People with physical or mental disabilities constitute a significant population having special housing needs in the region. These residents typically have extremely limited incomes and often require special services. According to the US Bureau of Labor Statistics, in 2022, only 21.3% of people with a disability were employed. The unemployment rate for persons with a disability was 7.6%, about twice the rate for persons without a disability. The Bennington office of the Vermont Center for Independent Living provides housing and employment support for many community members with disabilities in the region.

Recovery residences are an important housing type that provides supportive services for people recovering from addiction in our community. Similar to other special housing types, recovery homes benefit from being located in or near centers, as they can then provide easy access to essential services like medical offices, grocery stores, employment opportunities, and other supportive services. Recovery residences and residential care or group homes for people with disabilities that serve up to eight people are considered by state law to be permitted by right as a single-family residential use of property.

Another population with a critical housing need are unhoused persons in the region. The Bennington County Coalition for the Homeless provides transitional housing and a warming shelter to meet some of the needs for these homeless community members. Bennington's Project Against Violent Encounters (PAVE) also provides transitional housing to those seeking to leave abusive home situations. Some residents with very low incomes may not live "on the street," but live temporarily with friends or family because of an inability to afford housing. This population is difficult to quantify, but its numbers are significant in the region, especially in the Bennington area.

The Vermont Housing Needs Assessment, 2025-2029, reports that 312 people in 201 households were experiencing homelessness in Bennington County during the 2023 Point-In-Time (PIT) count, the highest total for the county since the annual PIT count of the homeless population began. The Vermont Housing Finance Agency (VHFA) reports the results of the count and provides data by Vermont county on the HousingData.org website. These data show homelessness increasing in Bennington County from 50 households (77 individuals) in 2019 to over 200 households (324 individuals) in 2024. However, the

A neighborhood of single-family homes in North Bennington
Photo Credit: BCRC

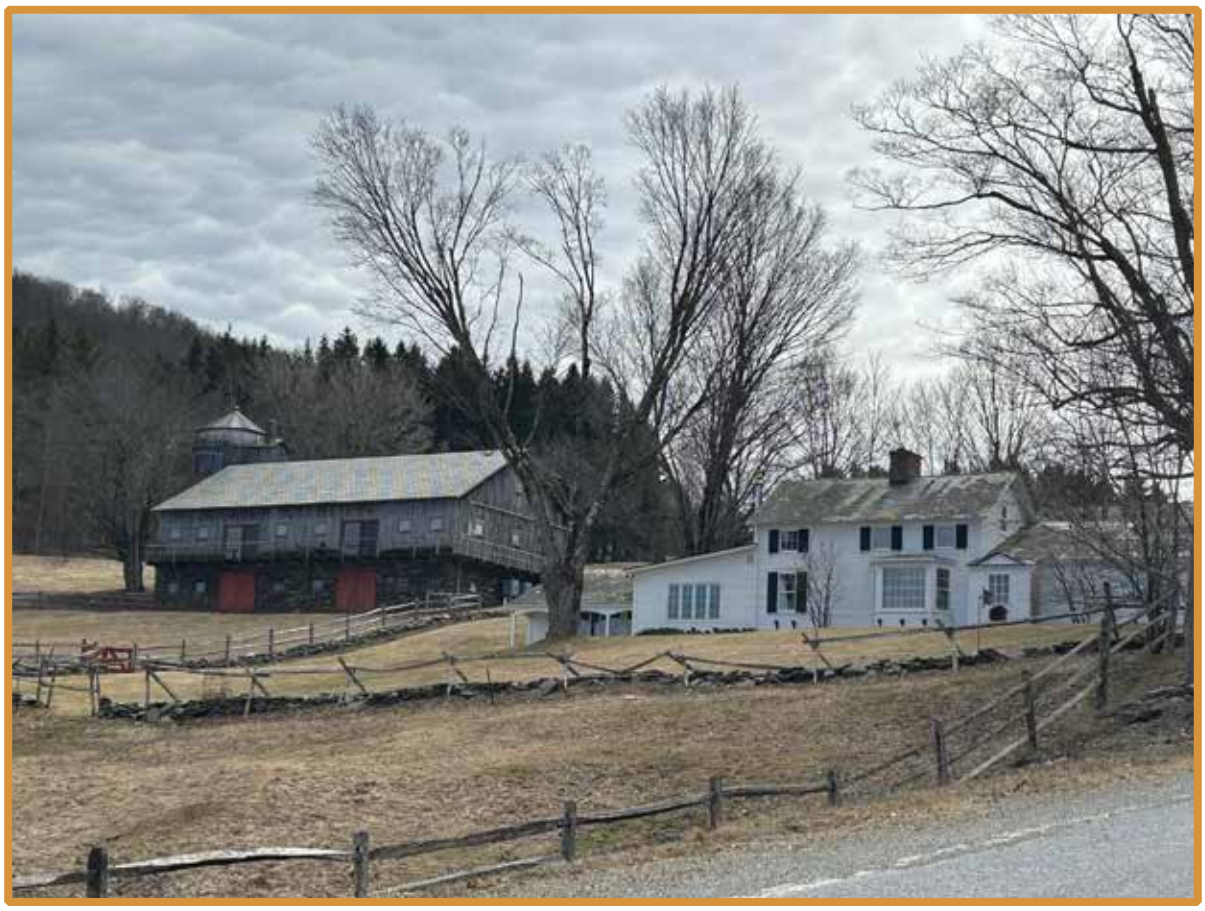
number of unsheltered individuals has fallen from 21 people in 2019 to 1 person in 2024. This primarily reflects increasing publicly funded hotel sheltering of people experiencing homelessness in the county, a temporary measure whose support has wound down. There remains a mix of transitionally housed, emergency sheltered, and unsheltered residents in the county in 2026.

Regional Housing Considerations

While the type of housing issues faced by communities varies across the region, three general regional themes are evident: (1) development of housing related to land use plans and regulations, (2) the cost of housing, and (3) design of housing developments. These issues are discussed below and are illustrated using specific examples from several communities in the region.

Housing and Land Use Planning

Most residential development in the region is located within lower elevation valleys, and within those areas, housing is most concentrated in and near the historic centers of communities where services



A farmstead off of Route 315 in Rupert.
Photo Credit: BCRC

and infrastructure are available (see Map 24: Housing Density (2024)). This development pattern is consistent with state and regional land use planning goals. Continued growth in these "compact centers" promotes public health, energy efficiency, and the vibrancy of downtowns and village centers, and protects rural open space and natural resources. Per 24 VSA 4412, all towns must have appropriate and reasonable regulations for multiunit housing that do not have the effect of excluding such housing from the town, and properties served by both water and sewer that allows residential development must allow multiunit dwellings with four or fewer units. Duplexes must be allowed in a manner no more restrictive than single family dwellings. In the greater Bennington region, towns differ in whether they have updated their bylaws to comply with these provisions, and the BCRC remains vigilant for local attempts to circumvent or otherwise impede their implementation.

Although there always will be some residential development in outlying rural areas, statewide planning goals, the regional land use plan, and municipal land use plans and regulations, discourage or prohibit permanent development in high elevation, mountainous, and particularly remote areas of the region. These land use policies also limit the density of allowable development in rural areas. Nonetheless, considerable potential for scattered growth in the countryside does exist. As noted in the Rural General section, the most preferred style of rural development is

that which sits between existing rural subdivisions and town centers, as well as other rural subdivisions in a manner that ties areas together and "knits together" or "repairs" existing sprawling development. However, the lack of infrastructure, particularly public water and wastewater systems, limits the ability to locate new housing in existing village centers in the region's smaller towns. Innovative technologies designed to address this problem are being pursued in some communities.

In Bennington, a lack of housing of sufficient quality for both home ownership and rentals in the town's designated Planned Growth Area is a problem. This is also a problem in and around Manchester's village center, particularly housing that is affordable to the town's relatively large workforce. The shortage of affordable housing for working families and potential employees seeking housing in these areas is an impediment to economic resiliency. Workers frequently resort to finding housing well outside the town centers, and very often in other communities altogether—some in New York or Massachusetts—while others may move into houses or apartments that do not meet their needs. This discourages long-term residency, retention of workers, and community cohesion.

The BCRC is actively working to address this situation, considering ways to improve the availability of housing that meets the needs of all residents and of individuals and families seeking to move to the area. In its work on revision of town plans and zoning bylaws, the BCRC has placed renewed attention on ensuring municipalities are correcting past planning mistakes that limit overall density in and around their centers. The BCRC encourages municipalities to use design regulations combined with water and sewer capacity, rather than density regulations, to address aesthetic concerns related to new development. In rural areas, it supports developments designed in such ways that they will act as infill to repair past sprawl, facilitate joint water and sewer systems, and provide for bicycle and pedestrian connections to centers.

The BCRC sees value in towns working with property owners to upgrade the quality of rental housing and encourage the conversion of older houses to two- or three-family units to address a portion to the region's housing needs, particularly in Bennington and Manchester where both demand and water and sewer infrastructure is available to support these strategies.

Pownal faces some similar concerns with the location and quality of the existing housing stock. The town has the newest public sewer system in the region and was careful to design the system to support high-density development only in established village centers. At the same time, although there is a large amount of housing in the town that is considered affordable, much of it is of poor quality and many of the town's mobile homes, in particular, are located in developments that are in flood hazard areas. There may be an opportunity for the town to work with the BCRC, Cornerstone Housing, and other agencies and organizations to develop plans for relocation or improvement of this housing. Projects of this nature can ensure that new or relocated housing is developed outside flood hazard areas and in or near the three village centers served by Pownal's municipal wastewater system.

A variety of homes and historic structures line Route 8 in Stamford. Photo Credit: BCRC

North Bennington Village, a historic village with relatively little land available for new housing development, amended its village plan and adopted land use regulations that allow and encourage redevelopment of historic industrial buildings for residential use. The owner of a complex of manufacturing buildings, several of which had been vacant for many years, took advantage of the new regulations and developed over thirty units of high quality affordable rental housing. The buildings now house a mix of residential, commercial, and light manufacturing uses, south of the village center, and overlooking a scenic waterfall on Paran Creek. More such conversions are planned. North Bennington also supported the remapping of most of the village as a Village Area in the regional Future Land Use map to facilitate infill development in southern and eastern portions of the village. These areas, where water and/or sewer are available, include the existing Bennington College campus, where the college could allow development immediately adjacent to the existing village center. The large lots in the eastern portion of the town also have meaningful infill development potential.

Elsewhere in the county, the towns of Dorset and Arlington have taken a leading role in seeking housing solutions despite meaningful infrastructure constraints. Dorset has undertaken a long-running process of adding housing to its town-owned Raptor Lane site, adjacent to its newly-developed town office, historic quarry (a popular

swimming location), and town trail network. The town has spent years gathering public feedback, studying project feasibility, and seeking potential development partners in what is the most ambitious potential housing project outside of Bennington and Manchester in the region. While the project, as all efforts to address the statewide housing crisis has been met with localized opposition and managed water and wastewater constraints, its advanced status led the BCRC to include the area as the region's only growth-oriented new town center.

In a similar vein, Arlington has spent years seeking to play its part in addressing a housing shortage which has led to long commute times for area employees including those of the one of the region's largest employers, Mack Molding, which operates a plant in the town center and one just to its south. Town civic leaders independently funded and undertook a multi-year project which included an emphasis on housing and infrastructure. The town purchased its local water company took on substantial debt to make needed repairs and support current and future development. It completed a wholesale zoning and subdivision bylaw rewrite and is in the process of completing two wastewater treatment studies, as well as its leaders being outspoken in their support for statewide land use regulation reform.

Most of the area's larger towns and villages have considered pursuit of Tier 1B designation in support of new housing development. In particular, the towns of Manchester, Shaftsbury and Arlington were early and enthusiastic adopters of Tier 1B resolutions, followed quickly by Bennington, North Bennington, and Dorset. The only towns with meaningful benefit which did not seek designation were Pownal, amidst a struggle with water constraints, and Manchester Village, where the Village Center and Village Area hold few obvious development sites.

Housing Cost

The high cost of housing relative to income is a problem, to a greater or lesser degree, in all of the region's towns and villages. Several organizations and programs, each serving a particular market niche, work to reduce the housing cost to income gap in the region. The BCRC supports the work of state agencies, municipalities, regional housing organizations, and developers to plan and develop new housing that is affordable to the region's residents and workforce.

Housing cost issues were brought to the fore during the COVID-19 pandemic which caused a dramatic short-term increase in housing demand. This, combined with a long-term trend toward remote work, investments in broadband infrastructure, and shorter e-commerce delivery times led to a major increase in housing costs. This led to a need for state housing planners to embrace two long-range targets, a "2050 lower" and "2050 upper", with the lower being primarily based on the long-range structural need, and upper which extrapolates from both the long and short-term trends. The difference between these figures is substantial and can be viewed in the tables in the next section.

High housing costs have combined with labor market rigidities to limit the number of construction and trades businesses available to build and maintain housing to address high and increased housing costs. High housing costs limit the availability of entry-level

construction labor, limit tradesperson capital availability (and with it their ability to buy efficiency-improving tools and machines), increase travel times to construction job sites, and raise the barrier to entry for new construction businesses.

Cornerstone Housing serves as the non-profit housing development corporation for Bennington County, working to develop new affordable housing throughout the region while managing its existing portfolio of affordable apartments and ownership units. Cornerstone offers affordable apartments in Bennington, North Bennington, Shaftsbury, Arlington, and Manchester. In addition to apartments, Cornerstone manages 12 subsidized homeownership units at East Branch Farms in Manchester. Cornerstone also owns the Willows Mobile Home Park in Bennington where it recently added four zero-energy manufactured homes on vacant lots in the park. This project to install zero-energy manufactured homes should serve as a model for new affordable housing development in other locations in the region. In addition, Cornerstone works with the owners of older units in the Willows Mobile Home Park to weatherize and renovate their mobile homes.

In Bennington, Cornerstone's Roaring Branch project involved construction of 26 units of high-quality rental housing, 14 new units on an infill lot and 12 units in a renovated historic mill, all in the town's Planned Growth Area. With monthly rents ranging from $820 to $1300 (depending on the number of bedrooms), the cost is affordable for households with adults in the local workforce.

Bennington County Habitat for Humanity (Habitat) manages 30 subsidized home ownership units in Manchester (13), Bennington (9), Pownal (3), Arlington (2), Shaftsbury (2), and North Bennington (1). Working with pre-qualified families, Habitat builds about 2 houses per year and has approvals for thirteen more units in Manchester's Jennifer Lane and Bennington's Corcoran's Way neighborhoods. Although the Habitat projects provide affordable homes to qualified low-income buyers, Habitat's efforts can only meet a relatively small portion of the need in the region.

Housing affordability issues tend to be particularly acute in the Northshire, where the high cost of homes and land make it difficult for people who grew up in these communities to stay and for workers to find housing near their employment. A number of strategies are available to address these concerns, in addition to, or in combination with, the housing agencies and programs discussed above. The Town of Manchester has revised its land use regulations to remove barriers to housing development in the community. Those regulations allow significant increases in the number of housing units permitted on a parcel of land, particularly downtown. Clustered residential subdivisions in the more rural zoning districts receive significant density bonuses in exchange for permanent protection of open space. Another provision allows conversion of existing nonresidential buildings to multiunit residential use without regard to the density limit of the underlying zoning district.

Other municipal actions that can support the development of affordable housing include allowances for duplexes and accessory apartments without regard to lot density limits (now mandated by state law), and transfer of development rights (whereby density increases in an area planned for concentrated

A men's recovery house in a residential neighborhood in Bennington. Photo Credit: BCRC

development are permitted through a transfer from an area planned for lower density or land conservation). Many municipalities have not significantly revised their zoning maps in many years and would benefit from revisiting the maps to ensure their most-dense zones cover their Village Centers and, in most cases, their Village Areas. Municipalities should also consider the nature of their rural area zoning to ensure it facilitates infill development that allows for the kind of sprawl repair noted under Rural General, above, particularly with regard to large minimum lot sizes, provision of cluster and cottage court development, and provision for bicycle and pedestrian circulation within and among subdivisions.

Centrally located and higher density housing, while often relatively affordable, has other benefits. New housing development in these areas can provide opportunities for comfortable and efficient living for people with a range of incomes. Housing and demographic trends show a preference by many professionals and seniors for living in densely developed areas where the population supports vibrant pedestrian-oriented neighborhoods with easy access to shopping, restaurants, and other services. This kind of housing, therefore, reinforces the local economy. It also encourages people of all ages and abilities to make physical activity a part of everyday living. The resultant concentration of infrastructure investments (such as sidewalks and bike paths), creates better options for public

Equinox Village is a senior living community in Manchester Village.
Photo Credit: BCRC

transportation, maintains green space, reduces air pollution, and promotes greater social interaction. This style of development may also foster volunteerism in local government by placing more housing near civic assets like town halls, firehouses, and community centers, helping address perennial needs of municipalities.

Design of Housing Developments

Certain characteristics should be common to most new residential development within the region. These features represent the best of the region's traditional development pattern and, as such, reflect principles of "Smart Growth" and "Healthy Community Design." Development during the second half of the 20th century came to emphasize designs that were more responsive to automobiles than to people. Reversing this trend requires a renewed emphasis on the region's original form of housing development. Useful resources include Vermont Natural Resource Council's Smart Growth Grants and the Vermont Department of Health's Healthy Community Design Resource Active Living and Healthy Eating. The Department of Housing and Community Development's newly launched Homes for All Toolkit will also be a valuable resource for the region's smaller developers, supporting even very small scale first time developers to produce infill development that compliments existing neighborhoods. Notably, in 2025 the Town of Manchester was accepted as one of three statewide "Housing Development Ready" Communities to pilot and refine the concept of pre-approved small-scale infill housing designs.

Energy conservation and efficiency in new housing and redevelopment of buildings for residential use is also an important design element of healthy communities. Such design will lead to significant cost saving over time as well, even if they increase up-front housing costs. Information on residential energy efficiency incentives is available at Efficiency Vermont. Vermont Residential Building Energy Standards requirements are distributed by local zoning administrators along with permits for all new residential construction, and new construction must be shown to meet those standards with a certificate recorded in local land records upon completion.

In addition to the land use principle of encouraging relatively dense housing and mixed-use developments in and around downtowns and village centers, the following design ideals support a human-scale environment that is consistent with the goals of this plan:

- Architecture is compatible with the character of the community, surrounding neighborhoods, and any historic districts,

while providing some variety in design among and between structures.

- Most residential areas are served by relatively narrow streets that slow traffic and, when possible, form a connected network with existing streets to disperse traffic.
- Parking areas for cars and garages are not prominent in building or site design.
- In compact centers and residential neighborhoods, buildings are sited close to the public street and with front porches and walkways connecting to public sidewalks.
- Sidewalks and pathways traverse the development, along road edges or via more direct, protected, or scenic routes, to provide connections to public open spaces, adjacent neighborhoods, and any concentrations of public activity such as commercial areas or schools.
- Streets and sidewalks treated as public spaces and integrated with existing parks and new "pocket" parks to foster a sense of neighborhood and community.
- Landscaping is carefully planned with appropriate trees and green spaces along streets and sidewalks.
- A range of housing types (ownership, rental, one, two, or multiunit) at a range of price levels are provided.

Table 7: Housing Targets by Town

Targets	Total Acres	% of Total Regional Acres	Homes Needed 2030 (Lower)	Homes Needed 2030 (Upper)	Homes Needed 2050 (Lower)	Homes Needed 2050 (Upper)
Arlington	26999.44	7.34%	45	72	204	401
Bennington	25629.82	6.97%	462	745	2104	4148
Dorset	30386.23	8.26%	62	99	280	552
Glastenbury	28402	7.72%	2	3	8	15
Landgrove	5698.98	1.55%	8	13	37	73
Manchester Center	24727.26	6.72%	116	188	529	1044
Manchester Village	2210.64	0.60%	29	46	130	256
North Bennington	1178.34	0.32%	38	61	172	338
Old Bennington	241.53	0.07%	4	7	19	37
Peru	24007.96	6.53%	22	36	101	199
Pownal	30100.56	8.18%	77	125	352	693
Rupert	28671.65	7.79%	14	22	63	125
Sandgate	27099.45	7.37%	8	13	37	72
Shaftsbury	27590.73	7.50%	58	94	266	525
Stamford	25334.22	6.89%	14	23	66	130
Sunderland	29168.5	7.93%	19	30	85	167
Woodford	30395.83	8.26%	7	11	32	63
TOTAL	367842.9	1	985	1588	4483	8836

Table 8: 2050 Housing Targets by Unit Type

2050 Targets by Unit Type	Single Unit	ADU	2-6 Unit	6+ Unit	Total
Arlington	**65**	**45**	**72**	**23**	**204**
Bennington	200	340	994	571	2104
Dorset	**91**	**61**	**102**	**26**	**280**
Glastenbury	6	1	1	0	8
Landgrove	**17**	**9**	**9**	**1**	**37**
Manchester Center	123	113	216	77	529
Manchester Village	**30**	**29**	**54**	**17**	**130**
North Bennington	20	35	85	33	172
Old Bennington	**5**	**4**	**8**	**2**	**19**
Peru	35	23	33	10	101
Pownal	**91**	**74**	**139**	**47**	**352**
Rupert	29	13	18	3	63
Sandgate	**23**	**8**	**5**	**0**	**37**
Shaftsbury	99	64	81	21	266
Stamford	**37**	**17**	**11**	**1**	**66**
Sunderland	36	21	23	6	85
Woodford	**18**	**8**	**6**	**1**	**32**
TOTAL	**923**	**865**	**1856**	**839**	**4483**
% Total	**21%**	**19%**	**41%**	**19%**	

Housing Targets

In response to an increasingly critical housing shortage faced in the state, Act 47 (2023) required regional plans to estimate needed housing investments by price and type and to disaggregate regional targets by municipality. Furthermore, Act 47 required municipalities to allow up to five housing units per acre in areas served by both municipal water and sewer. Many of the region's rural municipalities are not equipped to accommodate significant increases in housing production simply because they lack wastewater infrastructure. Consequently, most of the county's housing needs will be addressed in the municipalities that have existing wastewater capacity or those that are developing new wastewater systems.

The region's two largest towns, Bennington and Manchester, have sewer capacity and also have water systems that serve major portions of each town. The incorporated villages of Old Bennington and Manchester Village are also largely served by these sewer and water systems. North Bennington operates its own water system and is largely served by the town sewer system. Pownal has existing sewer and water systems serving two of its designated villages. Therefore, the housing needs of the region will mostly be addressed in these three towns and the three incorporated villages.

Table 9: 2050 Targets by Unit Size

2050 Target By Unit Size	0-1 Bedroom	2 BR	3 BR	4BR	5+BR	Total
Arlington	**125**	**53**	**20**	**6**	**0**	**204**
Bennington	1435	449	210	10	0	2104
Dorset	**172**	**73**	**28**	**7**	**0**	**280**
Glastenbury	4	2	1	1	0	8
Landgrove	**21**	**10**	**4**	**2**	**0**	**37**
Manchester Center	338	130	53	8	0	529
Manchester Village	**85**	**29**	**13**	**3**	**0**	**130**
North Bennington	120	35	17	0	0	172
Old Bennington	**13**	**4**	**2**	**0**	**0**	**19**
Peru	62	24	10	4	0	101
Pownal	**221**	**90**	**35**	**6**	**0**	**352**
Rupert	38	16	6	3	0	63
Sandgate	**19**	**11**	**4**	**3**	**0**	**37**
Shaftsbury	160	66	27	13	0	266
Stamford	**35**	**19**	**7**	**6**	**0**	**66**
Sunderland	50	22	8	5	0	85
Woodford	**17**	**9**	**3**	**3**	**0**	**32**
TOTAL	**2914**	**1040**	**448**	**81**	**0**	**4483**

Arlington, Dorset, and Shaftsbury could be positioned to accept infill and new housing development if community wastewater systems can be developed to serve targeted areas within their borders and water capacity constraints are addressed. Arlington has recently worked to have its water connection moratorium lifted and is actively seeking to expand a municipal sewer system to serve its designated villages and accommodate infill housing development. In Dorset, recent upgrades to the drinking water system in Dorset Village lifted a permitting moratorium that had prevented any development until significant infrastructural investments could be made. Its long-running development effort on town land on Raptor Lane adjacent to its new town office stands to be one of the largest single housing projects in the region in coming years. In Shaftsbury, there is potential for and community commitment to infill housing in the designated South Shaftsbury Village Center. Shaftsbury is seeking additional water allocations from the North Bennington water system to facilitate this development, and, failing that, is in the process of exploring a connection to the Bennington water system to access the water it needs to drive growth in South Shaftsbury. It has recently committed to building housing on its former town hall site in the village center.

Furthermore, the design and permitting of smaller community wastewater systems could enable concentrated housing development in some of the region's more rural villages such as Rupert, but such systems have yet

Table 10: 2050 Housing Targets by Ownership

2050 Target by Ownership	<80% MHI Rental	Rental	Ownership	Total
Arlington	35	55	114	204
Bennington	411	621	1072	2104
Dorset	49	77	154	280
Glastenbury	1	2	5	8
Landgrove	5	9	23	37
Manchester Center	98	150	281	529
Manchester Village	23	36	70	130
North Bennington	34	51	86	172
Old Bennington	3	5	10	19
Peru	16	26	59	101
Pownal	65	100	187	352
Rupert	9	16	38	63
Sandgate	4	8	25	37
Shaftsbury	40	67	159	266
Stamford	8	14	44	66
Sunderland	12	21	52	85
Woodford	4	7	21	32
TOTAL	816	1264	2403	4483
% Total	18%	28%	54%	100%

to be pursued in the region or permitted by the Vermont Department of Environmental Conservation. Given this, targets for the region's most rural municipalities will largely reflect existing annual permit trends for new housing units in each of these towns.

The preceding sections of this chapter have detailed, among other important characteristics, the overall lack of fit between the region's housing stock and its household composition. As is true throughout Vermont, there are significantly more households with two or fewer people than there are housing units of one or two bedrooms. In Bennington County, for example, only 13 percent of housing units are studio or one-bedroom structures, while nearly one-third of the county's residents are individuals living alone. Meanwhile, on the other side of the spectrum, one in four housing units have four or more bedrooms, while just one in six residences has four or more people living in it. The remainder of this section examines how the region and its constituent municipalities could remedy a status quo that currently limits options for first-time homebuyers looking to enter the market, for senior citizens looking to downsize, for renters looking to preserve flexibility, and for households who wish to adjust their housing size and scale without having to leave the communities where they have put down roots.

The Vermont Housing Needs Assessment, prepared by the Vermont Housing Finance Agency (VHFA), shows a housing target for Bennington County of at least 958 to

1588 new units by the end of 2029.[7] As of this writing, county 2050 targets have not yet been established by the VHFA. Table 7: Housing Targets by Town shows annual housing targets for each municipality in the Bennington region.

Rather than the more subjective methodology in the 2024 Regional Plan, this Regional Plan relies on a data-driven targeting methodology built around the future land use map (Map 15: Future Land Use (2026)). Given the exhaustive mapping process that involved dozens of public meetings, the BCRC believes this method is built on a foundation of public engagement. At the core of the model methodology is the fraction of each future land use category present in each municipality. Each future land use category is assigned a weight that is consistent with Act 181's mandate that a substantial majority of housing growth be located in downtown centers, village centers, planned growth areas, and village areas. Overall, the collective weight of the four categories is 75% of the overall housing target.

This substantial majority is broken down as follows:

- 20% is assigned to downtown centers, which solely exist in Bennington. This target is reflective of the substantial water, sewer, pedestrian, bicycling, educational, and other infrastructure located in Bennington.
- 10% is assigned to village centers, which exist in every municipality except Glastenbury and Bennington. This target reflects the prevalence of water and sewer infrastructure in "growth-oriented" village centers, including the Manchester village center which barely does not qualify for downtown center status. This also emphasizes the concept that the smaller historic and civically-oriented town centers that lack meaningful housing should consider working to allow housing in areas where civic infrastructure is present.
- 30% is assigned to planned growth areas. These are present in both Manchester and Bennington, and cover the areas surrounding their respective centers. They are assigned the greatest weight both to reflect their greatest potential for growth due to existing water and sewer infrastructure, and the number of available development sites.
- 15% is assigned to village areas. These are present in most mid-size municipalities and two of the three villages reflecting neighborhoods with water or sewer service or both. The lower weight reflects the limited number of development sites because most such areas are built-out and remaining parcels often have site constraints including topography, marginal soils, or other limitations.

Of the remaining six categories

- 7% is assigned to transition areas, reflecting a desire for minor infill development while retaining open sites to be developed once utilities are extended or existing uses reach the end of their lifecycle and are ready to be redeveloped.
- 14% is assigned to rural general. This reflects the goal of existing areas to see gradual intensification in development to add depth to existing strip-style development and complete projects that tie

7 Homes in Winhall, Searsburg, and Readsboro comprise about 11% of the county housing stock, but these towns are not part of the Bennington region. Adjusted accordingly, a regional target of 853 to 1,413 units over the next 6 years can be expected for the Bennington region.

existing rural subdivisions together into a development pattern that more-thoroughly reflects Vermont's historic development pattern. This also reflects a desire to encourage accessory dwelling unit development in rural areas to take advantage of existing quality septic soils to limit ecological damage from new housing and encourage intergenerational living which stems demand for child and elder care.

- 3% is assigned to rural agricultural and forestry, reflecting both the need for on-farm worker housing, intergenerational units, and the substantial fraction of regional land located in the category.
- 1% is assigned to rural conservation. This reflects the fact that there is expected to be some amount of development in a land use category which constitutes approximately 60% of all regional land.
- 0% is assigned to resource-based recreation areas. This reflects that the only area mapped for this category is Bromley Mountain and its environs, and that the associated housing development of Bromley Village has been built out to the fullest extent of its master plan.
- 0% is assigned to enterprise areas. This reflects that these areas are meant for industry. Most mapped areas are existing mines where, reflecting the Earth Resources section of this plan, development is discouraged until such resources are exhausted. Other areas are Bennington's airport and industrial facilities and parks which do not have meaningful housing development potential.

After the total fraction of the regional housing target is allocated, portions of the future land use category are allocated to each town by the share of the overall future land use category present in the town. Municipal target totals are the sum of these shares.

A substantially similar methodology is employed to develop targets for the number and nature of units per structure, number of bedrooms per unit, and ratio of target units for ownership, market-rate rental, and <80% area median income rental units. Weighting for these measures is largely reliant on the Vermont Housing Needs Assessment's determination that small units are relatively undersupplied in the Bennington market, recent demographic trends toward smaller households, regional energy targets that seek to lower overall energy use (most efficiently done with small units in multifamily structures disproportionately in compact centers), and public feedback indicating an undersupply of rental units. All figures in this portion of the housing targets use the 2050 (Lower) overall target generally owing to fiscal capacity and ecological constraints. It is acknowledged that regional towns will struggle for fiscal capacity to provide infrastructure to reach 2050 targets particularly while limiting rural greenfield development in accordance with state and regional planning goals.

The BCRC has worked in the last few years with its member municipalities to bring their zoning regulations up to Act 47 standards. Consequently, an increase in the numbers of accessory dwelling units (ADUs) and duplexes is possible throughout the region and the targets presented in Table 8: 2050 Housing Targets by Unit Type reflect increased potential for these kinds of units. We expect a disproportionate share of targets assigned to the 2-6 unit category. All but a few towns and villages can be expected to see some

duplex development in the coming years. The BCRC will promote the Homes for All Toolkit to encourage other forms of small-scale infill development throughout the region.

The VHFA assessment for Bennington County reports:

1. 50% of households (7,338) have incomes below the Area Median Income (AMI) of $68,558;
2. most of the year-round owner- and renter-occupied stock consists of single-unit detached homes (73%); and
3. the ratio of home prices to household income is 3.8, reflecting that households on average are paying more than 30% of their income on housing costs and are thus considered cost burdened.

A housing needs assessment for the Town of Bennington in particular was conducted in 2021 by Camoin Associates and the BCRC for the Energizer Reuse Study. It found that renter households in the town were the most cost burdened, with 41% of renter households paying more than 30% of their income on housing, and 21% were severely cost burdened paying more than 50%. By comparison, 31% of owner households were cost burdened with 9% severely cost burdened. Consequently, there is a clear need for smaller and low-cost units in the Town of Bennington as well as in the region as a whole. Most new housing in the coming years will have to be for low- to moderate-income households, primarily in Bennington, with a mix of market rate and subsidized affordable options throughout the rest of the region, particularly in Manchester.

Repurposing large formerly industrial buildings such as the former Energizer battery facility and the old Bennington High School building has great potential to provide the kind of low-to-moderately priced rentals needed in Bennington. In Manchester, the 2020 Downtown Manchester Mixed-Use Development Market Feasibility Study recommend a mix of repurposing retail space and new construction to provide residential units for small households at a mix of price points, with about half at market rate and half for low- to moderate-income households. Other opportunities, particularly in Bennington and Manchester, including their incorporated villages, involve repurposing large formerly single-unit homes to serve as smaller multi-unit condominiums or rentals at higher price points. Motel facilities throughout the region also have potential to be repurposed into low-cost multiunit housing. This has been happening over the course of the last several years, but there remains significant potential in this realm in the region's most populous towns.

Environmental Benefits + Burdens

Healthy homes and buildings offer indoor environments that support physical well-being and protect their inhabitants. They are constructed and maintained in ways that can withstand environmental hazards, minimize exposure to pests and contaminants, and keep moisture, temperature, and ventilation at safe and comfortable levels. Home and building health hazards arise when indoor environments expose residents to conditions that compromise their safety. These hazards may result from building characteristics like high moisture, poor ventilation, or outdated construction materials. Hazards may include mold, pests, chemical contaminants (e.g. lead and asbestos), or structural problems that increase risks of illness or injury.

Regional Context

As Vermont and the Bennington Region strive to develop new housing, it will also be important to maintain the quality and safety of the existing housing stock so that it remains habitable. Approximately 63% of the region's housing stock was built prior to 1980 and 25% was built before 1940. Much of this aging housing stock will require renovation or rehabilitation to maintain resident health and comfort or bring previously uninhabitable units back into the housing market.

Low-income homeowners living in older homes are less likely to have the financial resources to remediate any hazards that may be present in their home, or to weatherize their home for greater comfort and energy savings. Renters are often reliant on their landlord to address these issues, who may or may not have the financial resources or incentive to do so, and low-income renters, in particular, may have no choice but to accept any unit they can afford even if it is substandard.

Municipalities should not add regulations that prevent the rehabilitation or reuse of existing structures or demolition if neither are viable if there is not a clear health, safety, or other purpose outlined in state law or regional planning guidelines. There should be a clear path to waivers or variances that would allow adaptation of these structures to new needs, including addition of duplexed or accessory units in order to facilitate the removal of existing environmental hazards and contaminants such as lead, and asbestos.

Special needs and recovery housing should be distributed through the region, particularly in walkable areas of growth-oriented village centers in which transit service is present. While this should be most concentrated in the area's largest communities where service density is greatest, it is important that such housing is available in smaller towns as well.

Outside of designated design districts, municipalities should avoid aesthetic regulations including specification of building materials. Lot size minimums and/or frontage requirements, and setbacks should be in line with Vermont's Zoning for Great Neighborhoods recommendations. This would allow for lower overall costs or for construction dollars to be spent on energy efficiency measures.

Municipalities should design their zoning bylaws in such a way that housing of all sizes, unit counts, and tenure are viable to be built in all towns in the region. This should include creation or expansion of village center zoning districts, as well as revision of rural zoning districts in line with policies and recommendations elsewhere in this plan.

Municipalities should ensure there is adequate area to build outside of the flood hazard area. This is particularly important for the siting of new mobile housing parks and other areas where housing targeted at environmental justice focus populations is expected to be built.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

BCRC is prepared to take a leading role in helping member municipalities address regional housing issues. It employs staff knowledgeable about planning best practices and the ways municipalities in Vermont and elsewhere in the country are changing their regulations to improve housing outcomes. It can undertake substantial projects to review municipal zoning bylaws and town plans to ensure they will successfully address pressing local housing challenges. BCRC staff can provide one-off technical assistance to address individual shortcomings in local zoning bylaws to help municipalities address impediments to housing growth. BCRC can also advise on and support municipal efforts to voice their concerns with shortcomings in statewide housing laws that impede local abilities to seek innovative solutions to adding housing in their communities.

Housing Goals and Actions

Goals

- Encourage the addition of new housing to the region at all price points to meet regional housing targets in every town individually and the region collectively.
- Support the addition and rehabilitation of housing that is affordable to the region's residents and workforce.
- Advocate for housing that reflects energy efficiency, smart growth, and healthy community design principles.
- Support an increase in the variety of housing options available in both compact centers and more rural areas, with higher densities, multifamily buildings, and mixed-use developments in suitable locations in and around downtowns and village centers.

Actions and Policies

The BCRC . . .

- Shall assist member municipalities to adopt plans with housing elements that assess housing issues and needs in their communities and that establish realistic strategies to address the identified needs and to meet targets as established in this plan
- Shall assist municipalities to adopt and implement local land use regulations that make provisions to allow for adequate supplies of housing of various sizes and types in appropriate densities
- Shall assist municipalities in implementing recommendations of Vermont's Zoning for Great Neighborhoods handbook in designated centers, Village Areas, and Planned Growth Areas.
- Assists municipalities to pursue investments in infrastructure that support the development of new housing to meet the targets established in this plan
- Works with member municipalities, public and non-profit housing organizations, and private developers to assist in the planning and development of new or rehabilitated housing that is affordable to residents of the region and to potential members of the workforce who are seeking housing in the area
- Works with regional partners to support the development of additional housing that meets the needs of the region's seniors and residents with disabilities, as well as those with special needs and very low incomes. This housing should be in or near Downtowns, Village Centers, Planned Growth Areas, and Village Areas, where services are conveniently available.
- Prioritizes development of housing on vacant "infill" lots, in the upper stories of Downtown and Village Center buildings, and remediation and redevelopment of vacant or underused buildings and "brownfield" sites for housing in compact centers
- Supports municipal adoption of unified development ordinances to address issues related to housing and land use, but not otherwise regulated through zoning, subdivision, and flood hazard bylaws.
- Supports municipal bylaws that offer density bonuses for permanently affordable housing, as well as those that offer density bonuses for supportive and recovery housing, beyond any density bonuses required by state law, including relaxation of massing regulations.

- Opposes municipal mandates on the design of types of materials to be used in housing, mixed use, or accessory building construction except for in designated design review districts or where mandated in state building or energy codes due to such mandates effect of discouraging housing construction to meet established housing targets.
- Supports state and local efforts to house people experiencing homelessness
- Encourages and facilitates, as appropriate, the use of public assets such as buildings, land, and financing, to help reduce the cost of housing development and support creation of affordable housing
- Supports legislative efforts to reduce the cost of housing construction and renovation, including but not limited to changing the state building code to allow for simpler use of non-flammable construction materials, buildings with a single access staircase, and smaller elevators
- Supports legislative efforts to simplify the housing permitting process including the use of pre-approved housing designs and use of modular and off-site construction techniques
- Supports legislative efforts to address the state's housing construction labor shortage including training of contractors, allowing portability of tradesperson occupational licenses, and related workforce matters

Local Economy

Since the last regional plan, unanticipated shocks and emerging technologies have impacted the economic landscape at home and nationwide. Four key metrics are presented below. Four key metrics are presented below.

Context

Major Measurements: Gross Domestic Product

Bennington County's economy has grown considerably since 2017, increasing its gross domestic product (GDP) by 22 percent between 2017 and 2022. That year, GDP—the value of all the goods and services produced within Bennington County—reached $2.05 billion, or five percent of the state total. This level of growth more than doubled the national GDP growth of 10 percent, but slightly trailed the state's GDP increase of 25 percent in that same period.

Major Measurements: Income

Estimates of Bennington County's median household income (MHI) reached $68,558 for all households in 2022, a 40 percent increase over the 2012 MHI. This rate of growth slightly outpaced Vermont's 37 percent increase in that time, although the region still trails the state's $74,014 MHI. National MHI fared slightly better than the state or region, rising from $53,000 in 2012 to $75,150 in 2022, a 42 percent increase.

What did we learn from the community?

Economic stagnation identified as one of the greatest challenges of the region, along with poverty and homelessness

More than half of survey respondents indicated an interest in seeing more entrepreneurial jobs (start-ups, small businesses) in the region; followed by 40% saying trades/construction

More than half of survey respondents said their top priority for growth would be to "attract new businesses and employment opportunities to diversify the tax base"

Table 11: Bennington County Economic Sector shifts, 2012-2022, and Average Wages.

Economic Sector	Employment 2014	Employment 2024	Percentage Change 2014-2024	% total	Average Wage 2024
Education and Health Services	**3544**	**4123**	**16.3%**	**22%**	**$ 60,449.00**
Retail Trade	2758	2,576	-6.6%	14%	$ 43,823.00
Manufacturing	**2573**	**1,757**	**-31.7%**	**9%**	**$ 62,916.00**
Leisure, Hospitality, Recreation	2106	2,220	5.4%	12%	$ 32,346.00
Education	**2047**	**2,330**	**13.8%**	**13%**	**$ 46,573.00**
Professional Services	1324	1,296	-2.1%	7%	$ 111,739.00
Government *	**2145**	**2,338**	**9.0%**	**13%**	**$ 55,560.00**
Construction	570	606	6.3%	3%	$ 56,133.00
Finance, Insurance, Real Estate	**458**	**432**	**-5.7%**	**2%**	**$ 96,597.00**
Other Services	420	399	-5.0%	2%	$ 33,202.00
Information	**301**	**247**	**-17.9%**	**1%**	**$ 83,267.00**
Transportation/Wholesale Trade/Utilities	134	209	56.0%	1%	$ 109,435.00
Agriculture, Forestry, Mining	**89**	**89**	**0.0%**	**0%**	**$ 34,804.00**
Total	**18469**	**18,622**	**0.8%**		**$ 63,603.38**

Source: Vermont Department of Labor

Major Measurements: Wages

Between 2017 and 2022, wages rose by a remarkable 26.2 percent nationwide. In Vermont, the relative growth was even stronger, at 29.1 percent ($59,606). Encouragingly, Bennington County's wage growth exceeded the state's, with a 30.6 percent gain ($54,583). Wage gains were stronger in the private sector, and more concentrated in the service producing domain than in the goods producing domain. Gains were especially strong in financial activities and professional services, but also in lower-paying industries including retail, food services, and hospitality. By comparison, Bennington County's wages grew by just 12 percent between 2012 and 2017.

Major Measurements: Employment

The number of jobs in Bennington County declined between 2017 and 2022, to 16,371. This 4.3 percent reduction exceeded the state's decline of 2.6 percent. Nearly all major employment sectors in Bennington County reduced headcounts, with leisure, hospitality, state government, and retail among the hardest hit. Real estate, education, non-durable goods manufacturing, and health care saw important gains, however.

Table 11: Bennington County Economic Sector shifts, 2012-2022, and Average Wages. details the region's employment levels and earnings by broad economic sector. Among the five largest industries—health care, retail, education, leisure/hospitality, and

manufacturing—health care and education posted noteworthy headcount gains, but retail and manufacturing suffered significant losses for the second decade in a row. However, the table presents an interesting picture: this economy is rebalancing. Double-digit losses in retail, manufacturing, information, and agriculture are partially offset by double-digit gains in education, construction, and wholesale trade/transportation/utilities. By contrast, in the previous regional plan, which looked back from 2012 to 2002, the professional services sector was the only one to grow.

One result of this rebalancing is a slightly more diversified economy. Although the largest sector—health care and social services—increased its share to nearly 20 percent of all jobs in the region, there is growing parity between industries. Although specialization allows for a sector to make an outsize contribution to regional economies, it can expose a region's economy to major hardship in the event of an industry-wide downturn. The Covid-19 pandemic, for instance, was especially hard on retail and manufacturing economies around the country. But in its aftermath, most everyone in Vermont observed that the building trades were busier than ever. The variation in Table 11: Bennington County Economic Sector shifts, 2012-2022, and Average Wages. suggests that people who left one industry were able to find work in another part of the economy.

Table 12: Total jobs, average wages, and share of jobs in BCRC towns, with comparisons to 2012. examines the presence of employment in the region's towns. Bennington and Manchester are the two major employment centers, accounting for 56.2 and 22.3 percent of the region's jobs, respectively. Another 11.7 jobs are in either Arlington or Dorset, and both towns reported noteworthy job increases between 2012 and 2022. The remaining ten percent of jobs in the region are distributed among the nine incorporated towns.

There is significant variation in the region with respect to wages, from a low of $41,900 in Stamford to nearly $75,000 in Sunderland. (Sunderland, as Table 12: Total jobs, average wages, and share of jobs in BCRC towns, with comparisons to 2012. shows, is a statistical outlier for job totals due to the new method for counting public school employees by supervisory union headquarters instead of by school.) Although wages are up across the board, compensation levels grew by extraordinary levels in many of our smaller towns, and more than doubled in Peru and Woodford.

In previous regional plans, this likely would have been celebrated as an important indicator of increased economic opportunity. In the post-pandemic world, however, this is primarily an indication of the proliferation of remote work. Remote workers are now considered employed in the town of their residence, and not in the town of their "former" office building. Full-time remote positions tend to be in the realm of professional and business services, which enjoy higher wages than most. Furthermore, a remote worker is considered a "new establishment" in the town, as well, which can add to the confusion. Whether the remote worker is new to town or is a longtime resident who is now taking advantage of remote work options with a local employer, the result is the same: smaller towns that have long offered no more than a few on-site employment opportunities are seeing figures

Table 12: Total jobs, average wages, and share of jobs in BCRC towns, with comparisons to 2012.

Town	Total Jobs	% Change, Jobs	Average Wage	% Change, Wages	Town Share of Regional Jobs
Arlington	**1,117**	**+29.9**	**$57,851**	**+33.0**	**7.0**
Bennington*	9,028	-8.6	$51,640	+37.6	56.2
Dorset	**757**	**+13.7**	**$62,423**	**+64.2**	**4.7**
Glastenbury	NA	NA	NA	NA	NA
Landgrove	**37**	**-2.6**	**$47,284**	**+34.9**	**0.2**
Manchester	3,577	-12.6	$55,734	+52.4	22.3
Peru	**219**	**+5.8**	**$52,416**	**+112.6**	**1.4**
Pownal	145	-18.1	$48,485	+79.1	0.9
Rupert	**64**	**+18.5**	**$51,128**	**+28.5**	**0.4**
Sandgate	18	NA	$70,350	NA	0.1
Shaftsbury	**453**	**-7.4**	**$59,042**	**+46.4**	**2.8**
Stamford	67	+1.5	$41,896	+54.4	0.4
Sunderland*	**569**	**+620.3**	**$74,934**	**+74.5**	**3.5**
Woodford	14	+7.7	$73,191	+129.1	0.1
Total	**16,065**	**-3.5%**	**NA**	**NA**	**100.0**

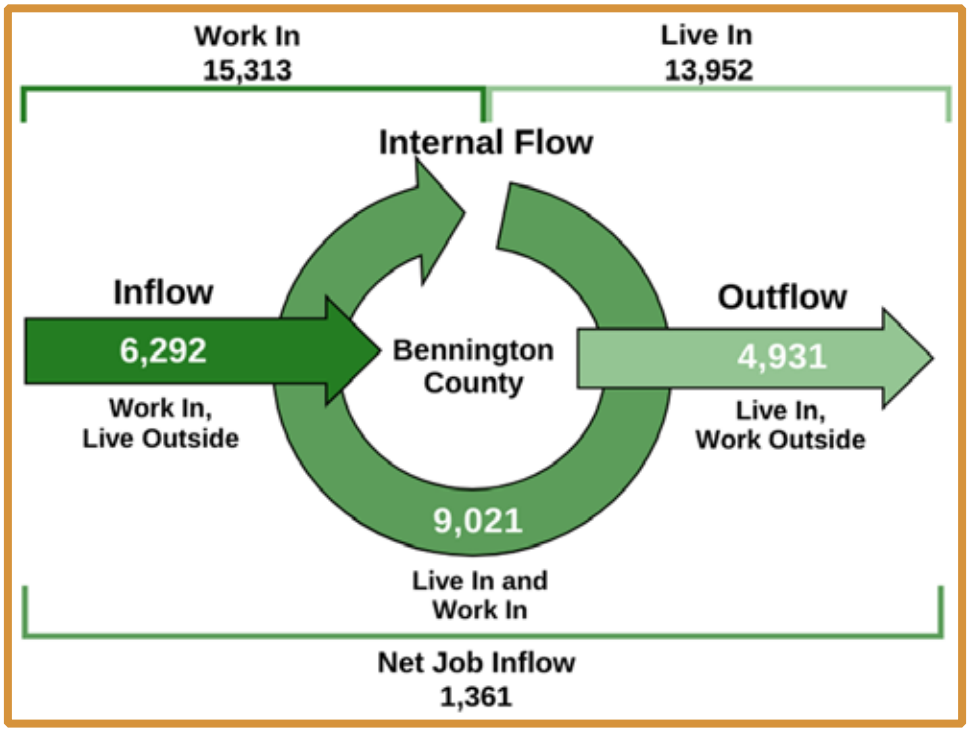
Source: Vermont Department of Labor

** VDOL now classifies public sector educators by their Supervisory Union offices instead of school location. As home to the Bennington-Rutland Supervisory Union, Sunderland therefore gained 311 "new" local government positions in education since 2012. Bennington, home to the Southwestern Vermont Supervisory Union, added 160 of the same. All other towns with schools, therefore, saw declines in this sector.*

around jobs, wages, and establishments that don't quite match what most would call the "local economy." It is too soon to say whether the implication is that this metric is no longer helpful, or if future iterations of the data will find a way to differentiate between remote work and on-site work. What may be inferred, however, is the importance of local broadband availability to local and non-local employers and to the residential real estate market.

Remote positions aside, the geographic distribution of work within the region—approximately 3,600 jobs in Manchester, 1,100 in Arlington, and 9,000 in Bennington—means that nearly all of the region's residents are within a 20-minute drive of one of its three employment centers. This has helped keep the commute time for most Bennington County residents manageable, with an average travel time of about 19 minutes each way in 2022, 2017, and 2012. The only significant shift in commuting patterns in that time, predictably, has been the greater share of residents working from home: holding at about 8 percent in 2012 and 2017, the figure rose to over 14 percent in 2022. Office-based employers expect this to be the new normal instead of a blip, as more commercial office real estate is now on the market than in previous years.

Figure 5: Workers in Bennington County.

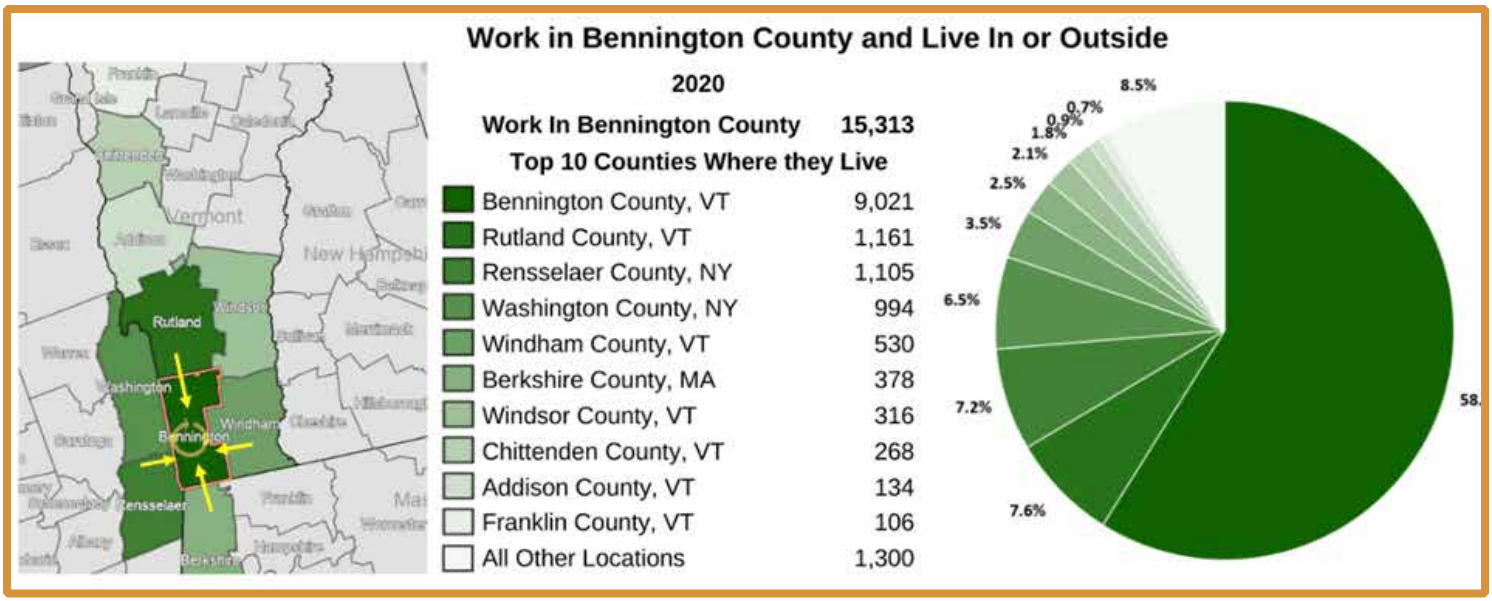


Source: US Census Longitudinal Employer Household Dynamics

interstate or commuter rail route, its economy is tied to its neighbors. The Northshire is within commuting distance of Rutland and its surroundings, as well as Washington County, New York. The Southshire is adjacent to the job markets of the Capital District in New York, as well as the northern half of Berkshire County. Figure 5: Workers in Bennington County. details the inflow and outflow of people to and from Bennington County for work in 2020. Of the 15,313 jobs in the county, about 9,000 were held by residents. The other 4,900 working residents left the region for work each day, leaving regional employers to rely on approximately 6,300 people to travel into the region.

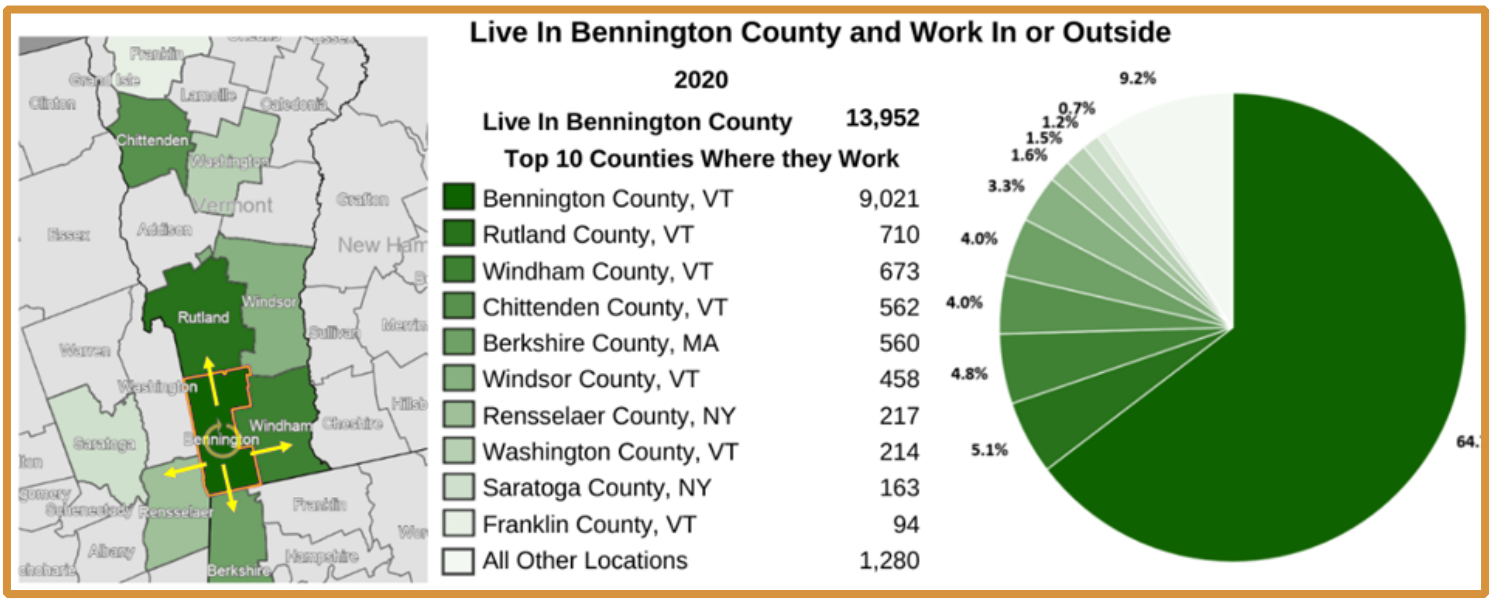
ers. Figure 6: Where Bennington County Residents Work and Figure 7: Where Bennington County Workers Live provide more details for these two groups. Regional employers rely on residents for about 60 percent of available jobs but rely on residents of Rutland, Rensselaer, and Washington (NY) counties for over 20 percent of the region's jobs. Of interest is the relatively limited presence of workers from Windham and Berkshire (MA) counties, which contribute about 6 percent of the region's employment. Conversely, nearly two-thirds of the region's working residents stay within the county for work. Between four and five percent of the region's workers travel to Rutland, Windham, Chittenden, and Berkshire County for work.

Figure 6: Where Bennington County Residents Work



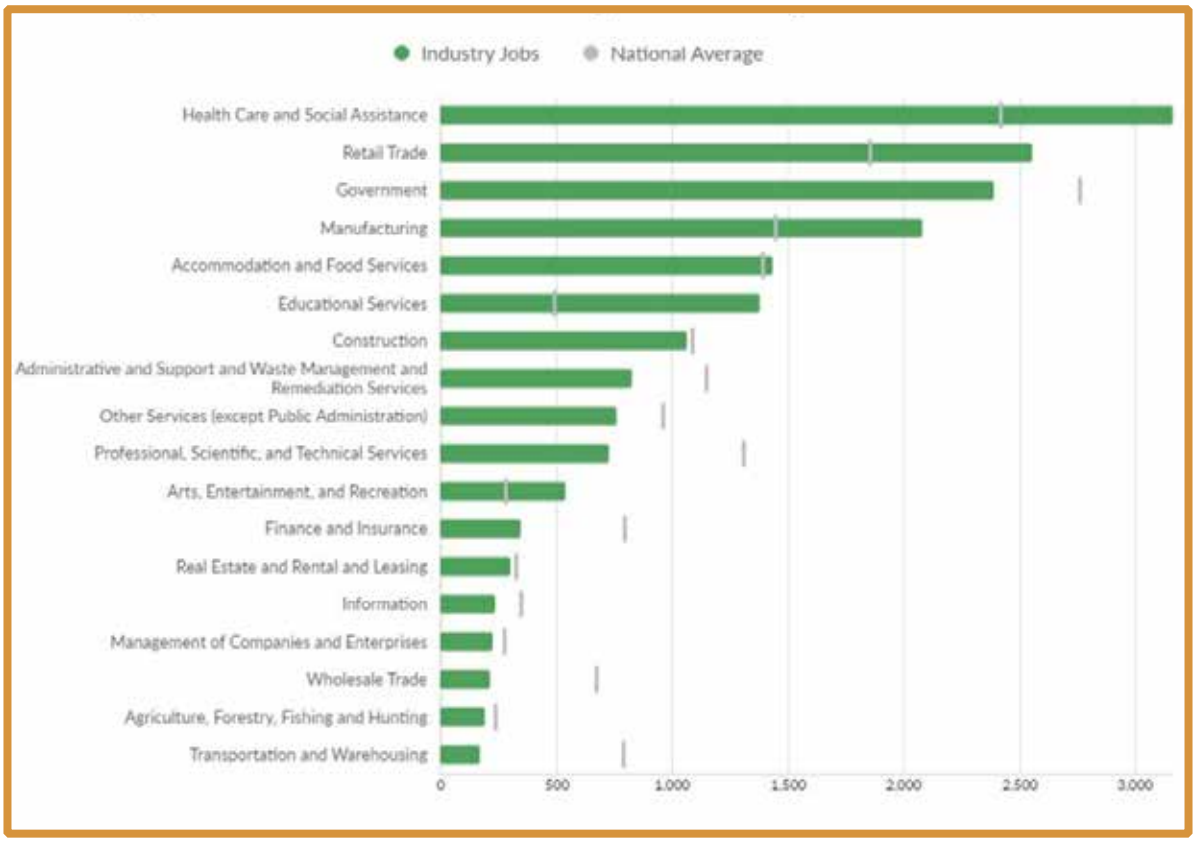
Source: US Census Longitudinal Employer Household Dynamics

Figure 7: Where Bennington County Workers Live



Source: US Census Longitudinal Employer Household Dynamics

Figure 8: Largest Industries in Bennington County.



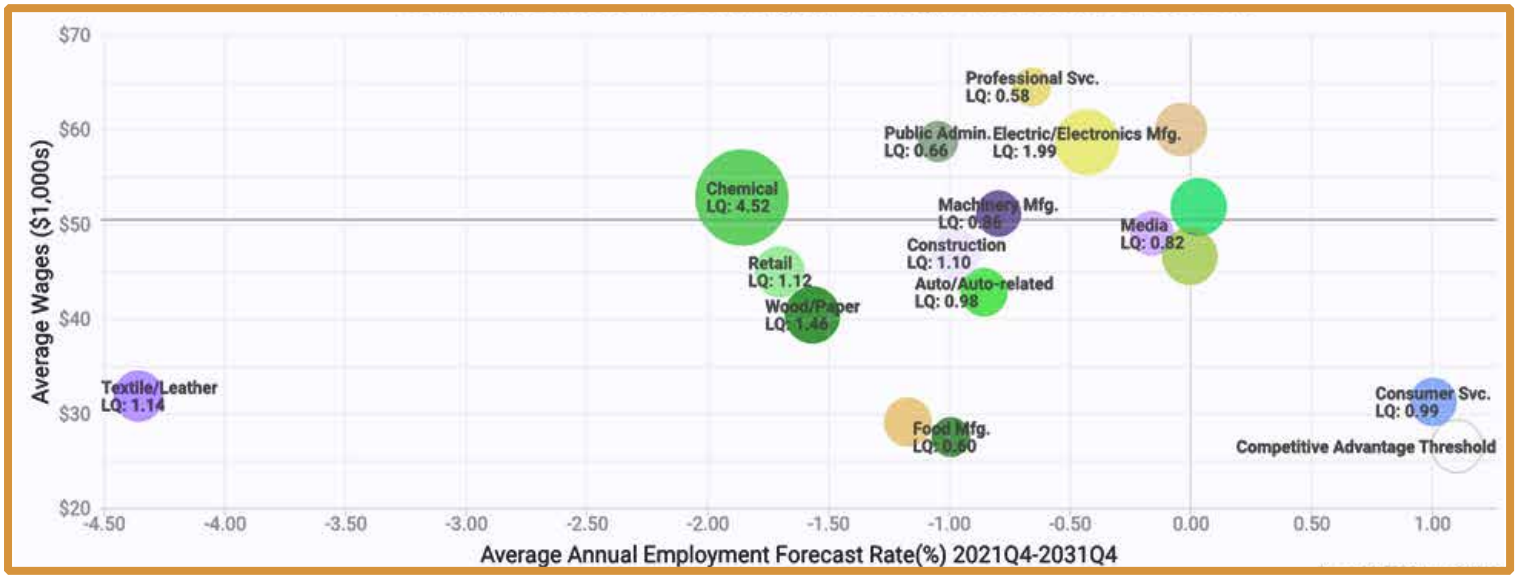
Source: US Census

Remarkably, the presence of New York-based workers in Bennington County far exceeds the number of Bennington County-based workers in New York. This uneven exchange is the prime driver for the region's net job inflow of 1,361 workers.

Industry Mix

Elaborating on the previous section, Figure 8: Largest Industries in Bennington County. orders the region's economic sectors by workforce size and includes benchmarks for the region's employment headcount relative to the national average. Three of the four largest sectors make up a larger share than the national levels, providing opportunities for the healthcare, retail trade, and manufacturing industries to take advantage of economies of scale. One interesting data point: the region's goods-producing industries – composed of natural resources/mining, construction, and manufacturing sectors – have a significant

Figure 9: Largest Industries in Bennington County.



Source: EMSI, Economy Overview. 2022.

presence is well above the national average, but the construction and natural resource sectors are close to national averages. By contrast, there is far more variation among the service-providing industries, and most of our smaller industries are well below national averages. While we do not expect the economy of a small, rural county to reflect national composition, it is important to encourage growth outside of the more well-established health care, retail, hospitality, and education sectors, and into more underrepresented and lucrative industries like finance, professional/technical services, and information. Additionally, to meet Vermont's (and the region's) ambitious housing targets, and energy and climate goals, more workers will be needed in construction, trades, and related industries.

Service-Providing Sector Spotlight: Health Care and Social Assistance

For more than a decade, the health care industry has been the largest source of jobs in Bennington County. Its growth has been anchored by Southwestern Vermont Health Care (SVHC), the region's largest employer. Its main campus, Southwestern Vermont Medical Center, is surrounded by a cluster of additional medical offices and specialists just outside downtown Bennington. SVMC maintains campuses in Manchester and Pownal, as well, and residents also utilize the East Dorset Medical Campus of Rutland Regional Medical Center and the Batten Kill Valley Health Center in Arlington. Batten Kill Valley is a federally qualified health center (FQHC), thereby receiving enhanced reimbursement from Medicare and Medicaid. Community-based mental health and social services are provided by the federally qualified United Counseling Service (UCS) with

The Village Chocolate Shoppe in Bennington produces high-quality chocolates and candy along with it's sister store, the Village Peddler, in Arlington. Photo Credit: BCRC

multiple offices in Bennington, and an office in Manchester serving the Northshire. The Manchester Medical Center provides urgent care and primary care in Manchester. Many traditional and alternative therapy private practices throughout the region contribute to this sector.

Positions in this sector offer good salaries across many occupations and are essential to providing necessary services to ensure community health. Accordingly, many educational programs exist locally for career advancement: the Community College of Vermont, Southwest Tech, and the now-consolidated Vermont Tech and Castleton University all maintain in-person programs for individuals to enter medical professions, secure certificates, and earn academic degrees to advance in a variety of medical fields.

Despite these offerings, shortages of primary care and mental health professionals persist. SVHC benefits from its affiliation with Dartmouth Health and maintains educational pipeline programs with the educational institutions above, but the regional demand for services continues to outstrip supply. Reliance on visiting nurses and other temporary or rotational workers is an essential tool for bridging some of these gaps but does not ultimately retain the full economic value of the individual as an employee or a resident. Ensuring that the appropriate elements are in place to retain recruited workers is an essential part of this sector's sustainability, across all levels and occupations within the industry.

Service-Providing Sector Spotlight: Retail Trade

The second-largest sector in the region, retail stores are throughout the region and primarily found in downtown Bennington and Manchester. They are central to the image and character of village centers and business districts and provide residents and visitors alike with important connections to our communities. Bennington County had the fourth-highest retail sales total in Vermont in 2023, behind only Chittenden, Rutland, and Washington counties, with receipts totaling nearly $378 million. This is primarily driven by Bennington ($191 million) and Manchester ($129 million), with Manchester serving as an especially outsized engine for retail given the community's smaller resident population.

