



TOWN OF PUTNEY
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**NOTICE FOR HYBRID (PHYSICAL & REMOTE)
PUTNEY PLANNING COMMISSION PUBLIC HEARING
ON DRAFT 2023 TOWN PLAN
Thursday, August 24, 2023 – 6:30 – 8:30 PM
Location: Putney Friends Meeting House
17 Bellows Falls Rd, Putney, Vermont**

MEETING PURPOSE & GEOGRAPHIC AREA AFFECTED: At the Public Hearing, the Planning Commission will present and receive public comments on the 2023 Draft Town Plan. This 8-year plan was drafted with community input to meet Vermont State Municipal Planning Goals as well as to address the aspirations and priorities of the Town of Putney community members. The Draft 2023 Town Plan addresses the entire Town of Putney, and includes eight topical chapters each with recommended Objectives, Policies and Actions accompanied by an integrated implementation plan in chapter nine.

The Draft 2023 Town Plan includes the following:

Chapter 1: Vision and Strategic Priorities	Chapter 6: Community Facilities and Services
Chapter 2: Natural Resources and Land Use	Chapter 7: Transportation
Chapter 3: Housing	Chapter 8: Resilience
Chapter 4: Energy	Chapter 9: Implementation Plan
Chapter 5: Economic Development	

MATERIALS: the Draft 2023 Town Plan is available for download at <https://www.putneyvt.org/> (2023 Town Plan Process), and printed copies are available for review at Town Hall, the Putney Library, the General Store, the Putney Diner, Putney Cares, and Next Stage Arts Project.

VISITORS WELCOME: Visitors are welcome at the Putney Planning Commission Hearing. Those wishing to address the Planning Commission regarding the hearing topic will be given opportunity to present comments in person or virtually.

PUBLIC ACCESS: This meeting is a hybrid meeting, which means the public body is meeting physically and electronically. Please note that while we will strive to provide means for those attending remotely to participate in the public comment period, there may be technical difficulties or reasons that otherwise prevent or interrupt remote public participation.

VIRTUAL ATTENDANCE: Information on how to access and participate in the meeting remotely via zoom:

Link: <https://us02web.zoom.us/j/85735366899?pwd=WTMwN0kvb0RhYVlVVaTBoME9Pb2Z5dz09>

Toll Free Phone: 1-929-436-2866 Meeting ID: 857 3536 6899 Passcode: 075169

To enable post-meeting viewing, a link to the meeting recording will be posted to <https://www.putneyvt.org/>.

Written Comments on the Draft 2023 Town Plan are welcome but must be received by Tuesday, August 29:

- Via e-mail to putneyplanning@gmail.com,
- Via U.S. Mail to P.O. Box 233, Putney, VT 04-5346 – Attn. Planning Commission Clerk, or
- Hand Delivered to Putney Town Hall

DRAFT 2023 Putney Town Plan
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1. Introduction

Compatibility

The Putney town plan has been prepared with consideration for the development patterns and plans of the neighboring communities of Brookline, Dummerston and Westminster, and the land use policies set forth in the Windham Regional Commission Plan. State statute requires a municipal plan to consider compatibility with the plans of neighboring towns and the region. Compatibility is understood to be where the implementation of one plan does not significantly reduce the desired effect of another.

Brookline lies to the west of Putney, sharing the ridge that includes Putney Mountain. The 285-acre Silvio Conte Fish and Wildlife Reserve lands take in a significant portion of the western edge of Putney and the southeastern corner of Brookline, bordering Putney. This area is augmented by lands permanently held in conservation by the Putney Mountain Association which also take in parts of Brookline. These lands are adjacent to the Putney town forest while a short distance further north the Windmill Hill Pinnacle Association also hold lands in permanent conservation. This plan continues policies intended to protect and preserve the natural resources of the region (see chapter 2 Natural Resources and Land Use). Brookline has complementary policies in its 2017 Town Plan including a Future Land Use map showing the entire eastern area of town as intended for conservation.

Dummerston lies to the south of Putney. Land uses are similar on both sides of the border, conserved lands, or lands in current use with low density rural residential development dominate the western areas. To the east, closer to US Route 5 and I-91 the residential settlement is slightly higher in density and there are some commercial establishments in Dummerston along US Route 5. Dummerston identifies future land use along its border with Putney as predominantly conservation with a small area in the northeast corner for residential, rural commercial and commercial industrial clustered around the intersection of I-91 exit 4, US Route 5 and the railroad

siding. This coincides with the Putney future land use map which shows forest and rural uses for more than half the border, giving way to residential and village uses in the eastern corner around the Exit 4 interchange. The 2018 Dummerston Town Plan includes land use policies broadly similar to this plan, seeking to limit low density commercial sprawl along major roads, conserve working landscapes and traditional village centers, and protect natural resources. The Dummerston town plan recognizes that some commercial properties are connected to the Putney wastewater system, their plan does not contain goals or policies that would increase demand for the Putney wastewater system.

Westminster lies to the north of Putney and like our other neighbors, land use patterns are similar on both sides of the border. The conservation and resource districts in Putney take in the north-south oriented ridgelines. These same landscape features in Westminster are zoned rural residential. Westminster West, largely accessed through Putney has considerable lands under permanent conservation held by the Windmill Hill Pinnacle Association. Westminster's future land use map and policies are compatible with Putney.

Windham Regional Plan. The broad land use and development pattern called for in this plan is consistent with the pattern described in the Windham Regional Plan Proposed Land Use Map. The policies included in this plan are consistent with the land use designations in the Windham Regional Plan. Policies in this plan strive to protect forest and resource lands, revitalize Putney village, move to a carbon-free energy future, increase support for safe, affordable housing and grow resilience to climate change. These policies are consistent with the regional priorities of the Windham Regional Plan.



PUTNEY TOWN PLAN

2023 • 2031

PLANNING COMMISSION DRAFT FOR PUBLIC HEARING

Putney Planning Commission

Sue Coakley (Chair)
Andrew Morrison (Vice Chair)
Robin Ekstrom (Clerk)
Philip Bannister (former Chair)
Vanessa Vadim

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Putneypics

Funding

Putney received a Municipal Planning Grant from the Vermont Department of Housing and Community Development to support development of this plan.

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Chapter 1. Introduction



Vision

Putney is an inclusive, safe and resilient rural community where residents, businesses and organizations thrive, and live life in harmony with nature and each other.

Strategic Directions/Priorities

- | Create a sustainable village and local economy that effectively meet the needs of residents and visitors.
- | Increase the availability, accessibility, and quality of housing to meet the needs of all residents.
- | Increase community-wide connectedness, health and well-being.
- | Preserve natural landscapes and ecosystem biodiversity in partnership with adjacent communities.
- | Reduce and mitigate community-wide contributions to greenhouse gas emissions and prepare all for the intensifying impacts of rapid climate change.

Informed By

- | 2023 Planning Commission Town Plan Public Outreach Program
- | 2023 Planning Commission Town Plan Survey
- | 2022 VCRD Our Future Putney Community Visit
- | 2022 Putney Library Survey
- | 2021 Putney Town Meeting Climate Action Resolution
- | 2015 Putney Town Plan

1. Introduction



Purpose

The Putney Town Plan states the town's objectives, policies and actions for guiding future land use and development in the community consistent with the vision expressed above. The plan guides decisions to be made by considering the future of the entire community. Planning is necessary to better manage the cost of public services and ensure that the costs and benefits of public investments are equitably shared.

This plan establishes and communicates public policy. Local decision-making guided by this plan should be predictable and transparent. The plan serves as a policy foundation for Putney's land use and development regulations. These regulations must implement the vision expressed above and the objectives found throughout this plan.

Authority to Plan

The Vermont Planning and Development Act (24 V.S.A. Chapter 117) grants municipalities the authority to prepare and implement a comprehensive plan. It establishes minimum requirements for what must be included in such plans and requires plans to be consistent with the state's planning goals. Town plans must be compatible with the regional plan. Once adopted, town plans remain in effect for eight years. Having a current, adopted town plan is a prerequisite for Putney to apply for grants and other assistance to implement this plan.

Planning Process

The State of Vermont adopted the Planning and Development Act in 1967. In 1970, the Town of Putney adopted its first comprehensive Town Plan. At a special Town Meeting in September 1971 the Town's first permanent zoning bylaw was approved, eighteen months later subdivision regulations were approved. The last town plan was adopted in 2015. In addition to the VCRD Community Visit the Putney Library conducted a town-wide survey in the summer of 2022. Various other reports and planning studies support the contents of this plan.

The Planning Commission developed an extensive public outreach program involving five community meetings each focused on earlier drafts of the chapters of this plan. The feedback received has supported the Planning Commission in their work of preparing this plan.

The Vermont Planning and Development Act establishes the process by which town plans must be adopted, which include public hearings held by both the Planning Commission and Selectboard. That process has been followed to adopt this plan.



Using the Plan

The Putney Town Plan provides a path for attaining the vision expressed above through capital budgeting and public investments, the town's land use and development regulations, participation in various state programs, and other implementation measures. In addition to guiding local decisions, the plan is considered by regional and state agencies as they plan, develop and fund programs, provide services, locate facilities, enact regulations or permit development under their purview. This plan may be used in state regulatory proceedings such as Act 250 and Section 248 permitting processes to determine whether a proposed development is consistent with the community's goals and standards as expressed in this plan.

When using this plan for a regulatory purpose, the objectives, policies and actions found throughout must be considered in context as part of a whole rather than as individual statements in isolation. Putney, like all communities, has competing objectives that need to be measured on a case-by-case basis and with as full an understanding of the trade-offs involved in any proposal as possible. This plan is intended as a guide for these decisions.

The plan is arranged into seven substantive chapters. Each chapter includes objectives, policies and actions. Each chapter includes a brief discussion and graphical information in support of the objectives, policies and actions.

OBJECTIVES are attainable targets for accomplishing one or more goal(s). They should be specific and measurable so that the community can determine when they have been met.

POLICIES are definite courses of action to attain (or contribute to attaining) one or more objective. They are intended to guide all relevant town government decisions and, in those circumstances where the plan is intended to influence regional or state decisions.

ACTIONS are the next steps – concrete activities or programs intended to attain (or contribute to attaining) one or more objective that town government will implement during the eight-year planning period.

Goals are not listed in each chapter because this plan incorporates the state's planning goals as Putney's planning goals. The objectives and policies from each chapter are intended to further those goals.

State Planning Goals

The 2023 Putney Town Plan is consistent with the 14 state planning goals listed in the Vermont Planning and Development Act as demonstrated below. To be 'consistent with a goal' requires that one or more of the objectives identified in this plan will result in Putney making substantial progress towards attaining the stated goal. This plan incorporates the state's planning goals as Putney's planning goals. The table below states each goal and identifies the related objectives and policies established in this plan.

1. Introduction

<p>1 To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.</p>	<p>Objective 2-1, page 6 Objective 2-6, page 6 Objective 3-3, page 25</p>
<p>2 To provide a strong and diverse economy that provides satisfying and rewarding job opportunities and that maintains high environmental standards, and to expand economic opportunities in areas with high unemployment or low per capita incomes.</p>	<p>Objective 5-1, page 36 Objective 5-3, page 36 Objective 5-4, page 36 Objective 5-6, page 36</p>
<p>3 To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all residents.</p>	<p>Policy 5-5, page 36 Policy 6-4, page 40</p>
<p>4 To provide for safe, convenient, economic and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.</p>	<p>Objective 6-3, page 40 Objective 7-1, page 46 Objective 7-2, page 46 Objective 7-3, page 46 Objective 7-4, page 46</p>
<p>5 To identify, protect, and preserve important natural and historic features.</p>	<p>Objective 2-1, page 6 Objective 2-2, page 6 Objective 2-5, page 6</p>
<p>6 To maintain and improve the quality of air, water, wildlife, forests, and other land resources.</p>	<p>Objective 2-2, page 6 Objective 2-3, page 6 Objective 2-4, page 6</p>
<p>7 To make efficient use of energy, provide for the development of renewable energy resources, and reduce emissions of greenhouse gases.</p>	<p>Objective 3-4, page 25 Objective 3-5, page 25 Objective 4-1, page 31 Objective 4-2, page 31 Objective 4-3, page 31</p>

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<p>8 To maintain and enhance recreational opportunities for residents and visitors.</p>	<p>Objective 2-7, page 6 Objective 5-5, page 36</p>
<p>9 To encourage and strengthen agricultural and forest industries.</p>	<p>Objective 5-4, page 36 Objective 5-5, page 36</p>
<p>10 To provide for the wise and efficient use of Vermont’s natural resources and to facilitate the appropriate extraction of earth resources and the proper restoration and preservation of the aesthetic qualities of the area.</p>	<p>Objective 2-5, page 6</p>
<p>11 To ensure the availability of safe and affordable housing for all Vermonters.</p>	<p>Objective 3-1, page 25 Objective 3-2, page 25 Objective 5-1, page 36 Objective 5-2, page 36 Objective 5-3, page 36</p>
<p>12 To plan for, finance and provide an efficient system of public facilities and services to meet future needs.</p>	<p>Objective 6-1, page 40 Objective 6-4, page 40 Objective 6-6, page 40 Objective 7-4, page 46</p>
<p>13 To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.</p>	<p>Objective 5-7, page 36</p>
<p>14 To encourage flood resilient communities.</p>	<p>Objective 7-5, page 46 Objective 8-2, page 51 Objective 8-3, page 51 Objective 8-4, page 51 Objective 8-5, page 51</p>

Chapter 2. Natural Resources & Land Use

Objectives

2-1 Promote the historic settlement pattern of a compact, thriving village center with increased and more diverse housing, surrounded by rural working lands and conserved open space.

2-2 Identify, maintain and protect important natural, scenic and historic features of Putney, including the ecological function and environmental benefits of Putney's significant natural areas, streams, wetlands and aquifers.

2-3 Identify, maintain and improve the integrity and management of healthy, diverse communities of plant and animal species in forest blocks, habitat connectors, riparian environments that increase resilience to the climate crisis.

2-4 Maintain, protect, and improve the quality of Putney's water resources including aquifers to provide an adequate water supply for humans and wildlife.

2-5 Preserve Putney's rural character through responsible land use policies, regulations and practices that support working lands while limiting and mitigating impacts on forests, natural areas and aquifers.

2-6 Revitalize the village center through streetscape, pedestrian, biking and parking improvements and green spaces for community gatherings and activities.

2-7 Maintain and enhance recreational opportunities for Putney residents and visitors.

Policies

2-1 Direct housing development to areas in or adjacent to the village and areas accessible to established transit routes and services.

2-2 Increase the resilience of Putney by avoiding, minimizing, and mitigating conflict between land development and natural riparian functions with streams and wetlands.

2-3 Guide development away from steep slopes (20% or greater), flood prone areas, and priority forest blocks and wildlife connectors, habitats and corridors to minimize forest fragmentation within those blocks and promote forest health and ecological function including in: (a) State-defined forest blocks, wildlife habitats and corridors; (b) Wetlands, riparian areas, and aquifers; (c) the Connecticut River and its shorelands and streams; (d) rare and sensitive/fragile areas; and (e) other areas key to species survival (e.g., significant mast stands).

2-4 Encourage conservation of healthy, primary agricultural soils for present and future agricultural use including for sustainable local food production.

2-5 Encourage farming, homesteading, and sugaring to keep these lands in productive agricultural use.

2-6 Encourage community-wide use of land and water conservation best practices to maintain healthy, climate resilient soils, landscapes and aquifers.

2-7 Encourage landowners to maintain public access to significant scenic and outdoor recreational areas (e.g., access to the Connecticut River, and major Putney brooks, swimming holes, and hiking and skiing trails).

2-8 Support the work of the Putney Conservation Commission and its Wilson Wetlands Stewardship Committee along with other conservation and recreation organizations to implement the Town Plan (e.g., Putney Mountain Association, the Forest for Learning, Trees for Good, the Putney School, and other large landowners).

Putney village and I-91 in 1962



2. Natural Resources & Land Use

Actions

2-1 Adopt revised land use and development regulations that will protect the integrity of Putney’s highest priority and priority forest blocks and the wildlife corridors connecting them, and implement the vision, objectives, and policies of this plan, including the recommended actions in the following chapters.

2-2 Monitor and participate in regional, state, federal programs, and other initiatives to implement Putney’s natural resource, climate resilience and land use objectives (e.g., the Vermont Department of Environmental Conservation Tactical Basin Plan, Vermont’s Land Use Value Appraisal Reserve Forestland Program, Community Resilience and Biodiversity Protection Act).

2-3 Develop public funds to support landowner education and implementation of natural resource and land use best practices aligned with the Town’s Objectives and Vermont State Goals.

2-4 Seek resources to identify and characterize aquifers important to community wide water supplies, and assess the need for actions to support adequate, safe water supplies, including for the municipal water system, especially during times of drought.

2-5 Seek resources to identify significant unmapped wetlands in Putney.

2-6 Confirm and more precisely delineate wildlife habitats and travel corridors before applying the information herein to an individual property for regulatory purposes.

2-7 Consider requiring that any additional development on Class 4 roads or legal trails result in the road or trail being improved to meet the highway standards for Class 3 highways, including evaluating past road erosion to ensure unimpeded emergency vehicle access during storm events.

2-8 Explore the feasibility of extending the municipal service area to adjacent lands such as along River Road to enhance the opportunity for further infill development within the village.

2-9 Evaluate requiring that natural woody vegetation be maintained or reestablished within the “Small Stream Setback” zones currently designated in the Flood Hazard Area Regulations.



Putney as shown in McClellan’s 1856 Map of Windham County

2. Natural Resources & Land Use

Natural Resources

Forests and other natural environments are the foundation of life in Putney. They support clean air and water, wildlife habitat, biodiversity, carbon sequestration, and flood protection. They provide spiritual renewal that enhances our quality of life. They also provide economic opportunities through the forest products industry and tourism. By conserving our natural environments, we can continue to enjoy all these benefits.

This is especially important now as Putney adapts to a rapidly changing climate. Vermont's hydrologic cycle is changing with increased risks of flooding and drought, impacting the habitat location and life patterns of all that lives in Putney - plants, animals and people.

Significant Natural Resources. Putney has significant natural resources and strong community support for maintaining and better understanding these critical features and resources, which provide ecosystem services and opportunities for outdoor recreation. Many recognized areas of natural resource interest are contiguous with similar areas in the neighboring towns of Brookline, Dummerston and Westminster affording the possibility of developing compatible land use policies and actions that can protect important habitat.

The Putney Mountain Association conserved lands are part of the Windmill Ridge Nature Reserve. Together with the Windmill Hill Pinnacle Association they manage conserved property and an extensive trail network in Putney, Brookline and Westminster. The Putney Conservation Commission has been active in citizen science projects for many years to better understand the natural world and how humans are shaping the environment.

Forest Blocks, and Wildlife Habitat and Corridors. Forest blocks are contiguous areas of forest in any stage of succession and not currently developed for non-forest use. The primary goal for these areas is to maintain the interior forest condition by avoiding permanent

fragmentation from development (see *Map 6. Ecological and Forest Resources, page 23*).

All forest blocks larger than 20 acres are mapped statewide. Forest blocks identified as highest priority interior forest and connectivity blocks provide interior or core forest conditions as well as connectivity to other blocks. A healthy forest pattern is one in which a town's largest forest blocks connect to one another via smaller forest blocks and riparian areas. These large blocks also connect to large forest blocks beyond the town boundaries. Ultimately, a healthy forest pattern is a network of contiguous streams and forest blocks, supported by an underground network of tree roots and their fungal linkages, which together help forests and animals deal with the stresses of climate change.

Large unfragmented forest blocks provide habitat critical for food, water, shelter and denning and nesting sites safe from human disturbance. Putney is home to a wide range of animal species including black bear, bobcat, fisher, mink, river otter, eastern coyote, gray fox, red fox, herons, bats and others. The survival of these species depends on Significant Critical Habitat identified by the Vermont Department of Fish and Wildlife (e.g., for deer — wintering areas; for black bear — beech and oak stands, herons — nesting trees, and bats — caves for hibernation. In addition to forest habitat, other habitat types contribute to Putney's biodiversity—grasslands, open, rocky slopes, and brushy areas. Conserved land and land under long term stewardship should represent varied habitat. Protecting wildlife habitats and corridors, particularly in priority forest blocks, wetlands and other key habitats must be considered in updating and implementing land use regulations.

The Putney Conservation Commission conducted a wildlife tracking project between 2011 and 2017. The project involved 47 trained volunteers collecting data each winter along 33 segments of 24 roads. Observed tracks included bobcat, coyote, deer, fisher, fox, otter, mink, turkey, and moose. The purpose of the study was to help identify where mammals are crossing between large forest blocks. Deer

2. Natural Resources & Land Use

wintering yards have been mapped by ANR, but that data has not been updated in many years. The Department of Fish and Wildlife will review proposed development subject to state permitting for impacts on deer wintering area and may require conservation or mitigation so that there will be no net loss of habitat.

Due to the dynamic nature of wildlife and variability of natural systems, mapped habitat resources should be confirmed and more precisely delineated based on current, accurate field data before being applied to an individual property for regulatory purposes.

