

**Worcester Town Plan
January 3, 2023**

WORCESTER TOWN PLAN

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WORCESTER TOWN PLAN – 2021

PART 1. PLANNING IN WORCESTER

A. Purpose and Background

The purpose of the Worcester Town Plan is to provide a framework for achieving community goals. Those goals attempt to balance the wide range of competing interests among Worcester citizens, to coordinate the pattern of development, and to guide the use of important natural resources.

To achieve this purpose, four categories of information are provided: (1) a description of present physical and social conditions, (2) a vision/goals for the Town's future, (3) strategies to achieve that vision and (4) actions for the Town. The information in this Plan is intended for use by Town officials, businesses, residents, and the State in their decision-making regarding the future of Worcester.

The 2020 Worcester Town Plan is built on the shoulders of previous Plans, thereby providing a sense of history and continuity for our Town. The philosophical underpinnings upon which our Town is based were first given voice in the 2002 Plan and confirmed in the 2007 Plan. Now, in the 2020 Plan, we give a grateful nod to Worcester's strong foundation and seek to update and strengthen it with citizen input from the Community Survey of 2019.

This Plan is adopted under the authority of 24 VSA, Chapter 117, Section 4381, and includes the required elements specified in 24 VSA Chapter 117, Sections 4302 (state planning goals) and 4382 (municipal planning goals).

B. A Vision for Worcester

We envision a future of Worcester as an affordable place to live, with vast forested hillsides anchored by a rural Village center that supports residents with goods, amenities and services, and is alive with a mix of homes, small local businesses, community gathering places, and well-preserved historical buildings still in use.

We foresee economic development suitable in size and character to the rural environment and reliant on an infrastructure of technology that connects Worcester to the larger region and beyond. A strong sense of community will continue to connect Worcester residents and extend to new members of our Town.

Our shared clean environment, rural setting, transparent local government, and community networks form our vision of a future that is a combination of preservation, conservation, and appropriate growth.

C. Town Plan Goals **fix spacing**

The following Goals are intended to provide a structure that will allow Worcester to adapt to changing times...without changing principles.

Goal 1. Maintain the rural character of Worcester with a compact village center, surrounded by rural countryside.

Goal 2. Support and guide reasonable growth – both economic and residential – that is compatible with the Town’s rural character.

Goal3. **Champion and, in select cases, provide local access to educational and other opportunities and services for Worcester residents of all ages and abilities.**

Goal 4. Promote a future that includes public transit options and non-motorized travel.

Goal 5. Maintain the quality and safety of the Town road network through cost-effective methods that are appropriate to the Town’s topography.

Goal 6. Conserve and protect the Town’s important natural resources of water, mountains and their ridgelines, open spaces, air, soil, wildlife habitat, historic structures and viewsapes. Particular attention should be given to State-Designated and Worcester-Defined Natural and Fragile Areas. In order to accomplish these conservation and natural resource protection objectives, telecommunication towers and commercial scale, grid-tied wind generation facilities shall not be sited in visually prominent or ecologically sensitive areas such as ridgelines, core forest, wildlife connecting corridors and critical wildlife habitat.

Goal 7. Promote energy conservation and homeowner-scale renewable energy sources in accordance with a Town Energy Plan.

Goal 8. Provide an efficient system of public facilities, utilities, broadband, recreation opportunities, and services that meet the needs of Worcester residents, while at the same time, fully complying with the objectives and requirements of Goal 6 above.

Goal 9. Facilitate the appropriate and sustainable use of Worcester’s agricultural land, forest land, open spaces, and extractive deposits.

Goal 10. Advocate for the availability of safe/affordable housing and childcare for Worcester families.

Goal 11. Promote development of flood resiliency in our Town through, and in accordance with, a Flood Resilience Plan.

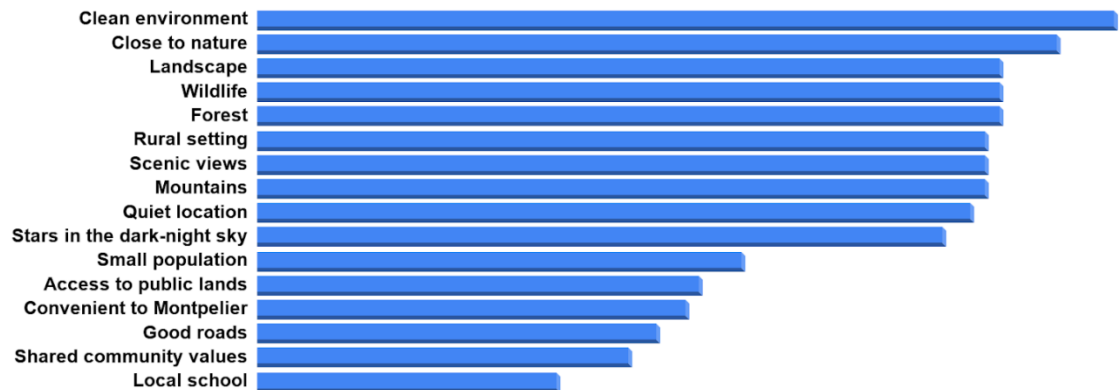
Goal 12. Provide a blueprint for the Town, its citizens, the District Environmental Commission, and other State agencies to reference and use as guidelines for any Act 250 permitting process involving development and or land use in Worcester.

D. Town Priorities **space presentation of graphics**

The most recent Worcester community survey of 2019 featured five questions asking respondents to describe their current perspective (both affirmative and critical) of

Worcester as well as their vision for the future of the town. While the response rate was only 7% of town residents, there was clear and strong support for community-based events and activities. Also of note, is how many priorities have remained the same since the Worcester community survey of 2001.

Ranked Importance



The above graph illustrates the respondents ranking of a supplied list of different attributes that people may desire about living in Worcester. The following word clouds help visualize the open-ended responses to each of the following questions.

Question 1: What do you like about Worcester?



Respondents spoke highly of community cohesion: its neighborliness, local businesses, community efforts, and its community spaces and events. The downtown area was also highlighted for being a space where everything happens. One respondent said, “*Worcester is like a big family,*” while another said, “*Worcester is a community. I see more and more of service, help, care, around and it makes me feel proud and it gives me a sense of belonging.*”

Question 2: What aspects of Worcester do you want to see unchanged?



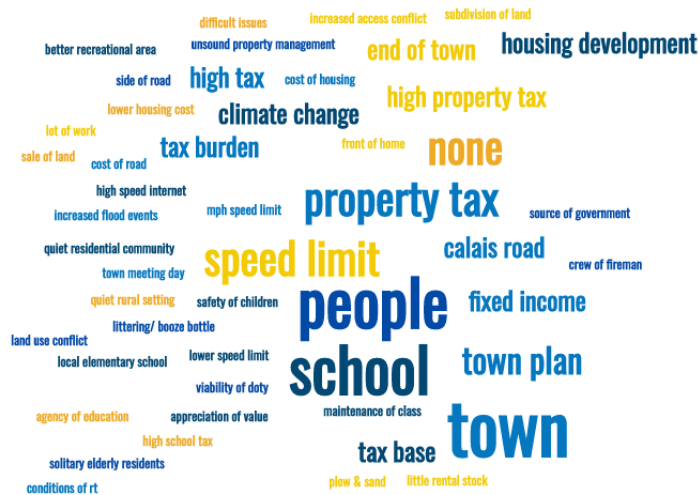
It was clear here that the respondents said they didn't want much to change. They spoke highly of the small town feel, the rural character, the local initiatives, and the undeveloped wild areas. There were several comments of Worcester's lack of zoning (both for and against), but also a great desire to limit industrial building, sprawl, and development that doesn't fit with the small town charm. One respondent summed it up well by saying, "*That [Worcester] stays a tight community that also gives its members room to be themselves.*"

Question 3: Are there any changes you would like to recommend?



Public and private infrastructure was highlighted here as respondents spoke of the need to repair roads, lower speed limits, increase options for healthy food and high-speed internet / cell service, and broaden access to childcare. One respondent expressed it clearly, *“Protection and thoughtful development of the town center,”* while another response was simply, *“Protect us from Dollar General stores.”*

Question 4: What concerns do you have about Worcester?



Respondents here spoke of their concern of already high taxes and possible inability to afford living in Worcester. At the same time, respondents were concerned with losing the local school, dissolution of the local character of Worcester, the town’s resiliency in the face of climate change, and unrestricted development. A common concern was voiced here, *“I’m concerned about people valuing privacy / small population over a vital and growing community, and I’m concerned about the rising costs of housing as well. The tax burden is real as well, and impacts some residents significantly,”* and at the same time, *“I hope Worcester can remain a quiet residential community. I hope the tax burden will not push us to seek development as our undeveloped character is a blessing.”*

Question 5: How should Worcester look in ten years?



Respondents mostly said they see Worcester in ten years being very similar to how they see it now. There was, however, a clear desire for more affordable housing and public transportation as well as a sentiment for more local commerce and engagement. One respondent sums it up well, “*Much the same with a few more businesses and sidewalks.*”

E. Planning Process

The first Worcester Town Plan was adopted in 2002 and updated in 2007. The 2021 version of the Town Plan builds on that foundation and strengthens it with new forms of citizen engagement and new guidance on matters such as energy, flood mitigation, forest integrity and more. The process was guided by the Worcester Planning Commission and Task Force but begins and ends with citizen participation.

In 2018, a group of citizens banded to revive the existing Town Plan whose effectiveness had expired in 2012. The return to legitimacy took many months and the work of many contributors. The 2021 Plan is the result of:

- Regular Planning Commission Meetings with Plan development as the main agenda item
- Creation of a Plan Task Force comprised of local topical experts
- A Community Survey (2019) to test citizen priorities
- Multiple citizen authors and reviewers – contributing in their area of expertise or interest
- Regular check-ins with Select Board
- Public meetings

Now, in 2021 we see the culmination of that work in a review process that includes a public hearing, input from eight adjoining towns, and confirmation from the Central Vermont Regional Planning Commission and the Department of Housing & Community Development.

Completion anticipated by end of 2021.