Although retail was up slightly statewide in 2023 compared to the previous year,

BCRC staff tour T & M Enterprises, a plastic injection molding company in Shaftsbury. Photo Credit: BCRC

Manchester's 2023 activity was down approximately 13 percent: one of the largest declines for a market of that size in the state. Whether this is a one-time adjustment related to pandemic-era elevations in the presence of second-home owners or a reflection of broader brick-and-mortar trends is unclear. Bennington, by contrast, is home to several large department, home supply, and chain outlet stores that were better protected from the impacts felt by Manchester's retail collection. The presence of these larger corporate entities can come at a cost to downtown retail, however, and they do little to contribute to a distinct sense of place.

By contrast, long-established general stores, such as H.N Williams Store in Dorset and the Wayside Country Store in Arlington, have been joined by an encouraging crop of recent additions or re-additions in the form of the Bennington Community Market, and the Hill Top Farm Store in Pownal. These entities, and others like them including Winchester's Store and Village Market & Video in Pownal, Henry's Market in Bennington, Sherman's Store in West Rupert, the Dorset Union Store, Bromley Market and J.J. Hapgood Store in Peru, and Powers Market in North Bennington, provide locals and visitors with outlets for social activity, retail shopping, and local food options. The health and well-being of these businesses is of major importance to the communities they serve and is especially important to the local vendors in the agricultural industry whose jams, honeys, meats,

cheeses, produce, dairy, ice cream, and other offerings can be found on the shelves.

Goods-Producing Sector Spotlight: Manufacturing

The Bennington region has a long history as a manufacturing center, and its first chapters are tied to the region's hydropower assets. The earliest manufacturers provided lumber, grain, and other staples required by the first residents and businesses of the area. Some of the historic structures from the latter half of the American Industrial Revolution still house manufacturing businesses, such as the National Hanger Company and Mack Molding's Arlington Village Plant, while others have been converted to mixed use centers, such as the Holden Leonard Mill in Bennington, Factory Point in Manchester, and the Sage Street Mill in North Bennington. Unsurprisingly, much of the region's recent manufacturing growth has taken place in newer industrial parks or locations specifically planned to support this type of business: Mack Molding's main production plant in Arlington, Vishay Tansitor, NSK Steering Systems, and Kaman Composites in Bennington, EPS Pad Print in East Dorset, and Orvis and Natural Form in Manchester, among many others.

The region's largest manufacturing businesses are found in Arlington, Bennington, and Manchester. Bennington's manufacturers are principally found in the Maneely Business Park, Bowen Road Industrial Park, and the Morse Industrial Park. Mack Molding occupies two sites in Arlington as previously described, one a new facility and the other a historic factory building in the center of town. Other manufacturing sites exist in East Arlington and Sunderland near the US-7 interchange. Most manufacturing in the Northshire occurs in planned industrial parks along Richville Road, north of downtown Manchester near the town office complex, and in East Dorset.

Firms in the region produce parts for the automobile industry (NSK), specialized plastics (Mack Molding, K&E Plastics, Quadra-Tek, National Hanger, and T&M Enterprises), carbon composite components (Kaman Composites, Star Wind Turbines), and other materials that require advanced technological equipment and processes (Vishay Tansitor, Abacus Automation, Orvis, and Engineered Printing Services). Other businesses create high quality products from natural resources, such as J.K. Adams in Dorset, Bennington Potters, Wilcox Ice Cream in Sunderland, Vermont Container in Bennington, and Maplebrook Cheese in North Bennington. Of course, small manufacturers, many of which are in the supply chain for some of the larger local businesses, are critical parts of the region's manufacturing base as well. These operate in a number of niche industries, including metalwork and lighting (Authentic Designs, Sterling Gun Drills), electrical engineering (Tempurtech), outdoor recreation (Dion Snowshoes), and textiles (Porta-Brace).

Many of these businesses are involved in their local community and have positive relationships with the BCRC in its capacity as a regional development corporation. The regional economy benefits from a robust manufacturing industry that is well distributed across the Northshire and Southshire.

Figure 9: Largest Industries in Bennington County. provides a more dynamic assessment of the region's manufacturing specialties, combining three data points: industry size

relative to national averages; industry wages; and the forecasted annual employment growth of each industry between 2021 and 2031. Helping industries with lower forecasted growth, as well as industries with a brighter outlook, is vital for ensuring the mix of manufacturing enterprises that can open a door for a broader mix of potential employees.

Environmental Benefits + Burdens

Industrial and commercial activities can produce significant noise, water or air pollution, and heavy truck traffic.

Regional Context

As discussed in the Landscape and Character: Growth chapter, manufacturing that produces significant noise, water or air pollution, or heavy truck traffic should be separated from residential areas and centers, and should not be disproportionately located in Census Block Groups that meet the EJFP threshold (see Map 4: Environmental Justice Focus Populations (2026)). Most the region's industrial enterprises are located in planned industrial parks as discussed above.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Workforce

Bennington County's population is getting older, which means that its workforce is getting older, too. In fact, as Figure 10: Bennington County Labor Force Breakdown shows, the nearly 14,200 individuals in the region over the age of 55 in 2022 includes many workers who are retiring soon, with only 5,300 Millennials in the region to offset the upcoming retirements. These data in Figure 10: Bennington County Labor Force Breakdown also indicate the relative lower portion of millennials, the higher portion of those 55 and older, and the very low racial diversity of the Bennington County population relative to the total US population.

But this isn't the only workforce issue the region is facing. According to 2022 estimates from the Vermont Department of Labor, of the 29,256 regional residents able to work, some 13,600 were not in the labor force. Some of these individuals are high school or college students or retired senior citizens unavailable to work. But given the extreme labor shortage faced by employers around Vermont in general and in the Bennington region in particular, there are likely many hundreds, if not thousands, of potential employees living in the region who are not in the labor force for one reason or another.

Figure 10: Bennington County Labor Force Breakdown details how unemployment and the size of the available workforce has changed over two decades. The number of unemployed people in Bennington County in 2022—564 people—is nearly one-third of the 2009 high of 1,475 during the Great Recession. The 3.2 percent unemployment rate in 2022 is less than half of the 7.2 percent of 2009 and 2010. It is good news that

people who are looking to work are finding it, as the most commonly used measurement of unemployment includes only those who are unemployed and have been looking for work sometime in the previous four weeks. However, the labor force has been steadily declining as the population stagnates and the share of adults over 65 increases.

In addition to needing more people to engage with regional employment opportunities, workforce development professionals are also working overtime to ensure that incumbent and upcoming workers are prepared for the careers of today and tomorrow. To that end, BCRC's Workforce and Education Committee, which draws on collaborative membership from the Vermont Department of Labor, Southwestern Vermont Supervisory Union, Southwest Vermont Career and Technical Education Center, CCV, Bennington-Rutland Supervisory Union, and other educational and service providers, continues to promote career readiness, career transition, and workplace skill-building for residents of all ages. Working with successful partners elsewhere in the state and generating excitement and enthusiasm for the region's career opportunities, is an essential part of ensuring that our workforce continues to be the difference-maker than many employers say that it is.

To help address the regional workforce shortage, the BCRC and its Workforce and Education Committee will need to collaborate with employers, municipalities and other stakeholders to attract and retain new workers, and assist existing residents who are interested and able to work with entering the workforce. This will involve not only education and training but also providing the necessary

Cranes at the Dailey Precast plant in an Enterprise Area in South Shaftsbury.
Photo Credit: BCRC

systems and services that enable people to work and remain in their job, such as affordable housing, childcare, and transportation. Some people may need additional support to enter the workforce such as disability accommodations, and translation/English language learning support.

The attraction and retention of new residents to the region is an important strategy for addressing the regional workforce shortage as described in the Southern Vermont Comprehensive Economic Development Strategy (CEDS). This includes supporting immigrants, refugees, and asylum-seekers with the resources they need to build a life in the Bennington Region.

Environmental Benefits + Burdens

"Green" jobs can provide people with fulfilling work that benefits the environment or advances sustainability (such as jobs in renewable energy or environmental restoration) while also supporting personal well-being. As Vermont seeks to equitably transition to clean and renewable energy sources, these jobs can provide new employment opportunities, especially for individuals who previously worked in fossil-fuel industries.

Regional Context

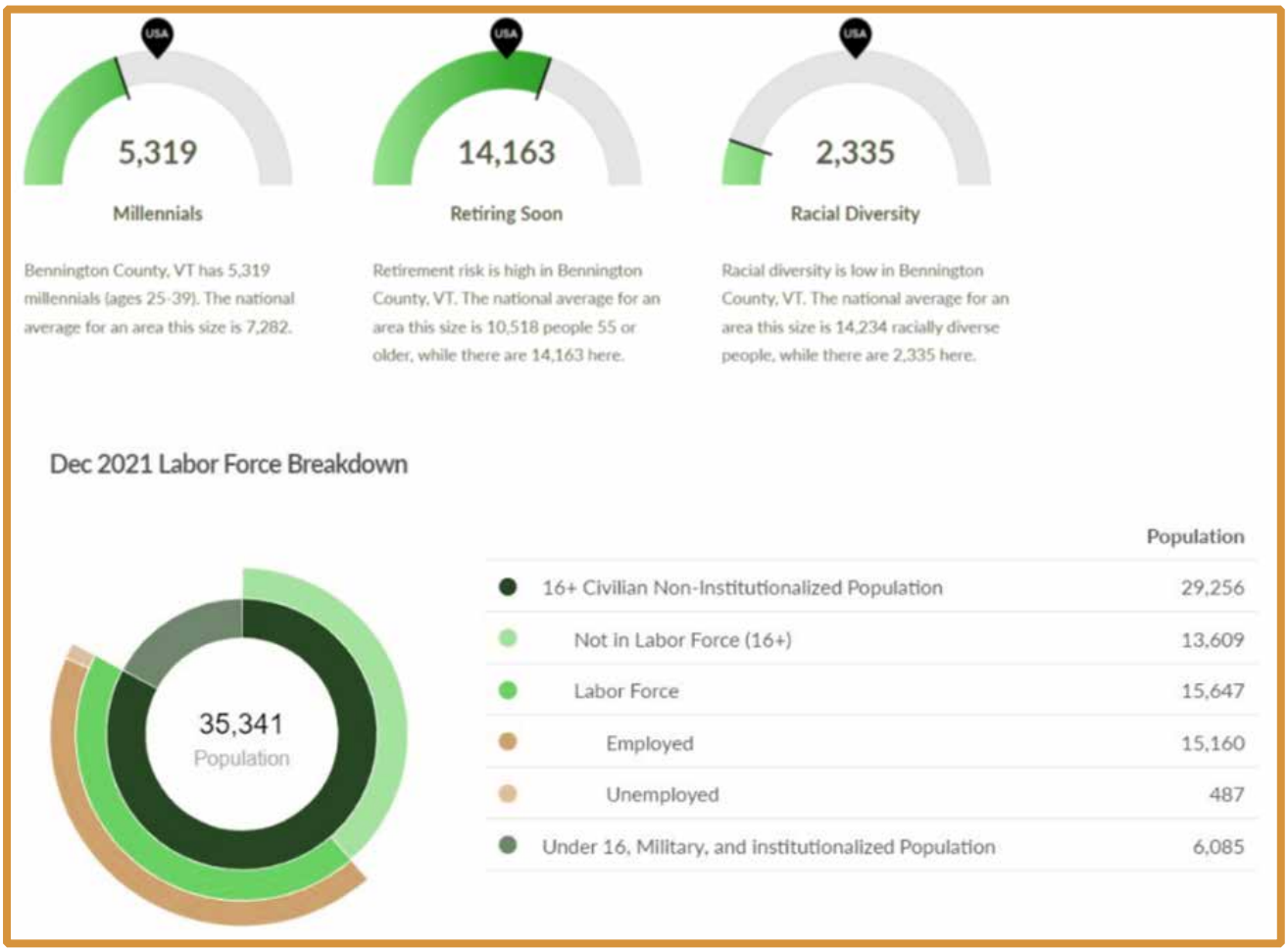
Manufacturing, healthcare, and retail will continue to be important economic sectors in the region, but the expansion of other industries that provide well-compensated, rewarding job opportunities should also be supported. The clean energy industry has a variety of job opportunities for different interests and skillsets, that pay well and help advance Vermont's clean and renewable energy goals. According to the 2024 Vermont Clean Energy Industry Report there are 18,255 clean energy jobs in Vermont which represent 6% of all jobs in the state. In Bennington County, there are 692 clean energy jobs, which represents about 4% of all jobs in the county. The clean energy workforce is male dominated (72%) but is younger and more racially diverse than the overall Vermont workforce. Job growth in this industry is expected to continue as Vermont works towards its clean energy goals.

The Energy Action Network (EAN) has convened a Climate Workforce Coalition to help expand and diversify a Vermont climate workforce that is "well trained, supported, and compensated" and has "clear career pathways." The Coalition has supported the state

The JK Adams Kitchen Store sells high-quality kitchen supplies, including cutting boards made at their facility in Dorset. Photo Credit: BCRC

Weatherization Training Center and conducted focus groups with people from different demographics to learn about their interest in clean energy/climate jobs and important job considerations. The Coalition's Community Feedback and Findings Report summarizes the focus group findings and discusses the need for adequate pay, health insurance, welcoming workplace environments, transportation access, and many other considerations in more detail. A robust system of affordable housing, childcare, transportation and other specific supports, can help ease barriers for many people looking to enter the clean energy workforce, and other industries.

Figure 10: Bennington County Labor Force Breakdown



Source: EMSI Economy Overview, 2022.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Brownfields

Since 2006 the BCRC has maintained an active "Brownfields Redevelopment" program, funded through environmental site assessment grants awarded by the US Environmental Protection Agency and the Vermont Brownfields Program. The purpose of our Brownfield Program is to identify properties that are either vacant or underutilized because of known or perceived contamination, to conduct environmental assessments, and to develop remediation and re-use plans

that will lead to redevelopment meeting identified community objectives.

Our assessment grants allow us to conduct environmental assessments on properties that may be subject to contamination from petroleum or hazardous substances. Projects have been completed throughout the region at historic industrial buildings, automobile service stations, former hydroelectric generation facilities, and other properties, often located in or near economically important downtowns and village centers.

A typical project begins with a Phase 1 environmental site assessment (ESA) where environmental professionals perform a review of the state and federal records associated with the site. A site visit and interviews are conducted during the Phase 1 ESA during which the consultants will document any Recognized Environmental Conditions (RECs). Such conditions might include stained surfaces, stressed or dead vegetation, leaking containers and/or historic site uses that may be evidence of or have led to past, present or the material threat of future hazardous substance or petroleum releases. The Phase 1 ESA may lead to the finding of no RECs or the recommendation of a Phase 2 ESA to further investigate the site.

A Phase 2 ESA would include on-site environmental investigations that focus on addressing the RECs identified during the Phase 1 ESA. Most often, soil borings are collected, and ground water monitoring wells are installed. Soils, ground water and samples of materials collected from the site are sent off for lab analysis. Once the types, levels and extent of contamination are identified, a Corrective Action Plan (CAP) will be prepared to remediate the site to remove or isolate potential dangers to society and various environmental receptors such as surface or ground water. The CAP is typically written to accommodate a proposed re-use of the site and will become part of the site's land record.

The BCRC assessment grants cover 100% of the costs associated with Phase 1 ESAs, Phase 2 ESAs and the preparation of Corrective Action Plans. Although our assessment grants can't be utilized to cover the costs associated with the cleanup of the site, some property owners enrolled in our program have successfully applied for grants and low interest loans to help pay for this costly work

Environmental Benefits + Burdens

Inadequate remediation of pollution describes cases where contaminated areas are not cleaned up thoroughly enough or in a timely manner, allowing pollutants to remain in the environment and continue threatening community health and ecological function. Redevelopment of Brownfields sites can remediate contamination, restoring access to a healthy environment, and repurposing vacant structures into community assets.

Regional Context

The Brownfields Redevelopment Program is an important part of BCRC's work that not only remediates environmental contamination and hazards but also facilitates the redevelopment of vacant or underutilized properties for community uses. This work can be especially impactful in areas of the region that meet the EJFP threshold and have disproportionately experienced environmental degradation, and disinvestment. Redeveloped Brownfields sites can be converted into housing, childcare centers, retail space, and more, which can

revitalize neighborhoods and unlock further investments in these communities. Some successful projects that have occurred in EJFP areas in the Bennington Region include the Putnam Block in downtown Bennington which is now a mixed-use building with ground-floor retail space and upper floor housing, and St. Margaret Mary Church in Arlington, which is now the Arlington Common, a place for community members to gather and participate in social, cultural, and recreational activities. Despite the many success stories in the region, properties of concern remain, including the former Green Mountain Racetrack which sits in an EJFP area in the southwestern corner of Pownal. Continued funding and support for Brownfields redevelopment in high-need areas from state and federal agencies are critical to advancing environmental justice and economic prosperity.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Poverty

According to 2024 ACS 5-year estimates, approximately 11.3% of Bennington County residents live at or below the federal poverty level—less than $15,060 for a single person, or less than $31,200 for a family of four in 2024—which is greater than the state level of 9%.

Poverty rates are higher for specific populations including children and people of color as discussed in the Regional Profile section of the Introduction. Poverty interacts with and exacerbates many other issues in the region, including housing insecurity and homelessness, food insecurity, energy burden, and mental and physical health.

Additionally, in 2024 Bennington County had the highest rate of income inequality in Vermont (**Figure 11: Income Inequality in Bennington County, VT**). The mean income for the top 20% of earners in the county was more than 21 times the mean income for the bottom 20% of earners.

Outside of demographic statistics, there are many people who technically live above the federal poverty level but are still not financially secure. An alternative method of determining economic insecurity beyond federal poverty measures is the ALICE measure. People who are ALICE (Asset Limited, Income Constrained, Employed) earn more than the federal poverty level, but not enough to make ends meet. They may also be ineligible for essential public assistance programs.

This regional plan does not propose to solve systemic poverty, but the goals and actions in this plan were intentionally crafted to strengthen the economic prosperity, resilience and wellbeing of communities over

Shaftsbury Medical Center was remediated as a brownfield before being transformed into Shaftsbury's new town offices.
Photo Credit: BCRC

time. Strategies to alleviate poverty through planning include:

- Eliminating barriers to housing growth (see the Housing chapter)
- Co-locating housing, jobs, amenities, and services in downtowns and village centers (see the Landscape and Character (Growth) chapter)
- Attracting diverse industries that provide good jobs that pay a living wage and offer benefits
- A thorough discussion of poverty and its causes and effects is beyond the scope of this plan, but poverty intersects with nearly every topic discussed in the regional plan.

Environmental Benefits + Burdens

The effects of poverty can be insidious and long-lasting, impacting everything from educational attainment to one's health and life expectancy. Poverty increases vulnerability to many environmental burdens discussed in this plan, and limit access to environmental benefits. One of the benefits/burdens not previously discussed is access to healthy and nutritious food. This reflects whether residents can access fresh and varied options for food, especially fruits and vegetables, without barriers related to affordability or availability. Limited access to healthy and nutritious food occurs when residents cannot consistently obtain food options that are fresh and varied, as well as affordable. Barriers may include long distances to grocery stores or limited availability of retailers that offer fruits, vegetables, and other nutritious items at affordable prices.

Regional Context

Access to nutritious food that meets one's dietary and cultural needs is critical for human health and wellbeing. According to the American Planning Association's Metrics for

Retail spaces on Depot Street in Manchester stand on former brownfield sites. Photo Credit: BCRC

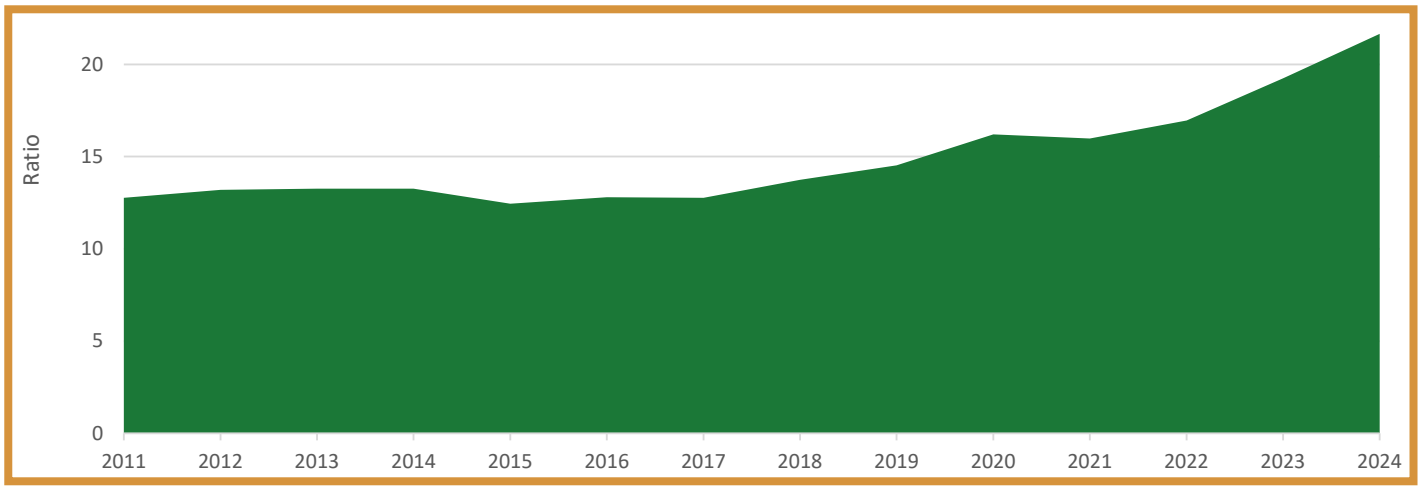
Planning Healthy Communities report, "access refers to people having easy physical and economical access to healthy food . . . Physical access is dependent on the geographic proximity of a healthy food store, and economic access relates to affordability."

The Bennington Region has many food retailers including large supermarkets, small grocery stores, convenience stores, and specialty food stores. These retailers are typically located in the region's growth-oriented land use areas. There are several neighborhood convenience and grocery stores, primarily in Bennington. These stores are often easier to get to without a vehicle, but are usually less likely to have healthy food options and fresh produce. Supermarkets generally offer the greatest variety of food and household products, including fresh produce, at the most affordable prices. All of the region's supermarkets accept Supplemental Nutrition Assistance Program (SNAP) benefits, which is important for the 4,800 individuals in Bennington County that rely on this program to pay for food.

There are six supermarkets in the region, four in Bennington and two in Manchester. These supermarkets are clustered in auto-oriented commercial strips, which can be difficult to access without a vehicle, although most are served by public transit. The completion of the Bennington Rail Trail has improved biking and pedestrian access to Northside Drive where many of Bennington's supermarkets are located. While it is logical that the region's supermarkets are concentrated in the two largest towns, this means that rural residents are left with fewer food options in their communities. Some small towns only have convenience and discount stores, or no food retailers at all, and have to travel longer distances to reach supermarkets. The region's rural communities also have fewer public transit routes and more infrequent service, which can make getting to a supermarket without a vehicle or the ability to drive especially difficult.

Most of the region's free food and meal distribution programs are in the Town of Bennington. Many of them are located within or adjacent to the downtown center and are served by public transit and biking/pedestrian

Figure 11: Income Inequality in Bennington County, VT



Ratio of the mean income for the highest quintile (top 20 percent) of earners divided by the mean income of the lowest quintile (bottom 20 percent) of earners
U.S. Census Bureau, Income Inequality in Bennington County, VT [2020RATIO050003], retrieved from FRED, Federal Reserve Bank

infrastructure. A few other food help programs exist in Arlington, Manchester, Pownal, and Shaftsbury, although most of them have very limited hours. As long as poverty and food insecurity exist, these food and meal distribution programs will continue to play an essential role in addressing the immediate needs of people who struggle to afford food, and municipalities should continue to support them. The Kitchen Cupboard food pantry in Bennington, operated by Greater Bennington Community Services (GBCS), distributes over a quarter million pounds of food a year, and the number of shoppers served has increased by 2.5 times since 2022, indicating that the problem of food insecurity in the region has worsened.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

Maintaining a fully staffed and effective community and economic development program at the BCRC is seen as an essential service to member communities. Accordingly, the BCRC maintains a sustainable community development program focused on identification and improvement of local assets that support economic development in the region. Recognizing that a lack of public water and sewer infrastructure is primarily responsible for limiting growth and development in many of the region's village centers, the BCRC helps towns and villages plan for increased capacity for compact mixed-use development in these areas. The BCRC cooperates with organizations, local businesses, and business organizations throughout the region and beyond to advance specific projects related to workforce development, housing, educational services, healthy communities, local food systems, downtown and village center redevelopment, and conservation and wise development of energy and natural resources.

Economic Development Goals and Actions

Goals

- Maintain and enhance the variety and versatility of the existing regional economy
- Foster the positive and supportive environment that exists between and across sectors
- Encourage a dynamic local labor market that fosters opportunities for those with diverse skill sets, backgrounds, and stages of life and provides depth to facilitate two-earner and single-earner households

Actions and Policies

The BCRC . . .

- Deploys the Southern Vermont Comprehensive Economic Development Strategy, in concert with regional partners, and positions the CEDS publicly as a vital tool, articulating and detailing actionable pathways to strengthen businesses and support the people who contribute to them.
- Secures and maintains an Economic Development District from the US Economic Development Administration to bring annual federal funding for economic development activities to Southern Vermont, and ensures that clear plans are in place to guide the highest and best use of the resource.
- Supports the reuse and redevelopment of existing physical/structural assets, including brownfields, and engages with existing employers to support their expansion and local entrepreneurs who wish to enter the marketplace.
- Capitalizes on outside attention on the region to expand the possibilities for regional economic development, and identifies and works with external site selection firms that can promote existing sites to a broader client base with ready access to capital.
- Collaborates with workforce development partners and experts to increase labor force participation rates among the region's discouraged and disconnected workers, and researches innovative practices from around the country with potential applicability.
- While workforce and population demands remain, works with regional partners and employers to identify potential and develop reliable hubs for relocation in the Northeast.
- Prioritizes the utilization of existing developable space in the region's many business parks and engages with property managers to ensure offerings are adequately marketed.
- Utilizes BCRC's roles in the public and private sectors to build strong relationships between local employers and municipal officials.
- Provides opportunities for parties to engage and discuss topics of mutual interest and, where appropriate, opportunities for mutual investment.
- Works closely with municipalities to advocate for the development of local economic development strategies, and for the continual implementation of existing strategies.
- Advises municipalities in their revision of zoning bylaws to align with municipal plan economic development elements, support the existence of businesses in mixed use village centers, and embrace investment opportunities that may exist for their municipality.
- Continues to foster economic development cooperation throughout the region. Ensures that re-

gional economic development conversations benefit from regional representation.

- Supports making effective use of the region's abundant natural resources as a base for economic development activities.

Continues building on the workforce development programs, including signature events, that bring together service providers and users working to meet the needs of area residents.

Supporting Infrastructure

Mobility and Transportation
Energy
Utilities, Facilities, and Services

Mobility and Transportation

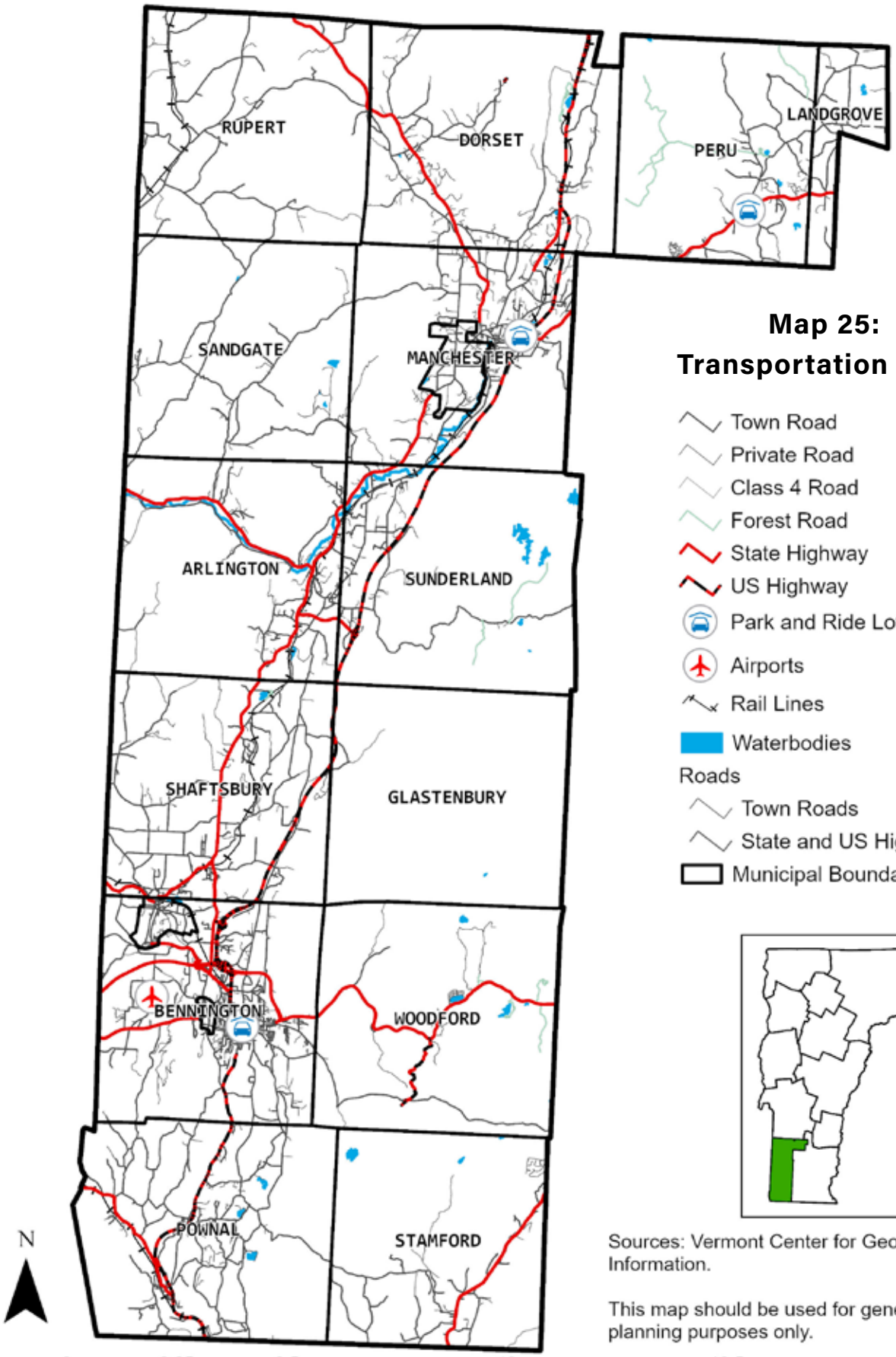
An understanding of how transportation is related to regional land use, public health, energy, environmental quality, and economic development objectives is fundamental to this plan. While it is critical that transportation infrastructure provides safe and convenient access for residents and businesses, it is equally important to ensure that the underlying land use pattern supports and encourages efficiency and the use of alternative modes of transportation. Growth concentrated in compact urban and village centers facilitates efficient transportation.

Safe, convenient, and economical transportation is essential to the people and economy of the Bennington region. A variety of transportation modes exist in the region. A network of town and state roads and bridges serves through traffic, provides access to residential properties, and supports the area's commercial and industrial businesses. The Green Mountain Community Network operates local fixed-route and commuter bus service, and an intercity bus service connects stops in the region with points north and west. Pedestrians and bicyclists use roadways and the sidewalks and pathways found in and near downtowns, village centers, and residential neighborhoods. The Vermont Railway traverses the region from North Bennington to Dorset and a busy freight corridor runs along the Hoosic River in Pownal. The W.H. Morse State Airport in Bennington provides facilities for light aircraft. Each element of the region's transportation infrastructure will be discussed in this chapter, with an emphasis on support for regional development goals. This plan also will identify current priority transportation improvements.

What did we learn from the community?

The public's greatest transportation safety concerns are lack of adequate sidewalks, bike lanes, and shared-use paths; followed by speeding/traffic and poor infrastructure and/or maintenance.

Many people noted the limited options for people who do not or cannot drive, include seniors and teenagers, and expressed interest in extended public transit services.



Map 25: Transportation (2024)

- Town Road
- Private Road
- Class 4 Road
- Forest Road
- State Highway
- US Highway
- Park and Ride Lots
- Airports
- Rail Lines
- Waterbodies

Roads

- Town Roads
- State and US Highways

- Municipal Boundaries

Sources: Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

Table 13: Bennington Region Municipal and State Highway Mileage

Municipality	Class 1	Class 2	Class 3	Class 4 and Legal Trails	State Highways	Total *
Arlington	0	7.91	26.77	7.27	14.05	48.73
Bennington	3.58	12.23	83.85	5.57	28.19	127.85
North Bennington Village	1.61	0.08	7.97	0	0.47	10.13
Old Bennington Village	0.58	1.49	0.98	0.29	0	3.05
Dorset	0	13.85	24.57	8.64	13.67	52.09
Glastenbury	0	0	1.61	1.50	1.78	3.39
Landgrove	0	4.82	9.55	1.33	0.82	15.19
Manchester	4.73	15.65	23.37	7.41	16.60	60.35
Manchester Village	2.13	3.30	3.71	0	0	9.14
Peru	0	6.18	16.11	5.86	4.63	26.92
Pownal	0	11.85	51.59	9.27	12.62	76.06
Rupert	0	13.18	28.15	5.91	3.83	45.16
Sandgate	0	7.58	18.67	7.48	0	26.25
Shaftsbury	0	19.99	50.44	5.05	15.85	86.28
Stamford	0	3.50	14.02	9.83	5.75	23.27
Sunderland	0	15.17	13.95	1.68	11.37	40.49
Woodford	0	0	2.50	7.70	9.58	12.08
Totals	**12.63**	**136.78**	**377.81**	**84.79**	**139.21**	**666.42**

Source: Vermont sagency of Transportstion, 2023 Mileage Certificates
Highways open to automobile travel (excludes Class 4 municipal highways and legal trails

Highway System

The purpose of the region's network of roads and bridges is to provide for the safe and efficient movement of people and goods and structuring future growth and development (see Map 25: Transportation (2024)). There are over 650 miles of state and local roads in the region (Table 13: Bennington Region Municipal and State Highway Mileage). The principal north-south travel route through the region is provided by Routes 7 And 7A. Six state highways branch off from this central corridor and provide access to rural areas and village centers to the east and west. Town maintained road networks serve urban and village centers as well as lower-density and rural areas in the valleys. There are few public

A section of U.S. Route 7 in Pownal.
Photo Credit: BCRC

roadways in the region's mountainous upland areas. Privately owned and maintained roads in the lowland areas exist primarily to serve individual residential developments. Private logging roads provide access into some upland forest areas for forest resources and some utility and recreational activities, while a private toll road to the summit of Mount Equinox is a seasonal tourist attraction.

The region's road system should be planned and managed to achieve specific important objectives. Investments should focus primarily on existing roads, with an emphasis on safety improvements, minimization of long-term maintenance costs, and support for development in villages, urban centers, and planned growth areas. Any new road construction should be planned to meet these same goals. A critical objective applying to all road construction and maintenance projects is the provision of spaces that promote public health through adherence to "Complete Streets" principles. The complete streets approach acknowledges that roadways exist for a variety of user groups: pedestrians, bicyclists, and public transit riders, as well as for cars and trucks. Ensuring that roads are safe and accessible for all these groups will promote physical activity and health, reduce reliance on fossil fuels, and facilitate the development of the compact mixed-use centers that form the basis for the regional land use plan.

Roadway construction and maintenance projects also should be planned to avoid

environmental damage, minimize pollution from stormwater runoff, and to withstand severe flooding events. Moreover, roads need to be appreciated as important public spaces, being places where, as motorists, pedestrians, or cyclists, we observe much of our landscape and interact with each other. It is important, therefore, that roadways be attractive, preserving scenic views, mature street trees, and in village and downtown centers especially, providing amenities such as wide sidewalks, benches, landscaping, and pedestrian-scale lighting.

Highway Classification

Roadways traditionally are organized into four categories, each serving a different primary function. Expressways, or limited access highways, are designed to carry through traffic between destinations with sufficient capacity that traffic along the roadway never stops moving. These roadways can be accessed only at interchanges, and direct access between the highway and adjacent land is not permitted. US Route 7 between the center of Bennington and East Dorset and Vermont Route 279, connecting VT Route 9 east and west of Bennington, are the region's two expressways. A total of seven interchanges are located along these highways in Bennington, Sunderland, Manchester, and East Dorset. These roadways provide a convenient and scenic route for through travelers and remove some disruptive truck traffic from downtowns, village centers, and residential neighborhoods. A state welcome center exists at the intersection of US 7 and Vermont 279 to provide information about the area to travelers.

Development is limited along expressways because of access restrictions, but it is important for municipalities to give special attention to access and related land use issues near interchanges. Any development in these areas should be carefully planned to discourage unsafe speeds and turning movements, as well as the kind of sprawling development that could be detrimental to the vitality of established downtowns and commercial centers. That said, areas adjacent to interchanges make excellent locations for industrial activity to limit truck traffic on other highways which suffer from insufficient design to handle large volumes of heavy trucks. It also is vitally important to make sure that safe travel ways and crossings for pedestrians and bicyclists are available in these areas. In many cases, the expressways were constructed without consideration of these other users of the transportation system, and retrofits to improve accessibility and safety are required. For example, a pathway and crosswalk along Kocher Drive in Bennington was constructed in 2019 to provide a safe crossing at the US 7 interchange.

Arterial highways provide principal travel routes between and across villages and urban centers. Arterials are typically state highways where direct access to adjacent properties is possible, subject to control over the location and design of entrance and exit drives (the BCRC Access Management Study for the VT 67A corridor provides a good overview of these issues). These roadways often connect to interchanges and provide access to secondary state highways and some local roads. VT Routes 9, 11, 30, 67A, and US 7 (north and south of the limited access portion of the highway) are the arterial highways in the region.

Route 30 in Rupert has some of the best views of the Taconic Mountains in the region
Photo Credit: BCRC

Arterial highways should be constructed and maintained in accordance with the Vermont State Design Standards and include important elements such as shoulders of sufficient width to accommodate bicycle travel, climbing lanes in areas of steep grades, and traffic calming (i.e., reducing automobile speeds to improve non motorist safety and mobility - discussed further below) and gateway treatments at the entrance to villages centers, downtowns, and other areas of relatively high-density development. It is particularly important to note that these arterials should change in function and character when they pass through downtowns and village centers. In some of these places, the highways become Class 1 municipal highways while in others they remain under the state's jurisdiction. Pedestrians, bicyclists, buses, and parked cars are common in these compact centers, and the arterials often form the center of an historic main street. Narrower roadway width, sidewalks, crosswalks, street trees, and restricted turning radii are acceptable and appropriate along arterials that are in community centers. Through flow of vehicle traffic should be slowed to promote safety and support a human-scale environment.

In areas outside of town centers, access controls are important to ensure safety and the function of the arterial. Residential developments should be designed to avoid direct access to the highway from individual properties, consolidating access points where possible. Commercial developments along arterials should avoid excessive driveway widths and have a limited number of access points while providing adequate sight distances for drivers and areas for acceleration and deceleration as appropriate. Local subdivision and zoning regulations can supplement any state review and approval of new access points along these highways.

Collector roads provide connections between arterial highways and local streets and allow for direct access to adjacent properties. State highways such as Routes 346, 100, 313, 7A, 153, and 67 are all classified as collectors. Construction and rehabilitation projects should attempt to bring these roads into conformance with the Vermont State Design Standards. In addition, many collector highways serve as important bicycle corridors so adequate provision should be made for safe use by bicyclists. As with arterials, when collectors enter downtowns, village centers, and other areas of compact development,

traffic calming measures should be employed to reduce vehicle speeds and promote safety, while streetscape design should be consistent with surrounding historic and human-scale development.

Local streets provide direct access to adjacent land uses. Access takes precedence over traffic flow on these streets and vehicle speeds tend to be low. In relatively densely developed areas such as downtowns and other commercial centers and residential neighborhoods, sidewalk networks are particularly important. Whenever possible, local streets should form a connected network, providing various routes for traffic through a community. In some instances, movements of through traffic on these roadways may be accompanied by excessive vehicle speeds so traffic calming methods should be employed as necessary.

Traffic Calming

Traffic calming involves the use of physical changes in the roadway to reduce vehicle speeds. In urban and village areas, these techniques can safely balance the needs of motorists, bicyclists, and pedestrians. Traffic calming promotes safety while creating opportunities to enhance the aesthetic and environmental elements of roadway corridors by reducing pavement width and increasing landscaping. A wide range of traffic calming techniques are available. Some of the most common techniques are:

- Installation of roundabouts at intersections, particularly at "gateways" to downtown or village center areas
- Reduction of the motor vehicle travel lane width in village areas
- Center islands and pedestrian refuges at crossing locations in roadways and raised and/or textured crosswalks
- Vertical deflection, which includes speed tables, speed humps, and traffic calming roundabouts
- Horizontal deflection, which includes chicanes, and lateral shifts
- Bulb-outs at crosswalks
- On-street parking
- Pavement markings
- Enforcement, especially a visible enforcement presence

Access Management

Access management concerns the relationship between the roadway network and adjacent land uses. The highway system needs to provide for safe and efficient through traffic movement as well as access to residences, businesses, and other uses located along the roadways. Those two functions often come into conflict, and access management is a set of principles and tools that can be used to minimize those conflicts. The Vermont Agency of Transportation maintains access management resources on its website. Specific benefits of access management planning include:

- Improved traffic flow by decreasing delays and occurrences of vehicle blockages
- Improved vehicular and pedestrian safety by eliminating conflict points
- Support for economic development through improved access
- Support for local land use plans
- Improved aesthetics and community character by incorporating landscaping, sidewalks, and lighting into the design of intersections and driveways

A crosswalk in the North Bennington Village Center features a Rectangular Rapid Flashing Beacon (RRFB) to enhance pedestrian visibility.
Photo Credit: Leason Stiles

The Vermont Agency of Transportation has worked with the regional planning commissions to assign access management categories to state highways and has developed techniques appropriate for each type of highway. Application of those techniques is guided by the following principles:

- Provide a specialized roadway system based upon mobility for through traffic and access to adjacent land
- Provide appropriate intersection design, control, and spacing to provide efficient transitions from one roadway classification to another
- Limit direct access between land uses and higher speed roads while promoting access between land uses and minor, low speed roads
- Limit or separate the number of conflict points between traffic entering and exiting driveways and streets
- Remove turning traffic from through traffic lanes
- Provide safe and efficient pedestrian and bicycle movements
- Appropriate access management elements shall be included in any roadway construction or reconstruction project and municipalities should require applicants for land use permits to include access management principles in their development site planning

A wide range of regulatory options can be used by municipalities to maintain or improve access management conditions. The most basic methods involve zoning controls over the location, type, and intensity of development.

Site plans for new developments or redevelopment of existing properties should include appropriate site-specific access management options, which may include:

- Limiting the number, width, spacing, and alignment of curb cuts (which may involve closing or relocating existing curb cuts)
- Requiring connections between adjacent lots for both vehicles and pedestrians
- Restricting parking to the side or rear of buildings
- Constructing sidewalks and other pedestrian amenities between streets and storefronts and between adjacent stores and commercial properties
- Providing safe access routes for bicycles and racks for bicycle storage
- Allowing for planned unit developments and requiring submission of master plans to account for future parking and access needs
- Requiring access drives to intersect existing side roads or new subdivision or service roads rather than on principal through roadways
- Planning roadway connections to adjacent developments and discouraging dead-end roads
- Requiring traffic impact studies, paid for by the developer, for large-scale new projects as well as construction of necessary improvements identified in those studies

Parking

Safe, convenient, and attractive vehicle parking areas are a necessary component of the transportation system. In many areas, adequate parking can be provided through on-site facilities. The location of these parking lots on a site and the layout and design of the lots are important to their proper functioning and to the aesthetic values of a community.

Parking areas should be well-landscaped and placed at the side or rear of lots to ensure that a sea of asphalt and vehicles are not prominently visible from public roads. Parking lots should include sidewalk linkages that provide for safe pedestrian movements to and through these areas. Landscaped islands and borders improve aesthetics, provide shade, and allow for infiltration of stormwater runoff. It is important that parking lots provide adequate space for the number of vehicles that typically use the site, but lots with excessive parking spaces are not appropriate.

Because of space limitations and the importance of maintaining a compact development pattern, on-site parking often is not available or appropriate in downtowns or village centers. On-street parking may provide a significant amount of vehicle storage in these areas while also calming traffic. Public parking lots and parking garages should be located behind, but convenient to, main business streets. Those public parking facilities should include the same design elements as on-site private lots as well as clear and attractive sidewalk or pathway connections to commercial and residential destinations. If sufficient public parking is developed in downtowns and village centers, it may be possible to eliminate some on-street parking and expand sidewalks and adjacent areas for additional public spaces that could be available for enhanced landscaping, outdoor dining, art displays, sitting areas, and similar uses. Properly sited and planned public park-and-ride lots help to encourage carpooling;

Bennington Rail Trail
Photo Credit: BCRC

such parking facilities should include features like those described above.

Scenic Roads and Historic Bridges

The region's landscape is most often viewed from its public places, and the most visited public places in a community are its roads. As such, public highways are extremely important to the region's overall scenic character. Key points along principal highway corridors serve as important visual gateways to villages and other historic areas. Roadways also provide visual access to near and distant scenic views. Of course, roads can be scenic features in and of themselves: a winding country lane lined by a stone wall and a village street passing under a canopy of mature trees are distinctive scenic resources.

While many, or most, of the roads in the region can be considered scenic, several characteristics clearly contribute to the aesthetic appeal of a roadway. In general, narrow local roads that blend harmoniously with the surrounding countryside are more scenic than wide roads that don't follow natural or historic elements of the landscape. Landscape features adjacent to a roadway become part of the road corridor: without stone walls, fence lines, trees, and similar elements, the overall scenic value of a roadway can be greatly diminished. Some scenic roads also draw the traveler's eye along the centerline of the road to a unique view or distinctive landscape feature in the distance.

These roadside views are often as important as the scenic character of the road. Some local roads offer delightful forays into deep forests while others bring motorists, bicyclists, and other travelers to views of fields, farms, mountains, or historic buildings. In these instances, scenic viewpoints are open to the principal view and are not blocked or disrupted by incompatible structures or other objects in the foreground. At the same time, an attractive foreground can greatly enhance roadside views.

Municipalities can formally designate local scenic roads and adopt ordinances to protect their character by requiring special consideration before the roadway dimensions, surface, or roadside vegetation located within the public right-of-way are changed. New developments in areas served by scenic roads should be planned to minimize heavy use of those roads that would lead to subsequent demands for widening or other changes to the roads.

In addition to any locally established scenic roadways, the region's three state-designated scenic byways which include Molly Stark Byway, the Shires of Vermont Byway, and Stone Valley Byway, are important economic assets for local communities. Continued cooperation between the BCRC, local governments, and state agencies will ensure that these scenic state highway corridors will continue to be important regional resources.

Historic bridges are particularly important components of the region's transportation system. There are five historic covered bridges in the region. The Silk, Paper Mill, and Henry bridges cross the Walloomsac River in Bennington, the Chiselville bridge in Sunderland sits high above the Roaring Branch, and the West Arlington covered bridge spans the Batten Kill in a particularly scenic setting just off Route 313. In addition, two historic truss bridges cross the Batten Kill, both in Arlington, at Benedict Crossing and another located at the state's Wagon Wheel fishing access site restored as part of the Vermont Historic Bridge Program. The bridge preservation initiative is a cooperative effort among the Vermont Agency of Transportation, the Vermont Agency of Natural Resources, the Federal Highway Administration, the State Historic Preservation Office, and the Advisory Council on Historic Preservation. The program is designed to work in partnership with towns and villages to preserve historic bridges, either for continued highway use or for some other public use. The program maintains an inventory and resource guide for historic covered and truss bridges, including active bridges and bridges in storage, and can aid with education and development of preservation plans and documents.

Highway and Bridge Maintenance and Improvement

Effective maintenance of the network of state and local highways and bridges is critical for public health and safety and to the vibrancy of the regional economy. These maintenance activities also represent some of the most substantial expenses faced by state and local governments. The Vermont Agency of Transportation uses several tools to prioritize highway maintenance and improvement needs. All state roads and state and local bridges are assigned a sufficiency rating that considers structural conditions, safety, and service criteria. The Agency also maintains a list of high crash locations that, based on crash history, identifies sites where safety improvements probably are needed. Several tools that can help prioritize local road maintenance and improvement needs, such as the Road Surface Management System (RSMS) are available for use by municipal highway departments.

The Agency of Transportation, in an effort to ensure that the state highway system is maintained at an acceptable level and within fiscal constraints, has developed a "level of improvement" (LOI) policy as part of its project development process. The extent of maintenance work targeted to a particular roadway falls into one of three categories based on the functional class (i.e., expressway, major/minor arterial, major/urban collector), total vehicle traffic, and truck traffic. The most extensive maintenance level is reconstruction, projects that will bring the highway or bridge into compliance with the state design standards and may increase capacity. Intermediate maintenance treatments are classified as rehabilitation projects and are intended to

extend the service life of the facility while limiting work to areas within the existing roadway. Preservation projects involve the least extensive maintenance work at the lowest cost and are designed to preserve the service life of a roadway or bridge. Information on current and planned projects is available through the agency's "VTransparency" website.

In addition to considering RSMS or other empirical data, municipalities should consider several other key factors when undertaking highway infrastructure maintenance. Each municipality should adopt the most current codes and standards (as detailed in the Agency of Transportation's The Orange Book) for local highways. These standards are designed to help towns and villages save money by minimizing the need for extensive and costly repairs, especially repairs resulting from damage caused during heavy rain and flooding events. Additional benefits of adopting and adhering to the codes and standards include eligibility for assistance under the Federal Emergency Management's Public Assistance Program, reduced local match and higher state reimbursements, and improved water quality.

Of course, safety is the most important consideration in highway maintenance and improvement projects. The Agency of Transportation's Strategic Highway Safety Plan is intended to correct roadway hazards and enhance public safety. As part of the statewide safety enhancement effort, the BCRC works with the Agency of Transportation and with local officials to identify and implement safety improvement projects through annual road safety audit reviews.

Greenhouse Gas Emissions from Transportation

Transportation is Vermont's largest source of greenhouse gas (GHG) emissions accounting for 40% of the state's total GHG emissions. Trucks accounted for 83% of Vermont's transportation GHG emissions in 2022 with light trucks being the largest source of GHG emissions of any vehicle type, accounting for 51% of transportation GHG emissions. In September 2020, the Vermont Legislature passed the Global Warming Solutions Act (GWSA, Act 153), a climate-action accountability framework. The Agency of Transportation's Vermont Carbon Reduction Strategy outlines strategy to meet the transportation component of the GWSA which requires that Vermont reduce its gross GHG emissions at least 26 percent below 2005 levels by 2025; 40 percent below 1990 levels by 2030; and 80 percent below 1990 levels by 2050. Regional strategies to meet these goals are discussed in Chapter 13 of this plan.

Highway System Improvement Priorities

Highway system improvements include roadway and bridge projects identified on the network of state highways. Many of the highway projects identified in this section also include significant pedestrian or bicycle improvements and may, therefore, also be mentioned in that section of this plan. Specific improvements on local highways are not included in this plan, but municipalities should maintain lists of priority construction and maintenance needs and consider integration of the proposed projects in comprehensive capital budgets and programs. A variety of program areas and funding sources are

available for implementation of these projects. The BCRC will work with the Agency of Transportation and local officials to advance the projects using the most financially advantageous and expeditious methods.

The list of current state highway system improvement priorities within the Bennington region includes:

- Northside Drive/Kocher Drive Corridor Improvements (Bennington): Access management, roundabouts, sidewalks, landscaping, and installation of a stormwater system. One roundabout was constructed as part of the redevelopment of a commercial plaza.
- Monument Avenue Traffic Calming (Bennington and Old Bennington): Implementation of planned traffic calming measures along this corridor which is used by many people as an informal bypass route.
- Intersection of Warm Brook Road and VT 313 (Arlington): A roundabout project selected by the BCRC Transportation Advisory Committee (TAC) as part of the VPSP2 project prioritization process.
- VT 313/River Road Intersection at "Rochester's Corner" (Arlington): Traffic safety improvements at this intersection are needed because of poor sight distance.
- VT 7A (Shaftsbury): Access management, traffic calming and pedestrian crossing/safety improvements in South Shaftsbury Village, especially in the area where children cross the highway to get to the local elementary school.
- VT 67 (Shaftsbury): Wider shoulders are needed to address choke point for pedestrians and bicycles between Church Street and Paran Road.
- VT 7A (Arlington): Pedestrian route and crossing between the village center and the town recreation park.
- VT 7A (South Shaftsbury to Warm Brook Road in Arlington): Improved shoulders for bicycling are needed as this is the only paved road open to bicycles connecting Shaftsbury and Arlington.
- VT 30 (Dorset): Traffic calming and pedestrian improvements in the Dorset Village area.
- US 7 (Dorset): Traffic calming and a crosswalk in East Dorset Village.

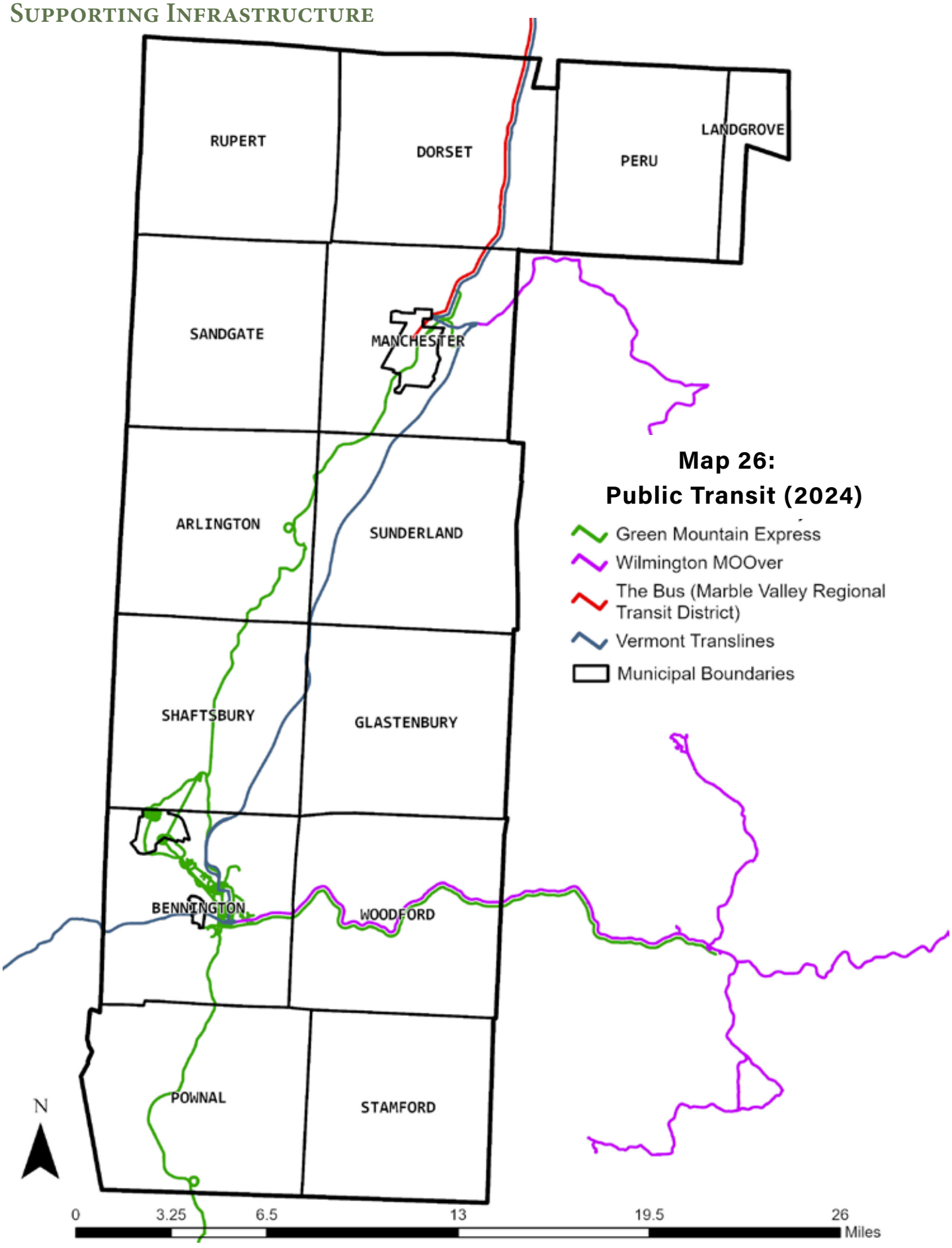
The Green Mountain Express Depot in Bennington. Photo Credit: BCRC

Public Transportation

Operation of public transportation services in a rural area like the Bennington region is challenging because of the relatively small and dispersed population. Nonetheless, public transportation is an important service in the region that will grow increasingly critical over time. The region's public transit routes are shown in Map 26: Public Transit (2024). The system provides accessibility to segments of the population that traditionally have less car access, including elderly residents, students, and people with disabilities, and encourages less dependence on private motor vehicles among the general population. Greater utilization of public transportation will reduce vehicle miles traveled, roadway congestion, and air pollution. Moreover, it has been shown that regular transit users are more likely to be physically active and healthy, as such trips generally involve some amount of walking to and from bus stops. Many buses are equipped with bicycle racks, allowing commuters to cycle to and from the bus stops.

The Green Mountain Community Network (GMCN) operates the Green Mountain Express transit service, providing a range of fixed routes, deviated fixed routes, and demand response services. A fixed route service running between Bennington and Manchester along Route 7A, with stops in Shaftsbury, Arlington, and Manchester Village, provides a valuable commuter link for many workers. Connections can be made in Manchester for continued service to Rutland. GMCN also operates a daily service (Monday through Friday) to Williamstown, Massachusetts, and service (also Monday through Friday) to Wilmington, where connections can be made to Brattleboro. Bennington and Manchester are stops on an intercity bus linking Burlington with Albany, NY with stops at Albany/Rensselaer Amtrak Station, the Albany Bus Terminal, and the Albany International Airport.

Fixed route services provided by GMCN on Green Mountain Express buses in the Bennington region operate Monday through Friday with stops downtown at residential developments, shopping centers, medical facilities, job sites, schools, colleges, and other important local destinations. An extra fixed route operates on Saturdays, emphasizing service between residential areas, shopping, colleges, and entertainment venues. It is important to continually monitor these services to be sure that the destinations and times match local needs. In recent years, GMCN has


RUPERT
DORSET
PERU
LANDGROVE
SANDGATE
MANCHESTER
ARLINGTON
SUNDERLAND
SHAFTSBURY
GLASTENBURY
BENNINGTON
WOODFORD
POWNAL
STAMFORD
Map 26:
Public Transit (2024)
Green Mountain Express
Wilmington MOOver
The Bus (Marble Valley Regional Transit District)
Vermont Translines
Municipal Boundaries
N
0
3.25
6.5
13
19.5
26
Miles

partnered with its peer in Windham County to extend the Windham organization's fixed route service to Manchester, improving the town's connection with Bromley Mountain, the Town of Peru, and points in Windham County. As discussed earlier in this plan, better connections between the area's colleges and Bennington's downtown will prove beneficial to students, businesses, and the community. Every effort should be made to ensure that these connections are as convenient and accessible as possible.

The GMCN also works with volunteer drivers to provide door-to-door transportation to and from medical appointments, and special trips for seniors, nursing home residents, and people with disabilities. Other human service agencies in the region maintain their own vans to provide similar services for their clientele. These services are important to the people served and these organizations should work cooperatively to ensure that these populations' transit needs are adequately addressed.

A weakness of the region's transit service is the lack of options for travel to Boston. The region once had direct bus service to Boston, but no longer. Amtrak has service to Boston from Pittsfield, Massachusetts, 33 miles south of Bennington, however, to get Pittsfield from Bennington requires taking four different buses which takes nearly three hours. Also, the GMCN bus does not run on weekends.

Not to be overlooked are the valuable public transportation services provided by the region's school districts, most of which operate buses that safely and efficiently transport children to and from school. Use of school buses rather than relying on individual cars encourages more physical activity and can dramatically reduce gasoline consumption and related regional energy expenditures.

Another form of public transportation involves ridesharing, or carpooling, either during a work commute or for any other purpose. Go! Vermont is a resource for people who want to reduce the cost and environmental impact of driving. Free carpool matching and vanpool services can be accessed through the website along with information on bicycle commuting and other transportation alternatives.

Priorities for Public Transportation Improvements

- Evaluate the potential for increasing frequency and extending service hours for the GMCN fixed routes. Monitor use and identify new service needs and opportunities.
- At bus stops, install "Bus Stop" signs and post the route and schedule.
- Shelters at bus stops.
- Improved pedestrian connections to bus stops and stations.
- Protected bicycle parking at key bus stops.
- Improved transportation-related coordination between human service agencies.
- Improved bus connection to the Pittsfield Amtrak station with service to Boston.

Walking and Bicycling

Walking and bicycling are important transportation modes that are efficient in many circumstances and promote public health and support sustainable communities. It is important to provide and maintain the facilities needed to support safe and convenient walking and bicycling around our communities and throughout the region. Existing facilities, including roadways, road shoulders, sidewalks, and pathways and trails will need to be improved and supplemented with additional facilities to meet specific needs particularly for short trips.

Walking and bicycling are closely connected with each other and with other transportation modes. Everyone who parks a car in a lot or along a street, for example, immediately transitions from a motorist to a pedestrian. Similarly, bicyclists need to be able to secure their vehicles and transition to walking or some form of public transportation. The relationship between a pedestrian and bicycle friendly community and its land use plan is another critical consideration. The type of compact mixed-use centers described in this plan's land use discussion reinforces the need for an environment that makes walking and bicycling convenient and enjoyable.

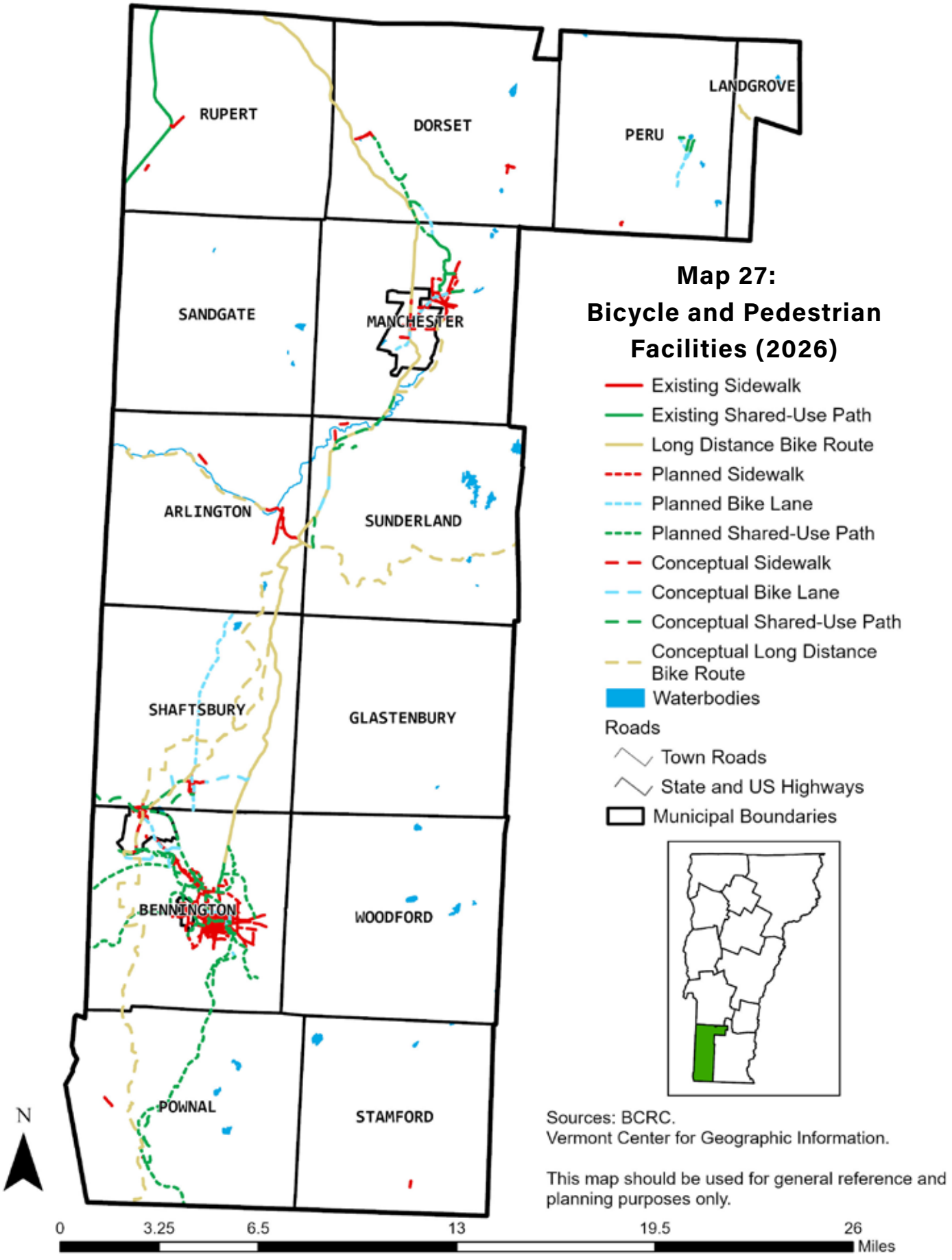
The Vermont Agency of Transportation has developed programs and guidelines to support walking and bicycling. The Bicycle and Pedestrian Strategic Plan 2021 establishes policy and identifies actions that can help meet goals for improvements that support walking and bicycling. The agency also maintains specific design standards for pedestrian and bicycle facilities. Two grant programs, one overseen by the Bicycle and Pedestrian Program and the other available through the Transportation Alternatives Program offer funding opportunities for local bicycle and pedestrian improvements.

The BCRC has prepared an Active Transportation Project Guide that includes information on particularly important walking and bicycling improvement projects around the region which is updated as projects are added and removed from plans. That Guide, as regularly updated, is adopted by reference as part of this comprehensive regional plan and should be consulted when establishing priorities for project development. Projects reflected in the guide are reflected in these bicycle and pedestrian maps: Map 27: Bicycle and Pedestrian Facilities (2026), Map 28: Bicycle and Pedestrian Facilities – Northshire (2026), and Map 29: Bicycle and Pedestrian Facilities – Southshire (2026).

Walking

Virtually everyone is a pedestrian several times a day, even if those movements are confined to traveling to and from a car, bus, or other vehicle. Walking should be considered as both a primary means of transportation and as an accessory to vehicle-based transportation. In addition to being simple and convenient, walking is very energy-efficient, results in no emissions, and is an enjoyable and healthy activity. The types of pedestrian facilities that are most appropriate vary depending on location. In all situations, however, safety, convenience, and the presence of certain amenities will support additional pedestrian activity.