Water Resources. The Putney Community — people and wildlife — depend on adequate year-round water supplies. This is provided by interconnected surface water and groundwater systems that charge aquifers across Putney that store and transmit groundwater. Putney's Town Well is fed by a sand and gravel aquifer in the Sacketts Brook watershed that relies on a source protection area which includes part of the wetland complex along Sacketts Brook north of Route 5 and the adjacent slope to the west. In addition to the town well, Putney has five other public wells that serve Putney Central School, The Grammar School, The Putney School, the Greenwood School, and The Putney Inn. Water for Landmark College is provided by the Town Well. The Putney Inn and the schools each have source protection areas identified for their wellheads.

Approximately 85% of Putney's homes are not served by the Town's water system. Most of these are served by water pumped from bedrock aquifers. These aquifers, and their associated recharge areas, are not yet identified. Understanding these aquifers could help inform actions to protect and maintain essential water supplies during times of drought (see *Map 5. Water Resources, page 22*).

Surface Waters and Riparian Areas. Putney has several streams that directly run into the Connecticut River. East Putney Brook and Chase Brook drain the east side of town and Sacketts Brook, Mill

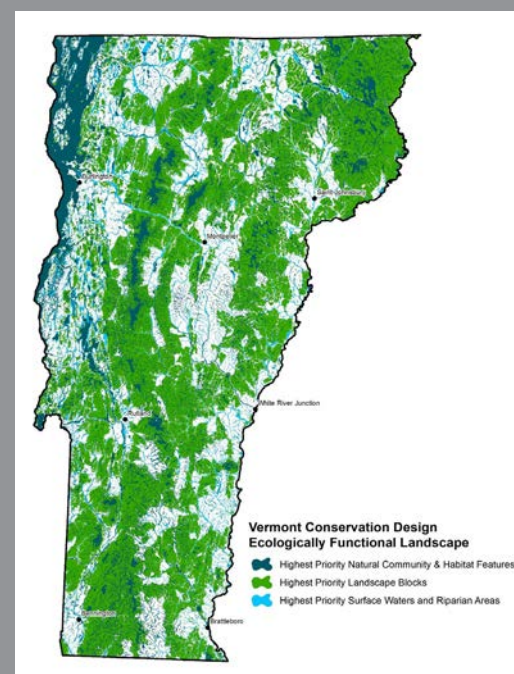
Vermont Conservation Design

Vermont Conservation Design (VCD), developed by the VT Agency of Natural Resources with numerous conservation partners, identifies the lands, forests and waters necessary to maintain Vermont's functional natural environment and biological diversity that are essential to clean air and water, carbon sequestration, flood protection, and climate resilience.

It notes that today, only 0.4% of the current Northeast forestland is old growth, and no region in the eastern deciduous and mixed forest zone has more than 1.1% old growth. To address this, the VCD Guide recommends increasing the amount of both young and old forest as the highest priority to maintain an ecologically functional landscape across Vermont. To return this missing component to Vermont's landscape, it suggests allowing about 9% of Vermont's forest, or 15% of the matrix forest within the highest priority forest block, to become undisturbed old forest. This will offer confidence that species

that depend on interior forest sites to reproduce will survive, including providing the dark night conditions essential to the survival of nocturnal animals, insects and migrating birds.

Putney, along with other Vermont communities, can increase climate resilience by using the VCD Guide to promote biodiversity and conserve large forest blocks and habitat connectors, including old growth and matrix forests.



2. Natural Resources & Land Use

Brook and Canoe Brook drain the west side of town. For much of their length these small streams carve deep narrow channels through steeply wooded hillsides. As such they are highly sensitive to changes in land cover and use within watersheds. Maintaining forest cover and riparian buffers along stream banks is an effective means of avoiding downstream flooding, erosion, and sedimentation, which results in reduced water quality and significantly damages roads and other development (see *Map 5. Water Resources, page 22*).

Riparian areas are sensitive environments subject to flooding. Fertile soils transported from upslope and upstream have historically led to these areas being highly productive for agriculture. In Putney, the Great Meadows and low elevation lands along the Connecticut River remain used for agricultural production. These environments are also critical wildlife habitat and provide related ecosystem services.

Wetlands and Vernal Pools. The Vermont Wetland Rules protect significant wetlands by imposing a 50-foot buffer zone. Putney relies on state maps of wetlands in the Vermont Significant Wetland Inventory maps (VSWI) of wetlands regulated by Vermont Wetland Rules. These maps, which have limited wetland data, are being updated. To date, the Vermont Agency of Natural Resources (ANR) has mapped 420 acres of Class 2 wetlands and over 40 confirmed vernal pools. Hydric soils have been mapped throughout town typically extending from mapped Class 2 wetlands or streams. Vernal pools that provide amphibian breeding habitat are considered Class 2 (significant) wetlands (see *Map 5. Water Resources, page 22*).

Rare, Threatened or Endangered Species. Rare, threatened, or endangered species (RTE) in Putney include the Barbed Bristle Bulrush plant which is listed by US Fish and Wildlife and can be found in the 278-acre Silvio O. Conte National Fish and Wildlife Refuge on the western edge of town. These lands are part of nearly 40,000 acres of refuge in the Connecticut River watershed states of Vermont, New

Hampshire, Massachusetts and Connecticut. ANR has declared other habitats (Black Gum Swamp, Quaking Bog) and animals (Green Snake, Blue-spotted and Jefferson Salamanders and the Wood Turtle) as rare.

Vermont's Protection of Endangered Species law prohibits the taking, possessing, or transporting of threatened or endangered plants and animals. Vermont Department of Fish and Wildlife reviews development subject to state permitting for impacts on RTE species and significant natural communities. ANR maintains a Natural Heritage Database for documenting plant and animal species that are rare, threatened, or endangered and significant natural communities. This database is used for planning, conservation, and regulatory purposes (see *Map 6. Ecological and Forest Resources, page 23*).



2. Natural Resources & Land Use

Current Land Use

Landform and Cover. Putney’s landform is characterized by a series of tightly formed irregular ridges and valleys. Two ridgelines that trend north-south dominate, Putney Mountain in the west (1,660 feet) and Bare Hill (1,086 feet) closer to the center of town. There are broad meadow lands along the shores of the Connecticut River to the east. This topographical form produces a scattered settlement pattern further disconnected by the Interstate 91 corridor running north-south through the Connecticut River valley floor. Roads respond to the terrain as they travel into the upland hills, resulting in conflict in the narrow valleys between roads and streams (see *Map 3. Slope, page 20*).

Today, Putney is primarily forested with about 80% of land under tree cover as shown in land cover map. This reflects the reforestation of Putney following the decline in agriculture starting in the mid-1800s (see *Map 4. Land Cover, page 21*).

Most of Putney’s prime agricultural soils are found on the flood plains and terraces along the Connecticut River and its tributary brooks. In addition, some of Putney’s low, rolling hills have prime agricultural soils and have proved optimum for apple and blueberry orchards.

Settlement Pattern. Development is concentrated in the village and immediately adjacent areas. A pattern of rural residential development emerged in the 1960s, primarily along the major transportation routes (Route 5 and Westminster Road). That period of growth was boosted by the construction of Interstate 91 with Exit 4 serving Putney. After steady growth in population between 1970 and 2000, there has been little change in the past 20 years (see *Map 2. Current Land Use, page 19*).

Development in Putney over the past 20 years has not significantly impacted tree canopy. Land cover mapping from 2016 shows that roads, other paved surfaces, and buildings not under tree cover

account for only about 360 acres in Putney. Much of the town road network and many rural residences are under the existing tree canopy. There has been no significant increase in developed land during the past two decades.

Transportation. Putney has a settlement pattern built around high levels of personal vehicle use. Some Putney residents’ bicycle as their regular or occasional mode of transportation. Recreational cyclists also ride through Putney. Southern Vermont Transit’s Rockingham “Moover” operates transit service originating in Bellows Fall to the North and terminating in Brattleboro to the south twice each day, with two stops in Putney village. Low density settlement outside the village means that extending transit routes is not feasible.

Maintaining the road network sustaining Putney’s dispersed and low-density development pattern is a major commitment of public resources (approximately 24% of the 2021 annual budget). Given the challenging topography and history of Putney this pattern of development is not expected to significantly change in the foreseeable future. Nonetheless, for the Village Center, Putney should consider bike paths along main roads with appropriate signage to encourage motorists to share the road where both bikes and vehicles use the road (see *Chapter 7. Transportation, page 46*).

Housing. Chapter 3 provides greater detail about Putney’s housing stock, which is overwhelmingly made up of detached single-unit homes in rural settings. Since 2015 Putney has added a total of 41 dwelling units, or an average of five per year. When the 18-unit Putney Landing project in the village (permitted in 2016) is excluded from this count the annual average is just under three dwelling units per year. All but one of the remaining 23 detached single-unit homes built since 2015 were in a rural area of town.

Single-unit homes on more than one acre of land predominate accounting for 85% of the 542 homestead properties on the 2022 Putney Grand List. 64% of the town’s land area meets the definition

2. Natural Resources & Land Use

Current Use Program

Vermont's Use Value (UVA) Program commonly known as 'Current Use' allows private landowners with parcels greater than 25 acres engaged in long-term forestry or agricultural practices to have their land appraised based on the property's value of production of wood or agricultural products, rather than its residential or commercial development value. The goal of this program is to encourage owners to keep land in productive use by reducing their tax burdens. If land is removed from the program for development the landowner must pay a land use change tax.

With the passing of Act 146 Vermont has added a new category 'Reserve Forestland' which is intended to manage old forest functions and values. The Department of Forests Parks and Recreation estimates that about 15% of UVA eligible and enrolled parcels would also be eligible for enrollment in this subcategory.

The Current Use Program has been in place since 1990. Putney has approximately 45% of its land area in Current Use.



of residential property according to the 2022 Grand List (see *Map 2. Current Land Use*, page 19).

Institutions and Cultural Facilities. In addition to the public K-8 Central School, Putney has several private schools, the Grammar School (K-8), the Greenwood School (6-12) and the Putney School (9-12). The community also hosts Landmark College, a private undergraduate institution for students who learn differently, with an enrollment of 400 - 500. Together, these private education institutions account for more than 4% of Putney's land area.

Putney Village is also home to the Yellow Barn chamber music center, the Next Stage Arts performance venue, Sandglass Theater, and the Community Center.

Farms and Orchards. There are two large-scale farming and orchard operations in Putney, Green Mountain Orchards on West Hill, and Harlow Farm on the Connecticut River. Together these farms account for 6% of total land area according to the definition of 'farm' used by the Putney Listers. This definition excludes the Great Meadows which is owned by a dairy farm based in Westminster.

Many other small-scale agricultural enterprises operate in Putney, including several farms active along River Road South which follows the Connecticut River, a farm on Westminster Road, and the dairy herd at the Putney School. In addition, more than fifteen Putney landowners maintain hayfields, and five more produce agricultural products on a few acres.

Overall while the Current Use program has been important in preserving the remaining farms it has not been able to prevent long-term reductions in the area devoted to agricultural enterprise.

2. Natural Resources & Land Use

Cultural Resources

Arts and Crafts. Putney's identity is strongly tied to its cultural heritage as a destination for musicians, writers, artists and craftspeople.

Yellow Barn Festival grew out of an informal summer retreat started in 1969 by cellist David Wells and pianist Janet Wells for David's cello students. In times since, Yellow Barn has grown into an internationally recognized chamber music training and performance center. Next Stage Arts took over the First Congregational Church in the village after the Putney Historical Society obtained ownership of the building and began operating it as a performance venue. In 2016 the renovation was complete, anchoring Putney village with a 200 seat fully accessible performance venue. The Village is also home to the Sandglass Theater, an internationally recognized touring company that combines puppets with music, actors, and visual imagery. The Annual Putney Crafts Tour draws visitors to view the open studios of local crafts people and visual artists – a 45-year-old tradition. Putney's broad range of private educational institutions also add vibrancy and energy to the local culture.

Historic Resources. As a small historic mill village on the Connecticut River Putney has a rich history of early American settlement. In 1986 the National Register for Historic Places accepted an application from the Putney Historical Society for a district centered in the village comprising many intact structures from the late-18th and early-19th century, especially the close-knit streetscape of stores and small workers houses on Kimball Hill. More recently the Historical Society has played a pivotal role in preserving the General Store (rebuilt after two separate fires in 2008 and 2009) and the conversion of the First Congregational Church into the Next Stage performance space.

Archaeological Resources. Putney's archaeological resources have not been thoroughly studied or documented, but the community's location along the Connecticut River speaks to a long history of human occupation prior to the arrival of Europeans. As the

Laurentide ice sheet retreated, indigenous people reentered the area now called New England, perhaps some 11,000 years ago. Western Abenaki bands lived throughout northern New England for more than 2,000 years prior to contact with settlements known to exist in the Upper Connecticut River Valley. It is thought they too took advantage of the Connecticut River floodplains for crop cultivation and used the river and its tributary streams as transportation corridors. The Sokokis band of Western Abenaki occupied Putney at the time of initial contact with Europeans.

Scenic and Recreation Resources. An appreciation of the natural beauty of the landscape and enjoyment of outdoor recreation are fundamental values shared by Putney residents. The town's complex topography and largely forested land cover afford a variety of scenic and recreation resources from boating on the Connecticut River at around 236 feet above sea level to hiking Putney Mountain at 1,670 feet. These resources are key to Putney's identity. Due to the work of volunteer groups and some large private landowners many of these resources are protected from further development including:

- » Portions of Connecticut River shoreline
- » Farmland along the Connecticut River including the Great Meadows
- » Extensive conserved lands along the Putney section of the Windmill Ridgeline (taking in Putney Mtn.) and more than 15 miles of trails
- » The Sand Hill Marsh complex

Public facilities encourage activity across a wide range of settings and include:

- » Boat launch on the Connecticut River
- » The Forest for Learning
- » Putney Town Forest
- » Playing fields and gym at the Central School
- » Community Swimming Pool
- » Aiken Wildlife Preserve
- » Many Class 4 roads and Town trails used for hiking, biking and cross-country skiing

2. Natural Resources & Land Use

Future Land Use Map. The Future Land Use Map (see *page 18*) is intended to illustrate Putney's desired future land use pattern, which can be broadly summarized as:

- » Revitalizing Putney's historic village so that it remains a vibrant civic, economic and residential center with green space for future generations,
- » Guiding new housing to where it can be served by existing infrastructure while minimizing adverse impacts on significant natural resources,
- » Offering improved housing choice, quality, efficiency and affordability to sustain a diverse and resilient population in the decades ahead,
- » Supporting the educational and cultural institutions that contribute economically and socially to the community,
- » Preserving public access to the scenic resources and outdoor recreation opportunities that are an essential part of Putney's sense of place,
- » Keeping rural land in productive use through farming, forestry and renewable energy generation,
- » Limiting further fragmentation of upland forest blocks by discouraging extensions of the road network to support very low-density development in remote areas of town,
- » Improving water quality and attenuating flood and erosion hazards through responsible land management, development, and road maintenance practices.



The Future Land Use Map also divides the town into a series of future land use categories:

Village. These lands encompass the historic village center and most of the serviced land surrounding it. Natural constraints limit opportunity for significant expansion of the existing settlement area. The opportunities for infill development are limited but should be pursued to their maximum potential. There is strong support for improving walkability and maintaining historic character.

Campus. These lands are uniquely developed as educational institutions with multiple buildings and functions that are part of the larger Putney landscape and community. The continued viability of these businesses is important to the town. There is support for strengthening both physical and social connections with these anchor institutions and welcoming their students into the community.

Residential. These lands extend out from the village and link to the campuses. Some land closest to the village has the potential to be serviced by municipal water and sewer. These lands are located along or in proximity to major roadways. They are less constrained by terrain, streams, wetlands, and other critical natural features. Much of this land is already developed residentially. As a result, these areas offer potentially suitable locations for new housing. Most development would likely be small-scale infill, but there are a few sites that have greater development potential. Due to the natural constraints on growth in Putney Village, additional areas where moderate densities of residential development are possible will be needed to meet the recognized need for housing.

Rural. These lands are located further out from the village and major roads. Homes are dispersed within forest and farmland. Terrain and other natural features significantly influence the settlement pattern. These areas are envisioned to remain rural in character and function with relatively low levels of residential development. Farming, homesteading, and sugaring should be encouraged to keep these lands in productive use.

Farm and Orchard. These lands are the major tracts remaining part of large-scale production. They include the fertile floodplain lands along the Connecticut River and orchards in Putney's rolling hills. Due to their soils, location, size,

2. Natural Resources & Land Use

configuration and ownership are well suited to remain in agricultural use for the benefit of future generations. To avoid further loss, Putney should consider efforts to preserve for future use remaining prime agricultural soils.

Forest. These lands encompass the three highest priority forest blocks in Putney, including the uplands around Putney Mountain and Bare Hill. These lands are mostly remote and not well-accessed by the existing road network. Most of the land remains in large, unfragmented parcels. The overall density of residential development is extremely low. These lands are highly valued for their ecosystem services. The tree cover sequesters carbon, slows and filters runoff, promotes infiltration of rain and melt water, provides essential wildlife habitat and travel corridors, provides timber and other forest products, and offers recreation opportunities. There is strong support in Putney for maintaining these forest blocks and minimizing fragmentation or development of these lands.

Riparian. The network of riparian features – streams, wetlands, floodplains, river corridors and buffers – overlays all the Future Land Use categories. They shape the form of the village and constrain its growth. This plan recognizes both the ecosystem services these features provide and the hazards they pose. Putney plans to continue guiding development away from riparian features.

Policy Direction. The vision expressed in the Future Land Use Map and narrative above will largely be implemented through the town's land use regulations. Throughout this plan, there are objectives, policies and actions that are intended to further describe Putney's future land use goals. Whenever future land use in Putney will be affected by a regulatory, judicial or legislative decision both the content of the Town Plan and the implementing provisions of the land use regulations should be consulted and considered.

In preparing this plan, Putney residents have considered what to maintain, evolve or transform about the community. There is much about Putney that residents want to maintain with limited changes, particularly the environmental quality, rural character and expanses of undeveloped land.

Putney residents do want to see their community evolve. For the past 20 years, there has been little growth or change. Increasingly, it is evident that a minimum level of growth and change is needed to sustain what people value about Putney. For there to be new generations of residents living, working and recreating in town, the housing stock should evolve to meet their needs. The road network and maintenance practices should evolve to a changing climate and changing travel modes. Energy sources and consumption should evolve to reduce our carbon footprint.

While there is little about Putney that residents want to alter, significant change has already occurred. Putney's landscape has transitioned from forest to farm and back over the past two centuries. How people live on the land has been changed by major infrastructure projects — railroad, flood control on the Connecticut, state highways and the interstate. Looking ahead, Putney residents anticipate the warming climate will cause further transformation. There are two areas of focus for imminent change, the village and forest blocks.

Putney Village. The village is the center of civic life in Putney offering a range of employment opportunities and basic services, including retail for town residents. The walkable compact form and access to transit and services (including the library and school) and the provision of municipal water and wastewater utilities enables Putney to participate in the state Village Center (VC) and Neighborhood Development Area (NDA) programs. These designation programs give Putney access to tax credits and priority consideration for a range of state grant products, exemption from Act 250 for eligible projects, fee reductions and exemption from land gains tax for housing units sold (see *Map 7. Putney Village, page 24*).

Under recent legislative changes, land in the water and wastewater service area will be subject to a new density standard of five dwelling units per acre. Although physical constraints prevent extensive development adjacent to the village there is the potential to develop serviced land more intensively in the village. The town should explore

2. Natural Resources & Land Use

the feasibility of extending the service area to adjacent lands, such as those along River Road to enhance the opportunity for further infill development within and adjacent to the village.