F. Worcester Declaration of Inclusion

The Town of Worcester condemns racism and discrimination of any type and welcomes all persons, regardless of race, color, religion, national origin, sex, gender, gender identity, sexual orientation, age, or disability and will protect these classes to the fullest extent of our authority. As a Town, we formally condemn discrimination in all its forms and commit to fair and equal treatment of everyone in our community. The Town of Worcester has and will continue to be a place where individuals can live freely and express their opinions.

Signed by the Worcester Select Board on July 6, 2021

The Worcester Planning Commission embraces Worcester's Declaration of Inclusion. Further, the Planning Commission is guided by the American Institute of Certified Planners' (AICP) Code of Ethics and Professional Conduct. The following statement is derived from the AICP's "Code":

We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration. We shall urge the alteration of policies, institutions, and decisions that oppose such needs.

G. Compatibility with Neighboring Towns

By virtue of its geography and topography, Worcester's potential for inter-municipal land use conflicts is limited. To the west, east and north, high elevations and rugged terrain virtually isolate Worcester from its abutting towns and the residential development activities therein. Only to the south, through the valley of the North Branch, does Worcester have any significant interaction with abutting communities. The Rural Residential and Conservation

District designations which exist in Middlesex, mirror Worcester's adjacent land uses and present no obstacle to compatible planning to date.

It should be noted however, there are issues that extend beyond the geography and topography of Worcester's natural borders. One issue of high concern for Worcester residents is potential consideration of the Worcester Range as a site for electric generation by industrial wind. We anticipate that our neighbors to the west (Stowe) and south (Middlesex) join us in this concern and stand together in agreement to protect the Worcester Range from commercial development.

Draft copies of this Plan will be sent to all neighboring towns (Calais, Middlesex, Stowe, Elmore and East Montpelier) for review and comment. According to Vermont Statute, a municipal plan is considered compatible with the plans of its neighboring towns if it "will not significantly reduce the desired effect" of that neighboring town's Plan.

H. Implementation Guidelines

The strategies stated within this Plan were developed with community input and are intended to preserve and protect the town's assets while providing a future vision for town officials, businesses and citizens of Worcester. We expect the Select Board, Town employees, and residents to respect these policies and work towards their implementation. The Town Plan can, and should be used to influence the town's budget and capital expenditures, community development efforts, and natural resource protection initiatives.

Implementation of the Worcester Town Plan will occur in the following ways:

- By using the "Strategies" presented in each section of this Plan as guidelines for action by Town officials responsible for the oversight of this community.
- By integrating actions of the Select Board, Planning Commission, and Assessors regarding development in town.
- Through Town participation in the Act 250 process as a "statutory party".
- By reviewing the plans and activities of State agencies to ensure that they are consistent with this document.
- By using this Plan as a guide in all relevant local government decision-making processes; including the highway department, fire department and Select Board policies and actions.
- By promoting the philosophy of this Plan at the regional level through continued membership and participation in the Central Vermont Regional Planning Commission
- By developing ordinances and policy in association with the Select Board to allow / provide Town implementation of the goals and policies of this Plan.
- By using this document as the foundation for any land use regulations (i.e., zoning and/or subdivision) that the voters of the Town might

- authorize over the life of the Plan.
- In the absence of zoning, Worcester will rely on Town Ordinances and State-level permit requirements, such as Act 250 to implement Town policy and achieve Town goals.

PART 2. COMMUNITY PROFILE

A. Overview

This section describes Worcester's historical beginnings and offers a snapshot view of the citizens who reside here.

B. Town History

On June 8, 1763 New Hampshire Governor Benning Wentworth granted a charter to a group of 64 men who were only interested in land speculation. These individuals paid the sum of 20 pounds for six square miles consisting of 23,040 acres. They named their acquisition "Worster," and as far as is known, none of them ever saw, settled on or sold a single acre of what we know today as Worcester.

The first recorded settlers, John Ridlan and George Martin, both from Kennebec, Maine, cleared some land on Hampshire Hill in the fall of 1797. The Census of 1800 enumerated 25 persons. Included were 17 children younger than 16. Population growth was very measured over these early decades until a drop in the 1820s.

The first organization of the Town occurred March 3, 1803 and the freemen electing Duncan Young as the first Town Clerk. Between 1815 and 1821, however, Worcester lost its official recognition because it did not have any legal town meetings. This happened because very few people remained in the Town after the infamous "Year Without a Summer." Due to an immense cloud of volcanic ash spewed from an eruption in Indonesia, there was cold weather across the Northern Hemisphere every month. Crops were not successful and several towns in Vermont were forced to reorganize due to migration of residents to unaffected areas. Most records from this first organization were accidentally burned in Burlington where, ironically, they had been taken for safe keeping.

The second organization of the Town took place March 14, 1821 in the barn of Amasa Brown. A full slate of officers was elected and Town Meeting has been held in March every year since then. The Town records are now carefully maintained in the Town Clerk's office in a building shared with the Worcester Volunteer Fire Department.

Agriculture and lumber were the economic mainstays of the Town, especially in the 19th and 20th centuries. One of the largest logging operations in the state was supported at one time by 16 sawmills in Worcester, along the waters of the North Branch of the Winooski and its

tributaries. In 1870 the Vermont State Agricultural Census reported 102 farms in the Town. Maxham Fur Farm, one of the largest mink farms in the state, operated in Worcester between 1926 and 1969. Collection of dead and down livestock associated with Maxham's, supplied more than one hundred fur farms in the region with food for minks. Today there are few farms in the Town and no operating sawmills, although logging does continue. Organic farming, small retail operations and home industries abound. Many people commute to Montpelier, Morrisville, or Burlington for employment.

Worcester's citizens have never shirked from their patriotic duty. Eighty per cent of eligible males served in the Union regiments during the American Civil War. Twelve made the ultimate sacrifice. In every conflict since then, Worcester men and women have stepped forward to support their country.

Throughout the decades, Worcester residents have created and sustained infrastructure they desired for a good life. A post office, a church, a cemetery, a private water system, schools, a volunteer fire and fast squad, a recreational area, numerous organizations, and a well-maintained system of roads have been developed through the efforts of many who enjoy living here. The 1912 Town Hall serves as a center for community activities. A modern elementary school, constructed in 1979, is part of the Washington Central Supervisory Union.

That's the history of Worcester, Vermont in a nutshell. No big battles, no national monuments, no spectacular events, just the everyday lives of hard-working Vermonters trying to get by, sometimes producing some very noteworthy and some very unconventional stories. The beauty and rugged nature of the topography of the Town has drawn many to travel here just to photograph its "Currier and Ives" charm. The very nature of the place has produced a diverse community that supports the endeavors of its hardworking citizens while holding on to virtues learned from the past.

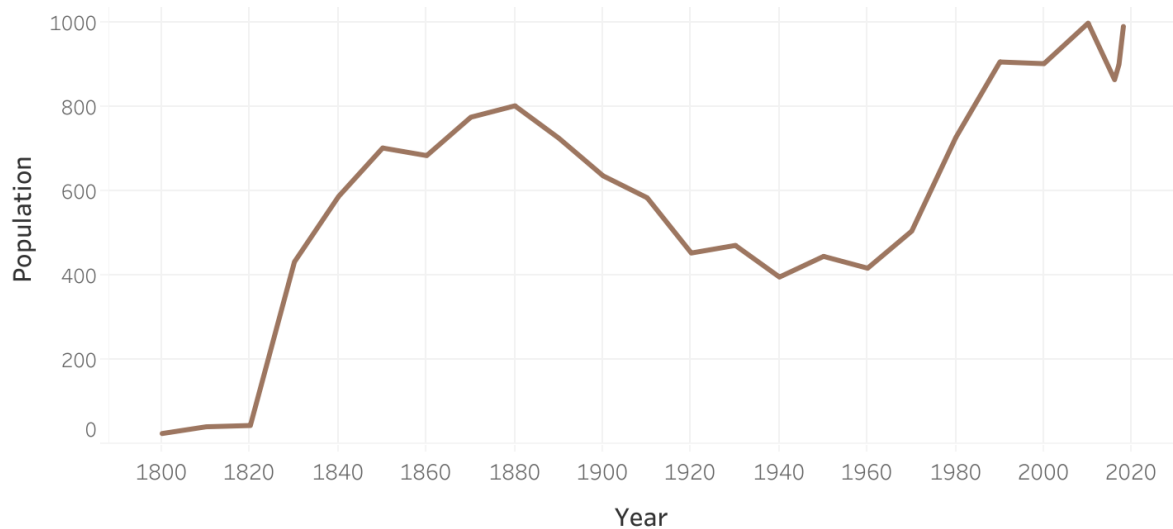
For more information about the history of Worcester, Vermont, consult the 2017 publication of the Worcester Historical Society, *The Cow That Tried to Swallow a Potato: A Quirky History of Worcester, Vermont*.

C. Statistical Portrait

Population

Worcester's population has grown over the past 50 years, despite a serious dip in the late 1800's from which it didn't recover for 100 years.

TIM - most charts found here: <https://www.housingdata.org/profile/population-household>



Source: American Community Survey – 5 year estimates 2018, HousingData.org

In spite of increasing population, Worchester remains a truly rural community as demonstrated by the rather low density of residences compared to both State and County figures.