Bennington and Manchester are ideally suited to walking, with residential neighborhoods, schools, workplaces, and stores all clustered in close proximity. Focused new



Map 27: Bicycle and Pedestrian Facilities (2026)

- Existing Sidewalk
- Existing Shared-Use Path
- Long Distance Bike Route
- Planned Sidewalk
- Planned Bike Lane
- Planned Shared-Use Path
- Conceptual Sidewalk
- Conceptual Bike Lane
- Conceptual Shared-Use Path
- Conceptual Long Distance Bike Route
- Waterbodies

Roads

- Town Roads
- State and US Highways
- Municipal Boundaries

Sources: BCRC.
Vermont Center for Geographic Information.

This map should be used for general reference and planning purposes only.

development and redevelopment in these areas will enable more people to make a significant number of local trips on foot. Many of the region's larger villages, such as North Bennington, Arlington, South Shaftsbury, and Dorset also have concentrations of mixed-use development that are especially conducive to walking.

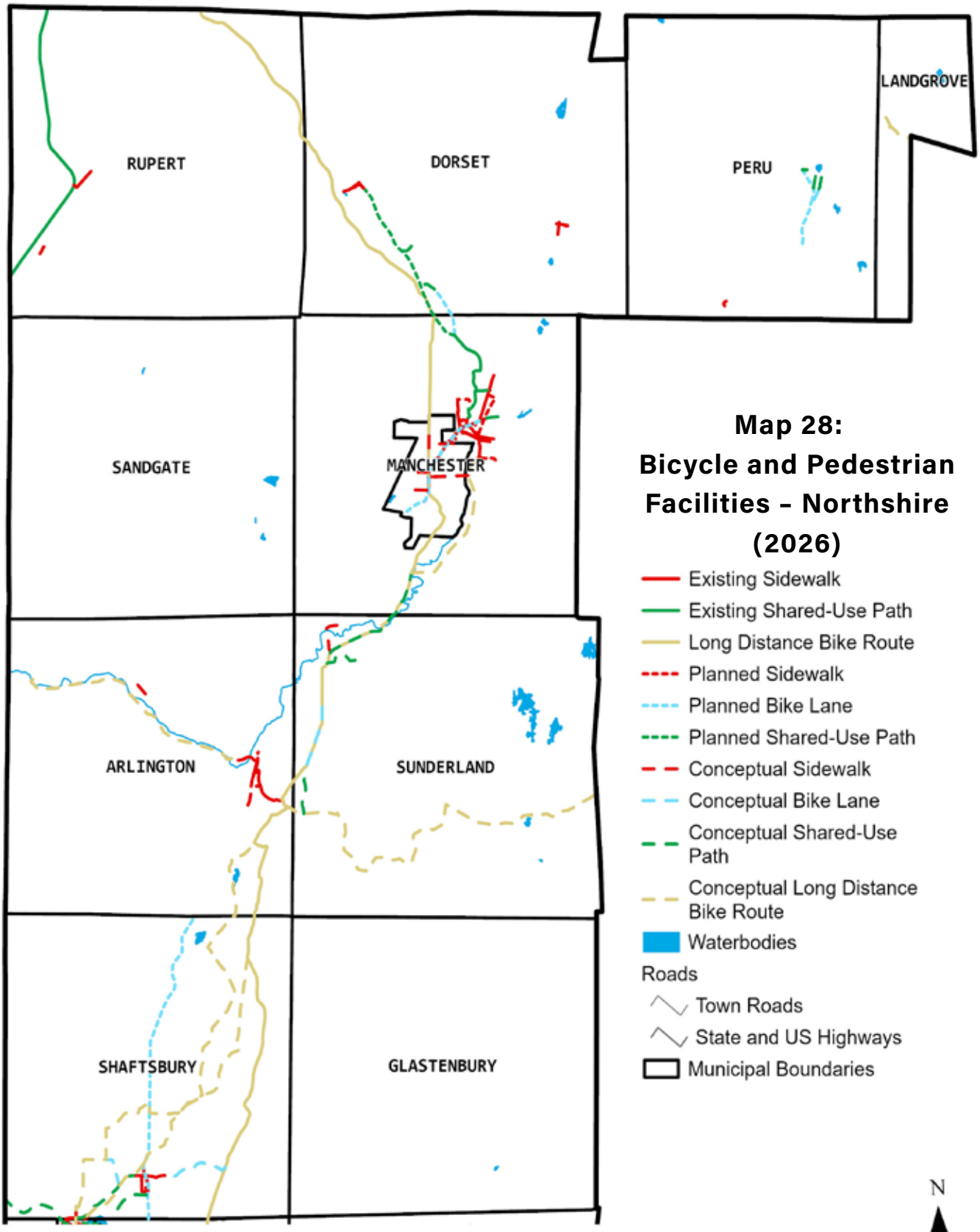
The most common pedestrian facilities in urban and village centers are sidewalks which lie along roadways, either immediately adjacent to a curb or separated from the curb and/or roadway edge by some type of landscaped strip. Because they follow roadways, these sidewalks provide direct access to a variety of destinations and being located within roadway rights-of-way, are relatively inexpensive to construct and maintain.

In general, sidewalks in downtown areas should be wide, occupying most of the space between the curb line and storefronts, with pockets of green space, street trees, and benches located at regular intervals. Crosswalks provide critical connections in these high traffic areas and must be carefully sited where needed by pedestrians, clearly marked, and supported by traffic signals as necessary.

In residential neighborhoods, and in commercial and mixed-use areas outside downtowns, sidewalks can be narrower and should be separated from the roadway by a landscaped strip; this separation is especially important along roadways where there is no on-street parking or high vehicle speeds prevail. Sidewalks must provide connections to schools, employment centers, and shopping areas. Crosswalks are also needed in these areas and should be sited at intersections with traffic signals or stop signs. It is similarly important to provide safe walkway connections from street sidewalks through parking lots and to storefronts and other destinations; those walkway connections should provide a safe route for pedestrians moving from their parked cars to the storefront destination.

People living in small rural hamlets and in homes scattered throughout the region's outlying rural areas also can enjoy the benefits of walking. Walking in these areas also provides access to healthy recreation, a neighbor's house, a country store, or the local school. In many cases, the low-traffic and low-speed local roads in these areas serve as acceptable and safe routes for walking. When important pedestrian routes lie along state highways or more heavily traveled local roads, additional facilities, such as a widened shoulder or a separated pathway are appropriate. Hamlets containing a school, church, store, houses, or similar compact rural development may require a more formal sidewalk network to safely accommodate pedestrian travel, especially when children are frequent walkers in the area. The BCRC's most recent bicycle and pedestrian project mapping effort placed an emphasis on identifying these locations.

The region is home to many formal and informal trails (see Map 41: Trail Systems (2024)). Many of these trails connect to sidewalks, parking areas, or other places that facilitate transportation between various destinations. Public access trails provide outstanding opportunities for recreation. Trailheads should be clearly marked, well-maintained, and provide safe parking areas for vehicles.



Map 28: Bicycle and Pedestrian Facilities – Northshire (2026)

Bicycling

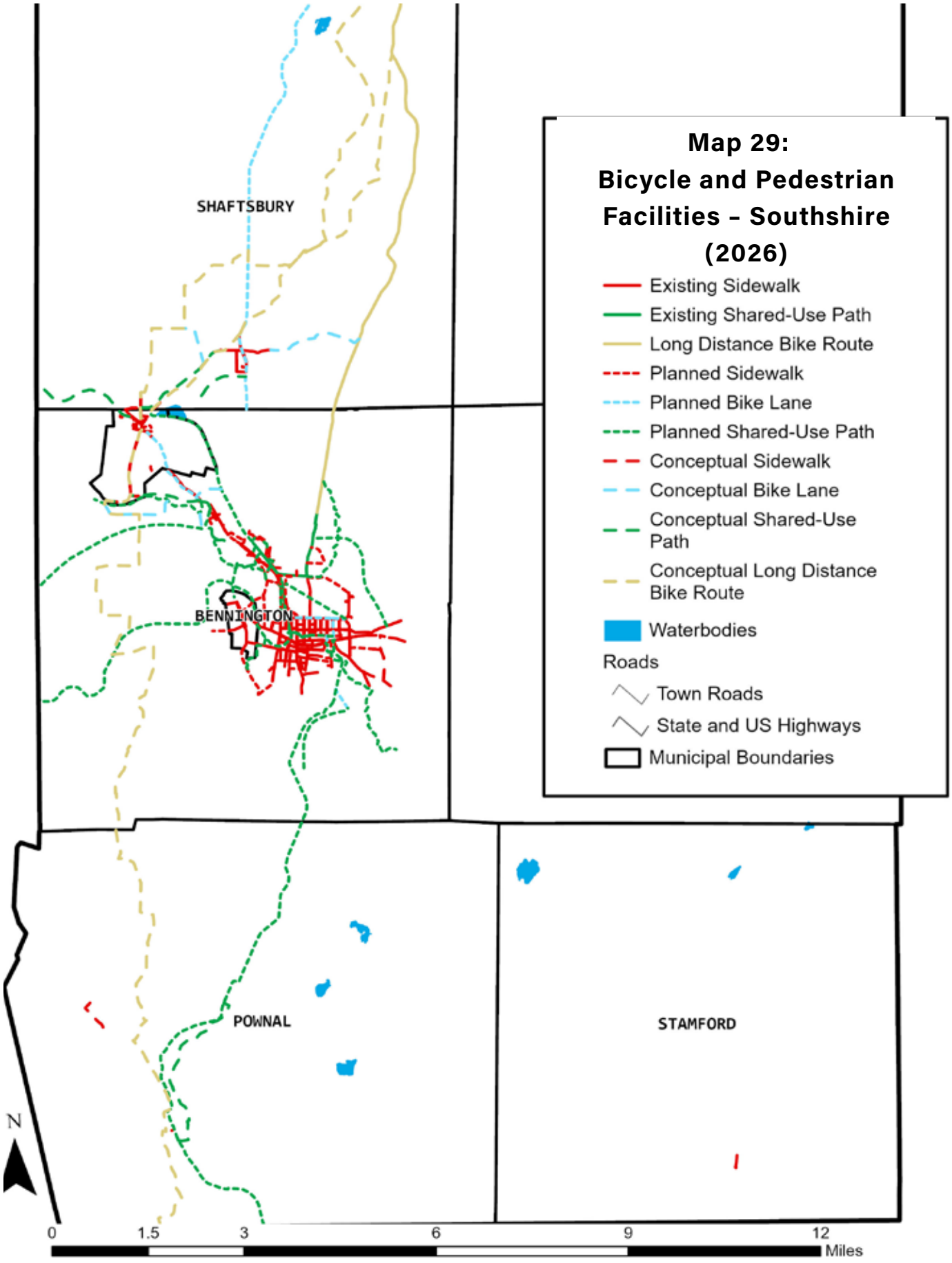
Bicycling is an enjoyable and healthy activity that also is an economically and environmentally sound alternative to the automobile for local transportation. With increasing fuel prices and bicycle designs to meet just about every need, increasing numbers of people can be expected to turn to bicycles and other human-powered vehicles for commuting and for fun. The advent of affordable electric bicycles (e-bikes) has made cycling more accessible than in the past, and opened areas of the region that had previously seen limited bicycle traffic to increased bicycle mode share.

Most bicyclists prefer to ride on paved secondary roads with light or low speed vehicular traffic. Examples of this type of road in our region include West Road in Dorset and River Road/Sunderland Hill Road in Manchester and Sunderland. Both of these roads host portions of the Western New England Greenway (WNEG), which runs from the Massachusetts border through the region to Rupert and on to points north. The BCRC has taken a key role in promotion of the WNEG route as the region's main north-south bike corridor, with support for signage and improvements in each host town. Such roads are natural bikeways and require little improvement. It is important that pavement be maintained in good condition and that there is not a drop-off from the pavement edge onto a poor or non-existent shoulder. Road hazards (see discussion below) should be eliminated from these important bicycle routes. The needs of bicyclists must be considered if traffic volumes on these roads increase. It may be necessary to widen the lanes or provide a paved shoulder when increased traffic compromises safety.

State highways and Class I town highways often provide the most direct, and often the only passable route for bicyclists traveling between town centers and other important destinations. These roads are characterized by high vehicle volumes and speeds. Route 7A, 67, and 30 are examples of roads that are important to bicyclists, but also hazardous because of inadequate design and conflicts with cars and trucks. Paved shoulders with a minimum width of four feet (refer to state design standards for further guidance) should be provided along these highways wherever possible. The quality of shoulder pavement should be comparable to the pavement on the travel lanes and should be maintained and kept free of debris. Along sections of roads having curbs (generally in urban and village centers), where shoulders cannot be reasonably provided, the outside lanes should be 14 or 15 feet in width, thus providing adequate room for an automobile and a bicycle. It is critically important to eliminate hazards on these roads, where any obstruction that can cause bicyclists to lose control or be forced quickly into the travel lane poses a very serious safety problem.

Objects and conditions that motorists never notice can be a severe safety hazard for bicyclists. Some of the dangerous hazards include:

- Improperly designed or installed drainage grates
- Poor pavement condition including roadside debris
- Utility covers that are not flush with the road surface
- Railroad crossings, especially when the tracks are not perpendicular to the


Map 29:
Bicycle and Pedestrian Facilities – Southshire (2026)
Existing Sidewalk
Existing Shared-Use Path
Long Distance Bike Route
Planned Sidewalk
Planned Bike Lane
Planned Shared-Use Path
Conceptual Sidewalk
Conceptual Bike Lane
Conceptual Shared-Use Path
Conceptual Long Distance Bike Route
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries
SHAFTSBURY
BENNINGTON
POWNAL
STAMFORD
N
0
1.5
3
6
9
12
Miles

A crosswalk in Bennington provides a safe crossing location to access the Recreation Center. Photo Credit: BCRC

direction of bicycle travel and there is limited room to maneuver a safe crossing

- Narrow bridges
- Signs and utility poles located too close to the edge of the road or shoulder
- Intersections with unpaved side roads or driveways—and the resulting debris that can accumulate along the edge of the road

Maintenance or construction projects must note any such hazards and take measures to correct them, or justify why such efforts have not been undertaken as part of the state's Complete Streets reporting process.

One notable change to the region's cycling usage in recent years has been the growth of gravel road cycling driven by the popularization of specialized gravel bicycles and e-bikes. A highly-used gravel segment of the WNEG runs along East Road and Maple Hill Road between Bennington and Arlington. The BCRC also recognizes the popular VTXL gravel route which connects Pownal to the region border at the gravel road mountain pass between Sunderland and Stratton via gravel roads on the western side of the region. Other key gravel cycling corridors lie on River Road in Arlington and Paran Road/ Airport Road in Shaftsbury. These routes play an important economic development role in their support for outdoor recreational tourism. The quality of maintenance of these roads has improved in recent years due to the implementation of Municipal Roads General Permit-required stormwater management improvements. Beyond stormwater management, regular grader maintenance of gravel

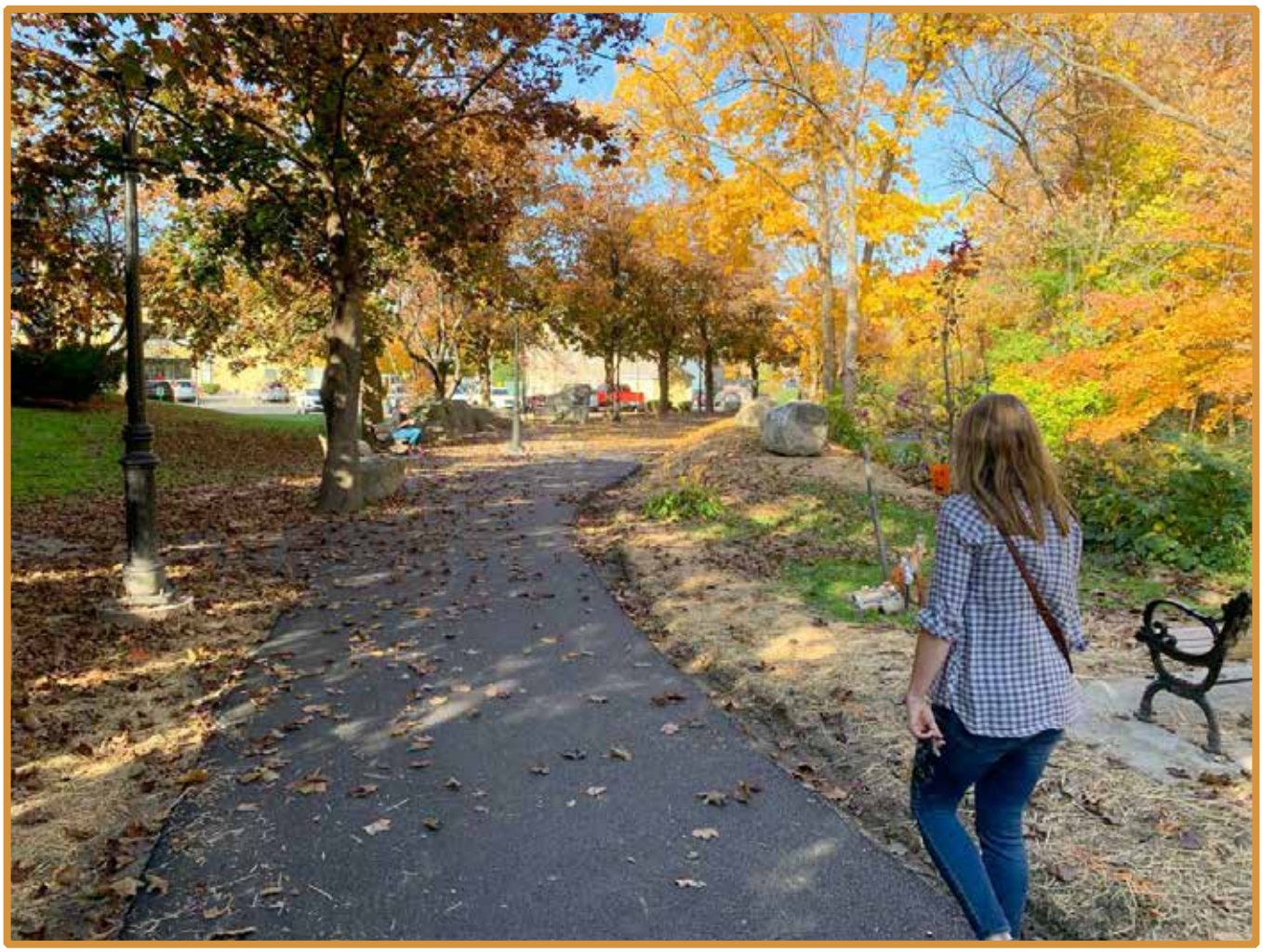
A group of bicyclists approach a crosswalk near the entrance to Bennington College. Photo Credit: BCRC

roads is key to ensure a safe and pleasant road surface for both drivers and cyclists.

A final consideration is the need for bicycle parking facilities at destinations throughout the region. Bicycles need to be securely stored while not being used and municipalities and businesses can provide a variety of bicycle racks and similar facilities to meet this need. Bicycle racks should be convenient to a building's entrance and should have at least two points of contact with the bicycle frame. The BCRC completed a Bicycle Parking Report in 2014 that assessed bicycle parking needs and opportunities in the region. The report provides standards for new bicycle parking throughout the region.

Multi-use Paths

Multi-use paths are off-road routes designed and developed for use by various users, including walkers and bicyclists. They are either paved or gravel-surfaced and meet specific standards suitable for various users. Existing multi-use paths in the region include the D&H Rail Trail in Rupert, the Bennington River Walk in downtown Bennington, the Bennington Rail Trail, a section of paved path along East Road in Bennington that provides access to the middle school, and a path that connects the Manchester Elementary-Middle School with the town's recreation center and points north to North Road. Multi-use pathways can provide valuable links between important destinations (e.g., neighborhoods to school, between village centers or downtowns, etc.) and make outstanding



A pedestrian enjoys the scenic Riverwalk in Bennington.
Photo Credit: Town of Bennington

recreational facilities. Pathways are limited as a primary means of bicycle-pedestrian travel, however, in that they are linear features that require secondary connections to reach most destinations and they are expensive to build (because of design standards and, often, the need to purchase rights-of-way).

Construction of these facilities should be considered when alternative sidewalk, trail, or roadway routes between important destinations are limited or unsafe, when existing rights-of-way are available (such as along publicly owned rail corridors), or as part of a planned bicycle-pedestrian network. These paths must be well-built to safely accommodate bicycle use. They should be paved or surfaced with a firm and consistent material that will support narrow high-pressure bicycle tires. Sharp turns must be avoided as bicyclists often travel more than 20 miles per hour. Paths should be at least 10 feet wide with two-foot graded shoulders to safely accommodate two-way bicycle traffic (along with other path users) and should be designed to minimize roadway crossings.

Priority Walking and Bicycling Improvement Projects

As described already, specific transportation improvements related to walking and

The northern terminus of the Manchester's Historic Marble Rail Trail
Photo Credit: BCRC

bicycling are identified and described in the Active Transportation Project Guide, which is regularly updated to reflect current conditions and needs. That document should be referred to with this plan when determining priority needs and pursuing funding opportunities. Additional needs and potential projects identified by towns and villages should be reported to the BCRC to ensure effective coordination with the Vermont Agency of Transportation and other funding and regulatory agencies.

Priority pedestrian and bicycle improvements in the region include:

- Walloomsac Path trunk line (fka Ninja Trail) [Northern segment]: On and off-road connection between Bennington's downtown, the Northside Drive area, Bennington College, and North Bennington
- Bennington-Pownal-Williamstown Path (fka Trolley Line Path): planned path connecting Bennington and Pownal to existing shared-use path in Williamstown, MA. Northernmost segment from Main Street to Fuller Road via town properties and VTrans ROW is the highest priority portion
- Manchester – Manchester Village Main Street Bicycle Safety Project: create a safe and inviting bicycle route along VT7A between Manchester and Manchester Village
- Western New England Greenway: Planned bicycle route, primarily on-road, that may require signs or roadway improvements. Signage is preferred for gravel segments and bike lanes or shared use paths for paved segments
- Bennington Bicycle Lane and Sidewalk Network: Establish a system of bicycle lanes and sidewalks in Bennington's growth center
- Bicycle Parking: Provide bicycle parking facilities at destinations throughout the region
- Bennington Downtown Signal Retiming: Modify signalization at main downtown intersection to facilitate pedestrian safety and convenience
- Benmont Avenue Active Transportation Corridor: Provision of safe facilities for bicycling and walking and streetscape enhancement
- Village Center Improvements in East Dorset: Traffic calming, access management, and crosswalks to enhance village

character and provide a safe highway crossing

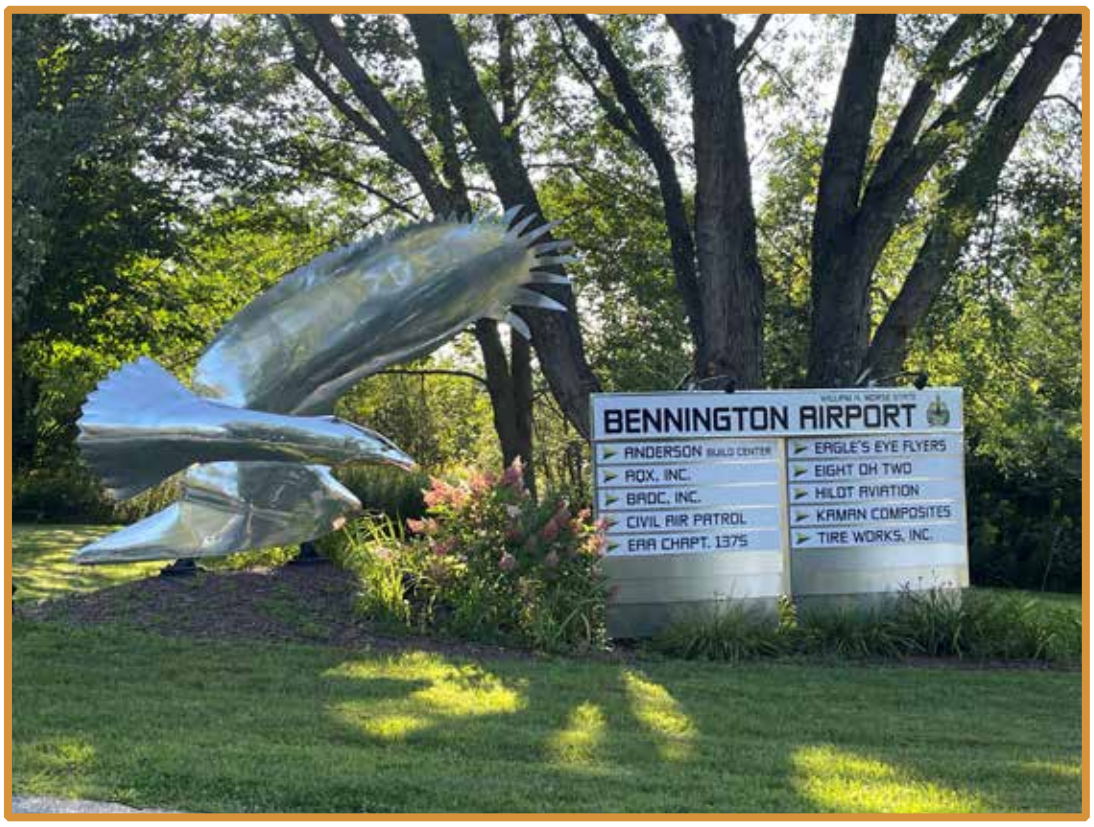
- Route 30 shared use path: Shared use path connecting West Dorset Village, South Dorset Village Center (Raptor Lane) and Manchester rail trail
- Village Center Improvements (Shaftsbury): Access management and pedestrian crossings to improve access and safety for walking at Route 7A in South Shaftsbury Village
- North Bennington-Shaftsbury pedestrian safety improvements: Sidewalk improvements in the portion of Shaftsbury Village Area immediately adjacent to North Bennington village.
- North Bennington-South Shaftsbury bike/ped connection: Sidewalk or shared use path connecting both village centers
- Village Center Improvements (East Arlington): Reduction in paved areas and related pedestrian improvements
- Recreation Park Connecting Path (Arlington): Develop a safe route for walking between Arlington's village center and the town's recreation park
- Pownal School: Improved pedestrian facilities and safe crossings between Pownal Center and the Pownal Elementary School
- Sunderland Commercial Area: Sidewalks and crosswalks in the area along Route 7A at the base of Equinox Skyline Drive
- Sunderland bike lane extension: Complete bike lane(s) from East Arlington to Manchester line
- Recreational walking route across the region through Rupert, Dorset, Peru, and Landgrove, primarily on existing trails, to connect to the West River Trail in Londonderry including connection to Peru village.
- Route 7A Safety and Bicycle Improvements: wider paved shoulders between Warm Brook Road in Arlington and South Shaftsbury Village
- Sunderland Hill Road: delineation of a safe walking and bicycling lane between Hill Farm Road and the former elementary school
- West Arlington Bike/Ped improvements: Add signage to note high bike/ped usage of River Road. Widen shoulders and add crosswalk near general store in West Arlington

Environmental Benefits + Burdens

Reliable public transit and the presence of pedestrian and bicycle infrastructure allow residents to safely and affordably move through their community without needing to own a personal vehicle. This also reduces greenhouse gas emissions from single passenger vehicle trips. When public transit and biking/pedestrian infrastructure are not accessible to people, those without a personal vehicle can struggle to access employment, education, services and amenities. A lack of these alternative transportation methods also reinforces car-centric design practices that can contribute to sprawl and pollution.

Regional Context

In Bennington County, approximately 8.3% of households do not own a vehicle according to 2024 ACS 5-year estimates. The percentage is slightly higher, 9.7%, in census block groups that meet the EJFP definition. The percentage of residential structures within ½ mile of a transit stop is actually



The William H. Morse Airport is located in the western part of Bennington. Photo Credit: BCRC

higher in EJFP census block groups compared to the overall regional level. Investments in alternative transportation such as public transit and biking/pedestrian facilities should be distributed throughout the region, with a focus on areas that have lower rates of vehicle ownership. BCRC's recently-improved long-range bicycle and pedestrian maps reflect many projects which would expand walking and cycling infrastructure in these areas.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Rail and Air Service

The Bennington region is home to two railway corridors (see Map - Transportation). A state-owned rail line enters the region from New York near North Bennington and continues north through the region, eventually reaching Burlington. A spur line, most of which is inactive, runs from the North Bennington depot (currently housing the North Bennington Village offices) to downtown Bennington. Both rail lines are leased by the state to Vermont Railway. Freight shipments along the main Vermont Railway line have increased in recent years in response to track improvements along the corridor. In addition to bulk products such as grain and feed, propane, and lumber that have been shipped to and from local businesses for many years, the line now sees considerable

freight business originating from the OMYA calcium carbonate businesses north of Rutland. The Pan Am Southern corporation owns the rail line that passes through Pownal along the Hoosic River valley. That line connects to major rail hubs in Mechanicville, New York and Lowell, Massachusetts. The line is one of the most heavily used freight corridors in Vermont, although it does not currently provide direct service for any local businesses.

Although not currently a heavily utilized part of the region's transportation infrastructure, these rail lines do serve a valuable purpose for certain businesses, and the potential for expanded freight shipments as well as intercity passenger service is very significant. Increasing costs for trucking driven by state efforts to reconcile freight road damage impacts with trucking costs makes rail competitive for freight. Inconvenience and Vermont's fast-aging population make rail competitive with travel by car for passenger trips. Increased reliance of trains for transport of goods and people also would reduce air pollution, traffic congestion, and highway maintenance costs.

An expanded freight service would be more viable with establishment of a transloading facility, where transfers between long haul rail cars and trucks for local and regional delivery could be efficiently accomplished. Fortunately, the region's two rail lines pass by many commercial and industrial sites available for such a facility or for new businesses development that could be served by direct rail shipments.

The potential for renewed passenger rail service to the region has been studied extensively and is undergoing study at the time of this writing. In 2014, the New York—Vermont Bi-State Passenger Rail Study, sponsored by the two states and overseen by the Vermont Agency of Transportation and a steering committee consisting of representatives from the BCRC and other regional organizations, completed the planning, environmental assessments, and preliminary engineering needed to advance a passenger rail project that would serve the Bennington region. Although federal funding for the project is not available now, the BCRC should work with local partners to urge the state, through the Rail Council, to make this project a top priority for implementation. Initial construction cost is projected to exceed $110 million with annual operating subsidies of several million dollars.

The Bennington region is ideally located to benefit from greater access to intercity passenger rail service. It is the closest part of Vermont to major rail-oriented urban markets, including New York City. The busy Albany-Rensselaer Amtrak station is 40 miles from Bennington, and, more so than any other location in Vermont, travel times and costs are competitive with other transportation modes. Greater access to intercity passenger rail service would not only benefit residents, but it would also be a tremendous economic development benefit for the entire region. Several million people in the mid-Atlantic metropolitan corridor rely on trains as their primary means of transportation, and having stops in North Bennington and Manchester would immediately strengthen the regional tourism market. In addition, many people who conduct business in those metropolitan areas would be more likely to live in the Bennington region, working from local offices and traveling into New York or other cities as needed for business.

Access to air transportation is important to area residents and businesses. The William H. Morse State Airport is the only active airfield in the region. It is located north of Route 9, west of Bennington. One 3,704-foot-long asphalt runway serves aircraft operations. The market area for the airport extends from Pownal in the south to the Bromley and Stratton Mountain resort areas in the north and into nearby towns in New York State. Although there is no commercial passenger or freight operator based at the airport, it is an important general aviation center and is used for some business travel. Several capital projects designed to improve safety and operational efficiency have been implemented at the airport.

The nearest access to commercial air passenger service is available at Albany, New York for Bennington and the Southshire and Rutland, Vermont for the Northshire. The short drive to Rutland from the northern part of the region makes use of that facility particularly convenient, especially for trips to Boston or destinations with direct connections from Boston (commercial flights connect Rutland with Logan International Airport). The Albany International Airport is within an hour's drive of most of the region's population, and one intercity bus line that serves the region provides service to that airport as well. It is important to ensure that ground transportation connections to the regional airports are well-maintained and that public transit connections, at least to the Albany International Airport and the Rutland State Airport are available and timed to be convenient for air travelers.

Rail and Air Improvement Priorities

- Improve connectivity with intercity passenger rail service with a long-term goal of new Amtrak train service to the region
- Identify potential commercial and industrial sites that have access to rail to serve new business and a transloading facility
- Before initiating more frequent and higher speed rail service to the region, upgrade all road crossings to ensure recommended safety standards are met
- Keep the William H. Morse State airport in a state of good repair
- Improve ground transportation connections to Albany International Airport and the Rutland State Airport

How Can BCRC Help?

The BCRC contracts annually with the Vermont Agency of Transportation to ensure that local transportation projects and priorities are coordinated with the state. The BCRC works with local officials and its Transportation Advisory Committee to identify priority projects in the region and reviews plans for improvements to state highways and bridges. The BCRC also develops corridor management plans, prepares bicycle and pedestrian and traffic calming plans, assists with the review and development of public transportation plans, and participates in efforts to extend and improve regional rail and air service. The BCRC also assists with the preparation of intersection, roadway, and bicycle-pedestrian facility designs that are consistent with "complete streets" and healthy community design principles. When requested, the BCRC provides technical assistance to towns and villages seeking to complete infrastructure inventories and traffic studies and offers project management services to any constituent community implementing local transportation facilities (LTF) projects.

Mobility and Transportation Goals and Actions

Goals

- Work with local and state officials to implement projects identified as priorities in this plan and in other regional and local documents. Update the project lists and assign priorities regularly
- Support planning and projects that would reduce greenhouse gas emissions from transportation
- Plan for a transportation network that safely and efficiently serves users of all transportation modes including local, regional, and long-distance trips
- Support legislative efforts to advance changes that promote equity, reduce greenhouse gas emissions, provide for safety improvements, implement global best practices, and improve financial sustainability of the state's transportation system

Actions and Policies

The BCRC . . .

- Shall collaborate with local and state officials to implement projects identified as priorities in this plan
- Shall update the project lists and assign priorities regularly

Supports the creation of safe and inviting bicycle and pedestrian networks, particularly in downtowns and village centers, to boost the trip mode share of walking and biking

Shall encourage and assist with the development and maintenance of safe and convenient pedestrian routes in downtowns, village centers, hamlets, neighborhoods, and all areas of concentrated development

- Supports the installation of signage across the region for US Bike Route 7 (Western New England Greenway) from Pownal to Rupert

Encourages implementation of traffic calming techniques in village centers, downtowns, and neighborhoods to reduce vehicle speeds and enhance safety

Shall assist with pre-scoping of and applications for grants to conduct scoping studies of bicycle and pedestrian projects

- Supports state and municipal efforts to design roads and streets so that they are "self-enforcing" and do not invite drivers to exceed the speed limit
- Supports state efforts to prepare infrastructure to accommodate automated driving systems including fully-automated systems in order to reduce crash risk and improve mobility for those who cannot drive, particularly to accommodate the state's aging population
- Supports legislative efforts to link vehicle taxes and fees to the axel weight of vehicles to fund local and state roads and bridges in line with the damage vehicles cause

- Shall engage with municipalities to ensure new and reconstructed roads, bridges, and stormwater systems be designed, built, and maintained in accordance with current highway codes and standards and other local and state requirements. Flood resilience and water quality should be leading considerations in all highway projects
- Supports transportation investments that focus on maintaining existing infrastructure and correcting deficiencies and safety hazards. Major investments should occur primarily in areas planned for growth with little investment in new roads in remote and mountainous areas
- Shall support area transit agency efforts to improve public transportation between key origins and destinations so that it attracts "choice riders" (riders who choose to take transit over driving personal vehicles)
- Shall oppose municipal regulation of public transit infrastructure including applying conditional use review to transit shelters or aesthetic regulations to transit stop signage
- Supports improvements to frequency of local and regional public transportation services, and believes that frequency should take precedence over potential service extensions
- Is available to engage in contracted projects for municipalities to ensure large transportation expenses are accurately represented in local capital budgets
- Supports transportation system improvements that limit adverse impacts on important natural and cultural resources and minimize disturbances to residential areas
- Supports municipal regulations that provide flexibility in management of parking such that developments are expected to provide sufficient parking without the need for proscriptive parking mandates
- Supports municipal right-of-way access management techniques to enhance safety and limit congestion
- Supports state efforts to design commercial truck routes in such a way as to avoid excessive conflicts with local traffic and impacts on residential neighborhoods
- Supports efforts to complete passenger rail service along the entire western corridor between Albany-Rensselaer, Bennington, Rutland, and Burlington
- Supports state investments that improve the safety of railroad crossings of local and state highways
- Supports efforts to facilitate the rail-banking of the remaining railroad spur between North Bennington and the terminus of the existing Bennington Rail Trail, as well as the transfer of Depot Street in the Village of North Bennington to the Village
- Supports efforts to create value-added services at or adjacent to the William H. Morse state airport to capitalize on state airport operating subsidies
- Supports the creation of a robust electric vehicle charging network to promote the transition to electric vehicles

Energy

This chapter of the regional plan constitutes the BCRC Energy Plan. BCRC's energy plan aims to guide the region's energy development for the next eight years in support of Act 174, aligning with Vermont's 2022 Comprehensive Energy Plan (CEP), and Vermont's 2025 Climate Action Plan. To meet state energy and climate goals, Vermont is planning for a major shift away from fossil fuels in the transportation and heating sectors to renewable sources of energy, efficiency in all sectors, and increase in-state renewable energy generation.

Equity and justice must be integrated into all aspects of the energy planning and policy process; and as regional goals, objectives and actions are considered and implemented, the decision-making process will be guided by the following questions:

- Who is helped/who benefits from the policy or objective?
- Who is harmed by the policy or objective?
- Who is missing from the conversation on the policy or objective?

This energy element of the Bennington Regional Plan is intended to provide residents and municipal officials with information and strategies needed to plan for an energy future that maintains a vibrant community as the energy sector evolves to reduce consumption and lower costs. This energy plan promotes energy conservation, conversion to more efficient technologies, and local renewable energy development, all of which will better protect the environment and strengthen the local economy.

Much of the data presented in this plan comes from Low Emissions Analysis Platform (LEAP) model projections. The LEAP model is a tool used by the State of Vermont to analyze and project energy demand across multiple sectors at the state and regional levels for the years 2015-2050. The projections come from the Vermont Pathways Model, a specific model within the LEAP model that was developed by the Vermont Department of Public Service and the Stockholm Environmental Institute. The LEAP projections for each sector include two scenarios: baseline energy demand and a "CAP Mitigation" energy demand. The baseline scenario, or business-as-usual scenario, was developed to estimate regional

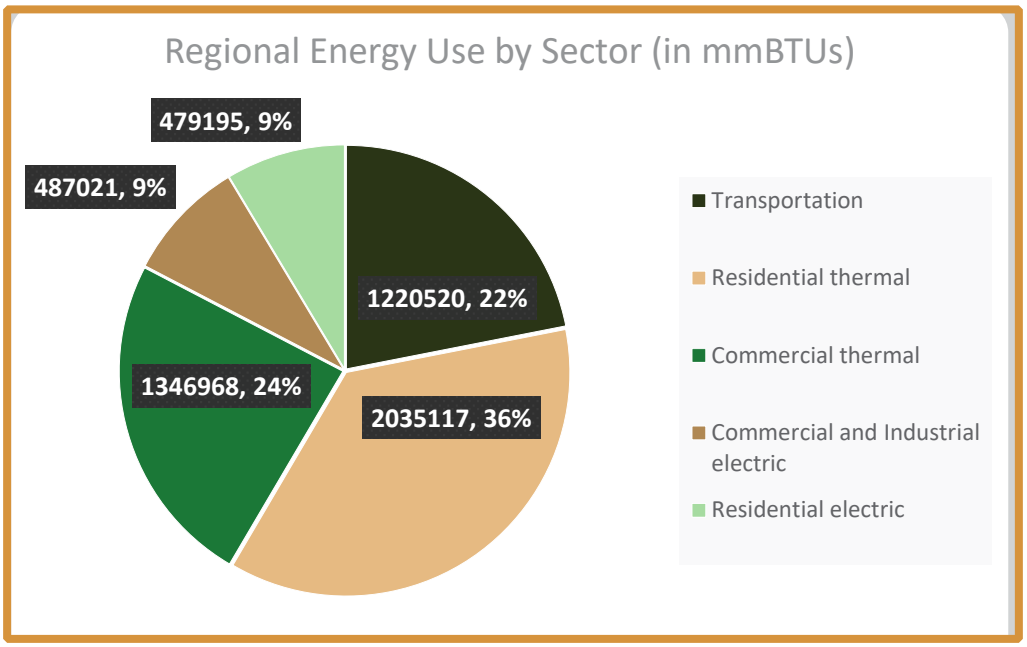
What did we learn from the community?

Biggest concerns about energy: cost and climate impacts

Strong interest in residential solar and heat pumps

Active local energy committees are an asset

Figure 12: Regional Energy Use by Sector



Data from Vermont Public Service Dept., Municipal Consumption Tool (2023 ACS 5-year estimates) and Efficiency Vermont (2023 data). Electricity used for heating, cooling, and transportation is included in the residential electric sector.

energy demand under normal policy and programmatic conditions. The Climate Action Plan (CAP) Mitigation scenario was developed to estimate energy demand needed to meet the state's greenhouse gas reduction requirements. The CAP Mitigation scenario is consistently used throughout this plan—more information on the LEAP data can be found in Appendix B: Regional Energy Methodologies and Analyses.

Vermont Energy Policy Framework

This energy plan is consistent with the following state goals and requirements:

Greenhouse gas (GHG) reduction requirements under 10 VSA § 578(a)

- 26% reduction from 2005 levels by 2025
- 40% reduction from 1990 levels by 2030
- 80% reduction from 1990 levels by 2050

Building efficiency goals under 10 VSA § 581

State energy policy under 30 VSA § 202a and the recommendations for regional and municipal planning pertaining to the efficient use of energy and the siting and development of renewable energy resources contained in the State energy plans adopted pursuant to 30 VSA §§ 202.

Vermont's Renewable Energy Standard under 30 VSA §§ 8004 and 8005

Energy Equity & Environmental Justice:

In addition, BCRC's Energy Plan aspires to follow the overarching goals and principles detailed in the Energy Equity Project (EEP) Framework, the policies of the Vermont Environmental Justice Law or Act 154 of 2022, and the Vermont Climate Council's Guiding Principles for a Just Transition

EEP Framework:

- Everyone has continuous access to energy.
- Everyone lives in a healthy, safe, and comfortable home.
- No one spends more than 6% of their income on energy bills.
- Those who are most impacted have the most powerful voice in decision making and receive a share of benefits.

Vermont Environmental Justice Law:

"It is the policy of the State of Vermont that no segment of the population of the State should, because of its racial, cultural, or economic makeup, bear a disproportionate share of environmental burdens or be denied an equitable share of environmental benefits. It is further the policy of the State of Vermont to provide the opportunity for the meaningful participation of all individuals, with particular attention to environmental justice focus populations, in the development, implementation, or enforcement of any law, regulation, or policy" (3 VSA § 6003).

Accordingly, this energy plan includes a focus on improving access to environmental benefits, and mitigating burdens for environmental focus justice populations, as defined by Act 154, meaning "any census block group in which: (A) the annual median household income is not more than 80 percent of the State median household income; (B) Persons of Color and Indigenous Peoples comprise at least six percent or more of the population; or (C) at least one percent or more of households have limited English proficiency." For more information about the environmental justice focus populations, and which parts of the region meet the definition, see Map – EJFP in the Introduction.

Climate Council Principles:

This plan also follows the guidelines established by the State of Vermont Climate Council's Guiding Principles for a Just Transition.

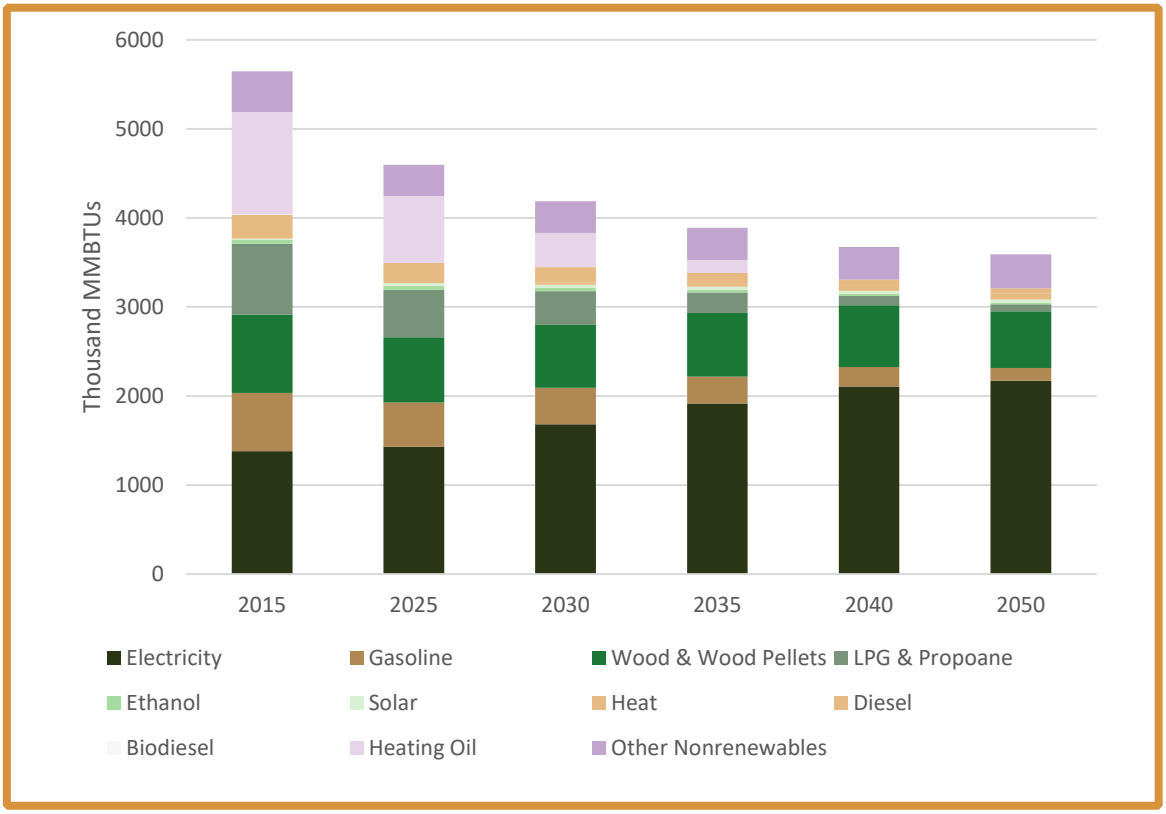
What is a BTU?

A BTU or British Thermal Unit is a measure of energy value or hear content.

One BTU is the amount of heat required to raise the temperature of 1 lb. of water by 1 degree Farenheit at a constant pressure of one atmospheric unit.

1MBTU = 1,000 BTU
1MMBTU = 1,000,000 BTU

Figure 13: Total Energy Demand Targets by Fuel Type in the Bennington Region



Source: CAP Mitigation LEAP projections

As such energy planning, policies, and strategies should be developed with the following principles in mind:

- They involve inclusive, transparent, and innovative engagement.
- They are accountable and restorative.
- They are developed and implemented at the speed of trust.
- They recognize all traditions and cultures within our communities.
- They tackle the needs of most impacted first and strategies are targeted to account for different sociocultural and economic realities of different groups.
- They explicitly support workers, families, and communities.

Current and Future Energy Demand

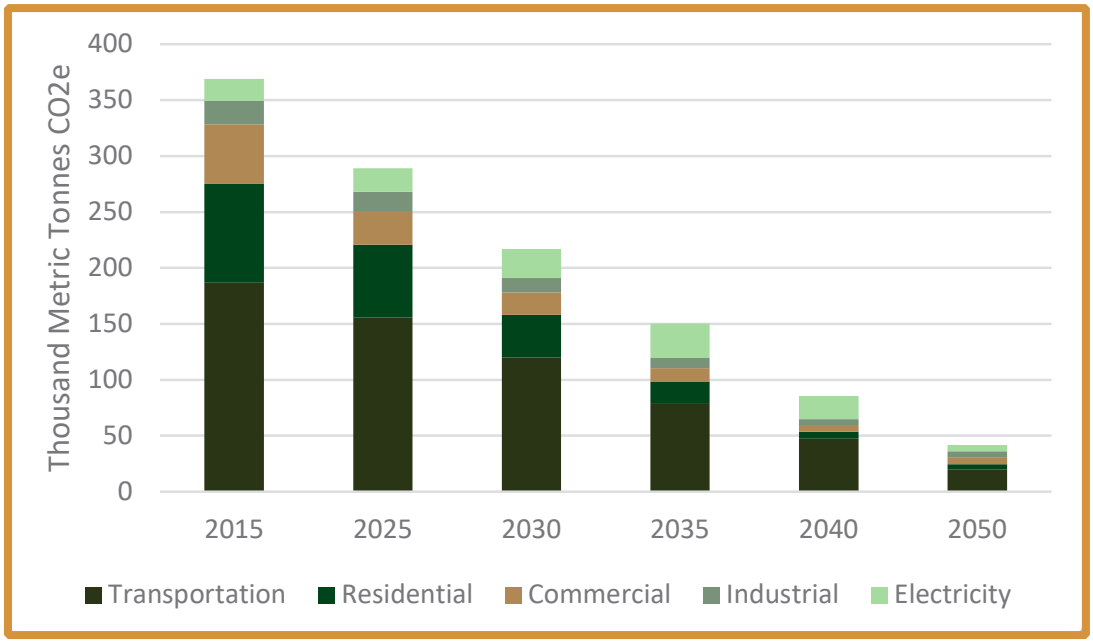
With a population of just over 35,000 residents housed mostly in single family homes, the Bennington region consumes a large amount of energy every year to meet its transportation, space heating, and electricity needs. Figure 12: Regional Energy Use by Sector shows regional energy use by sector (more information about the calculation of regional energy use can be found in Appendix B: Regional Energy Methodologies and Analyses). Energy for residential heating and cooling makes up the largest share of regional energy use. As shown in Figure 13: Total Energy Demand Targets by Fuel Type

in the Bennington Region, according to the LEAP model, in 2015 the Bennington region used more than 5,600 thousand million British Thermal Units (MMBTU). Figure 13: Total Energy Demand Targets by Fuel Type in the Bennington Region also illustrates one path the region can pursue to achieve energy targets through gradual adaptation and fuel switching over the next few decades.

Most of the LEAP targets presented in this chapter project an increase in electricity demand due to the expected electrification of the transportation and thermal sectors. However, the LEAP model projections do not consider the massive electricity needs of data centers or similarly large energy consumers, which is a limitation that impacts regional energy planning.

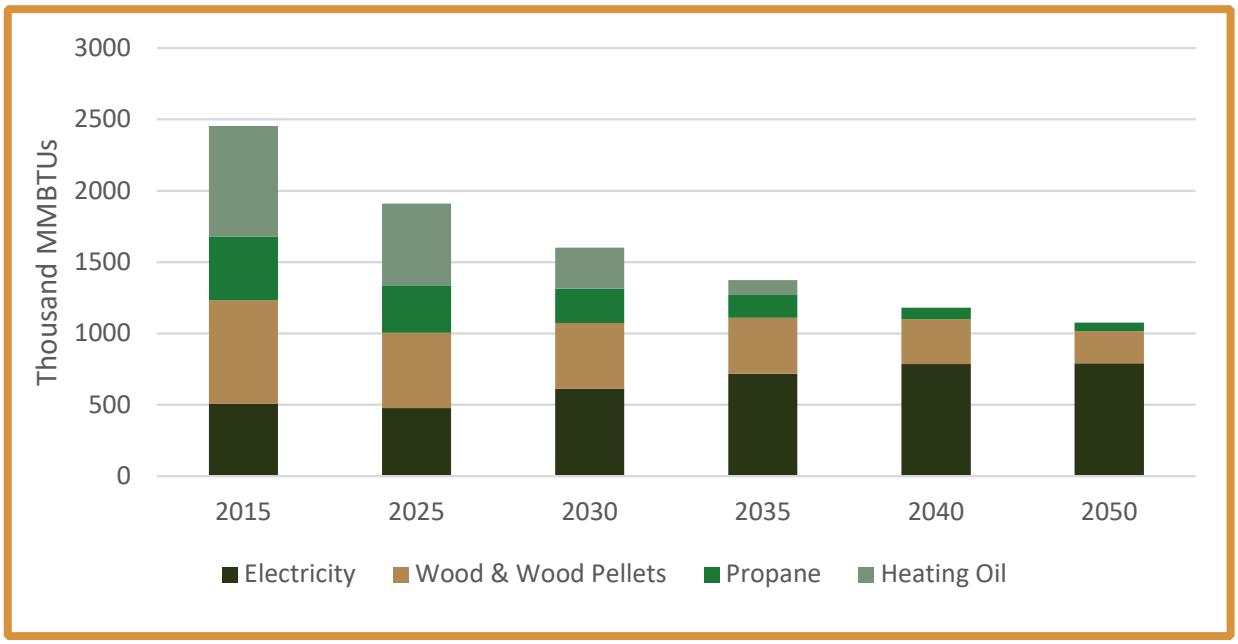
In addition to reducing overall energy consumption, the Bennington Region will need to significantly reduce its greenhouse gas (GHG) emissions to help meet Vermont's GHG emissions reduction requirements referenced previously. These targets are shown in Figure 14: Regional GHG Emissions Reduction Targets. Meeting these ambitious targets can be achieved through a combination of strategies, many of which are discussed in this plan, including concentration of development in compact centers, electrification of the heating and transportation sectors, increased walking and biking, and development of renewable energy resources with minimal disruption to the natural environment. The Vermont Climate Action Plan contains a more detailed discussion of climate change in Vermont, and establishes a comprehensive set of priorities for mitigating climate change and meeting the GHG emissions reduction requirements.

Figure 14: Regional GHG Emissions Reduction Targets



Source: CAP Mitigation LEAP projections

Figure 15: Total Residential Energy Demand by Fuel Type for the Bennington Region



Source: CAP Mitigation LEAP projections

Residential

The Bennington region's more than 35,000 residents consume energy for transportation, space and water heating, and powering lights and appliances. By identifying technologies and practices capable of catalyzing the transformation of each energy sector, this energy plan provides the region with the tools necessary to realize the state's energy goals. Figure 15: Total Residential Energy Demand by Fuel Type for the Bennington Region illustrates how residential energy use could change over the next several decades to meet state energy and emissions goals. Under this scenario, residential energy use would decrease by more than 50% with increased efficiency, growing electricity, and a phasing out of fossil fuel use.

Energy Costs

Vermonters face many affordability challenges, and the cost of energy is no exception. In BCRC's 2026 Regional Plan Survey, 41% of respondents said their top concern regarding energy was cost. According to the U.S. Energy Information Administration (EIA), Vermont uses more petroleum per capita than almost two-thirds of states, primarily in the transportation sector. The EIA also estimates that approximately 56% of Vermont households heat with petroleum products, the third largest share of U.S. states and about 14% of Vermont households heat with wood, the highest percentage of all U.S. states. This holds true for the Bennington Region as well, with approximately 59% of regional households heating with fuel oil and 11% with wood (ACS 2023).

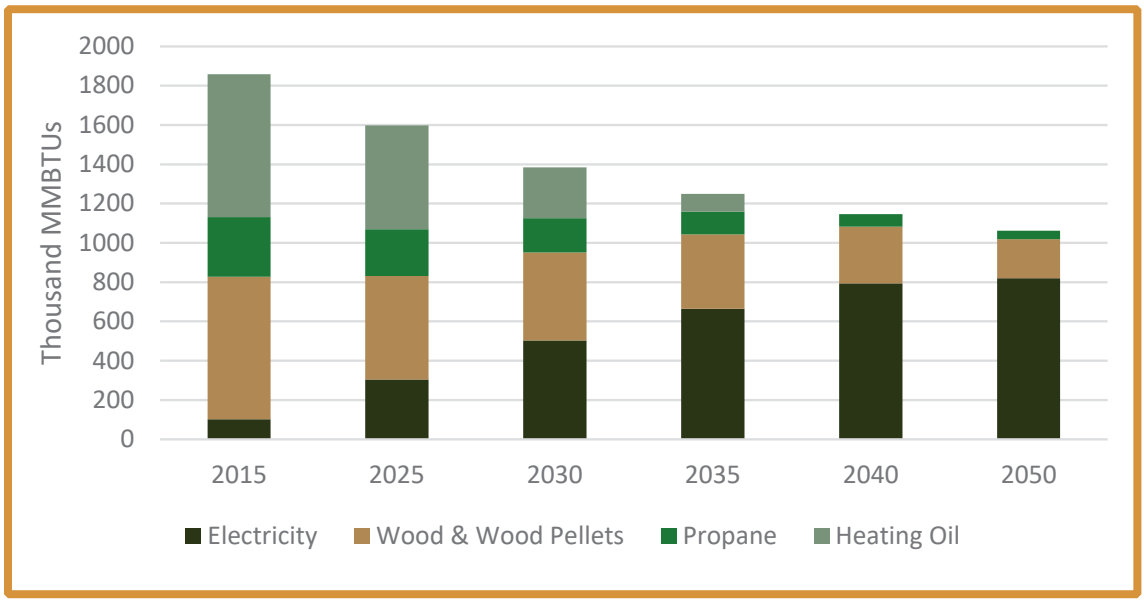
Because of its heavy reliance on oil, Vermont is especially vulnerable to volatile

fossil fuel prices and winter price spikes, according to the EIA. The EIA data also shows that electricity and natural gas prices in Vermont are higher than the U.S. average. Low-income people are disproportionately impacted by higher energy prices and many experience high energy burdens which can co-occur with and exacerbate other conditions such as food and housing insecurity. Energy Action Network's (EAN) 2025 Annual Progress Report for Vermont found that "although Vermonters with lower incomes spend less on energy in dollar terms, they spend a much higher share of their overall income on energy." Vermonters earning less than 60% of the area median income (AMI) spend about 20% of their income on energy costs.

Several of the region's residents rely on programs such as the Low-Income Home Energy Assistance Program (LIHEAP) offered through the state's community action agencies, and local programs such as GBCS' Emergency Needs Fund. In VTDigger article, the CEO of BROC Community Action, which serves Bennington and Rutland Counties, estimated that they provided heating assistance to more than 600 households in the winter of 2025.

Participation in energy efficiency and conservation projects such as weatherization and installing efficient appliances, can help residents and business save energy and money. Between 2022 -2024, residents of Bennington Count saved a combined $1.6 million through energy efficiency and conservation measures, and businesses saved nearly $1.5 million (based on data provided annually to BCRC by Efficiency Vermont). Rebates and incentives are available from Efficiency Vermont and Green Mountain Power to make the upfront cost of energy efficiency measures more affordable, however, many people are still unable to afford these measures. As a result

Figure 16: Regional Residential Thermal Energy Demand Targets



Source: CAP Mitigation LEAP projections

Table 14: Energy Burden in Bennington County

Town	Energy Burden	Level
Arlington	8.30%	Low
Bennington	10.80%	Moderate
Dorset	11.00%	Moderate
Manchester	9.00%	Low
Peru	7.20%	Lowest
Pownal	10.80%	Moderate
Rupert	12.10%	High
Sandgate	11.30%	Moderate
Shaftsbury	7.60%	Lowest
Stamford	9.10%	Low
Sunderland	9.70%	Low
Woodford	11.90%	Moderate

Energy burden reported as Lowest, Low, Moderate, or High as defined by threshold in the report. Source: Efficiency Vermont, 2023 Vermont Energy Burden Report (No data available for Glastenbury or Landgrove)

of high energy costs, limited incomes, and barriers to implementing energy efficiency projects, many people in the Bennington Region have high energy burdens.

Energy burden is defined as the proportion of household income spent on energy costs. The 2023 Vermont Energy Burden Report indicates the Bennington region's average energy burden is around 10% (Table 14: Energy Burden in Bennington County), slightly less than the state average energy burden of 10.6%. Nationally, an energy burden greater than 6% is considered high and is correlated with a "greater risk for respiratory diseases, increased stress and economic hardship, and difficulty in moving out of poverty" according to the American Council for an Energy-Efficient Economy (ACEEE). The ACEEE "develops transformative policies to reduce energy waste and combat climate change" and reports energy burden data, with particular focus on disproportionately affected Black, Hispanic, and Native American households.

According to a 2021 study by researchers at the University of Vermont, energy expenses disproportionately hurt Vermonters who are rural, lower-income, non-white, and non-homeowners.It is also important to note how energy spending often competes with other basic needs such as housing, healthcare, and food. According to EAN's Annual Progress Report for Vermont 2023, "households with lower incomes are disproportionately dependent on two of the highest-cost heating sources: fuel oil and inefficient resistance electric systems." Furthermore, lower-income households are more likely to rent or own older homes, which in turn are less efficient and more expensive to heat and cool according to weatherization information provided by the Vermont Housing Finance Agency (VHFA).

In Bennington County, approximately 24% of households rent their homes (2023 US Census ACS 5-year estimate). Renters are often subject to what is known as the split incentive, where landlords are responsible for the heating system and weatherization of the building, but the tenant is responsible for the utility bill. This may disincentivize the landlord to make efficiency improvements to the building that would lead to greater comfort and reduced heating costs for the tenant.

As Vermont continues the energy transition to meet its renewable energy goals and the requirements of the Global Warming Solutions

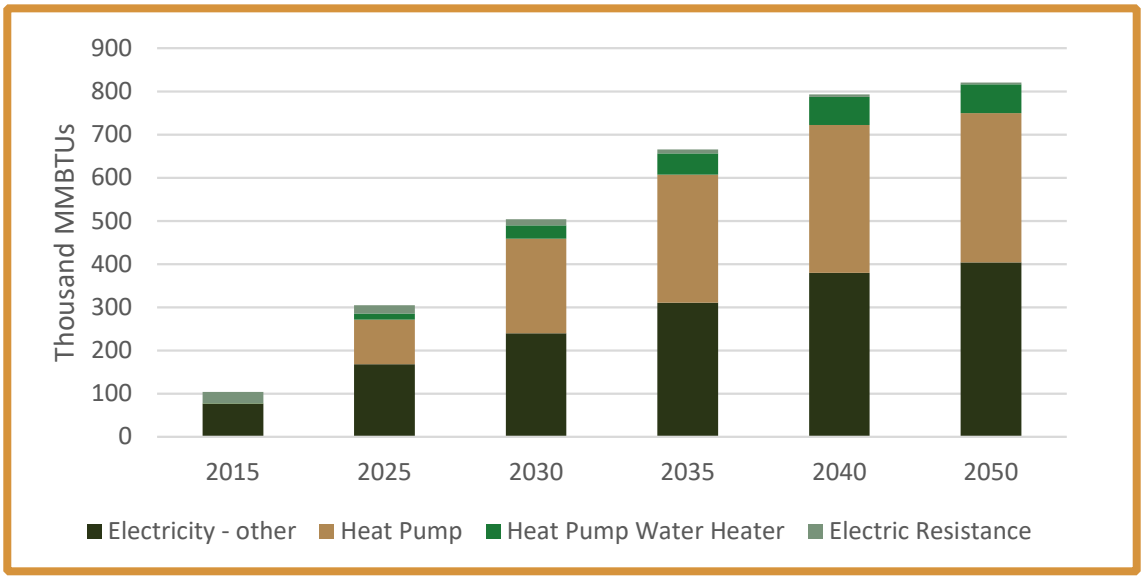
Act, it is important to remember that the transition will not impact all Vermonters equally. Despite various state incentives, many clean energy technologies are out of reach to Vermonters with low-incomes or who rent their homes. Many Vermonters simply cannot afford to switch out a fossil fuel furnace with an electric heat pump or purchase an electric vehicle due to the high upfront cost. Renters of all incomes typically have limited control over the energy efficiency improvements they can make to their homes, even if they can afford those measures.

Thermal Energy Use

Residential thermal energy demand comprises a significant portion of total residential energy demand (thermal energy refers to energy used for space heating and cooling). Therefore, to reduce overall residential energy demand in the region, implementing thermal energy conservation and efficiency measures will be especially important. Figure 16: Regional Residential Thermal Energy Demand Targets establishes targets for the region to reduce its residential thermal energy demand by increasing the electrification of space heating and reducing the use of fossil fuels for heating. Figure 17: Residential Electric Thermal Energy Demand by Technology shows thermal electricity demand targets broken out by type of heating technology.

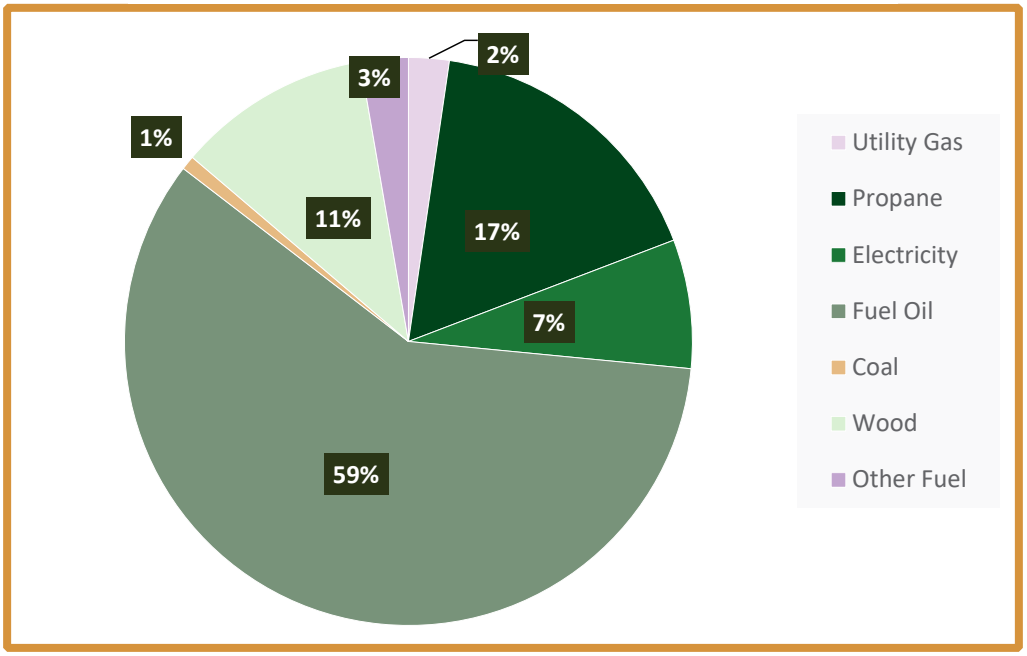
According to ACS 2023 data, 59% of Bennington County homes are heated with oil (Figure 18: Bennington County Household Heating Fuel by Type). Although this fuel source has been inexpensive and widely accessible in the past, the price volatility of

Figure 17: Residential Electric Thermal Energy Demand by Technology



Source: CAP Mitigation LEAP projections

Figure 18: Bennington County Household Heating Fuel by Type



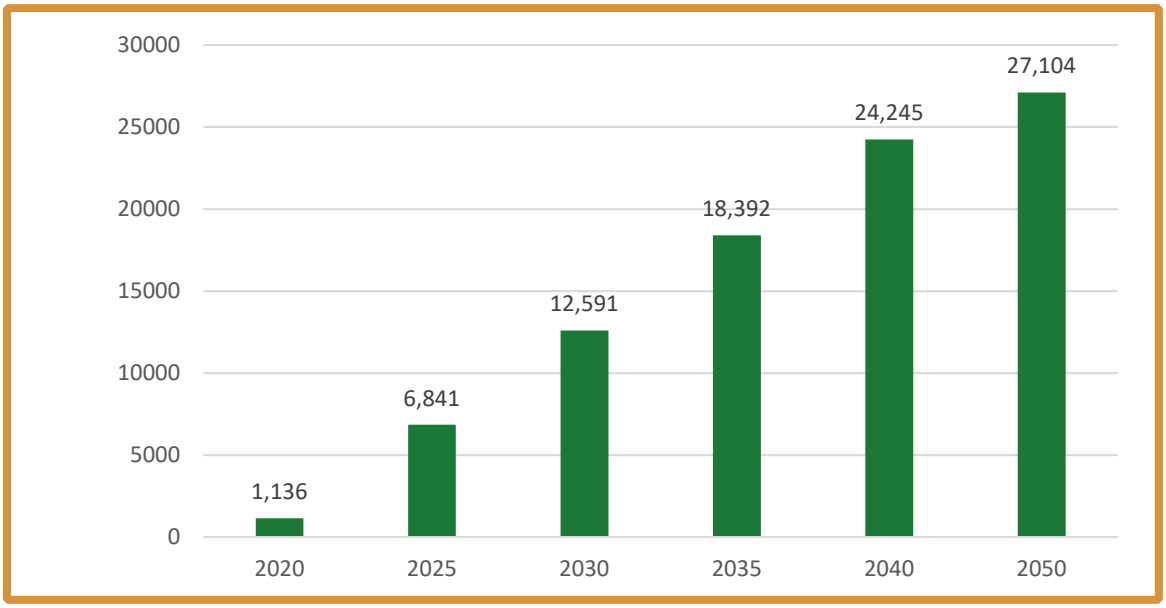
Source: 2023 ACS 5-year estimates

fossil fuels suggests that the region should mitigate reliance on fossil fuel sources by switching to more efficient systems that can be powered by local and renewable resources. Transitioning away from fossil fuels will also be important for reducing greenhouse gas emissions and mitigating the effects of climate change.