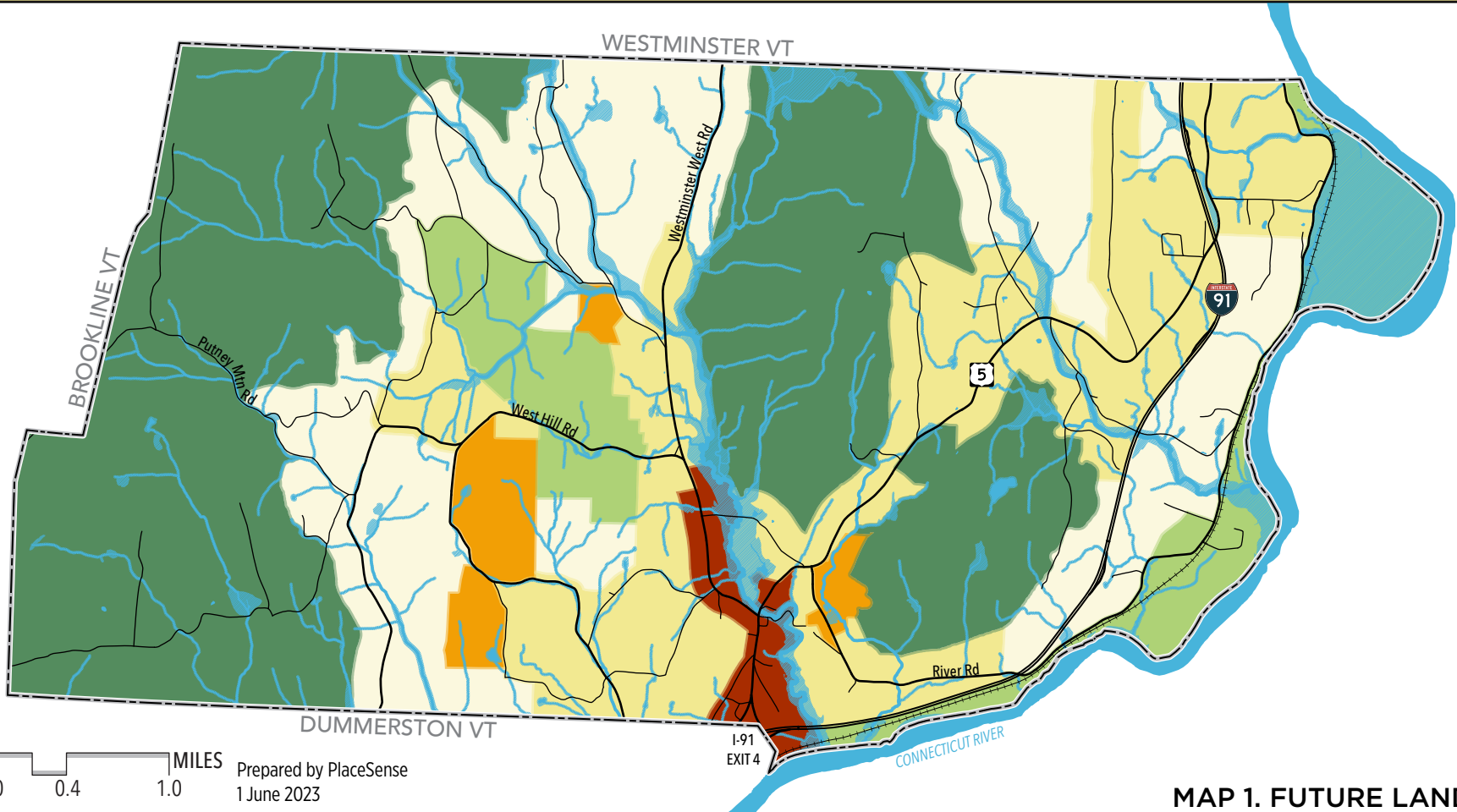
Forest Block and Habitat Connectors Town plans are required by state statute to identify forest blocks and habitat connectors and to plan for land development in those areas to minimize forest fragmentation, and promote forest health and ecological function (See *Map 6. Ecological and Forest Resources, page 23*).

This plan identifies three large forest blocks characterized by high resource values and lower levels of fragmentation. The Windmill Hill ridgeline (Putney Mountain) forest block in the western section of town is part of a larger block that stretches into Athens, Brookline, Rockingham and Westminster exceeding 19,000 acres in area. The Bare Hill Forest block in the center of town also continues into Westminster and is approximately 5,800 acres in area. The third block approximately 1,000 acres in area lies south of Route 5 and I-91. All three blocks comprise very large parcels. Of these, the Windmill Hill ridgeline has the largest area of conserved land.

The impact of any proposed development on priority forest blocks will be considered during Putney's development review applying the zoning and subdivisions regulations and state regulatory processes such as Act 250.



2. Natural Resources & Land Use



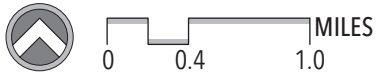
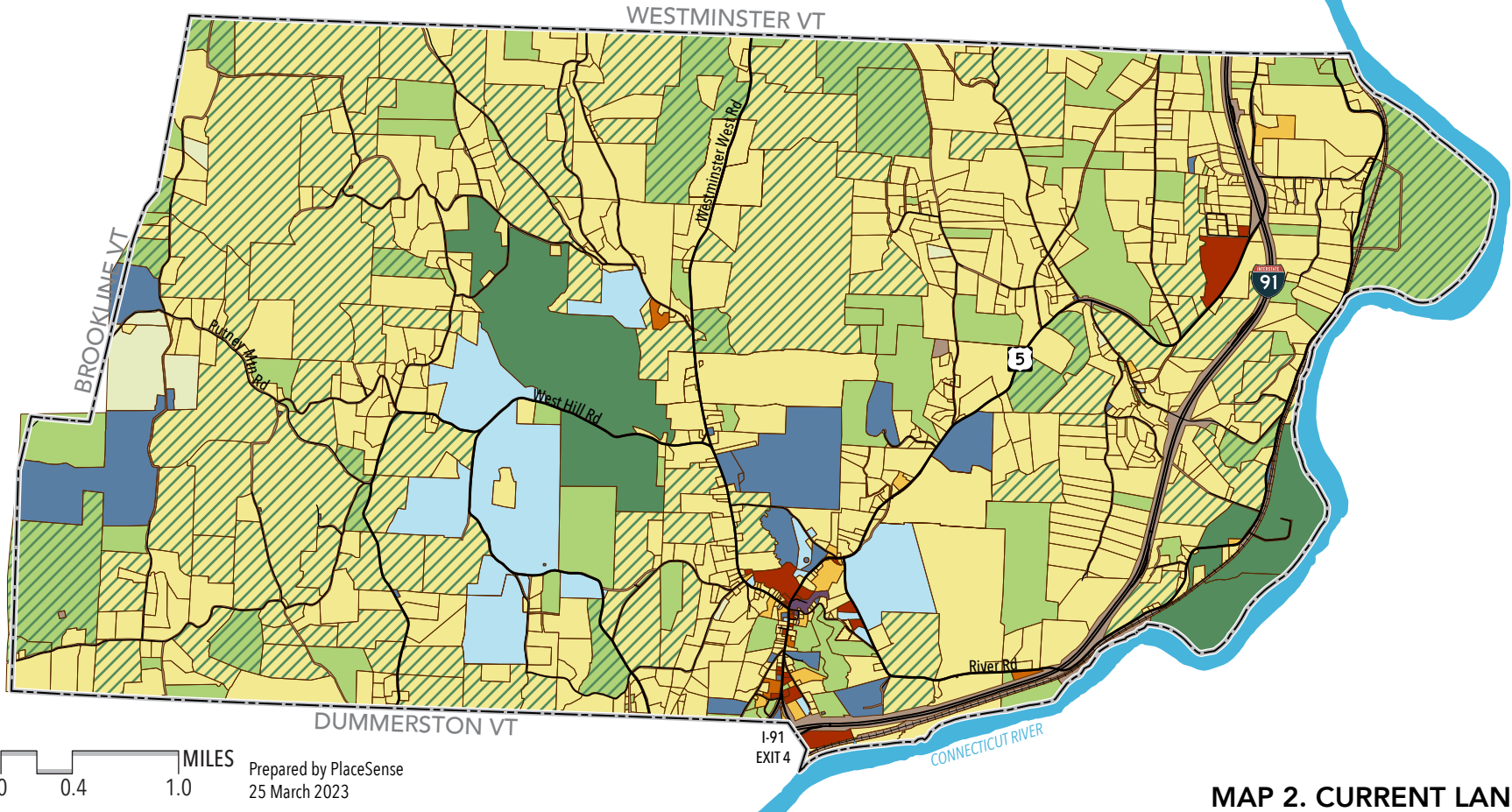
MAP 1. FUTURE LAND USE

KEY

- Village
- Campus
- Residential
- Rural
- Farm & Orchard
- Forest
- Riparian



2. Natural Resources & Land Use



Prepared by PlaceSense
25 March 2023

MAP 2. CURRENT LAND USE

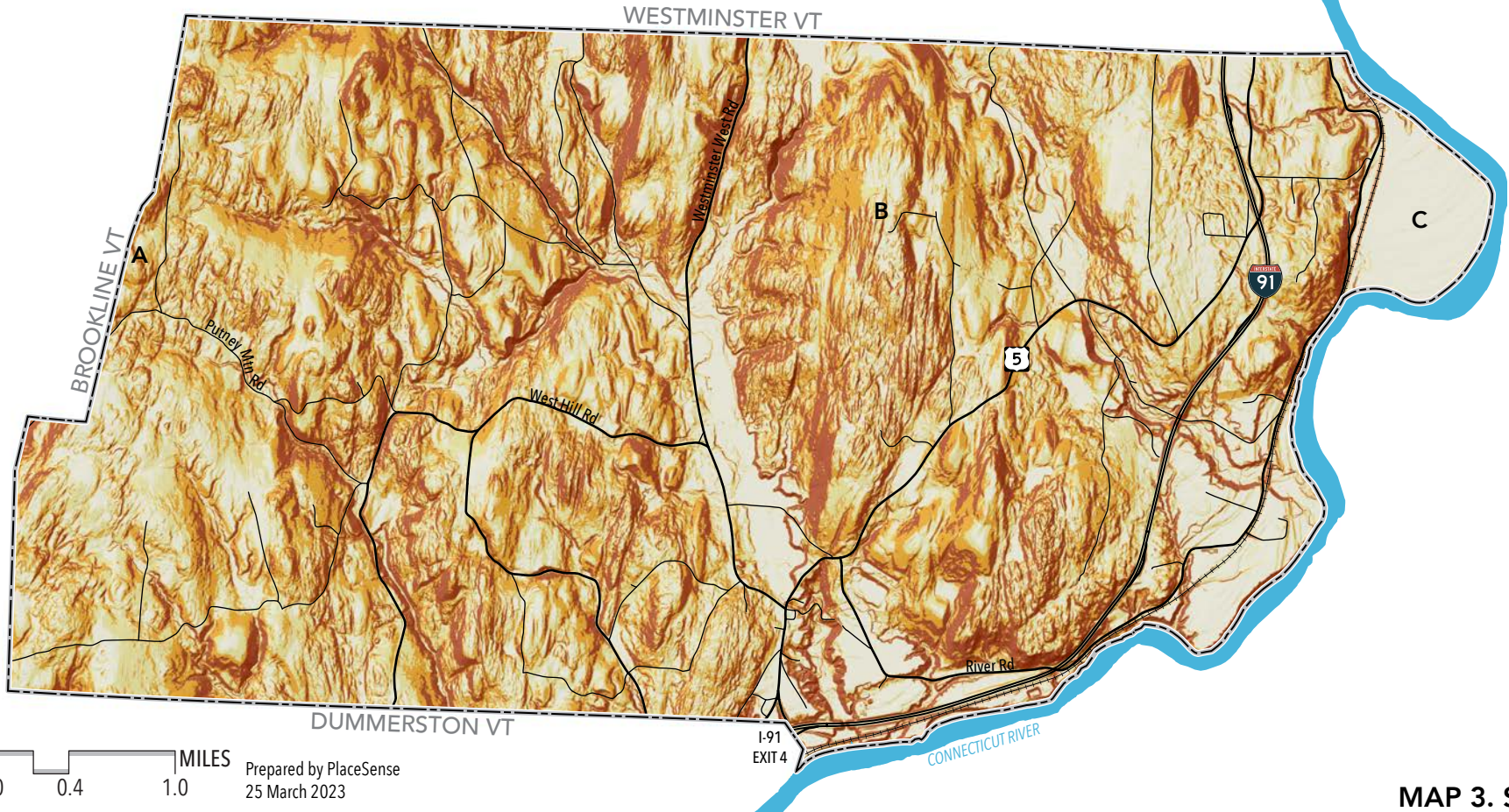
Use Category	# of Parcels	% of Land Area	% of Taxable Value
Industrial	2	0.0%	0.5%
Commercial	25	0.5%	3.8%
Mixed Use	5	0.1%	1.0%
Multi-Unit Residential	16	0.3%	3.0%
Institutional	14	4.8%	0.0%
Transportation & Utilities	23	4.2%	0.2%
Single-Unit Residential	819	63.8%	86.9%
<i>Enrolled in Current Use</i>	63	28.0%	11.6%
Seasonal Residential	7	0.9%	0.4%
Vacant	94	16.0%	3.2%
<i>Enrolled in Current Use</i>	17	8.2%	0.4%
Farm	4	6.0%	1.1%
Public	38	3.4%	0.0%

KEY

Industrial	Single-Unit Residential
Commercial	Seasonal Residential
Mixed Use	Vacant
Multi-Unit Residential	Farm
Institutional	Public
Transportation & Utilities	Enrolled in Current Use

SOURCE
Putney Grand List and Tax Parcels, 2021

2. Natural Resources & Land Use

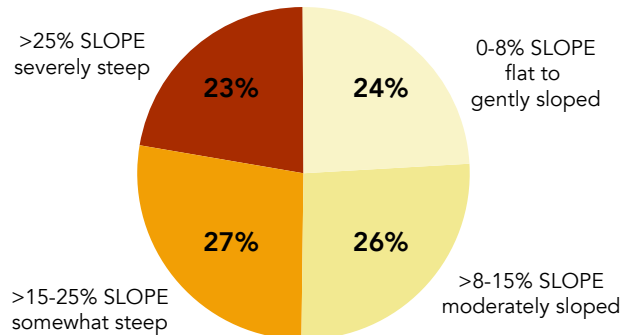


MAP 3. SLOPE

Slope needs to be considered when determining the suitability of land for development. Slopes up to 8% generally do not pose a constraint to development. Moderately sloped land may be suitable for development with appropriate stormwater management practices. Somewhat steep land requires professional design and specialized engineering practices to mitigate impacts and hazards. Severely steep slopes are not suitable for development and clearing or disturbance should be minimized.

TOTAL AREA BY SLOPE CATEGORY

PUTNEY = 17,080 ACRES TOTAL



KEY

- 0-8%
- >8-15%
- >15-25%
- >25%

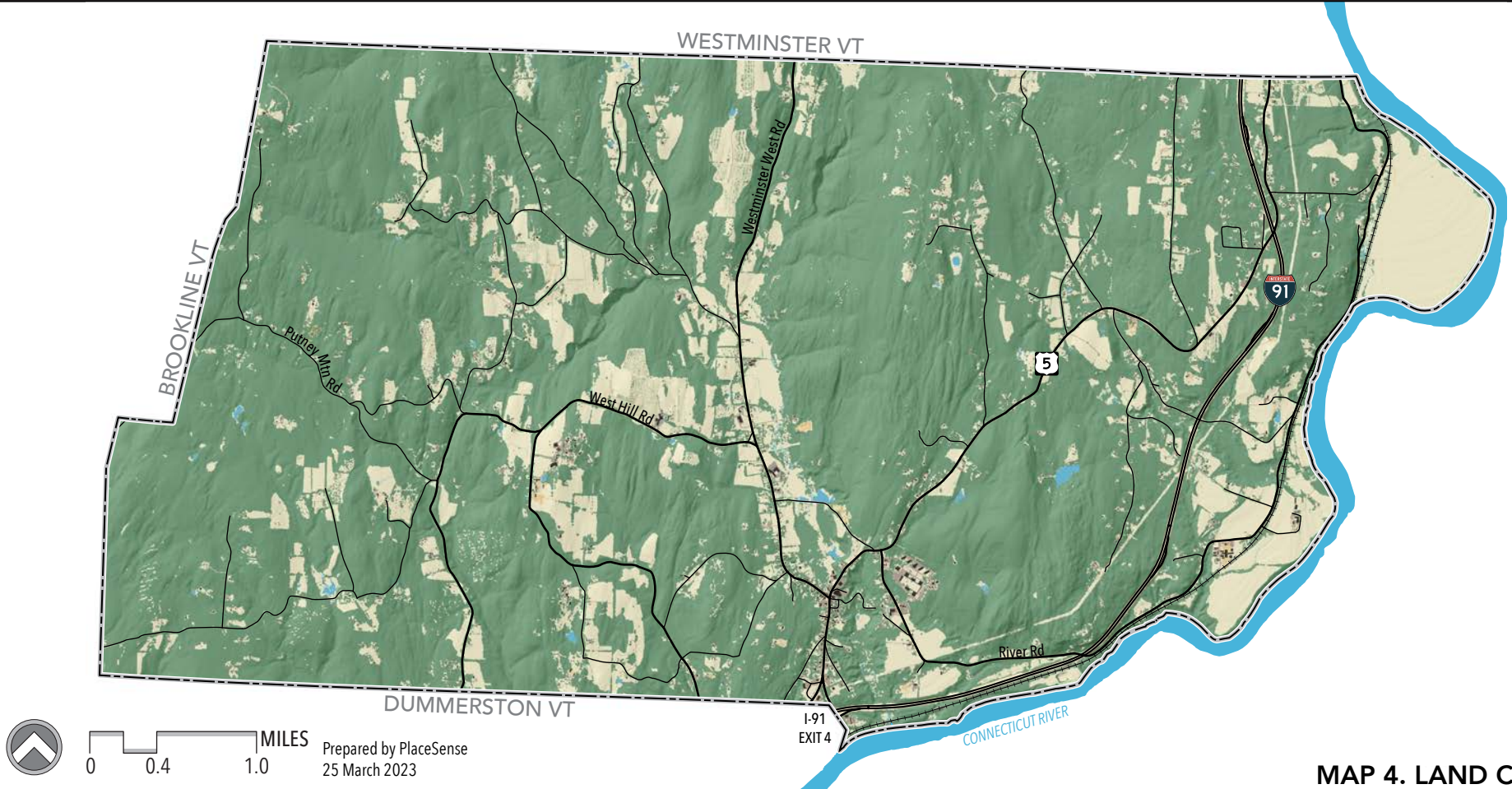
ELEVATION POINTS

- A. Putney Mountain (1,670')
- B. Bare Hill (1,086')
- C. Putney Great Meadows (236')

SOURCE

Slope derived from Vermont Lidar

2. Natural Resources & Land Use



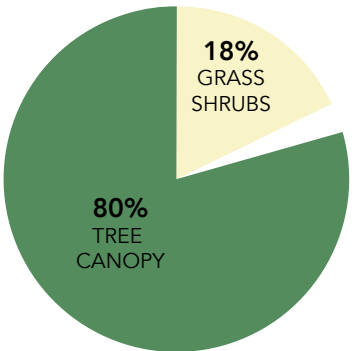
Prepared by PlaceSense
25 March 2023

MAP 4. LAND COVER

Putney has returned to a wooded landscape after much of the old growth forest was cleared for farming in the early 1800s. The amount of land remaining in agricultural use continues to decline. There has been little increase in the amount of developed land. The 2016 land cover mapping shows that roads, other paved surfaces and buildings account for about 360 acres total in Putney. Much of the town road network is under the tree canopy.