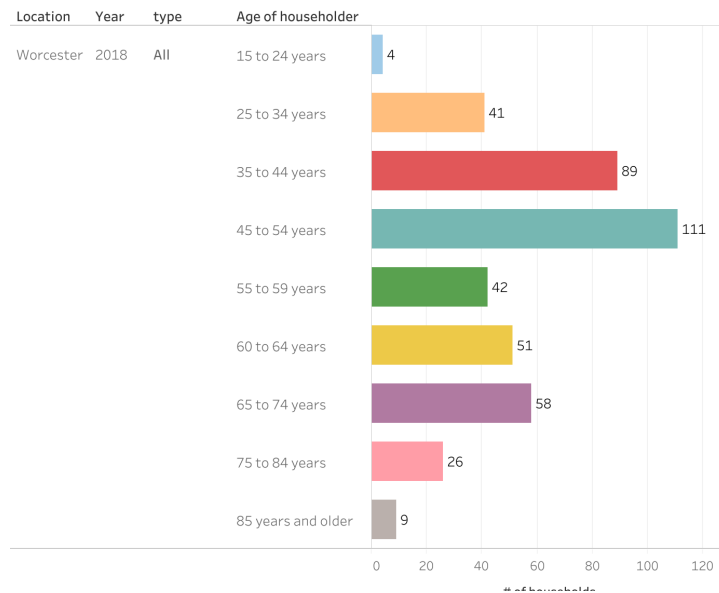
Population Density (persons per square mile) 1960-2010

	1960	1970	1980	1990	2000	2010
Worcester	10.6	12.8	18.5	23.0	23.0	25.8
Washington Co.	60.0	67.4	74.8	77.6	82.1	86.8
State	42.2	48.1	55.3	60.9	65.9	76.9

Source: 2010 U.S. Census

Young people are moving to Worchester. While 45-54 year old citizens comprise the largest age tier, second largest are the 35-44 year olds. This stands in direct contrast to the State figures which also describe 45-54 year olds as the largest group, but 65-74 year olds as the second largest. A growing population of young adults in Worchester may have implications for future education planning of school age children.

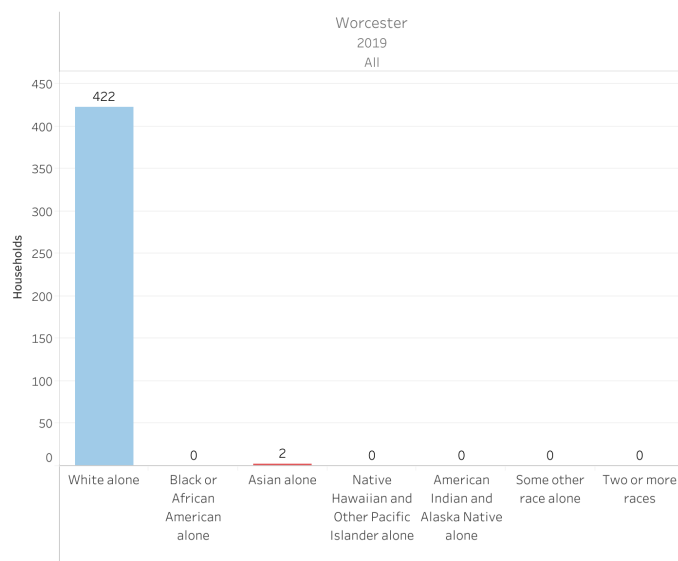
Households by age of householder



Source: American Community Survey – 5 year estimates 2018, HousingData.org

Worcester is a predominantly white community, although casual observation suggests that these official estimates from the US Census Bureau may be low.

Households by race of householder



Source: American Community Survey – 5 year estimates 2018, HousingData.org

Population Projections

According to population projections from Vermont’s Agency of Commerce and Community Development (2013), Worcester will experience a rising population at rates exceeding Washington County’s rise. The projected increase of population in Worcester varies from 4.3% to 8.5% by 2030, tracking any concurrent increase in the economy. Population projections for Washington County vary from 0.7% to 4.8% for the same period.

Education

The educational attainment of Worcester residents exceeds that of all Vermonters in measures of both high school graduation and 4-year college degrees.

Educational Attainment of Residents 25 years+ 2019

	Worcester	Vermont
High school graduate/GED	95%	93%
Bachelor's degree or higher	45%	37%

Source: American Community Survey (ACS)/TownCharts.com 2019

Conclusion

Worcester is a small rural community – minimally diverse, well educated, mostly employed, growing faster than our neighbors and getting younger.

PART 3. THE LAND AND ITS RESOURCES

A. Overview

The landscape is the stage for human activity. However, the resources that the land provides are finite. It is, therefore, in our long-term best interest to use land resources efficiently and wisely so that they may continue to provide an appropriate setting for the citizens of Worcester and beyond.

B. Goals

Conservation and sustainable use of the land and its resources form the very heart of the Worcester Town Plan. The following list of Goals, drawn from the complete list of Goals found in Part 1, are relevant to this topic.

Goal 6. Conserve and protect the Town's important natural resources of water, mountains and their ridgelines, open spaces, air, soil, wildlife habitat, historic structures, and viewscapes. Particular attention should be given to State-Designated and Worcester-Defined Natural and Fragile Areas. Consistent with this goal, telecommunication towers and commercial scale, grid-tied wind generation facilities shall not be sited in visually prominent or ecologically sensitive areas such as ridgelines, core forest, deer yards and critical wildlife habitat.

Goal 9. Facilitate the appropriate and sustainable use of Worcester's agricultural land, forest land, open spaces and extractive deposits.

Goal 12. Provide a blueprint for citizens and the District Environmental Commission to reference and use as guidelines for any Act 250 permitting process involving development and/or land use in Worcester.

C. Strategies spacing issues

1. The fragmentation of agricultural, State-Designated and Worcester-Defined Natural and Fragile Areas, critical wildlife habitat and movement corridors is discouraged according to guidance from Vermont's Act 171. Act 171 calls for actions to prevent these blocks from being broken by development in order to preserve the forest habitat and environmental benefits a forest provides.
2. Small scale non-polluting businesses and industries that use or sell locally produced farm land or wood land products are encouraged, provided siting of such business is consistent with this Plan.

Non-polluting is defined as that which will not have a negative impact on human health, nor a significant impact on the water resources, ecological quality, scenic values, or rural character of the surrounding area.

3. Support and encourage practices, businesses and industries that utilize resources in an appropriate and sustainable manner, which does not disrupt Worcester's ecological balance and resource utilization for generations to come.
Appropriate use can be defined as that which is suitable to the social and economic conditions of the geographic area in which it is to be applied.
Sustainable use can be defined as utilization that avoids the depletion of natural resources faster than their renewal rate.
4. Trees and other vegetation along streams, rivers, and lake shores serve to 1) protect property from flood flow and ice jams, 2) prevent bank erosion, 3) enhance aesthetic appeal, and 4) maintain the oxygen level of the water for fish habitat and effluent assimilation capacity. For these reasons, undisturbed areas of vegetation shall be retained and encouraged along the banks of surface waters.
5. Residential development should include an adequate buffer between developed land and streams and wetlands to prevent the degradation of water quality.
6. Development of telecommunication tower infrastructure and industrial wind developments shall not be located on the Worcester Range or other ridgelines or areas of high visibility due to Town support for the fragile forest environment, viewsheds, dark skies, and quiet natural areas protection.

D. Actions use consistent format for all chapters

1. Maintain active membership on the CVRPC to represent Worcester's interest in local and regional development. **Responsible party:** Planning Commission **Timeframe:** ongoing
2. Reorganize the Worcester Conservation Commission as a Committee of the Worcester Planning Commission to identify, study, maintain and protect the State-Designated and Worcester-Defined Natural and Fragile Areas as well as establish a local Conservation Fund. **Responsible party:** Conservation Commission, Select Board, Planning Commission. **Timeframe:** 2022
3. Schedule annual joint meeting for Select Board, Planning Commission and Town Assessors to review Town Ordinances and Town Plan progress. **Responsible Party:** Select Board, Planning Commission, Assessors. **Timeframe:** 2021 and ongoing
4. Investigate regulatory and non-regulatory methods for preserving important farm and forest lands, including but not limited to, agricultural zoning, the formation of a local land trust or participation in a regional one, tax abatement programs, off-site mitigation, transferable development rights, and the voluntary sale of development rights. **Responsible party:** Select Board, Planning Commission, citizens. **Timeframe:** ongoing
5. Utilize the muscle of Act 250 and participate in hearings for matters concerning development and/or land use, as appropriate. **Responsible party:** Select Board, Planning Commission, citizens. **Timeframe:** ongoing
6. Work with local stewards of the Vermont River Conservancy and Friends of the Winooski to maintain water quality of Hancock Brook, the North Branch of the Winooski and more. **Responsible party:** Planning Commission, citizens **Timeframe:** ongoing
7. Collaborate with the Agency of Natural Resources, Department of Environmental Conservation, River Conservancy, the Regional Planning Commission and more to offer educational programming to the Worcester community as relevant. **Responsible party:** Planning Commission, Select Board, citizens. **Timeframe:** ongoing
8. Partner with the Worcester Historical Society to preserve the Town's historical structures and their utility/value to the Town through programs such as the Village Center Designation and others. **Responsible Party:** Worcester Historical Society, Planning Commission, Select Board **Timeframe:** ongoing

E. Background

The valley of the North Branch of the Winooski River, as the only substantial and contiguous area of nearly level land, has been the site of most human activity in Worcester. Settlement

patterns follow the river and the valleys of some smaller streams including Minister Brook, Hancock Brook, and Worcester Brook with some expansion into flatter upland areas. Much of the Town's new residential growth has been on scattered parcels in contrast to preferred clustered growth.

The Town's landscape is defined by a blend of mountains, meadows, forest and streams. Worcester's natural setting is, in large part, responsible for the rural character and charm of this community. Its landscape offers recreation, solitude, aesthetic pleasure, and economic opportunity through tourism, agricultural and silvicultural use. Accordingly, good town planning and wise resource management would dictate appropriate and sustainable use of natural areas, surface-water and groundwater, floodplains, prime forest and agricultural lands, important wildlife habitats and other vulnerable resources.

To accomplish this, the Town encourages (and for industrial wind turbine generation and telecommunication facilities, requires) an optimal pattern of growth and settlement (see Part 9), particularly on those lands capable of supporting the same without detriment to the environment or fiscal well-being of the community.

Maps that support the text of this section and others may be found in **Appendix A: Maps**.

F. Physical Setting

standardize format of map references throughout document

The Town of Worcester is located in Washington County in North Central Vermont. It is surrounded by the Towns of Stowe, Waterbury, Middlesex, East Montpelier, Calais, Woodbury, Elmore, and Morristown and contains 38.8 square miles (24,851 acres; source US 2010 census).