Cold-climate electric heat pumps are a highly efficient technology that will play a major role in lowering overall energy consumption. Cold-climate heat pump technology extracts cold air from ambient space and can be used for both heating and cooling. In addition to being more energy efficient than other heating technologies, heat pumps can also cool homes during the warmer months. To meet 2050 goals, electric heat pumps should be adopted in accordance with the following target counts: 6,841 heat pumps in use by 2025; 12,591 by 2030; 24,245 by 2040; and 27,104 by 2050 (**Figure 19: Bennington Region Residential Heat Pump Targets**). As of 2024, 3,858 heat pumps had been installed in the Bennington region (Vermont Energy Dashboard, EAN and Efficiency VT data), which demonstrates progress, but is still well short of meeting the first benchmark target.

Gradually switching thermal systems to more efficient electric options will help improve energy efficiency, but thermal conservation gains will also rely on extensive weatherization of existing homes and adherence to building energy codes for new construction. The following household weatherization targets should guide efforts in the Bennington region: 4,951 households weatherized by 2025; 8,496 by 2030; 10,700 households by 2035; 12,903 households by 2040; and 17,310 households by 2050 (data

Figure 19: Bennington Region Residential Heat Pump Targets



Projected cold climate heat pump uptake in the Bennington region in line with state energy goals. Source: CAP Mitigation LEAP projections

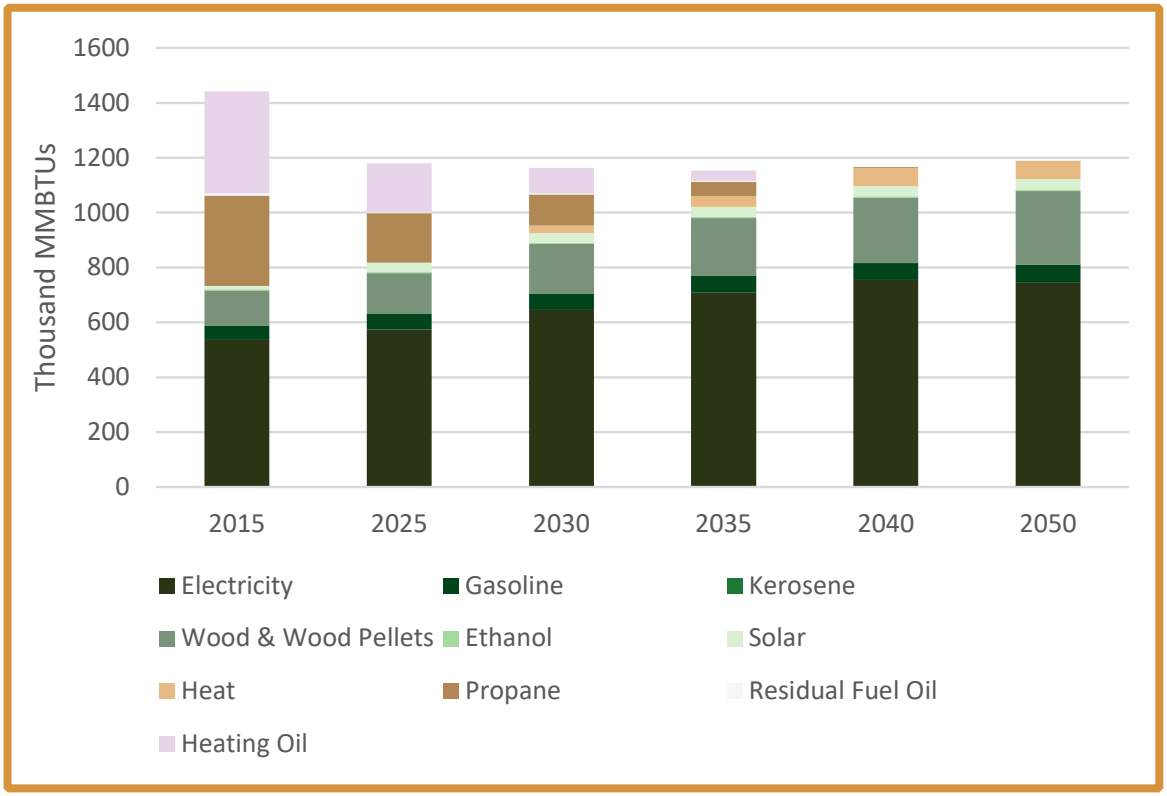
from CAP Mitigation LEAP projections). As of 2024, there have been 2,349 weatherization projects in the Bennington Region (Vermont Energy Dashboard and Efficiency VT), which means that the region is unlikely to meet its first benchmark goal, and a significant ramp up of these projects will be needed to meet the next benchmark goal.

The slow pace of weatherization projects and heat pump adoptions can be attributed to a combination of factors including workforce challenges, upfront cost, and public awareness. The factors affecting the heat pump market in Vermont are discussed in detail in the Vermont Heat Pump Market Assessment published by Efficiency VT. Statewide organizations such as Efficiency VT, the Energy Action Network, and Vermont's community action agencies are actively working to address the various barriers to adopting clean energy and efficiency projects.

Commercial

There are over 1300 commercial buildings in Bennington County that consume energy for transportation, space and water heating, and powering lights and appliances. The CAP Mitigation LEAP scenario targets project that commercial energy use will decrease through conservation and adoption of more efficient technologies, but the decrease will not be as substantial as in the residential sector (Figure 20: Commercial Energy Demand by Fuel Type in the Bennington Region, 2015 to 2050.) In addition, cold-climate electric heat pumps will play a major role in lowering overall energy consumption in the commercial sector as well as the residential sector. Figure 21: Commercial Heat Pump Targets for the Bennington Region shows ambitious

Figure 20: Commercial Energy Demand by Fuel Type in the Bennington Region, 2015 to 2050



Projected cold climate heat pump uptake in the Bennington region in line with state energy goals. Source: CAP Mitigation LEAP projections

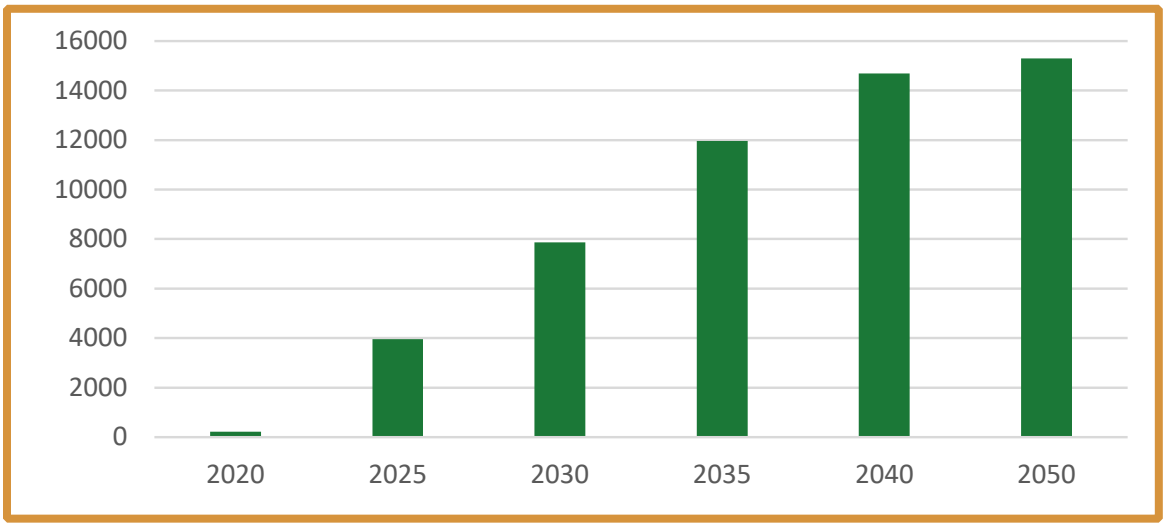
targets for cold climate heat pump adoption in the commercial sector. According to data provided by Efficiency VT, the commercial heat pump installations in the Bennington Region have averaged about 75 a year from 2020–2024, well below what is needed to meet the targets.

Energy conservation goals will also be realized by extensive weatherization of commercial buildings. The following commercial building weatherization targets should guide efforts in the Bennington region: 279 buildings by 2025; 636 buildings by 2035; 100% of commercial buildings by 2050 (targets derived from the Vermont Public Service Department Analysis and Targets Tool). BCRC will work with commercial and industrial operations in the region to implement these energy conservation measures and transition to clean and renewable energy sources.

Electricity

Although technically a conductor of energy and not a source, electricity is referenced here as an energy source since widespread adoption of appliances, vehicles, and thermal technologies powered by electricity are critical to achieving Vermont's energy goals. Current trends suggest that total electric use is increasing in the region's homes and businesses as indicated in Figure 22: Annual Cumulative Electric Usage in Bennington

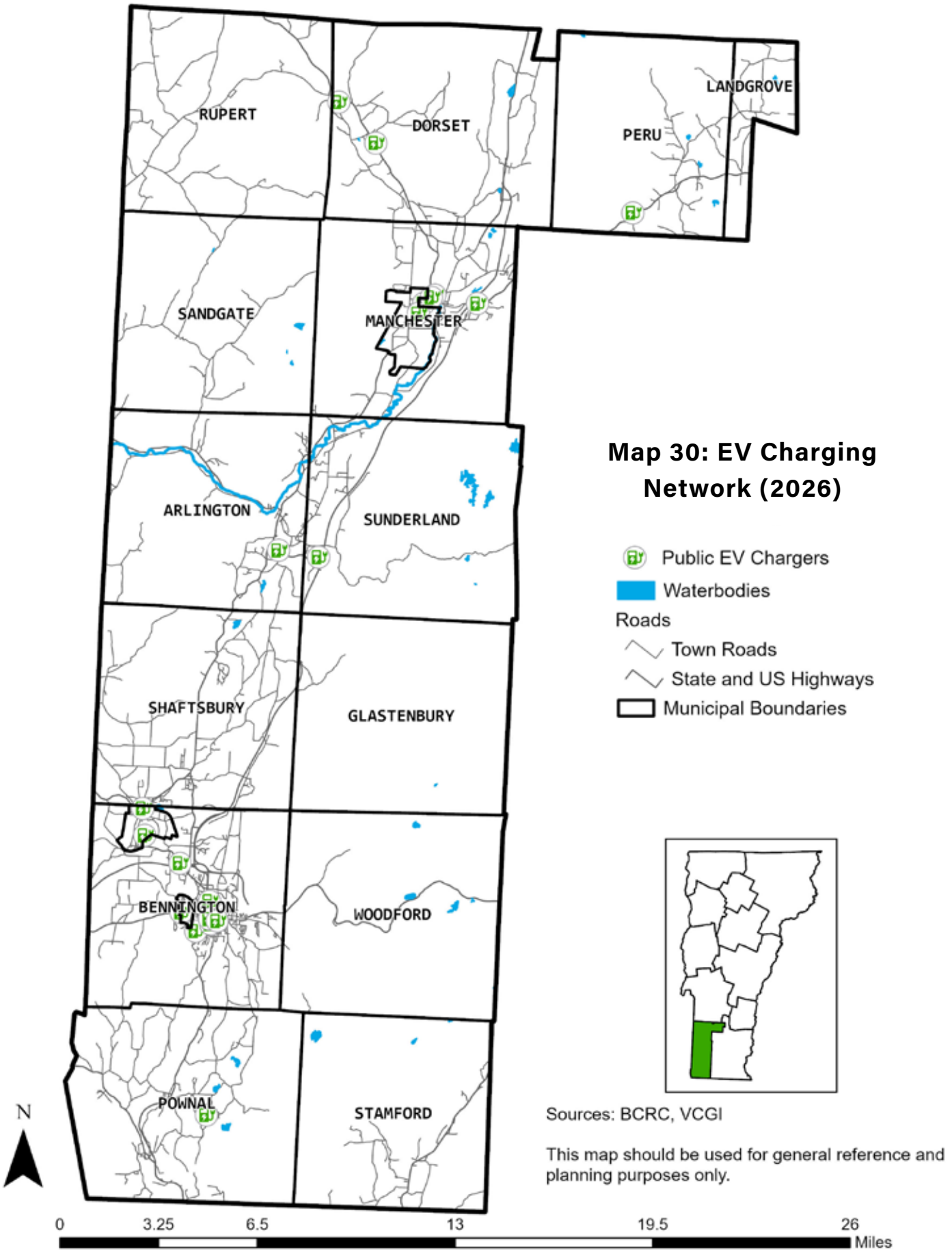
Figure 21: Commercial Heat Pump Targets for the Bennington Region



Projected cold climate heat pump uptake in the Bennington region in line with state energy goals. From CAP Mitigation LEAP projections.

County for Residential and Commercial/ Industrial Sectors, 2014-2023. The trend for both the residential and commercial sectors shows a gradual decrease in electricity usage until 2019 and 2020 respectively, when electricity usage began to gradually increase. This uptick in electricity usage is expected as the sectors transition to electrification of heating and transportation. The uptick in residential electricity usage is also due in part to impacts of the Covid-19 pandemic which has made hybrid and remote work more common. As the region's residents and businesses increasingly rely on electricity to meet their energy needs, the need for backup power will be especially important to withstand occasional outages, especially in remote areas where outages may be more frequent.

Efficiency Vermont also provides data on household electrical usage by town. Figure 23: Average Annual Residential Electric Usage in the Bennington Region by Town from 2014-2023 shows the average annual residential electricity usage from 2014-2023 for all towns in the region. Dorset, Peru, Landgrove, and Manchester, had the highest average residential electricity usage in the region over that period, all with household usage of over 8,000 kilowatt hours (KWH) annually, and Dorset over 9,000 KWH. These towns also have some of the highest median household incomes in the region, and the higher electricity usage may reflect larger homes and more electrical appliances used by higher income households. It might also reflect a higher rate of uptake of electrification—more heat pump and electric vehicle uptake—in these towns. Nonetheless, Rupert also shows annual usage over 8,000 KWH per household. Other factors that may lead to relatively higher electrical usage include a higher proportion of retired residents or a higher portion of remote workers that are at home more throughout the day. Bennington (6657 KWH), Sandgate (6027 KWH), and



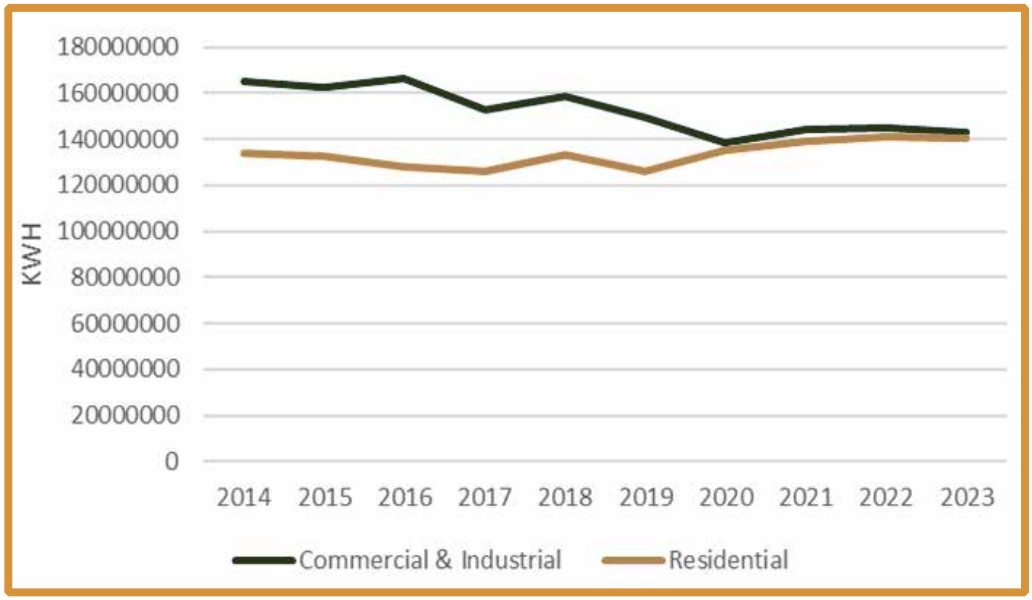
Map 30: EV Charging Network (2026)

Public EV Chargers
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries

Sources: BCRC, VCGI

This map should be used for general reference and planning purposes only.

Figure 22: Annual Cumulative Electric Usage in Bennington County for Residential and Commercial/ Industrial Sectors, 2014-2023



Source: Efficiency Vermont.

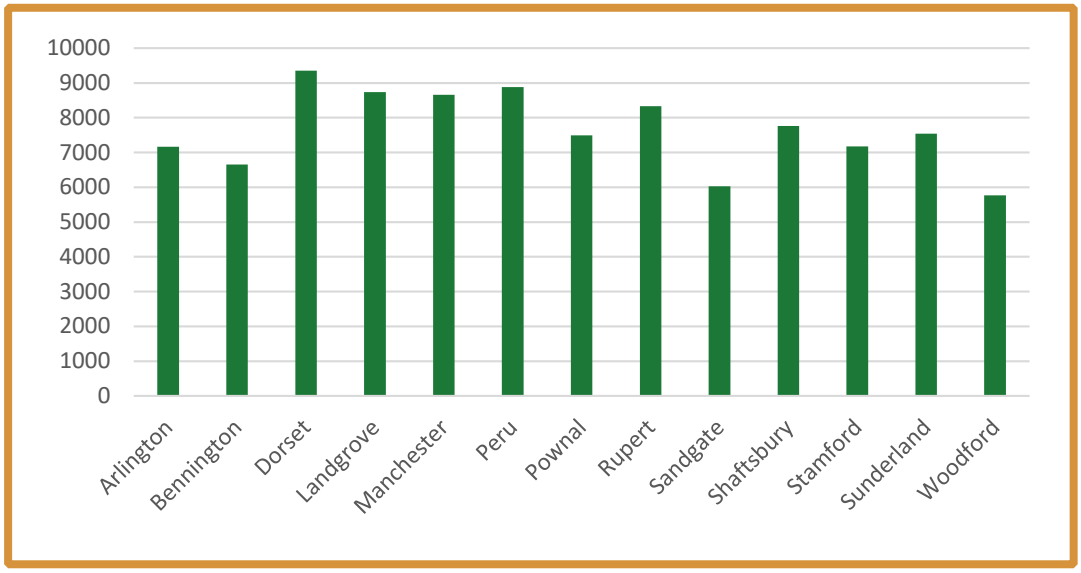
Woodford (5144 KWH) exhibited the lowest average annual household electricity usage over the 2014-2023 time period.

Again, an increased reliance on electricity will be necessary to transition away from fossil fuels. Although electricity use will initially increase (and has already begun to increase) with the electrification of the heating and transportation sectors, electricity is expected to become more efficient as electric technologies continue to improve and are adopted. Because electrification trends are expected to outpace demand-side management efforts (i.e., efficiency and conservation programs), electricity demand is expected to increase. However, demand-side efforts to reduce and manage electricity use will be important to mitigate increases and manage the timing of when electricity is needed. Figure 24: Cumulative Annual Residential Electricity Savings for the Bennington Region, 2025–2050 shows the electric energy savings that are possible to achieve through the implementation of efficiency programs as estimated by the Vermont Public Service Department. For example, by 2050 residents of the region combined could save approximately 32,000 megawatt hours (MWh) of electricity annually through efficiency programs.

Transportation

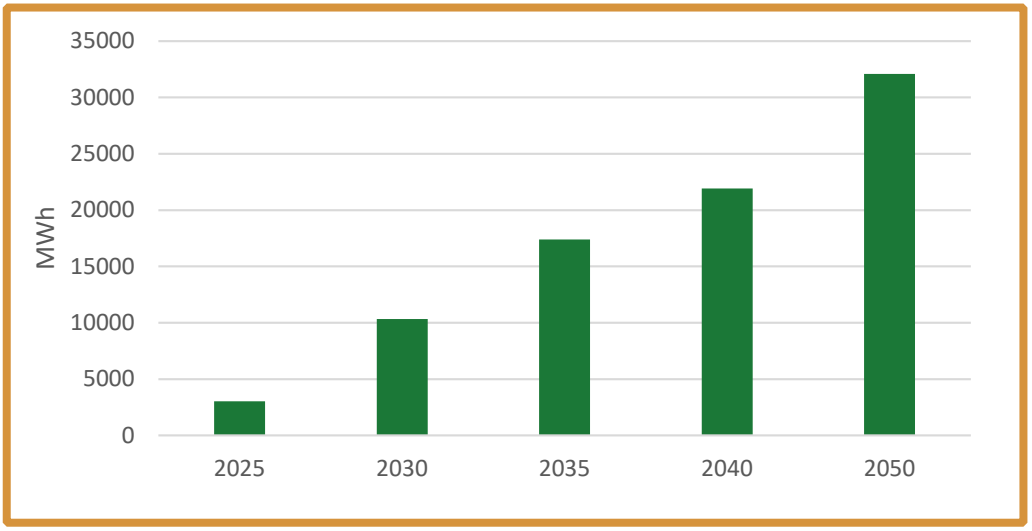
Due to the primarily rural nature of the Bennington region, people and goods constantly travel long distances between communities. The light duty vehicle has made this independent mobility and the freedom and access that come with it possible, yet most vehicles rely on fossil fuels to function. Given the dependence most households have on vehicles, transportation represents one of

Figure 23: Average Annual Residential Electric Usage in the Bennington Region by Town from 2014-2023



Source: Efficiency Vermont

Figure 24: Cumulative Annual Residential Electricity Savings for the Bennington Region, 2025–2050



Source: Vermont Public Service Department and sourced from the 2022 Energy Efficiency Market Potential Study

the greatest opportunities to reduce overall energy use.

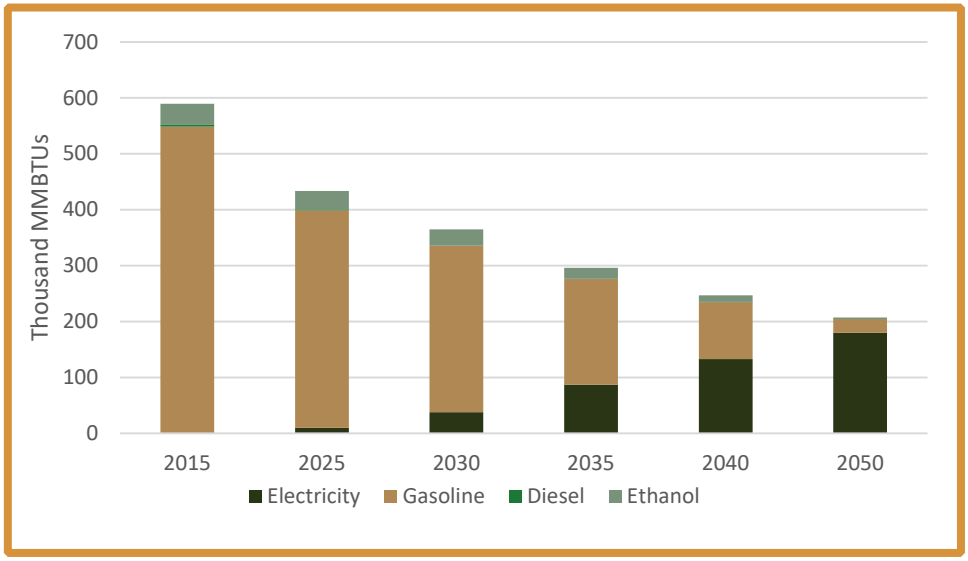
Electric vehicle (EV) and plug-in hybrid electric vehicle (PHEV) technologies have advanced significantly in recent years and these systems are projected to dominate the car industry in coming decades. By electrifying the light duty vehicle fleet, which includes passenger cars and light trucks, residents of the region can improve transportation efficiency and divert money currently spent on fossil fuels. Targets for gradually reducing energy consumption by passenger car and light truck use are presented in Figure 25: Passenger Car Energy Demand Targets for the Bennington Region and Figure 26: Light Truck Energy Demand Targets for the Bennington Region. Over the next three decades, total energy demand for transportation is projected to fall gradually to just over one third of 2015 levels, and gasoline use would decrease dramatically. Electrification of the light duty vehicle fleet will account for much of this reduction in energy use.

The following EV targets should guide adoption rates in the Bennington region: 566 EVs by 2025; 2,443 EVs by 2030; 5,836 EVs by 2035; 9,264 EVs by 2040; and 13,745 EVs by 2050 (see Figure 28: Electric Vehicle (EV) Adoption Targets for the Bennington Region.). As of 2024 the region had 587 registered EVs, and 329 PHEVs, exceeding the 2025 targets. The number of EVs and PHEVs in the region has been increasing rapidly since 2015, and since 2022 EVs registrations have surpassed PHEVs (see Figure 29: EV and PHEV Registrations in the Bennington Region, 2015-2024). PHEVs continue to play an important role in the transition to fully electric vehicles and the region has already exceeded its 2025 PHEV adoption goal (see Figure 27: Plug-in Hybrid Electric Vehicle (PHEV) Adoption Targets for the Bennington Region). Uptake of PHEVs may be more important in the region than the LEAP modeling predicts. This may have something to do with the overall rural setting of the region and the relative lack of EV charging infrastructure, which makes EV use difficult for anything but within region commuting, particularly in the winter when range is diminished by below freezing temperatures (see Map 30: EV Charging Network (2026)).

Convincing gasoline “superusers” to switch to EVs is an important way to significantly reduce transportation energy use and greenhouse gas emissions. Gasoline superusers are the top 10% of gasoline consumers in the US and there are 53,000 of these superusers in Vermont. They represent just 14% of Vermont drivers, but they collectively consume 41% of the state’s gasoline (99 million gallons/year). A report from Coltura found that a gasoline superuser switching to an EV has over four times the climate impact of a non-superuser making the switch. Convincing superusers to switch also has equity benefits, as approximately 39% of Vermont superuser households earn less than the state median income and spend an average of 21% of their income on gas.

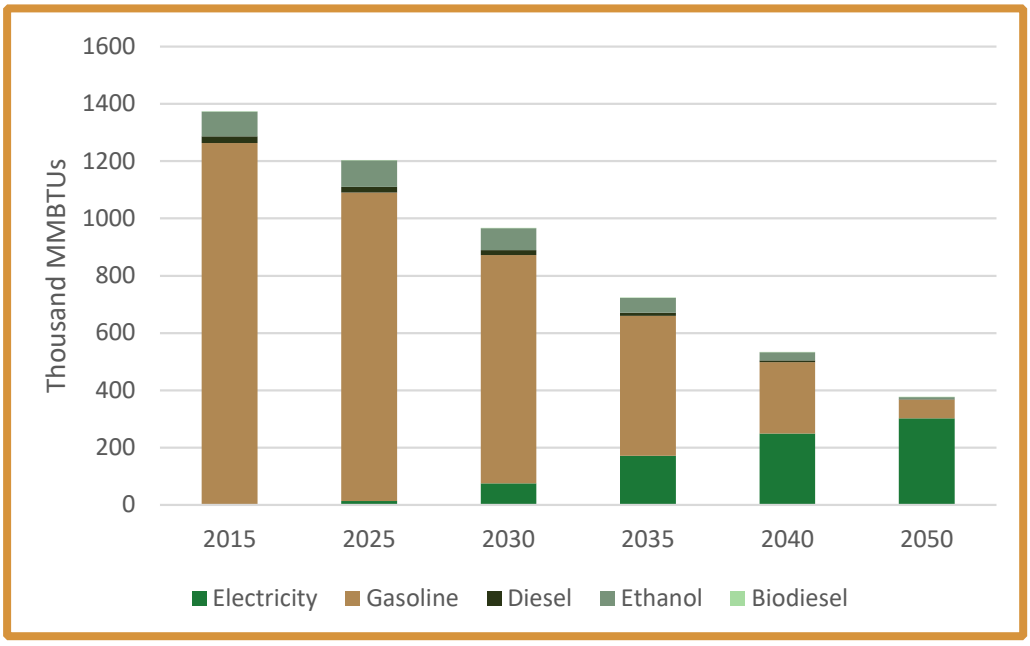
Rapid electrification of the light duty truck fleet will also need to occur to reduce transportation energy use. Accordingly, Figure 30: Light Duty Truck EV Adoption Targets for the Bennington Region and Figure 31: Light Duty Truck PHEV Adoption Targets for the Bennington Region show regional adoption targets for light duty trucks. State programs and incentives can help reduce the upfront

Figure 25: Passenger Car Energy Demand Targets for the Bennington Region



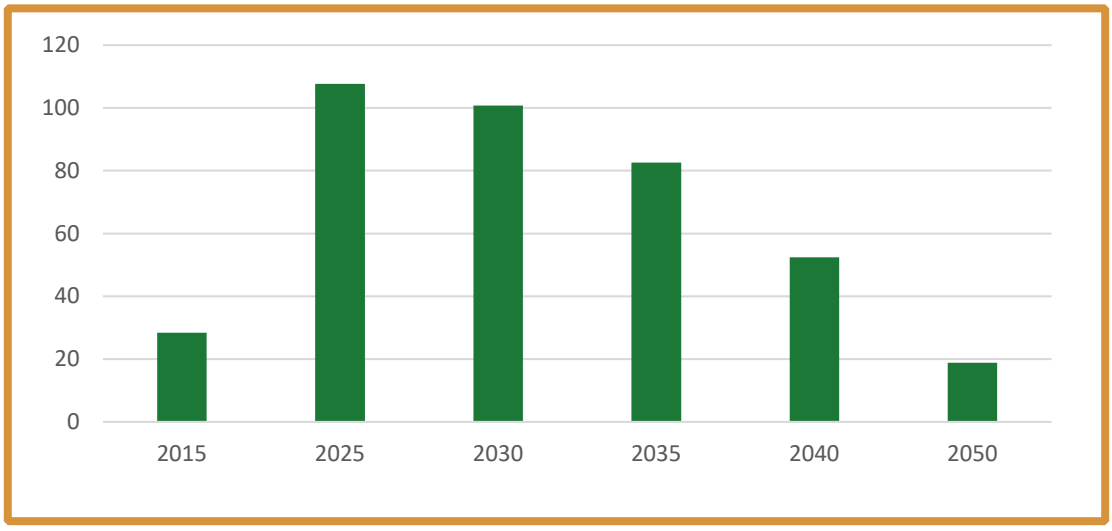
Source: CAP Mitigation LEAP projections

Figure 26: Light Truck Energy Demand Targets for the Bennington Region



Source: CAP Mitigation LEAP projections

Figure 27: Plug-in Hybrid Electric Vehicle (PHEV) Adoption Targets for the Bennington Region

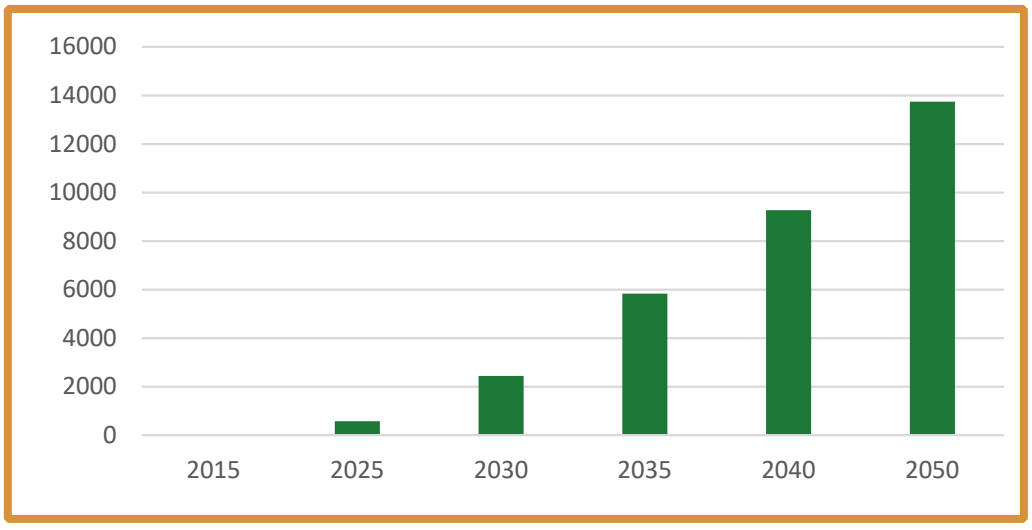


Source: CAP Mitigation LEAP projections

cost of an EV, but an adequate supply of EV charging infrastructure is a barrier to widespread adoption, especially for people who live in older, rental housing, which is unlikely to provide charging stations.

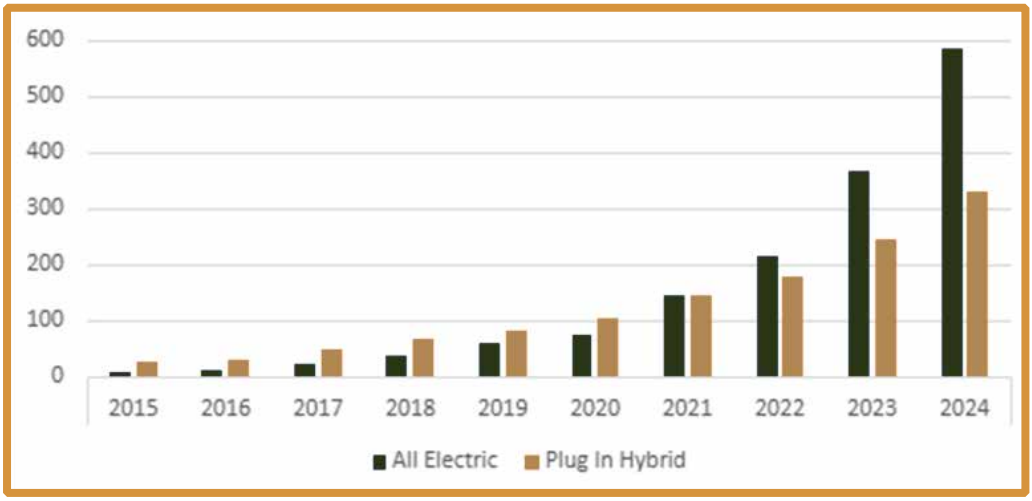
Access to reliable and affordable transportation is important for peoples' ability to access jobs, services, and participate in their communities. The transition to clean forms of transportation will not only involve widespread EV adoption, but also improvements

Figure 28: Electric Vehicle (EV) Adoption Targets for the Bennington Region.



Source: CAP Mitigation LEAP projections

Figure 29: EV and PHEV Registrations in the Bennington Region, 2015-2024



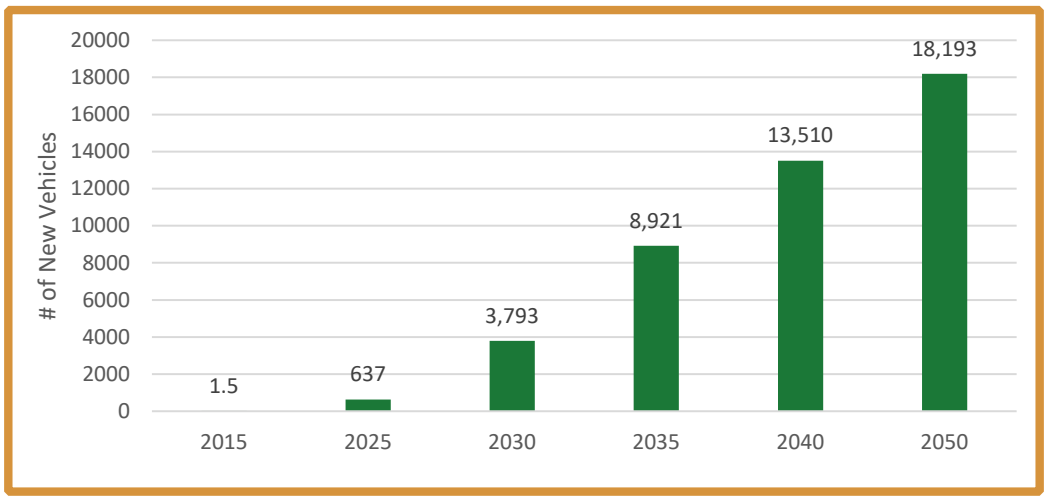
Source: Efficiency Vermont

Source: CAP Mitigation LEAP projections

to other methods of transportation. Improving transportation alternatives to single-passenger vehicles, such as public transit and shared use paths, helps to reduce energy use and greenhouse gas emissions, and also improves equity for those who do not have access to a vehicle (as well as those who cannot or would prefer not to drive). Improving public transit and walking, biking, and rolling infrastructure is especially important, because not everyone can afford to take part in the transition to EVs due to the upfront cost and lack of sufficient charging infrastructure. For further discussion of walking, biking, and other alternative transportation methods, seethe Mobility and Transportation chapter.

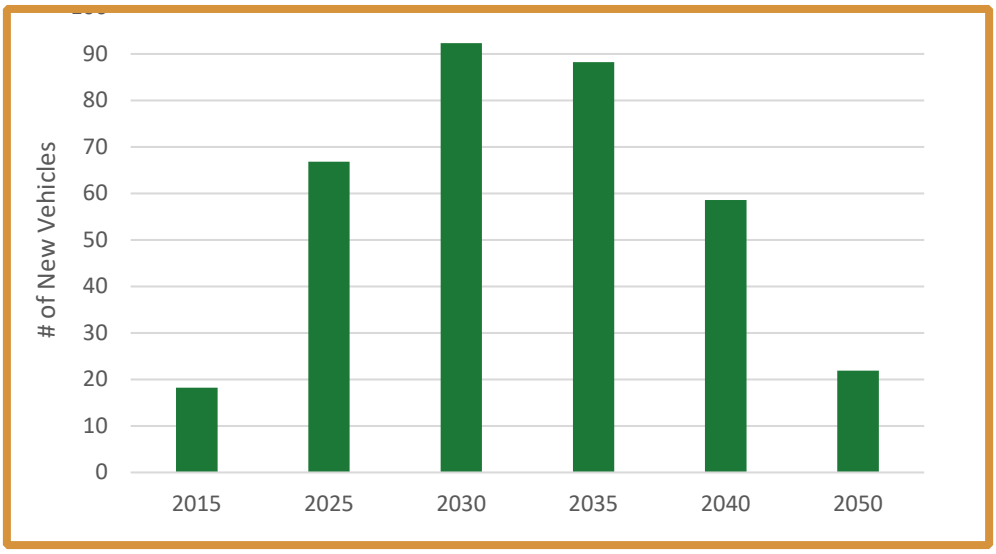
According to EAN's 2023 Annual Progress Report for Vermont, Bennington County households spent an average of $14,275 (25% of household income) on transportation costs in 2020. For low-income households, this figure represents a larger share of their annual income. Transportation infrastructure is a particular challenge in rural areas, with low population densities contributing to limited public transportation services and a greater reliance on personal vehicles. In Bennington County, just 27% of households live within half a mile of public transit, less than the statewide average of 30%, according to the EAN progress report. While it is estimated that only around 7.3% of Bennington County households lack access to a vehicle according to ACS 5-year estimates, improving access to alternative modes of transportation will benefit all residents by reducing transportation costs and greenhouse gas emissions associated with single-passenger vehicle travel. Land use regulations that encourage clustered development in walkable town and village centers can also help reduce the need for single-passenger vehicle trips and make goods and services more accessible to people without the ability or desire to drive.

Figure 30: Light Duty Truck EV Adoption Targets for the Bennington Region



Source: CAP Mitigation LEAP projections

Figure 31: Light Duty Truck PHEV Adoption Targets for the Bennington Region



Source: CAP Mitigation LEAP projections

Renewable Energy Generation in the Region

Working toward meeting the state's renewable energy generation requirements is a significant component of the energy planning process in Vermont. The Bennington region has already made progress in increasing renewable energy generation, but significantly more development is needed. This section analyzes existing generation in the region, establishes incremental generation targets for the years 2025, 2035, and 2050, and identifies preferred sites and constraints to renewable energy development in the region.

Existing Generation

According to 2024 data from the Vermont Department of Public Service, there is currently about 23.05 megawatts (MW) of distributed renewable energy generation in the Bennington region. There is approximately 25.3 MW of distributed capacity when battery storage is factored in (battery storage is not generation). The vast majority of this installed capacity, nearly 90%, comes from solar sites. The remaining capacity comes from a small handful of hydro and wind sites. This is shown in Table 15: Summary of Distributed Renewable Energy Generation in the Bennington Region, 2024 and Figure 32: Proportion of Distribution Capacity by Renewable Energy Source within the Bennington Region, 2024. More information about calculation of annual production and a breakdown of distributed generation by town can be found in Appendix B: Regional Energy Methodologies and Analyses.

Many of the 830 solar generation sites in the Bennington region are small rooftop or ground-mounted solar arrays at private

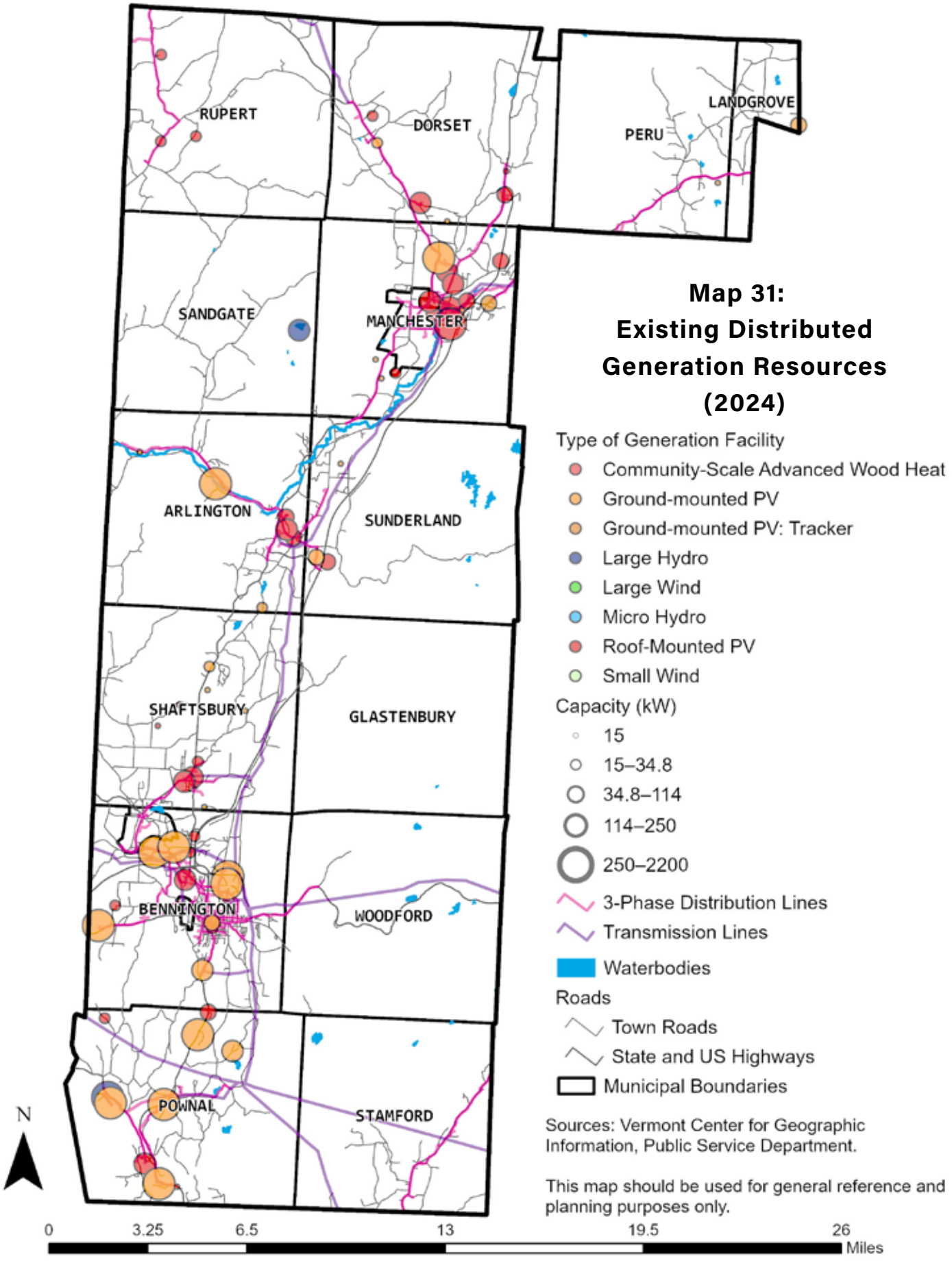
Substantial Deference or Due Consideration?

Renewable energy projects seeking a Certificate of Public Good (CPG) from the Vermont Public Utility Commission (PUC) under 30 VSA 248(b)(1) are exempt from local permitting. However, the PUC considers local plan policies during its review of a proposed development.

Regional and municipal plans that undergo the Act 174 enhanced energy planning process and receive an affirmative determination of energy compliance from the Department of Public Service receive "substantial deference" from the PUC in the Section 248 review process. Plans that do not meet the enhanced energy planning standards receive the less weighty "due consideration" by the PUC.

This energy element of the regional plan is structured to function as a resource for municipalities in the Bennington region that which to seek substantial deference for their local plans.

Duly adopted local plans that do not meet the enhanced energy planning standards of Act 174, but otherwise meet all the requirements of Chapter 117, will continue to receive "due consideration" from the PUC. Whether or not a municipality chooses to pursue substantial deference, it is hoped that this regional energy plan will encourage comprehensive strategies that deliver energy justice, conserve resources, and reduce fossil fuel pollution by towns and villages throughout the region.



Map 31: Existing Distributed Generation Resources (2024)

Type of Generation Facility
- Community-Scale Advanced Wood Heat
- Ground-mounted PV
- Ground-mounted PV: Tracker
- Large Hydro
- Large Wind
- Micro Hydro
- Roof-Mounted PV
- Small Wind

Capacity (kW)
- 15
- 15–34.8
- 34.8–114
- 114–250
- 250–2200

- 3-Phase Distribution Lines
- Transmission Lines
- Waterbodies

Roads
- Town Roads
- State and US Highways

- Municipal Boundaries

Sources: Vermont Center for Geographic Information, Public Service Department.

This map should be used for general reference and planning purposes only.

Table 15: Summary of Distributed Renewable Energy Generation in the Bennington Region, 2024

Renewable Energy Source	Sites	Installed Capacity (MW)	Annual Production (MWh)
Solar	830	21.91	28789.74
Wind	3	0.012	23.652
Hydropower	4	1.127	4936.26
Total	837	23.05	33749.65

Only active, permitted sites included as provided by the Department of Public Service as of April 2024.

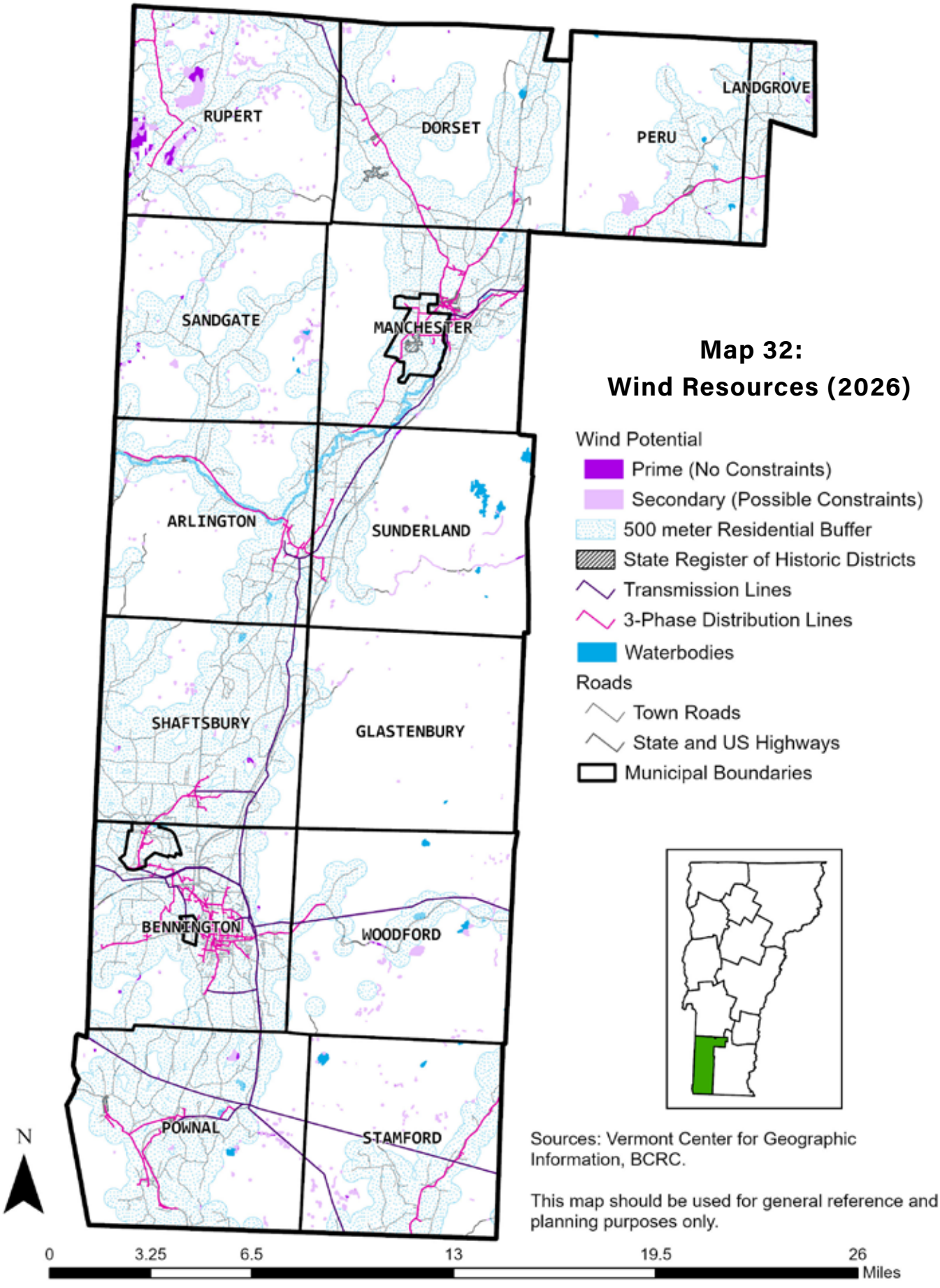
residences and businesses. Larger solar sites in the region include the 2.2-Megawatt (MW) Battle Creek Solar array off Route 67A in Bennington, the 2 MW Southern Vermont Energy Park Project in Pownal, and the 2.2 MW Pownal Park Solar project. Existing solar generation sites are depicted in Map 31: Existing Distributed Generation Resources (2024).

2021 data from Efficiency Vermont estimates that the region's total annual regional energy demand is 282,925 megawatt hours (MWh), a number that has likely increased in more recent years but the region generates just 33,750 MWh annually (see Table 15: Summary of Distributed Renewable Energy Generation in the Bennington Region, 2024), meaning that the region only generates enough energy to meet 11.9% of its energy needs. The expansion of renewable energy development in the Bennington region will be crucial to meeting regional and state energy goals and for achieving energy independence.

Renewable Energy Generation Targets

This energy plan establishes ambitious renewable energy generation targets for the years 2025, 2035 and 2050 as shown in Table 18: Incremental Energy Generation Targets for the Bennington Region. The targets were developed using the Department of Public Service Generation Scenarios Planning Tool, with an assumption that 20% of Vermont's energy needs would come from in-state generation. The Generation Scenarios Planning Tool is an Excel-based tool that calculates renewable energy generation targets at the municipal and regional level based on population, land availability, and existing generation (see Appendix B: Regional Energy Methodologies and Analyses for more information). A significant acceleration of renewable energy development in the region will be needed to meet these targets.

Using the Generation Scenarios Planning Tool, incremental regional targets can be broken down into town-level generation capacity targets as shown in Table 17: 2050



Map 32: Wind Resources (2026)

Wind Potential
- Prime (No Constraints)
- Secondary (Possible Constraints)
- 500 meter Residential Buffer
- State Register of Historic Districts
- Transmission Lines
- 3-Phase Distribution Lines
- Waterbodies

Roads
- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information, BCRC.

This map should be used for general reference and planning purposes only.

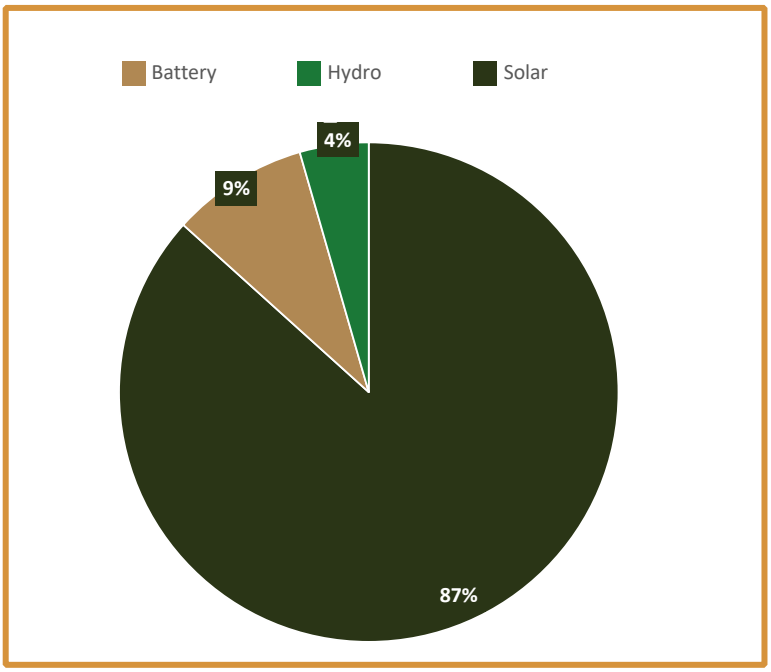
Renewable Energy Generation Capacity Targets (in MW) by Town for the Bennington Region., which breaks down the 2050 targets. Appendix B provides 2025 and 2035 incremental targets and more detail about the municipalization of targets. The capacity targets for several towns exceed the distribution headroom available to that town. Therefore, achieving the 2025, 2035, and 2050 generation targets will require upgrades to the grid and corresponding transmission and 3-phase distribution lines. The BCRC will work with the Vermont Electric Power Company (VELCO) and participate in the long-range transmission planning process to address these capacity and infrastructure issues.

Wind: 12.5 MW by 2050

The Bennington region, due to its mountainous geography, has potential for wind energy development but environmental and aesthetic constraints may prevent widespread wind development in the region. Most wind energy development in the region has been in the form of small-scale turbines, some of which are distributed wind systems that provide on-site energy. To achieve the regional goal of 12.5 MW of wind by 2050, a mix of small, medium and large-scale wind development will be needed.

Approximately 3-4 acres of land are needed to accommodate 1 MW of wind, but guidance from the Department of Public Service

Figure 32: Proportion of Distribution Capacity by Renewable Energy Source within the Bennington Region, 2024.



Wind represents only 0.05% of regional distribution capacity and is not shown. Source: Vermont Public Service Department.

Wind Glossary

Turbine Height = base of tower to the tip of the blade

Utility-Scale Wind: a group of large-scale turbines installed either on land or in water that generate large amounts of electricity that is fed into the electrical grid.

Distributed Wind Energy System: Wind turbine(s) that serve on-site energy demand or support local electricity networks; typically used by a community, business, utility, or homeowner to power their specific needs.

Table 17: 2050 Renewable Energy Generation Capacity Targets (in MW) by Town for the Bennington Region.

Town	Solar	Rooftop Solar	Wind	Hydro	Total
Arlington	2.3	1.8	0.7	0	4.8
Bennington	9.8	7.7	2.9	0.2	20.5
Dorset	2.2	1.8	0.7	0	4.7
Glastenbury	0	0	0	0	0.1
Landgrove	0.4	0.3	0.1	0	0.9
Manchester	4.6	3.6	1.4	0.1	9.6
Peru	1.1	0.8	0.3	0	2.3
Pownal	4.2	3.3	1.3	0.1	8.8
Rupert	2.2	1.7	3.1	0	7
Sandgate	0.5	0.4	0.1	0	1
Shaftsbury	4	3.2	1.2	0.1	8.6
Stamford	0.9	0.7	0.3	0	1.9
Sunderland	0.8	0.6	0.2	0	1.7
Woodford	0.5	0.4	0.2	0	1.1
Total	**33.5**	**26.4**	**12.5**	**0.6**	**73**

Source: Vermont Department of Public Service Generation Scenarios Planning Tool.

recommends using 25 acres of land per 1 MW to account for contingencies. Consequently, to achieve the 2050 goal of 12.6 MW, approximately 312 acres of land are needed (Table 19: Wind Capacity and Generation Potential by Town in the Bennington Region). The BCRC estimates that there are approximately 817 acres of prime land (no known constraints) for wind development in the region, and 2,855 acres of secondary land (possible constraints) (see Map 32: Wind Resources (2026)). Municipalities may conduct their own analysis in accordance with local policies and priorities.

Each town in the Bennington region has sufficient land to meet 2050 targets for wind energy generation, although development of wind energy may need to occur outside of prime resource areas in some towns. This is depicted in Table 19: Wind Capacity and Generation Potential by Town in the Bennington Region. The capacity and

Table 16: Generator Classifications

Wind Turbine Classifications	Size Range
Small-scale: Residential	<20kW
Small-scale: Commercial	21-100kW
Medium-scale	101-999kW
Large-Scale	≥1MW
Solar Classification	**Size Range**
Residential	≤15kW
Commercial	16-500kW
Utility	>500 kW

Table 18: Incremental Energy Generation Targets for the Bennington Region

Target Year	New Solar (MW)	New Rooftop Solar (MW)	New Wind (MW)	New Hydro (MW)	Total New Capacity (MW)	Total New Gen (MWh)
2025	11.9	9.4	4.4	0.2	26	37296
2035	23	18.2	8.6	0.4	50.2	72104
2050	33.5	26.4	12.5	0.6	73	104760

Source: Vermont Department of Public Service Generation Scenarios Planning Tool

generation potential figures reported in the table were calculated using formulas from the Guidance for Regional and Municipal Enhanced Energy Planning Standards (2024, Vermont Department of Public Service, pp. 17-19). A mix of small, medium, and large-scale turbines in a limited number of prime resource areas, and some secondary resource areas would allow the region to achieve its goal. BCRC will work cooperatively with its municipalities and the region's residents to identify appropriate areas for different types of wind energy.

Solar: 33.5 MW by 2050 with 26.4 MW of Rooftop Solar by 2050

While solar is not as efficient in Vermont as it is in other areas of the US with very high rates of solar radiation, it is a critical component of the state's renewable energy generation plans. The Bennington region has significant potential to develop solar photovoltaic (PV) energy resources. Guidance from the Department of Public Service estimates that 8 acres of land are needed per 1 MW of ground-mounted solar development; however, the guidance recommends using a contingency value of 60 acres per MW to account for potential unavailability or unsuitability of land. For its analysis, BCRC has chosen to use the less conservative contingency factor of 24 acres per MW. Accordingly, to achieve the goal of 33.5 MW of ground-mounted solar by 2050, approximately 804 acres of land are needed. This is further broken down by town in Table 20: Solar Capacity and Generation Potential by Town in the Bennington Region, 2024. The BCRC estimates that there are approximately 4,468 acres of prime solar land in the region, and 17,516 acres of secondary land (see Map 33: Solar Resources (2026)). Municipalities may conduct their own analysis in accordance with local policies and priorities.

Solar energy development will require a mix of installation types throughout the region, including rooftop and ground-mounted systems at a range of sizes. General sites that may be well-suited to low-impact solar energy development are discussed below. Ideally, municipalities will also identify such areas in their own local energy plans. Table 20: Solar Capacity and Generation Potential by Town in the Bennington Region, 2024 shows that each town has sufficient land to meet its 2050 solar goal.

Rooftop solar in the Bennington region will also contribute to the area's solar capacity target. The Vermont Public Service Department has developed a rooftop solar generation planning tool that takes into

Table 19: Wind Capacity and Generation Potential by Town in the Bennington Region

Town	2050 Wind Goal (MW)	Acres of Land Needed to Meet Goal	Prime Wind Acres Available	Prime Wind Capacity (MW)	Prime Wind Generation Potential (MWh)	Secondary Wind Acres Available	Secondary Wind Capacity (MW)	Secondary Generation Potential (MWh)
Arlington	0.7	16.8	1.1	0.0	84.4	59.9	2.4	4722.5
Bennington	2.9	71.8	8.9	0.4	700.4	17.1	0.7	1348.2
Dorset	0.7	17.1	2.3	0.1	185.3	33.7	1.3	2656.9
Glastenbury	0.0	0.2	0.0	0.0	1.5	23.8	1.0	1876.4
Landgrove	0.1	3.2	8.4	0.3	663.8	21.2	0.8	1671.4
Manchester	1.4	34.3	1.3	0.1	101.6	9.9	0.4	780.5
Peru	0.3	8.2	5.4	0.2	424.4	366.5	14.7	28894.9
Pownal	1.3	31.3	21.8	0.9	1721.7	226.7	9.1	17873.0
Rupert	3.1	77.5	702.3	28.1	55371.5	1128.1	45.1	88939.4
Sandgate	0.1	3.6	28.6	1.1	2255.2	193.2	7.7	15231.9
Shaftsbury	1.2	31.1	6.2	0.2	491.3	44.4	1.8	3500.5
Stamford	0.3	7.0	13.9	0.6	1098.8	218.0	8.7	17187.1
Sunderland	0.2	6.1	6.0	0.2	470.4	81.8	3.3	6449.1
Woodford	0.2	4.0	11.5	0.5	903.4	430.8	17.2	33964.3
Total	12.5	312.3	817.8	32.7	64473.8	2855.1	114.2	225096.1

Source: Vermont Department of Public Service Generation Scenarios Planning Tool.

account roof aspect; however, it does not account for roof condition or existing rooftop arrays. Consequently, the tool output is a significant overestimation of rooftop solar potential. Energy planners in the state have recommended considering only 25% of the potential estimated by the tool until newer versions are developed that can incorporate additional variables. For the Bennington region as a whole, the tool estimates about 68,400 MWh of annual rooftop solar generation, or 52 MW of capacity could be achieved. Table 21: Potential Rooftop Solar Capacity and Generation by Town in the Bennington Region shows potential rooftop solar capacity and generation by town.

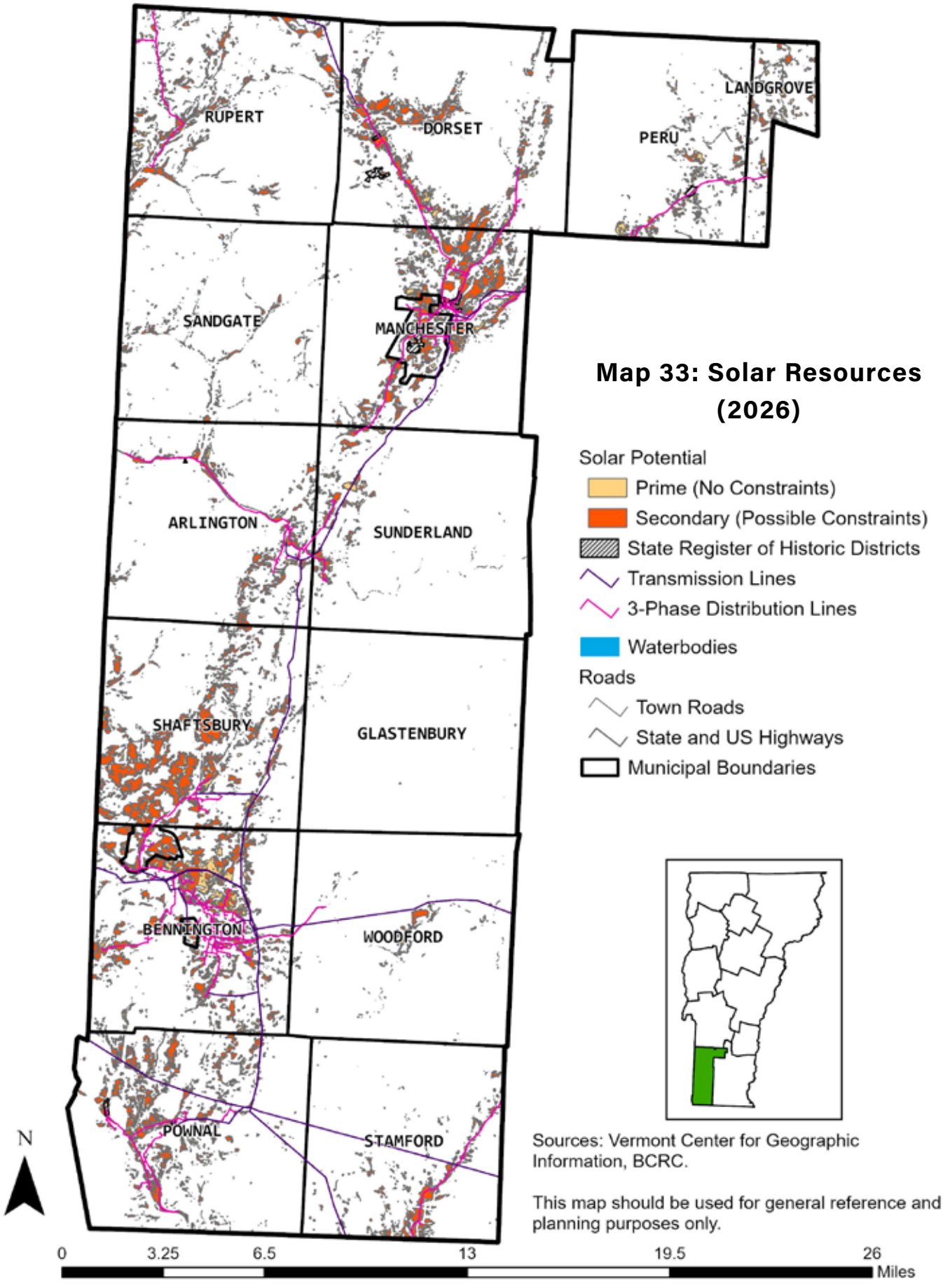
Hydro: 0.6 MW by 2050

The Bennington region does not have any large-scale dam structures, so achieving the 2050 regional goal of 0.6 MW of new hydroelectric generation capacity will require development at a few small, existing dam sites (see Map 34: Hydroelectric Resources (2024)). A hydroelectric potential map from the Vermont Center for Geographic Information, suggests that up to 965 kW of hydroelectric generation (or 0.965 MW) may be possible across dam sites in the Bennington region.