TOTAL AREA BY LAND COVER

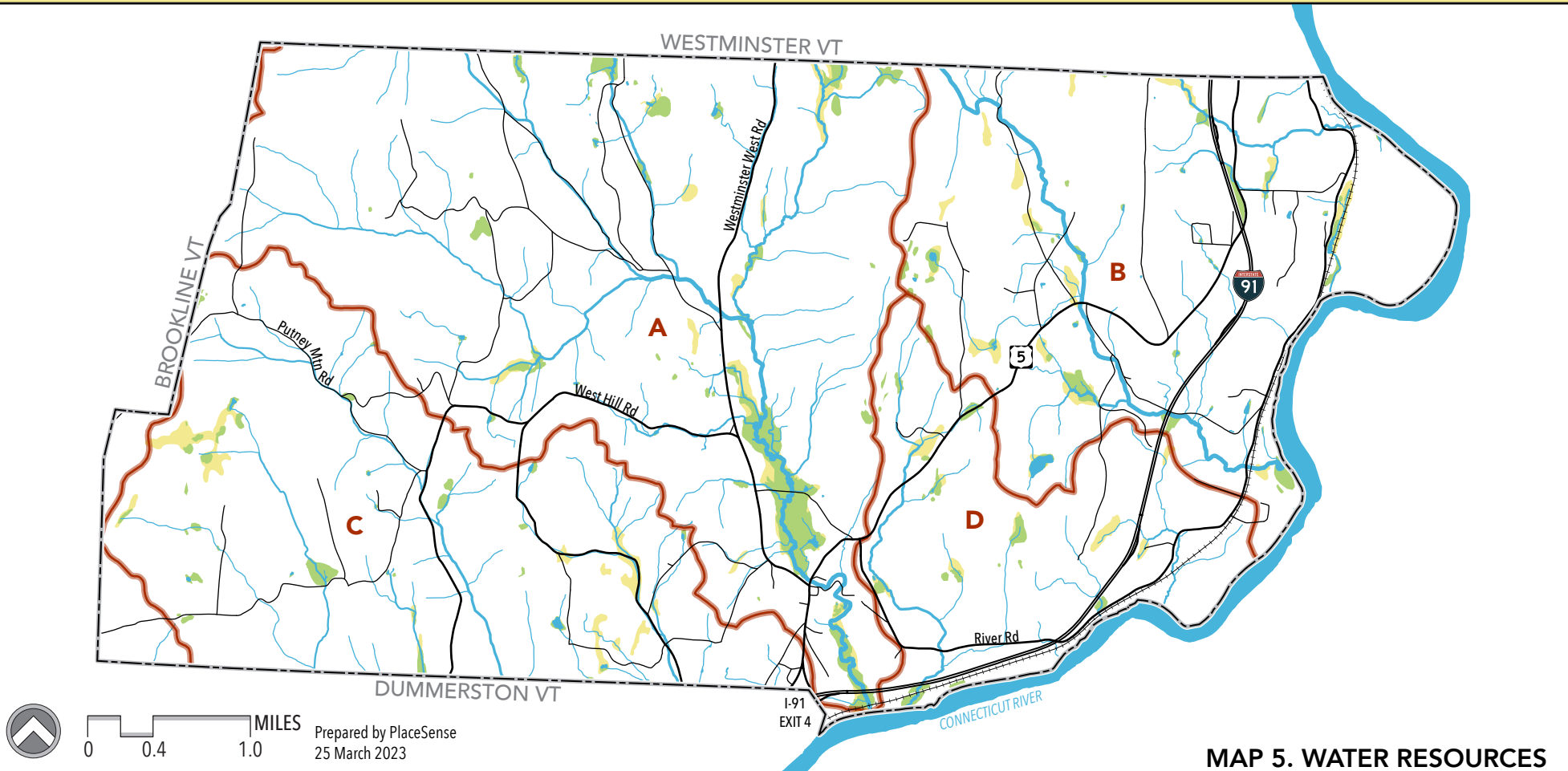
PUTNEY = 17,080 ACRES TOTAL



- KEY**
- Tree canopy
 - Grass/shrubs
 - Bare soil
 - Water
 - Paved surfaces
 - Buildings
 - Railroad

SOURCE
Vermont High Resolution Land Cover, 2016

2. Natural Resources & Land Use



MAP 5. WATER RESOURCES

KEY

- Watersheds
- Wetlands
- Hydric soils

SOURCES

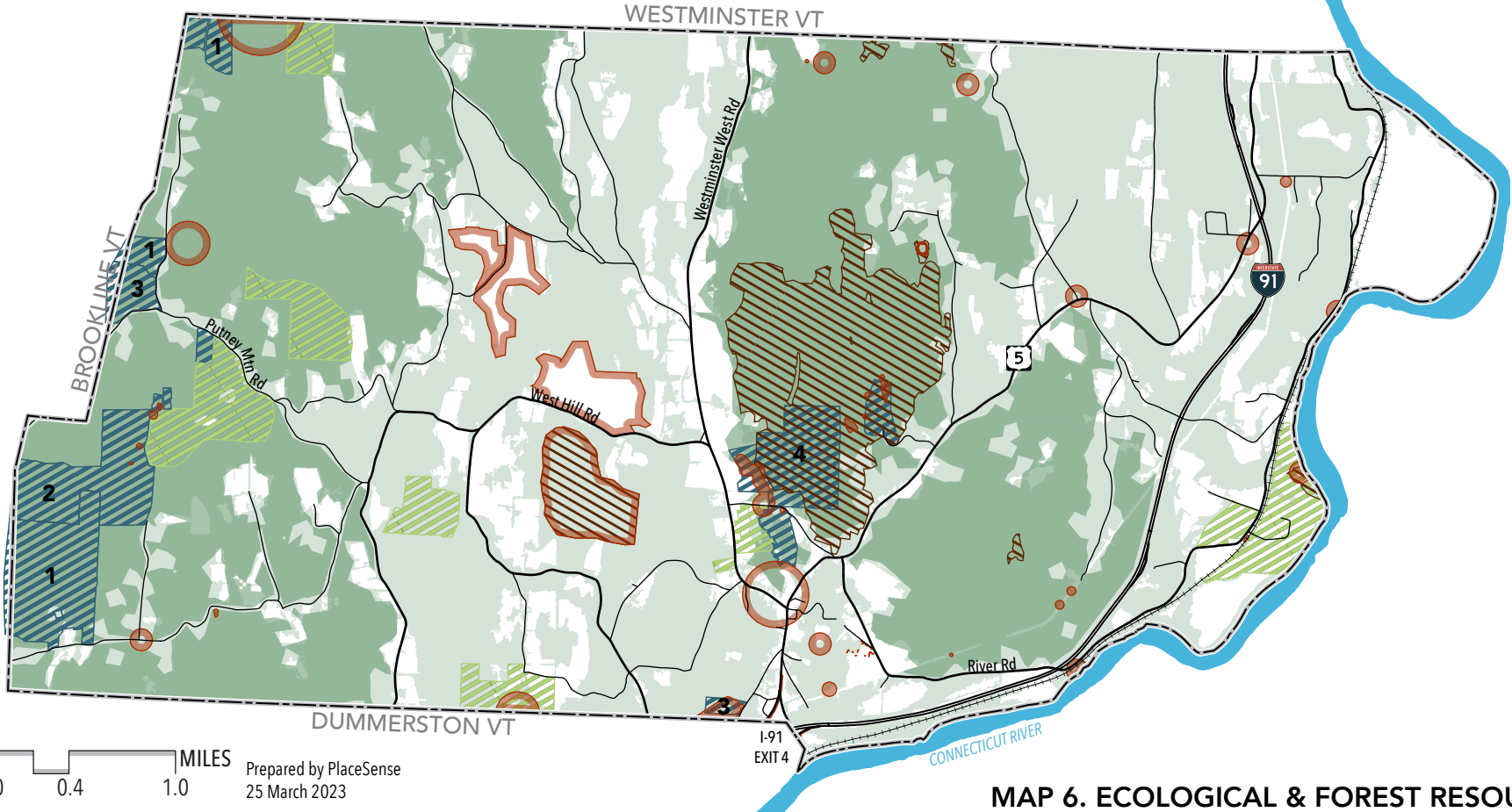
- Vermont Subwatershed Boundaries, 2020
- VSWI Wetlands Advisory, 2022
- VSWI Wetlands, 2016
- NRCS Soil Survey, 2021


WATERSHEDS

- A. Sacketts Brook
- B. East Putney Brook
- C. Catsbane Brook
- D. Connecticut River (direct)









2. Natural Resources & Land Use





 Prepared by PlaceSense
 25 March 2023

MAP 6. ECOLOGICAL & FOREST RESOURCES

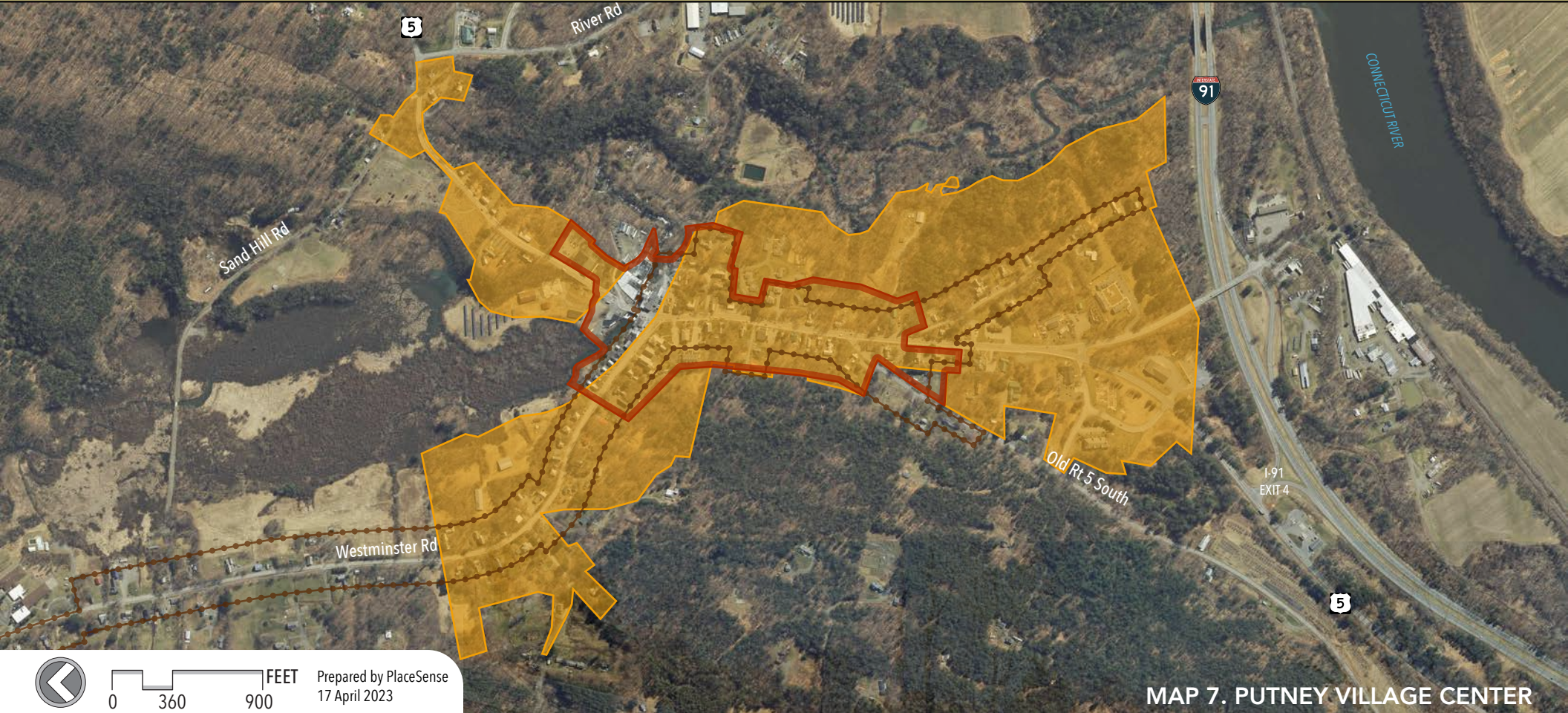


- KEY**
-  Uncommon, rare, threatened and endangered species
 -  Significant natural communities
 -  Private conservation land
 -  Public conservation land
 -  Priority forest blocks
 -  Tree canopy

- SOURCES**
- Vermont Uncommon Species, 2022
 - Vermont RTE Species, 2022
 - Vermont Significant Natural Communities, 2022
 - Vermont Protected Lands Database, 2021
 - Vermont High Resolution Land Cover, 2016

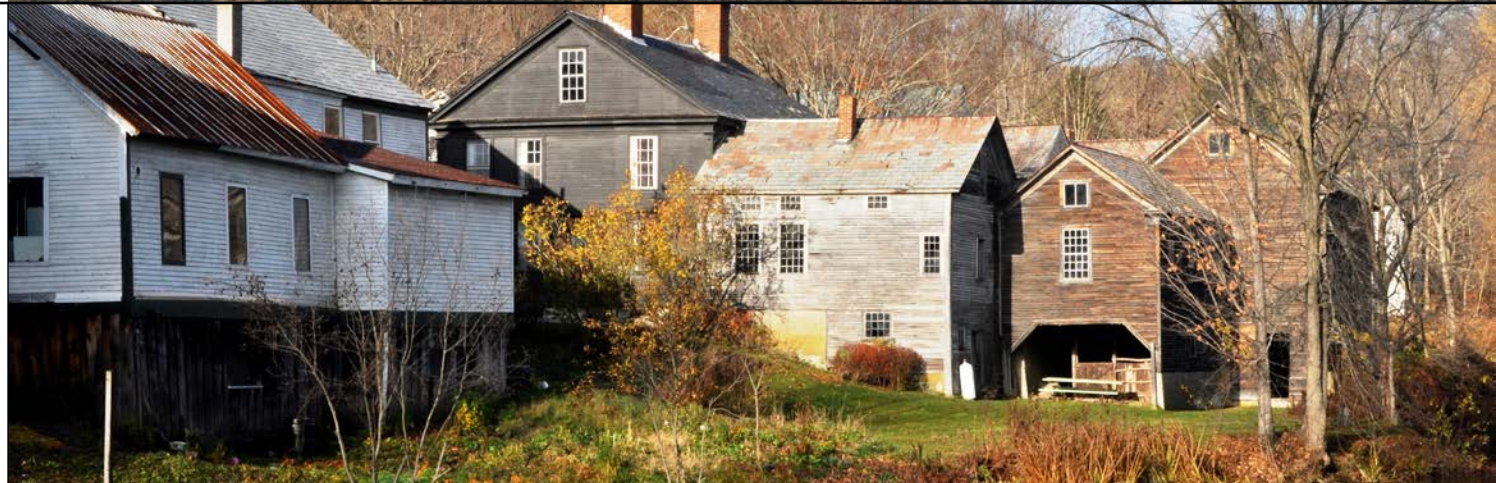
- PUBLIC CONSERVATION LANDS**
1. Putney Mountain Association
 2. US Fish & Wildlife Service
 3. Town of Putney
 4. Putney Central School

2. Natural Resources & Land Use



KEY

- Village Center
- Neighborhood Development Area
- National Register Historic District



Chapter 3. Housing

Objectives

- 3-1** Ensure that Putney meets the needs of a diverse community by providing housing choice in terms of type, affordability, size, and location.
- 3-2** Offer safe and healthy housing to meet the needs of current and future residents.
- 3-3** Continue planning efforts to encourage the development of housing accessible to employment, transit, retail, community services and open spaces.
- 3-4** Improve the energy efficiency of existing homes and ensure that new construction meets or exceeds state building energy standards.
- 3-5** Increase participation of homeowners and landlords in Efficiency Vermont and other established energy efficiency and weatherization programs.



Policies

- 3-1** Maintain an up-to-date housing needs assessment and action plan to address identified needs.
- 3-2** Encourage continued residential development in the village area served by water and wastewater to provide good quality housing accessible to transit, retail and service opportunities in the village.
- 3-3** Ensure that development outcomes are consistent with smart growth principles, recognizing the importance of protecting farmland, forests, wildlife habitat and open space.
- 3-4** Discourage new residential development in areas vulnerable to flooding and fluvial erosion.
- 3-5** Encourage the use of renewable energy and efficient systems for powering, heating and cooling homes.
- 3-6** Encourage effective implementation of the State Residential Building Energy Code.
- 3-7** Promote the development of accessory dwelling units.
- 3-8** Encourage projects that create mixed-income housing and/or a range of unit types and sizes including state and regional collaborations to access low-cost construction funding and technical assistance.
- 3-9** Ensure Putney land use regulations allow for manufactured housing anywhere single unit dwellings are allowed in accordance with state statute and fair housing law.
- 3-10** Require that short term rental properties be registered with the Town.
- 3-11** Explore and encourage innovative housing solutions to increase the availability of healthy, affordable and accessible housing (e.g., shared housing solutions).

Actions

- 3-1** Revise Putney land use regulations as necessary to remove barriers to creating accessory dwelling units, to converting larger homes and outbuildings to multi-unit residential dwellings, or to using manufactured housing where single dwelling units are allowed.
- 3-2** Amend land use regulations to require a certificate of occupancy and filing of a certificate of compliance for new construction subject to the state building energy code.
- 3-3** Contemplate eliminating the requirement for owner-occupancy for properties with accessory dwelling units.
- 3-4** Explore opportunities for moderate density rural housing in locations beyond the village that are well serviced by public roads, utilities, and communications infrastructure.
- 3-5** Seek state and regional collaborations to advance Putney's housing objectives.
- 3-6** Assign municipal resources to create and regularly update a list of rental and vacant properties, including short-term rentals.
- 3-7** Seek resources to maintain an up-to-date housing needs assessment and action plan to address identified needs.
- 3-8** Monitor the growth in short-term rental activity and how it relates to the supply of long-term rental opportunities in town through establishing a rental register with adequate privacy protections for owners and tenants.

3. Housing

Current Conditions

Residents. About 2,600 people were living in Putney in 2020, which was down from a peak of about 2,700 people in 2010. This was the first decline in population Putney has experienced for a century. Like many small towns in Vermont Putney’s loss of residents is a result of natural demographic change – an aging population. The number of new people moving in has been relatively low and newcomers have more likely been older adults. Fewer young people with children or new families have settled in Putney than in earlier decades. There are currently more Putney residents over age 65 than under age 18.

About 1,040 households were living in Putney in 2020. While there are fewer total residents, the number of households has not declined. The town has added about four households per year on average for the past 20 years – a very slow rate of growth. This means that most households in town now consist of only one or two people. Median household income in Putney was estimated to be between \$50,000 and \$60,000 in 2020, which was somewhat below the state median. The way these broad demographic trends interact with the current housing market helps to explain people’s housing experience in Putney.

Housing Stock. Putney is predominately a residential community with most parcels of land developed with at least one dwelling. While there is a concentration of housing in Putney village (about 25 percent of total units), most housing is distributed at moderate to low density throughout the rest of town. In 2020 there were 120 vacant units but almost none of those were being offered for sale or rent.

Putney had about 1,160 housing units in 2020 and the housing stock had increased by less than two new units per year since 2010. Growth in the number of housing units in Putney was slower in the past decade than in prior decades. This is linked to the period of no growth and then decline in the number of residents and households living in Putney. This failure to increase housing supply is not unique to Putney; it is a common experience in communities across the

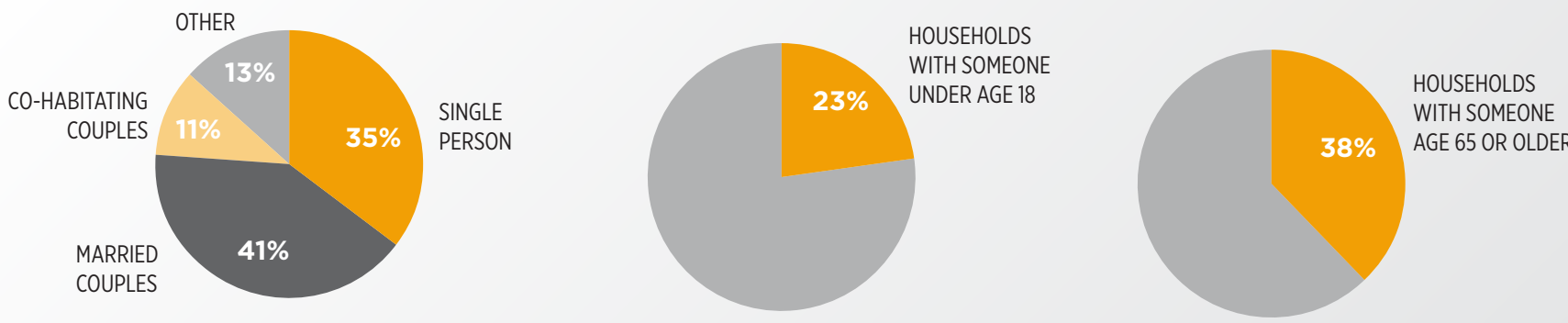


state. It is now widely accepted that the lack of housing availability is holding back opportunity in Vermont.

The most common form of housing in Putney is owner-occupied detached single dwelling units. In 2020 about two-thirds of all housing units were detached, single units. The remaining units consisted of manufactured homes (about 10%) and multi-unit housing (about 23%). Most multi-unit buildings are small with only two to four units. The 2021 Grand List included only 14 properties with 5 or more housing units.

Household Composition in Putney in 2020

Source: US Census Bureau Decennial Census



About 70% of households living in Putney are homeowners. The proportion of renters (30 percent) to owners (70 percent) has been stable in Putney for decades and is the same as Vermont as a whole. In Putney renter households tend to be either younger (under 35) or older (over 74) than those of owner-occupied dwellings.

Housing Costs and Affordability. A median priced home in Putney is out of reach for households earning the median income in the region. Nearly one in five households living in Putney in 2020 were spending more than 30% of their income on housing – the accepted measure of housing affordability.

The average assessed value of a detached single-unit home in Putney was \$250,000 in 2021. Homes have been selling above their assessed value in recent years. Data suggests that house prices in Putney started rising in 2016 but increased sharply in 2020 and 2021.

The real estate market has been extremely tight in Putney for many years. There are seldom more than a handful of residences for sale or rent in town at any given time. Putney has averaged less than 20 home sales each year for more than 30 years. The lack of availability and choice may be a factor contributing to a decline in population as those seeking housing find a home elsewhere.

There is little reliable data available on rental housing costs in Putney. A sample of privately owned apartments in January 2023 indicated a range between \$800 and \$1,400 per month. For 2022 there were about 35 to 40 short-term rental units active in Putney. Many of these units are accessory structures or cabins not intended for full-time occupation. Requiring that short term rental properties be registered with the Town will help planners better understand short-term rentals and their role in Putney’s housing solutions and tax base.

There are five affordable rental housing properties in Putney. Windham & Windsor Housing Trust (WWHT) manages The Laura Plantz House (11 units), Putney Landing (18 units) and the Noyes House (7 Single Room Occupancy units). It also operates the 22-unit Locust Hill Mobile Home Park. Putney Meadows has 28 apartments restricted to residents based on income, age (over 62) and/or disability.

In 2022, WWHT obtained town approval to construct two buildings with a total of 25 units of affordable rental housing in Putney village. The Development Review Board decision was appealed, and the project is currently on hold while the appeal is being heard.

3. Housing

To support the expansion of housing affordable to low- and moderate-income households, Putney can benefit, as it has in the past, by partnering with state and regional housing efforts that provide access to public funding and project management assistance to reduce the cost of new construction and renovations (e.g., Housing Revenue Bonds and Housing Trust Funds managed by the Vermont Housing & Conservation Board).

Zoning and Infrastructure. Putney village has an area serviced with water and sewer, taking in properties along Route 5 starting in the south at the Dummerston town line and continuing north to Landmark College and including properties on Kimball Hill (see *Map 9. Village Facilities and Services, page 45*).

In 2003 and 2005 the Planning Commission studied the build-out potential for the village area. The current zoning regulations were reviewed for any unnecessary barriers to development. The studies concluded that the current regulations supported significant development in the village area. The studies identified the limiting factors as the shapes of existing parcels, configuration of roads and physical features. Once these constraints were accounted for the conclusion was developable land in the study area was in short supply. Since these studies Putney has done well supporting development in the serviced core of the village providing affordable housing with easy access to services, transit and open space.