With nearly 3000 feet of topographic relief inside its boundaries, Worcester ranks as one of the most rugged and picturesque communities in the region. **(Map 2: Worcester Physiographic Features)**

From a minimum elevation of about 680 feet above sea level along the North Branch River, the terrain rises to 3642 feet on Hogback Mountain on the Worcester Mountain Range (aka the Worcester Range) along the western boundary of Town. Elevations rise to 1600 feet to the north and to 2100 feet on Hobart Mountain to the east.

The Worcester Range dominates the townscape and insulates the community from development pressures from the west. It is possible to walk from one end of the Town to the other along the crest of the range without ever descending below 2500 feet. As such, these mountains provide for a large unbroken expanse of wilderness offering many spectacular panoramic views of the surrounding countryside. This area has been identified as a significant corridor for wildlife movement connecting the Green Mountain National Forest and Northeast Kingdom wild populations and wild-land areas. **(Map 4: Regional Wildlife Linkages)**

Most of the higher elevations of the Worcester Range are publicly owned as part of Putnam State Forest. **(Map 5: Protected, Conserved and Public Lands)** Large acreage lying in Worcester and Middlesex (the Hunger Mountain Headwaters block) on the east and southeast flanks of Mount Hunger is a recent addition to the State Forest.

Worcester is underlain by metamorphic rocks (bedrock) covered in places with overburden composed of glacial till, which is overlain in valleys at lower elevations, by well-sorted sediments moved by and deposited in meltwaters formed as the continental glacier retreated. Thin deposits of well-sorted sediments, deposited during the melting of glacial ice, are also found locally in upland areas. These materials control and restrict soil distribution and water resources of Worcester.

G. Resource Production Lands

Agricultural and forest lands benefit society on many levels: economic, aesthetic, recreational, and environmental. Both agricultural and forest lands provide: habitat for game and non-game wildlife, undeveloped sites for storage of flood-waters and watershed protection, scenic vistas and open spaces for a variety of outdoor pursuits, jobs and income, and increased self-sufficiency as local sources of food and wood products. In addition, these lands are largely responsible for Worcester's reputation for scenery and, as such, are crucial to the vitality of the Region's tourist industry.

Few would argue against the need to protect and maintain these important and traditional uses of our land. Still, both agricultural and forestlands are being threatened by development pressures and a variety of economic forces. Potential sites for extractive industries may coincide with, and thus threaten, agricultural or forest lands. Agricultural lands are particularly vulnerable to encroachment and conversion to other use as they are generally level, cleared and on good building soils.

1. Agricultural Lands and other Soils

Although Worcester, with its rugged landscape and narrow valleys, is not commonly thought of as an agricultural community, it does contain some good farmland soils. **(Map 6: Worcester Soil Characteristics)**

These soils are approximately circumscribed by the valleys of the North Branch of the Winooski River and Minister Brook and small areas along Hampshire Hill and Calais Roads. Some of Worcester's prime agricultural soils are currently used for agriculture. The potential for expansion of the Town's farmland base is limited and makes protection of existing resources even more crucial.

Worcester has three types of soils that support three distinct uses. The majority of Worcester's soil types belong to a group comprised primarily of soils that have formed on glacial till (unsorted boulders, rock, sand and clay) in the Green Mountains and adjacent

uplands. These soils are generally thin, found on gentle to steep slopes, excessively to moderately drained, loamy, low in lime, and with a hardpan or bedrock within three feet of the surface. These soils often present severe limitations for any development, even agriculture. They are generally better suited to forest production.

The next most prevalent soil group in Worcester is also characteristic of the mountain and upland areas. Soils of this association are generally thicker with better drainage and are less prohibitive of development and agriculture than other associations. These thicker more loamy soils could possibly support low-density housing-use in some areas where it can be demonstrated that on-site septic systems are practical.

Near the Village center and in scattered locations in the North Branch and Minister Brook valleys soils developed on landforms formed in water from sediment deposited as the continental glacier melted. This “outwash” material is now sculpted into terraces along streams. The soils and permeable parent sands and gravels are thicker, level and well drained. As such, they are generally well suited to development and agriculture, but less so to forest production due to their sandy texture and low soil moisture.

A detailed display of soils data may be found on the Natural Resource Conservation Service – Web Soil Survey site

According to the 2016 Worcester Grand List, 543 acres are enrolled in Vermont’s Current Use Agriculture Program. Through this program landowner’s property taxes are assessed on the basis of the land’s current use (as opposed to its development potential). In return, the landowner pledges to abide by a management plan for the parcel. Most of Worcester’s agricultural landowners are not full-time farmers. Still, the open lands they provide play an important role in retaining the character of this rural community.

2. Forest Lands

Equally important to Worcester’s identity are the vast forestlands within its borders. About 8,158 acres of these are protected within the boundaries of Putnam State Forest. **(Map 5: Protected Conserved and Public Lands)** At the present time, there is very little commercial harvesting occurring within the State Forest. State foresters anticipate that the management policy for the foreseeable future will be to leave the vast majority of Putnam State Forest in its natural state. Intense commercial harvesting is not desirable because of the fragile nature of high elevation ecosystems and the reliance on these areas for flood resiliency. Harvesting is also deterred by the remote and rugged nature of the area.

Commercial cutting on private forest land in the headwaters of Catamount Brook and Hancock brook has happened in the past ten years. Similar commercial harvesting on private land on the eastern flanks of the Worcester Range, between the State forest and West Hill Road, has also occurred. Recently, some of this cut-over land has been purchased by the State. 1007 acres in Worcester, extending (763 acres) into Middlesex, has been added to the Putnam State Forest.

Considerable forestland remains in Worcester outside of Putnam State Forest. Approximately 10,699 acres of the Town’s privately-owned land is enrolled in Vermont’s Current Use Forest Program for timber management. The Current Use Program provides forest landowners with a property tax incentive for the voluntary conservation of their land. Along with Current Use, the U.S. Forestry Service’s “Forest Legacy” program provides federal funding for the purchase of conservation easements on eligible private forestlands.

3. Extractive Industry Lands

Sand and Gravel

Gravel extraction is a land-resource based activity. Gravel deposits in Worcester are the result of water-transported, water-deposited sediment of glacial origin. Gravel deposits generally lie on valley floors and along valley walls. (**Map 6: Worcester Soil Characteristics and below**)

While these deposits may yield important and needed materials for road and building construction, Worcester’s coincidental development patterns (ex: roads on gravel deposits near streams) render their extraction a matter of some sensitivity. It is vital that care be taken in the siting and operation of future gravel pits in order to avoid land use conflicts and environmental damage that includes water-quality damage or flow path alteration of groundwater resources.

Water

Worcester locally contains high-yield bedrock wells (80 gpm) and gravel aquifers that potentially could yield high volumes of water.

H. Resource Protection Lands

State planning goals and required municipal planning elements recognize “natural areas” as areas needing protection. Protection of Worcester’s land resources uses the State’s criteria for natural areas as well as Worcester-defined criteria to identify natural areas. The Worcester Town Plan offers protection to site-specific locations identified as natural areas and to other broadly defined locations that contain characteristics of natural areas. In addition to the siting requirements and location prohibitions for industrial wind generation facilities and telecommunication tower infrastructure specifically identified within this plan, the referenced maps, showing where these criteria are part of Worcester’s landscape, serve to identify protected natural areas.

1. State-Designated Natural Areas

Under Vermont law (10 V.S.A. §2607) the Department of Forest Parks & Recreation recognizes, designates, protects, and manages “Natural Areas” on properties under its jurisdiction. These generally are important natural communities, sites for rare plants and

animals, or areas of geologic interest. Though protected, they are open to compatible uses by the public, including but not limited to, recreation of various forms, educational activities, research, and nature study.

The State of Vermont Department of Forests and Parks has designated only 34 “natural areas” within all of its landholdings. This inventory includes the Worcester Range Natural Area, due to its elevation above 2500 feet and within the Putnam State Forest. **(MAP 5: Protected, Conserved and Public Lands)**

All areas above 2500 ft. are protected by Vermont’s Act 250. These areas exhibit interesting geology as well as unusual sub-Arctic flora and fauna. Worcester Range elevations over 2500 feet outside of State Forest boundaries demonstrate many of the same qualities, and hence are also recognized and protected as natural areas by this document.

The Worcester Range Natural Area lies within the C.C. Putnam State Forest, the fifth largest State Forest in Vermont. 8158 acres of the Forest lie in Worcester. C.C. Putnam State Forest is primarily mountainous terrain extending over nine miles along the Worcester Mountains. Elevations range from 500 to 3,642 feet above sea level creating a diversity of cover types including northern hardwoods, white birch, spruce fir, white and red pine plantations, and a variety of sub-alpine conditions on five major peaks. These peaks are the so-called third range of the Green Mountains.

2. Worcester-Defined Natural and Fragile Areas

Worcester’s criteria for identifying natural areas follows and expands the State’s criteria. A natural area may be described as “an area of land or water that retains or has re-established its natural character and contains unusual or significant flora, fauna, geological features or similar features of scientific interest”. Such places, often remote, quiet and beautiful, are of great and unquantifiable value to local residents and visitors alike.

Fragile areas are defined by lands with one or all of the following characteristics: slopes greater than 25%; thin soil cover of less than 10 feet thick; wetlands. These qualities also define areas that need protection for their preservation.

Some Town-defined natural or fragile areas are limited in size and have fixed boundaries. Other areas follow the model of the State-designated Worcester Range Natural Area and cover large areas described by the extent of the defining criteria. **(Map 5: Protected, Conserved and Public Lands)**

Worcester Range Foothills

The crest of the Worcester Range is tattooed with glacial grooves and striations that mark the last movement of the continental ice sheet. Bedrock ridges, lying generally above 2000 feet of elevation, project eastward from the N-NE trending Range. These elegant spurs, within

unbroken forest blocks, lie between the E-SE trending Catamount, Hancock, Minister, and Patterson Brooks. Lands between elevation 1800-foot elevation and the State-protected Worcester Range Natural Area are identified here as a natural area and merit protection from development.

North Branch Falls

The Agency of Natural Resources called special attention to North Branch Falls (in north central Worcester near Route 12) in a recent inventory of the State's significant waterfalls, cascades and gorges. The inventory report acknowledges the Falls as being "...visually a nice medium sized falls and a fine swimming hole in a mountain setting". It further states that the River is, at this point, "a mountain stream about 10 to 20 feet wide with very clean water" and notes the site's unique and interesting geology, "...rock is a pretty blue quartz-schist with narrow stripes. It is variously grooved and rippled and in the cascade there are some nice small pools and low drops."