Siting Renewable Energy

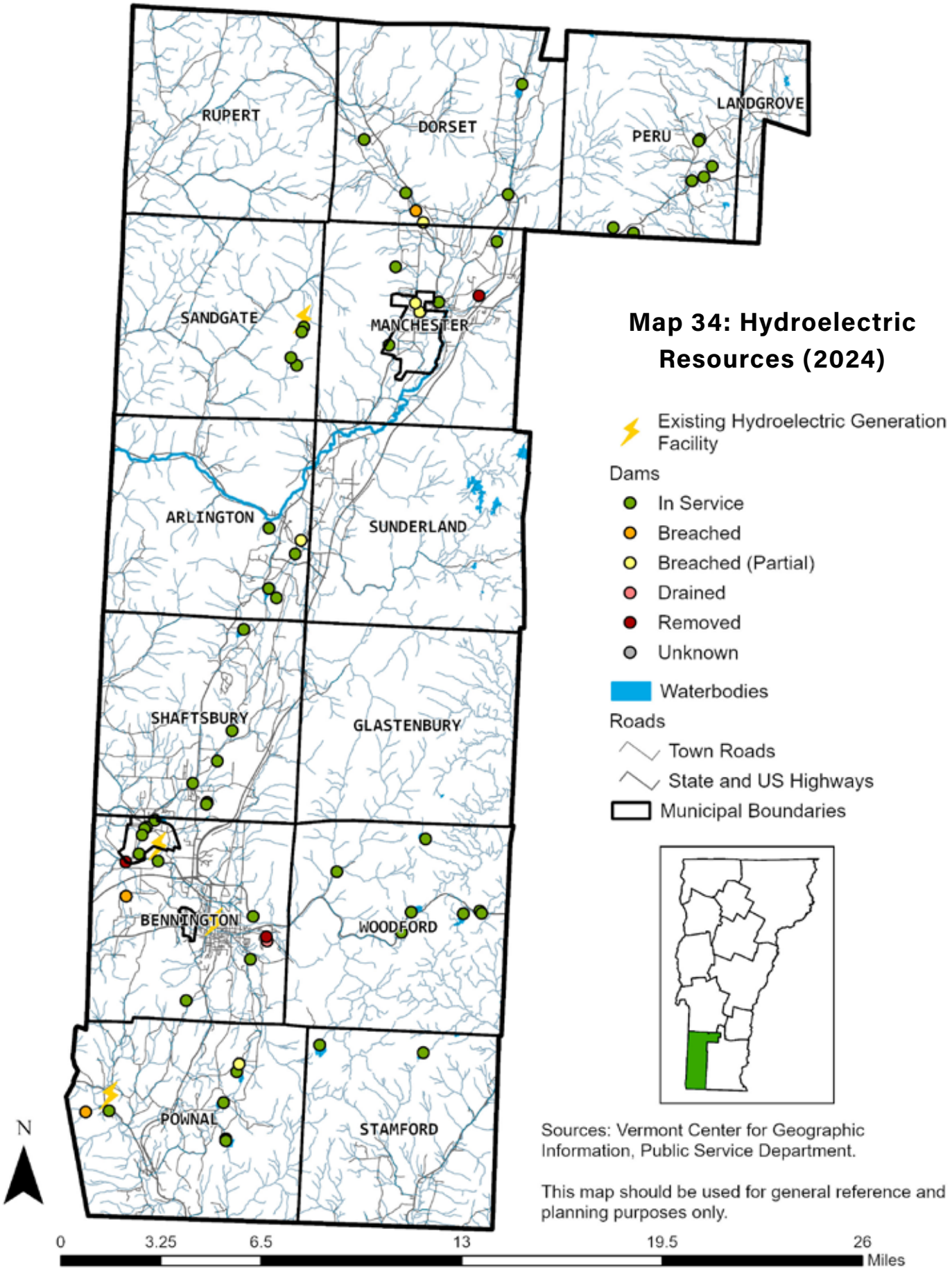
To identify appropriate areas for renewable energy development, enhanced energy plans are required to include map studies of wind and solar resources. Act 174 establishes the following steps for regions and municipalities to take as they assess the potential for generating electricity from solar and wind resources:

- Identify and map areas within the jurisdiction where wind and solar resources are present.
- Remove areas with known constraints, as established in Act 174, from those mapped resource areas.



Sources: Vermont Center for Geographic Information, BCRC.

This map should be used for general reference and planning purposes only.



Map 34: Hydroelectric Resources (2024)

Existing Hydroelectric Generation Facility

Dams
- In Service
- Breached
- Breached (Partial)
- Drained
- Removed
- Unknown

Waterbodies

Roads
- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information, Public Service Department.

This map should be used for general reference and planning purposes only.

Table 20: Solar Capacity and Generation Potential by Town in the Bennington Region, 2024

Town	2050 Solar Goal (MW)	Acres of Land Needed to Meet Goal	Prime Solar Acres Available	Prime Solar Capacity (MW)	Prime Solar Generation Potential (MWh)	Secondary Solar Acres Available	Secondary Solar Capacity (MW)	Secondary Generation Potential (MWh)
Arlington	2.3	54.8	252.7	10.5	13834.4	874.2	36.4	47860.5
Bennington	9.8	234.3	1117.7	46.6	61193.0	2953.9	123.1	161723.7
Dorset	2.2	53.8	465.0	19.4	25457.6	1863.6	77.6	102030.3
Glastenbury	0.0	0.6	8.3	0.3	456.5	11.4	0.5	625.1
Landgrove	0.4	9.8	214.4	8.9	11735.9	315.6	13.2	17280.7
Manchester	4.6	109.8	751.4	31.3	41138.1	2170.0	90.4	118808.6
Peru	1.1	25.7	125.9	5.2	6895.6	493.0	20.5	26993.3
Pownal	4.2	100.9	28.8	1.2	1577.7	427.7	17.8	23416.9
Rupert	2.2	52.3	1.7	0.1	94.4	95.9	4.0	5250.7
Sandgate	0.5	11.1	399.8	16.7	21888.1	359.5	15.0	19681.4
Shaftsbury	4.0	97.2	435.5	18.1	23846.0	2177.9	90.7	119239.1
Stamford	0.9	21.7	312.7	13.0	17122.2	1395.6	58.2	76411.1
Sunderland	0.8	19.2	65.6	2.7	3591.1	341.3	14.2	18687.4
Woodford	0.5	12.3	570.4	23.8	31230.7	4052.0	168.8	221848.2
Total	33.5	803.6	4750.0	197.9	260061.0	17531.6	730.5	959857.0

Derived according to: Guidance for Regional and Municipal Enhanced Energy Planning Standards, Vermont Department of Public Service

- Identify areas that have possible constraints, as established in Act 174, within the mapped resource areas.
- Identify areas where development should be avoided and where it should be encouraged.

Determine other site-specific concerns relevant to potential project development.

The BCRC conducted an Act 174-compliant mapping exercise to determine appropriate locations for renewable energy development in the region and to determine acres of prime and potential land for siting wind and solar generation:

- This analysis calculated the acres of land considered to be prime (no known constraints) and secondary (possible known constraints) sites for wind and solar renewable resources generation in each municipality in the region, using the state's Act 174 renewable generation mapping data.
- The analysis then removed land that coincided with areas of regional constraints (for wind, state registered historic districts and land within 500 meters of all residential structures; for solar, state registered historic districts) and with state-identified habitat blocks.
- The acreage of the remaining land was recalculated to determine that the available non-forested land area in the region is sufficient to meet both wind and solar renewable energy generation targets.

Potential locations for renewable energy development are identified in energy resource maps. The most fundamental element of the energy resource maps is the natural existence of potential for solar and wind energy resources referred to as Solar Resource Area and Wind Resource Area.

The Vermont Center for Geographic Information provides data that illustrate wind and solar generation potential—with known constraints removed and possible constraints identified—for the public to use. Within this data, VCGI has already conducted initial analyses to remove any potential resource areas that coincide with known constraints (conditions that preclude development are discussed in more detail in the following section) and to identify any potential resource areas that overlap with at least one possible constraint (conditions that could, but will not necessarily, prevent development, also discussed in more detail in the following section).

The BCRC used the inputs from VCGI to produce maps of prime and secondary wind and solar resource areas in the Bennington region. The following elements are included in the resource maps:

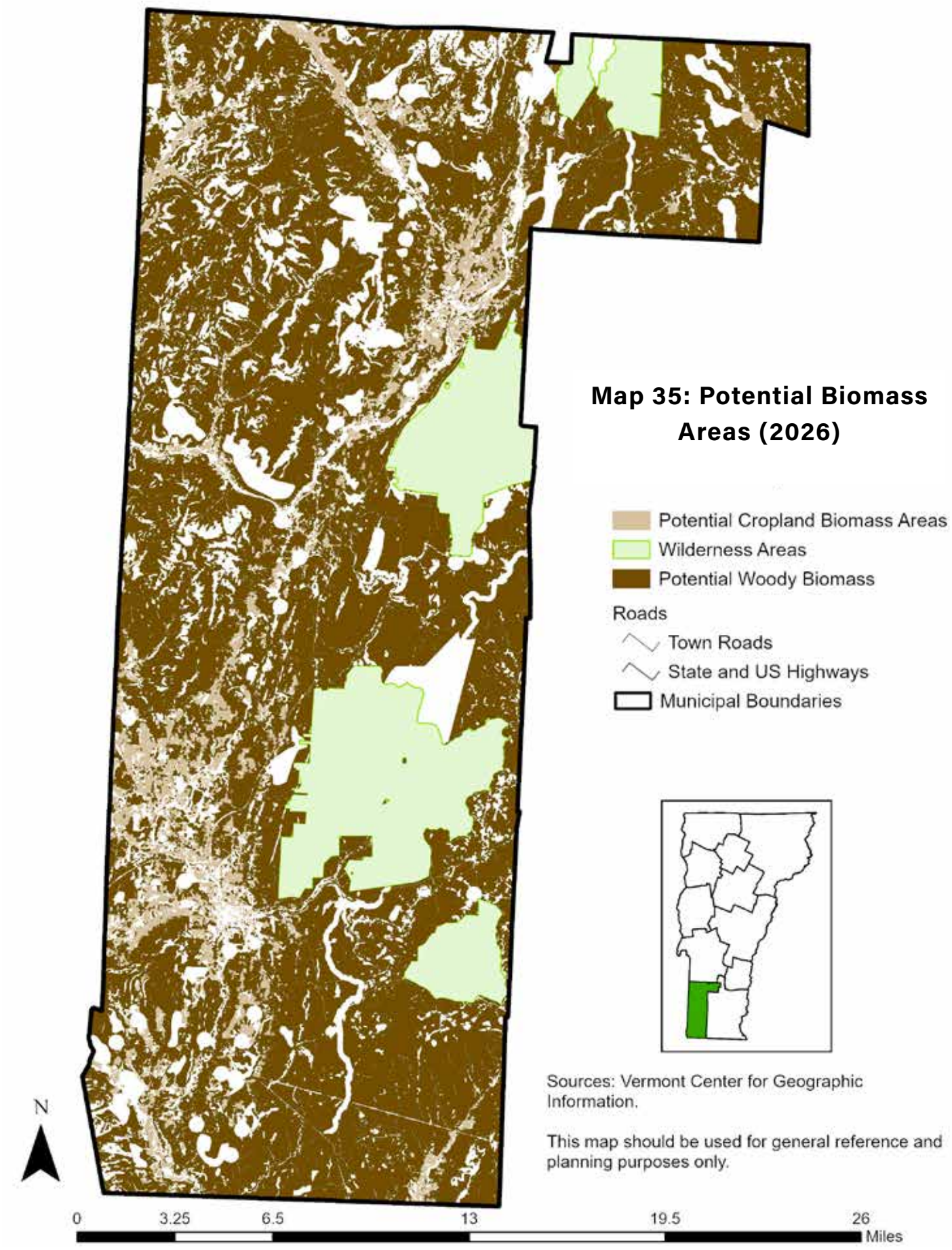
- Prime Resource Areas – Areas with good renewable energy resource potential and no known or possible constraints.
- Secondary Resource Areas – Areas with good renewable energy resource generation potential and no known constraints, but at least one possible constraint.

Another important element of the energy resource maps is the location of grid infrastructure, including three-phase distribution lines and high-capacity transmission lines.

Table 21: Potential Rooftop Solar Capacity and Generation by Town in the Bennington Region

Town	2050 Rooftop Generation Capacity Goal (MW)	Raw Generation Potential (MWh)	Estimated Generation Potential (MWh) - 25% of Raw Potential	Estimated Generation Capacity (MW)
Arlington	**1.8**	**19343**	**4835.8**	**3.7**
Bennington	7.7	100480	25120.0	19.1
Dorset	**1.8**	**26108**	**6527.0**	**5.0**
Glastenbury	0.0	72	18.0	0.0
Landgrove	**0.3**	**2078**	**519.5**	**0.4**
Manchester	3.6	49767	12441.8	9.5
Peru	**0.8**	**5851**	**1462.8**	**1.1**
Pownal	3.3	19568	4892.0	3.7
Rupert	**1.7**	**7831**	**1957.8**	**1.5**
Sandgate	0.4	3058	764.5	0.6
Shaftsbury	**3.2**	**24790**	**6197.5**	**4.7**
Stamford	0.7	5571	1392.8	1.1
Sunderland	**0.6**	**6431**	**1607.8**	**1.2**
Woodford	0.4	2823	705.8	0.5
Total	**26.4**	**273771**	**68442.8**	**52.1**

Source: Rooftop solar generation planning tool, Vermont Department of Public Service, 2024


Map 35: Potential Biomass Areas (2026)
Potential Cropland Biomass Areas
Wilderness Areas
Potential Woody Biomass
Roads
Town Roads
State and US Highways
Municipal Boundaries
Sources: Vermont Center for Geographic Information.
This map should be used for general reference and planning purposes only.
N
0
3.25
6.5
13
19.5
26
Miles

These are shown on both the wind and solar resource maps. Grid infrastructure location and capacity will play an important role in determining the economic feasibility of a certain site for a renewable energy generation facility. As mentioned earlier in this plan, several municipal generation capacity targets exceed the distribution headroom available to that town. Additionally, several municipalities with significant prime and secondary resource potential lack sufficient access to distribution lines which impacts their suitability for renewable energy development. The 2024 Vermont Long-Range Transmission Plan found that the Vermont transmission system "cannot adequately accommodate the projected targets of installed [distributed generation] without addressing the system constraints." Meeting the state's renewable energy requirements will require a combination of system upgrades, energy storage, flexible load management, and other solutions.

Regional Constraints are additional conditions identified by the BCRC that may limit renewable energy generation potential at applicable sites.

The wind and solar resource maps, and the corresponding data, should be used to inform energy planning efforts by municipalities and the region. They may also be used for conceptual planning or initial site identification by those interested in developing renewable energy infrastructure. They should not, however, take the place of site-specific investigation for a proposed facility, and should therefore not be thought of as "siting maps." The step-by-step analysis used to develop these maps may be conducted specifically for any site where renewable energy development has been proposed, and in that sense, these maps provide a model for the process that should be undertaken when evaluating the siting of a renewable energy development. Any proposed renewable energy project must comply with all state requirements and state agency rules.

Individual municipalities should refine these renewable energy resource maps by adding additional locally identified constraints to development and preferred locations for solar, wind, and hydro generation, as well as thermal applications. These enhanced municipal-level resource maps should be given substantial deference at Public Service Board Section 248 proceedings unless there is a clear conflict with the energy goals of this Regional Energy Plan.

Development Constraints

The development of renewable energy must be sensitive to the natural and human environment. Accordingly, the state has established the following known and possible constraints to renewable energy development which are reflected in the following wind and solar resource potential maps.

Known Constraints

- Vernal Pools – seasonal wetlands that provide habitat for various species
- Department of Environmental Conservation (DEC) River Corridors – rivers and land adjacent to rivers that is necessary to maintain the natural movement of a river
- FEMA Special Flood Hazard Areas – Areas most likely to be affected by floods where development is limited
- State-significant Natural Communities
- Rare, Threatened, and Endangered Species

- National Wilderness Areas
- Class 1 and 2 Wetlands

Possible Constraints

- Agriculturally Important Soils
- FEMA Special Flood Hazard Areas – zones with a 0.2% change or higher of annual flooding
- Protected Lands (state fee lands and private conservation lands)
- Act 250 Agricultural Soil Mitigation Areas
- Deer Wintering Areas
- Hydric soils – areas where soils are saturated for part of the year, leading to biological conditions similar to wetlands
- The following features from ANR's Vermont Conservation Design:
    - Highest priority interior forest blocks
    - Highest priority connectivity blocks
    - Highest priority physical landscape blocks
    - Highest priority surface water and riparian areas

Renewable Energy Project Siting and Review Criteria

Additionally, the BCRC has established the following energy project siting policies and review criteria which will be used to review energy generation and transmission projects seeking a Certificate of Public Good from the Vermont Public Utility Commission under Section 248.

Municipalities are encouraged to develop local siting and project criteria through the municipal enhanced energy planning process.

- Historic Districts: Renewable energy projects larger than small-scale, residential projects should not be sited in historic districts listed in the State Register of Historic Places.
- Forest Blocks and Habitat Connectors: The BCRC recognizes the importance of protecting forested lands as a key element of the regional environment. Forests play a crucial role in sequestering carbon from the atmosphere, and Vermont's Climate Action Plan accordingly places significant emphasis on protecting forest blocks and habitat connectors to achieve statewide goals of greenhouse gas emissions reductions and carbon sequestration. When possible, renewable energy development that requires forest conversion should be avoided if viable alternative sites exist.
- Utility-Scale Solar and Commercial Scale Solar Projects must not result in forest fragmentation or habitat loss. Developers should hold community outreach meetings to identify and address reasonable community concerns.
- Residential-Scale Solar: Residential-scale solar energy systems that comply with state and federal regulations are considered to conform with the Regional Plan.
- Small-scale Residential wind projects that meet state and federal regulations are considered to conform with the Regional Plan.
- Commercial, Medium and Large-Scale wind projects must not result in forest fragmentation or habitat loss. Developers should hold community outreach meetings to identify and address reasonable community concerns.

- Wind Turbine Setbacks: Medium and large-scale wind turbines should not be located in excessive proximity to residential areas so as to mitigate potential impacts of sound pollution or other ambient externalities. This plan recommends that a distance of at least 500 meters from residences be respected. Small-scale wind turbines should be set back from all property boundaries by a distance of at least twice the height of the turbine, as measured from the tip of the blade.
- Geothermal energy development that meets all applicable state and federal regulations is considered to conform to the Regional Plan.
- Hydroelectric development in the region is limited to existing dam facilities (see Map 34: Hydroelectric Resources (2024)). Micro hydropower systems and systems that are certified through the Low Impact Hydropower Institute are preferred.
- Large-scale electricity-generating biomass facilities do not conform to the Regional due to adverse impacts to air quality. Small-scale biomass heating systems that serve local residences, businesses, and institutions conform to the Regional Plan.
- Natural gas service connections do not conform to the Regional Plan. Additionally, all infrastructure related to natural gas and biogas must be sited at least 500 meters away from residences, businesses, and any human-occupied locations.

Developers are encouraged to consult Map 4: Environmental Justice Focus Populations (2026) to identify any environmental justice populations that may be present in the project area and include engagement with these populations as part of their outreach strategy.

Regional Preferred Project Characteristics:

- Projects that generate Renewable Energy Certificates (RECs) that count towards meeting Vermont's Renewable Energy Standard
- Projects that incorporate energy storage
- Use of native/pollinator plants for vegetative screening
- Projects that create dual land use opportunities such as animal grazing or agrivoltaics
- Projects located within one mile of existing transmission and distribution infrastructure
- Renewable energy projects co-located with multi-unit housing
- Projects that result in community benefit agreements

Regional Preferred Sites

- Former landfills
- Gravel pits and sites where sand and gravel resources have previously been exhausted
- Rooftops
- Large commercial and industrial sites
- Municipal buildings, schools, libraries, and other community facilities
- Multi-unit housing sites
- Parking lots

Substantial Regional Impact & Energy Projects

The BCRC reviews all advance notices and petitions for Certificates of Public Good, with

specific attention given to the project criteria and policies outlined in this energy element of the regional plan. To do this, the BCRC may convene the Regional Energy Committee in an advisory capacity. If it is determined that a proposed energy project may have substantial land use or environmental impacts beyond the scope of factors clearly delineated in this chapter, the BCRC may convene a joint meeting of the Regional Energy Committee and the Development Review Committee to discuss the project. If the project impacts stay within a single municipality, then the municipal plan will take precedence.

A new or expanded energy generation or transmission facility that requires a Certificate of Public Good under 30 VSA 248 may have a substantial regional impact if at least one of the following applies:

- It will be visible from more than one municipality
- It has impacts to two or more known or possible constraints identified in the regional energy plan
- It is a generation facility that requires upgrades to the transmission grid beyond the host municipality
- The footprint of the project is greater than or equal to 20 acres

When a project is determined to have substantial regional impact and a conflict exists between the local and regional plan, the regional plan will take effect where relevant in state regulatory proceedings. BCRC will review projects according to regulatory guidelines, duly adopted municipal plans, and this regional plan. If a conflict exists between the regional plan and applicable municipal plans, BCRC shall proceed according to its project review guidelines, which encourage cooperation and consultation with local communities.

Other Energy Technologies

Biomass and Methane

Electricity can also be generated from other resources, including woody biomass (especially as a combined heat and power (CHP) project), and biodigesters that use organic waste to produce methane that can be burned to generate power. Biodigesters may be appropriate for some agricultural and waste management operations. Biomass is energy derived from plants and animals and can be used for heating, electricity generation and as a transportation fuel. According to the US Energy Information Administration (EIA), Biomass, sources include wood (e.g., cordwood, wood chips, wood pellets, sawdust), agricultural crops used to produce biofuel (e.g., corn, soybeans, algae), biogenic materials found in solid waste (e.g., paper, cotton, wool, food, yard wastes), and animal manure and human sewage.

Biomass from wood sources is by far the largest current source of energy in the Bennington region (see Map 35: Potential Biomass Areas (2026)). Much of the cordwood used for heating is sourced from nearby forests. Similarly, many of the woodchips used in institutional heating systems are obtained from forests in or near the region. Approximately three-fourths of the region is covered with forests and the amount of new growth is far in excess of the annual harvest, suggesting that a significant amount of additional woody biomass is potentially available to supply local heat energy needs,

if harvested responsibly. Although woody biomass has historically been an important heating source in Vermont, biomass heating presents significant air quality concerns which can impact the environment and human health. However, wood heating is still an important part of the Bennington regional economy and approximately 11% of the region's residents still heat their homes primarily with wood. Wood heat is expected to continue to play a role in Vermont's energy transition, and the state maintains several resource pages on wood heating, as well as several programs and incentives for wood heating.

Due to air quality concerns associated with biomass heating, this plan discourages the development of new large-scale biomass facilities for electricity generation. Small biomass heating systems, such as wood or pellet boilers and stoves, installed at individual businesses, institutions, and residences play an important role in the region's thermal sector and are acceptable.

Thermal Energy Networks

A thermal energy network (TEN) is an emerging technology that can help to decarbonize Vermont's thermal sector and provide affordable heating and cooling to Vermonters. According to Vermont Community Thermal Networks (VCTN), a "thermal energy network is an umbrella term that can include networked geothermal and other systems that use water to capture, re-use, and share thermal energy between buildings." VCTN worked with the Energy Action Network to create a guide to developing thermal energy networks in Vermont communities. The potential exists to develop efficient TENs in the region's compact downtown and village centers. The BCRC will work with municipalities to explore the possibility of TENs in their communities.

Energy Storage

Electricity storage is technology that has the potential to dramatically improve access to electricity produced by intermittent renewable energy sources, such as wind and solar, by making it available for use when it is most needed. The American Council for an Energy-Efficient Economy (ACEEE) provides a technical brief exploring energy storage systems as an emerging opportunity for increasing the energy efficiency of residential and commercial buildings.

Energy storage is rapidly expanding in Vermont and the Bennington region. According to data from the Department of Public Service, at the end of 2023, Vermont had 55 MW of installed storage with an additional 30 MW in development. The Bennington region had 2.2 MW of installed storage. Furthermore, storing energy, often in the form of a battery, can play an important role in emergency preparedness and resiliency, as it can provide a source of energy in the event of a power outage. Green Mountain Power has developed home energy storage programs to help reduce the amount of power needed during times of peak demand. EV to grid, in which energy is stored in the battery of an electric vehicle and then fed back into the grid during times of peak demand, is another method of energy storage that can improve grid resilience.

Increasing Access through Local Generation

For communities to thrive, local leaders should look to programs and policies that

encourage locally generated and managed fossil-fuel-free energy, while prioritizing access and affordability for historically underserved community members. Generating and managing electricity from renewable sources close to where it is used rather than generating at large power plants and transmitting over long distances, has multiple benefits. Technologies for such decentralized power generation are known as distributed energy resources (DERs). Decentralization has the potential to lower costs for consumers, improve the reliability and resilience of the grid, and increase equity among community members. However, community members can only benefit from DERs by direct participation. The implementation of some programs, like the state's net-metering program, could result in higher costs for those who do not or cannot participate. DERs like community-owned solar and utility-led energy programs that promote energy savings and energy storage can lead to improved health and equity in Vermont communities. The BCRC will work with the region's municipalities to assess local potential renewable energy projects and develop enhanced energy plans that identify and prioritize energy efficiency and generation goals and renewable energy siting that is desirable and beneficial to the community at large.

Environmental Benefits + Burdens

The ability of residents to affordably and conveniently generate or purchase energy that comes from sources that restore themselves and do not diminish the environment (e.g. solar, wind, geothermal, etc.) rather than fossil fuels. A reliance on price-volatile fossil fuels can cause affordability challenges for some households and increase energy burden over time.

Regional Context

Many of the region's residents struggle to afford energy for electricity, heat and cooling, and transportation. The Bennington region has an average energy burden of 9.9%, meaning that the average resident spends up to 9.9% of their household income on energy costs. Additionally, many energy efficiency measures and incentives intended to help people save money, are still out of reach for many people due to high upfront costs, lack of awareness, or lack of homeownership. Purchasing energy from renewable sources is also not feasible for many people due to the upfront installation costs of many technologies.

Community solar projects have historically helped increase access to renewable energy and bring the benefits of net metering to people who are unable to install solar panels at their property. These types of projects, also known as virtual group net metering projects, allow people to buy or lease a portion of an off-site renewable energy facility and receive a share of the electricity generated by the project which can then be sold to the electric utility for net metering credits. However, Act 179 of 2024, which modernized Vermont's Renewable Energy Standard, also ended the state's virtual group net metering program. The Vermont Department of Public Service has been directed to develop a replacement program to expand access to renewable energy and lower energy burdens.

The high upfront costs of efficiency measures and renewable energy installations may lead to an inequitable distribution of burdens and benefits among high income residents, who can more easily afford these measures,

and low-moderate income residents who cannot.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Energy Planning and Decision-Making

The BCRC strives for a transparent and accessible planning process. This energy element of the regional plan was developed with several opportunities for public input, including bimonthly commission meetings, regional energy committee meetings, and working sessions of the Regional Plan Advisory Committee. BCRC's 2026 Regional Plan engagement strategy is described in more detail in Appendix C: Community Engagement Process.

Municipalities undergoing the enhanced energy planning process should also seek public input, just as at the regional level, through a variety of engagement methods to encourage participation among community members. Strong municipal energy planning will be the product of diverse input and widespread community support.

This plan establishes the following guidelines for equitably developing energy goals and policies at the regional and local level.

- Identify populations that will be most impacted by a proposed energy policy or program using the following resources:
  - Map 4: Environmental Justice Focus Populations (2026) in Introduction
  - The Climate and Economic Justice Screening Tool
  - Efficiency VT's Energy Burden Maps
  - Vermont Department of Health Vulnerability Indicator Tools
  - The Agency of Natural Resources is in the process of developing an environmental justice mapping

tool which should be used once available.

- Evaluate proposed energy policies and programs using the Energy Justice Scorecard. Vermont's Guiding Principles for a Just Transition (scoring rubric) may also be a useful evaluative tool.
- Using the Energy Justice Scorecard and Vermont's Guiding Principles for a Just Transition, evaluate the potential human impacts of renewable energy projects, and energy efficiency projects, with specific emphasis on environmental justice populations, to ensure that these residents receive equal or greater benefits from energy decisions.
- Provide multiple ways to participate in the planning process beyond traditional public meetings, and widely advertise the opportunities for public participation. Additional methods of outreach and participation could include surveys, small-group conversations, and pop-up tabling in public places.
- Identify barriers to public participation in decision-making and planning processes and take appropriate steps to remove those barriers to the greatest extent possible. For example, this may involve offering childcare or transportation to and from meetings.
- Other tools and frameworks that may be useful for the development and evaluation of equitable policies and programs include:
    - Transportation Equity Framework
    - Vermont Health Equity Planning Toolkit
    - Vermont Municipal Climate Change Vulnerability Indicators Tool

How Can BCRC Help?

The BCRC maintains and administers a regional energy plan and helps municipalities develop enhanced energy plans with adopted implementation strategies. The commission works on energy conservation projects with local energy committees, Efficiency Vermont, the Vermont Energy and Climate Action Network, the Vermont Agency of Transportation, and other cooperating businesses and organizations. The commission actively participates in Section 248 reviews of energy generation and transmission projects proposed to be located within the region. The commission may provide guidance to renewable energy developers to help them conceive projects that evidence a high net energy yield without adversely impacting critical natural or cultural resources. This is aided by referencing the maps and guidelines expressed in the regional energy plan as well as the region's municipal enhanced energy plans.

Energy Goals and Actions

Goals

- Support efforts to reduce regional energy burden and fossil fuel pollution in support of Vermont's climate and energy goals.
- Promote resilient, energy efficient buildings and communities, and reduced thermal energy use in the Bennington region.
- Promote growth and development in compact, mixed-use centers.
- Support strategies to decrease energy use, costs, and fossil fuel pollution in the transportation sector.
- Support the development of new, community-scale renewable energy generation that is affordable, equitable, and respects the natural environment.

Actions and Policies

The BCRC...

- Continues to assist municipalities with updating and developing enhanced energy plans, including renewable resource mapping assistance.
- Supports municipal energy committees in their engagement with residents and municipalities about opportunities to reduce energy burden and switch to affordable renewable energy sources. Additionally, continue to collaborate and partner with organizations (including municipalities, educational institutions, businesses, and non-profits) to help meet the State's energy and climate goals.
- Supports a wide variety of renewable energy generation types, including but not limited to, passive solar building design, biodigesters for electricity generation, photovoltaic solar, agrivoltaics, wind turbines, and optimizing the energy potential for existing hydro-electric dams in the region.
- Works with landlords, developers, and businesses to raise awareness about the importance of weatherization, non-fossil fuel-based heating systems, and EV charging.
- Supports changes in federal, state, and local policies to achieve Vermont's goals related to the Comprehensive Energy Plan, Climate Action Plan, and Environmental Justice Law.
- Works with community partner organizations to promote programs that help reduce residential energy burden such as: BROC's free home weatherization program for income-eligible households, The Green Savings Smart Program, Efficiency Vermont's income-based assistance programs, The Weatherization Repayment Assistance Program (WRAP), and WindowDressers
- Supports the development of a replacement program for virtual group net metering that makes renewable energy more affordable to residents.
- Promotes Vermont's residential and commercial building energy standards (RBES/CBES) for new construction and existing buildings, including additions, alterations, renovations, and repairs.
- Hosts and facilitates building science and standards training and education opportunities for local officials, zoning administrators, and relevant workforce development groups. Encourage communities with zoning to require Certificates of Occupancy. Encourage the local adoption of "stretch

energy codes."

- Reviews local zoning bylaws and offer technical assistance to development review boards when evaluating the energy, climate, and health implications of site plans for proposed developments.
- Works with housing and energy efficiency organizations to promote and improve the regional supply of energy efficient housing.
- Promotes weatherization and energy efficiency programs to individuals and businesses.
- Works with Heat Squad, BROC, and other weatherization programs to increase programmatic offerings in the Bennington region.
- Promotes and encourage energy audits of residential and commercial buildings.
- Identifies and support weatherization workforce training opportunities in the region.
- Promotes rebates incentives offered by Efficiency VT and Green Mountain Power
- Promotes the installation of cold climate heat pumps in residential and commercial buildings
- Works with municipalities to identify opportunities for fuel switching and efficiency upgrades in municipal buildings.
- Supports the use of geothermal heating and cooling systems for new residential and commercial construction.
- Works with the owners of buildings and facilities that serve critical community functions to improve the efficiency and resiliency of these locations.
- Works with local planning commissions to amend land use regulations and plan infrastructure improvements that support planned mixed-use centers.
- Helps municipalities apply for state designation programs that support compact development.
- In village centers where the infrastructure needed to support the desired mix and density of development is not available, supports technical assistance projects in cooperation with the Agency of Commerce and Community Development and the Department of Environmental Conservation that will lead to expanded water supply and wastewater disposal options.
- Supports programs that provide incentives to maintain economically viable rural open lands. Encourage local plans and regulations to promote land conservation and maintenance of the working landscape (i.e., farms, forestry, and supporting uses) over low-density residential development in rural areas.

Follows the 2023 Vermont Transportation Equity Framework to help decision makers plan for and prioritize projects, ensure accurate representation in decision making, and enhance the equitable delivery of services. Continually assess transportation access and barriers in the region.

Implements the strategies and priorities identified in the Vermont Health Equity Planning Toolkit that are relevant to the Bennington region.

Works with municipalities to update municipal road standards (for maintenance and new construction) to reflect Complete Streets principles.

Assists municipalities with scoping of future bike and pedestrian facilities to improve safety, accessibility, efficiency, and continuity of the system.

- Helps municipalities use the outcomes of the scoping studies to apply for various Agency of Transportation implementation grants.

- Promotes the use of the region's existing bike and pedestrian infrastructure and support the efforts of local groups maintaining them.
- Promotes Transportation Demand Management (TDM) and Ridesharing programs.
- Promotes the Go!Vermont program that links travelers to a variety of transportation resources and mobility options.
- Supports the continued development and expansion of park-and-ride facilities.
- Supports employer programs to encourage telecommuting, carpooling, vanpooling, walking, and biking for employee commute trips.
- Supports investment in Green Mountain Express services in the region.
- Works with Green Mountain Express and the Agency of Transportation to identify opportunities for transit improvement and expansion.
- Encourages schools in the region to maximize ridership of public school buses and minimize use of private vehicles for student transport.
- Promotes and supports rail infrastructure as a cost-effective transportation resource.
- Encourages EV adoption and the development of electric vehicle supply equipment (EVSE), including Level 1, Level 2, and Level 3 charging stations, in downtowns, village centers, and opportunity zones, as well as along key interstate and state highway corridors.
- Assists communities with planning for and securing funding for EVSE.
- Educates individuals on the benefits of EVs with an emphasis on gasoline superusers.
- Promotes workplace charging to regional businesses.
- Assists municipalities and businesses with fleet electrification through grant support and technical assistance.
- Supports the expansion of electric powered buses and vans among the public and private transportation providers serving the region, including school districts
- Works with cycling advocacy groups to host safe on-road cycling workshops and raise awareness about the viability of micro-mobility (such as electric bikes and scooters).
- Provides technical and grant writing assistance to municipalities to plan for multi-modal transportation and better connectivity with alternative transportation modes.
- Supports the development and siting of renewable energy, storage, transmission, and distribution resources on state and regionally preferred (and potential) locations, as identified by BCRC's Act 174 Energy Maps.
- Investigates public benefits provided to communities either directly from renewable energy developers or as a condition of a Certificate of Public Good. Assess if the current system is equitable to all municipalities impacted by a renewable generation facility, or if the current system can be improved to provide greater equity to all community members impacted by a renewable energy generation facility.
- Encourages municipal land use regulations that promote co-development of renewable energy generation with storage and flexible load management strategies.
- Supports in-place upgrades of existing facilities, including existing renewable energy generation, storage, transmission lines, distribution lines and substations as needed to reliably serve municipalities and the region.

- Cooperates with VELCO in assuring reliable transmission and distribution of electricity in the region. Work with VELCO to identify and mitigate grid constraints that may arise from large scale distributed generation in the region.
- Coordinates regional energy planning with Green Mountain Power, ensuring that areas planned for new renewable energy generation projects are consistent with the capacity of the grid infrastructure and that any upgrades needed are implemented.
- Supports the economic viability of farms through appropriate renewable energy development as a complementary use that keeps farms in agricultural production while preserving agricultural soils and working lands. Promote the use of on-farm power and community energy generation and the use of renewable energy for farming and food production (such as anaerobic digesters, solar, wind, biomass, and biodiesel) in accordance with local and regional planning priorities.
- Encourages agrivoltaics that co-locates solar energy generation with active farming.
- Encourages and supports agricultural production of biofuels and oilseed crops and explore ways to broaden access to processing infrastructure.
- Shall follow the criteria laid out in the text of the Energy section of this plan relating to siting of renewable electricity generation.

Utilities, Facilities, and Infrastructure Services

A wide variety of utilities, facilities, and services, owned and operated either by public bodies or by private interests that serve the general public, are present in the Bennington region. These resources are essential in that they provide necessary services for the region's residents, support the land use and development goals of local and regional plans, and facilitate effective economic development. Proper management and strategic investments are necessary to ensure that they are utilized as efficiently and effectively as possible.

Each town and village in the region is home to one or more of these assets and some span or serve multiple municipalities or the entire region. And while the larger and more developed municipalities have the most extensive collection of these utilities, facilities, and services, each individual component contributes to the functioning of a complex network that serves all the region's residents, businesses, and visitors.

The range of needs met by these utilities, facilities, and services is impressive. For example, water supply and wastewater disposal systems support environmental quality and public health objectives while being directly related to the ability to develop compact mixed-use centers. Proper management of solid waste minimizes pollution while making cost-effective use of resources. Local generation and distribution of electricity is fundamental to many aspects of daily life and commercial activities. With the planned transition away from fossil fuels and longstanding delays in construction of new transmission capacity, local electricity generation and distribution promises to become even more important in the coming years. Similarly, modern telecommunication systems are needed to provide access to information and to ensure that local businesses can compete in an increasingly global market. Health care services employ more residents than any other economic sector in the region while maintaining the overall health of the population. Finally, municipal and state buildings house services and offer activities that are relied upon throughout the region. This section of the regional plan will address each of these assets and identify priorities for maintaining and improving services.

What did we learn from the community?

People noted water and wastewater infrastructure and cell service as challenges in the region

Desire for more sustainable solid waste management systems at public events

Challenges around access to medical facilities

Water Supply and Wastewater Disposal

Water Supply

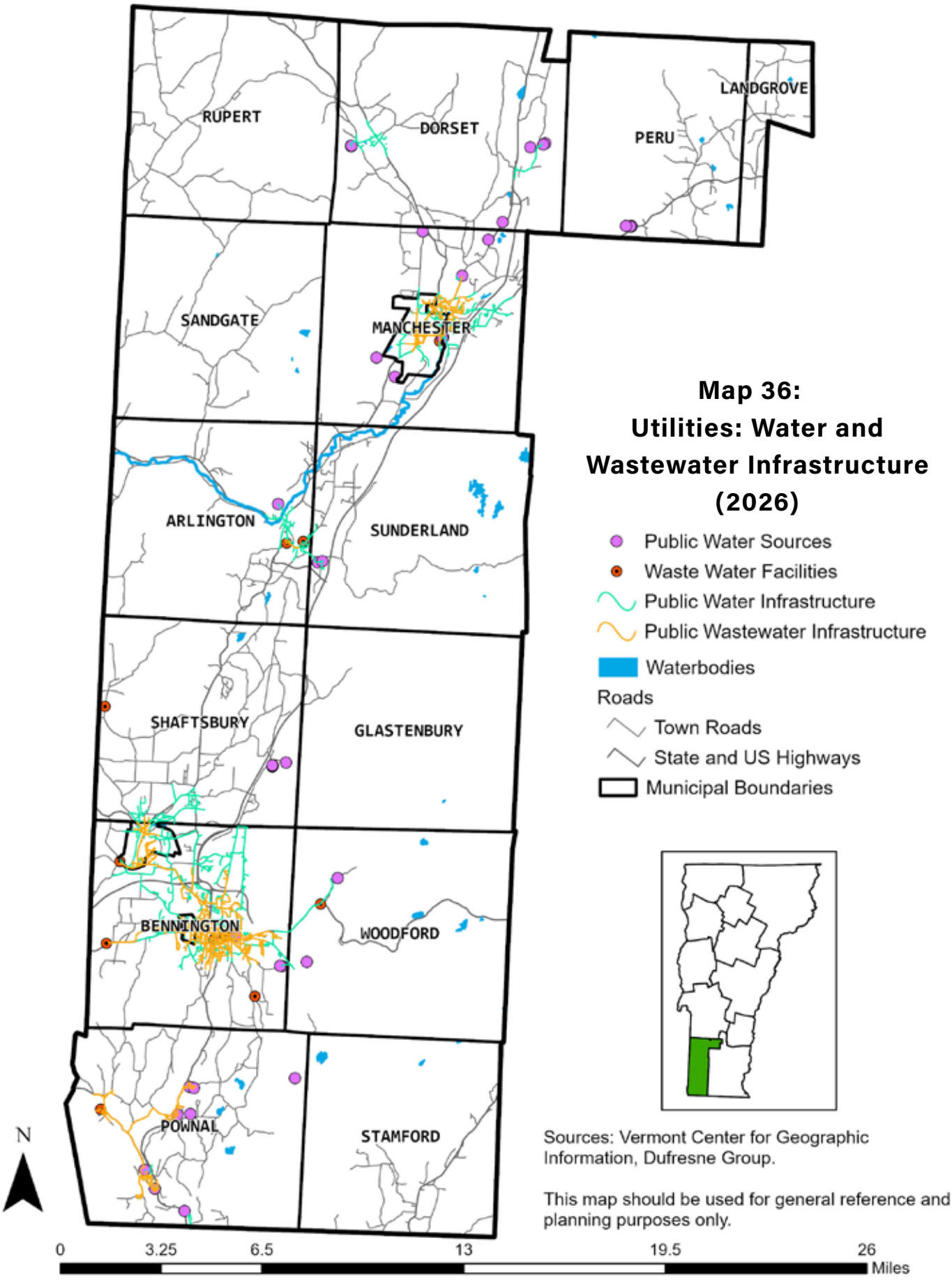
Village centers, downtowns, and moderate to high density residential neighborhoods all rely on adequate water supply and wastewater disposal systems to support the type and density of development planned for those areas. These systems are crucial for the protection of public health and to meet local and state regulatory requirements related to the density of development. Many of the region's compact centers are served by either a public water or sewer system, or both (see Map 36: Utilities: Water and Wastewater Infrastructure (2026)). Other areas planned for relatively dense development lack these facilities, however, and consequently their ability to support growth that reflects mixed use walkable communities is extremely limited.

Public water supply systems in the region range from small networks serving a few clustered residences to large municipal systems such as those in Bennington and Manchester. Vermont defines public water systems as those serving at least 15 connections or 25 people for at least 60 days per year. Some of the systems are owned by municipal governments, some by local public water districts (generally known as fire districts in most towns), some by private companies, and others by private property owner cooperatives. Outside of town centers, public water systems are relatively common and typically cooperatively or privately owned. Limitations on system capacity place meaningful barriers to infill development, particularly in areas mapped Rural General on the future land use map.

Regardless of ownership status, any public water system is subject to specific regulatory standards. State and federal actions have mandated filtration system upgrades and other improvements to many of the systems. These improvements, while costly, will help ensure continued supplies of clean water for residential and commercial use. In addition to facility improvements, source protection areas for many of the public water supplies have been delineated and uses within those areas need to be monitored and controlled to prevent contamination.

Investments in existing water supply systems should be directed toward meeting public health requirements and expanding capacity to serve the needs of planned downtowns, village centers, and other growth areas, or to facilitate infill development. Capacity may be expanded by increasing the amount of water collected, stored, and distributed, or by providing incentives for water conservation. Installation of water meters, which allow billing to be tied to usage, has proven to be a particularly effective way to encourage conservation and thus to increase capacity. Metering creates incentives both to decrease regular water use, and for property owners to make repairs to leaking water service lines between municipally owned water mains and private structures.

A major emphasis both state and nationwide has been the removal of lead pipes from water systems. All water systems in the region have completed recent surveys seeking information on the presence of lead in service lines linking water mains to homes. The prominence of lead varies substantially, with the substance being far more common in Bennington's system than the



Map 36: Utilities: Water and Wastewater Infrastructure (2026)

- Public Water Sources
- Waste Water Facilities
- Public Water Infrastructure
- Public Wastewater Infrastructure
- Waterbodies

Roads

- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information, Dufresne Group.

This map should be used for general reference and planning purposes only.

younger systems elsewhere in the region. Bennington has undertaken an aggressive replacement plan to remove these lines from its water system, while other systems have worked to remove the less frequent instances that they've discovered. The presence of Per- and polyfluoroalkyl substances (PFAS) has also been a prominent issue in the region in recent decades. The discovery of PFAS contamination in area wells in certain parts of the region has, in some cases, lead to extension of municipal water service to these areas, or extra filtration of local water supplies has needed to be implemented. This has been limited to areas in the southern half of the region, where the Bennington, North Bennington, and Pownal water systems have played a role in addressing contamination issues.

New or expanded public water supplies should not encourage scattered growth in outlying areas, although it may be desirable and efficient to develop small public water systems to serve clusters of homes in rural areas to address public health concerns including those associated with PFAS, facilitate development that repairs past sprawl, and facilitate infill development in existing rural built-up areas. Restricting future extensions of municipally owned water systems to defined water service areas that are consistent with planned growth areas is one way to ensure that system extensions do not encourage inefficient scattered development.

Wastewater Disposal

One of the factors that allows public water systems to support higher densities of development is that the wastewater from on-site disposal systems does not contaminate the water supply. Of course, removal of the wastewater discharges from the area altogether, through a public wastewater, or sewage, system is even more effective in that regard. These public sewage systems collect and treat wastewater prior to discharge, generally into a watercourse. Vermont has recently begun encouraging distributed, high-capacity in-ground wastewater systems with recently planned or developed systems, akin to large private septic systems, allowing the greatest flexibility in development planning while also remediating any pollution problems resulting from inadequate or failed on-site disposal systems. This regulatory regime limits impacts on surface waters, while emphasizing plans that use multiple small- or

Bennington Department of Public Works crewmembers replace a lead water line in town.
Photo Credit: Town of Bennington

medium-sized disposal fields in order to reduce the need for long wastewater mains and take advantage of smaller parcels of high soil disposal rating land in or near existing to developed areas.

Bennington and Manchester have had municipal wastewater disposal systems for many years. Each system has capacity to handle additional growth, but both note that some changes will be needed to ensure that capacity exists to continue to support desired development in those two regional urban centers. Stormwater overflows and infiltration of water into the collection systems significantly degrade capacity. Additional stormwater separation and pipe replacement projects have the potential for significantly increasing capacity for these systems. To meet regional housing targets, both systems will require substantial capacity increases beyond those available from repairs, including increasing the size of mains in their designated centers and Planned Growth Areas. Capital planning for these upgrades will need to be completed in this planning period for either town to approach meeting its housing target. A complete discussion of the Manchester and Bennington water and wastewater systems can be found in their respective town plans.

Pownal has completed installation of the region's newest municipal wastewater disposal system that serves the Pownal, Pownal Center, and North Pownal village centers. That project was designed to address severe water pollution problems in these areas of relatively dense development and to enable additional growth in the villages. The project also was designed to discourage any extension of sewage capacity to the rural areas between and outside of the three village centers.

While public wastewater disposal systems may be appropriate in many of the region's compact centers, South Shaftsbury and Arlington have faced particularly severe challenges in meeting development goals while lacking such infrastructure. If additional capacity is made available in the Bennington system, an extension beyond North Bennington to South Shaftsbury may be considered.

Arlington continues to explore options for wastewater facilities, especially in light of limitations that have been discussed during the study of the water supply system. Arlington and other communities faced with similar challenges may explore the potential for development of a traditional municipal sewage collection, treatment, and disposal system; however, high costs, limited state and federal funding, and other concerns may prompt communities to consider use of innovative community or individual on-site treatment facilities, as described in Wastewater Solutions for Vermont Communities. The assessment of wastewater infrastructure needs of local communities should include an identification of options for addressing the specific environmental and development constraints faced by each village center.

The State of Vermont operates multiple programs to support wastewater investments. The Village Wastewater Solutions Initiative provides funds to scope wastewater projects, and the Community Housing and Infrastructure Program (CHIP) can provide funds for project-based wastewater needs, as well as water and other infrastructure that supports housing growth. Any public

wastewater disposal system should be supported by specific municipal policies that identify how the capacity of the system will be allocated to existing and new development as well as a service area map that limits expansion of the system to areas planned for higher density development.

Environmental Benefits + Burdens

Water is an essential human need that also plays a critical role in modern infrastructure. Communities have access to clean water when local supplies consistently meet regulatory quality standards and are not affected by contamination that threatens human or environmental health. Water availability can be threatened by the reduction of groundwater levels. Decline may result from sustained groundwater pumping or drought conditions. Reduction of groundwater has negative impacts which may include the drying up of wells (limiting access to drinking water), reduction of water in streams and lakes, deterioration of water quality, and land subsidence.

Improper sewage disposal describes situations where waste carried by water from habitable buildings is not adequately discharged or treated, which may endanger public health and cause environmental and water contamination. These situations may include sewer overflows, sewage discharging directly onto the ground or surface water, malfunction of sewage systems, and surfacing sewage. Failed septic systems in areas not served by town sewer may impact the health of nearby wells.

Regional Context

Some communities in the region have experienced issues with drinking water contamination. PFAS are a documented issue in Bennington, North Bennington, Shaftsbury, and Pownal, as well as the presence of lead service lines in various municipal water systems, although Bennington's Lead Line Replacement Project has largely mitigated this issue for its residents. BCRC's spatial analysis of environmental benefits and burdens shows that approximately 11% of the region's Environmental Justice Focus Populations (EJFPs) live in a Census Block Group which has a high level of noncompliance with National Primary Drinking Water Regulations, which is a proportion that is more than 1.5 times greater than the regional proportion. For details on BCRC's environmental benefits and burdens analysis see the Introduction and Appendix A: Environmental Justice Benefits and Burdens Methodology. Additionally, Bennington and Pownal both have high proximity to Superfund sites which may impact local water quality and resident health.

Although Vermont is experiencing more frequent flooding events, droughts are also a concern. In the Fall of 2025, the state experienced moderate to severe drought conditions which caused an estimated $15.9 million in agricultural losses. In the Bennington Region, the reduction in groundwater levels threatened the availability of drinking water for many people, especially those served by private wells and small public water systems. Water availability was critically low at mobile home parks in Pownal, leading to a need for trucking of water.

In areas served by public water systems, there are environmental justice considerations related to exposure to lead and copper in drinking water. It is imperative that public water systems follow required testing schedules

and work to remove lead from water mains and associated infrastructure. Low-income households served by lead service lines may struggle to fund replacement of these lines due to large up-front costs associated with such repairs. The Vermont Department of Health offers drinking water safety information and testing for private drinking water supplies.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

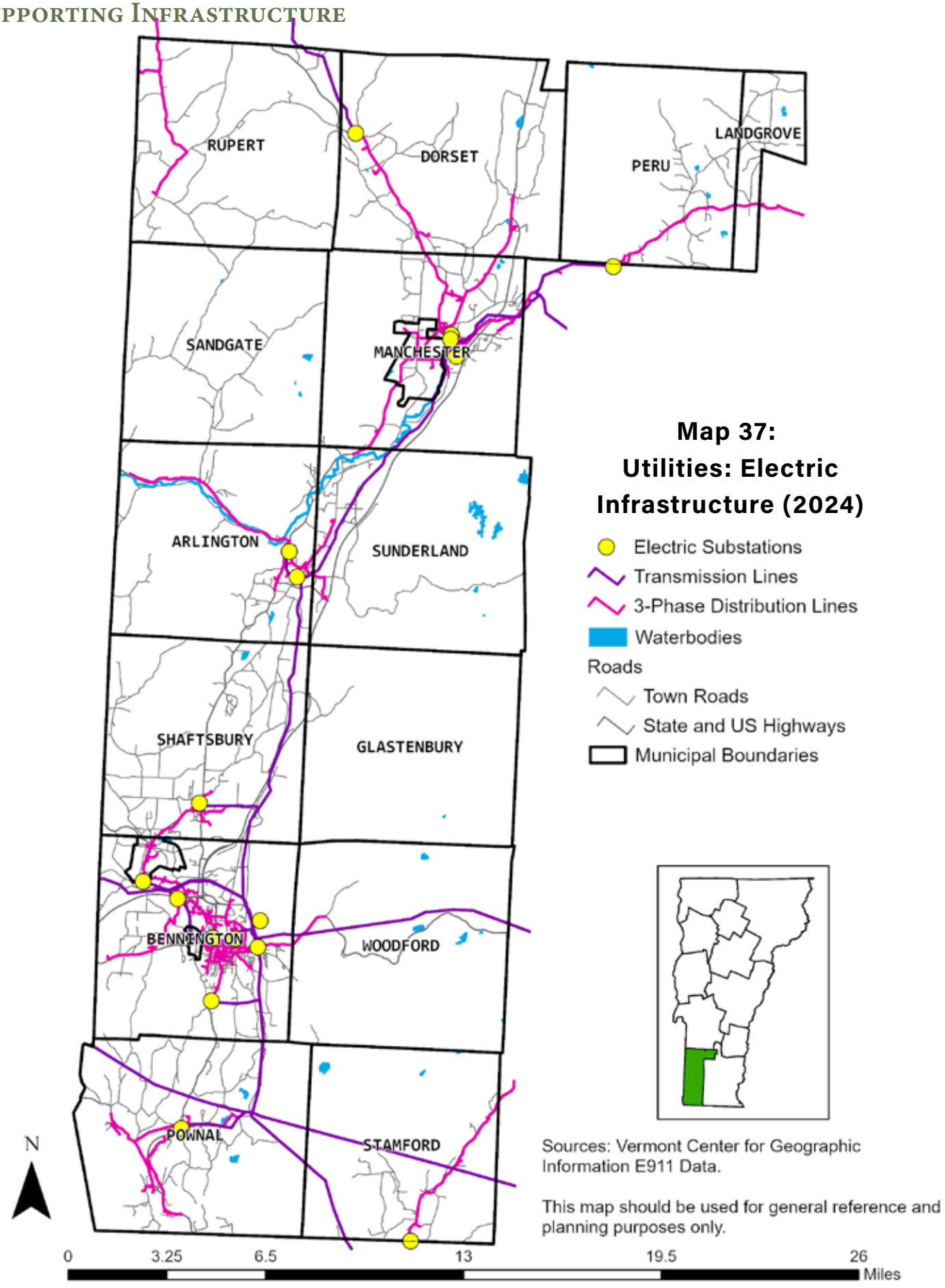
Electricity

With inevitable increases in the cost and decreases in the availability of the liquid fossil fuels (oil, natural and liquid propane gas, and motor gasoline and diesel) that have fueled our lifestyles and economy over the past 100-plus years, it is expected that attention will increasingly be turned to electricity to supply energy needs. Electricity can be used to power motors in vehicles, machinery, and appliances, and to heat and cool buildings and water.

The Vermont Long-Range Transmission Plan projects that electricity loads will grow at a rate of 2.4% over the next 20 years due to the increasing electrification of the heating and transportation sectors. Under the VT Roadmap scenario, which assumes a significant uptick in the rate of electric vehicle and heat pump adoption, the capacity of the transmission system will be exceeded within 10 years.

In recent decades, most of the region's electricity has been imported from large regional generators powered by nuclear fuel, natural gas, coal, and recently, from various renewable energy sources, primarily hydroelectric power from Canada. In the future, however, it is likely that greater reliance will be placed on local generators, most of which will be powered by renewable energy sources. Consequently, while Vermont should continue to seek long-term contracts for stable sources of imported electricity, a concerted effort to develop local generation should be a priority. Regional renewable energy generation is discussed further in the energy chapter.

Small renewable generators—such as photovoltaic and wind energy systems scaled for


RUPERT
DORSET
PERU
LANDGROVE
SANDGATE
MANCHESTER
ARLINGTON
SUNDERLAND
SHAFTSBURY
GLASTENBURY
BENNINGTON
WOODFORD
POWNAL
STAMFORD
Map 37:
Utilities: Electric Infrastructure (2024)
Electric Substations
Transmission Lines
3-Phase Distribution Lines
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries
N
Sources: Vermont Center for Geographic Information E911 Data.
This map should be used for general reference and planning purposes only.
0
3.25
6.5
13
19.5
26
Miles

Electric System Components:

Generation - where electricity is produced (solar array, power plant, etc.)

Transmission - moves power over long distances via high-voltage power lines.

Distribution - moves power over shorter distances to end users (homes, businesses, schools, etc.) via lower voltage power lines.

individual homes and businesses—can support local generation needs as well. Another distributed energy strategy with a role to play in the future is "combined heat and power" (CHP) facilities, where excess heat from a boiler facility that runs year-round (such as at a hospital) is used to generate electricity that can be fed into the regional power grid.

Electricity generation and the adequacy of fuel supplies is one concern. Transmission and distribution of that power is another. Vermont's "southern loop" transmission system serves the Bennington region (see Map 37: Utilities: Electric Infrastructure (2024)). The Vermont Electric Company (VELCO), the state's electricity transmission company, has indicated that southern Vermont electrical transmission facilities will need significant improvements over time. Additionally, the increasing frequency and intensity of extreme weather events exacerbated by climate change pose a risk to Vermont's electrical infrastructure. Ongoing investigations into transmission and distribution line upgrades and continued efforts by Green Mountain Power and Efficiency Vermont to reduce demand through conservation will be necessary to efficiently manage electricity transmission, distribution, and utilization.

Solid Waste Management

The region's towns and villages rely on a variety of solid waste and recycling collection and transport facilities and services (Map – Public Facilities - Govt). State permitted solid waste and recycling transfer stations are located in Stamford, Pownal, Bennington, Shaftsbury, Sunderland, and Dorset. Additional state permitted solid waste infrastructure includes a construction and demolition debris collection site located in Bennington, a household hazardous waste collection facility located in Bennington, and composting facilities located in Bennington, Dorset, and Stamford.

Management and oversight of individual transfer stations is accomplished by individual towns, with the exception of Arlington, Dorset, Manchester, Sandgate, and Sunderland which share access and transfer station operation costs under an Integrated Solid Waste Management Program administered by the Bennington County Solid Waste Alliance (BCSWA).

State requirements and incentive programs related to solid waste place an emphasis on reducing the volume of waste that is produced and ensuring that a maximum amount of waste produced in the region is diverted from the landfill. This includes efforts to find reuse, recycling, and processing opportunities locally. Individual towns work with BCSWA to administer agreements with private companies that collect and transfer waste and recyclables to disposal and processing facilities outside the region.

Since 2012 Vermont waste has been largely managed under the Universal Recycling Law that:

- Prohibits recyclables, food waste, and leaf and yard debris from being sent to landfills
- Provides greater convenience by requiring that these materials be collected along with normal household trash
- Requires user fees based on the amount of material disposed

Implementation of the Universal Recycling Law is managed by the Vermont Agency of Natural Resources under a Materials Management Plan (MMP), updated in 2024. The MMP sets out broad goals and specific actions that will be taken by the state and by local and regional waste management organizations to address issues in each of the following categories:

- *Recyclables including metal cans, foil and pie plates, glass, PET and HDPE plastics, corrugated cardboard, and paper products*. Many of these materials can be used to create new products. These items are banned from the landfill, large waste haulers are required to collect these items from the public, and landlords are required to provide access to organics collection.
- *Organics including food scraps and leaf and yard waste*. These materials can be composted for use in amending the soil and for erosion control or can be used to create biogas, primarily methane, to produce energy. Food scraps specifically are banned from the landfill, large waste haulers are required to collect these items from the public, and landlords are required to provide access to organics collection.
- *Construction and demolition materials including clean wood*. For many products such as asphalt shingles, drywall and others, recycling options exist but markets are limited.

Vermont-specific hazardous waste collected at the Bennington Household Hazardous Waste Facility.. Photo Credit: BCRC

- *Household hazardous waste* includes pesticides, automotive fluids, and household chemicals that must be disposed in specialized facilities.
- *Very small quantity generators* are small businesses or municipalities that generate less than 220 pounds of such materials and may also be referred to as Conditionally Exempt Generators.
- *Electronic waste* includes computers and peripherals, televisions and other devices, many of which contain toxic materials as well as precious metals.
- *Universal waste* includes batteries, fluorescent lamps and ballast and certain

mercury containing devices, which must be handled in specialized facilities.

The collection and disposal of many landfill banned items are directed by Vermont Extended Producer Responsibility (EPR) laws including Act 58 of 2013 which established a paint collection program, Acts 139 and 152 which established requirements for primary and rechargeable battery stewardship and disposal, and Act 58 of 2023 establishing requirements for hazardous product manufactures to collect these wastes. EPR is a public policy approach that assigns producer responsibility to manage collection and disposal through product stewardship organizations that may collect the items themselves or offer a reimbursement to local solid waste management entities to collect and track the items.

Illegal dumping remains an ongoing issue in the region, particularly along back roads and in areas adjacent to wetlands. Green-Up Day was developed to address this dumping, and remains a well-supported annual event in the region.

Bennington County Solid Waste Alliance

The BCRC provides direct support to the Bennington County Solid Waste Alliance (BCSWA)—the region's local solid waste management entity. The mission of the BCSWA is to reduce the amount of waste disposed of in landfills, incinerators, or similar means by reducing the amount of waste generated, conserving resources, and promoting recycling and reuse. The mission of the BCSWA is to reduce the amount of waste disposed of in landfills, incinerators, or similar means by reducing the amount of waste generated, conserving resources, and promoting recycling and reuse. BCSWA is an independent organization that operates under a management contract with BCRC.

BCSWA was formed through an interlocal contract under Title 24, Chapter 121 of the Vermont Statutes in 2015. The Alliance consists of the Towns of Arlington, Bennington, Dorset, Glastenbury, Manchester, Pownal, Rupert, Sandgate, Searsburg, Shaftsbury, Stamford, Sunderland, and Woodford. The alliance completed and adopted its third solid waste implementation plan (SWIP) on June 27, 2025. This plan was subsequently approved by the Vermont Agency of Natural Resources on Oct. 9, 2025. The state requires this plan to be updated every five years, with the next update anticipated in 2030.

Regional Solid Waste Implementation Plan (SWIP)

Vermont's Materials Management Program (MMP) requires that solid waste management districts, alliances, and independent municipalities develop solid waste implementation plans (SWIP) that conform to the state plan. In our region this is managed by the Bennington County Solid Waste Alliance (BCSWA). The regional SWIP, which was developed with support from the BCRC, outlines siting requirements for new waste collection and storage facilities, and methods to track and report on progress with state waste reduction goals. It encourages schools, businesses, and residents to reduce the amount of waste generated, reuse materials where possible, recycle those materials that can be turned into new products, and properly dispose of waste and hazardous materials. It outlines community outreach efforts including programs for schools and businesses, identifying sites for

collecting textiles, and providing technical assistance at public and private events on materials management, requirements for haulers to implement unit-based pricing and collect all items required under state law. The 2025 SWIP also includes a requirement to work with local municipalities to develop plans for debris management in the aftermath of natural disasters.

Under the SWIP BCSWA also manages a household hazardous waste collection facility in Bennington that operates from May through October of each year and is open to residents and local businesses that qualify as "Very Small Quantity Generators" of hazardous waste. Detailed information on existing solid waste facilities and services, as well as the new regional SWIP, are made available through regular newsletters and updates from BCSWA. BCSWA maintains a web presence at https://bcswa.org.

Environmental Benefits + Burdens

Improper handling of solid wastes and other noxious substances refers to situations where trash, hazardous materials, or other waste products are unsafely managed. This may occur through illegal dumping, poorly maintained disposal sites, and leakages or spills. These events can contaminate the environment and pose health risks to surrounding communities. Historically, waste disposal and waste handling areas have been disproportionately located adjacent to racial enclaves, ethnic enclaves, and/or low-income communities. These facilities can lead to an increase in truck traffic, exhaust fumes, foul odors, and other disproportionate impacts to the quality of life and public health of these abutting communities.

Regional Context

Inside of the BCSWA region, two of the twelve certified Solid Waste Facilities are located in census tracts that have a poverty rate above the State of Vermont. The U.S. Census Bureau's 2019-2023 ACS shows a statewide average of 9% poverty, and the Bennington Transfer Station is located in a tract with a 26% poverty rate and the East Dorset/Northshire Transfer Station is located in a tract with a 12% poverty rate.

Future siting of facilities and other actions taken by BCSWA will prioritize Environmental Justice guided by Act 154 of 2022, which ensures state agencies and Solid Waste Management Entities Like BCSWA embed Environmental Justice principles into policies, and the 2024 MMP which prioritizes Environmental Justice by directing investments for waste management improvements into areas traditionally burdened by cumulative environmental burdens.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

A ribbon cutting ceremony at Bromley Mountain Ski Resort celebrates the completion of fiber-optic internet deployment in Bennington County through a partnership between the Southern Vermont Communications Union District and Fidium Fiber. Photo Credit: BCRC

Information and Telecommunication Services

The Bennington region is served by a modern and rapidly developing information infrastructure. Access to broadband internet connectivity and consistent wireless communication services, for voice and data are important to residents, schools, colleges, institutions, local businesses, and visitors to the region. Vermont has committed to ensuring that all parts of the state have access to high-speed broadband with a goal of universal coverage at fiber optic speeds of 100 megabits per second (mbps) download and upload. Information on broadband service and maps showing current service status and planned upgrades can be found at the Vermont Community Broadband Board website.

An important broadband project in the region was the creation of the Southern Vermont Communications Union District (SoVT CUD). A CUD is an organization of two or more municipalities that come together to form a municipal entity to build telecommunication infrastructure in their territory. The SoVT CUD was formed in 2020 and is made up of fourteen member towns. BCRC has provided administrative and operational support to SoVT CUD since its inception. SoVT CUD formed a partnership with Consolidated Communications Inc. to expand broadband coverage in Southern Vermont and received a $9 million grant from the Vermont Community

Catamount Access Television (CAT TV) helps residents stay informed by broadcasting public meetings and events in the Southshire.
Photo Credit: BCRC

Broadband Board for this expansion. The broadband expansion effort was completed in late 2023, providing high-speed fiber internet to more than 33,000 residents of Southern Vermont. More information about SoVT CUD's work can be found at SoVT CUD - Bringing high-speed internet to Southern Vermont.