Acknowledging that physical and infrastructure constraints limit the potential for denser settlement in or adjacent to the village there is some limited opportunity for more intensive development on the edge of the current water service area. Beyond the village and adjacent areas there is some potential to increase development in the rural residential zoning district.

Revisions to the land use regulations such as eliminating barriers to creating new accessory dwelling units, or to convert larger homes and outbuildings to multi-unit residential dwellings will likely be needed to achieve this goal. Factors that need to be encountered

when reviewing the land use regulations will include the potential for residential development to conflict with delineated forest blocks and connectors (see *Map 2. Current Land Use, page 19*) and how continuation of a dispersed pattern of development influences energy consumption.

Housing Affordability in Putney

Housing is considered affordable if a household spends less than 30% of their gross income on housing costs. For owners, housing costs include mortgage principal + interest, insurance, taxes and any association fees. For renters, housing costs include rent, utilities not included in the rent and any association fees.

Median income for a two-person household in Windham County was estimated to be \$72,600 in 2023 by the U.S. Department of Housing and Urban Development (HUD). That household could afford to spend \$1,800 per month on housing and could afford to purchase a \$221,000 home.

The average sale price of a detached single-unit home in Putney in 2022 was \$330,000 – an amount not affordable for a middle-income household. To purchase the median home in Putney in 2022 at a price of \$330,000 would require a household income of \$108,000 and nearly \$30,000 in cash savings for the deposit and closing costs.

A two-person household in Windham County would be considered low income if they earned \$58,000 per year or less (based on 2023 HUD income limits). For those households, housing costs would need to be less than \$1,450 per month to be affordable. Homeownership is out of reach for most low-income households as the purchase price would need to be less than \$180,000 to be affordable. With median monthly rental costs being about \$950, renting may also be unaffordable to households earning less than \$38,000 per year.

Missing Middle Housing

Missing middle housing refers to housing types that fall somewhere in between a single-unit detached homes and mid-rise apartment buildings – such as townhomes, duplexes, triplexes, cottage clusters and other traditional forms of small-scale multi-unit housing. Missing middle housing can gently increase density within existing settlements. It is compatible in scale with single-unit homes. These housing types are an important component of a diverse housing stock, contributing to more inclusive communities. Among other benefits, they can be used to expand the diversity and affordability of housing in neighborhoods dominated by single-unit homes.

While missing middle housing originally focused solely on building types, use of the term has been broadened to encompass housing that is affordable to middle-income households. Vermont has launched a Missing Middle-Income Homeownership Development Program to provide subsidies and incentives for home builders to construct or rehabilitate modest homes affordable to Vermont home buyers with household incomes at 120% of area median income or less. The intent is for units constructed under this program to remain perpetually affordable to low- and middle-income households.



Future Needs

Putney, like most Vermont communities, has a significant level of unmet housing need. Putney needs both new units for new residents and improved choice, affordability and quality for current residents. Single unit detached homes situated on generously sized parcels of land are prohibitively expensive to build, purchase and maintain. They also have higher environmental impacts because of the reliance on private vehicles.

If Putney wants to be a community with a diverse population, it needs a diversity of housing choices. Currently, single unit detached homes dominate the housing stock. Other unit types well-suited to smaller households, younger adults, seniors and people with disabilities are limited. Given the age and type of stock, and the terrain, universal access dwellings that can be used by virtually everyone regardless of their level of ability or disability, are in very short supply.

Addressing climate change will require more concerted efforts to weatherize and update existing housing stock and specific steps to reduce the energy footprint of new construction (see *Chapter 4. Energy, page 31*). Renovating or otherwise modifying existing homes and buildings to address Putney's shortage of healthy, affordable dwelling units is an excellent opportunity to also increase the energy efficiency and climate resiliency of those structures. 24 V.S.A. § 4449 allows Putney to update its zoning regulations to ensure that for new construction (including an addition) a copy of the Residential Building Energy Standard (RBES) certificate is filed with the town Zoning Administrator before a certificate of occupancy is issued. This will allow Putney to gather more data so we can better monitor progress towards these important goals.

An increasing number of people in town are living alone. The number of single-person households is anticipated to increase in future years. Single-person households struggle to find housing that meets their needs and budget across the income distribution. Much of the

3. Housing

housing stock requires that a household have two-wage earners for it to be affordable. Putney could increase housing availability and affordability by encouraging home sharing models that can help meet housing needs within the footprint of existing homes.

Residents under age 40 experience a very different housing market than the one that residents over age 60 experienced at the same point in their life cycle (the 1980s). Younger adults across the income distribution are facing far more difficulty securing and paying for housing in the region than previous generations. Households that maintained home ownership through the ‘great recession’ of 2007 to 2009 encounter far less challenges than younger or housing insecure households because the cost of housing (rental and purchase) has increased dramatically, and there has been no meaningful increase in housing supply. Consequently, younger households are far less optimistic about their housing futures than previous generations.

The mismatch between the needs of younger and older households in Putney is likely to become more acute over the life of this plan. There are few options for older residents who want to stay in Putney other than remaining in their current homes. The number of residents ‘aging in place’ will continue to grow over the next 20 years. The location, design and maintenance requirements of many homes in

Putney will pose challenges to these elderly residents. Many of them will need the capital they have accumulated in their homes to move on to the next phase in their housing ‘career’, such as universal access or assisted living settings. Meanwhile, younger households are priced out of the market for these larger homes. Support for more accessory dwelling units, in addition to more in-town senior housing units, could help increase the availability of quality, affordable housing options for all ages and generations – including aging-in-place.

Maintaining an up-to-date housing needs assessment, accompanied by implementation of a multi-faceted action plan of near- and long-term solutions to increase the availability of quality, healthy, affordable and accessible housing, will help the Town set priorities and engage resources to reverse Putney’s long-lived, and worsening, housing crisis. Community commitment and collaboration to implement such a housing improvement and expansion plan is essential to achieve state housing goals as well as realize the community’s vision for an inclusive, welcoming and climate resilient place for all generations to live, work and play.

This plan makes appropriate commitments to encourage more housing catering to a wider range of households smaller in size than in previous times.



Chapter 4. Energy

Objectives

By 2050:

- 4-1** Increase the number of weatherized homes from 18% (in 2023) to 90%.
- 4-2** Eliminate the use of fossil fuels for home heating.
- 4-3** Ensure all new construction and renovation is built to applicable state building energy standards.

Policies

- 4-1** Promote the work of Efficiency Vermont and regional partners to advance energy efficiency projects for Putney residents and businesses.
- 4-2** Consistent with state statute require zoning permit applicants to provide a copy of the certificate of compliance with the Vermont Residential Building Energy Standard (RBES) prior to the Zoning Administrator issuing a certificate of occupancy
- 4-3** Offer incentives (e.g., tax deductions) for, or require energy ratings or bill disclosure of energy bills for homes and buildings at the time of rental or sale.
- 4-4** Encourage improved energy efficiency of Putney homes and buildings, including expansion of state programs to overcome financial, technical and implementation barriers along with low- or no-cost solutions for high energy burden households.
- 4-5** Support state or regional initiatives to replace older mobile homes with more efficient units.

Actions

- 4-1** Establish funds or funding mechanisms to assist the Town, residents and businesses to improve efficiency and transition to carbon free energy sources.
- 4-2** Partner with neighboring towns or the regional planning commission to establish shared services (e.g., Energy Coordinator position) to help achieve Town and community efficiency and clean energy goals.
- 4-3** Ensure that state building energy standards are incorporated by reference into Putney's land use regulations in accordance with state statute.
- 4-4** Foster state and regional partnerships to remove financial, technical and implementation barriers to home and building efficiency upgrades including expansion of no- and low-cost weatherization and appliance replacement for high energy burden households.
- 4-5** Identify preferred sites for renewable energy facilities that respect natural resource and agriculture land conservation.



4. Energy

Putney’s long-term goal is to become a carbon free energy consumer and, within the natural resource constraints, a renewable energy generator. Reducing carbon emissions can advance the economic and environmental well-being of Putney’s residents, and increase the resiliency of the community. There are 5 pathways needed to reach this goal: reduce energy consumption related to structures, reduce carbon emissions from transportation, promote use of carbon-neutral energy, promote land use practices that conserve energy and store carbon, and increase energy conservation and clean energy conversion through programs that educate and remove technical, financial and implementation barriers.

Current Conditions

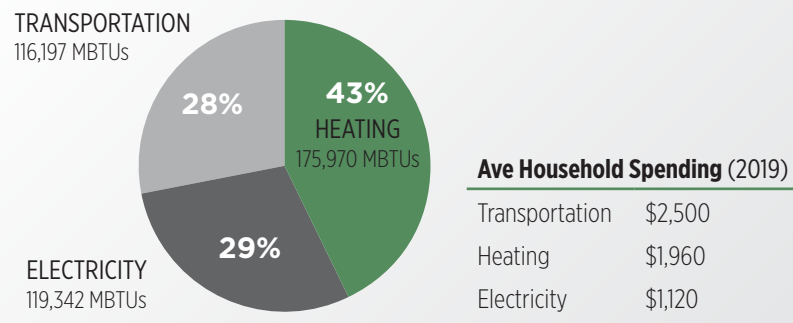
Putney has a similar pattern of energy consumption to other Vermont communities. Vermont consumes more than three times the energy it produces. Green Mountain Power (GMP) supplies carbon-free electricity in Putney, 78% of which is generated from renewable energy resources. The balance is from nuclear power. Electricity accounts for approximately 29% of the town’s annual energy consumption. The average annual spending on electricity for GMP residential customers is \$1,200.

Fuel oil and propane are the major forms of winter heating. Fuel and thermal energy accounts for approximately 43 percent of the town’s annual energy consumption. The American Community Survey (ACS) shows 44% of Putney homes were heated by fuel oil or kerosene, 30% were heated by wood, 16% were heated by propane and 4% by electricity in 2021. Comparison to the 2010 ACS shows a decrease in use of fuel oil or kerosene and an increase in both wood and propane.

The average Vermont household spends \$4,000 to \$5,000 on energy annually with most households ranging between \$3,000 and \$6,000 according to the VTDPs 2021 Annual Energy Report (Appendix C). Efficiency Vermont classified Putney as a town with a high energy burden in its 2019 Energy Burden Report. That report estimated that the average household was spending about \$5,600 per year or more than 11% of their income to meet their energy

Annual Energy Consumption and Costs in Putney

Source: 2021 Putney Energy Plan



Electricity Usage by Sector (kWh)

	2019	2020	2021
Commercial & Industrial	25,862,729	26,447,219	26,328,039
Residential	6,975,187	7,850,227	8,645,656
Total	32,837,917	34,297,446	34,973,695
# of Residential Premises	1,124	1,223	1,220
Average Residential Usage	6,206	6,419	7,087

Source: Efficiency Vermont, Windham Regional Report, June 2022

needs. If, as expected, fossil fuels and utility electricity prices continue to increase the energy burden will be more deeply felt by Putney households on fixed and low incomes. Importantly, renter households confront more challenges accessing weatherization benefits because they do not own the structure.

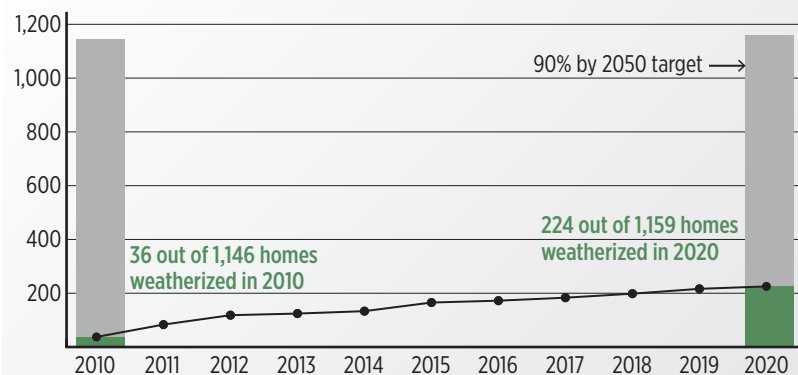
Weatherizing a home can reduce energy consumption and costs can be reduced by up to 23% for an average home according to the VTDPs 2021 Annual Energy Report. The 2021 American Community Survey estimates the median age of a home in Putney is 46 years (1975) with 24% of homes built before 1940. This suggests

Residential Energy Projects in Putney

	2019	2020	2021	TOTAL
Total Residential Projects	125	104	116	345
Home Performance with ENERGY STAR®	3	4	11	18
Other Weatherization	2	0	3	5
Residential New Construction	0	0	0	0
Other Measures & Engagement				
Home Energy Visits	3	0	2	5
Heat Pump Water Heater Installations	16	14	24	54
Cold Climate Heat Pump Installations	43	60	58	161
Wood Heating Installations	1	5	7	13

Source: Efficiency Vermont, Windham Regional Report, June 2022

Comprehensive Home Weatherization in Putney



Source: VT Community Energy Dashboard



that a lot more progress is possible on improving residential energy efficiency. Currently, of the 1,160 housing units in Putney, 224 (19%) have been ‘comprehensively weatherized’ in Putney according to data from the Energy Action Network. Since 2015 the annual average rate of weatherizing dwelling units has been 15.

This slow progress in improving the energy efficiency of Putney homes may reflect several barriers such as a lack of qualified contractors, high up-front costs, supply chain constraints, and/or technical and implementation issues (e.g., the need for structural repairs before insulating; electric upgrades before installing high efficiency heat pumps, EV fast-chargers, solar PV systems, or electric energy storage; or property owner lack of time, confidence or expertise to engage and oversee installation contractors).

Building Sector Solutions. Requiring new and renovated homes and buildings to comply with state building energy standards is one important pathway to improve building energy efficiency. To achieve this, Putney can provide certificates of compliance on zoning permits

4. Energy

the Town issues where the permit covers work subject to state building energy standards. This extra step will increase oversight of work done on residential, commercial and institutional buildings. (also see *Chapter 3. Housing, page 25*)

But given the low rate of new residential construction, the biggest opportunity to reduce building carbon emissions and energy costs is to improve the energy efficiency of existing dwelling units by weatherizing, replacing fossil fuel boilers and furnaces with high efficiency electric heat pumps and replacing older appliances with more efficient models. These investments can complement efforts to renovate housing to increase the number of dwelling units in Putney. To achieve this, Putney should work with federal, state and regional programs to provide solutions such as:

- » incentives and loans to reduce up-front costs
- » no cost solutions for high energy burden households
- » technical & project management support, including contractor booking
- » improving awareness of energy efficiency options & assistance
- » workforce development to increase availability of qualified contractors

To ensure that there is meaningful progress toward the 2050 90% energy efficiency goal Putney can more carefully track work done and participate in state and regional efforts to make building energy rating services broadly available at no or limited cost.

Transportation and Municipal Energy Use. Transportation accounts for about 28% of the town's annual energy consumption. Transportation related information and solutions are addressed in Chapter 7. Transportation. Information on municipal energy use is found in Chapter 6. Facilities and Services.

Renewable Energy Resources

Renewable energy resources include direct use (e.g., passive solar for space heating or domestic hot water, burning sustainably harvested firewood in wood or pellet stoves or furnaces). Renewable energy resources are also harnessed to generate electricity (e.g., large and small scale solar photovoltaic, hydro-electric, and wind systems).

Today, Vermont generates almost 100 percent of its electricity from renewable sources, a larger share than any other US state. Data provided by the US Energy Information Administration shows hydroelectricity accounts for almost 46 percent of total state generation. The state's five utility-scale wind farms accounted for 14 percent of total state generation. Putney does not host any large scale hydroelectric, wind farm or large-scale solar generators. As of 2020, 1,566kW of solar electricity generation has been installed in residential systems and a few small-scale commercial and community systems. Two further 500kW solar generation facilities gained approval in 2022, one of which is operational. A limiting factor in large-scale (greater than 500kW, no more than 2MW) generation is the limited network of three-phase power supply needed to connect larger solar generation facilities to the grid.

Siting Standards. This plan calls for increased renewable energy electric generation in Putney. This objective needs to be balanced against:

- » Protecting natural resources.
- » Maintaining viable agricultural and silvicultural operations and the working lands needed to sustain them.

These commitments mean that large scale renewable solar energy projects are not appropriate for areas mapped as forest blocks, orchards, and farms in Putney. The ecological value of these lands includes some measure of carbon sequestration, in addition to providing critical habitat and local food production. There should be no limitation on the siting of individual or residential scale renewable energy projects provided that the owner meets the setback and screening requirements as laid out in the Putney zoning regulations.

Where the project is a commercial venture the landscaping and screening standards as found in Section 509 of the Putney Zoning Regulations will apply.

Larger areas of land suitable for solar electricity generation lie in the eastern part of town roughly between I-91 and the Connecticut River. These river plains consist of prime agricultural soils and therefore should be retained for future potential agricultural production. The lands that have already been disturbed because of I-91 or the railroad or use as a waste dump (i.e., no longer suitable for agriculture) may be suitable for further solar electricity generation (although they are some distance from phase 3 power supply). Roof top solar and solar canopies in parking lots, and use of land with other development limitations (such as former gravel pits) should be encouraged.

Putney has extremely limited potential for large-scale wind development due to topography and land use constraints. Currently large-scale installations are typically sited on ridgelines at elevations of 2,000 to 5,000 feet. Putney's highest peak is 1,500 feet. However, Putney's ridgelines are in sensitive natural areas not suited for large-scale energy generation, transmission or distribution facilities. If technology changes allow for large turbines to be located at lower elevations Putney will need to balance considerations for additional renewable energy generation against protection of natural resources.

Future Energy Use

Future targets for energy use and efficiency are linked to longer-term demographic shifts and national and New England wide changes in energy technology and supply. Putney's population will continue to age and increase very slowly based on current projections. As the cost of fossil fuel energy for transportation and heating increase consumers will continue to shift to electricity. As transportation shifts to the electric grid, flattening peak period use of electricity as well as increasing energy storage and energy efficiency will become more important policy concerns. Putney can make contributions to clean energy resiliency by continuing to increase small and community-scale solar electricity generation while continuing to encourage energy efficiency and storage strategies in homes, buildings and transportation.



Chapter 5. Economic Development

Objectives

5-1 Plan development to reinforce the historic role of the village as the economic and social center of Putney.

5-2 Ensure the economic vitality of the village so residents may access goods and services within their community.

5-3 Support the ongoing development and successful operation of the educational and cultural institutions, handcraft artisans, and performing arts centers based in Putney, which provide employment, attract visitors and enrich community life.

5-4 Encourage the production, value-added processing and marketing of local agricultural and sustainably harvested forest products which generate income while preserving Putney's rural heritage and working lands.

5-5 Promote the potential Putney offers for agri-tourism and outdoor recreation businesses as part of the town's economic development strategy.

5-6 Improve economic opportunity and affordability for low- and middle-income households in Putney.

5-7 Have safe, quality affordable childcare available in Putney to meet the needs of working parents.

Policies

5-1 Collaborate with the local business community, institutions and organizations to make Putney a rewarding place to live, work and visit.

5-2 Express support for proposed economic development projects that reflect the values and priorities expressed in this plan including affordable housing.

5-3 Advocate for the provision of reliable and affordable high-speed internet, phone and other utility services throughout town to support residents' ability to work and operate businesses from their homes.

5-4 Support the continued operation of the Putney Farmers' Market in the village.

5-5 Support the viability of quality childcare (pre-K through grade 8), education, vocational training and recreations services.

5-6 Encourage new services/activities to meet Putney resident and visitor needs, such as a childcare center, laundry facilities, youth and young adult programs, a visitor information center, public parks, and shared transportation solutions.

Actions

5-1 Work with regional and state planning and development agencies, and local civic initiatives to revitalize and call attention to Putney's historic village center.

5-2 Prepare and adopt a village master plan with recommendations for improving the streetscape, bike and pedestrian facilities, downtown parking with EV charging, public green space, affordable and mixed income housing, wayfinding to outdoor recreation activities, and community centers that serve the needs of all age groups.

5-3 Seek funding and other support to implement the recommendations of the village master plan, including state and federal grants and private sector investments.

5-4 Review existing land use controls to ensure that they do not present a barrier to home-based childcare providers, or to the renovation and commercial use of Main Street buildings and brownfields that are now vacant or under-utilized.



5. Economic Development

Background

Data available to describe Putney’s economic life are difficult to obtain due to the town’s small size. Most of the relevant data is collected at the county level, making statements at the scale of individual communities less reliable.