Hancock Brook Ravine

Hancock Brook flows through a narrow ravine cascading over small bedrock cataracts and through cobble-filled pools. This pristine stream is surrounded by northern hardwoods, fir and hemlock. The stream carries little sediment; the chemistry of the bedrock yields few components to support algae; making this a delightfully clean stream. Although fourth class Hancock Brook Road lies close to the stream it is out of view from the stream bed. The deep ravine, clean water, stream-carved bedrock, and pebble to cobble-size sediment make this an area to protect.

Conserved Natural Areas

- **Ladd Field** (see also Part 4) lies on the smooth flat surface of a glacial delta built into an ice-dammed lake extending toward Montpelier. The landform is an excellent example of a glacial delta. The Ladd Field is protected from development for the shared benefit it gives the Village. The remarkable origin adds to the land's value because the coarse-grained sediment underlying this landform has high aquifer potential.
- Straddling both towns of Middlesex and Worcester, the **Whiteside River Corridor** along the North Branch of the Winooski River is an important wildlife habitat with a diversity of aquatic and upland natural communities. Covering over two miles of undeveloped river frontage, the conservation easement protects this important riparian environment and provides recreation on some parts of the river. (see also Part 4)
- **The North Branch Cascades Trail** is a one-mile trail that follows the North Branch of the Winooski River and is the center point of an extensive conservation effort recently completed by the Vermont Land Trust and Vermont River Conservancy. This

is a scenic stretch of river walk with numerous cascades, waterfalls, and swimming holes.

- Just a short drive west from Route 12 up Hancock Brook Road is the “**Upper Pot**”, a favorite local swimming hole and waterfall. The privately-owned lower reach of Hancock Brook (525 feet) has been conserved with the express wish that it remain perpetually in a natural condition and be available to the public for swimming and passive enjoyment. It is notable that the owner of this property donated the proceeds of the acquisition to an endowment fund for the music program at the Doty Memorial School.
- **The Worcester Woods Wildlife Management Area (WMA)** is 184 acres in size. It lies north of Worcester village between the North Branch and the Worcester Ponds. Access is from Route 12 at an informal pull-off north of the first bridge over the North Branch upstream from Hancock Brook. The WMA is completely forested with a mix of broadleaf and evergreens. Several intermittent streams flow south and empty into the North Branch.

Critical Wildlife Habitat

Worcester boasts considerable wildlife habitat for a variety of wildlife species, including many associated with wilderness settings (e.g. moose, bear, fisher, bobcat, coyote). Residents value native wildlife for a variety of reasons – hunting, aesthetic appreciation, and indirect income among them. Many beech-tree stands on the Worcester Range contain trees dimpled with bear claw prints and festooned with nests of bear-break branches. Moose-stripped striped maple groves are found near wetlands on the Range.

Our most critical wildlife species are generally thought of as those that provide possible economic returns, support sport and subsistence hunting, act as symbols of wilderness values, or face the threat of loss. We know that viable habitat is the single most important survival need for most of these species, yet for many, habitat loss or fragmentation is a real and present threat.

Critical habitats are defined as: white-tailed deer wintering ranges (deer-yards as identified and mapped by the Vermont Department of Environmental Conservation), black bear production zones (also as mapped by DEC), and any areas necessary to support the food, shelter or breeding needs of rare, threatened or endangered-species. Other non-game wildlife species such as the wood turtle, while not endangered, have been recognized as critical elements meriting protection.

Winter deer ranges are generally located in coniferous stands in valleys offering food and relief from icy winds and deep snows, such areas are often desirable sites for human activities as well. Worcester possesses some significant winter deer ranges. The largest of these, long and linear in shape, parallels Route 12 from the intersection of Hancock Brook

Road to the Worcester-Elmore boundary. Smaller deer yards exist along Hancock Brook and on a plateau north of Minister Brook.

While nearly the entire Town is considered to be habitat for black bear, bear mast stands exist all along the land adjacent to the crest of the Worcester Range and show abundant bear sign and denning areas. [\(Map 3: Significant Species\)](#)

The State of Vermont is under intense pressure to develop biomass and wind energy resources as part of a plan for renewable energy. Surely the Worcester Range will be subjected to these pressures. The natural areas and critical wildlife habitat described would be threatened by such development and must be protected.

Surface Waters

Worcester has many picturesque mountain streams, the cascades, pools and waterfalls which provide recreation and aesthetic enjoyment to Town residents. The largest waterway in Town is the **North Branch of the Winooski River**. Entering from Elmore, to the north where it originates, this stream winds its course through Worcester for about 10 miles before exiting to the south in the Town of Middlesex. From Worcester's southern border the North Branch flows south about 12 miles to its confluence with the main stem of the Winooski in the City of Montpelier. [\(Map 8: Worcester Water Resources & Floodplains\)](#)

According to the Vermont Rivers Study, published by the Vermont Agency of Natural Resources and the National Park Service, the Worcester section of the North Branch provides excellent habitat for brown and brook trout as well as moose. In addition, the North Branch contributes to the recharge of Worcester's municipal water supply aquifer.

Several streams that begin in Worcester's upland areas join the North Branch in the valley contributing to its capacity. Flowing east from the Worcester Range are Patterson, Minister, Hancock and Catamount Brooks. From the eastern hills flow the Russ Pond, Hardwood, Worcester, and un-named brooks from Long Meadow Hill in Calais. Catamount, Worcester, Russ Pond and Hardwood Brooks, as well as the headwaters of Minister Brook provide moose habitat. All of these streams flow largely undisturbed and unimpeded. Minister Brook, like the North Branch, helps to replenish the groundwater supply feeding Worcester's municipal water supply system. Stream protection, discussed in Part 9, is provided by limiting development within river corridors. On small perennial streams with a drainage basin of less than two square miles the river corridor lies within a fifty-foot setback measured at the site from the top of each stream bank.

The headwaters of Worcester's streams flowing from the Worcester Range are classified as Class A1 riparian wetlands in a Class A watershed. The remainder of Worcester's streams have been designated as "Class B" waters by the State of Vermont. By definition, streams so classified should "consistently exhibit good aesthetic value and provide high quality habitat for aquatic biota, fish and wildlife." They should also be suitable for use as a public water supply with filtration, for irrigation and agriculture, and for swimming and recreation.

Current water resources research has highlighted the role fine-grained sediment plays in the transfer of precipitation-deposited pollutants such as mercury within the Lake Champlain watershed. The State has revised standards for highway maintenance to reduce sediment erosion along roads which often parallel streams. Other land-based activities in Worcester (logging, building construction, farming, sugaring) which disturb soils, should be done in such a way as to limit sediment transfer to streams to protect water quality.

Worcester's only standing water body of significant size is **Worcester Pond**. This impoundment consists of a 35-acre pond which sits in a 943 acre drainage basin. It lies at an elevation of 1067 feet above sea level and has a maximum depth of about 6 feet. It is classified as "mesotrophic" by the Department of Water Resources (meaning it exhibits moderate plant growth, high nutrient and biological oxygen demand levels). The pond has limited use as a warm water fishery.

Effective July 1, 2014, the Vermont Legislature passed the [Shoreland Protection Act](#) (Chapter 49A of Title 10, §1441 et seq.), which regulates shoreland development within 250 feet of a lake's mean water level for all lakes greater than 10 acres in size. As such, this act applies to Worcester Pond. The intent of the Act is to prevent degradation of water quality in lakes, preserve habitat and natural stability of shorelines, and maintain the economic benefits of lakes and their shorelands.

Wetlands

Fourteen different wetland communities were identified in Worcester in an inventory study performed by Arrowwood Environmental in 2003.

Number and Extent of Wetland Communities in Worcester (Arrowwood)

Natural Community Classification	Size (Acres)	Number of Occurrences
Alder Swamp	123	14
Alluvial Shrub Swamp	39	5
Deep Broadleaf Marsh	8.6	1
Dwarf Shrub Bog	3.6	1
Emergent Marsh	146	27
Poor Fen	3.1	2
Red Spruce – Hardwood Swamp	70.7	8
Floodplain Forest	13.2	3
Sedge Meadow	3.8	1
Seep	0.5	2
Vernal Pool	0.02	1
Pond	7.2	18
Open Water	38	23
Agricultural Field	171	14

Floodplains

Floodplains, while at risk of flooding, serve an important function. By allowing water to leave the stream and spread over a wide area the magnitude of downstream damage is reduced by lowering the river level and slowing the river discharge.

Worcester's principal flood hazard zones occur in low-lying areas along the North Branch of the Winooski River and at the mouth of Minister Brook (**Map 8: Surface Water & Floodplains and Map 12: Worcester Hazard Analysis**). However, some of the smaller tributary streams are subject to flash flooding and are quite capable of causing significant property damage as well. The most frequent flooding occurs in early spring as a result of snow melt and heavy rains, but flooding has historically occurred in every season. Flooding has also occurred as a result of ice jams and debris collection at bridges and in culverts.

Worcester residents have first-hand experience of the perils of flooding. In November of 1927, a flood with a 250-year recurrence interval inundated the Town, wiping out most of its bridges. More recently the floods of June 1984 and July 1990 resulted in the declaration of Worcester as a disaster area; roads and bridges were again damaged or destroyed.

Encroachment by development on floodplains reduces their water storage potential, increasing flood heights and thus damage to downstream areas. In addition, development of these areas and the resulting effect on floodplain mechanics is disruptive of river ecology. Finally, the economic benefit of locating a structure in a flood hazard zone seldom outweighs the economic risks of damage to or destruction of that building.