Cellular telephone service providers have been steadily expanding their coverage area within the region with the installation of new towers and antennas at strategic locations. The widespread availability and use of tablet computers and smart phones has led to an even greater demand for these wireless facilities. The infrastructure required for wireless communication services include towers, antennas, equipment buildings, access roads, and electrical service. The Bennington region is a challenging area for the development of wireless communication infrastructure. The narrowness of the inhabited valleys and highly visible slopes and ridges of the surrounding mountains require careful siting to ensure that adequate coverage is efficiently provided while not having undue adverse impacts on natural or scenic resources. Those concerns can be minimized by careful planning that includes siting antennas on existing buildings or structures (including, and preferentially, existing utility poles), co-location of antennas on towers to limit the number of towers, and careful site design to avoid sensitive areas and avoid disruption of viewsheds identified as particularly important to local communities. That noted, public feedback as part of this plan has indicated strong demand for improved cellular telephone service, indicating the region and its member municipalities may have placed an excessive burden on deployment of cellular antennas in the past, and should be more permissive in the future, particularly as it relates to antenna attached to existing infrastructure including utility poles and buildings. The decommissioning of the region's copper telephone network has placed added emphasis on improved cellular access due to substantial public safety concerns related to fire and EMS as well as during emergency events such as winter storms and floods which impact the region's fiber network.

The Vermont Public Utility Commission has regulatory jurisdiction over the siting of telecommunication facilities, weighing the public good of a proposal together with its environmental and social impacts. Municipal and regional plans are given consideration by

the Public Utility Commission, so it is important that those plans include clear policy guidelines regarding sensitive areas, tower height, co-location requirements, and other factors. In some cases, it may be preferable to develop one tall (140 feet or more) tower that provides coverage over a relatively wide area in a location where identified local and regional impacts can be avoided. In other cases, two or more smaller and lower towers (90 feet in height and possibly using a "monopole" design) might be needed to provide the same coverage while avoiding impacts to natural and scenic resources or residential neighborhoods.

Of course, print media, broadcast, cable, and satellite television, and local radio stations remain critical components of the region's information infrastructure. Most of those services also now make use of digital outlets to deliver their content to the public. One daily newspaper, the Bennington Banner, is published in the region. The Rutland Herald also provides news coverage of Bennington region communities and is widely read in the area. The Manchester Journal is a weekly newspaper that provides coverage throughout the Northshire. The Vermont News Guide includes community announcements, letters, and classified advertisements.

Local broadcast television stations with signals that reach all or part of the region include network stations from the Albany, New York and Burlington, Vermont areas. Because of the distance from those cities and the mountainous topography in the Bennington region, most people rely on cable and satellite television. Cable and satellite television companies also provide access to a wide variety of programming and often pair their services with internet and telephone communication as well. Local public access television stations—GNAT-TV in the Northshire and CAT-TV in the Southshire—are extremely important to local communities, providing an outlet for locally produced shows and regular coverage of municipal government, school district, and other public meetings.

Local radio stations likewise include statewide and regional broadcasters. Vermont Public transmits FM high-definition news and entertainment coverage from transmitters in Bennington, Manchester, Rupert, and Sunderland. WBTN is an important local AM station serving the Bennington market, while WEQX is an FM station broadcasting from Manchester.

Environmental Benefits + Burdens

Internet access is practically essential for participation in most aspects of daily life. People use the internet for remote schooling and work, shopping, to access healthcare through telehealth appointments, and to stay connected to friends and family from a distance. The internet can be an especially powerful tool for Vermonters with limited English proficiency who can use it to access English language learning resources and communicate with others via translation services, and for rural Vermonters who can use it to connect to many essential services.

Regional Context

Although high-speed internet is readily available throughout the region, many people are unable to access it due to cost, lack of digital devices, or lack of digital literacy (i.e. the knowledge and skills needed to safely access the internet). Vermont's Digital Equity

Plan establishes goals and strategies to help bridge this digital divide and identifies digital equity barriers faced by several populations including older individuals, incarcerated individuals, individuals with disabilities, individuals with a language barrier, rural residents, and individuals who are racial or ethnic minorities. Libraries play an essential role in bridging the digital divide as many of them offer free access to the internet and digital devices.

Mitigation of Environmental Burdens

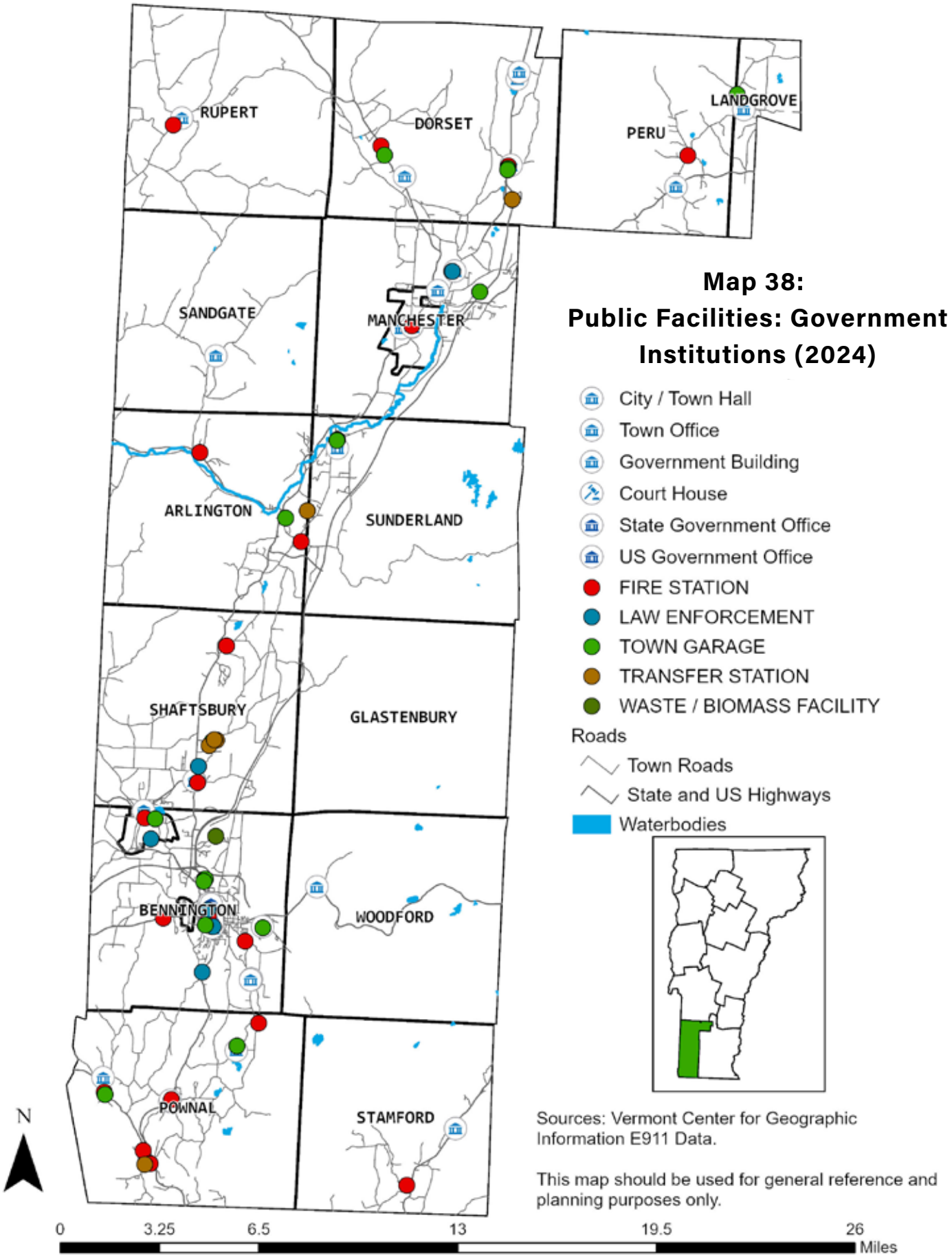
See actions and policies in the implementation matrix marked with

Public Safety and Emergency Services

Policing, fire protection, and emergency rescue services are important for all the towns and villages in the region. Bennington and Manchester maintain the only paid municipal police departments in the region.

All municipalities are served by local volunteer fire departments. These departments vary greatly in the degree of independence with which they operate from their host municipality. All departments receive some public funding. Towns or nonprofit fire companies may or may not own and operate firehouses, provide for operating and/or capital purchases, provide department administration, and other aspects of departmental operations. Fire department service area boundaries greatly differ from municipal boundaries, with some serving all or part of multiple towns, and others serving only a portion of their town. Some small areas receive fire service from agencies outside of the region. Regionally, fire service is governed by a mutual aid agreement to provide for scale and backup coverage in fighting large fires. Fire departments in the region regularly provide and receive mutual aid support from departments in adjacent areas outside of Vermont. Interstate mutual aid has complications, including differing insurance standards, which Vermont's legislature has long struggled to address.

In addition to emergency response services provided by the local fire departments, private nonprofit rescue squads providing emergency medical care and related transportation services are located in Pownal, Bennington, Arlington, and Manchester. A rescue squad in Londonderry provides emergency



Map 38: Public Facilities: Government Institutions (2024)

- City / Town Hall
- Town Office
- Government Building
- Court House
- State Government Office
- US Government Office
- FIRE STATION
- LAW ENFORCEMENT
- TOWN GARAGE
- TRANSFER STATION
- WASTE / BIOMASS FACILITY

Roads

- Town Roads
- State and US Highways

Waterbodies

Sources: Vermont Center for Geographic Information E911 Data.

This map should be used for general reference and planning purposes only.

The Pownal Valley Fire Department works cooperatively with the Pownal Fire Department to provides fire protection services for the Town of Pownal. Photo Credit: BCRC

medical services in Peru and Landgrove, and the Salem and Granville, NY rescue squads provide coverage into Rupert.

Some of the rural towns in the region rely on contracts with the Bennington County Sheriff and support from the Vermont State Police to provide police protection. Those arrangements are examples of regional provision of public safety services, something that also is seen in the case of most of the rescue squads that cover multi-town areas. The towns of Manchester and Dorset recently initiated a study to assess how to most cost-effectively provide high quality police, fire, and emergency medical services to residents of both towns. The study investigated various models of intermunicipal cooperation that could cover police, fire, and emergency services in any combination and under different jurisdictional models but no comprehensive reform has been undertaken. Towns and villages should ensure that all of these service providers are adequately funded and should consider alternative and cooperative approaches to maintain efficient service delivery.

Much of the region's emergency management infrastructure is described in the climate resilience chapter of this plan. The BCRC works with the Regional Emergency Management Committee to coordinate emergency response planning and actions across the region. Equally important is the network of local emergency management directors in each community, the local emergency management plans (LEMPs, previously known as local

The Sandgate Town Offices.
Photo Credit: BCRC

emergency operations plans) that provide critical information needed for emergency responders and local officials, and the hazard mitigation plans that each municipality should develop and maintain to set out the actions needed to minimize impacts and aid recovery from any disaster.

Town Halls and Town Garages

Town halls, and garages are the most ubiquitous public buildings in the region. As the location for important public functions and meetings, town halls serve an essential role in the life of towns and villages. Many of these buildings are in historic village centers and downtowns (see Map 38: Public Facilities: Government Institutions (2024)), and many are important historic buildings in their own right. It is particularly important to ensure that these buildings remain in historic centers to support distinct and cohesive communities.

With the construction of a new town hall in Sunderland in 2014, all of the municipalities in the region, with the exception of Old Bennington and the unorganized town of Glastenbury, have public buildings to house

local government operations. Rupert recently acquired the former West Rupert School, renovated it, and the town's municipal offices now are located in that building. Landgrove and Peru both recently completed major renovations to their town halls. In 2022, Pownal moved into its newly constructed town office building.

Most municipalities also operate facilities for highway maintenance. These range from large maintenance facilities to small salt sheds, with scale generally related to the size of the road network being maintained due to the increase in storage and workspace needs associated with greater road mileage. In the region, the typical municipality maintains a garage building with 2–5 bays to provide indoor space to work on municipally owned trucks and machines. In order to comply with water quality rules and avoid waste, municipalities provide for covered road salt storage. Almost all maintain open areas to store winter sand, and they usually have areas for stockpiling gravel, lengths of culvert, and other construction materials, as well as parking equipment. Outside of Bennington, most towns own and have need to park 1–5 dump trucks, 1–3 smaller trucks, a road grader, a loader or backhoe, and 1–3 excavators. Garages vary greatly in age and quality, with many towns maintaining garages at or near the end of their useful lives. Landgrove, which contracts for all highway maintenance, recently made a substantial effort to move its salt and sand stockpile to a permanent location outside of the floodplain. After great effort, Shaftsbury completed construction project to provide for the region's newest town garage in 2018.

Many municipalities also operate other buildings, most commonly firehouses. As discussions of the state's education system move forward, some municipalities may also find themselves in the position of owning school properties. As with all buildings, towns must carefully assess structures and plan for capital improvements in order to keep them in a state of good repair.

State Buildings

In addition to the many other municipally owned buildings in the region (see Map – Public Facilities - Govt), there are two historic county courthouses, one in the Northshire and one in the Southshire. However, jurisdiction of the Manchester courthouse reverted back to the Town of Manchester after county judicial operations ceased there. Other judicial functions and local offices for many state agencies are found in the state office building located on Route 7 north of downtown Bennington. Developing safe and convenient access to the building for pedestrians and bicycles should be a priority transportation improvement project due to the many residents who need to access services in this building on a regular basis. Another state building in the region is the Bennington Welcome Center, located at the US 7–VT 279 highway interchange, where visitors can obtain information about the region and its many attractions while enjoying a spectacular view of the surrounding landscape and the Bennington Battle Monument.

The Bennington District Court hears criminal and family court cases. The parking lot and its environs also serve as gathering places for farmers markets, and special events. Photo Credit: BCRC

How Can BCRC Help?

The BCRC contracts annually with the Bennington County Solid Waste Alliance (BCSWA) to manage its solid waste reduction, recycling, and disposal program. As such, the commission provides a dedicated staffer and information, resources, and technical assistance to help residents, businesses, and other organizations in the region manage their solid waste according to state and federal law. The dedicated BCRC staffer also spearheads the development and updating of the Solid Waste Implementation Plan for the thirteen-town BCSWA every five years as required by Vermont's materials management rules. BCRC can provide technical assistance on CHIP and other programs related to facilities and utilities.

Utilities, Facilities, and Infrastructure Services Goals and Actions

Goals

- Support public investments in utilities, facilities, and services that reinforce historical development patterns and further encourage development in downtowns, village centers, and other areas planned for growth
- Improve systems that reduce solid waste, including improved waste diversion, and recycling.
- Support improvements that expand telecommunications and cellular connectivity in areas where lack of coverage creates health and safety concerns and deters outdoor recreation
- Foster coordination of emergency services via the Regional Emergency Management Committee meetings and mutual aid agreements.

Actions and Policies

The BCRC...

Supports efforts to maintain public water supply and wastewater disposal systems to serve areas of concentrated development or to correct serious health hazards.

- Should work with local governments to assess water and sewer infrastructure needs required to support planned development in these areas.
- Supports municipal efforts to require large new developments be responsible for paying a fair share for the provision of that new or expanded infrastructure or service delivery systems.
- Supports municipalities reliably and accurately planning for future capital needs necessary to keep public buildings and facilities in a state of good repair without pushing maintenance burdens into the future.
- Works with municipalities to develop a comprehensive solid waste plan that will implement the goals of the Vermont Materials Management Plan in a manner that is deemed most appropriate for local communities. Long-term facilities and management structures that promote responsible and cost-effective resource use must be identified and implemented.
- Supports the establishment of environmentally and economically sound renewable energy generation facilities and implementation of smart grid technology.

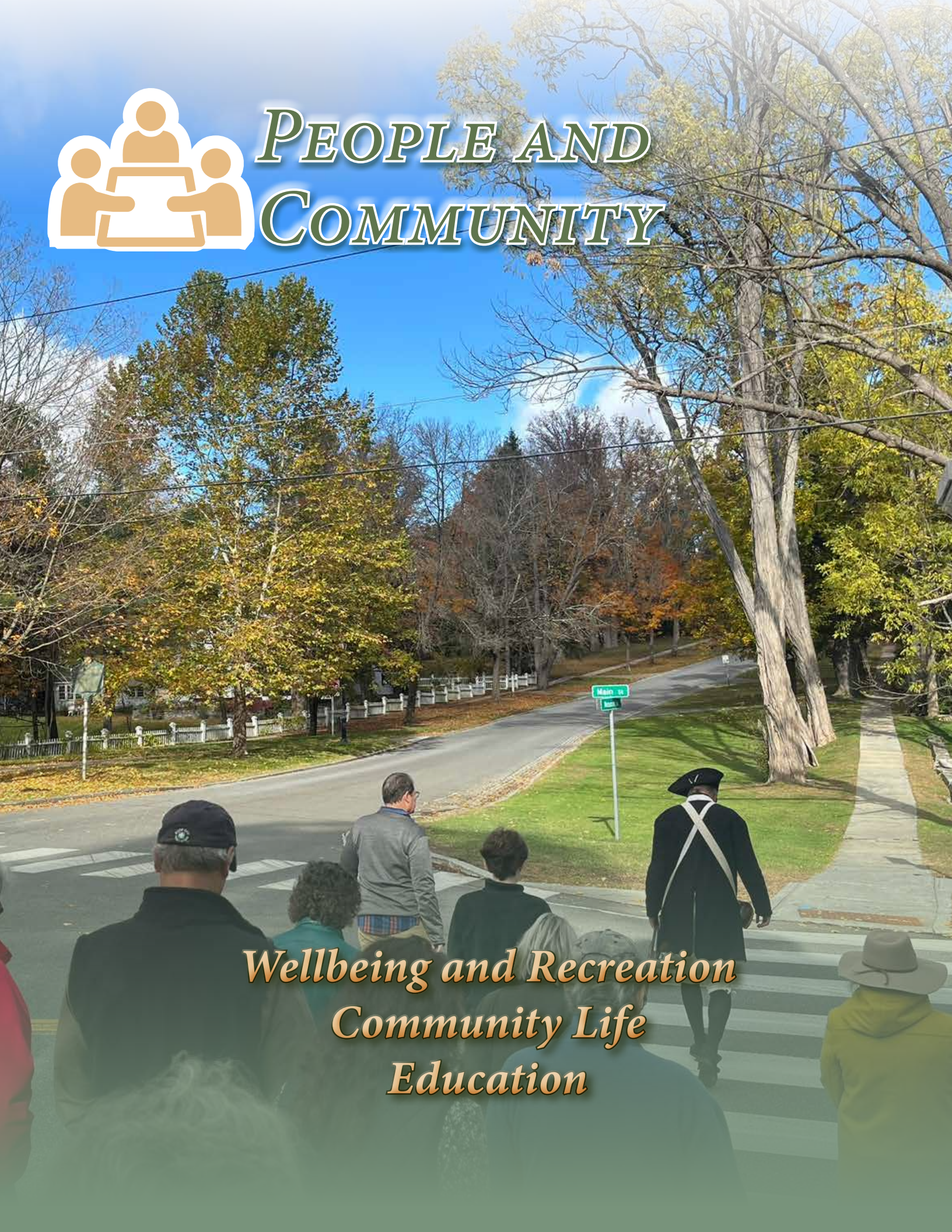
Continues to support the SoVT CUD in its mission of making high-speed internet available to all Southern Vermont residents.

- Should facilitate local and state cooperative efforts to aggressively expand cellular voice and data communication services to all parts of the region. Siting of new telecommunication towers should give primary consideration to concerns identified in municipal and regional plans. As a first priority, antennas should be located in, or attached to, existing structures, including existing utility poles in developed areas, particularly where they limit new aesthetic impact. “Stealth” tower designs may be used when they blend naturally into the surrounding landscape. New towers should be no taller than necessary to provide coverage, and developers should consider whether multiple small tow-

ers or antenna locations would be preferable to a large tower.

- Supports deployment of improved cellular and data communications services, including in areas where impact on historic and scenic resources are non-trivial and where service primarily covers undeveloped areas due to concerns related to public safety, emergency management, and the need for wilderness rescue. This specifically includes support for antenna on public safety structures including those located in historic village centers.
- Supports the location of important public buildings including new or expanded municipal, state, or federal buildings in downtowns or village centers.
- Should continue to assist with the preparation of local emergency management plans and hazard mitigation plans, play an active role on the Regional Emergency Management Committee, and serve as a liaison between municipalities and state agencies by providing information and damage reports during emergencies.
- Supports municipal consideration of how to efficiently provide for public safety services (including emergency management), including mutual aid agreements, cooperation between municipalities, and regionalization of service coverage areas.
- Encourages municipal efforts to support citizen participation in Green Up Day including collection and removal of collected trash and staff support to promote the event. Wellbeing and Recreation

People and Community



Wellbeing and Recreation
Community Life
Education

Wellbeing and Recreation

Measures of community health and wellbeing extend beyond medical appointments; it is now common and best practice to think holistically about health needs, including housing, access to the outdoors, stable employment, and mental health and substance use disorders.

Healthcare Facilities and Services

Healthcare facilities—including general service clinics and the regional hospital—are located throughout the region, as shown in Map 39: Public Facilities: Health Institutions (2024). The regional hospital, Southwestern Vermont Medical Center (SVMC), is located just southwest of Bennington's downtown. It is surrounded by a cluster of medical and dental office buildings offering a wide range of services for residents of Bennington and surrounding communities. SVMC maintains a campus in Manchester (SVMC – Northshire) that provides primary care services to the Northshire. SVMC opened a medical office in Pownal in 2015 to serve residents of that town and nearby communities in Berkshire County, meeting a need that was exacerbated by the closing of the hospital in North Adams in 2014.

The Manchester Medical Center opened in 2019 to provide urgent and primary medical care in the Northshire. The Battenkill Valley Health Center, located in Arlington, provides access to primary care for over 4,000 residents of Arlington, Sunderland, and Sandgate and beyond, finding a unique niche as a Federally Qualified Health Center, which disproportionately serves low-income

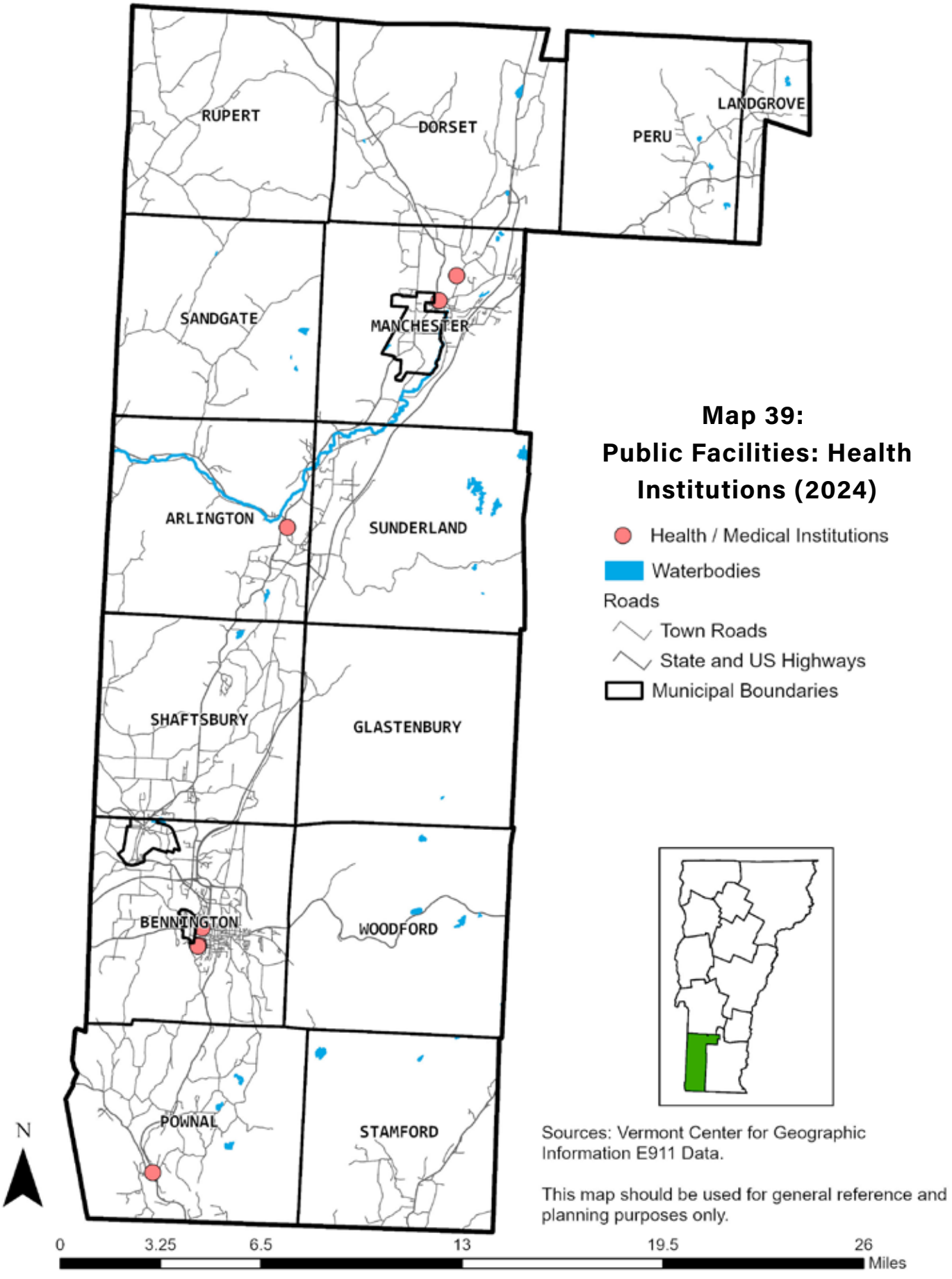
What did we learn from the community?

Substance use, access to healthcare, and access to public services identified as some of the greatest challenges of the region

Strong community values for access to recreational assets like hiking trails and bike paths

Access to outdoor recreation identified as a strength of the region

Family- and youth-friendly activities and amenities identified as challenges, while existing facilities (like the new Bennington Skate Park and rec parks) were valued



Map 39: Public Facilities: Health Institutions (2024)

- Health / Medical Institutions
- Waterbodies

Roads

- Town Roads
- State and US Highways

Municipal Boundaries

Sources: Vermont Center for Geographic Information E911 Data.

This map should be used for general reference and planning purposes only.

A dental office located in a residential neighborhood in Bennington.
Photo Credit: BCRC

patients. Community-based mental health and social services are provided by the federally qualified United Counseling Service (UCS), which employs over 270 people across multiple offices in Bennington and an office in Manchester serving the Northshire. Many private practice physicians (of which there have been a shrinking number in recent years), dentists, and other professionals practice in the region, with concentrations in the Bennington and Manchester regional centers.

The area also benefits from volunteer-led care, through initiatives such as the Community Paramedic Program (piloted by the Bennington Rescue Squad), the Southwestern Vermont Medical Reserve Corps (MRC), the Bennington Free Clinic, and the Remote Area Medical (RAM) Clinic. These services address general medical needs, as well as specific issues like substance use disorder, throughout the region and especially in the very rural areas.

Environmental Benefits + Burdens

Access to healthcare exists when people can obtain medical services when they need them, in a timely way that supports positive health outcomes, without barriers related to affordability or availability. Limited access to healthcare occurs when residents cannot consistently obtain the medical services they need. Barriers may include long distances to healthcare facilities or limited availability of providers, or lack of health coverage.

Regional Context

Most of the region's healthcare facilities and services are located in the larger, more urban municipalities. Residents of the region's rural communities often have to travel long distances, sometimes even out of state, to access healthcare. This can be especially difficult for people without a vehicle or an inability to drive. The Green Mountain Express can provide transportation to medical appointments for individuals covered by Medicaid or Dr. Dynasaur, which alleviates access issues for some people. Even within more urban municipalities, healthcare can still be physically inaccessible to people without vehicles if it is not close to public transit or biking/pedestrian infrastructure. The expansion of high-speed internet and telehealth services can make healthcare more accessible to people in remote areas, and with mobility challenges.

Access to healthcare can also be complicated by a lack of providers or lack of health coverage. According to ACS 5-Year Estimates, 5.4% of Bennington County residents do not have health insurance which is slightly higher than the state number of 4.2%. Sandgate, Shaftsbury, and Bennington have the highest

Rupert's Town Green connects open space, parking for the D&H Rail Trail, and and proximity to community spaces in one of the town's village centers. Photo Credit: BCRC

percentage of residents without health insurance at 8%, 7.9%, and 7.2% respectively. Uninsured and underinsured people in the Bennington Region can access free medical care at the Bennington Free Clinic which is offered by Greater Bennington Community Services (GBCS). Since August of 2023, GBCS has also hosted an annual Remote Area Medical (RAM) clinic at Mount Anthony Union Middle School in Bennington which offers free medical, dental, and vision care to people in need. Funding for the RAM clinic's first year was provided by a health equity grant administered by the BCRC. The Bennington RAM Clinic was the first branch in New England, and the annual two-day event brings much needed medical, dental, and vision services to an area identified as dental and vision care "deserts."

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

Community Health and Wellbeing

In 2024, the SVMC released their Community Health Needs Assessment (CHNA), a report published every three years that highlights the most pressing health needs of the region and develops a plan to address them. SVMC's 2024 CHNA identifies five priority health needs: mental health, substance use disorder, challenges thriving, cost of care, and access to care. They also note that similar needs were top priorities over nearly a decade of past CHNAs, indicating longstanding challenges.

According to the Vermont Department of Health's Healthy Vermonters 2030 Data Dashboard, Bennington County has elevated indicators of concern for mental health and substance use. The share of high school students who feel like they matter to people in their community is lower than the state as a whole, although the share of high school students who have an adult at school that they can talk to about serious problems is

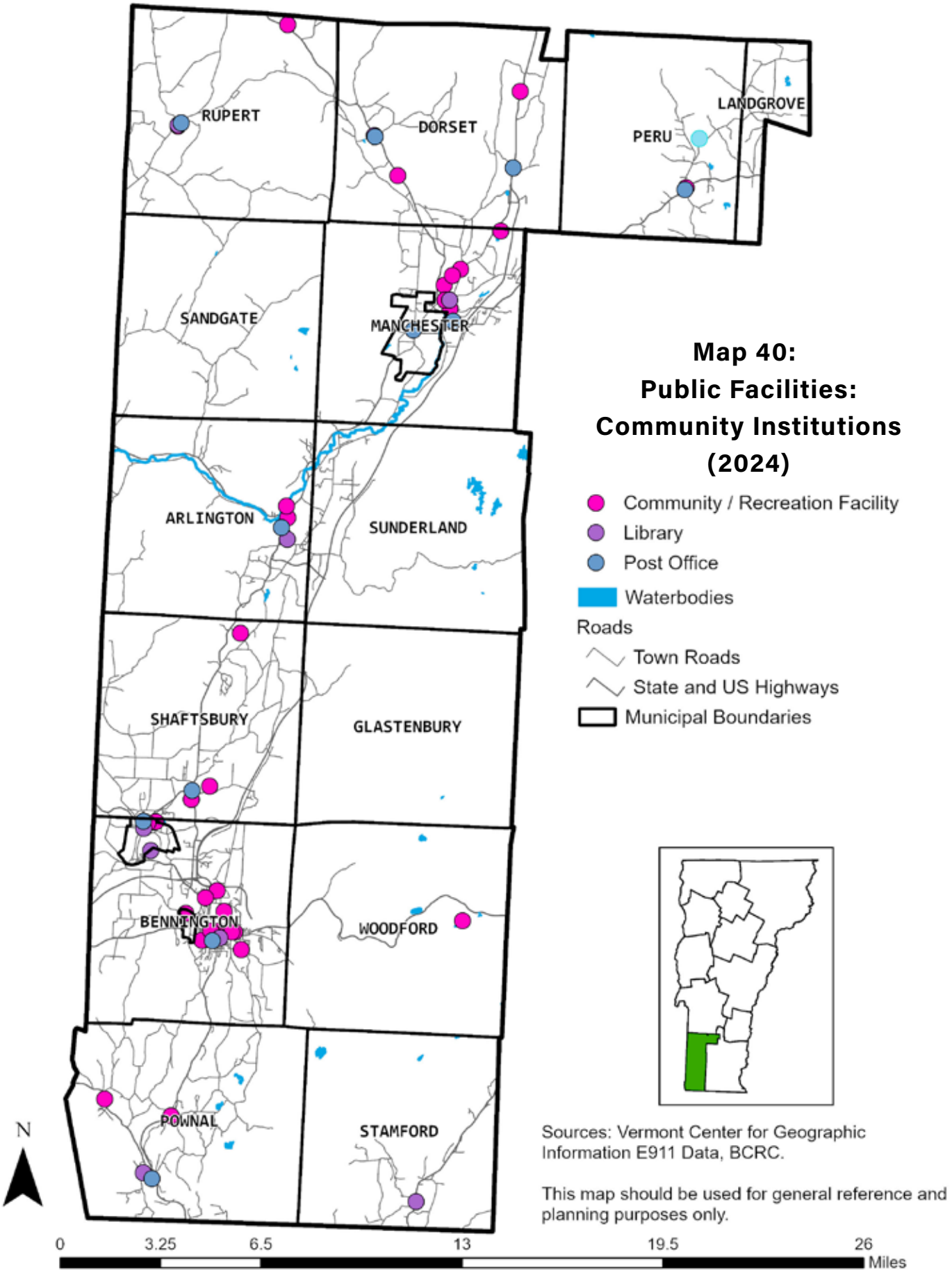
on par with the state as a whole. The rate of deaths by suicide are similar in Bennington County as they are in Vermont, however the percent of high school students who made a suicide plan is higher in Bennington County than the rest of the state.

Adult binge drinking and tobacco use in Bennington County is similar to that of the rest of the state, but middle school and high school tobacco use are both elevated in the region compared to Vermont as a whole. The rate of opioid deaths is also higher in Bennington County than it is in Vermont overall.

Widespread challenges with mental health and substance use are priority health concerns in their own right; additionally, SVMC's CHNA identifies mental health and substance use issues as drivers of other priority health needs, along with access to care and economic constraints. The report also notes the interrelatedness of these drivers and health needs, as lack of access to care exacerbates mental health concerns and can drive self-medication with recreational drug and alcohol use, for example.

While regional and municipal planning alone cannot solve these challenges, planning has an important role to play in addressing health and wellbeing inequities in our communities. In 2023, a coalition of Vermont's regional planning commissions and the Department of Health released the Health Equity Planning Toolkit to highlight the connections between place and wellbeing and recommend strategies for improving planning and regulatory documents to foster healthier communities. The toolkit includes an appendix with sample language for municipal plans and bylaws, which provides specific action items and regulations for municipalities to consider and implement in future updates. Municipal bylaw language should also be updated to reflect the state's initiatives to improve health equity; for example, statute says that residential care homes, group homes, and recovery residences serving up to eight people "shall be considered by right to constitute a permitted single-family residential use of a property" (24 VSA 4412). Easing the permitting processes for care homes, including not requiring site plan review, is an important step for improving access to services throughout the community.

BCRC and municipalities can also advance health equity through programmatic implementation. BCRC regularly collaborates with with SVMC, the Alliance for Community Transformations, and the Vermont Department of Health on several healthy community design and tobacco/substance abuse prevention initiatives. BCRC's support of projects like the redevelopment of Benn High, which included a community-wide health impact assessment by the Vermont Department of Health, also advances community wellbeing by co-locating housing with important community amenities that foster recreation and social connection in the heart of Bennington's downtown. Support for hubs of care—like the substance abuse treatment facility in downtown Bennington—also make impacts throughout the region.


RUPERT
DORSET
PERU
LANDGROVE
SANDGATE
MANCHESTER
ARLINGTON
SUNDERLAND
SHAFTSBURY
GLASTENBURY
BENNINGTON
WOODFORD
POWNAL
STAMFORD
Map 40:
Public Facilities:
Community Institutions
(2024)
Community / Recreation Facility
Library
Post Office
Waterbodies
Roads
Town Roads
State and US Highways
Municipal Boundaries
N
Sources: Vermont Center for Geographic Information E911 Data, BCRC.
This map should be used for general reference and planning purposes only.
0
3.25
6.5
13
19.5
26
Miles

Parks and Recreational Facilities

The Bennington region's many recreational facilities are important for the contributions they make to the quality of life for area residents and for their economic impacts as draws for tourism. Municipalities, the State of Vermont, the United States Forest Service, non-profit organizations, and private parties all operate recreational facilities in the region (Map 40: Public Facilities: Community Institutions (2024)). In addition, the playgrounds, playing fields, and gymnasiums at public schools are used by students and the general public. Continued public support and mutual cooperation will ensure that the quality and variety of recreational experiences available in the region will remain one of its most distinguishing characteristics.

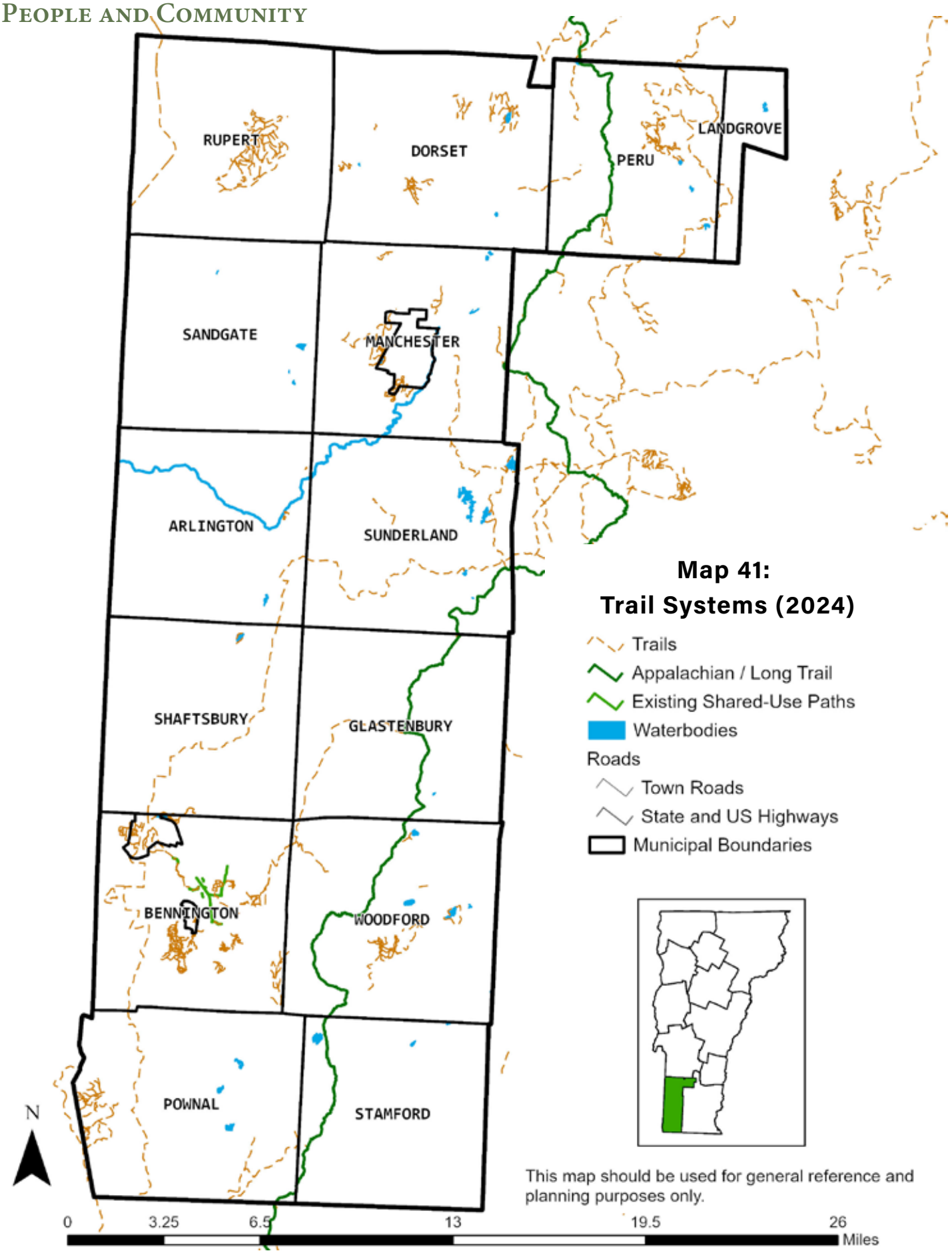
The public parks and facilities operated by the Vermont Department of Forests, Parks, and Recreation and those maintained by the United States Forest Service are among the most popular and visible recreational amenities in the region. The state parks and Forest Service camping and recreation areas offer a variety of activities and are well distributed throughout the region. And as discussed in Scenic and Recreational Resources, public lands and trails ensure that the natural resources of the region are available for public recreational use.

Municipal recreation parks are extremely important to local communities. Willow Park, Stark Street Park, the skate park, and the Municipal Recreation Center in Bennington, Howard Park in Shaftsbury, the Dana Thompson Recreation Center in Manchester, the Arlington Recreation Park, and the Rupert Town Green are examples of these valuable community facilities. Municipal parks provide places for children to engage in informal healthy play, while also hosting summer day camps, picnics, and community festivals. Many also have facilities that are needed for various team and individual sports.

During Vermont's long, cold winters, indoor recreational facilities are important spaces for people of all ages to exercise and socialize. In the Southshire, the Bennington Recreation Center has an indoor pool and fitness center and offers a variety of fitness classes for all ages and abilities. In the Northshire, the Arlington Common is community hub for fitness classes, events and workshops, and cultural activities.

In 2009, Bennington adopted a Park and Open Space Plan, which included an assessment of recreational resources in the town. Other towns can use a similar process to inventory their recreation assets and identify needed improvements. Bennington determined that development of a pathway network and additional indoor recreational facilities are priorities for the community. In response to that planning process, several projects currently are underway to develop connected pathways. An addition to the Municipal Recreation Center, the Spring Center was completed in 2021 in partnership with United Counseling Services to provide childcare classrooms, a kitchen, a community multipurpose room, and a new playground.

Manchester's Dana Thompson Memorial Park has several amenities that make it a regional destination. With four state-of-the-art playing fields, it regularly hosts regional tournaments for soccer and lacrosse. Its skate park draws local boarders as well as boarders from all over the country. Baseball and softball are accommodated on three



Map 41:
Trail Systems (2024)

- Trails
- Appalachian / Long Trail
- Existing Shared-Use Paths
- Waterbodies

Roads

- Town Roads
- State and US Highways

- Municipal Boundaries

This map should be used for general reference and planning purposes only.

The Bennington Recreation Center has a fitness center, indoor pool, tennis courts, and a playground. Photo Credit: BCRC

ball diamonds. Tennis, basketball, and sand volleyball courts are also available. A one-mile perimeter path is used daily for walkers, runners, and bikers and is connected to paths leading south into the downtown and north to North Road. The path north connects to Hunter Park, which has more playing fields and an ice rink.

Pownal has recently invested in two public recreational amenities—the skate park and gathering area next to the town offices in Pownal Center Village and the Pownal Town Forest. A 2024–25 planning study focused on the small green next to the town offices and recommended further improvements to the community amenities and walking and cycling infrastructure in Pownal Center Village. And the town's purchase of the property formerly owned by the Pownal Tannery has become the catalyst for the development of a town forest in the southwestern part of town. In early 2026, Pownal's Parks and Recreation Committee shared an integrated forest management plan for the site, which it developed in partnership with the Bennington County Forester.

Development of additional small parks in locations convenient to concentrations of residential development in municipalities throughout the region would encourage additional physical activity and create significant amenities for residents. New residential developments located in areas relatively distant from park and recreation facilities should consider the need for recreational amenities. All developments should include internal sidewalks and pathways as well as safe and convenient access for pedestrians and bicyclists to nearby recreation areas, schools, and shopping and employment centers.

Environmental Benefits + Burdens

Community spaces designed for recreational use, such as parks, playgrounds, and trails enable people to be physically active and build social connections. When recreational spaces are unusable, unavailable, or difficult to reach, communities miss out on benefits to physical and emotional health.

Regional Context

Some residents lack easy access to public parks and playgrounds, and other recreational facilities, especially those who live in rural areas and have limited transportation options. Larger communities, such as Bennington and Manchester, have several public parks, playgrounds, and open spaces that are available for residents to enjoy, but other communities may only have limited recreational facilities at the local school, or none at all. Small, rural communities also lack sidewalks and bike lanes, leaving residents with few safe options for walking and biking, especially those who do not have a car or are unable to drive.

A snowshoer on the Equinox Preserve trails in Manchester. Photo Credit: BCRC

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

All of the actions taken by the BCRC and member communities consider effects on public health and wellbeing. The BCRC works with Southwestern Vermont Medical Center, the Vermont Department of Health, and other health care organizations and interest groups to advocate for healthy and inclusive community design principles in transportation and land use projects. The BCRC regularly applies for funding from the Vermont Department of Health to implement projects and programs designed to reduce unhealthy behaviors and to create communities that encourage safe and healthy lifestyles. The BCRC also regularly consults the Health Equity Planning Toolkit and brings knowledge of those resources to each municipality when reviewing and updating local planning and regulatory documents.

The BCRC also shares resources about and provides technical assistance with grant applications for recreational amenities and offers GIS support for internal and public-facing mapping resources for recreational projects.

Wellbeing and Recreation Goals and Actions

Goals

- Support improved access to primary and specialized healthcare for all residents
- Embrace a holistic approach to measuring and improving overall community health and wellbeing
- Encourage and support provision of recreational facilities for all ages and abilities

Actions and Policies

The BCRC...

- Promote health equity and healthy community design in municipal plans and land use regulations
- Support municipal regulations that avoid undue burdens on facilities that serve people with substance use disorders, people with disabilities, and other populations that require special consideration
- Opposes regulations that prevent or place undue burden on the siting of medical facilities in downtowns, village centers, and other areas planned for growth
- Supports municipalities working to identify recreational needs and opportunities, develop new facilities as appropriate, and minimize barriers to access to those facilities.
- Encourages municipalities to identify vacant lots, fields, and properties that could be used for community gardens, farmers markets, or recreational activities for local residents.
- Should maintain inventories of all public parks and recreation facilities in the region and identify any barriers to access to those facilities.
- Encourages local communities to prioritize Complete Streets improvements to roads, sidewalks, and parking areas that will make it easier for residents, including children, to exercise on a regular basis.
- Maintains an understanding of the distribution of recreational facilities serving different ages and abilities across the region and supports municipal efforts to accurately plan for the capital needs of maintaining these facilities in a state of good repair and adapting them for changing regional needs over time
- Supports state efforts to expand telehealth opportunities, expand nurse and dental practitioner access, and provide for licensing reciprocity and training rule harmonization with Massachusetts and New York

Community Life

The field of planning is technical and jargon-heavy, which can often make it confusing to the average person, and sometimes these technicalities can obscure the core purposes of planning. At the heart of BCRC's regional planning work are people and communities. We plan to improve the quality of people's lives. Through thoughtful public engagement and planning, we create the communities we want to see for ourselves and future generations.

This chapter is an important addition to the regional plan because it gets at the heart of what we are trying to achieve through planning: thriving communities where people's needs are met and they feel socially connected and personally fulfilled. This chapter describes the social fabric of the Bennington Region and the community institutions, spaces, and events that make the region special.

What did we learn from the community?

Popular community facilities include public libraries and recreational facilities, as well as local theaters and art centers

Sense of community and neighborly support identified as a strength of the region, along with community spaces and events

People desire more events and community spaces for gatherings, and cited intergenerational conflicts and resistance to change as challenges

Civic Institutions

Community institutions and gathering spaces are an essential part of daily life in the region. These "third spaces" are places other than work or home where people can gather and socialize; examples include libraries, religious institutions, cafes, parks, and community centers.

The region is fortunate to be served by several outstanding public libraries (Map 40: Public Facilities: Community Institutions (2024)). The largest are the Bennington Free Library, the Manchester Community Library, the Dorset Public Library, the Martha Canfield Library in Arlington, the John McCullough Free Library in North Bennington, the Solomon Wright Library in Pownal, and the R.K. Kittay Public Library in Rupert. These buildings offer free and open access to information, computing facilities, and educational, cultural, and recreational resources. Libraries maintain collections of books and periodicals, afford

The steeple of the Bennington Free Library is a beacon, even in the snow.
Photo Credit: BCRC

Historic cemeteries are a crucial part of many communities throughout the region.
Photo Credit: BCRC

access to the internet and online research tools, and host lectures, concerts, and special exhibits. Many of the region's libraries have expanded their collections to include tools, sports equipment, games, and admissions passes that people can check out. The libraries generally include a small professional staff supported by many volunteers, and they rely on a combination of municipal funds, grants, and private donations to operate. Libraries always should be counted as a key asset when evaluating local resources and should be provided with stable sources of public funds. The Martha Canfield Library is of particular note, as it plays a substantial historical preservation role due to the presence of a regional historic document archive known as the Vermontiana Collection.

Many municipalities have successfully repurposed historic properties into community gathering spaces. Notable examples include the Arlington Common, a former church that now offers fitness classes, art exhibits, and special events, and the Sheldon General Store, which was purchased and refurbished by the Rupert Village Trust into a community event space. The Village Trust Initiative was created in 2024 to provide funding and expertise to 20 small towns to help them accomplish revitalization projects that meet community needs. Rupert was selected as one of five towns in the second cohort in 2025.

It is important for community gathering spaces to create safe and welcoming environments for people to connect. Equally essential are affinity groups where people can connect with their peers through a shared identity or interest. These groups can help people form social connections and develop a sense of belonging, which is especially important for people from minority or marginalized populations. These groups can also play a vital role

The Bennington Museum is an important cultural institution that preserves the rich history of the Bennington area, and also offers contemporary exhibits and community events. Photo Credit: BCRC

in the larger community through organizing events, volunteering, and charitable giving. Some examples of regional affinity groups include Shires Young Professionals, which organizes social events and volunteer opportunities for young professionals in their 20s to 40s, local rotary clubs, and local VFW and American Legion posts.

As the region welcomes new people into its communities, new gathering spaces, affinity groups, and events will be created to meet their needs and interests. This has happened most recently with the influx of New Americans in Bennington, which has led to the creation of the Bennington Multicultural Community Center where people can gather to exchange cultural knowledge and ideas.

Youth-focused spaces and activities are important for helping young people form healthy relationships with their peers and make safe choices. Opportunities for youth to participate in local governance and decision-making can foster civic engagement and help youth feel connected to their communities. The Alliance for Community Transformations (ACT) is a regional organization devoted to supporting healthy youth that provides prevention resources, education, and opportunities for youth empowerment. As the regional population continues to age and decline, it is especially important for communities to support their younger populations and engage with them as valued community members.

Axe throwing is one of many activities offered at the annual Celebrate Pownal Day event in July which also features free food and music, children's activities, and local vendors. Photo Credit: BCRC

Arts and Culture, Community Events

The Bennington Region has a vibrant arts community and a variety of cultural events and attractions. Residents and visitors can enjoy high-quality museums, art galleries, and performances at institutions such as the Bennington Museum, Southern Vermont Arts Center, Monument Arts and Cultural Center, the Dorset Players, and the Bennington Theater to name just a few. Many of these places offer classes and workshops, allowing people of all ages to explore various artistic pursuits and tap into their creativity. The region has long been home to many notable

Children share their thoughts about how to make the Bennington Region better at Harvest Fest in downtown Bennington. Photo Credit: BCRC

writers, poets, and artists including Shirley Jackson, Norman Rockwell, Lucy Terry Prince, and Robert Frost. This legacy continues today through the many artists, writers, and artisans who call the Bennington Region home, enriching local communities with their creative talents.

Since 2015, the Data Arts project of Southern Methodist University has published an annual list of the most arts vibrant communities in the U.S. by three size categories. From 2015–2023 Bennington County consistently ranked among the top ten Most Arts-Vibrant Communities in the Small Communities category. In 2025, Bennington was ranked #85 on the list of Top 100 Most Arts-Vibrant Communities. The vitality of the arts and creative sector can be seen in the many murals and public art projects throughout region, festivals and pop-up events that celebrate local makers, and the various arts and culture organizations and businesses. More information about the importance of the creative economy from a statewide perspective can be found in CreateVT Action Plan.

The region hosts many events of all types and sizes throughout the year. Larger events, such as street fairs and festivals, bring thousands of visitors to the region each year. Many of these events take place in downtown and village centers, celebrating local businesses, artisans, and musicians. These events also provide an opportunity for nonprofit groups and government agencies to connect with residents through "tabling." There are also hundreds of smaller community events taking place throughout the region every year from potlucks, knit nights, sports leagues, support groups, volunteer events, and more. All of these events bring people together through shared interests and activities and help form social bonds.

Environmental Benefits + Burdens

Access to cultural resources is the extent to which people can engage with the places and practices that carry cultural meaning for their community. Cultural resources include the landscapes, sites, buildings, materials, traditions, and more, that express a community's history and identity. Limited access to cultural resources occurs when residents cannot easily reach or participate in the places, practices, or institutions that support cultural identity and community connection.

Regional Context

Arts and cultural amenities typically cost money to access which can be a barrier for many people. Free or reduced priced admission passes to a variety of regional arts and cultural attractions can be checked out from local public libraries. Additionally, the Bennington Museum and Southern Vermont Arts Center participate in the Museums for All program which provides free or reduced cost admission for up to four people with the presentation of an EBT card.

The Southern Vermont Arts Center is an important arts and cultural institution in the Northshire with a beautiful campus featuring a variety of sculptures. Photo Credit: BCRC

Cultural resources also encompass places of worship where people can practice their faith in community with others. Religion is an important part of many people's lives that can provide both spiritual fulfillment and social connection. The Bennington Region has a variety of denominational and nondenominational churches distributed throughout the region, and a few synagogues in Bennington and Manchester. People of other faiths often have to travel longer distances to reach places of worship that align with their spiritual beliefs, which can be a disproportionate

burden for those with limited transportation options.

Mitigation of Environmental Burdens

See actions and policies in the implementation matrix marked with

How Can BCRC Help?

BCRC offers technical assistance and support for municipalities working on community and economic development. Whether that support is minimal—such as the mapping of a site for a proposed park—or more substantial—such as coordinating a municipal planning grant application and project—the organization supports locally led initiatives to create spaces and places for gathering and connecting.

To that end, the BCRC also promotes statewide and national initiatives that offer additional technical assistance, such as the Village Trust Initiative, and other grant-funding opportunities. The organization strives to stay apprised of community projects at all stages of development in the region, so as to best support their planning.

The BCRC also works directly with community groups during public engagement opportunities for plan updates. BCRC values the process of identifying groups that represent a variety of backgrounds and interests, and partnering with them to understand their perspectives and bring together many facets of each community.

Community Life Goals and Actions

Goals

- Maintain the Bennington region's reputation as a destination for historical, arts, and other cultural attractions
- Support opportunities for local community members to enjoy and participate in the region's cultural offerings
- Increase the opportunities for people to connect within and across communities

Actions and Policies

The BCRC...

- Provides technical and grant-writing assistance to municipalities working on community and economic development projects.
- Supports continued funding for libraries and other civic assets at levels approved by local taxpayers
- Assists municipalities with incorporating data and discussions of historical, cultural, and civic institutions into municipal plans as requested.
- Participates in local community events to share information about planning projects and engage with residents.
- Promotes the Village Trust Initiative and other technical assistance programs to interested and eligible municipalities

Opposes regulations that prevent or place undue burden on the siting of arts, cultural, and religious facilities in downtowns, village centers, and other areas planned for growth

- Helps provide connections between community organizations and municipalities as needed.
- Supports youth and young professional empowerment initiatives in partnership with community-based organizations and municipal groups

Supports opportunities to integrate public spaces for informal meetings and activities in public and private developments in downtowns, village centers, and other areas planned for growth.

Education

The region's educational system, from pre-kindergarten through college, is critical to the social and economic well-being of the area. A good education provides the basis for a productive future for the region's children while teaching skills that are needed to sustain and grow local businesses and lead healthy lives.

What did we learn from the community?

People value their local schools and libraries, and there were concerns about the future of schools in the region

Educational Context + Schools in the Region

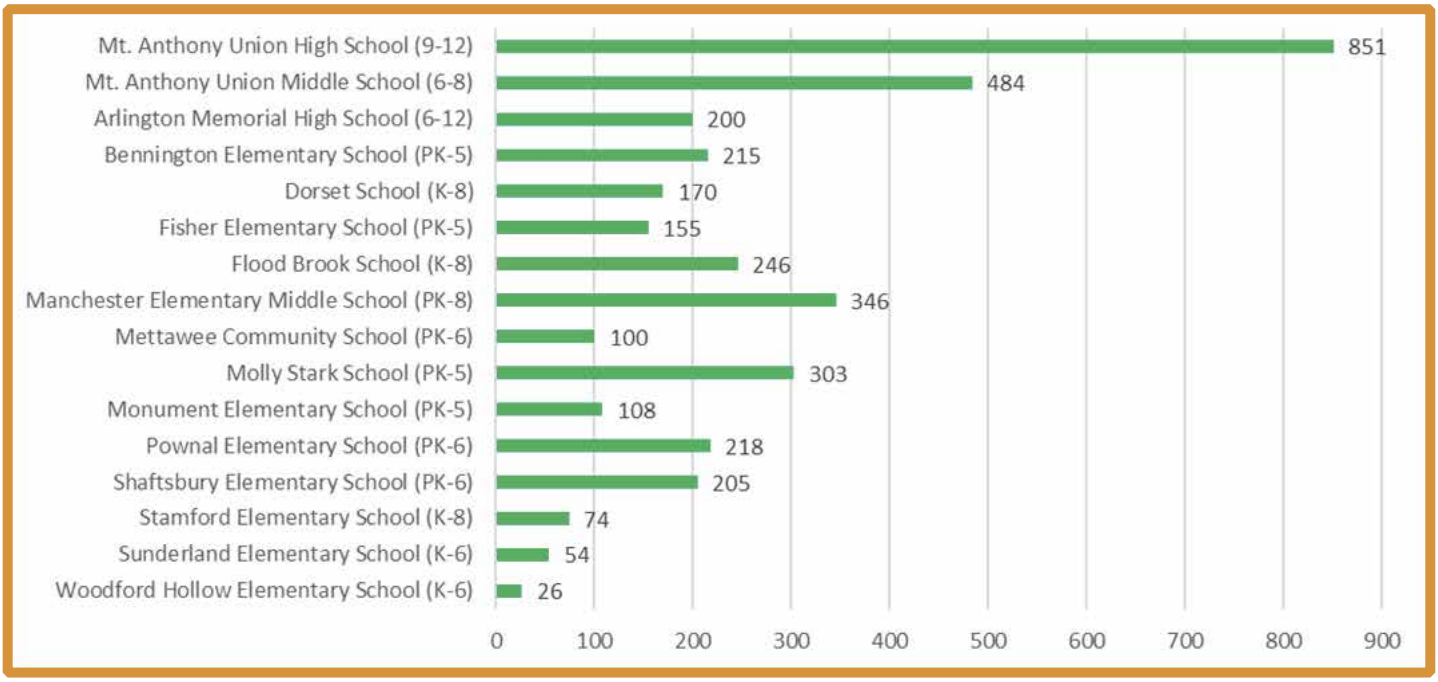
Schools often provide the fabric that ties together local communities. Parents and other residents have a vested interest in their local schools and work to ensure that they are adequately funded and operated to meet the needs of community members. Schools also are a venue for people to come together for scholastic athletic events, cultural presentations, special events, public gatherings, and official public meetings.

The region's colleges present significant opportunities in numerous ways. Not only are they important economic assets in and of themselves, but they also provide training in a range of skills, attract diverse and talented students and faculty, contribute to the cultural landscape of the area, offer tangible benefits to the economy by supporting businesses that are frequented by students, and provide technical support to local agencies through student internships and similar interactions.

More education and training opportunities are being provided through online courses and degree programs, many of which are coordinated through, and supplemented by, local schools and institutions such as Southwest Vermont Technical Center, the Community College of Vermont, and Vermont State University. Organizations such as the Green Mountain Academy for Lifelong Learning in Manchester and the Vermont Arts Exchange in Bennington offer accessible and diversified educational programs to the public for people of all ages. Of course, a good telecommunication network makes course offerings from colleges and universities around the country available to local residents. Developing and maintaining comprehensive broadband to serve schools, colleges, libraries, and the general population is critical to achieving educational and community development objectives for the region.

Several organizations have some responsibility for supporting the advancement of

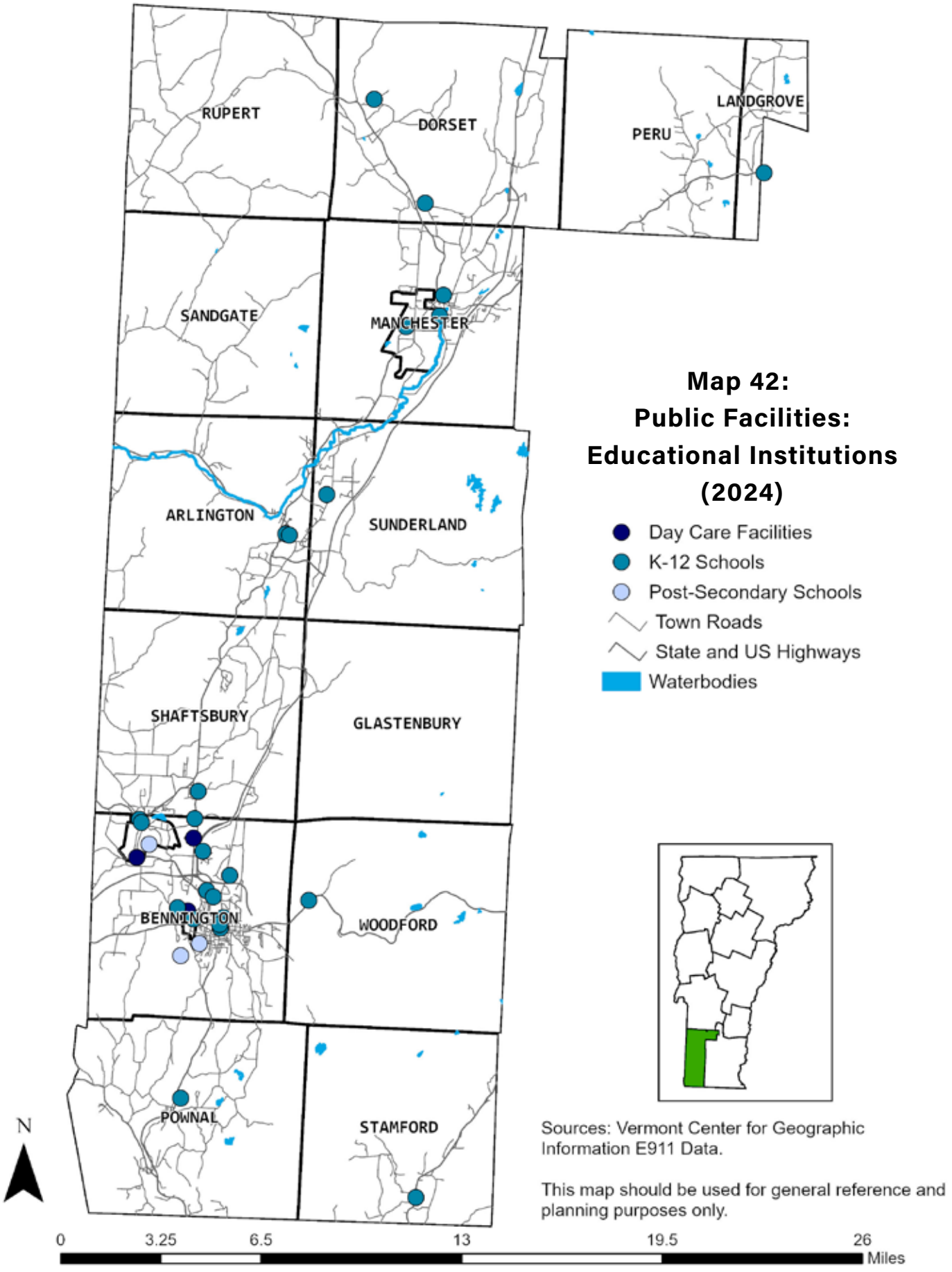
Figure 33: Bennington Regional Public School Enrollment by District



Source: Vermont Agency of Education Fall 2025, Excludes Pre-K population

local and regional educational objectives. Supervisory unions oversee and administer local schools. They provide services such as curriculum development, special education services, and financial and data management. School districts are responsible for one or more schools in one or more towns or, in the case of a district without a school, they are responsible for paying tuition for resident students. Some of this region's supervisory unions and school districts have been reconfigured since the enactment of Act 46 in 2015 which created new school districts and dissolved a supervisory union. The Bennington-Rutland Supervisory Union (BRSU) now includes the Mettawee Community School District, the Taconic and Green Regional School District, and the Winhall School District. The Battenkill Valley Supervisory Union, which once oversaw Arlington School District and Sandgate School District, was dissolved in 2021. Arlington and Sandgate School Districts are now part of the Southwest Vermont Supervisory Union (SVSU) which also includes Mount Anthony

Fisher Elementary School in Arlington
Photo Credit: BCRC



Map 42: Public Facilities: Educational Institutions (2024)

- Day Care Facilities
- K-12 Schools
- Post-Secondary Schools
- Town Roads
- State and US Highways
- Waterbodies

Sources: Vermont Center for Geographic Information E911 Data.

This map should be used for general reference and planning purposes only.

Union School District #14, North Bennington School District, and Southwest Vermont Union Elementary School District. Stamford School District is now a part of Windsor Southwest Supervisory Union. Southwest Technical Center has its own school district, Southwest VT Regional Technical School District. Act 73 enacted in 2025 looks to further consolidate school districts.

The Bennington County School and Workforce Partnership was reorganized to function as the Workforce and Education Committee of the Bennington County Regional Commission. Representatives from public school systems, colleges, local government, businesses, and the BCRC work together to support educational efforts, promote career pathway activities and events, provide a clear avenue of communication between the schools and local communities, and to oversee special programs and projects. Recent activities have included a Financial Reality Fair and the Sophomore Summit, exposing students throughout the region to a wide range of educational and career pathway events suitable for students and adults. The BCRC Workforce and Education Committee also sponsors two annual job fairs with the Vermont Department of Labor and the Southwestern Vermont Chamber of Commerce. The partnership with Southwest Technical Center is particularly pertinent to the regional housing targets, as they are a key mechanism for improving housing construction labor market liquidity.

Maintenance of a quality educational system that is affordable to residents while also meeting the needs of students, local communities, and businesses will require continuing communication and coordination between many involved public and private interests. The following sections provide some background on existing educational institutions and challenges that will need to be addressed in the coming years.