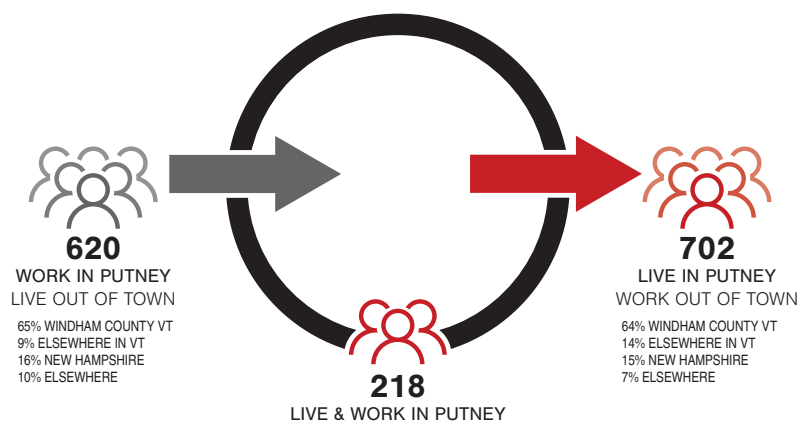
The total number of Putney residents participating in the paid workforce peaked in 2009 at more than 1,500. By 2022 it had fallen to less than 1,200 residents active in the paid workforce, the lowest level of participation in more than 30 years. The American Community Survey (ACS) estimated the median household income in Putney to be \$57,500 in 2021. However, 2021 data from the Vermont Department of Taxes suggests that estimate may be low because the average income tax filer in Putney had an income of \$77,000. Median income in Putney remained slightly below that for Windham County and significantly below that for the state.

Nearly 65% of Putney residents in the workforce had employment in Windham County in 2020. About 25% of employed Putney residents worked in Brattleboro in 2020 and nearly another 25% had jobs in Putney. Over time the dominance of Brattleboro as an employment destination has diminished. The other half of the working population

traveled to jobs throughout a wide area of primarily Vermont and New Hampshire. ACS data suggested that about 145 people worked from home in Putney in 2021.

Unemployment in Windham County for 2022 was at an all-time low of 2.2% following the upheaval of covid-19 and unexpected labor market shortages across many industries. There has been virtually no job growth in Windham County in the past 30 years and the number of people working in the county declined by more than 10% between 2019 and 2021. The average annual wage paid Windham County in 2021 was \$57,700 compared to a state average of \$64,100. The lack of meaningful economic growth in Windham County means fewer working-age people are moving into the region for employment. Long-term residents are reaching retirement age and leaving the paid workforce. Young people graduating from high school necessarily seek opportunity elsewhere, further reducing the rate of household formation

The total number of jobs covered by unemployment insurance located in Putney peaked in 2001 at nearly 1,300 jobs and a noticeable decline sets in with the recession of 2007-2009. By 2021, there were fewer than 1,000 jobs in Putney. Job losses occurred in most sectors and were most significant for retail, leisure and hospitality businesses. This decline has been gradual and steady and does not show volatility caused by covid-19.



Source: US Census Bureau on the Map 2020

Economic Activity and Employment. Putney has a sizable education sector including Putney Central School (pre-k – 8 public school), The Grammar School (pre k—8 independent school), The Greenwood School (6 – 12 independent boarding and day school), The Putney School (9 – 12 independent boarding and day school) and Landmark College. Oak Meadow, located in the former Basketville building, provides curriculum, and teaching services to the growing homeschooling movement in and beyond Vermont. The number of jobs in this sector remained largely stable between 2001 and 2021. The available data combines the education and healthcare sectors. While Putney has a family health clinic which is part of the

5. Economic Development

Employers and Employment in Putney

	2021			1990		
	EMPLOYERS	EMPLOYEES	AVE WAGE	EMPLOYERS	EMPLOYEES	AVE WAGE
All	116	964	51,075	98	970	16,522
Government	2	45	29,061	3	50	20,434
Private	114	920	51,075	95	920	16,310
Agriculture & forestry	3			5	54	12,297
Construction	13	37	34,808	23	47	17,118
Manufacturing	5			13	260	20,579
Wholesale trade	11			4		
Retail trade	7	76	23,826	9	62	12,566
Transport & warehousing	4			3		
Information	2			1		
Finance & insurance	5		45,058	3	18	16,416
Real estate	1					
Prof. & business services	32	76	72,741	10	28	35,107
Education & health services	12	450	50,692	10	279	16,606
Leisure & hospitality	11	48	36,980	10	149	7,951
Other services	10	12	28,243	5		

Source: Vermont Department of Labor

Brattleboro Memorial Hospital network and several independent healthcare providers, most jobs are in education. The education and healthcare sectors accounted for 450 jobs in 2021 up from less than 300 in 1990, reflecting the growth of Landmark College.

Crafts and performing arts are strong contributors to the economic vitality of Putney. Three performing arts centers, Next Stage Arts Project, the Yellow Barn Music Center, and the Sandglass Theatre, in addition to the performing arts centers at the Putney School and Landmark College, draw to Putney musicians, artists, teachers and visitors from far and wide. Likewise, dozens of craft and visual artists practice their and sell their art in Putney, including the annual Putney Craft Fair during which artisans across the Town open their studios to visitors.

The service sector is overwhelmingly oriented to serving the tourist trade although this sector has experienced an overall decline in the total number of jobs. Aside from tourism, Five Maples provides development communications products like direct mail, newsletters and annual reports for educational and non-profit institutions across the country from their base in Putney.

Manufacturing has historically been an important sector in Putney, in 1990 there were 13 manufacturing establishments, by 2021 this had fallen to 5, with a corresponding reduction in jobs from about 200 in 1990 to 100 in 2021. The Putney Paper Mill, now operated by Marcal, remains a long-standing important contributor to commerce and economic vitality in downtown Putney.

While there are three agriculture and forestry establishments in Putney there is no data available for the number of employees. This sector is known to rely on self-employed and agricultural workers who are not included in the data provided by the Department of Labor. Information from the Department of Taxes suggests that approximately 150 households in Putney derived part or all of their income from self-employment in 2021

Downtown Revitalization

Putney village is well located in relation to I-91 (exit 4) and is on US Route 5 with a National Register listed historic district and notable cultural assets including Sandglass Theater, Next Stage and Yellow Barn (see *Map 7. Putney Village, page 24*). The village serves as a gateway to outdoor recreational pursuits and the town's well-preserved rural heritage. The prior Town Plan acknowledged the challenges the village was enduring despite these assets and the remarkable determination and success of individuals and organizations involved in the adaptive reuse of historic buildings (Next Stage) and the reconstruction and relaunch of the General Store (following fires in 2008 and 2009). Putney residents remain concerned about the vitality of the village.

In 2022, the Vermont Council of Rural Development (VCRD) conducted a community visit to identify common community goals and access resources that can help achieve them. As of the writing of this plan, that work was continuing through a set of three task forces (see "Our Future Putney"): Revitalize Putney's Downtown, Develop a Community Center and Develop Housing Solutions. The downtown group is focusing on a plan that will address vacant storefronts, improve walkability and pedestrian safety, and beautify with art and the creation of a public green space.

This work is happening in the shadow of covid-19 and the dramatic impact it has had on the tourism and education sectors, two key industries for Putney. Clear trends that the planning process need to encounter include the significant shift to remote work which reduces vehicular and foot traffic in the village and online retail which challenges the viability of small retail establishments that have traditionally helped make Putney village a destination. This plan makes several recommendations to improve village amenities, encouraging business activity and increase housing in the village. This work should build on the strong legacy of community development that has preserved the historic form of the village.



Working Lands

A strong tradition of agriculture survives in Putney built around orchards, maple sugaring, vegetable growing and forestry. About 45% of Putney's land area is enrolled in Vermont's Current Use Program for land being managed for farming or forestry. Almost all the farms have developed on-farm businesses reflecting the diversification of the sector. Putney's farms are woven into the local tourist economy and the town's educational institutions. The continued viability of these enterprises is key to preserving the working landscape that the community values.

Chapter 6. Facilities & Services

Objectives

- 6-1** Provide the community services and facilities to sustain the quality of life in Putney.
- 6-2** Meet the town's obligations under the Clean Water Act (Act 64).
- 6-3** Meet the town's obligations under the municipal road general permit.
- 6-4** Ensure efficient and safe operation of municipal water and wastewater systems.
- 6-5** Reduce the carbon footprint of municipal operations.
- 6-6** Maintain a stable tax rate at the level needed to adequately support municipal operations and make wise investments in town facilities, infrastructure and equipment.

Policies

- 6-1** Focus development in areas of town already serviced by municipal water, municipal wastewater, major roads and/or transit.
- 6-2** Ensure that stormwater run-off from all developed land is managed at the source, thus avoiding a burden on public infrastructure.
- 6-3** Amend the Town purchasing policy to include accounting for energy use and total life-cycle costs, ensuring that carbon-free or energy efficient fleet and equipment choices are considered at every opportunity.
- 6-4** Support the organizations working to improve the availability and quality of childcare, early childhood education and vocational training received by Putney residents.
- 6-5** Continue support of the Putney Library.
- 6-6** Encourage landowners to preserve or allow public recreation access on private property.
- 6-7** Maintain and improve municipal recreation lands and facilities.
- 6-8** Pursue opportunities to expand municipal recreation offerings that align with village revitalization goals and that are revenue generating or neutral.

Actions

- 6-1** Maintain a capital improvement program that is aligned with the goals and objectives of this plan.
- 6-2** Develop a stormwater management plan.
- 6-3** Plan for and seek grant funds to establish the feasibility of a community center able to support a public recreation program and other community activities.
- 6-4** Conduct an energy audit for town operations encompassing buildings and facilities including the water and wastewater treatment facilities, and the Highway and Fire Departments fleet vehicles and tools and seek funding to make recommended improvements.
- 6-5** Investigate offsetting the carbon footprint of town operations by investing in renewable energy generation.
- 6-6** Replace as needed Town-owned fossil-fueled tools (e.g., chainsaws) and vehicles with electric-powered alternatives where they exist and meet operational requirements.
- 6-7** Explore the feasibility of a town green or public park within or accessible to the village.
- 6-8** Prepare a recreation master plan examining the needs of children, youth and adults for recreation facilities and programs in Putney. This plan will consider how to improve connectivity between trails and the town sidewalk system.



Existing Conditions

Town Government Facilities and Lands. Putney's town government is based at the Town Hall built in 1871 on Main Street (US Route 5). Town Hall houses the town administration and the historical society's collections. The building does not have the capacity to host large meetings or the technology to conduct effective online meetings. Larger gatherings such as annual town meeting typically take place at the Central School gym. The building needs energy efficiency and indoor air quality improvements. There are currently plans to upgrade Town Hall now that the Historical Society has agreed to lease space on the second floor. A feasibility study for upgrades was completed in the early 2000s and is currently being revised considering the new lease agreement with the Historical Society. The revisions will identify possible grants funds and the amount of funds the town will need to raise through issuing bond(s).

The town highway garage is located off River Road and houses the town's road maintenance vehicles, equipment and materials. The Town of Putney operates a potable water system with wells off Sand Hill Road and a wastewater treatment facility at a plant off Main Street (see infrastructure, below).

Putney owns and maintains 15 cemeteries, overseen by the elected Cemetery Commission who are responsible for their care and management, including mowing and sale of plots. Town recreational lands and facilities include a community pool, the town forest (accessed from Putney Mountain Road) and the Beatrice Aiken Wildlife Preserve. A Putney resident gifted the town a 50-acre parcel of wooded land off Route 5 north of the village – as of the writing of this plan, no decisions had been about the future use or management of this land. The Forest for Learning is associated with the Putney Elementary School. There are extensive federal and private lands not managed by the town but that are also open for recreational use.

Municipal operations in Putney are heavily reliant on fossil fuels and therefore generate greenhouse gas emissions. A system wide

energy audit for all town operations could identify the best return on investment for making energy efficiency upgrades and switching from fossil fuels to renewable energy. Innovations in transport and tool technology are making it possible to contemplate replacing traditional gasoline and diesel-powered vehicles and tools with electric powered equipment. It is expected that if the Highway Department fleet is converted to EV a new building with improved electrical service would most likely be needed. As the town replaces tools and fleet equipment a formal analysis of renewable energy alternatives should be incorporated into the procurement process. As municipal operations shift from fossil fuels to renewable energy, investments in site-based electric generation such as solar energy could help reduce carbon emission and enable the Town to stabilize its energy costs in this period of energy transition.

Public Safety Facilities and Services. The Windham County Sheriff's Department provides full-time police protection in Putney. The town is also served by the Vermont State Police who maintain barracks in Westminster. The annual appropriation for the Sheriff's Department contract in 2021 was \$97,000 with an additional \$7,500 for animal control officer duties also performed by the Sheriff's Department.

The Putney Fire Department operates from the fire house and emergency operations center off US Route 5 on Carl Snyder Drive at the southern end of the village. The Fire Department is staffed by a full-time Chief and 26 on-call fire and EMS personnel. They provide fire protection, prevention and emergency medical services in Putney. Fire prevention work includes conducting inspections of rental properties and places of public assembly (such as schools, commercial buildings and performance spaces) to ensure compliance with state life safety codes. In 2023 the Town initiated an analysis of Putney Fire Department Operations examining risk, liability and the ability to serve the community. Ambulance service is provided under contract by Rescue Inc. based in Brattleboro.

6. Facilities & Services

Infrastructure

Electricity. Green Mountain Power supplies electricity to Putney. There are two substations in town, at River Road and in the village serving the Paper Mill in the village. A 69 kV transmission line originating from the hydro plant in Bellows Falls passes through Putney serving the River Road substation, before continuing along the I-91/Route 5 corridor south to Brattleboro. There is very restricted access to three-phase power in Putney. This severely limits commercial and industrial development and most importantly the ability to locate renewable energy facilities. There are no plans to extend the service area for three-phase power. Green Mountain Power recently advised the Town it plans to place more of its distribution service power lines underground to reduce the number of service outages caused by trees falling on power lines with more frequent intense weather (see *Map 8. Utilities and Infrastructure, page 44*).

Telecommunications. There are three permitted cell towers in Putney. Service is also provided by towers located in New Hampshire. The antennas on these towers are primarily oriented towards travelers on the I-91 corridor. Landline phone and internet service in Vermont is provided by Consolidated Communications. Cable television and internet is widely available across town via Comcast. Remote areas of town have limited access to high-speed internet and the terrain presents challenges to accessing mobile phone and internet service. This limits opportunity for people to work from home and access many basic services that now require internet connectivity in some parts of town. As in most of the state reliable, affordable broad-band access remains challenging to access. The Putney Library provides free public access to high-speed internet.

Water Supply Infrastructure. Commissioned in 2005, the municipal water system has a well and pump house near Sand Hill Road and a 400,000-gallon storage tank in the vicinity of Landmark College. The average daily usage is around 38,000 gallons per day (gpd). The

service area for the municipal water system includes parts of River Road, Route 5 from River Road to just over the Dummerston line (serving the gas station at exit 4 on I-91), businesses between the Connecticut River and I-91 and parts of Old Depot Road, Kimball Hill, Christian Square and Sand Hill Road.

Wastewater Infrastructure. Operational since 1976, Putney's Wastewater Treatment Facility (WTF) was upgraded in 2007 to a design flow of 100,000 gpd. Currently the WTF treats about 52,000 gpd, representing about 65% of recommended capacity. Given current flows and allocation reserved for projects already permitted in the village, the system can likely accommodate an additional 35 to 100 dwelling units depending on the mix of housing types and unit sizes. This assumes no change in the commercial and institutional demands on the system.

The sewer service area includes lands on either side of US Route 5 from the Dummerston boundary to River Road, along River Road to Locust Lane (connecting Landmark College). Service extends up Kimball Hill to just past and including part of Fred Houghton Road and extends down Depot Road over I-91 to service the Putney Inn, and several businesses located in the Town of Dummerston, such as the Green Mountain Spinnery and West Hill Bike Shop. The Putney Central School connected to the town sewer in 1994 through construction of a pumping station and a half-mile-long pressure line, which enabled some private properties on Westminster Road to join the system (see *Map 9. Village Facilities and Services, page 45*).

Educational Facilities. Putney offers public education at the Central School (pre-k – 8) located on Westminster Road north of the village on a 12.5-acre parcel. The school has extensive playing fields and abuts the 167-acre school forest and is adjacent to the town pool. The school campus is the focus of town recreation league offerings.

The school began offering pre-k programs in 2012 when the total school enrollment (including pre-k) was 187 students. The 2022 enrollment is 197 students, with the highest enrollment in recent

6. Facilities & Services

years being 2020 (214 students). The school population in 2015 (at the time of the last plan) was 181 students.

Older students (9 – 12) can attend the Brattleboro Union High School and the Windham Regional Career Center. The 2015 town plan noted long-term demographic trends in Windham County show declines in public school enrollment. The situation remains largely unchanged. Given the number of children born to Putney residents and the small number of young families moving in, no significant change in enrollment is anticipated over the life of this plan. The community needs to accept these long-term changes, remain active in the Windham Southeast Supervisory Union (WSESU) and actively discuss how best to provide quality pre-k – 12 educational and vocational experiences for Putney families.

Library. The Putney Public Library constructed in 2004 is located on Main Street in the village and has a collection of more than 23,000 titles, which includes a large selection of audio and e-books. The library's strategic plan has three goals: 1) to celebrate diversity by promoting awareness of patrons' personal heritage and the heritage of others 2) creating young readers and 3) helping patrons how to find, evaluate and use information. The library has two full-time and four part-time staff including a youth services librarian who commenced in 2022. Many residents and travelers take advantage of the high-speed wireless internet service maintained by the library.

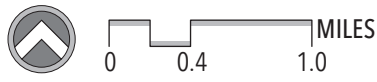
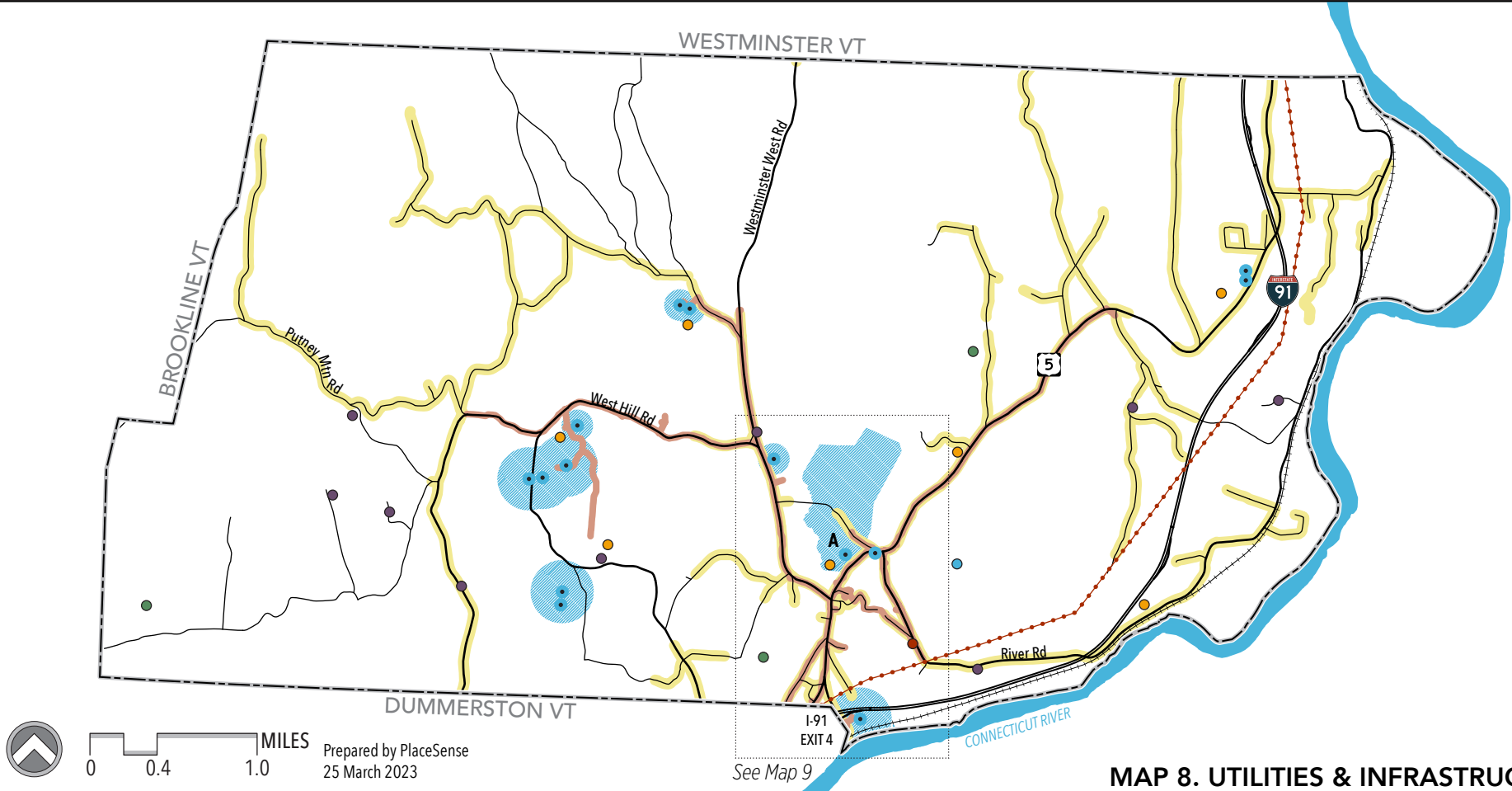
Community Center and Town Green. The Putney Community Center is an independent nonprofit organization formed in 1925, it operates the center at 10 Christian Square and Cooper Field on Sand Hill Road. The Community Center on Christian Square was available for rent and use for activities such as exercise classes, puppy training, meetings and memorials, dances and such. The Center has been the home of the Putney Foodshelf since 2009. Following the emergency declarations around covid-19 in early 2020 activities were severely curtailed, now the Center is only used by the Foodshelf. The Selectboard approved the FY2024 Town purchase of Cooper Field



on Sand Hill Road. The recreation field is now primarily used for Next Stage Bandwagon concerts.