The 100-year flood standard, has been adopted by the Federal Emergency Management Agency (FEMA) as the basis for Worcester's flood and floodplain management. FEMA produces flood-hazard maps for National Flood Insurance Program (NFIP). Through its participation in the National Flood Insurance Program (NFIP), Worcester has acknowledged the functional importance of its flood prone areas. This program provides flood insurance coverage and damage relief to communities with the foresight to enact ordinances regulating floodplain plan land use. Worcester enacted such an ordinance in 1978 restricting development in flood hazard zones. This ordinance must be enforced by the Town to a degree accepted by the NFIP in order to reap the benefits of participation. Additional information on Worcester's approach to flood resilience may be found in Worcester's Local Hazard Mitigation Plan.

Currently, several easements that provide flood resilience, wildlife protection and access have been granted through the Vermont River Conservancy:

- Whiteside River Corridor (69 acres) – flood resilience and wildlife protection
- Hancock Brook (1.7 acres) – waterfall and swimming hole
- North Branch Cascades (78 acres) - public access

- Haines River Corridor (5 acres) - flood resilience and wildlife protection. The Haines property creates an important beginning for a series of small river corridor easements providing conservation of the river corridor above and below the village of Worcester.
- Ladd's River Mill Access (.25 acres) – public access

3. Protected Resources

Groundwater

Worcester residents rely on water wells drilled into bedrock, wells dug into unconsolidated overburden, or on springs. The importance of groundwater to the residents of Worcester cannot be overstated. So dependent is the community on underground sources for domestic water supply, that pollution or significant depletion of its aquifers would spell hardship for many years to come. Worcester therefore, must consider the protection of groundwater resources in planning for its future.

Worcester is underlain by metamorphic rock. Metamorphism has packed mineral grains tightly together. Minerals have grown in response to heat and pressure to fill spaces between mineral grains. Thus our bedrock is not porous. However, groundwater is found in cracks (fractures) in bedrock. Fractures in the bedrock may extend well beyond a property owner's land. Land use far beyond a well, both upslope and down slope, can affect a well's water quality because of transmission of water through fractures. Locally water wells drilled in bedrock have penetrated very transmissive fractures. Some wells yield as much as 80 gallons per minute.

Major groundwater deposits in this region are also found in areas underlain by stratified drift deposits (permeable sand gravels of glacial origin) along watercourses in valley areas. In Worcester, the southern end of the valley of the North Branch fits this description. The water supply wells which supply 65-70 homes are located near the confluence of Minister Brook and the North Branch; the area of greatest potential yield within Worcester's boundaries. These wells have yields of about 50 gallons per minute. A significant, but somewhat less important, stratified drift deposit with possible yields of between 50 and 200 gallons/minute extends for a mile or so north and south of the Village water supply.

Wells dug in permeable overburden (sand and gravel) connect with water stored in pore spaces in the overburden. This water may come from precipitation, downslope movement of groundwater, or discharge from bedrock beneath the overburden. Small, low yield aquifers composed of permeable overburden, suitable for individual wells only, are located along Worcester and Minister Brooks and upper stretches of the North Branch. The relative scarcity of suitable groundwater development sites makes protection of Worcester's aquifers that much more crucial.

Springs are points at the surface of the earth where there is discharge of groundwater. Groundwater is forced to the surface by the arrangement of geologic materials at springs. Again, off-site activities can affect water quality at "dug-wells" and springs.

Vital to the protection of groundwater sources is an awareness of their “recharge” areas. Aquifer recharge areas are zones that contribute to subsurface supplies. A recharge area consists not only of the land area directly above the aquifer through which precipitation percolates, but also of upland areas from which runoff drains towards the aquifer. Uses of these lands, which may have the potential for spills of toxic or dangerous substances, also have the potential to pollute both the bedrock or sand and gravel aquifer. Uses that render the land impermeable (e.g. parking lots) will reduce the groundwater recharge. Also, given the natural exchange between surface and ground waters, land uses that pollute upstream waters may damage downstream aquifers in time.

The regulation of potentially hazardous land uses is a vital part of aquifer protection. Recognizing this, the Agency of Natural Resources (ANR) has designated an area around Worcester’s municipal water supply well as a Well Head Protection Area (WHPA). Vermont’s groundwater protection law (10 VSA Chapter 48) sets forth general policies for WHPAs and ANR’s Water Quality Division has published recommended land use guidelines for WHPAs and other contributory zones. (WHPAs are not all inclusive with respect to recharge of aquifers, encompassing only the “primary recharge” area.)

Agricultural Land

Soil composition (chemistry, fertility, and physical properties such as grain size and sorting), topography, slope, and slope-aspect combine to define areas suitable for local agriculture. These areas are generally located along low-gradient reaches of streams in Worcester’s valleys. At higher elevations some plateaus contain similar small patches of agricultural soil and suitable pasture land. Regardless of where these soils are located, the first priority use should be reserved for agriculture.

Forest Blocks

Worcester has been identified as having a high percentage of its land area in forest blocks as it has only 20.8 miles of maintained town roads (**Map 7: Worcester Forest Blocks, Wildlife Crossings & Natural Communities**).

A forest block is defined as a contiguous area of forest in any stage of succession and not currently developed for non-forest use. A forest block may include recreational trails, wetlands, or other natural features that do not themselves possess tree cover, and uses exempt from regulation.

Thoughtful planning for forest blocks benefits water supply, flood control, wildlife habitat and biodiversity, clean air, carbon sequestration, outdoor recreation, and scenic beauty. Forests also provide cultural, spiritual, and intellectual enrichment benefits.

Forest fragmentation, the division or break up of large blocks of forest is detrimental to the State and to Worcester. Vermont’s Act 171 calls for actions to prevent these blocks from being broken by development to preserve the forest habitat and environmental benefits a forest provides.

Wildlife Corridors

Worcester lies on significant regional wildlife corridors connecting the Green Mountains with northern New Hampshire, Maine, and the province of Quebec. The Staying Connected Initiative (SCI) has identified the Worcester Range as one of nine key linkages spanning the Northern Appalachians to Acadian highlands (**Map 4: Regional Wildlife Linkages**).

The Shutesville Hill Wildlife Corridor in Stowe, identified by Vermont Fish and Wildlife as one of the highest priority connectivity blocks in the state, provides the only viable ecological connection between the Green Mountains and the Worcester Range. This pathway leads to and continues across the Worcester Range and Worcester to the Northeast Kingdom making Worcester's support for protecting this land of high importance.

Worcester recognizes the importance of protecting local and regional habitat connections. At the state level, Act 171, in addition to preventing forest fragmentation, aims to preserve connections and wildlife pathways between local forest blocks by identifying and protecting these connections.

Other Protected Resources (**Map 5 Protected, Conserved and Public Lands**)

The **Chandler Lot (Village Waterworks)**, a 25 acre parcel located south of Minister Brook Road, is public property. This land is accessed via the gated road off Minister Brook Road just west of the intersection of Route 12 and Minister Brook Road.

The **Worcester Municipal Forest**, containing roughly 300 acres of land is located on the Worcester Range surrounded by the State Forest.

Several **historic structures** in or near the center of Town are of important historic or cultural significance and define the character of the village. Other features found on land beyond the village preserve the historic habitation patterns. The historic structures and features include:

- a) The Town Hall
- b) The Church
- c) The White School
- d) The Cemetery
- e) All pre-WWII stone walls serving as plot / place demarcation and abandoned cellar holes, wherever found, in agricultural and forest settings.
- f) Trails (historic roads, now State-classified as trails) and fourth class roads

I. Conclusion

Multiple sources of information show that a high percentage of Worcester's land area needs

protection. This area includes State-Designated as well as Worcester-Defined Natural and Fragile Areas. Part 3 outlines the framework for preserving and protecting Worcester's rural character and natural resources, while at the same time offering guidance on appropriate and sustainable resource utilization, which are essential components in maintaining the quality of life expected by Worcester residents. The physical and visual intrusion of industrial wind generation and telecommunication tower infrastructure is not supported by this plan and is therefore prohibited within or adjacent to core forest areas, critical wildlife habitat, ridgelines and areas of visual prominence, including views from the valley floor and from ridgelines.

PART 4. UTILITIES, FACILITIES AND SERVICES

A. GOALS

Worcester's facilities and services are neatly clustered, forming the bones of a natural village center. The following Goals, drawn from the complete list of Town Planning Goals found in Part 1, are relevant to this topic.

Goal 3. Champion and, in select cases, provide local access to educational and other opportunities and services for Worcester residents of all ages and abilities.

Goal 4. Promote a future that includes public transit options and non-motorized travel.

Goal 6. Conserve and protect the Town's important natural resources of water, mountains/ridgelines, open space, air, wildlife habitat, historic structures and views, consistent with the overarching objectives of this plan, including Part 1, Goal 6.

Goal 8. Provide an efficient system of public facilities, utilities, recreation opportunities and services that meet the needs of Worcester residents.

Goal 10. Advocate for the availability of safe and affordable housing and childcare for Worcester families.

B. STRATEGIES

Utilities

1. Groundwater sources will be protected from potentially polluting activities by restricting such hazards in well-head protection areas (see Part 3).
2. Transmission and distribution line routes shall be designed to prevent aesthetic and natural resource impacts. To the extent possible, existing public rights of way should be used in service expansions. Worcester will strive to use energy-efficient renewable-energy systems in municipal facilities and services.

3. Worcester will seek improvements to the telecommunications' infrastructure that expand access to good service, while preventing intrusions into, and resulting impacts to, core forest habitat and visual impacts to publicly used trail infrastructure and ridgelines. Tower facilities shall accommodate multiple service providers whenever possible with additional tower siting and construction as a last resort option. New towers, antennae, and other transmission and receiving equipment shall be designed, sited, operated, and maintained to preclude negative impacts on natural and scenic resources including, but not limited to, ridgelines, natural areas, prominent viewsheds, public-used trails and critical wildlife habitat and human health. As previously stated, and consistent with Part 1, Goal 6 of this plan, telecommunication towers and commercial scale, grid-tied wind generation facilities shall not be sited, on or adjacent to, visually prominent or ecologically sensitive areas such as ridgelines, core forests, wildlife connecting corridors, and critical wildlife habitat.
4. The Worcester Town ordinance, entitled, "An Ordinance Regulating Telecommunication Facilities in the Town of Worcester", adopted May 8, 1998 and renewed annually, is incorporated by reference and shall be applied with an eye towards the consistent application of the relevant objectives and standards in this Plan and not to their exclusion.