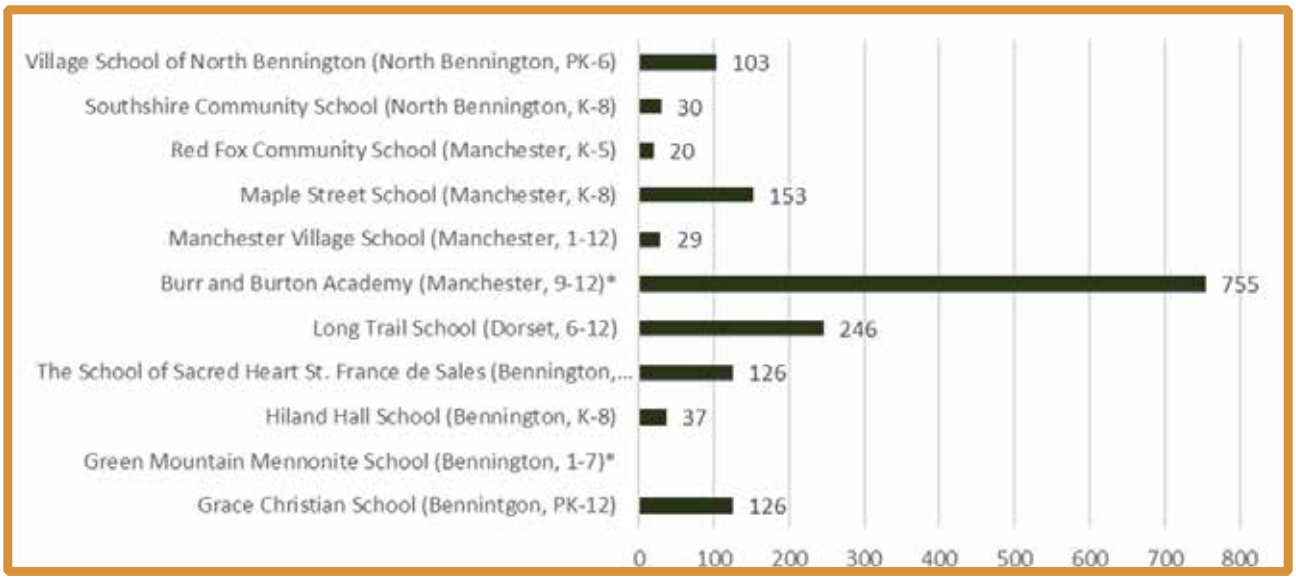
Schools in the Region

Schools in the region are shown on Map 42: Public Facilities: Educational Institutions (2024). Local school districts operate public elementary schools in Stamford, Pownal, Woodford, Bennington (three schools), Shaftsbury, Arlington, Manchester, and Dorset. Peru and Landgrove are part of the Taconic and Green School District and students from these communities (grades K-8) primarily attend school at Flood Brook Elementary School in Londonderry. Rupert sends students to Mettawee Community School which is part of Mettawee Community School District. Students in grades K–5 that attended Sunderland Elementary School will attend Dorset Elementary School as of fall 2026.

Based on data from the 2025–2026 school year, enrollment of students in the region's public elementary schools ranges from a low of 26 in Woodford to a high of 346 in Manchester Elementary Middle School (a K–8 school) and 303 in Molly Stark in Bennington (see Figure 35: Bennington Regional Public School Enrollment 2013-2026). The various pre-kindergarten programs at these schools include approximately 440 children. However, pre-K enrollment is tracked separately and more information on early childhood education is included in the Childcare and Early Childhood Education section.

Mount Anthony Union High School in Bennington is the largest school in the

Figure 34: Bennington Regional Private School Enrollment by District



Source: Individual district self reported data for SY 2023-2024

region and the public high school serving most of the communities in the Southshire (many high school students from Stamford attend high school in nearby North Adams, Massachusetts). The Mount Anthony Union School District also operates a middle school in Bennington; it serves Bennington students in grades 6–8 and students in grades 7–8 from most of the other Southshire towns. Arlington Memorial High School includes a middle school wing (grades 6–8) and the senior high school. The high school serves students from Arlington, residents of districts that offer "school choice" such as Sandgate, and residents of the BRSU districts. Approximately 1,535 students attend the middle schools and high schools in Bennington and Arlington.

A number of private and independent schools, both elementary and secondary, also operate in the region (see Figure 34: Bennington Regional Private School Enrollment by District). During the 2023–2024 school year, private school enrollment totaled 1,625, or approximately 27 percent of the total student enrollment.[1] Of course, it is important to note that private school enrollment does not necessarily reflect student population within the region as students from outside the region attend some of these schools (just as students from within the region attend private schools in other areas).

While there are a significant number of students attending private schools at all grade levels, the greatest number attend the two private secondary schools in the Northshire, Burr and Burton Academy and Long Trail School. All of the BRSU school districts, and several towns outside the region, offer high school students "school choice" since there is no public high school within the BRSU district. Towns offer a tuition rate to students based primarily on the current state average

1 Based on enrollment numbers reported to the BCRC from each independent school.

The stately buildings of Burr and Burton Academy which serves as the high school for several Northshire towns. Photo Credit: BCRC

per pupil cost, and families can opt to use those funds to attend a high school of their choice, with the largest portion choosing to send students to Burr and Burton Academy.

Some families choose to provide education to their children at home: 259 children within the region obtained their education through home-study based curricula in the 2023–2024 school year[2]. Home schooled students are able to participate in certain activities at local schools. Information on home-study options is available through the Home Study office of the Vermont Agency of Education.

The Southwest Vermont Regional School District operates a technical education center serving municipalities throughout the region. This school is one of 16 regional technical centers throughout the state. Southwest Tech (formerly known at Southwest Vermont Career Development Center), which shares a site with Mount Anthony Union High School in Bennington, has a mission to "prepare secondary and post-secondary students for career and lifelong learning in a rapidly changing world." Southwest Tech offers 20 technical programs and related classes for high school age students. In the afternoons, evenings, and online, a wide variety of adult education offerings are also available. Vermont resident adults who do not have a high school diploma are considered secondary students and are eligible for tuition to be paid by their school district. Adults with high school diplomas are charged tuition. Recent cooperation between Southwest Tech, and many of the public primary and secondary schools in the region, local businesses, and economic development interests have led to specific programs and course offerings that inform students of career opportunities in the region and provide the types of skills being sought by employers.

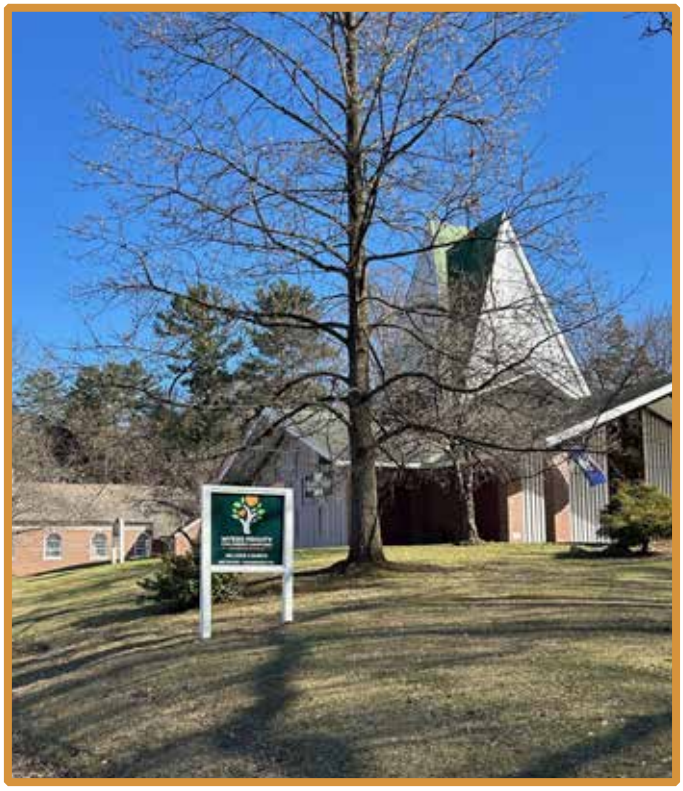
2 Per email from AOE, February 5, 2026

Childcare and Early Childhood Education

Childcare and early childhood education (pre-school and pre-kindergarten) are key components of the region's early childhood system; a system that also includes access to healthcare, developmental services, and programs that support a family's economic security and stability. All of these elements must work together to ensure that children have a strong foundation that offers the best potential for success in school and beyond.

Availability of high quality and affordable childcare services in convenient locations contributes to family economic security and stability by allowing parents to enter or stay in the workforce. With the supply of labor in the region limited, the ability of those parents to hold jobs at local businesses is also a key factor supporting economic development objectives. Some families may prefer to have their children in home-based day care centers and others in a larger facility. In either case, the location of the childcare facility must be convenient for the family, generally either near their home or near their workplace.

The Bennington region is served by a variety of childcare facilities ranging from registered home providers to licensed centers that include Head Start programs in several towns, pre-school programs, and the pre-kindergarten programs and afterschool childcare programs that now are offered in many of the elementary schools. Licensed childcare centers are approved by the state to serve a certain number of children of specified ages based on available approved space, staffing qualifications, and play and learning equipment. A licensed center is considered a public building and must obtain permits for water supply and wastewater disposal from the Department of Environmental Conservation and pass an inspection conducted by the Department of Labor and Industry. Registered home childcare facilities are limited to serving a relatively small number of children within the provider's residence.



A Myers Prouty childcare center attached to Second Congregational Church in Bennington. Photo Credit: BCRC

The geographic distribution of childcare facilities around the region is interesting (See Table 22: Distribution of Daycare Facilities in the Bennington Region, 2026). The three parts of the region (Northshire, Southshire, and the central towns of Arlington, Sandgate, and Sunderland) each have a number of licensed childcare centers roughly proportionate to their respective populations. However, while there are 23 registered home providers in the Southshire, there are none in the central towns or the Northshire. It is possible that

Table 22: Distribution of Daycare Facilities in the Bennington Region, 2026

Town	Licensed Center	Registered Home
Bennington	**21**	**17**
Pownal	2	5
Shaftsbury	**2**	**2**
Stamford	1	1
Total Southshire	***26***	***25***
Arlington	**2**	**0**
Sunderland	1	0
Total Central Towns	***3***	***0***
Dorset	**2**	**0**
Manchester	8	0
Total Northshire	***10***	***0***
Total Region	**39**	**25**

Daycare Facilities registered with State of Vermont, 2026

the large, established licensed centers in the Northshire—including programs offered at the schools—meets the demand for services in that area. It also is possible that because many people commute to work in Manchester or Bennington families are using providers closer to their homes.

Since 2015, the number of licensed facilities has increased by five throughout the region, and the number of registered homes has decreased from 37 to 25. Some of these centers or registered homes can only accept a limited number of children. The younger the age, the fewer they can take. Also, some of the licensed centers included in Table X are only licensed for pre-kindergarten students or for afterschool care for school age students. This leaves even fewer spots for infants and toddlers. The central towns of Sunderland and Arlington are an example of this. Two of the three licensed centers are for pre-k or school age students only, leaving just one center with infant and toddler spots. Only half of the licensed centers take infants and toddlers in the Northshire and only 13 centers take all ages in the Southshire.

The Covid 19 pandemic hit registered home childcares hard as operating costs increased and many families who were already home-schooling children or working from home kept their younger ones at home with them lowering enrollment rates.9F3 The lack of childcare within the region, especially in central and Northshire towns, is problematic. There is greater demand than supply, which leaves families struggling to find care for their children and removing individuals from the workforce in order to stay home with their children.

Aside from the pandemic's effects, childcare providers face other challenges. The cost of childcare services must be limited, or the service will be unaffordable relative to the extra income that can be earned by a parent considering entering the workforce versus staying at home to care for a child or children. Another financial issue arose recently as public elementary schools began to offer pre-kindergarten classes at no cost to families, thus attracting children away from childcare providers and reducing their revenues. If childcare centers cannot raise adequate revenue, they cannot hire and retain staff and maintain program and facility quality. Programs like Head Start, operated by or in collaboration with United Counseling Service at centers throughout

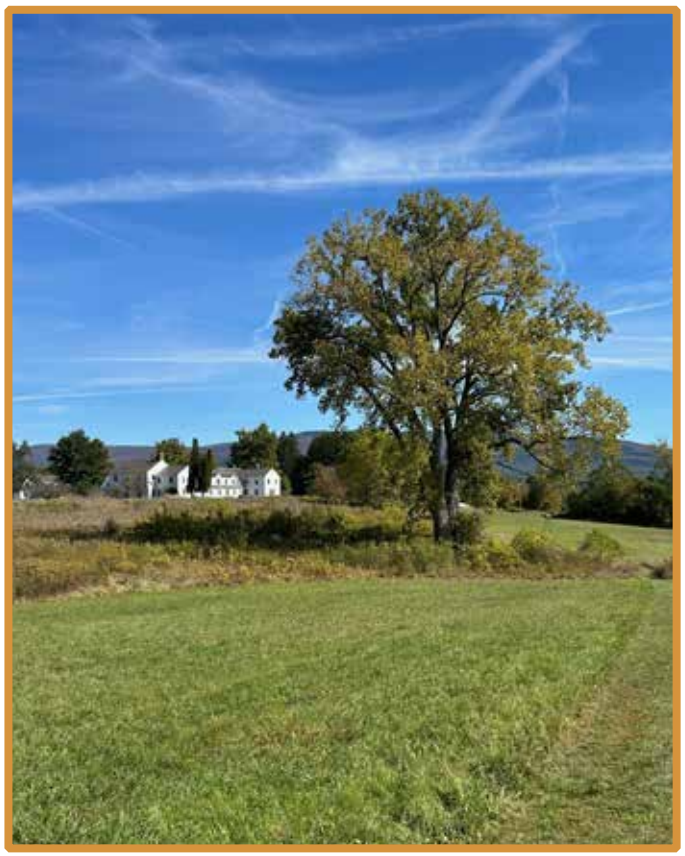
3 Child Care Crunch: Lack of enrollment, pandemic expenses hit Vt. providers (wcax.com)

the region, offer lower cost or free pre-school services for income-eligible families. State subsidies are also available to help families pay for childcare services.

It is important for childcare providers to have access to a supply of labor that includes people trained and qualified to provide services. The human services curriculum at Southwest Tech provides training that can lead to employment in childcare. Students should be made aware of childcare career opportunities during their secondary school years. Business assistance is another need for many childcare providers which Vermont First Children's Finance (VT FCF) can provide. VT FCF supports childcare centers by providing business consulting, financial analysis, and assisting centers in finding business loans. These services are provided at no cost to the centers.

The 2023 childcare law (Act 76) was designed to alleviate some of the issues caused by lack of childcare. It is doing so by addressing the accessibility, affordability, and quality of childcare throughout the state. The new law is investing $125 million into Vermont's childcare system over two years. These funds will provide financial assistance to 7,450 families that were not eligible for assistance before. The law also provides funding to increase childcare program capacity and investment in the early childhood education workforce. More information about Act 76 can be found on the Vermont Department for Children and Families (DCF) website.

The potential positive impacts of Act 76 on the operating economics of childcare centers, childcare workers, and significant positive long-term impacts that the resulting access and affordability improvements could make to pre-kindergarten students later in life is significant. Furthermore, Vermont has taken



A scenic view of the Bennington College campus
Photo Credit: BCRC

a measured risk with Act 76 and stands alone nationwide in implementing structural recommendations from national childcare experts in ways that other states have not. Consequently, the law could play an important role in attracting to the region a much-needed expanded workforce.

Regulatory issues tend not to be major constraints to the establishment of childcare facilities in the region. Larger communities permit large new childcare centers in suitable locations, and all towns and villages are required to allow small home-based childcare facilities as a permitted use wherever single-family homes are allowed. Somewhat larger home-based childcare facilities are allowed by many municipalities as a conditional use in residential zoning districts.

Post-Secondary Education

Acquisition of some type of post-secondary degree or specialized training is becoming increasingly important—for both residents seeking a good career and for businesses faced with a need for a workforce with the skills needed to compete in a global marketplace. At the same time, the cost of a college education has increased rapidly, deterring many people from pursuing a degree and saddling many others with student debts that limit their ability to procure adequate housing or achieve the quality of life that their training should have helped to facilitate.

While there is no municipal or regional solution to this challenging set of circumstances, programs offered through the Vermont State College system (including Community College of Vermont and Vermont State University) can lead to a degree or certificate at a relatively low cost. Many people find that attending one of these local Vermont state institutions for one or two years and then transferring to a different college or university to complete a degree program significantly reduces total cost and subsequent student debt.

Post-secondary vocational training and adult education courses, targeted to meet the needs of local employers, are available and should be expanded to help qualify local residents for jobs available in the local labor market. Employers may also be willing to help existing employees with the cost of such programs so that they can progress to more advanced jobs that meet the needs of growing and diversifying businesses. As noted earlier, another key—and affordable—way to obtain college level or other advanced training is through online learning. Availability of broadband throughout the region and communication about classes and degrees offered will help assure that such opportunities are available to residents of the region.

Bennington is home to four colleges: Bennington College, units of the Community College of Vermont (CCV), a learning site for Vermont State University, and the Northeast Baptist College. Each of the colleges provides important services and imparts significant benefits to the region. Bennington College is a four-year liberal arts institution offering individualized bachelor's degrees. The college also offers graduate programs in writing, language, performing arts, and pre-medical studies. Bennington College occupies a sprawling campus in North Bennington, conserving valued open spaces and offering recreational opportunities for both students and area residents. This school also presents regular public lectures, concerts, plays, art exhibits, and other events that contribute to the cultural richness of the region.

In 2019, Southern Vermont College, a private college located in Bennington, closed its doors due to a loss of accreditation and financial issues. This closure affected approximately 340 students, and approximately 100 staff members both faculty and non-faculty and left the campus vacant. Colleges act as a way to pull in a younger demographic to an ageing state and the closure of a college within Bennington has had a negative impact on the area with a loss of jobs and money being spent by the students.

The Bennington Learning Site of Vermont State University offers a degree program in nursing from its downtown Bennington location where it occupies two floors of an historic building renovated for the school. The Community College of Vermont, occupying

space in another renovated downtown Bennington building which it shares with the Vermont Department of Health local offices, offers classroom and online instruction in twenty degree and six certificate programs, workforce, secondary and continuing education opportunities, and academic and veterans support services.

The Northeast Baptist College, founded in 2013 is the newest post-secondary institution to locate in Bennington. It shares space with the (K–12) Grace Christian School while also utilizing buildings near the downtown. Degree programs in ministry, education, and music are offered.

There are nearly 2,000 students attending college among the four Bennington campuses. These students represent a tremendous asset to the town and region and efforts to more fully involve students in the community have been given considerable attention recently. Internships and other opportunities to work with local businesses and other organizations provide learning opportunities for the students while increasing productivity and developing interest in those jobs among people preparing to enter the workforce. A greater student presence in the downtown area also has mutual benefits as students spend money while enjoying local stores, cafés, and restaurants. The possibility of establishing a college-operated business in downtown Bennington has been explored with Bennington College. Such a business would provide another venue for students in town while encouraging growth and development of businesses to serve this population.

Bennington College and the Northeast Baptist College classrooms are located some distance from the center of town; consequently, it is important to have regular and convenient transportation connections available to students. Bennington College operates shuttle buses and the Green Mountain Express includes the campus on their regular transit routes. Enhancing these links by increasing the frequency of trips has been considered and expansion of opportunities for bicycling also would increase community-campus interaction. Efforts have also been underway in recent years to develop a shared-use path from Bennington College to downtown Bennington. Another important way to improve connections between the colleges and communities in the region is to improve communication links that provide information about happenings on the campuses and in the community.

Thanks to its location in the southwestern corner of Vermont, the Bennington region also has ready access to colleges and universities of national significance such as Williams College (10 minutes south of Pownal), Rensselaer Polytechnic Institute (40 minutes west of Bennington), and the University at Albany (one hour west of Bennington). Many programs at these institutions are available to area residents, and municipalities and businesses have benefited from student and faculty projects. Examples include a lighting study of the Bennington Battle Monument, a traffic calming study for Old Bennington, and applications of advanced materials research for local composites manufacturers.

The college campuses in the region are all located in the Southshire, and colleges and universities in neighboring states are closer to Bennington than to Manchester and other Northshire towns. It may be beneficial to residents of those towns in the Northshire for

CCV and other institutions to offer classes in Manchester, making use of telecommunication technologies to provide distance learning opportunities more locally.

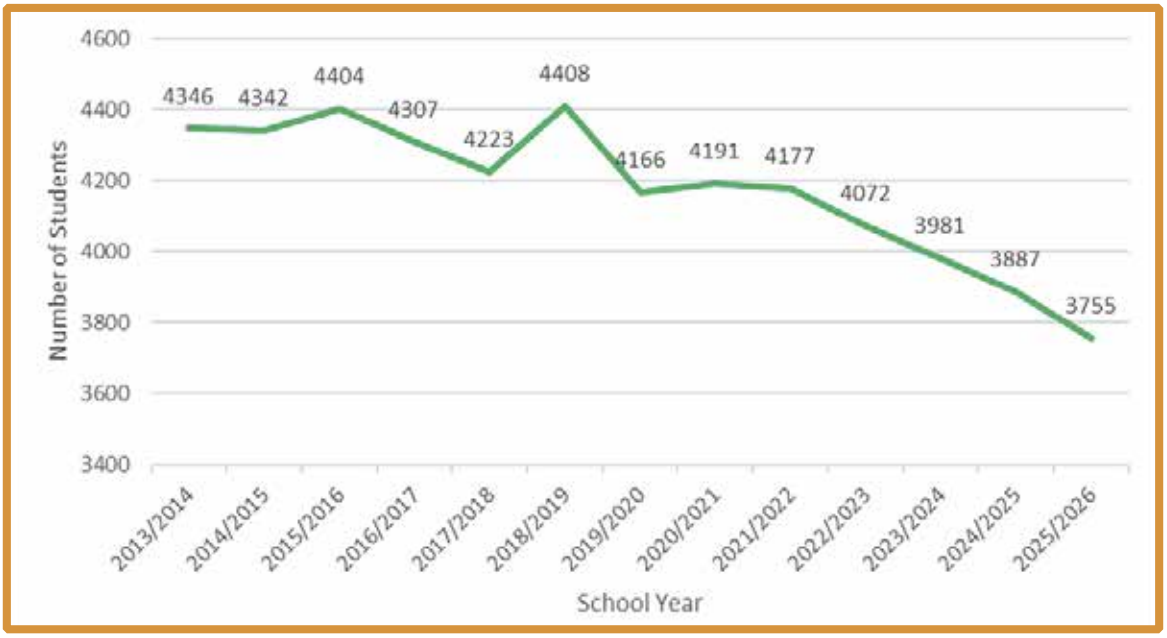
Education Costs

The cost of education—at all levels—is considerable and presents challenges to individuals, families, and communities. For local public schools, costs are driven by total school district spending that includes salaries and wages for faculty and staff, building infrastructure (maintenance, utilities, bonded construction, or improvements), transportation, administration, supplies, and other operational expenses. Towns and villages without a school pay tuition to a school district and that tuition is determined by those same factors. Most school funding derives from property taxes and because of the way that Vermont funds education, enrollment levels play a key role in determining local property tax levels.

School districts receive funds from a statewide property tax pool based on the number of enrolled students. When a district's per student cost exceeds a state-defined amount, financial penalties are imposed on the district. With so many educational costs essentially fixed—primarily faculty and staff contracts and physical plant operations—declines in enrollment have a doubly adverse impact in that they result in both reduced state funding and increased per student costs. When enrollment levels decline sufficiently, districts are forced to consider eliminating programs or cutting teaching positions (often by increasing class sizes) and when the number of students hits a critical level it can threaten the viability of the school.

Regional public-school enrollment has fallen by approximately fourteen percent from 2013 to 2025 (see Figure 35: Bennington Regional Public School Enrollment 2013-2026). The pandemic hit schools the hardest

Figure 35: Bennington Regional Public School Enrollment 2013-2026



Source: Vermont Agency of Education

in the 2019/2020 school year with the region seeing a 5.5% decrease in enrollment and home study numbers increasing from 2588 to 5504 in the following school year. Home study enrollment has steadily decreased since then but is still higher than pre-pandemic numbers, and public-school enrollment has not rebounded since the pandemic.

Several school districts have struggled with declining enrollment and considered various ways to reduce costs. Several schools have added a pre-kindergarten program to attract additional students, some schools have merged grades and reduced staffing, and various school consolidation plans have been considered throughout the region. Woodford Hollow Elementary school, which has a small number of students, shares a principal and art teacher with Shaftsbury Elementary School and a media specialist with Monument Elementary School to reduce costs. The closing of a school in a smaller town, where there is only one elementary school, tends never to be a popular option because it would result in the loss of a valued community asset, reduced "local control" over education decisions, and the need for young students to travel greater distances to attend school. On the other hand, school consolidation can reduce local property tax burden and provide students with a greater range of educational offerings.

Act 46 required many school districts and supervisory unions to consolidate to better manage costs, maximize operational efficiencies and allow the flexibility of shared resources. It was under this act that Battenkill Valley Supervisory Union merged with Southwest Vermont Supervisory Union and the Taconic and Green School District was formed. Ideally, smaller school districts tend to have the highest per-student costs.

However, according to Vermont Agency of Education data, Taconic & Green School District saw the highest per-student costs (2023-2024 school year), well above the state average, while Mount Anthony Union High School District (which includes both the high school and middle school) experienced the lowest per-student costs. Taconic and Green's per pupil spending was $20,859.34 for 1,662.47 equalized pupils while Mount Anthony UHSD was $15,068.48 for 1,678.22 equalized pupils.

In 2025, Act 73 was enacted to begin addressing school spending reform and creating fewer and larger school districts in order to minimize costs and manage the impacts of fewer students within the school system. In preparation of these changes from the State level, the BRSU has already begun consolidating schools. At the end of the 2025–2026 school year, Sunderland Elementary School will close, and students will be sent to Dorset Elementary School with students from the soon-to-be-shuttered Currier Elementary School in neighboring Danby.

School districts will need to continue to investigate cost-saving options if recent demographic trends (an aging and declining regional population) continue and cost of living and maintenance of aging buildings continue to rise. Relaxing policies related to maximum class size, sharing programs and resources between schools, and the potential for school consolidations will all continue to be discussed to deal with cost concerns. Because local property taxes are a combination of school and municipal taxes, it is important for all school districts to communicate with officials in local government to ensure that expenditures are planned to avoid extreme year-to-year fluctuations in tax rates. Preparation of a multi-year capital budget that considers all major projected municipal and school expenditures can be a helpful financial planning tool.

How Can BCRC Help?

As a combined regional planning commission and regional development corporation, BCRC can play a unique role as an intermediary between childcare centers, the K–12 education system, and employers in the region. BCRC facilitates with all of these parties and can be an important source of connection and information between the three. BCRC can also serve in an advisory capacity on improving capital budgeting in schools, and coordinating that budgeting work with local municipalities.

BCRC's role as an advisor on land use planning and regulations can also advance education goals in the region. BCRC can lend support to municipalities seeking to lower barriers to creating home-based childcare and childcare centers; the organization can also identify regulatory barriers to entrepreneurial opportunities that students are being trained for in the region, especially in trade-based professions.

Education and Childcare Goals and Actions

Goals

- Work with the region's educational providers to help maintain a high-quality educational system that meets the needs of residents of all ages and that supports regional community and economic development.
- Monitor education budgets and enrollment trends to inform conversations about regional governance.
- Encourage an education system that is connected with the local community and oriented toward the goals of the local labor market to support retention of students in the regional workforce
- Lower barriers to expanding childcare capacity in the region, particularly in underserved communities

Actions and Policies

The BCRC . . .

- Encourages school districts and supervisory unions to regularly assess spending levels and evaluate potential policy and operational changes that can improve cost effectiveness.
- Continues to monitor enrollment trends at public and private schools to aid in the evaluation of operational or structural changes that may be appropriate.
- Supports cooperative financial planning between school districts and municipal governments to minimize year-to-year fluctuations in property taxes.
- Encourages capital budgets and programs by municipalities and school districts to assist in forecasting major future education expenditures.
- Helps pursue arrangements that allow for community use of school facilities for physical activity and recreation.
- Sponsors workforce development initiatives that emphasize increasing awareness of career opportunities within the region and which match education and training with the needs of area employers.
- Shall encourage municipalities to allow family childcare centers without site plan approval to encourage the availability of childcare in areas not traditionally served by childcare centers.
- Encourages the integration of Bennington's four colleges into the region's communities through student internships, development of student-oriented local businesses, and improved transportation and communication links
- Supports adult learning and vocational training opportunities, especially those provided through Southwest Tech and the Community College of Vermont.
- Continues to support the provision of quality childcare and early childhood education facilities and assesses whether all parts of the region are adequately served and if additional capacity is needed to help grow the local workforce.

- Encourages greater coordination between childcare centers and other regional institutions that impact or are impacted by long-term educational and well-being outcomes.
- Supports enhanced shuttle and bus links between college campuses and the urban and village centers of the region.

Coordination and Implementation

Governance and Coordination Implementation Matrix

Governance and Coordination

Cooperative and creative engagement with the region's municipalities, community organizations and businesses, as well as close working relationships with relevant state and federal agencies and adjoining regional commissions, is at the heart of BCRC's activities.

Effective planning and community development requires coordination among organizations and between various levels of government. The BCRC works with local governments, including elected and appointed boards, commissions, and staff, that represent its constituent towns and villages. The BCRC maintains effective communication and working relationships with area business groups, social service and community action agencies, and conservation and other public service organizations. Because state and federal agencies fund many of the local and regional programs and projects in which the BCRC is involved, while also providing technical support and exercising regulatory control, it is vital that coordination at the state and federal level is maintained as well. The BCRC also needs to coordinate many aspects of its work program with neighboring regions.

What did we learn from the community?

Proximity to major cities, such as Albany, NYC, and Boston identified as a strength of the region

Communication and coordination between groups was seen as a challenge

Since 2016, BCRC has served as both the Regional Planning Commission (RPC) and Regional Development Corporation (RDC) for southwestern Vermont. The BCRC uses various approaches to ensure that coordination is conducted with appropriate frequency and effectiveness across its program areas. Statewide planning goals are established in state law (24 VSA 4302) and support coordinated planning between local, regional, and state entities throughout Vermont. At the local level, this regional plan serves as a coordinating document. It provides a consistent framework for the development of local plans and implementation actions.

A well-attended public meeting in Sandgate. Photo Credit: BCRC

Municipal Governance

Each of the seventeen BCRC member municipalities is represented by a commissioner appointed by their local legislative body. Those commissioners serve a key coordinating function, representing the interests of their town or village as a BCRC commissioner while returning important information to their communities. BCRC staff also consult with each municipality on a regular basis to identify current issues and needs and provide information about new state and regional programs, initiatives, and funding opportunities. Of course, in the execution of its regular work program, BCRC staff work closely with towns and villages as they update their plans and bylaws and undertake a range of special projects. This close involvement with local officials establishes a consistent and enduring relationship that is critical to local-regional coordination and helps ensure that conflicts between neighboring communities are avoided.

Regional municipalities differ greatly in their administrative capacity. They may be grouped in three cohorts. Bennington and Manchester maintain full-time, specialized administrations led by town managers and employ full-time planning professionals, as well as finance, assessment, and other staff. Their offices maintain daily weekday

Pownal Executive Assistant Tara Parks introduces Representative Becca Balint at a Town Hall event in 2025. Photo Credit: BCRC

operating hours and after-hours coverage. These towns maintain sophisticated administrative efforts and are capable of engaging in complex administrative efforts including management of local police departments, complex planning projects, and substantial economic development efforts.

Most mid-sized municipalities maintain moderate administrative capacity, but differ greatly in their governance form, tied together by having at least one—but typically exactly one—full-time administrative professional. These include town manager-led Dorset, town administrator-led Arlington and Shaftsbury, board executive assistant-led Pownal, and village manager-led Manchester Village. In most cases, these individuals are the only full-time administrative staff, with municipalities relying on part time land use administrators, administrative assistants, clerks, treasurers, listers, auditors, and others. Office hours in these municipalities vary greatly but typically include most offices open on 2–4 weekdays with no after-hours coverage. The available administrative capacity in these municipalities varies substantially within the year and over time, as they are typically engaged in some combination of grant-funded projects, planning and governance efforts, financial management improvements, and other administrative projects which justify available staffing but limit unallocated governing capacity.

Smaller municipalities retain limited administrative capacity, with primary administrative staff being part-time clerks and treasurers. Most maintain approximately 2 days per week of operating hours, albeit only part of the day in many cases. Many such towns struggle to comply with state laws and required practices including timely posting of meeting agendas

and minutes and compliance with financial regulations to the letter of the rule. They are unreliable in their provision of volunteers to attend meetings of regional bodies including the regional Transportation Advisory Committee and Bennington County Solid Waste Alliance. Select Board or trustees chairpersons often provide the administrative capacity that is required on a volunteer basis. These towns retain almost no excess administrative capacity and rely heavily on regional and state technical assistance to successfully execute projects beyond those necessary for basic government operations. The BCRC engages in substantial technical assistance efforts in these municipalities, including an emphasis on in-person attendance of meetings of local bodies.

All municipalities retain a mix of elected and appointed administrative officials. Most municipalities, particularly the smallest, struggle to fill all available roles, especially among elected roles where the pool of officials is limited to voters. A trend within the region in recent years has been a shift from election to appointment among officials including auditors, listers, and treasurers where the need for financial skills has created an impetus for municipalities to look beyond their borders for qualified staff.

Varying administrative capacity makes for substantial variety within the region with regard to their ability to independently engage in implementation actions of municipal plans, the regional plan, other local plans including hazard mitigation plans, and other regional plans including those related to transportation and conservation planning. When supporting municipalities in their drafting of local planning documents, BCRC staff place emphasis on reconciling implementation actions with available administrative capacity at the local level. BCRC recently amended its bylaws to engage in shared services contracts with municipalities to help them provide for continuity of operations among member municipalities and allow for the organization to support the provision of shared services that improve local governance and support planning document implementation.

Merck Farmland and Forest in Rupert.
Photo Credit: BCRC

Local Organizations

Many local groups and organizations, in addition to municipal governments, contribute to the vibrancy of the region and participate in various aspects of community planning and development work. The BCRC engages with those entities in a variety of ways to promote effective and coordinated planning. Several interest group commissioners are elected to serve on the BCRC each year. Those commissioners represent economic development, housing, transportation, energy, land and water conservation, agriculture and local food, local business, and public health interests. The interest group commissioners provide an important perspective on regional planning and serve as liaisons between the BCRC and the businesses and organizations that they represent. BCRC staff and commissioners also regularly attend meetings, participate in projects, and serve on the boards of many local and regional organizations. BCRC also benefits from relationships with academic institutions including Williams College, Southwest Tech, and the University of Vermont.

Regional, State, and Federal Agencies

Many of the BCRC's community and economic development and planning programs are directly funded through state and federal grant programs, thus bringing those services to the local level. Special mention should be made of the fact that a federal agency, the United States Forest Service, is the largest landowner in the Bennington region. The BCRC works closely with staff at the Green Mountain National Forest to ensure that local and regional interests are coordinated with federal land management priorities and projects. Coordination between state and federal programs is also facilitated by the BCRC's active participation as a member of the Vermont Association of Planning and Development Agencies (VAPDA), the statewide consortium of the state's eleven regional planning commissions, the Regional Development Corporations of Vermont, the confederation representing Vermont's twelve regional development corporations, and the Vermont Community Development Association, a statewide network of community development professionals.

BCRC staff regularly attend meetings and trainings conducted by state and federal agencies and, in turn, are able to provide important information to local and regional interests in the region. The BCRC also organizes and sponsors numerous meetings and workshops throughout the year that bring experts from various state and federal agencies to the region. Many of these training and informational sessions are available online, and BCRC staff participate in many of those "webinars" while publicizing the availability of those opportunities to interested parties in the region.

Coordination between the region and state is enhanced by BCRC review of state agency plans, programs, and projects. Those documents and initiatives are regularly reviewed for consistency with the regional plan and municipal plans and are assessed to determine if they support the findings and recommendations of relevant studies that have been completed at the local or regional levels.

The BCRC shares common borders with two other Vermont regional planning commissions, the Rutland Regional Planning Commission (RRPC) to the north and the Windham Regional Commission (WRC) to the east. Coordination between these regions and regional planning commissions is accomplished in many ways. The commissions review and consider the plans of adjacent regions when developing their own plans, co-sponsor events that are of interest to officials and residents in the neighboring regions, and participate in joint studies that cover issues of inter-regional importance.

The Rutland Region

Towns and villages in the Northshire are particularly interested in resources, developments, and activities occurring in the Rutland region, which is connected to the Bennington region by US Route 7 and the Vermont Railway along the Valley of Vermont and by VT Route 30 along the Mettawee Valley. The regions have many common interests. Manchester is a center for employment for many people living in Rutland County towns, while many Northshire residents work and shop in Rutland and surrounding communities and use the Rutland-Southern Vermont Regional Airport in Clarendon. The upper reaches of

the Otter Creek and Mettawee watersheds begin in the Bennington region and extend to and through Rutland region, so water quality issues are a joint concern of both regions.

Shared transportation corridors are another mutual concern. Maintaining Route 7 as the major highway along the western side of Vermont is a critical economic development concern for both regions and the NY-VT Intercity Passenger Rail Study focused on alternatives for extending rail service through both regions. The two regions also have jointly worked to create and promote the Stone Valley Byway, a state-designated scenic byway that follows Route 30 north from Manchester, connecting the important marble, slate, and agricultural heritage shared by the two regions. The Delaware and Hudson (D&H) Rail Trail is a major recreational trail that runs from Rupert into Rutland county which would benefit from improved regional coordination to maximize usage and benefits.

The Mettawee Valley is an important agricultural resource for both regions and both regional planning commissions have cooperated with each other, local governments, and the Vermont Land Trust, to conserve significant parts of this unique landscape. The Appalachian and Long Trails connect the two regions, along the crest of the Green Mountain Range, and cooperative planning with the Green Mountain National Forest help maintain those shared forest and recreational assets.

The Windham Region

The Windham and Bennington regions are connected across the forests of the Green Mountains. Three principal highways connect the two regions: VT Route 9, VT Route 30, and VT Route 11. The BCRC and WRC worked together to oversee creation of the Molly Stark Byway along Route 9 and maintaining that byway designation, the quality of the highway, and promoting the economic resources along it remain important areas of regional cooperation. Routes 11 and 30 are important economic corridors connecting Manchester to nearby mountain towns, ski areas, and the eastern side of the state.

Kelly Stand Road, also known as the Arlington-West Wardsboro Road, is another important connection between the two regions. A gravel road that follows a narrow valley next to the Roaring Branch through Sunderland, Kelly Stand Road provides access to many recreational opportunities in the Green Mountain National Forest while also being the only roadway between Route 9 to the south and Route 30 to the north connecting central communities in Bennington and Windham Counties. In the winter, the upper portions of the Kelly Stand Road are closed, but it functions as a major recreational corridor for winter sports enthusiasts. Much of the roadway was completely washed away by Tropical Storm Irene in 2011. Cooperation between towns in both regions and the US Forest Service led to reconstruction and re-opening of the road in 2014.

Considerable development occurs in and around the ski areas in the mountains between the two regions. Cooperative planning between the two regions will help ensure that development at Bromley Mountain Ski Resort, Stratton Mountain Resort, and Mount Snow Resort benefits the economies of both regions while not adversely impacting natural resources or the transportation system.

A number of towns along the border between the Bennington and Windham regions share services across municipal and regional boundaries. Some of the northeastern communities in the Bennington region, for example, participate in a solid waste alliance, educational districts, and emergency management services with towns in Windham region. At the same time, some towns in the southern portion of the Windham region rely on nearby towns in the Bennington region for solid waste, medical, and other services.

The BCRC and WRC, together with economic development partners from both regions, conducted a joint effort to promote economic recovery from Tropical Storm Irene. This joint effort included shared staff resources and training programs focusing on village center and downtown revitalization as well as creation of a new marketing program to serve the entire two-county region. These combined efforts to promote the economy of the entire southern Vermont region continue, and coordination with regional planning and development organizations in nearby western Massachusetts will also occur. The regions cooperate on economic development matters including sharing a Comprehensive Economic Development Strategy area and maintaining a shared economic development staff member who manages cooperative training efforts and events.

The Berkshire Region

Berkshire County, Massachusetts, lies south of Bennington County. US Route 7 and VT Route 8 lead from Bennington County towns to Williamstown, North Adams, and other communities in Massachusetts, some of which are significant employment centers for residents of Pownal and Stamford. Many services located in those Massachusetts towns are important to residents of southern Bennington County, including a regional high school that is attended by students from Stamford. The closure of the North Adams Regional Hospital in 2014 left a critical need for convenient medical services for Stamford residents, in particular, for nearly a decade before in-patient services resumed in January 2024. There is a meaningful amount of cross-border mutual aid among area fire departments and EMS agencies, although less than the longer border with New York.

A cluster of liberal arts colleges exists just across the state line. Bennington College, Williams College, and the Massachusetts College of Liberal Arts present an opportunity for collaboration in educational programming and related economic development between the regions. The Berkshire region also contains a wealth of cultural and recreational resources, including several prestigious art museums, theaters, entertainment venues, and forest preserves. Joint marketing and economic development initiatives highlighting the attractions in both regions are regularly explored.

One branch of the Hoosic River rises in Vermont and then meets the other branch in Massachusetts. The river then turns northwest and flows through Pownal. The river represents an important natural, recreational, and economic resource to both regions. Coordinated efforts to improve water quality and recreational access, especially for canoeing and kayaking, are ongoing. The presence of pollutants in the river bottom, many of which were transported downstream from former mills in Adams and North Adams,

A view of misty mountains in Pownal, including the Taconics in New York. Photo Credit: BCRC

serves as a reminder of the need for coordinated watershed-wide planning.

Potential development on one side of the state line or the other also can lead to a need for inter-regional coordination. Proposals for an electricity generation and manufacturing facility at the Pownal Racetrack property, for example, raised concerns about traffic and environmental impacts that might be felt in Williamstown. It is important for the BCRC to remain aware of development proposals on either side of this, or other regional borders, and work with local and regional officials in those adjacent areas to effectively participate in the review process. Similarly, the BCRC coordinates a committee to work toward the creation of a shared use path connection between the regions with hope that such inter-regional infrastructure would support both local bike/ped use and recreational tourism.

Rensselaer and Washington Counties

Coordination with the two New York state counties that border the Bennington region to the west is also extremely important. Most of the Bennington region lies in the Hudson River watershed, with the Batten Kill, Walloomsac, and Hoosic Rivers all flowing directly into those neighboring counties. Cooperative watershed planning organizations covering the Hoosic River (including the Walloomsac) and Batten Kill regions have been established and are supported by the BCRC.

Air quality is another concern that is particularly relevant. The prevailing winds in the region are from the west, so any air pollution coming from that direction could impact the Bennington region. Significant degradation of air quality in the region could not only be detrimental to public health but could also affect development potential within the Bennington region if certain thresholds are exceeded.

Accordingly, the BCRC should monitor developments in eastern New York and participate in regulatory proceedings as appropriate.

There is a substantial amount of cross-border mutual aid among area fire departments and EMS agencies. While there are meaningful issues with this mutual aid due to differing insurance regimes, agencies reliably support one-another on large calls particularly including structure fires.

Employment centers in Manchester, Arlington, and Bennington draw many of their workers from neighboring communities in New York. While it is a regional objective to provide housing for more of these employees closer to their place of work, maintaining good highway connections along Routes 346, 67, 9, 279, 313, and 153, as well as improved opportunities for carpooling and public transportation, will continue to be important.

The economy of the Bennington region is linked to the large metropolitan area in New York's Capital District, in and around Albany. That area provides employment, shopping, and cultural attractions for many residents of the Bennington region. Albany is a major transportation hub with intercity bus and rail stations and an international airport serving the Bennington region. The Capital District is an important market for tourism in the Bennington region and for goods and services produced in the region. Maintaining transportation infrastructure between the Capital District and the Bennington region is essential. In addition to the primary highway corridor (NY Route 7 and Route 279) and secondary highway corridor (NY Route 67), rail service improvements will be extremely important and will require cooperation and coordination with local and county officials in New York State.

How Can BCRC Help?

In addition to preparation and implementation of this regional plan, the BCRC conducts regional studies in a variety of areas that can be used to help guide development decisions and public and private investments throughout the region. The BCRC maintains a number of committees that provide support for these studies and implementation activities. Existing committees include: the Executive Committee, Transportation Advisory Committee, Regional Mobility Committee, Brownfields Redevelopment Committee, Economic Development Committee, Energy Committee, and Development Review Committee. Outside the Executive Committee, Transportation Advisory Committee, and Regional Mobility Committee, these committees are only appointed and convened as needed. The BCRC is also available to engage in contracted services to directly staff certain town offices on an as-needed basis, and can facilitate multi-jurisdictional employment of shared employees. The BCRC is available to facilitate governance of special districts, multi-town municipal compacts, and mutual aid agreements on a contract basis.

The BCRC is a statutory party to state land use (Act 250) regulatory proceedings and may intervene in public utility (Section 248) hearings before the Vermont Public Utility Commission. On the advice of the Development Review Committee or the Energy Committee, the BCRC considers information and policies expressed in the regional plan to determine whether a project conforms to the regional plan, to request changes to the project, or to assert that a project should not be built as proposed. BCRC staff and committees conduct reviews of Act 250 and Section

248 projects and will actively participate in proceedings by attending hearings and providing testimony when it is determined that a project will have substantial regional impact. A development is considered to have **substantial regional impact** when it is determined by the BCRC to meet one or more of the following thresholds:

- A development that may modify existing settlement patterns by:
    - locating in an area that does not currently contain development of a similar type or scale;
    - locating in a remote area, including any permanent development in an upland forest area; or
    - constituting a large-scale development occurring outside an established growth center.
- A development that may significantly affect the capacity of regional public facilities or require their expansion, extension, or relocation by significantly increasing traffic on area roadways, generating large quantities of solid waste, creating high energy demands, or adding a substantial number of students to a regional educational facility.
- A development that would significantly impact the region's economy by affecting the cost or availability of affordable housing in the region, affecting the cost or availability of energy in the region, creating a large number of new jobs, or initiating a new sector of economic activity in the region.
- A development that will impact any regionally significant natural or cultural resource. These resources include but are not limited to wildlife habitat, sand and gravel resources, important hydrological resources, unique and fragile natural areas, public water supply watersheds and wellhead protection areas, prime agricultural and forest soils, important scenic resources, and historic and archaeological resources.
- A development that involves the construction of, or which would significantly impact the function of, important regional facilities including, but not limited to state highways, educational institutions, hospitals, recreational facilities, solid waste facilities, energy generation or transmission facilities, regional water or sewer facilities, bridges, dams, and airports.
- A residential, commercial, or industrial development that, because of its large size, will result in impacts that will be felt beyond the municipal borders.
- A development lying within two or more municipalities, or a development dependent upon the infrastructure or community services of a neighboring municipality.

Governance/Coordination Goals and Actions

Goals

- Provide for coordinated governance in the region to limit impacts across municipalities, support regionally significant development, and adapt to changing circumstances
- Support resilience of local governance through contracted and shared services, mutual aid agreements, and inter-municipal coordination
- Ensure planning in the region is in harmony with neighboring regions both within and outside of Vermont

Actions and Policies

The BCRC...

- Engages with member municipalities to support municipal planning projects
- Is available to support municipalities through contracted and shared services
- Supports municipal efforts to improve resiliency of governance including establishment of inter-municipal and regional mutual aid agreements and coordinated provision of shared services
- Monitors the health of civic life in member municipalities and regional special districts to preserve regionally-significant knowledge and support continuity of operations
- Engages with other regions in Vermont and neighboring regions of New York and Massachusetts to ensure harmony among regional planning documents and collaborate on projects of shared interest
- Supports state efforts to harmonize insurance regulations related to fire service mutual aid with New York and Massachusetts.
- Reviews proposed development that meets the criteria of substantial regional impact and engages in state review processes with regard to the implementation of this plan and state planning goals

Implementation Matrix

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
Natural Resources	Goal	Maintain protective riparian and shoreland buffers and wildlife corridors, and avoid habitat fragmentation		Environmental
	Goal	Advocate for careful regulation of potential sources of air quality impairment by state and municipal officials		Land Use Planning
	Goal	Concentrate development in compact centers to avoid resource impairment		Land Use Planning
	Policy	Should support the preservation of the region's natural characteristics and values of the region's surface water resources.		Environmental
	Policy	Supports and provides technical assistance to municipalities in their adoption of an undisturbed vegetated buffer, generally at least 50 feet in width, between developed areas and rivers, streams, lakes, ponds, or wetlands to ensure the protection of water quality and natural ecosystems.		Land Use Planning
	Policy	Shall support adherence to agricultural and forestry best management practices to minimize degradation of water quality.		Environmental
	Policy	Supports recreational uses such as fishing, boating, and swimming as appropriate in natural settings in and along rivers, streams, lakes, ponds, and wetlands and development planning that includes provisions for public access to these resources, with provisions that the intensity of use and access points should be limited in particularly fragile ecological areas.		Land Use Planning
	Policy	Strongly discourages the construction of in-stream ponds and other activities that disturb aquatic ecosystems or degrade water quality.		Environmental
	Policy	Encourages the removal of existing dams that no longer serve a useful purpose, and which do not have significant potential for energy generation.		Environmental
	Policy	Supports water quality maintenance through comprehensive watershed management activities, including enforcement of appropriate standards for stormwater discharges, and direct and indirect discharges from highway maintenance and land development.		Environmental
	Policy	Supports protection of aquifers and groundwater recharge areas, including all source protection areas, from activities or development that would adversely affect the quantity or quality of these waters including strict enforcement of municipal subdivision and health ordinances, and state regulations.		Land Use Planning
	Policy	Opposes land development and other activities that would significantly degrade local or regional air quality. Traffic associated with new housing development pursuant to regional housing targets shall not be considered to constitute significant degradation.		Land Use Planning
	Policy	Supports a pattern of compact development to discourage the loss or fragmentation of important agricultural and forest lands.		Land Use Planning
	Policy	Supports the consideration of viability of important agricultural or forest soils in land development decisions		Land Use Planning
	Action	Provides technical assistance to municipalities in their regulation of agricultural and forestry-based businesses in the region to facilitate local and regional markets for primary and value-added products.		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Acknowledges that developments should be planned and permitted in a manner that will not preclude the future utilization of important earth resources.		Land Use Planning
	Policy	Supports state regulations and permit conditions that ensure the extraction and processing of earth resources and the disposal of wastes do not have an unduly harmful impact on the environment or surrounding land uses and that upon completion of extraction and processing, extraction sites should be restored and left in a condition suited for an approved alternative use.		Environmental
	Action	Provides technical assistance to municipalities in their regulation of activity or development in the vicinity of important natural areas, fish habitat, or wildlife habitat to avoid adverse impacts to the resources.		Environmental
	Action	Provides technical assistance to municipalities in their regulation of new building construction on visually prominent shorelines, hillsides, mountains, and ridgelines to include provisions for siting and screening structures to protect important scenic values.		Land Use Planning
	Policy	Supports prioritization of maintaining and improving public access to important outdoor recreational areas and sites in rural areas, acknowledging that redevelopment of waterfront properties in developed areas for residential, commercial, or recreational use is appropriate but must consider incorporating flood safety measures as appropriate.		Environmental
	Policy	Supports municipalities in their promotion of the Vermont Use Value Appraisal Program.		Land Use Planning
	Action	Participates in cooperative planning for regional natural resources. Such planning may consider issues related to environmental quality, public health, recreational use and public access, fish and wildlife habitat, agriculture and forest productivity, and scenic values, and should involve representatives of local governments, special interest groups, and other interested parties.		Land Use Planning
	Policy	Acknowledges that acquisition of important forest lands and other valuable resource lands by the U.S. Forest Service, local and state government, land trusts, or private conservation organizations is a valuable way to maintain, enhance and conserve resource values and opportunities.		Land Use Planning
Climate Resilience	Goal	Limit the physical impacts of flooding and related climate hazards		Climate Resilience
	Goal	Improve preparedness for and resilience in the face of flooding, extreme heat, and other climate hazards		Climate Resilience
	Action	Works cooperatively with municipalities and the Vermont Agency of Natural Resources to complete and maintain flood and fluvial erosion hazard maps and to identify specific areas of concern that should be targeted for mitigation actions.		Climate Resilience
	Action	Works cooperatively with municipalities, state and regional agencies, and conservation and watershed organizations to maintain and enhance the ecological integrity of rivers, streams, wetlands, and upland forests.		Climate Resilience
	Action	Facilitates acquisition by public entities or conservation organizations of critical buffers and land within erosion hazard zones, especially those identified in hazard mitigation and river corridor plans.		Climate Resilience

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	Assists municipalities to maintain up-to-date regulations to limit and control development in flood hazard areas and river corridors. Such regulations are designed to protect property and the health and safety of the population against the hazards of flood inundation and erosive damage that may be incurred when unsuitable development occurs in areas prone to flooding or erosion. New development in special flood hazard areas and fluvial erosion hazard zones should be avoided. Any new development that does occur must be designed and sited so as to avoid any increase in flooding or erosion.		Climate Resilience
	Action	Advocates for municipalities to adopt river corridor standards or to require establishment of undisturbed buffers of natural vegetation between rivers, streams, and other waterbodies to maintain water quality and to attenuate overland flow. This buffer should reflect state river corridor mapping or be at least 50 feet wide for streams with minimal potential for lateral or vertical adjustment and 100 feet wide for streams with significant potential for such adjustment.		Climate Resilience
	Action	Advocates that municipalities adopt the most recent Orange Book standards for municipal roads and bridges. Bridge and culvert repairs and replacements should be designed based on hydraulic studies to avoid constrictions that would accelerate flow and cause damage to public infrastructure and private property.		Climate Resilience
	Action	Facilitates reconstruction or replacement of existing local and state bridges and culverts that would impede flow during flooding events as part of regular scheduled maintenance or through special hazard mitigation initiatives.		Climate Resilience
	Action	Provides education and outreach to municipalities and property owners within flood zones to encourage flood-proofing or buy-outs of structures subject to repeated flooding and eligible for funding under the FEMA hazard mitigation grant program.		Climate Resilience
	Policy	Recommends municipalities participate in FEMA's Community Rating System program and assist municipalities to implement standards that will lead to rate reductions in flood insurance premiums for residents and businesses.		Climate Resilience
	Action	Assists municipalities to encourage or require owners of property in flood hazard zones to secure propane tanks, firewood, boats, and other items that could float away in a flood, thereby creating hazards for people, property, and infrastructure downstream.		Climate Resilience
	Action	Tracks state heat and drought warning systems and works cooperatively with municipalities to implement mitigating measures that are within municipal control. This could involve boosting anti-poverty social services, supporting public health programs addressing chronic health conditions (such as diabetes, asthma, hypertension, and obesity), and improving environmental mitigating factors (such as increasing tree canopy, decreasing impervious surfaces, and increasing housing availability).		Climate Resilience
	Action	Seeks to study urban tree canopy in the region's downtowns and villages centers, especially with an eye toward equity. Based on study results, encourage tree planting in downtown and village areas with canopy gaps that contribute to inequitable heat island effect.		Climate Resilience
	Action	Assists municipalities to provide adequate shade coverage and water sources at outdoor public facilities such as parks, playgrounds, and public transit stops.		Environmental

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Encourages and assists municipalities to meet requirements of the Emergency Relief and Assistance Fund (ERAF).		Climate Resilience
	Policy	Encourages municipalities to maintain Hazard Mitigation Plans. HMPs help municipalities qualify for more funds after a disaster through ERAF and allow municipalities to become eligible for FEMA grant assistance. The BCRC will assist municipalities to complete grant applications under the Hazard Mitigation Funding Program and will respond to municipal RFPs to develop HMPs.		Climate Resilience
	Action	Facilitates municipalities to maintain and submit Local Emergency Management Plans (LEMP) for emergency response and hazard preparedness by the annual June 1 deadline.		Climate Resilience
	Action	Facilitates participation by municipal representatives at all Regional Emergency Management Committee (REMC) meetings.		Climate Resilience
	Policy	Encourages municipal leaders to assess their community's risk by reviewing the Community Report section on the Flood Ready website.		Climate Resilience
	Action	Facilitates attendance by municipal leaders at Incident Command System (ICS) trainings, Emergency Management Director (EMD) trainings, National Incident Management System (NIMS) trainings, and other necessary trainings listed on the Vermont Learning Management System.		Climate Resilience
	Action	Assists municipal leaders to encourage community members to sign up for Vermont Alert to receive emergency alerts by text, email, or phone call.		Climate Resilience
	Action	Assists municipalities to provide emergency information on municipal websites, such as shelter information, weather alerts, and how to make an emergency kit.		Climate Resilience
	Action	Works to provide additional support to Economically Disadvantaged and Rural Communities (EDRCs).		Climate Resilience
Rural Land Use	Goal	Maintain the region's general character of compact centers surrounded by sparsely-developed rural lands		Land Use Planning
	Goal	Work to repair existing sprawling and linear development by supporting development that integrates such areas with growth areas and/or connects low-density rural areas		Land Use Planning
	Goal	Support working lands by allowing appropriate and traditional rural land and resource-based uses		Land Use Planning
	Goal	Promote conservation of areas far from developed centers, in areas with high elevation and steep terrain, river corridors, floodplains, and wetlands		Land Use Planning
Rural Ag + Forestry	Policy	Encourages development in and around existing village and urban centers to relieve the pressure to develop in outlying agricultural areas		Land Use Planning
	Policy	Supports municipal land use policies and regulations in rural areas containing productive soils that permit those uses, density levels, and development patterns that will not detract from rural character or substantially reduce the viability of current and future agricultural use		Land Use Planning
	Policy	Supports local zoning and subdivision regulations that provide for innovative practices such as transferable development rights and planned unit developments that require or encourage preservation of important agricultural soils		Land Use Planning
	Policy	Encourages member municipalities to promote the Use Value Appraisal program and conservation and preservation programs with local and statewide organizations as viable options for farmland preservation		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	Shall assist municipalities to make sure their land use regulations clearly comply with updated state laws about accessory on-farm businesses and shall provide relevant language to member planning commissions		Land Use Planning
	Action	Shall work to make local producers aware of funding opportunities from the Vermont Agency of Agriculture, Food, and Markets, and foster connections between local farmers and local and regional businesses (especially restaurants and stores) to bolster financial viability of farming operations		Community and Economic Development
	Policy	Encourages member municipalities to adopt land use regulations that require subdivision and development plans and/or Planned Residential and Planned Unit Developments that preserve agricultural resources, preserve open space, protect scenic resources, and efficiently provide public services in areas where the future land use map depicts this land use category.		Land Use Planning
Rural Cons.	Policy	Shall support municipal plans to identify and map wildlife habitats, agricultural lands, scenic ridgelines, and other scenic resources, and establish appropriate guidelines for protecting those resources		Environmental
	Policy	Supports the efforts of conservation organizations to preserve lands containing critical or vulnerable natural resources, such as mountain ridgelines, headwaters, wetlands, river corridors and flood hazards, surface waters, and forest blocks and wildlife habitat connectors in areas the future land use map depicts in this land use category		Environmental
	Policy	Encourages municipalities to identify scenic resources that are most important to them, and develop protections accordingly, as part of the municipal plan development process		Land Use Planning
Rural General	Policy	Discourages zoning that allows commercial uses that generate significant traffic volumes along sections of highway that have structural limitations because of poor visibility, steep grades, poor alignment, or other factors		Land Use Planning
	Policy	Encourages local zoning regulations to include standards that will ensure that existing roadside commercial areas do not deteriorate into unsafe or unsightly "strip" developments. These standards should include provisions for adequate and efficient vehicular parking, ingress, and egress; parking lots located to the rear or side of buildings; minimum lot size and road frontage; building siting and design; restrictions on signs, lighting, and other site structures; and landscaping.		Land Use Planning
	Policy	Supports a standard rural zoning district lot size of one acre, and never more than two acres in areas where Rural General is the predominant future land use category		Land Use Planning
	Policy	Supports municipal bylaws that allow accessory dwelling units in rural areas at sizes larger than Vermont's statutory minimum, and opposes owner-occupancy requirements for such units		Land Use Planning
	Policy	Does not oppose allowing a second accessory dwelling unit per lot in zoning bylaws, particularly in areas where onsite septic suitability ratings are Class 2 or better		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports municipal definition of the types of businesses appropriate to co-locate on residential lots and the categorization of businesses that meet these criteria as a permitted rather than conditional use, including but not limited to food businesses serving off-site customers, food businesses with retail stands, trades businesses serving off-site customers, and property management businesses		Land Use Planning
	Policy	Supports additional housing and mixed-use developments in areas where Rural General is the predominant future land use category where such developments act to complement or extend existing Village Center, where they lie between centers and existing rural subdivisions such that they would act to tie existing subdivisions into existing centers via infill development, or where such development add depth to existing strip development		Land Use Planning
	Policy	Discourages new roadside commercial designations, and supports municipalities working to remap such existing zoned areas to their general "rural" or "rural residential" zoning districts, add depth from the associated road, and transform them into "village center" districts if a Village Center is depicted on the FLU map		Land Use Planning
	Action	Provides technical assistance on best practices in regulation of traditional rural nonresidential uses including construction, trades, retail, and other businesses.		Land Use Planning
Growth-Oriented Land Use	Goal	Maintain the region's general character of compact centers surrounded by sparsely-developed rural lands		Land Use Planning
	Goal	Encourage dense, walkable, mixed-use development in Downtowns, Village Centers, Planned Growth Areas, and Village Areas		Land Use Planning
	Goal	Support the protection and preservation of important historic features throughout the region		Land Use Planning
	Goal	Support research and investment into expanded water and wastewater facilities in growth-oriented areas, including Transition/Infill Areas		Land Use Planning
	Goal	Protect Enterprise Areas as sites of employment, industrial use, and resource extraction		Land Use Planning
Downtown and Village Centers	Policy	Shall support the addition of housing in designated centers pursuant to regional housing targets		Land Use Planning
	Action	Shall provide GIS services for the extension of "village" and other highest-density zoning categories available in a member municipality to the boundaries of mapped designated centers, Village Areas, and/or Planned Growth Areas		Land Use Planning
	Action	Shall, when requested, assist municipalities with revising zoning district boundaries to reflect the requirements of the Act 47, and/or create an overlay district that maps where both public water and sewer are available		Land Use Planning
	Policy	Encourages identification of historic resources at the municipal level using state and local resources, where available		Land Use Planning
	Policy	Encourages member municipalities to consider the designation of historic districts or design review districts to provide for appropriate local oversight in areas with several or significant historic resources		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports adaptive reuse projects and other efforts to rehabilitate historic structures, especially when disuse, dilapidation, and neglect threaten destruction		Land Use Planning
	Policy	Encourages member municipalities with designated areas to equitably distribute the benefits of the designation program throughout eligible areas community	⚖	Land Use Planning
Planned Growth Areas	Policy	Shall support the addition of housing in Planned Growth Areas pursuant to regional housing targets	⚖	Land Use Planning
	Policy	Shall support local planning and regulations that implement "complete streets" principles as required in state law, through development standards, capital planning, or other transportation planning initiatives	⚖	Transportation
	Action	Shall maintain maps of planned and potential bicycle and pedestrian projects that would ensure all Planned Growth Areas will be served by non-car infrastructure		Transportation
	Policy	Encourages updating land use regulations to remove unnecessary barriers to higher density housing developments and innovative uses in commercial and mixed-use areas.	⚖	Land Use Planning
	Action	Shall, when requested, advise municipalities on how they can provide for simplified regulation of commercial and mixed-use activity typical of Planned Growth Areas, including clarifying performance standards and shifting uses subject to conditional use and site plan review to permitted uses subject to administrative review.		Land Use Planning
	Policy	Supports provisions in municipal bylaws that make public buildings or those providing important public services including but not limited to town offices, parks, fire, police, and/or ambulance stations, water and wastewater infrastructure, and transit stops a permitted rather than conditional use.		Land Use Planning
Village Areas	Policy	Shall support the addition of housing in Village Areas pursuant to regional housing targets	⚖	Land Use Planning
	Action	Shall, when requested, advise municipalities on how they can provide for simplified regulation of commercial and mixed-use activity typical of Village Areas, including clarifying performance standards and shifting uses subject to conditional use and site plan review to permitted uses subject to administrative review.		Land Use Planning
	Policy	Shall support local planning and regulations that prioritize "complete streets" principles as required in state law, through development standards, capital planning, or other transportation planning initiatives	⚖	Transportation
Transition/ Infill Areas	Policy	Shall generally support the addition of housing in Transition/Infill areas pursuant to regional housing targets, except for where staff believe such development would impede progress toward the housing target after utilities have been extended, including low-density infill on large potential development sites	⚖	Land Use Planning
	Action	Shall remain apprised of planned water and wastewater infrastructure projects in member towns		Land Use Planning
Enterprise Areas	Policy	Shall not support the addition of housing in enterprise areas except for after earth resources that justified the area's designation are exhausted or where such projects have been designed in a manner to limit environmental justice impacts from existing enterprise activity and not preclude existing or expected industrial development projects.	⚖	Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Shall support continued industrial development in existing Enterprise areas that have achieved all other required environmental protection permits.		Land Use Planning
Housing	Goal	Encourage the addition of new housing to the region at all price points to meet regional housing targets in every town individually and the region collectively.		Land Use Planning
	Goal	Support the addition and rehabilitation of housing that is affordable to the region's residents and workforce.		Land Use Planning
	Goal	Advocate for housing that reflects energy efficiency, smart growth, and healthy community design principles.		Land Use Planning
	Goal	Support an increase in the variety of housing options available in both compact centers and more rural areas, with higher densities, multifamily buildings, and mixed-use developments in suitable locations in and around downtowns and village centers.		Land Use Planning
	Action	Shall assist member municipalities to adopt plans with housing elements that assess housing issues and needs in their communities and that establish realistic strategies to address the identified needs and to meet targets as established in this plan		Land Use Planning
	Action	Shall assist municipalities to adopt and implement local land use regulations that make provisions to allow for adequate supplies of housing of various sizes and types in appropriate densities		Land Use Planning
	Action	Shall assist municipalities in implementing recommendations of Vermont's Zoning for Great Neighborhoods handbook in designated centers, Village Areas, and Planned Growth Areas.		Land Use Planning
	Action	Assists municipalities to pursue investments in infrastructure that support the development of new housing to meet the targets established in this plan		Land Use Planning
	Action	Works with member municipalities, public and non-profit housing organizations, and private developers to assist in the planning and development of new or rehabilitated housing that is affordable to residents of the region and to potential members of the workforce who are seeking housing in the area		Land Use Planning
	Action	Works with regional partners to support the development of additional housing that meets the needs of the region's seniors and residents with disabilities, as well as those with special needs and very low incomes. This housing should be in or near Downtowns, Village Centers, Planned Growth Areas, and Village Areas, where services are conveniently available.		Land Use Planning
	Policy	Prioritizes development of housing on vacant "infill" lots, in the upper stories of Downtown and Village Center buildings, and remediation and redevelopment of vacant or underused buildings and "brownfield" sites for housing in compact centers		Land Use Planning
	Policy	Supports municipal adoption of unified development ordinances to address issues related to housing and land use, but not otherwise regulated through zoning, subdivision, and flood hazard bylaws.		Land Use Planning
	Policy	Supports municipal bylaws that offer density bonuses for permanently affordable housing, as well as those that offer density bonuses for supportive and recovery housing, beyond any density bonuses required by state law, including relaxation of massing regulations.		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Opposes municipal mandates on the design of types of materials to be used in housing, mixed use, or accessory building construction except for in designated design review districts or where mandated in state building or energy codes due to such mandates effect of discouraging housing construction to meet established housing targets.		Land Use Planning
	Policy	Supports state and local efforts to house people experiencing homelessness		Land Use Planning
	Action	Encourages and facilitates, as appropriate, the use of public assets such as buildings, land, and financing, to help reduce the cost of housing development and support creation of affordable housing		Land Use Planning
	Policy	Supports legislative efforts to reduce the cost of housing construction and renovation, including but not limited to changing the state building code to allow for simpler use of non-flammable construction materials, buildings with a single access staircase, and smaller elevators		Land Use Planning
	Policy	Supports legislative efforts to simplify the housing permitting process including the use of pre-approved housing designs and use of modular and off-site construction techniques		Land Use Planning
	Policy	Supports legislative efforts to address the state's housing construction labor shortage including training of contractors, allowing portability of tradesperson occupational licenses, and related workforce matters		Land Use Planning
Local Economy	Goal	Maintain and enhance the variety and versatility of the existing regional economy		Community and Economic Development
	Goal	Foster the positive and supportive environment that exists between and across sectors		Community and Economic Development
	Goal	Encourage a dynamic local labor market that fosters opportunities for those with diverse skill sets, backgrounds, and stages of life and provides depth to facilitate two-earner and single-earner households		Community and Economic Development
	Action	Deploys the Southern Vermont Comprehensive Economic Development Strategy, in concert with regional partners, and positions the CEDS publicly as a vital tool, articulating and detailing actionable pathways to strengthen businesses and support the people who contribute to them.		Community and Economic Development
	Action	Secures and maintains an Economic Development District from the US Ec onomic Development Administration to bring annual federal funding for economic development activities to Southern Vermont, and ensures that clear plans are in place to guide the highest and best use of the resource.		Community and Economic Development
	Policy	Supports the reuse and redevelopment of existing physical/structural assets, including brownfields, and engages with existing employers to support their expansion and local entrepreneurs who wish to enter the marketplace.		Community and Economic Development
	Action	Capitalizes on outside attention on the region to expand the possibilities for regional economic development, and identifies and works with external site selection firms that can promote existing sites to a broader client base with ready access to capital.		Community and Economic Development
	Action	Collaborates with workforce development partners and experts to increase labor force participation rates among the region's discouraged and disconnected workers, and researches innovative practices from around the country with potential applicability.		Community and Economic Development