At the 2023 Annual Town Meeting the voters passed a non-binding article in support of exploring the creation of a Putney Parks and Recreation department incorporating the Recreation League to enable better access to grant-supported programming, risk management and direct oversight by the Town Manager. This initiative is supported by findings from the Vermont Council for Rural Development (VCRD) community visit where community members suggested either investing in the existing community center or developing a new space that could host a community kitchen, indoor recreation and youth-focused events. The Revitalize Putney's Downtown Taskforce is also pursuing the concept of a town green space in the village. It is expected that these proposals will be looked at in some detail to establish feasibility, design options and operations.

6. Facilities & Services



Prepared by PlaceSense
25 March 2023

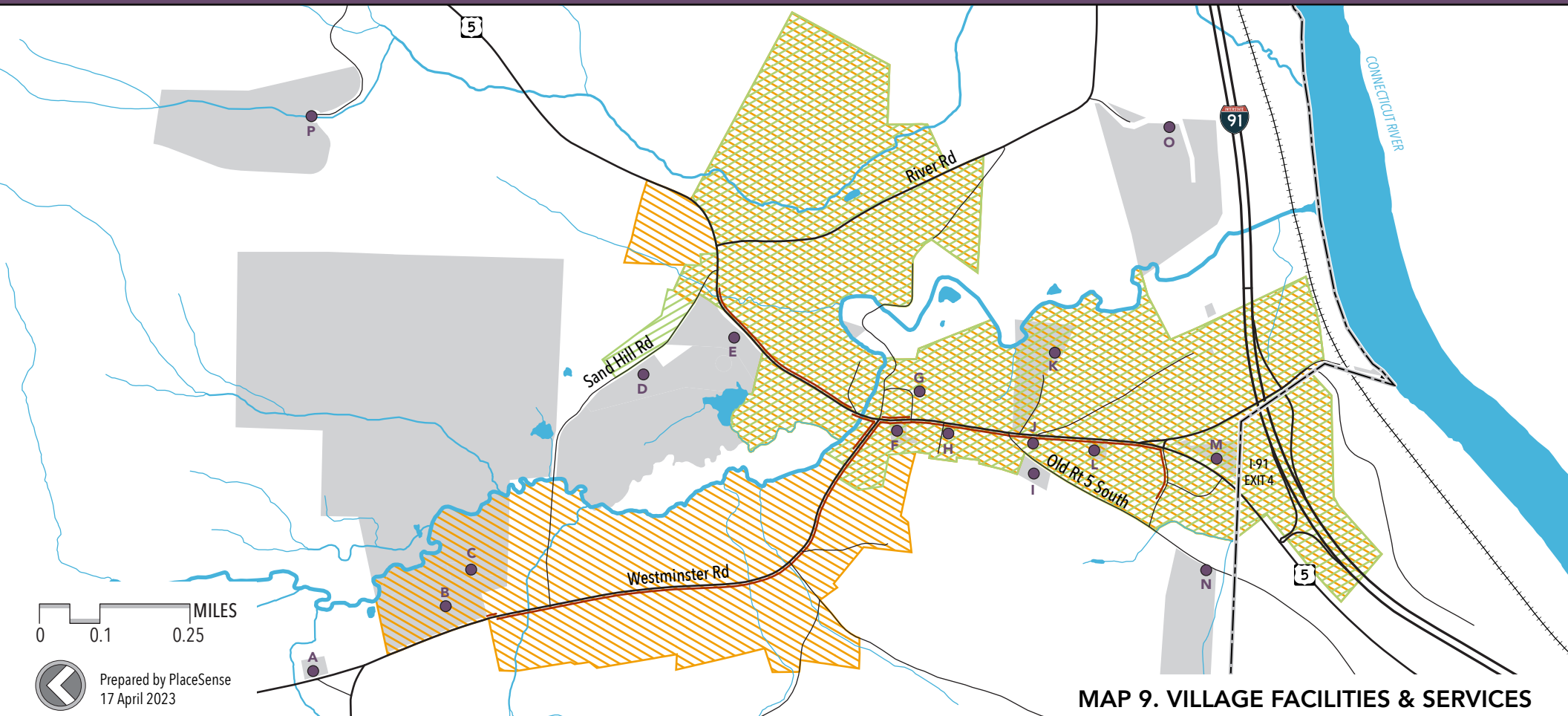
See Map 9

MAP 8. UTILITIES & INFRASTRUCTURE

- KEY**
- Cemetery
 - Solar Facility
 - Substation
 - Water Tower
 - Wells
 - Communication Tower
 - Source Water Protection Areas
 - Transmission Line
 - 3-Phase Power
 - Broadband Internet
- A. Town Water Supply



6. Facilities & Services



MAP 9. VILLAGE FACILITIES & SERVICES



- KEY**
- Water service
 - Sewer service
 - Public land
 - Sidewalk
- A. Old North Burial Ground
 - B. Putney Elementary School
 - C. School Forest trailhead
 - D. Community softball field
 - E. Mt. Pleasant Cemetery
 - F. Town Hall
 - G. Putney Community Center
 - H. Post office
 - I. Maple Grove Cemetery
 - J. Health clinic
 - K. Wastewater treatment plant
 - L. Library
 - M. Fire station
 - N. Aiken Preserve trailhead
 - O. Town garage
 - P. Bare Hill trailhead

Chapter 7. Transportation

Objectives

- 7-1** Reduce dependence on private vehicles as the primary mode of transportation in Putney.
- 7-2** Reduce the adverse environmental impacts of road maintenance practices.
- 7-3** Meet the town's obligations under the municipal road general permit.
- 7-4** Use capital budgeting to plan for needed road improvements and ongoing maintenance in a cost-efficient manner.
- 7-5** Consider resiliency to climate change when planning and designing transportation projects.
- 7-6** Support the growing use of Electric Vehicles (EVs) in Putney to reduce carbon emissions and reliance on fossil fuels.
- 7-7** Support residents walking, biking, taking transit or carpooling to work and school.

Policies

- 7-1** Continue to support the Moover transit service and other rideshare programs (e.g., MicroMoo if available) and explore ways to increase ridership.
- 7-2** Use investment in alternative transportation strategies such as sidewalks and bike paths to enhance the role of the village center in providing community facilities, employment, and retail opportunities.
- 7-3** Make maintenance of Putney sidewalks and bike paths a priority.
- 7-4** Work to ensure that when state highways and bridges are rebuilt or upgraded that special attention is paid to bike and pedestrian safety.
- 7-5** Support the creation and use of rideshare boards and apps to reduce single occupancy vehicle trips for commuting and other trips.
- 7-6** Discourage the creation of new public or private roads to serve low-density development, particularly when such roads would contribute to forest fragmentation.
- 7-7** Encourage the installation of additional public Level 3 EV fast charging stations in Putney Village.
- 7-8** Encourage more active use of rideshares and public transit using rideshare boards and apps to reduce single occupancy commuting.

Actions

- 7-1** Develop a plan that integrates bike and pedestrian facilities with the existing transportation network to facilitate connections to other transport modes (transit). This will include bike racks, bus shelters and EV charging stations.
- 7-2** Ensure that needed bike and pedestrian facilities are included in the capital improvement plan.
- 7-3** Ensure that maintenance of bike and pedestrian facilities is included in annual highway department work plans.
- 7-4** Install Level three EV chargers in multiple village locations so that more vehicle trips are powered by electricity, not fossil fuels.
- 7-5** Ensure through the development review process and maintenance agreements that any private roads meet town standards.
- 7-6** Review and revise the land use regulations as necessary to ensure that private roads and driveway plans consider wildlife crossing impacts and incorporate stormwater management that will be more resilient to climate change.
- 7-7** Consider the condition and capability of roads when establishing allowed densities of development under the land use regulations.
- 7-8** Continue to participate in the Transportation Advisory Committee (TAC) hosted by the WRC.



Current Conditions

Highways. Putney is served by Exit 4 off Interstate 91, eighteen miles north of the Massachusetts border. US Route 5 and Kimball Hill Road/Westminster Road are the main roads through the village. These roads generally follow the north-south orientation of the Connecticut River. US Route 5 and Interstate 91 (I91) are the primary corridors between Putney and the communities of Brattleboro and Bellows Falls, which are the commercial centers of the region.

In addition to the network of maintained roads, there are several Class 4 roads and legal trails that are not regularly maintained. The Town is not obligated to maintain Class 4 roads, property owners with frontage on the road share the responsibility for road maintenance. Class 4 roads and trails offer recreational and resource extraction opportunities and frequently traverse mapped forest blocks. Based on the State of Vermont Agency of Transportation (AoT) 2016 Highway Map mileage summary, Putney has approximately 66 miles of “traveled highways” and about 4 miles of legal trails (approximately 50 miles of unpaved and 16 miles of paved roads.)

Putney Roads. A review of estimated average annual traffic counts data collected by AoT suggests an overall decline in vehicular traffic over the past twenty years on all major roads including US Route 5.

US Route 5 is designated as part of the Connecticut River Byway. The Connecticut River Byway was designated a National Scenic Byway in 2005 by the Federal Highway Administration. This designation recognizes roads for their archaeological, cultural, historic, natural, recreational, and scenic qualities, and draws visitors to the Town.

Road maintenance costs represented approximately 28 percent of the annual operating budget in FY2021. These costs have been increasing at a significantly higher rate than inflation for the past 20 years. Recent dramatic cost increases for fuel and oil products

underscore how much of this municipal work is dependent on fossil fuels. The Town’s road network and its maintenance have environmental impacts including the spread of invasive plant species, and the consequences of untreated stormwater runoff including road salt, sand and gravel deposition in waterways which impacts the landscape, aquatic, plant and wildlife habitats. In response to stormwater impacts the Department of Environmental Conservation (DEC) have developed the municipal road general permit. This requires towns in Vermont to identify road segments with untreated stormwater making its way to streams and surface waters and making plans to address it.

In 2019 the towns of Putney and Dummerston purchased the 32-acre Hidden Acres Gravel pit in Dummerston. Engineering estimates suggest that the pit can provide seventy years of material at current rates of use. With this purchase both towns hope to control material costs for their Highway Department operations.

Parking. Public parking in the village is in designated areas along Main Street (US Route 5) and Kimball Hill Road, and at the town lot, south of Town Hall. Off-street parking is available in several private lots and driveways and parking areas throughout the village. In its 2005 study on village density the Planning Commission learned through public forums and workshops that parking and pedestrian facilities in the village were a concern. The study made recommendations to amend the Putney Zoning Regulations to reduce on-site parking requirements to promote more diverse, mixed-use village development that incorporated retail, office, and residential uses. These amendments have been made.

There is an 82-vehicle AoT park and ride facility adjacent to the Putney Fire Station near the intersection of US Route 5 and Exit 4. AoT park and rides support intermodal (car, public transit, pedestrian and bicycle) transportation. However, this facility is on the edge of the village and is not served by a sidewalk. A better pedestrian connection would improve the facility’s linkage to the village for event parking, or possible over-night off-street parking during winter storms.

7. Transportation

Public Transit. The non-profit corporation, The Moover Transit, offers fixed route bus service between Bellows Falls and Brattleboro during the weekdays. There are two stops in Putney, one at Putney Winery and one at Putney Meadows. Generally, the bus makes two morning, and two afternoon stops at the Putney locations. The Moover also provides elderly and disabled transit service for the Town. This service can be used for a variety of purposes including shopping trips, meal service, and medical service. The Moover is currently market testing so-called “micro transit” to provide on-demand transportation. Putney frequently makes donations to the Moover as part of its annual budget process.

Bicycle and Pedestrian Infrastructure. Walking and biking are important elements in creating a balanced and sustainable transportation system. They have positive health, safety, and energy conservation benefits. The village is compact with centrally located services (stores, town offices, library, restaurants, etc.) making it walkable.

In 2011 a fully accessible sidewalk along Main Street, between Town Hall and the Putney Co-op. State was constructed. The sidewalk was extended in 2015 north along Route 5 to Landmark College with additional funding, including a contribution from Landmark College.

The Mabel Gray Walkway extends from the Town Hall to the Putney Central School and connects with the Main Street sidewalk.

The Main Street sidewalk, and the continuation from the General Store to Landmark College have significantly improved pedestrian convenience and safety. An extension of the sidewalk from the Putney Coop south to the park and ride facility would offer a safe pedestrian link to the village for park and ride users. Reasonable improvements to accommodate more bicycle usage lower the town’s carbon footprint and encourage cycling as a transportation alternative. Providing adequate facilities for bicyclists may involve the development of bike lanes or paths, park and ride bike shelters, bike racks, and ensuring that road improvements provide for a sufficiently wide paved shoulder to accommodate bicycles. Each of these improvements carry implications for the Capital Improvement Plan.

Rail. The New England Central Railroad Company operates a rail line that runs through Putney, along the western shore of the Connecticut River. The line carries freight and the Amtrak Vermonter passenger service which provides one train daily northbound (to Saint Albans, VT) and one southbound (to Washington, DC). Passenger rail stations are in Bellows Falls and Brattleboro. A siding remains in place accessed by Putney Landing Road which holds open the possibility of a more active link to rail transportation in the future.



Future Needs

The joint purchase of the gravel pit with Dummerston helps control highway maintenance costs, but the continued increase in costs for fuel, equipment and complying with more stringent regulations will require more financial commitment from the town. Importantly, these increased costs are not due to increased activity or population growth. These additional costs will be borne by current property owners.

One consequence of climate change for highway maintenance is the increased frequency and intensity of winter storms with ice and rain (less snow) and tropical storms with very high intensity rainfall events. These new conditions call for different maintenance practices, skills and equipment. Much of the impact can be mitigated through improved stormwater management, increasing the number and size of culverts, ditches and swales to convey larger volumes of water, and more area to treat stormwater before it enters streams and wetlands. These adaptations are critical resilience measures to mitigate hazards, minimize environmental impact and ensure a safe road network.

The Hazard Mitigation Plan identifies some projects that have already been completed with three soon to be funded by Better Back Roads grants. The AoT Bridge Inspection database show that there are five bridges maintained by the town ranked as ‘Priority 4’ with items identified to be addressed on regular maintenance cycle. A bridge on Stage Road has more urgent issues (‘Priority 3’) because of scouring, but this a low traffic volume location. The other 14 bridges in Putney are maintained by the State.

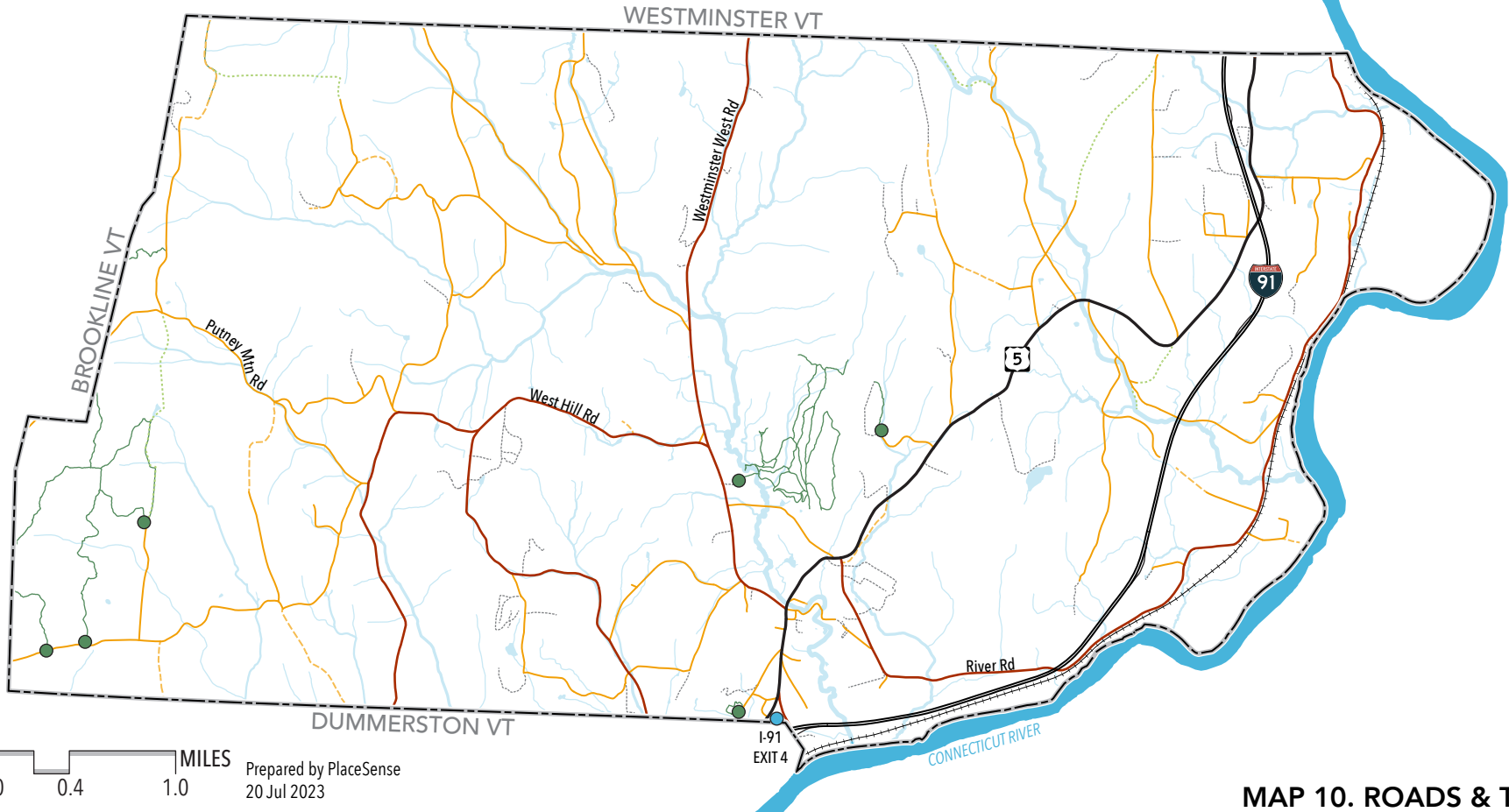
As the electrification of vehicles proceeds Putney will need to increase the number of EV charging stations. There are currently 12 110V Level 1 free outlets available at the Putney park and ride, but these are slow and require the traveler to provide their own charge cable. There are also two Level 2 (EV Charger) user-pay stations at Landmark College. Increasing access to charging stations for vehicles and bicycles will encourage their use. Opportunities for partnering

with local retail establishments to locate EV charging stations is one way to increase access in places they are needed.

Planning transportation improvements and advocating effectively for their funding and construction is a key priority. Building on its sustained period of making improvements to sidewalks ten years ago, the Town continues work to extend the village network of walkways to increase pedestrian safety. Assisted by a FY23 grant from the VTrans Bicycle and Pedestrian Program, the Town is preparing a walkway plan to connect the Putney Landing Apartments to the Putney Village sidewalk network with the intent to apply for a VTrans FY24 grant to fund walkway design and construction. In 2020, the Town established a Sidewalk Maintenance Fund to keep walkways in good repair. The Town will continue to consider additional options to increase safe multi-modal transportation in Putney village, including updating earlier cost studies of taking over the maintenance of Route 5 in the village and/or encouraging the State to improve the overall safety of the Route 5 intersection with Putney Landing Road (e.g., installation of a traffic circle). Important resources to assist such efforts include the AoT Statewide Transportation Improvement Plan (STIP) which directs funds from the Federal Highways Administration to support municipal transportation projects, and the Windham Regional Commission’s (WRC) transportation planning program that coordinates closely with AoT to develop annual lists of bridge projects to receive AoT funding support.

For some years the Highway department budget has included an allocation to the “Highway Department Reserve Fund”. Since FY2022 there have been annual appropriations to this fund of \$145,000 with the intention of avoiding borrowing for larger projects in the future. As surplus funds become available it is expected they will be directed to this fund in support of transportation infrastructure needs identified in this chapter.

7. Transportation



0 0.4 1.0 MILES

Prepared by PlaceSense
20 Jul 2023

KEY

- Interstate Highway
 - State Highway
 - Class 2 Town Road
 - Class 3 Town Road
 - Class 4 Town Road
 - Legal Trail
 - Private Road
 - Recreation Trails
 - Trailhead
 - Park and Ride
 - Railroad
- Village sidewalk shown on Map 9*



MAP 10. ROADS & TRAILS

Road Class	Total Mileage
Interstate	5.55
State	5.95
Town Class 1	0.00
Town Class 2	15.67
Town Class 3	38.98
Town Class 4	4.95
Legal Trail	4.11
Total	75.20

Source: VTrans 2016 Town Highway Map

Chapter 8. Resilience

Objectives

8-1 Build and sustain a high level of community resilience in Putney.

8-2 Mitigate potential flood and erosion hazards and increase the community's resilience to flooding and other disasters.

8-3 Prevent increased flood and erosion hazards resulting from irresponsible land use and development practices.

8-4 Improve or maintain natural riparian functions along streams and rivers in Putney to prevent or minimize future flood and fluvial erosion hazards.

8-5 Encourage more property owners to purchase flood insurance for buildings within the Special Flood Hazard Area (SFHA).