Facilities

5. Worcester does not provide sewage systems. New septic systems and existing systems having any change in conditions need a State permit and must follow current requirements from the Department of Environmental Conservation.
6. Worcester will maintain all existing facilities owned by the Town, such as the Town Hall (Grange Hall), and Historical Society (the White School), as well as the Town Offices and Garages.

Services

7. Worcester shall take settlement patterns and population distribution into account when planning for emergency and health services.
8. Worcester will provide access to educational and other services for residents of all ages and abilities, including pre-school and senior residents, by providing those services in town or seeking pathways to those services.
9. Worcester will support continuation of access to proper solid waste disposal, recycling and composting services through regional contract or municipal action.

10. The Town shall encourage the dedication of recreational easements and public access whenever possible.
11. Endeavor to retain and expand recreational opportunities for Worcester citizens, including support for the Wrightsville Beach Recreation District.

C. Actions

1. Support the upgrade and expansion of high speed internet service through partnership with CVFiber with the intention of reasonable service to all residents. Also, maintain a Select Board appointed delegate from Worcester on CVFiber Board. Fiber optic cable provision of internet service, “fiber to premises” or FTP, shall be preferred over forms requiring the installation of radio transmitter devices and transmission tower infrastructure. Worcester will provide FTP first priority and will work to prevent the installation of radio transmission devices which could operate to impair or negatively impact FTP implementation.

Responsible party: Select Board, Planning Commission, community delegate.
Timeframe: ongoing

2. Establish telecommunication tower siting guidelines as well as preferred sites for telecommunication towers that are compatible with municipal, community, and State goals. This will require working with State officials, radio frequency engineers, and/or industry experts to establish siting requirements for adequate coverage.

Responsible party: Select Board, Planning Commission, community. **Timeframe:** ongoing

3. Seek expanded use of the Doty Elementary School building for adult education classes, activities for seniors, health clinics and other community uses. Ex. Partner with the Montpelier Senior Center for bringing class offerings local, offer blood pressure clinics, diabetic foot clinics, etc.

Responsible party: Select Board, Principal
Timeframe: ongoing

4. Partner with the leadership of Doty Elementary to provide high quality childcare for three and four year old youngsters per Act 166: Universal Pre-Kindergarten Education.

Responsible party: Principal, School Board, Select Board
Timeframe: 2021-22

5. Maintain relationship with Lamoille Solid Waste District, or other like service, to provide disposal, recycling and composting services to Worcester residents.

Responsible party: Select Board, community liaison.
Timeframe: on-going

6. Maintain relationship with Water District Board to provide a healthy water supply for citizens living within the water district area.

Responsible party: Select Board

Timeframe: ongoing

7. Maintain the structural integrity, working order and appearance of the Town facilities, including the Town Hall, Town Clerk's Office, Town Garage, and Fire & Rescue Offices.

Responsible party: Select Board

Timeframe: ongoing

8. Form a citizen-based Worcester Trails Committee to work with land owners on the development of recreational trails for non-motorized recreational use on both public and private lands.

Responsible party: Select Board, Planning Commission

Timeframe: 2022-23.

9. Continue support for and participation in the Wrightsville Beach Recreation District.

Responsible party: Select Board, community delegate

Timeframe: ongoing

10. Constantly seek ways to celebrate, support, and say thanks to all the Worcester community volunteers who make Worcester the place it is. These include, but are not limited to the volunteer Firemen & Fast Squad, Community Lunch & Food Shelf crew, Historical Society staff, Town Officers and Committees, Good Neighbors' Club, and more.

Responsible party: everyone

Timeframe: always

D. Background

Public and private utilities, facilities and services play a critical role in providing for the health, safety and welfare of Worcester residents. The location, efficiency, and capacity of such infrastructure can also have a profound influence on growth and development within a community.

E. Utilities

Water Supply

While homes and businesses in the outlying areas of Town are served by private wells or springs, the Village area is supplied with water through a Water District that aligns with the Worcester Fire District No. 1. (ref: **Map 9 Utilities & Facilities**)

The Water District is member-owned, non-profit, and represents 79 households, 370 people and the Doty School. The system was installed in 1980 and includes two wells, the newer of which was drilled in 1987. Total usage is approximately 11,000 gallons per day. The current system carries some excess capacity and current levels of growth do not pose special considerations at this time. As the system nears its anticipated life expectancy, the Water District Board has taken appropriate steps toward assuring continued future service.

Electric Power

Two companies provide electric power to Worcester residents. Green Mountain Power whose power lines follow the Route 12 corridor and Washington Electric Co-op I1 covers most of the outlying areas of Worcester. (ref: **Map 9 Utilities and Facilities**)

A more extensive discussion on electrical use in Worcester is provided in Part 6 Energy.

Telecommunications and Internet

In 2021, cell-phone service is spotty to non-existent in Worcester. Internet service is fragmented and provided by a variety of vendors including landlines, satellites and cable providers. Studies (2019) show that citizens in Worcester enjoy the following level of broadband service:

80% of Worcester	≥ 4 megabits per second (mbps)
50% of Worcester	≥ 25 mbps (VT 77%) Usually adequate for most general internet use.
0% of Worcester	100 mbps
20% of Worcester	not served at all

This limited broadband availability was accentuated by the Covid-19 (2020-2021) pandemic as students and employees shifted to remote learning and working.

One initiative addressing the internet needs of the community is CVFiber. Central Vermont Internet (CVFiber) is a Communication Union District (CUD) representing twenty Central Vermont communities, including Worcester. CVFiber's mission is to ensure everyone in its member towns has access to internet speeds of at least 100 Mbps (megabits per second) for both uploading and downloading data.

In 2020, CVFiber completed a Feasibility Study and Business plan using grant funding from USDA Rural Development and the State of Vermont. The purpose of these documents is to facilitate an application for a \$4-million VEDA loan to allow CVFiber to begin network construction in 2021. Additional money is also being sought through the American Recovery Plan Act (ARPA). These funds will enable CVFiber to begin the design and build-out of high speed broadband. For more information: <https://cvfiber.net/how-to-contribute/>

F. Facilities & Services

All Town facilities are located within the confines of the Village Center District, with the exception of the Town Garage which is located near the beginning of Minister Brook Road. (ref: Map 9 Utilities & Facilities)

Town buildings that are owned by the municipality are the Town Hall, Town Clerk Offices, Fire and Rescue Office, and Town Garage. All of the Town Buildings are in good repair including the historic Town Hall. The old Town Hall, first used in 1913, has been structurally updated and many events still occur in the dining hall/kitchen on the first floor and performance space on the second.

Other buildings that are not owned by the Town but still central to the Town, are The Old White School - preserved by the Worcester Historical Society, and the Worcester Methodist Church.

Following completion of this Plan, Worcester will seek Village Center Designation, in part to support the long term maintenance of Worcester's historic structures.

G. Services

Fire and Emergency Services are provided to the Town by a Volunteer Fire Department and the Worcester Fast Squad. The Fire Crew has a force of about 16 individuals. As part of an inter-municipal mutual aid system, Worcester volunteers may call for assistance from fire departments in nearby towns as needed. The Fast Squad is a 6-member non-profit corporation organized in 1977, and provides the Town with emergency medical care under the Vermont Emergency Medical Services system. Volunteer members are trained to respond to medical emergencies and work in conjunction with the Montpelier Ambulance Service, which provides emergency transportation to Central Vermont Medical Center. See Large Equipment Vehicles below for information about the maintenance and replacement of machinery involved.

Highway services are the responsibility of the Worcester Road Crew, comprised of a part-time Road Commissioner and three crew members. See Large Equipment Vehicles below for information about the maintenance and replacement of machinery involved.

Law enforcement service is provided by the Vermont State Police, who provide routine patrols through the community and also respond to calls for assistance. **The Town Constable**, who assists in matters of a local nature, provides additional support. The Town also contracts with the Washington County Sheriff's Department for additional patrol.

Administrative Services

The Town of Worcester provides some administrative services for its residents. These include the services of Town Officers and a Town Clerk/Treasurer.

The Select Board is a part-time body composed of three elected citizens. It oversees the management of Town affairs, the condition of the Town's roads and facilities and various boards and commissions. There are several other appointed and elected Town positions. Contributions made by these officials for little or no remuneration are an important asset to the Town's smooth operation.

Other Town services provided to Worcester residents are: Animal Control, Health Officer, Planning Commission, Cemetery Commission, Conservation Commission, Social Concerns Committee, Fire Warden, Tree Warden, Listers, Flood Plain Administrator, Justices of the Peace and the Neighbor Network.

Large Equipment Vehicles

Worcester maintains a fleet of road equipment, fire trucks and emergency vehicles. The maintenance and replacement of these vehicles is anticipated through use of a schedule that informs the prioritization and strategic pacing of large equipment purchases.

Outdoor Recreation and Public Lands

Worcester possesses ample public lands in which residents and visitors alike pursue a variety of recreational offerings. Putnam State Forest boasts over 8,000 acres in the high elevation of the Worcester Range. Its main attraction is its "skyline" hiking trail network, which leads to the panoramic peak of Hunger Mountain. Putnam's trails may be accessed from Minister Brook and Hancock Brook Roads.

Other large public holdings include the 184 acre Worcester Woods Wildlife Management Area (Vt. Dept. of Fish and Wildlife) off Pratt Road and the Worcester Municipal Forest, containing roughly 300 acres of land surrounded by the State Forest on the Worcester Range.

While Worcester has abundant public lands, private lands are still an integral part of the Town's recreation picture. In 2009, the Calais Trails Commission worked with Calais and Worcester landowners to create a recreational path connecting the two towns. The path, named the Ellis-Bruce Trail, is 1.5 miles in length, roughly tracks a former town road, and is suitable for hikers, bikers, runners, skiers, horse-back riders, and other non-motorized use. Trailheads that mark access points to the trail are located off Kaeding Road in Worcester, and Long Meadow Road in Calais. The Ellis-Bruce Trail is located on privately-owned land and maintained by community volunteers. Cellar holes and stone walls from the former Ellis and Bruce homesteads are still visible from the trail. Additional trails are under consideration.