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	While workforce and population demands remain, works with regional partners and employers to identify potential and develop reliable hubs for relocation in the Northeast.		Community and Economic Development
	Policy	Prioritizes the utilization of existing developable space in the region's many business parks and engages with property managers to ensure offerings are adequately marketed.		Community and Economic Development
	Action	Utilizes BCRC's roles in the public and private sectors to build strong relationships between local employers and municipal officials.		Community and Economic Development
	Action	Provides opportunities for parties to engage and discuss topics of mutual interest and, where appropriate, opportunities for mutual investment.		Community and Economic Development
	Action	Works closely with municipalities to advocate for the development of local economic development strategies, and for the continual implementation of existing strategies.		Community and Economic Development
	Action	Advises municipalities in their revision of zoning bylaws to align with municipal plan economic development elements, support the existence of businesses in mixed use village centers, and embrace investment opportunities that may exist for their municipality.		Community and Economic Development
	Action	Continues to foster economic development cooperation throughout the region. Ensures that regional economic development conversations benefit from regional representation.		Community and Economic Development
	Policy	Supports making effective use of the region's abundant natural resources as a base for economic development activities.		Community and Economic Development
	Action	Continues building on the workforce development programs, including signature events, that bring together service providers and users working to meet the needs of area residents.		Community and Economic Development
Mobility and Trans.	Goal	Work with local and state officials to implement projects identified as priorities in this plan and in other regional and local documents. Update the project lists and assign priorities regularly		Transportation
	Goal	Support planning and projects that would reduce greenhouse gas emissions from transportation		Transportation
	Goal	Plan for a transportation network that safely and efficiently serves users of all transportation modes including local, regional, and long-distance trips		Transportation
	Goal	Support legislative efforts to advance changes that promote equity, reduce greenhouse gas emissions, provide for safety improvements, implement global best practices, and improve financial sustainability of the state's transportation system		Transportation
	Action	Shall collaborate with local and state officials to implement projects identified as priorities in this plan		Transportation
	Action	Shall update the project lists and assign priorities regularly		Transportation
	Policy	Supports the creation of safe and inviting bicycle and pedestrian networks, particularly in downtowns and village centers, to boost the trip mode share of walking and biking		Transportation
	Policy	Shall encourage and assist with the development and maintenance of safe and convenient pedestrian routes in downtowns, village centers, hamlets, neighborhoods, and all areas of concentrated development		Transportation

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports the installation of signage across the region for US Bike Route 7 (Western New England Greenway) from Pownal to Rupert		Transportation
	Policy	Encourages implementation of traffic calming techniques in village centers, downtowns, and neighborhoods to reduce vehicle speeds and enhance safety		Transportation
	Action	Shall assist with pre-scoping of and applications for grants to conduct scoping studies of bicycle and pedestrian projects		Transportation
	Policy	Supports state and municipal efforts to design roads and streets so that they are "self-enforcing" and do not invite drivers to exceed the speed limit		Transportation
	Policy	Supports state efforts to prepare infrastructure to accommodate automated driving systems including fully-automated systems in order to reduce crash risk and improve mobility for those who cannot drive, particularly to accommodate the state's aging population		Transportation
	Policy	Supports legislative efforts to link vehicle taxes and fees to the axel weight of vehicles to fund local and state roads and bridges in line with the damage vehicles cause		Transportation
	Action	Shall engage with municipalities to ensure new and reconstructed roads, bridges, and stormwater systems be designed, built, and maintained in accordance with current highway codes and standards and other local and state requirements. Flood resilience and water quality should be leading considerations in all highway projects		Transportation
	Policy	Supports transportation investments that focus on maintaining existing infrastructure and correcting deficiencies and safety hazards. Major investments should occur primarily in areas planned for growth with little investment in new roads in remote and mountainous areas		Transportation
	Policy	Shall support area transit agency efforts to improve public transportation between key origins and destinations so that it attracts "choice riders" (riders who choose to take transit over driving personal vehicles)		Transportation
	Policy	Shall oppose municipal regulation of public transit infrastructure including applying conditional use review to transit shelters or aesthetic regulations to transit stop signage		Land Use Planning
	Policy	Supports improvements to frequency of local and regional public transportation services, and believes that frequency should take precedence over potential service extensions		Transportation
	Action	Is available to engage in contracted projects for municipalities to ensure large transportation expenses are accurately represented in local capital budgets		Transportation
	Policy	Supports transportation system improvements that limit adverse impacts on important natural and cultural resources and minimize disturbances to residential areas		Transportation
	Policy	Supports municipal regulations that provide flexibility in management of parking such that developments are expected to provide sufficient parking without the need for proscriptive parking mandates		Land Use Planning
	Policy	Supports municipal right-of-way access management techniques to enhance safety and limit congestion		Transportation
	Policy	Supports state efforts to design commercial truck routes in such a way as to avoid excessive conflicts with local traffic and impacts on residential neighborhoods		Transportation

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports efforts to complete passenger rail service along the entire western corridor between Albany-Rensselaer, Bennington, Rutland, and Burlington		Transportation
	Policy	Supports state investments that improve the safety of railroad crossings of local and state highways		Transportation
	Policy	Supports efforts to facilitate the rail-banking of the remaining railroad spur between North Bennington and the terminus of the existing Bennington Rail Trail, as well as the transfer of Depot Street in the Village of North Bennington to the Village		Transportation
	Policy	Supports efforts to create value-added services at or adjacent to the William H. Morse state airport to capitalize on state airport operating subsidies		Community and Economic Development
	Policy	Supports the creation of a robust electric vehicle charging network to promote the transition to electric vehicles		Energy
Energy	Goal	Support efforts to reduce regional energy burden and fossil fuel pollution in support of Vermont's climate and energy goals.		Energy
	Goal	Promote resilient, energy efficient buildings and communities, and reduced thermal energy use in the Bennington region.		Land Use Planning
	Goal	Promote growth and development in compact, mixed-use centers.		Energy
	Goal	Support strategies to decrease energy use, costs, and fossil fuel pollution in the transportation sector.		Energy
	Goal	Support the development of new, community-scale renewable energy generation that is affordable, equitable, and respects the natural environment.		Energy
Reduced energy burden, fossil fuels	Action	Continues to assist municipalities with updating and developing enhanced energy plans, including renewable resource mapping assistance.		Energy
	Action	Supports municipal energy committees in their engagement with residents and municipalities about opportunities to reduce energy burden and switch to affordable renewable energy sources. Additionally, continue to collaborate and partner with organizations (including municipalities, educational institutions, businesses, and non-profits) to help meet the State's energy and climate goals.		Energy
	Policy	Support a wide variety of renewable energy generation types, including but not limited to, passive solar building design, biodigesters for electricity generation, photovoltaic solar, agrivoltaics, wind turbines, and optimizing the energy potential for existing hydro-electric dams in the region.		Energy
	Action	Works with landlords, developers, and businesses to raise awareness about the importance of weatherization, non-fossil fuel-based heating systems, and EV charging.		Energy
	Policy	Supports changes in federal, state, and local policies to achieve Vermont's goals related to the Comprehensive Energy Plan, Climate Action Plan, and Environmental Justice Law.		Energy
	Action	Works with community partner organizations to promote programs that help reduce residential energy burden such as: BROC's free home weatherization program for income-eligible households, The Green Savings Smart Program, Efficiency Vermont's income-based assistance programs, The Weatherization Repayment Assistance Program (WRAP), WindowDressers		Energy

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports the development of a replacement program for virtual group net metering that makes renewable energy more affordable to residents.	⚖	Energy
Buildings/ Thermal	Action	Promotes Vermont's residential and commercial building energy standards (RBES/CBES) for new construction and existing buildings, including additions, alterations, renovations, and repairs.		Energy
	Action	Hosts and facilitates building science and standards training and education opportunities for local officials, zoning administrators, and relevant workforce development groups. Encourage communities with zoning to require Certificates of Occupancy. Encourage the local adoption of "stretch energy codes."		Energy
	Action	Review local zoning bylaws and offer technical assistance to development review boards when evaluating the energy, climate, and health implications of site plans for proposed developments.		Energy
	Action	Works with housing and energy efficiency organizations to promote and improve the regional supply of energy efficient housing.	⚖	Energy
	Action	Promotes weatherization and energy efficiency programs to individuals and businesses.		Energy
	Action	Works with Heat Squad, BROC, and other weatherization programs to increase programmatic offerings in the Bennington region.		Energy
	Action	Promotes and encourage energy audits of residential and commercial buildings.		Energy
	Action	Identifies and support weatherization workforce training opportunities in the region.		Energy
	Action	Promotes rebates incentives offered by Efficiency VT and Green Mountain Power		Energy
	Action	Promotes the installation of cold climate heat pumps in residential and commercial buildings		Energy
	Action	Works with municipalities to identify opportunities for fuel switching and efficiency upgrades in municipal buildings.		Energy
	Policy	Supports the use of geothermal heating and cooling systems for new residential and commercial construction.		Energy
	Action	Works with the owners of buildings and facilities that serve critical community functions to improve the efficiency and resiliency of these locations.		Energy
Compact Develop.	Action	Works with local planning commissions to amend land use regulations and plan infrastructure improvements that support planned mixed-use centers.		Land Use Planning
	Action	Helps municipalities apply for state designation programs that support compact development.		Land Use Planning
	Action	In village centers where the infrastructure needed to support the desired mix and density of development is not available, supports technical assistance projects in cooperation with the Agency of Commerce and Community Development and the Department of Environmental Conservation that will lead to expanded water supply and wastewater disposal options.		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Policy	Supports programs that provide incentives to maintain economically viable rural open lands. Encourage local plans and regulations to promote land conservation and maintenance of the working landscape (i.e., farms, forestry, and supporting uses) over low-density residential development in rural areas.		Energy
Transport.	Action	Follows the 2023 Vermont Transportation Equity Framework to help decision makers plan for and prioritize projects, ensure accurate representation in decision making, and enhance the equitable delivery of services. Continually assess transportation access and barriers in the region.		Transportation
	Action	Implements the strategies and priorities identified in the Vermont Health Equity Planning Toolkit that are relevant to the Bennington region.		Transportation
	Action	Works with municipalities to update municipal road standards (for maintenance and new construction) to reflect Complete Streets principles.		Transportation
	Action	Assists municipalities with scoping of future bike and pedestrian facilities to improve safety, accessibility, efficiency, and continuity of the system.		Transportation
	Action	Helps municipalities use the outcomes of the scoping studies to apply for various Agency of Transportation implementation grants.		Transportation
	Action	Promotes the use of the region's existing bike and pedestrian infrastructure and support the efforts of local groups maintaining them.		Transportation
	Action	Promotes Transportation Demand Management (TDM) and Ridesharing programs.		Transportation
	Action	Promotes the Go!Vermont program that links travelers to a variety of transportation resources and mobility options.		Transportation
	Policy	Supports the continued development and expansion of park-and-ride facilities and integration with transit routes.		Transportation
	Policy	Supports employer programs to encourage telecommuting, carpooling, vanpooling, walking, and biking for employee commute trips.		Community and Economic Development
	Policy	Supports investment in Green Mountain Express services in the region.		Transportation
	Action	Works with Green Mountain Express and the Agency of Transportation to identify opportunities for transit improvement and expansion.		Transportation
	Policy	Encourages schools in the region to maximize ridership of public school buses and minimize use of private vehicles for student transport.		Energy
	Action	Promotes and supports rail infrastructure as a cost-effective transportation resource.		Transportation
	Policy	Encourages EV adoption and the development of electric vehicle supply equipment (EVSE), including Level 1, Level 2, and Level 3 charging stations, in downtowns, village centers, and opportunity zones, as well as along key interstate and state highway corridors.		Energy
	Action	Assist communities with planning for and securing funding for EVSE.		Energy
	Action	Educates individuals on the benefits of EVs with an emphasis on gasoline superusers.		Energy
	Action	Promotes workplace charging to regional businesses.		Energy
	Action	Assists municipalities and businesses with fleet electrification through grant support and technical assistance.		Energy
	Policy	Supports the expansion of electric powered buses and vans among the public and private transportation providers serving the region, including school districts		Energy

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	Works with cycling advocacy groups to host safe on-road cycling workshops and raise awareness about the viability of micro-mobility (such as electric bikes and scooters).		Transportation
	Action	Provides technical and grant writing assistance to municipalities to plan for multi-modal transportation and better connectivity with alternative transportation modes.		Transportation
Renewable Energy	Policy	Supports the development and siting of renewable energy, storage, transmission, and distribution resources on state and regionally preferred (and potential) locations, as identified by BCRC's Act 174 Energy Maps.		Energy
	Action	Investigates public benefits provided to communities either directly from renewable energy developers or as a condition of a Certificate of Public Good. Assess if the current system is equitable to all municipalities impacted by a renewable generation facility, or if the current system can be improved to provide greater equity to all community members impacted by a renewable energy generation facility.		Energy
	Policy	Encourage municipal land use regulations that promote co-development of renewable energy generation with storage and flexible load management strategies.		Land Use Planning
	Policy	Supports in-place upgrades of existing facilities, including existing renewable energy generation, storage, transmission lines, distribution lines and substations as needed to reliably serve municipalities and the region.		Energy
	Action	Cooperates with VELCO in assuring reliable transmission and distribution of electricity in the region. Work with VELCO to identify and mitigate grid constraints that may arise from large scale distributed generation in the region.		Energy
	Action	Coordinates regional energy planning with Green Mountain Power, ensuring that areas planned for new renewable energy generation projects are consistent with the capacity of the grid infrastructure and that any upgrades needed are implemented.		Energy
	Policy	Supports the economic viability of farms through appropriate renewable energy development as a complementary use that keeps farms in agricultural production while preserving agricultural soils and working lands. Promote the use of on-farm power and community energy generation and the use of renewable energy for farming and food production (such as anaerobic digesters, solar, wind, biomass, and biodiesel) in accordance with local and regional planning priorities.		Energy
	Policy	Encourage agrivoltaics that co-locates solar energy generation with active farming.		Energy
	Policy	Encourages and supports agricultural production of biofuels and oilseed crops and explore ways to broaden access to processing infrastructure.		Energy
	Policy	Shall follow the criteria laid out in the text of the Energy section of this plan relating to siting of renewable electricity generation.		Energy
Utilities, Facilities, and Infrastructure	Goal	Support public investments in utilities, facilities, and services that reinforce historical development patterns and further encourage development in downtowns, village centers, and other areas planned for growth		Land Use Planning
	Goal	Improve systems that reduce solid waste, including improved waste diversion, and recycling.		Solid Waste Management

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Goal	Support improvements that expand telecommunications and cellular connectivity in areas where lack of coverage creates health and safety concerns and deters outdoor recreation		Land Use Planning
	Goal	Foster coordination of emergency services via the Regional Emergency Management Committee meetings and mutual aid agreements.		Climate Resilience
	Policy	Supports efforts to maintain public water supply and wastewater disposal systems to serve areas of concentrated development or to correct serious health hazards.		Land Use Planning
	Action	Should work with local governments to assess water and sewer infrastructure needs required to support planned development in these areas.		Land Use Planning
	Policy	Supports municipal efforts to require large new developments be responsible for paying a fair share for the provision of that new or expanded infrastructure or service delivery systems.		Land Use Planning
	Policy	Supports municipalities reliably and accurately planning for future capital needs necessary to keep public buildings and facilities in a state of good repair without pushing maintenance burdens into the future.		Solid Waste Management
	Action	Works with municipalities to develop a comprehensive solid waste plan that will implement the goals of the Vermont Materials Management Plan in a manner that is deemed most appropriate for local communities. Long-term facilities and management structures that promote responsible and cost-effective resource use must be identified and implemented.		Solid Waste Management
	Policy	Supports the establishment of environmentally and economically sound renewable energy generation facilities and implementation of smart grid technology.		Energy
	Policy	Continues to support the SoVT CUD in its mission of making high-speed internet available to all Southern Vermont residents.		Land Use Planning
	Action	Should facilitate local and state cooperative efforts to aggressively expand cellular voice and data communication services to all parts of the region. Siting of new telecommunication towers should give primary consideration to concerns identified in municipal and regional plans. As a first priority, antennas should be located in, or attached to, existing structures, including existing utility poles in developed areas, particularly where they limit new aesthetic impact. “Stealth” tower designs may be used when they blend naturally into the surrounding landscape. New towers should be no taller than necessary to provide coverage, and developers should consider whether multiple small towers or antenna locations would be preferable to a large tower.		Land Use Planning
	Policy	Supports deployment of improved cellular and data communications services, including in areas where impact on historic and scenic resources are non-trivial and where service primarily covers undeveloped areas due to concerns related to public safety, emergency management, and the need for wilderness rescue. This specifically includes support for antenna on public safety structures including those located in historic village centers.		Land Use Planning
	Policy	Supports the location of important public buildings including new or expanded municipal, state, or federal buildings in downtowns or village centers.		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	Should continue to assist with the preparation of local emergency management plans and hazard mitigation plans, play an active role on the Regional Emergency Management Committee, and serve as a liaison between municipalities and state agencies by providing information and damage reports during emergencies.		Climate Resilience
	Policy	Supports municipal consideration of how to efficiently provide for public safety services (including emergency management), including mutual aid agreements, cooperation between municipalities, and regionalization of service coverage areas.		Land Use Planning
	Policy	Encourages municipal efforts to support citizen participation in Green Up Day including collection and removal of collected trash and staff support to promote the event.		Environmental
Wellbeing and Recreation	Goal	Support improved access to primary and specialized healthcare for all residents		Land Use Planning
	Goal	Embrace a holistic approach to measuring and improving overall community health and wellbeing		Land Use Planning
	Goal	Encourage and support provision of recreational facilities for all ages and abilities		Land Use Planning
	Action	Promote health equity and healthy community design in municipal plans and land use regulations	⚖	Land Use Planning
	Policy	Support municipal regulations that avoid undue burdens on facilities that serve people with substance use disorders, people with disabilities, and other populations that require special consideration	⚖	Land Use Planning
	Policy	Opposes regulations that prevent or place undue burden on the siting of medical facilities in downtowns, village centers, and other areas planned for growth	⚖	Land Use Planning
	Policy	Supports municipalities working to identify recreational needs and opportunities, develop new facilities as appropriate, and minimize barriers to access to those facilities.	⚖	Land Use Planning
	Policy	Encourages municipalities to identify vacant lots, fields, and properties that could be used for community gardens, farmers markets, or recreational activities for local residents.	⚖	Land Use Planning
	Action	Should maintain inventories of all public parks and recreation facilities in the region and identify any barriers to access to those facilities.	⚖	Land Use Planning
	Policy	Encourages local communities to prioritize Complete Streets improvements to roads, sidewalks, and parking areas that will make it easier for residents, including children, to exercise on a regular basis.	⚖	Transportation
	Action	Maintains an understanding of the distribution of recreational facilities serving different ages and abilities across the region and supports municipal efforts to accurately plan for the capital needs of maintaining these facilities in a state of good repair and adapting them for changing regional needs over time	⚖	Land Use Planning
	Policy	Supports state efforts to expand telehealth opportunities, expand nurse and dental practitioner access, and provide for licensing reciprocity and training rule harmonization with Massachusetts and New York	⚖	Land Use Planning
Community Life	Goal	Maintain the Bennington region's reputation as a destination for historical, arts, and other cultural attractions		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Goal	Support opportunities for local community members to enjoy and participate in the region's cultural offerings		Land Use Planning
	Goal	Increase the opportunities for people to connect within and across communities		Land Use Planning
	Action	Provides technical and grant-writing assistance to municipalities working on community and economic development projects.		Community and Economic Development
	Policy	Supports continued funding for libraries and other civic assets at levels approved by local taxpayers		Land Use Planning
	Action	Assists municipalities with incorporating data and discussions of historical, cultural, and civic institutions into municipal plans as requested.		Land Use Planning
	Action	Participates in local community events to share information about planning projects and engage with residents.		Land Use Planning
	Action	Promotes the Village Trust Initiative and other technical assistance programs to interested and eligible municipalities		Land Use Planning
	Policy	Opposes regulations that prevent or place undue burden on the siting of arts, cultural, and religious facilities in downtowns, village centers, and other areas planned for growth		Land Use Planning
	Action	Helps provide connections between community organizations and municipalities as needed.		Land Use Planning
	Policy	Supports youth and young professional empowerment initiatives in partnership with community-based organizations and municipal groups		Land Use Planning
	Policy	Supports opportunities to integrate public spaces for informal meetings and activities in public and private developments in downtowns, village centers, and other areas planned for growth.		Land Use Planning
Education and Childcare	Goal	Work with the region's educational providers to help maintain a high-quality educational system that meets the needs of residents of all ages and that supports regional community and economic development.		Land Use Planning
	Goal	Monitor education budgets and enrollment trends to inform conversations about regional governance.		Land Use Planning
	Goal	Encourage an education system that is connected with the local community and oriented toward the goals of the local labor market to support retention of students in the regional workforce		Land Use Planning
	Goal	Lower barriers to expanding childcare capacity in the region, particularly in underserved communities		Land Use Planning
	Policy	Encourages school districts and supervisory unions to regularly assess spending levels and evaluate potential policy and operational changes that can improve cost effectiveness.		Land Use Planning
	Action	Continues to monitor enrollment trends at public and private schools to aid in the evaluation of operational or structural changes that may be appropriate.		Land Use Planning
	Policy	Supports cooperative financial planning between school districts and municipal governments to minimize year-to-year fluctuations in property taxes.		Land Use Planning
	Policy	Encourages capital budgets and programs by municipalities and school districts to assist in forecasting major future education expenditures.		Land Use Planning
	Action	Helps pursue arrangements that allow for community use of school facilities for physical activity and recreation.		Land Use Planning

Plan Chapter	Type	Text	EJ	Primary BCRC Program Area
	Action	Sponsors workforce development initiatives that emphasize increasing awareness of career opportunities within the region and which match education and training with the needs of area employers.		Community and Economic Development
	Policy	Shall encourage municipalities to allow family childcare centers without site plan approval to encourage the availability of childcare in areas not traditionally served by childcare centers.		Land Use Planning
	Policy	Encourages the integration of Bennington's four colleges into the region's communities through student internships, development of student-oriented local businesses, and improved transportation and communication links		Land Use Planning
	Policy	Supports adult learning and vocational training opportunities, especially those provided through Southwest Tech and the Community College of Vermont.		Community and Economic Development
	Policy	Continues to support the provision of quality childcare and early childhood education facilities and assesses whether all parts of the region are adequately served and if additional capacity is needed to help grow the local workforce.		Land Use Planning
	Policy	Encourages greater coordination between childcare centers and other regional institutions that impact or are impacted by long-term educational and well-being outcomes.		Land Use Planning
	Policy	Supports enhanced shuttle and bus links between college campuses and the urban and village centers of the region		Transportation
Governance/ Coordination	Goal	Provide for coordinated governance in the region to limit impacts across municipalities, support regionally significant development, and adapt to changing circumstances		Land Use Planning
	Goal	Support resilience of local governance through contracted and shared services, mutual aid agreements, and inter-municipal coordination		Land Use Planning
	Goal	Ensure planning in the region is in harmony with neighboring regions both within and outside of Vermont		Land Use Planning
	Action	Engages with member municipalities to support municipal planning projects		Land Use Planning
	Action	Is available to support municipalities through contracted and shared services		Land Use Planning
	Policy	Supports municipal efforts to improve resiliency of governance including establishment of inter-municipal and regional mutual aid agreements and coordinated provision of shared services		Land Use Planning
	Action	Monitors the health of civic life in member municipalities and regional special districts to preserve regionally-significant knowledge and support continuity of operations		Land Use Planning
	Action	Engages with other regions in Vermont and neighboring regions of New York and Massachusetts to ensure harmony among regional planning documents and collaborate on projects of shared interest		Land Use Planning
	Policy	Supports state efforts to harmonize insurance regulations related to fire service mutual aid with New York and Massachusetts.		Land Use Planning
	Action	Reviews proposed development that meets the criteria of substantial regional impact and engages in state review processes with regard to the implementation of this plan and state planning goals		Land Use Planning

Appendices

A. Environmental Justice Benefits and Burdens Methodology
B. Regional Energy Methodologies and Analyses
C. Community Engagement Process

Appendix A: Environmental Justice Benefits and Burdens Methodology

Act 181 (2024) added a new state planning goal that requires regional and municipal plans "to equitably distribute environmental benefits and burdens as described in 3 V.S.A. chapter 72."

3 V.S.A. chapter 72 establishes the following definitions:

Environmental Benefits: The assets and services that enhance the capability of communities and individuals to function and flourish in society.

Environmental Burdens: Any significant impact to clean air, water, and land, including any destruction, damage, or impairment of natural resources resulting from intentional or reasonably foreseeable causes.

Environmental Justice Focus Populations are defined as any Census Block Group in which:

- the annual median household income is not more than 80 percent of the State median household income;
- Persons of Color and Indigenous Peoples comprise at least six percent or more of the population; or
- at least one percent or more of households have limited English proficiency

BCRC mapped the environmental justice focus populations (EJFPs) in the Bennington Region as defined in 3 VSA 6002. Using this definition results in more than 60% of the Census Block Groups in the region (21 out of 34 Block Groups) and more than two-thirds of the population (23,290 out of 35,840 people) being considered Environmental Justice focus populations.

To conduct an analysis of the distribution of environmental benefits and burdens in the region, BCRC used the list of burdens and benefits included in statute and identified corresponding metrics and data sources to evaluate the extent of the burden or benefit in the region compared to the EJFPs. When appropriate, complementary benefits and burdens were consolidated into a single measure. A GIS analysis of the benefits and burdens was conducted where data was available, but the benefits and burdens are also addressed conceptually at the end of each section under 'Environmental Justice Considerations'.

The spatial analysis evaluated the impact of certain benefits and burdens on the population distributed throughout the county, as well as the population distributed within EJFP areas, and compared the proportion of each population affected to determine if the EJFP areas were significantly (1.5x more likely to be) impacted by each metric. Only two metrics indicated a significant difference between the exposure of people throughout the region and the exposure of people living in an EFJP area:

- People living in areas with greater than the 80th percentile drinking water non-compliance (as identified in the EJScreen tool) – 11.34% of people in an EJFP block group live in an area the EPA has identified as "served by community water systems that have challenges complying with National Primary Drinking Water Regulations; by comparison 7.37% of Bennington County's entire population live in an area identified by the Drinking Water Non-Compliance indicator in EJ

Screen (EJScreen Technical Document, 27).

- People living in areas above 80th percentile for EJ Screen's wastewater discharge indicator – 16.66% of people in an EJFP block group live in an area the EPA has identified as containing heightened "relative potential human health impacts of certain [toxic] chemicals" (EJScreen Technical Document, 26).

While the remaining quantitative analyses did identify some discrepancies between the distribution of benefits and burdens countywide versus just in EJFP areas, those differences did not meet the 1.5 times threshold that BCRC established to monitor significant differences.

Environmental Benefit/Burden	Definition	Indicators	Regional Level	EJFP Level	Significant difference (more than 1.5x regional level)
Access to healthy air / Air Pollution	The extent to which communities breathe clean, unpolluted air, with low concentrations of pollutants like particulate matter, ground-level ozone, and other hazardous emissions from vehicles and industrial activity, at levels that do not pose significant risks to human health. Air pollution refers to conditions where the air contains harmful levels of contaminants that degrade human and environmental health. This includes elevated concentratations of particulate matter, ozone, or other hazardous emissions from industrial or transportation sources (like noxious gases and volatile organic compounds) that reduce air quality and increase respiratory and cadviovascular risks.	People living in areas with greater than 80th percentile 2.5 PM (EJ Screen)	25.32%	34.94%	1.38
		People living in areas with greater than 80th percentile diesel particulate matter (EJ Screen)	19.66%	26.23%	1.33
		People living in areas with greater than 80th percentile Toxic Releases to Air indications (EJ Screen)	23.71%	32.47%	1.37
		People living in areas with greater than 80th percentile potential ozone exposure (EJ Screen)	23.71%	32.47%	1.37
Access to clean water / Water Pollution	The availability of safe, clean drinking water and unpolluted surface waters that support daily use and recreational activities. Communities have access to clean water when local supplies consistently meet regulatory quality standards and are not affected by contamination that threatens human or environmental health. Water pollution occurs when surface or groundwater resources, or drinking water sources, are contaminated in ways that prevent them from meeting their intended uses. Polluted waters may contain excess nutrients, bacteria, chemicals, sediments, or other pollutants. Pollutants may threaten the safety of drinking water or recreational use, as well as impact aquatic ecosystems. Damage to inland waterways, waterbodies, and wetlands refers to conditions where rivers, lakes, streams, and wetland areas are degraded in ways that limit their ecological function or community use. This includes erosion, pollution, habitat loss, or altered flow patterns resulting from both human activity and natural causes. These stressors reduce water quality, weaken flood and storm protection, inhibit recreation, and contribute to the loss of biodiversity.	People living in areas with greater than 80th percentile drinking water non-compliance (EJ Screen)	7.37%	11.34%	1.54
		Census Block Groups with the presence of impaired rivers and lakes	42.86%	47.62%	1.11
Access to land	The ability of residents to engage with the surrounding landscape in meaningful and practical ways. This includes open spaces, working lands, or conserved areas that communities can steward and use to support their livelihoods.	Qualitative discussion on limited access to working lands in Landscape and Character (Rural)			
Limitations / Access to green spaces	Green spaces refers to open land with vegetation (trees, shrubs, grass, etc) that is open and accessible to the public. Several organizations define access to green spaces as living within half a mile (roughly ten minute walk) of a quality park. Limited access to green spaces describes situations where residents lack nearby or usable natural areas, such as parks, forests, river paths, or other open lands. When green spaces are difficult to reach, communities miss out on the environmental and health benefits they provide, including shade, pollution buffering, stormwater absorption, opportunities for recreation, and places that support physical and mental well-being.	Qualitative discussion on access to geen spaces and outdoor recreation			
Limitations / Access to cultural resources	The extent to which people can engage with the places and practices that carry cultural meaning for their community. Cultural resources include the landscapes, sites, buildings, materials, traditions, and more, that express a community's history and identity. Limited access to cultural resources occurs when residents cannot easily reach or participate in the places, practices, or institutions that support cultural identity and community connection.	Qualitative discussion on presence of community cultural facilities, proximity to historic sites, discussion of access to those facilities (costs, welcoming?)			
Affordable clean renewable energy sources	The ability of residents to affordably and conveniently generate or purchase energy that comes from sources that restore themselves and do not diminish (e.g. solar, wind, geothermal, etc.) rather than fossil fuels.	Qualitative discussion on costs of and access to renewable energy for heating fuel, adoption of clean energy technologies			
Home and building health and hazards	Healthy homes and buildings offer indoor environments that support physical well-being and protect their inhabitants. They are constructed and maintained in ways that can withstand environmental hazards, minimize exposure to pests and contaminants, and keep moisture, temperature, and ventilation at safe and comfortable levels. Home and building health hazards arise when indoor environments expose residents to conditions that compromise their safety. These hazards may result from building characteristics like high moisture, poor ventilation, or outdated construction materials. Hazards may include mold, pests, chemical contaminants (e.g. lead and asbestos), or structural problems that increase risks of illness or injury.	People living in areas with greater than 80th percentile exposure to lead paint (EJ Screen)	19.56%	26.08%	1.33
		Households with more than 1 person per room (B25014, 2024 ACS 5-year estimates)	1.05%	0.72%	0.69
Limitations / Access to playgrounds and other recreational facilities	The ability for residents to reach community spaces designed for recreational use like play and exercise. These spaces include playgrounds, sports fields, courts, and recreation centers that enable people to be physically active and build social connections. Limited access to playgrounds and recreational facilities describes situations in which residents lack nearby or quality community spaces designed for recreational use like play and exercise. When recreational spaces are unusable, unavailable, or difficult to reach, communities miss out on benefits to physical and emotional health.	Qualitative discussion on access to outdoor rec sites and playgrounds			

Environmental Benefit/Burden	Definition	Indicators	Regional Level	EJFP Level	Significant difference (more than 1.5x regional level)
Access to transportation	The ability of residents to safely and affordably move through their community without needing to own a personal vehicle. It includes the ability to reliably reach and use public transit services, and also the extent to which active transportation like walking and biking are realistic and comfortable for everyday travel.	Residential structures within 1/2 mile of a transit stop	42.64%	45.86%	1.08
		Households without a vehicle (B25044, 2024 ACS 5-year estimates)	8.27%	9.73%	1.18
Access to healthcare	The ability for people to obtain medical services when they need them, in a timely way that supports positive health outcomes.	People with no health insurance coverage (B27010, 2024 ACS 5-year estimates)	5.49%	4.75%	0.86
Limitations / Access to healthy and nutritious food	The extent to which people can reliably and consistently obtain healthy and nutritious food. This reflects whether residents can access fresh and varied options for food, especially fruits and vegetables, without barriers related to affordability or availability. Limited access to healthy and nutritious food occurs when residents cannot consistently obtain food options that are fresh and varied, as well as affordable. Barriers may include long distances to grocery stores or limited availability of retailers that offer fruits, vegetables, and other nutritious items at affordable prices.	Qualitative discussion on supermaket accessibility for low-income census tracts and other places to get food			
Fulfilling and dignified green jobs	The ability for people to have access to work that benefits the environment or advances sustainability (such as jobs in renewable energy or environmental restoration) while also offering equitable treatment and supporting personal well-being.	Qualitative discussion on workers employed in green industries			
Environmental enforcement, training, and funding	The degree to which communities receive support from government agencies to protect environmental quality and build local capacity. This includes consistent enforcement of environmental laws, as well as access to programs and grant opportunities that help communities address environmental challenges and strengthen local resilience.	Qualitative discussion of policies/actions			
Climate change impacts	The increase in average global temperature has a variety of impacts that can differ locally and which certain regions and populations are more vulnerable to. These impacts include changes in rainfall (leading to more floods, droughts, or intense rain), as well as more frequent and severe heat waves and extreme weather events. These changes may result in human health risks, lower crop yields, and losses of buildings, agricultural land, and biodiversity.	Expected agricultural loss rate > 80th percentile (CEJST)	0%	0%	
		Expected building loss rate > 80th percentile (CEJST)	0%	0%	
		Qualitative discussion of higher vulnerability to heat and extended drought conditions			
Increased flooding or stormwater flows	Increases in frequency and magnitude of flood events and stormwater flows pose threats to ecosystems and human safety. Flood events can damage homes and infrastructure, destroy crops, displace people, impair water quality, and increase soil erosion. Increases in stormwater, defined as rainwater or melted snow that flows into streets, can overflow sewers and contaminate local waterways with bacteria, sediment, trash, or nutrients.	Acres of Special Flood Hazard Area	2.44%	3.08%	1.26
Reduction of groundwater levels	Reduction of groundwater levels refers to long-term water-level declines of water sources below the earth's surface. Decline may result from sustained groundwater pumping or drought conditions. Reduction of groundwater has negative impacts which may include the drying up of wells (limiting access to drinking water), reduction of water in streams and lakes, deterioration of water quality, and land subsidence.	Qualitative discussion on groundwater levels			
Erosion risk	Erosion risk refers to the likelihood of land to wear away, collapse, or subside, as well as to the depletion of topsoil, due to wind and water. Erosion risk may be increased due to human activity, including deforestation, overplowing, and overgrazing, as well as climate change impacts on rainfall, weather events, drought, and flooding.	Acres of land in River Corridors	2.88%	3.31%	1.15
Damage to forests and green spaces	Damage to forests and green spaces refers to disturbances which negatively impact ecosystem health and vitality, as well as to the loss of forests and green spaces due to causes such as environmental degradation, deforestation, and other human activity. Impacts of damage to forests and green spaces may include higher concentrations of air pollutants, increased erosion, exacerbated flooding, and decreased opportunties and spaces that support residents' physical and emotional wellness.	Change in Tree Canopy land cover (2016-2021)	0.02%	0.01%	0.61
Improper handling of solid wastes and other noxious substances	Improper handling of solid wastes and other noxious substances refers to situations where trash, hazardous materials, or other waste products are unsafely managed. This may occur through illegal dumping, poorly maintained disposal sites, and leakages or spills. These events can contaminate the environment and pose health risks to surrounding communities.	People living in areas above 80th percentile of proximity to hazardous waste (EJ Screen)	29.07%	40.70%	1.40

Environmental Benefit/Burden	Definition	Indicators	Regional Level	EJFP Level	Significant difference (more than 1.5x regional level)
Improper sewage disposal	Improper sewage disposal describes situations where waste carried by water from habitable buildings is not adequately discharged or treated, which may endanger public health and cause environmental and water contamination. These situations may include sewer overflows, sewage discharging directly onto the ground or surface water, malfunction of sewage systems, and surfacing sewage.	Households lacking complete plumbing facilities (B25047, 2024 ACS 5-year estimates)	1.55%	1.52%	0.98
		People living in areas above 80th percentile for wastewater discharge indicator (EJ Screen)	10.82%	16.66%	1.54
Inadequate remediation of pollution	Inadequate remediation of pollution describes cases where contaminated areas are not cleaned up thoroughly enough or in a timely manner, allowing pollutants to remain in the environment and continue threatening community health and ecological function.	People living in areas above 80th percentile of proximity to superfund site (EJ Screen)	38.19%	54.74%	1.43
Excessive noise	Excessive noise describes persistent or disruptive sound levels. This can result from traffic, industrial activity and construction, or other sources, and it can interfere with sleep and concentration. Over time, noise pollution can create stress, reduce quality of life, and even cause hearing loss for nearby residents.	Qualitative discussion on prevalence of transportation-related noise			

Appendix B: Regional Energy Methodologies and Analyses

Energy Planning Tools

Energy data and targets presented in Chapter 13 were derived using the following tools provided by the Vermont Department of Public Service:

- LEAP Regionalized Targets – CAP Mitigation Scenario was used to set energy reduction and transition targets for the residential, commercial, and transportation sectors.
- Municipal Consumption Template – As provided by the Vermont Department of Public Service, and used to determine municipal and regional energy consumption for transportation and heating.
- Analysis & Targets Spreadsheet – Used to develop commercial weatherization targets.
- Energy Efficiency Utility (EEU) Potential Study Data – Used to determine achievable electric efficiency savings.
- Generation Scenarios Tool – Used to develop renewable energy generation targets for the years 2025, 2035, and 2050.
- Rooftop Solar Potential by Town – As determined by the Vermont Department of Public Service Rooftop Solar Generation Planning Tool based on the number of roofs, total roof area, and roof aspects in each town.

Calculating Regional Energy Use by Sector

- The following assumptions and steps were made to calculate regional energy use for the transportation, residential thermal, commercial thermal, commercial and industrial electric, and residential electric sectors.
- Residential and commercial/industrial electric usage was obtained from the annual Efficiency Vermont report provided to regional planning commissions and converted from kilowatt-hours to MMBTUs.
- Transportation, residential, and commercial thermal energy use were calculated using the Municipal Consumption Template from the Vermont Department of Public Service.
- Electricity used for residential heating and transportation are accounted for in the residential electric sector to avoid double counting.
- The Municipal Consumption Template separately calculates electricity used for transportation in the form of EVs and PHEVs, so that amount was deducted from the total transportation energy use and added to the residential electric usage figure.
- To account for electricity used in the residential thermal sector, 2023 ACS 5-year estimates of homes heated with electricity were used. According to the 2023 ACS data, approximately 7.3% of Bennington County homes were heated with electricity, so 7.3% was deducted from the total residential thermal energy result.
- Residential thermal energy use as calculated from the Municipal Consumption Template is 2,195,380 MMBTUs. 7.3% of that is 160,262 MMBTUs. Subtracting that from the Municipal Consumption Template result for residential thermal energy use equals 2,035,117 MMBTUs.

Table 23: Energy Use by Sector in the Bennington Region

Sector	Usage (MMBTUs)
Transportation	1220520
Residential thermal	2035117
Commercial thermal	1346968
Residential electric	479195
Commercial and Industrial electric	487021

Table 24: Distributed Energy Generation (DG) by Town in the Bennington Region, 2024

Town	Total DG Capacity (MW)	Solar (MW)	Wind (MW)	Hydro (MW)	Battery (MW)	Annual Production (MWh)
Arlington	1.10	0.90	0.00	0.00	0.20	1,187.90
Bennington	7.95	7.24	0.00	0.38	0.34	11,155.90
Dorset	1.15	0.88	0.00	0.00	0.27	1,149.80
Landgrove	0.32	0.19	0.00	0.00	0.13	247.00
Manchester	3.48	3.08	0.00	0.00	0.41	4,040.60
Peru	0.71	0.62	0.00	0.00	0.08	828.20
Pownal	6.20	5.54	0.01	0.49	0.16	9,423.20
Rupert	0.49	0.41	0.00	0.00	0.09	533.50
Sandgate	0.17	0.14	0.00	0.00	0.03	189.20
Shaftsbury	2.49	2.14	0.00	0.00	0.35	2,815.90
Stamford	0.38	0.31	0.00	0.00	0.07	408.70
Sunderland	0.51	0.42	0.00	0.25	0.10	1,644.30
Woodford	0.09	0.04	0.00	0.02	0.04	125.70
Total	**25.04**	**21.91**	**0.01**	**1.13**	**2.24**	**33749.70**

Battery DG not included in total annual production result

Table 25: 2025 Incremental Regional Capacity Targets by Town (MW)

	Solar	Rooftop Solar	Wind	Hydro	Total
Arlington	**0.81**	**0.64**	**0.23**	**0.01**	**1.70**
Bennington	3.48	2.74	0.99	0.06	7.27
Dorset	**0.80**	**0.63**	**0.24**	**0.01**	**1.68**
Glastenbury	0.01	0.01	0.00	0.00	0.02
Landgrove	**0.15**	**0.12**	**0.04**	**0.00**	**0.31**
Manchester	1.63	1.28	0.47	0.03	3.42
Peru	**0.38**	**0.30**	**0.11**	**0.01**	**0.80**
Pownal	1.50	1.18	0.43	0.03	3.14
Rupert	**0.78**	**0.61**	**1.20**	**0.01**	**2.60**
Sandgate	0.16	0.13	0.05	0.00	0.35
Shaftsbury	**1.44**	**1.14**	**0.43**	**0.03**	**3.03**
Stamford	0.32	0.25	0.10	0.01	0.68
Sunderland	**0.29**	**0.22**	**0.08**	**0.01**	**0.60**
Woodford	0.18	0.14	0.06	0.00	0.39
Total	**11.92**	**9.40**	**4.45**	**0.21**	**25.98**

Calculating Annual Production of Distributed Generation Resources

The Vermont Department of Public Service provided regional planning commissions with a spreadsheet of all on-grid distributed generation in the state which included the capacity of each site in kilowatts. The capacity of all solar, wind, and hydro sites in the Bennington region were totaled and converted into megawatts. To get the total megawatt hours of production, the following calculations were performed:

- Solar 21.91 (MW of installed capacity) * 8760 (hours per year) * 0.15 (capacity factor) = 28,789.74 MWh
- Wind 0.012 (MW of installed capacity) * 8760 (hours per year) * 0.225 (capacity factor) = 23.65 MWh
- Hydro 1.127 (MW of installed capacity) * 8760 (hours per year) * 0.5 (capacity factor) = 4,936.26 MWh

The resulting total regional distributed generation capacity for solar, wind, and hydro is 33,749.65 MWh.

Capacity factors for solar, wind, and hydro were derived from Generation Scenarios Tool. For more information on this methodology, see PSD's Guidance for Regional and Municipal Enhanced Energy Planning Standards.

Table 26: 2035 Incremental Regional Capacity Targets by Town (MW)

	Solar	Rooftop Solar	Wind	Hydro	Total
Arlington	**1.57**	**1.24**	**0.46**	**0.03**	**3.30**
Bennington	6.72	5.30	1.96	0.12	14.09
Dorset	**1.54**	**1.22**	**0.47**	**0.03**	**3.25**
Glastenbury	0.02	0.01	0.01	0.00	0.04
Landgrove	**0.28**	**0.22**	**0.09**	**0.01**	**0.60**
Manchester	3.15	2.48	0.94	0.06	6.62
Peru	**0.74**	**0.58**	**0.22**	**0.01**	**1.56**
Pownal	2.89	2.28	0.85	0.05	6.08
Rupert	**1.50**	**1.18**	**2.20**	**0.03**	**4.91**
Sandgate	0.32	0.25	0.10	0.01	0.67
Shaftsbury	**2.79**	**2.20**	**0.85**	**0.05**	**5.88**
Stamford	0.62	0.49	0.19	0.01	1.32
Sunderland	**0.55**	**0.43**	**0.17**	**0.01**	**1.16**
Woodford	0.35	0.28	0.11	0.01	0.75
Total	**23.05**	**18.16**	**8.60**	**0.41**	**50.22**

Renewable Energy Generation Targets by Town

The following assumptions and steps were made to calculate renewable energy generation targets by town in the Bennington region:

- Generation targets for renewable energy sources were derived from the Generation Scenarios Tool and based on an assumption of 20% in-state generation.
- Regional incremental targets were broken out by town using a 45% land multiplier, 15% population multiplier, 20% existing generation multiplier, and 20% energy demand multiplier.
- The acres of land available were updated in the Generation Scenarios Tool based on the most recent BCRC mapping exercise.
- The new acreage values for each town do not include state-identified habitat blocks.
- The BCRC overrode some target values generated by the tool to better account for land availability and grid headroom based on BCRC maps.

Incorporated Villages: Some energy data may not be available for the region's three incorporated villages. As needed, the BCRC will develop methodologies to disaggregate the LEAP targets and the renewable energy

generation targets for North Bennington, Old Bennington, and Manchester Village.

Municipal Siting Guidelines

The following expanded procedure may be used by municipalities to develop their own renewable energy facility siting guidelines. Examples of siting criteria and conditions that municipalities may wish to employ are included in the suggested process. Developing clear siting guidelines can communicate a municipality's preferences to a prospective developer, however, these guidelines are not zoning regulations.

Step 1: Define the purpose of renewable generation facilities and set local goals.

It is important that a municipality clearly define its purpose and goals related to the development of renewable energy since local goals must work together with regional and state goals if Vermont is going to successfully realize its renewable energy requirements. The first step in successful local energy planning will be for a municipality to review state and regional energy plans and to specify what role it can play in implementing the plans.

Step 2: Establish general facility siting guidelines.

Certain considerations may be applicable to a variety of different renewable generation facilities. Therefore, before establishing site-specific considerations, a municipality should articulate general criteria that apply to all renewable generation facilities. The following list includes examples of criteria that municipalities may wish to apply more generally. This is not meant to be an exhaustive list, and it is not suggested that municipalities necessarily include any of the following examples:

- Consistency with energy policy: facilities should be consistent with all existing energy planning objectives at the statewide, regional, and local levels. Plans to be consulted include the Vermont Comprehensive Energy Plan, the Vermont Long-Range Transmission Plan, the utility's Integrated Resource Plan, and this regional energy plan.
- Proximity to infrastructure: When possible, sites selected for development should be located proximate to existing load and infrastructure, including electrical grid and road access, as well as other types of infrastructure to minimize costs and negative impacts associated with new construction.
- Resource preservation: preservation of natural resources and other physical and aesthetic conditions critical to the sense of place in a community should be maintained; areas of high importance should be specifically identified in municipal energy plans as sites that are not appropriate for facility development (discussed further in Step 3).
- Decommission plans: proposed projects should include planning and funding for decommissioning and site restoration to pre-project condition once a facility's useful life has ended.
- Screening: the need for screening solar facilities from neighboring sites should be considered. Existing topography and other natural features can often be used to create screening, and solar facilities should be designed accordingly.
- Sound: facilities that generate significant sound should not be located within a specified distance of residential

structures; requirements related to sound which would most likely apply to wind development, should articulate specific decibel levels and distances where possible.

Step 3: Identify preferred areas and conditions for facility development.

It would be ideal for municipalities to identify specific preferred sites for renewable energy facility development. In addition to identifying specific sites, municipalities should develop a list of siting criteria to be used to identify other preferable locations for development. These criteria should clearly reference types of renewable generation facility (Hydro, Wind, or Solar) and varying levels of generating capacity in conjunction with the conditions to be met for siting the facilities. Siting and facility preferences may include the following:

- Areas with good access to renewable energy and existing infrastructure;
- Roof-mounted solar systems;
- Areas near large-scale commercial or industrial buildings;
- Brownfield sites;
- Unused areas where past uses have replaced or significantly impacted the natural landscape, including former gravel pits, quarries, or landfills;
- Areas where topography and existing features naturally screen a site from common view;

Step 4: Identify areas that are not suitable for development and establish local constraints

Municipalities should review potential sites according to the Known, Possible, and Regional Constraints that were used to develop the Wind and Solar Resource Potential Maps.

Appendix C: Community Engagement Process

The BCRC used a variety of methods to engage with municipalities and community members about the Regional Plan throughout 2025. Through a partnership with the Bennington County Multicultural Community Center (BCMCC), several of BCRC's outreach materials, including the informational flyer and survey, were translated into Dari and Spanish to make them accessible to people in the region with limited English proficiency. The primary engagement methods are listed below and examined in more detail in the following sections.

- Public meetings (planning commission, select board, and trustee)
- Tabling at public events
- Idea posters in public locations
- Focus group discussions
- Survey

Information about the public engagement process was shared through a variety of methods including, the BCRC website, Facebook and Front Porch Forum, local email listservs, a local TV announcement produced by GNAT, and a Bennington Banner article. Updates on the regional plan process were provided in the BCRC's bi-monthly newsletter.

Public Meetings

BCRC staff attended over 30 municipal meetings to discuss the requirements of Act 181 and the regional Future Land Use (FLU) map. Each municipal portion of the map was developed using the municipality's zoning map and input from municipal officials and members of the public. BCRC shared drafts of the FLU map with each municipality and worked with them to refine the boundaries to reflect local priorities and visions for growth. An interactive FLU map viewer was added to the BCRC website with the ability for people to leave comments on specific areas of the map.

Tabling, Idea Posters, and Focus Groups

The BCRC had an information table at seven regional public events to talk to people about the regional plan update and solicit feedback through open-ended questions and dot-voting.

Events:

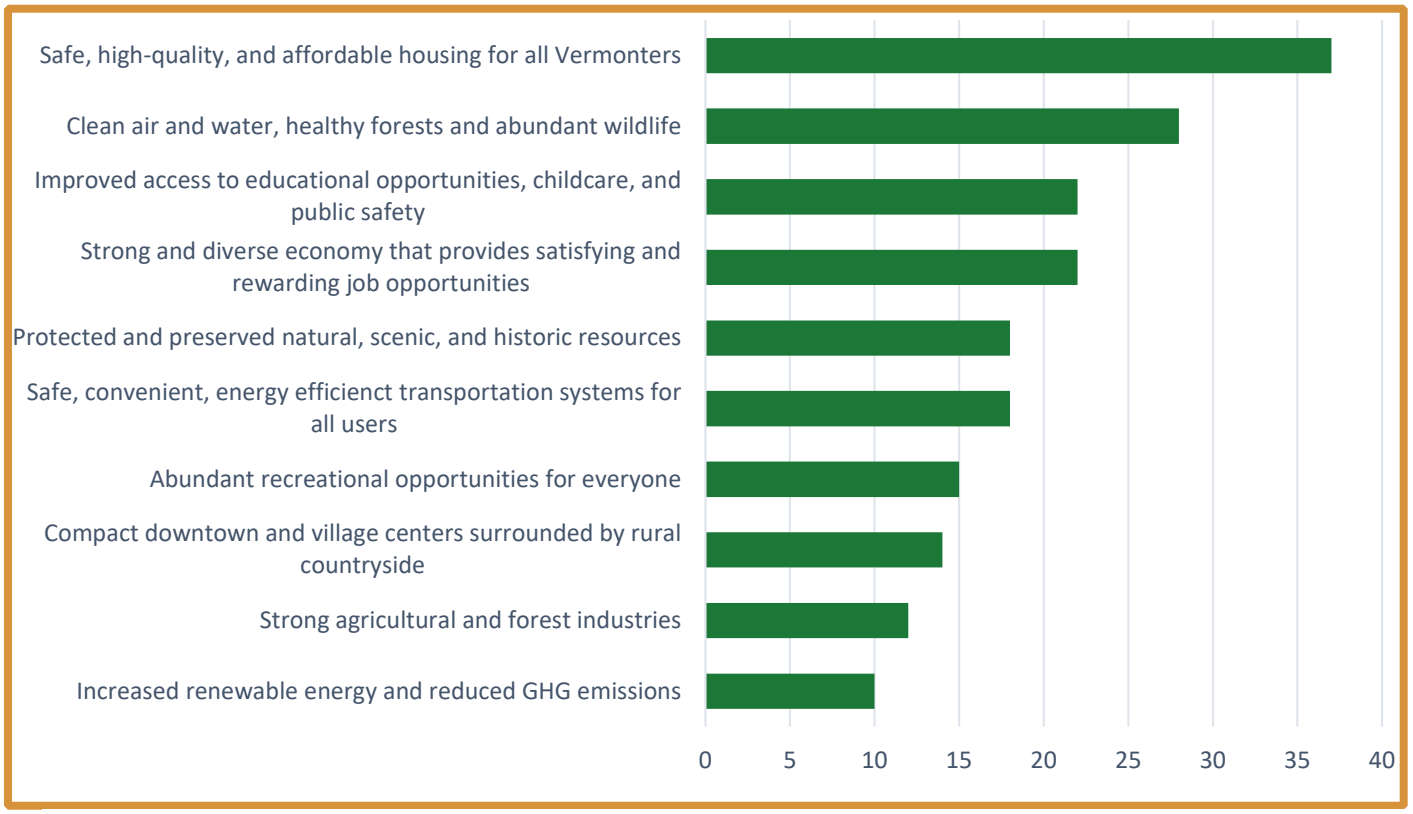
- Stamford Resilience Fair (May)
- Coffee Hour at the Sheldon Store (Rupert, June)
- Manchester Street Fest (July)
- Celebrate Pownal Day (July)
- Norman's Attic Fall Festival (Arlington, September)
- North Bennington Village Block Party (September)
- Harvest Fest (Bennington, October)

BCRC also collected feedback through idea posters which were available at four regional locations during the summer. Each of the idea boards posed specific questions related to topics covered in the regional plan that people could respond to.

Poster locations:

- JG McCullough Free Library (North Bennington)
- Martha Canfield Memorial Library (Arlington)
- Solomon Wright Public Library (Pownal)

Figure 36: Most Important Priorities for the Region



Source: BCRC Community Engagement

- Bennington County Multicultural Community Center (BCMCC)

BCRC also held two focus groups, each in partnership with a different organization, to discuss people's experiences living in the Bennington Region in greater detail.

Focus groups

- New Americans/people with limited English proficiency
- Partner: BCMCC
- Students in the trades
- Partner: Southwest Tech

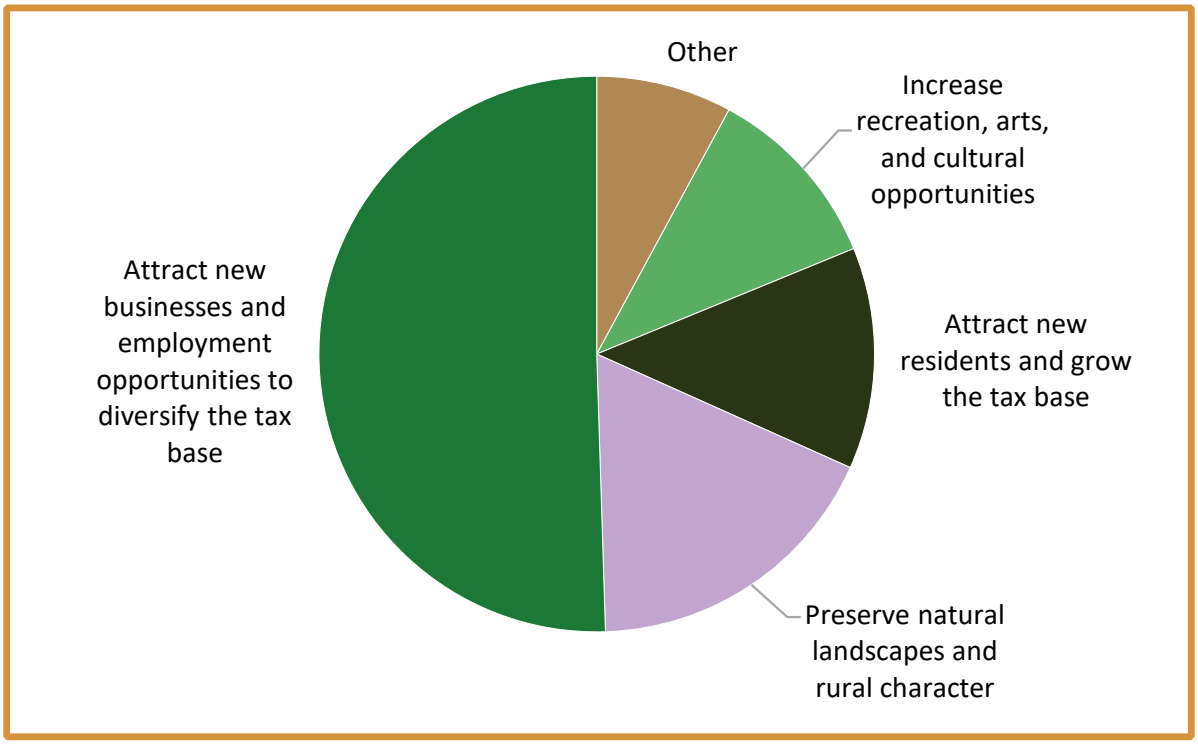
Dot-Voting Results – participants were asked to choose their top three priorities for the region from a list based on Vermont state planning goals.

BCRC worked with a team of Williams College students to analyze the qualitative feedback received at tabling events, focus groups, and on the idea posters. The students categorized the responses into themes and totaled the number of responses within each theme. Responses within the "Community Life" theme were most commonly mentioned which led to the development of a new chapter in the regional plan.

Survey

An online survey was available throughout the entire outreach period, with paper copies available at public tabling events and upon request. The survey received 101 responses from 12 different municipalities,

Figure 37: Top Priorities for Growth

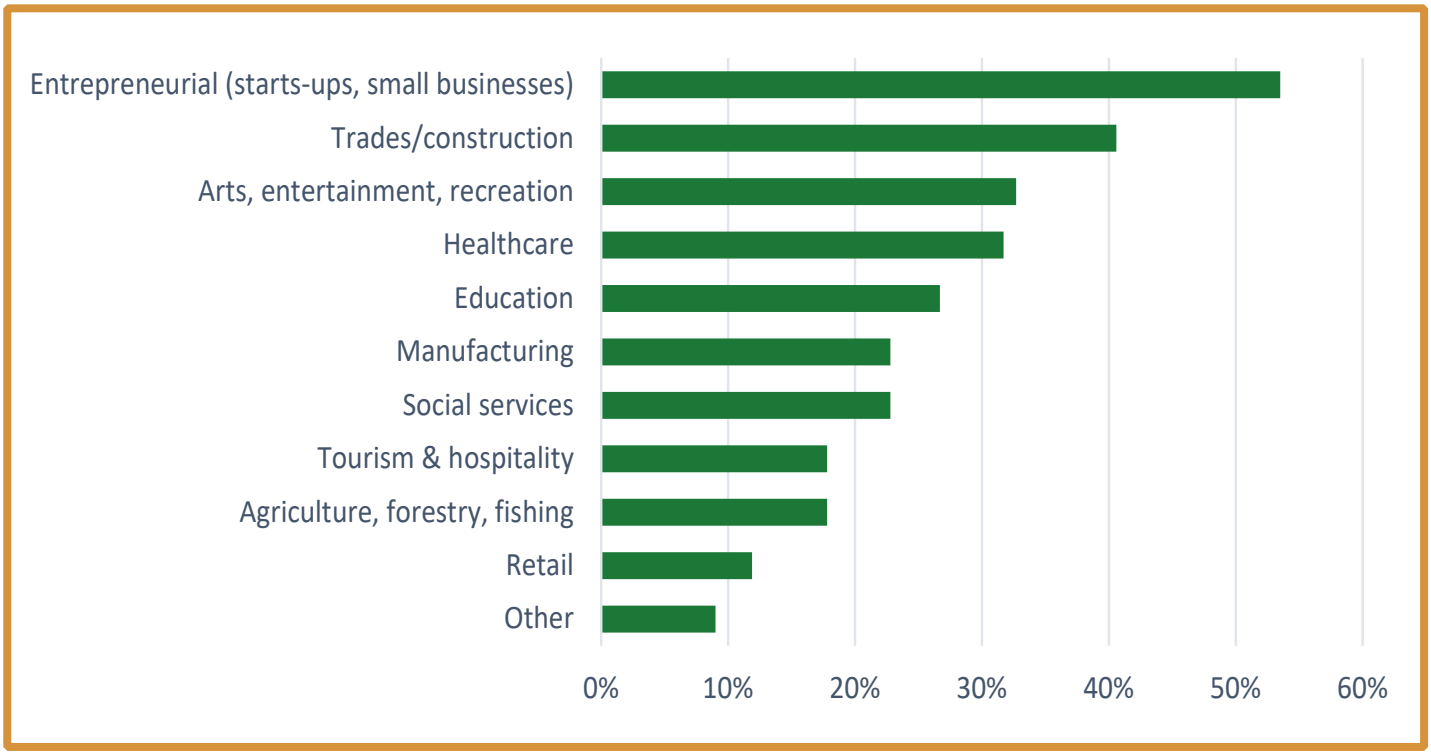


Source: BCRC Community Engagement

and responses were generally consistent with feedback received through the other engagement methods.

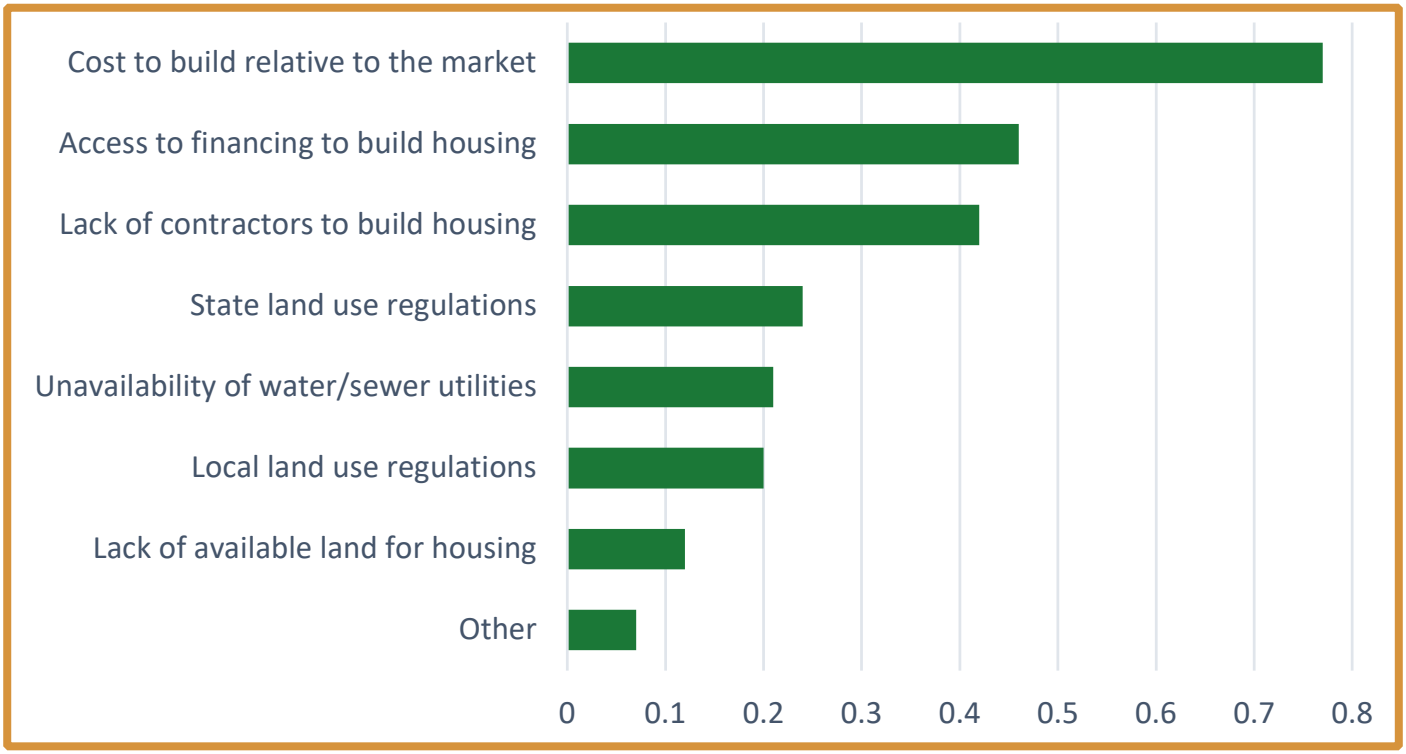
For more results please see BCRC's public engagement presentation to commissioners which is incorporated here by reference.

Figure 38:What Types of Jobs Do You Want to See More of in the Region?



Source: BCRC Community Engagement

Figure 39: Barriers to Housing Growth in the Region



Source: BCRC Community Engagement