Policies

8-1 Maintain eligibility for the highest level of Emergency Relief Assistance Fund (ERAF) funding from the state.

8-2 Ensure eligibility for the National Flood Insurance Program (NFIP) by implementing federal/state regulations on development within mapped flood hazard areas.

8-3 Review the Hazard Mitigation Plan annually and implement the actions in that plan.

8-4 Limit development in proximity to rivers and streams.

8-5 Encourage property owners to maintain woody vegetation along the banks of rivers and streams.

8-6 Discourage property owners from removing tree cover at higher elevations and on steeper slopes to avoid further intensification of downslope flooding or erosion during severe storms.

8-7 Guide new residential development away from sites that are remote from community services, difficult to access or at higher risk of damage from severe storms.

8-8 Support organizations that provide shelter, medical assistance, and other support services to Putney residents during disasters or emergencies.

8-9 Support regional initiatives to improve preparedness for future disasters and emergencies.

8-10 Support local renewable energy generation, energy storage, and decentralized power systems that can reduce dependence on grid-provided power which is commonly disrupted during disasters and emergencies.

Actions

8-1 Maintain a current, adopted Hazard Mitigation Plan, by undertaking an annual review process that evaluates the effectiveness of the implementation program.

8-2 Conduct a yearly review and adoption of the Local Emergency Management Plan to maintain state Emergency Relief and Assistance Fund membership.

8-3 Explore ways to support and expand the Putney Mutual Aid Network when reviewing the Hazard Mitigation and Local Emergency Plans.

8-4 Continue to participate in the Regional Emergency Management Committee.

8-5 Provide a suitable local facility where residents can safely shelter, and access needed services during a disaster or emergency.

8-6 Require all new development to adequately manage stormwater in accordance with the Putney zoning regulations and Local Emergency Management Plan to prevent damage to public infrastructure.

8-7 Adopt road and driveway standards that ensure all new development meets minimum requirements for emergency access.

8-8 Require that utilities installed to serve new development be placed underground.

8-9 Continue to monitor the health of and remove diseased hazardous trees within public rights-of-way.



8. Resilience

Community resilience is a measure of the sustained ability of a community to utilize available resources to respond to, withstand, and recover from adverse situations.

Today rapid climate change is a major cause of the hazards to the health, safety and wellbeing of the Putney community. Each year Southern Vermont experiences more frequent severe weather impacts such as flooding, high wind, deep snow, ice storms and extreme temperatures. Any of these events can disrupt access to safe shelter, adequate food, energy, life-saving communication or health services. For disabled persons, limited mobility, hearing or visual capacities can increase the risks or impacts of such hazards. Putney's population is also exposed to widespread infectious diseases through links to a regional and global economy through commerce, including tourism, education, and employment. Climate change and global integration introduces hazards from the spread of invasive plant and insect species. These issues are addressed briefly in this chapter and in more detail in Putney's Local Risk Hazard Mitigation Plan, and Local Emergency Management Plan both of which are reviewed annually.

Other challenges to community and individual wellbeing such as economic uncertainty and decline, and a long-standing lack of safe, affordable housing are addressed in Chapter 3. Housing and Chapter 5. Economic Development.

Hazard Areas

Flood Plain Management. Putney participates in the FEMA National Flood Insurance Program (NFIP) which sets engineering and construction standards for development in the special flood hazard area (SFHA). In 2021 Putney amended the zoning bylaw to regulate development in the river corridor, an area subject to fluvial erosion (rather than inundation). Overall Putney has managed to limit conflict between buildings and flood hazard well. There are approximately 17 structures in the SFHA and approximately 40 in the River Corridor area (13 are in both). Data from FEMA maps and the E911 program show that 19 dwelling units are within 50 feet of a mapped stream.

River Corridors. Flooding is the most likely and most destructive hazard for a community in the United States. The NFIP program is operated by FEMA, its purpose is to address impacts caused by inundation flooding, which is more commonplace across the country.

The geology and topography of Vermont compel an additional regulatory response to reduce the impact of fluvial erosion. In Vermont fluvial erosion events are common and occur when riverbanks are destroyed by the movement of streams. The process can range from gradual bank erosion to catastrophic realignments of the river channel during flood events. Major erosion events are typically associated with periods of heavy rainfall or rapid snow melt and tend to worsen the effects of flooding that often accompany these events.

Following the wide-scale impact of Tropical Storm Irene in 2011 the Vermont River Management Program developed a program that first mapped river corridors throughout the state (see *Map 5. Water Resources, page 22*). The purpose of the river corridor is to establish a zone where the stream can move within in its floodplain reestablishing equilibrium conditions and habitats. This approach avoids wherever possible the straightening and berming of rivers to prevent the channel from moving.

As the climate crisis continues the frequency and intensity of fluvial erosion events are also increasing. This hazard pattern presents challenges to communities such as Putney where the existing road network of roads in narrow valleys has evolved from an era when settlements relied on stream water for power generation and waste removal and upland areas were harvested for timber and cleared for grazing of livestock, not low-density residential use.

Putney's enrollment in the River Corridor program further restricts development in the designated area to prevent more conflicts and damage to private and public property. Part of the benefit of participation in this program is more support from the state for the Town of Putney to repair vital infrastructure when the county experiences more than \$1 million in damage due to a storm event.

Road Network. In Putney conflict occurs where roads (typically unpaved) have been built between steep slopes and a stream. Streams flow adjacent to: Putney Mountain Road, Hickory Ridge Road,

Fluvial Erosion Hazard

Putney's steep terrain with many small streams flowing through narrow valleys leads to greater risk of flash flooding and fluvial erosion from moderate to severe rainfall events. Due to climate change, private property and public infrastructure located in or near river corridors is at increased risk as the frequency and intensity of storms is increasing.

Fluvial erosion is the detachment of material from the riverbed and banks. Erosion starts when the flow energy of the water exceeds the resistance of the material forming the riverbed and banks. The eroded material is transported downstream by the river. This process may be gradual, or catastrophic during major rainfall events. Flash flooding may result in mudslides and subsidence as soil gives way to the power of fast moving water. Steep slopes and dramatic increases in water volume and velocity allow large rocks and trees to be transported some distance, exacerbating damage to downstream property.

The Vermont Agency of Natural Resources has mapped River Corridor areas where fluvial erosion is most likely to occur, which includes the stream channel and adjacent land. The purpose of Putney participating in the Vermont River Management River Corridor program is to mitigate and minimize this risk over time by preventing further development in river corridors and undertaking floodplain protection and restoration projects. The objective is to reduce the likelihood of significant damage to private and public property in the future.



Brook Road, Houghton Brook Road, East Putney Brook Road, and East Putney Falls Road. Holland Hill Road, Sand Hill Road and River Road are crossed by streams and Sand Hill Road is adjacent to a Class 2 wetland. Brook Road is repeatedly impacted by fluvial erosion events, directly by Sacketts Brook undercutting the roadbed and tree fall triggered by slope failures on both walls of the narrow valley, making the road impassable.

Roads that are linked to streams are known as 'hydrologically connected'. Putney has 36 miles of such roads; 1.5 miles are at high risk of erosion and 10 miles are at moderate risk of erosion. There are 527 inventoried culverts on Putney town roads of which 38 are in poor condition and 77 are in fair condition. Private or Class 4 roads that may not be readily accessible to emergency vehicles in all seasons serve 25 percent of Putney homes. Thirty percent of homes in Putney can only be accessed from one vehicular route putting them at higher risk of being cut off during a storm, disaster or accident resulting in road closure or damage.

Ice Storms. Putney, like the rest of the region, tends to experience its worst ice storms at the start and end of winter. These usually result in electric power outages and roads made impassable by downed trees and ice. Due to their higher elevation Holland Hill and Putney Mountain Roads are the most vulnerable. The ongoing climate crisis is pushing temperatures higher which in turn increases the volume of water vapor in the atmosphere. This is experienced on the ground in the form of more large-scale ice storms or heavy wet snow impacting a landscape and infrastructure suited to a different climate. The issue is exacerbated now by the frequency of rain-on-snow events which can make flood risk both more difficult to predict and compound the impact of potential flooding from rapid snow melt alone. We are now realizing that these climate changes pose a growing challenge for an aging somewhat physically isolated population and a small-town system of government with limited ability to mobilize in response to emergencies.

8. Resilience

Invasive Species. More insidious hazards that challenge the resilience of the landscape include a range of invasive plants and insects that are transforming the physical environment. These too are a manifestation of the climate crisis. Invasive plants and insects have the most impact below 1,500 feet in elevation and typically spread along roadways and streams. The Putney Conservation Commission has long been active in removing a range of invasive plants including the Town Forest, Wilson Wetland Preserve, Beatrice Aiken Preserve, Bare Hill, Sacketts Brook Conservation site and a parcel donated to the town.

The forests are also threatened by three species of insects acclimating to Vermont: The Emerald ash borer (EAB) the Asian longhorn beetle (ALB), and the hemlock woolly adelgid (HWA). Over 50 percent of Vermont trees are host species to these insects. These invasive insects place the forest under increasing pressure, as more stands of mature trees are lost the areas becomes more vulnerable to invasive plant species moving in opportunistically. The wider habitat impacts include heating streams, lower water quality and loss of trees suitable for logging and forest products. The ALB attacks maple trees which could be potentially devastating to the Putney maple industry. The town has undertaken a partial survey of Ash trees (53 miles or 80 percent of roads were completed) to locate vulnerable trees and ensure they do not fall on electric power lines or across roads.

Communication. Our dispersed, low density settlement pattern is dependent on; high levels of public road maintenance, extensive pole strung electricity grid, 4WD private vehicles, and modern communication equipment (internet, mobile phones). This settlement pattern is now revealing vulnerabilities in the face of rapid climate change and other factors. The town's ability to respond to widespread disruptions is limited and the communication systems we now depend on for any such response need a functioning power grid. Both our communication networks and power grid systems are increasingly susceptible to hacking and manipulation by malign interests. While many residents have wood stoves and back-up generators

for electricity individuals and the community are less prepared for communications disruptions that in the past were addressed through emergency radio services not commonly used today.

Infectious Disease Outbreak. Putney began experiencing the covid-19 pandemic in early 2020. The devastating global impact of this disease continues as SARS-Cov-2 continues to mutate and immunization programs are implemented with widely varying levels of success. In the United States, it has resulted in 102,247,392 confirmed cases with 1,111,342 all-time deaths, the most of any country, and the twentieth-highest per capita worldwide. The covid-19 pandemic ranks first on the list of disasters in the United States by death toll; it was the third-leading cause of death in the U.S. in 2020, behind heart disease and cancer.

Vermont and Putney's immediate experience of the pandemic is still being gathered and analyzed. Data collection for covid-19 in Vermont is aggregated at the county level to avoid inadvertent release of personal data. To date Vermont has experienced a mortality rate of 145.8 people per 100,000 of total population compared to 344 per 100,000 of population for the USA. Windham County has significantly lower rates of vaccination than Chittenden — the best performing county in Vermont. This raises questions concerning the community's ability to survive future large-scale infectious disease outbreaks. The 2022 Putney Hazard Mitigation Plan was written during the pandemic and prior to the Town completing an after-action evaluation, and therefore excludes the topic from discussion. Moving forward there is a need for all public agencies to rethink their approach to public health crises of this magnitude.

Mitigation Plan. Putney worked with WRC to complete its last update to the Hazard Mitigation Plan (HMP) in April 2022 and the plan was approved by FEMA in the same month. The plan uses a standard format for municipalities in Vermont using data drawn from a vulnerability analysis to develop a plan to mitigate against the most likely hazard events which cause the most damage to public and private property and the most risk to human life. The

implications of the unfolding climate crisis informed much of the work contained in the latest plan. The emphasis is on the experience of flooding and its causes (including ice/snowstorms) and the steps the community is taking to become more resilient. The plan focuses on risks posed to physical assets in the context of the climate crisis. A more comprehensive understanding of resilience now acknowledges the stress imposed on people surviving traumatic events and the unequal experience of these stressors by marginalized groups. This chapter has provided a broader discussion than simply “encouraging flood resilient communities” as called for by statute because the range of hazards are more numerous and complex and involve important ongoing discussions of what makes a strong community.

Putney like all small communities depends on formal mutual aid agreements with neighboring towns so that emergencies such as wildfires and structure fires receive a quick response with adequate personnel and equipment. These agreements cover day-to-day operations such as the fire department and highway department and are increasingly important as the level of volunteer involvement declines, and the scale of emergencies increase.

Resilience through Local Mutual Aid

In response to the 2020 COVID emergency, Putney residents, social service agencies, elected officials and emergency management established an informal network to support community members to access resources and aid outside the framework of the Local Emergency Management Plan (LEMP). Known as Putney Mutual Aid – Neighbors Helping Neighbors, this informal partnership between Putney Emergency Services and local social service agencies, Putney Community Cares and the Putney Foodshelf, provided community support until early 2021.

Recognizing the potential need for such support in response to more frequent natural disasters, these organizations contact each other at the beginning of any crisis and continue coordinating community

support throughout an event. They have and will continue to debrief with one another after events, and involve other community organizations as appropriate (e.g. the Putney Central School, Next Stage Arts Project, the Putney Public Library, and the local private school campuses).

Mitigation Plan
























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Chapter 9. Implementation Program



































The actions identified in each chapter are intended to implement the vision, goals and objectives of this plan. They are summarized below with an indication of when the action is currently anticipated to occur, and the parties involved in the action. The timeline is segmented as follows years 1-4, years 5-8, or ongoing (part of normal town operations). The highest priority items are generally assigned to years 1-4. Many actions depend on other actions being completed first, and thus are assigned to years 5-8. Not all actions may be fully completed within the 8-year planning period. Many actions are dependent on outside sources of funding and support, which can be difficult to predict. It is therefore possible that priorities are reset as the plan is implemented. The resources needed to undertake each action are identified and the outcome of each action is classified as described below:

RESOURCES:  Funding  Town Staff  Volunteers








































OUTCOME:  Regulations & Policies  Plans & Studies  Improvements & Operations  Education & Engagement  Partnership & Participation

ACTIONS	LEAD BY	TIMING	RESOURCES	OUTCOME
2.1 Adopt revised land use and development regulations.	Planning Commission	Years 1-4	 	
2.2 Monitor and participate in regional, state, federal programs, and other initiatives to implement Putney's objectives.	Conservation Commission	Ongoing		
2.3 Develop public funds to support landowner education and implementation of natural resource and land use best practices.	Conservation Commission	Years 5-8	 	
2.4 Seek resources to identify and characterize aquifers important to community wide water supplies, and assess the need for actions to support adequate, safe water supplies.	Selectboard	Years 5-8		
2.5 Seek resources to identify significant unmapped wetlands in Putney.	Conservation Commission	Years 1-4		
2.6 Confirm and more precisely delineate wildlife habitats and travel corridors.	Conservation Commission	Years 1-4	 	
2.7 Consider requiring that any additional development on Class 4 roads or legal trails result in the road or trail being improved to meet the highway standards for Class 3 highways.	Selectboard	Years 1-4		
2.8 Explore the feasibility of extending the municipal service area to adjacent lands to enhance the opportunity for further infill development within the village.	Selectboard	Years 1-4	 	
2.9 Evaluate requiring that natural woody vegetation be maintained or established within the small stream setback zones designated in the flood hazard area regulations.	Planning Commission	Years 1-4	 	




































9. Implementation Program

ACTIONS		LEAD BY	TIMING	RESOURCES	OUTCOME
3.1	Revise Putney land use regulations as necessary to remove barriers to housing.	Planning Commission	Years 1-4	 	
3.2	Amend land use regulations to require a certificate of occupancy and filing of a certificate of compliance for new construction subject to the state building energy code.	Planning Commission	Years 1-4	 	
3.3	Contemplate eliminating the requirement for owner-occupancy for properties with ADUs.	Planning Commission	Years 1-4	 	
3.4	Explore opportunities for moderate density rural housing in locations beyond the village that are well serviced by public roads, utilities, and communications infrastructure.	Planning Commission	Years 1-4	 	
3.5	Seek state and regional collaborations to advance Putney's housing objectives.	Town Manager	Ongoing	 	
3.6	Assign municipal resources to create and regularly update a list of rental and vacant properties, including short-term rentals.	Selectboard	Years 1-4		
3.7	Seek resources to maintain an up-to-date housing needs assessment and action plan to address identified needs.	Town Manager	Years 1-4		
3.8	Monitor the growth in short-term rental activity and how it relates to the supply of long-term rental opportunities in town through establishing a rental register.	Selectboard	Years 1-4		
4.1	Establish funds or funding mechanisms to assist the Town, residents and businesses to improve efficiency and transition to carbon free energy sources.	Selectboard	Years 5-8		
4.2	Partner with neighboring towns or the regional planning commission to establish shared services to further energy goals.	Selectboard	Years 1-4	 	 
4.3	Ensure that state building energy standards are incorporated by reference into Putney's land use regulations.	Planning Commission	Years 1-4	 	
4.4	Foster state and regional partnerships to remove financial, technical and implementation barriers to home and building efficiency upgrades for high energy burden households.	Town Manager	Ongoing		
4.5	Identify preferred sites for renewable energy facilities that respect natural resource and agriculture land conservation.	Planning Commission	Years 5-8		







9. Implementation Program

ACTIONS		LEAD BY	TIMING	RESOURCES		OUTCOME	
5.1	Work with regional and state planning and development agencies to revitalize the historic village center.	Planning Commission	Ongoing				
5.2	Prepare and adopt a village master plan that includes recommendations for bike and pedestrian improvements and developing a community center.	Planning Commission	Years 1-4				
5.3	Seek funding and other support to implement the recommendations of the village master plan.	Planning Commission	Years 5-8				
5.4	Review existing land use controls to ensure that they do not present a barrier to home-based childcare providers.	Planning Commission	Years 1-4				
6.1	Maintain a capital improvement program that is aligned with the goals and objectives of this plan.	Selectboard	Ongoing				
6.2	Develop a stormwater management plan.	Town Manager	Years 1-4				
6.3	Plan for and seek grant funds to establish the feasibility of a community center able to support a public recreation program and other community activities.	Town Manager	Years 1-4				
6.4	Conduct an energy audit for town operations encompassing buildings and facilities including the water and wastewater treatment facilities, and the Highway and Fire Departments fleet vehicles and tools.	Town Manager	Years 1-4				
6.5	Replace as needed Town-owned fossil-fueled tools and vehicles with electric-powered alternatives.	Town Manager	Ongoing				
6.7	Explore the feasibility of a town green or public park within or accessible to the village.	Town Manager	Years 1-4				
6.8	Prepare a recreation master plan examining the needs of children, youth and adults for recreation facilities and programs in Putney.	Planning Commission	Years 5-8				
7.1	Develop a plan that integrates bike and pedestrian facilities with the existing transportation network to facilitate connections to other transport modes (transit)..	Planning Commission	Years 1-4				
7.2	Ensure that needed bike and pedestrian facilities are included in the capital improvement plan.	Town Manager	Ongoing				

9. Implementation Program

ACTIONS		LEAD BY	TIMING	RESOURCES	OUTCOME
7.3	Ensure that maintenance of bike and pedestrian facilities is included in annual highway department work plans.	Town Manager	Ongoing	 	 
7.4	Install Level Three (400-900 Volts DC rapid charge) EV chargers in multiple village locations so that more vehicle trips are powered by electricity, not fossil fuels.	Town Manager	Years 1-4	 	
7.5	Ensure through the development review process and maintenance agreements that any private roads meet town standards.	Zoning Administrator	Ongoing		
7.6	Review and revise the land use regulations as necessary to ensure that private roads and driveways incorporate stormwater management that will be more resilient to climate change.	Planning Commission	Years 1-4	 	
7.7	Consider the condition and capability of roads when establishing allowed densities of development under the land use regulations.	Planning Commission	Years 1-4	 	
7.8	Continue to participate in the Traffic Advisory Committee hosted by the WRC.	Town Manager	Ongoing		
8.1	Maintain a current, adopted Hazard Mitigation Plan, by undertaking an annual review process that evaluates the effectiveness of the implementation program.	Town Manager	Ongoing	 	
8.2	Conduct a yearly review and adoption of the Local Emergency Management Plan to maintain state Emergency Relief and Assistance Fund membership.	Town Manager	Ongoing	 	
8.3	Explore ways to support and expand the Putney Mutual Aid Network when reviewing the Hazard Mitigation and Local Emergency Plans.	Town Manager	Ongoing	 	
8.4	Continue to participate in the Regional Emergency Management Committee.	Fire Chief	Ongoing		
8.5	Provide a suitable local facility where residents can safely shelter and access needed services during a disaster or emergency.	Town Manager	Ongoing	  	
8.6	Require all new development to adequately manage stormwater to prevent damage to public infrastructure.	Planning Commission	Years 1-4	 	

9. Implementation Program

ACTIONS	LEAD BY	TIMING	RESOURCES	OUTCOME
8.7	Adopt road and driveway standard that ensure all new development meets minimum requirements for emergency access.	Selectboard	Years 1-4	  
8.8	Require that utilities installed to serve new development be placed underground where feasible.	Planning Commission	Years 1-4	  
8.9	Continue to monitor the health of and remove diseased hazard trees within public rights-of-way.	Tree Warden Highway Department	Ongoing	