In 1997 the daughters of Joseph and Edna Ladd conserved and donated to the Town, a fourteen acre hayfield in the center of the Village and a twelve acre pasture overlooking the Village. The Ladd Field is used for community gardens, sports events, and community gatherings.

South of the village, east of Route 12, in the village Transition District, lies a 69.4 acre tract of open land formerly known as the Whiteside property. This land, open to public use, is

now owned by the Vermont River Conservancy. Easements owned by the Vermont Department of Environmental Conservation and the Vermont Housing and conservation board protect it from development.

North of the Village, east of Route 12 near the Elmore town line, lies a 78 acre parcel of land that is now conserved by the Vermont Land Trust and Vermont River Conservancy. Known as the North Branch Cascade Falls, the land, 90% of which is in Worcester, includes the former track of Route 12 and land on both sides of the North Branch. Seven cascading waterfalls and associated pools are passed as you walk the one mile trail from Worcester to Elmore along the North Branch.

The Chandler Lot, a 25 acre parcel located south of Minister Brook Road, is also public property. This land is accessed via the gated road just west of the intersection of Route 12 and Minister Brook Road. Fire District #1 reservoir is located on this property.

Although not within Town boundaries, the Wrightsville Reservoir provides water-based recreation to Worcester residents. The Town is a voting member (along with Middlesex, East Montpelier, and Montpelier) of an inter-municipal recreation district responsible for managing and maintaining the popular Wrightsville Beach Day Use Area. This 95 acre site (leased from the Vermont Department of Water Resources) offers swimming at a sandy beach, picnicking, and a nature/history trail. Other recently created recreational opportunities include canoe and kayak rentals and frisbee golf. The District is funded by municipal dues, user fees and an annual “impact fee” payment by the Washington Electric Cooperative, which operates a hydro-plant at the south end of the reservoir.

Education

Worcester’s elementary school children attend Doty Memorial School, which is situated in Worcester on the Calais Road near the center of the Village. **(ref: Map 9 Facilities)** The school serves grades pre-K-6 and is owned by the Washington Central School District, although it is a central structure to community life in Worcester. In the summer of 2020, the building envelope was upgraded. All areas of the building now have five inches of insulation and the building was re-clad with low maintenance metal siding. All windows were also replaced with energy efficient double pane windows.

Enrollment over the last 25 years has dropped from an average of 100 to roughly 70 students where it has stabilized over the past decade.

Doty Memorial is starting to lay the groundwork to increase the ways that it serves the community of Worcester. Located in the middle of town, Doty has the capacity to be easily accessed by all segments of the community. While managing the basic functions of the school during the 2020-21 Covid-19 pandemic has been enormously challenging, Doty is keeping its eye to the future. We are looking at ways to increase the availability of high quality childcare for three and four year old youngsters. We are also looking at ways to increase community access to our facilities so that we can house adult education classes, activities for seniors, and health clinics. Finally, we have taken the first baby steps to looking

into designing and fundraising for a new playground that can be enjoyed by the community as a whole.

Instruction for grades 7-12 is provided by Union 32 High School, which includes Worcester, Berlin, East Montpelier, Middlesex and Calais. The union district provides transportation to the high school located in East Montpelier.

A Snapshot of Doty Elementary 2020

- Average number of K-6 students: 65 Pre-K: 10
- Students receive 90 minutes of literacy and 90 minutes of math each day
- Students receive: art, music, library, and physical education each week
- All students participate in an annual theater production, currently on hold pending end of Covid-19 pandemic.
- Pre-kindergarten receives 10 hours of instruction each week
- Grades 4 to 6 have the option of instrument lessons before school
- About 76% of students eat school lunch and 38% of students eat school breakfast daily. Approximately 45% of Doty students qualify for free or reduced lunch and/or breakfast.
- Due to Covid-19, the federal government has expanded the lunch program and all students receive free breakfast and lunch.
- Doty provides healthy snacks to all students daily
- 11.5% of students receive Special Ed services and 3.8% have 504 plans.
- 79% of teachers have master's degrees and all teachers have Level II licenses.
- Doty currently has a full-time nurse to address the increased needs caused by Covid-19 restrictions. We are looking to leverage this position into one that can also meet some of the public health needs of the community.

The passage of Act 46 – a move that brought all of the schools in our region into one district, has provided the opportunity to address issues of equity across the five elementary schools. It is our intention is to ensure that students across the district have equal access to educational opportunities and resources, and that neither school size nor community tax base, dictate how education is provided to the children of the Washington Central Supervisory Union district.

Solid Waste

Worcester is a member town of the Lamoille Regional Solid Waste Management District (LRSWD). Every two years, a Supervisor is elected to represent the Town on the District's Board of Supervisors. The District is responsible for the development and implementation of a solid waste plan that complies with the State solid waste plan.

The district has an agreement with the Town by which the District operates a local drop-off for residential trash and a recycling depot. Compostable waste is also collected at the drop-off. The site is on the Calais Road, on town-owned property near the North Branch of the Winooski River. (**ref: Map 9 Utilities & Facilities**)

Sewage Disposal

Worcester has no public sewage disposal system and relies on State regulation for the permitting of septic disposal. All wastewater must be disposed of and treated where it is generated.

Childcare

Doty Elementary offers **licensed childcare** through *Washington Central Early Education Program*, a childcare program licensed by the State of Vermont for the pre-K population. *Community Connections*, another State-licensed program, offers Doty students an after-school program at Rumney Elementary in Middlesex. These programs run through the year and include day camps during the summer months.

Worcester presently offers only one **registered home daycare provider**, who offers daycare, after-school care, and very limited infant care to Worcester families.

Informal childcare options also exist in Worcester. Many residents share childcare tasks and utilize family members for childcare for their children. Others employ babysitters who are legally limited to care for no more than two families without being approved/registered by the state.

Financial assistance is available through the Vermont Department of Children & Families to help pay for children enrolled in licensed and registered home settings.

In spite of these options, local childcare providers report that many Worcester children are underserved – especially infants and toddlers. Enrollment limits and shortage of qualified providers result in long waiting lists and less-than-perfect arrangements for families.

H. Conclusion

The utilities, facilities, and services provided in Worcester are important for the quality of life of residents however; improvements are needed in the expansion of broadband, telecommunications, and access to childcare services.

PART 5. TRANSPORTATION

A. Overview

The type, quality and location of transportation facilities available to residents in the future will play a critical role in defining the pattern of development in Worcester. It is the Town's desire to facilitate and maintain a transportation infrastructure that will enable efficient and

safe movement of people, goods, and services, both within and between communities. Worcester has no air strips or rail road corridors, but a designated community helipad does exist in the Village center.

B. Goals

In a rural community such as Worcester, decisions about transportation have serious impact on cost, safety and the environment. The following Goals, drawn from the complete list of Town Planning Goals found in Part 1, are relevant to this topic

Goal 4. Promote a future that includes public transit options and non-motorized travel.

Goal 5. Maintain the quality and safety of the Town road network through cost-effective methods that are appropriate to the Town's topography.

C. Strategies

1. The Town has the option for maintenance of new roads if those roads are brought to Class 3 standards (Agency of Transportation Standard A76) and the Select Board elects to accept responsibility for that road.
2. It is Town preference that unpaved municipal roads remain unpaved, but other improvements for the sake of traffic volume and safety may be considered.
3. Roadway segments identified as habitat connectors linking forest blocks should be identified and protected. **(See Map 7).**
4. Multi-modal travel options and regional public transportation system will be encouraged, such as The Hitching Post, a ride-share and community-building initiative in Vermont.
5. Worcester will continue to address issues of traffic speed and pedestrian safety on all roads as needed, especially in the school area.

D. Actions

1. Work with Green Mountain Transit toward more urgent action on their 2012 Transit Development Plan which describes the Route 12 corridor passing through Worcester as a designated area of "service need".

Responsible Party: Select Board

Timeframe: 2022-2025

2. Seek creative ride-share initiatives such as car-pooling, Park&Ride space and more.

Responsible Party: Planning Commission, community

Timeframe: ongoing

3. Maintain Worcester's scenic roads in a manner that preserves their beauty and uniqueness

without causing undue hazard to travelers.

Responsible Party: Road Crew, Select Board

Timeframe: ongoing

4. Enforce the Town's speed limit and school safety zone with signage, contracted law enforcement agencies (Sheriff's Dept, Vt. State Police), and agreements with neighboring municipalities.

Responsible Party: Select Board

Timeframe: ongoing

5. Plan and locate sidewalks and off-road bike paths.

Responsible Party: Planning Commission, Road Commissioner

Timeframe: 2022+

6. Continue participation in Vermont's Better Roads Program (Dept of Environmental Conservation) for technical support and grant funding around maintenance techniques that save money while protecting our water quality.

Responsible Party: Select Board

Timeframe: ongoing

E. The Road Network

The road network in Worcester is centered on Route 12, a State highway connecting Montpelier and Morrisville. Calais Road and Minister Brook Road intersect Route 12 in Worcester Village thus linking smaller Town roads with the State highway. The two collector routes, Calais Road and Minister Brook Road are the heaviest traveled town highways in Worcester. Portions of each road have been paved and remain adequate for present traffic demands. (ref: **Map 10 Transportation & Roads**)

Worcester maintains a total of 20.8 miles of roads. Class 2 and 3 roads are maintained by the Town road crew but Class 4 roads receive minimal maintenance and the 8.26 miles of legal trails receive no maintenance. The only Class 1 road in Town is State-owned Route 12. There are no Class 1 Town roads.

WORCESTER ROADS (ref: **Map 10 Transportation & Roads**)

Town Road (mileage by class)	Class 2	Class 3	Class 4	Total
Calais Road	2.00			2.00
Minister Brook	1.47	1.93	0.30	3.70
West Hill	2.30			2.30
Hampshire		2.30		2.30

Hancock	0.98	0.73	1.71
Frazier	0.61	0.35	0.96
Eagle Ledge	1.68		1.68
Upper Hampshire	0.73		0.73
Ira B	0.10		0.10
Harris	0.51		0.51
Mountain	0.17		0.17
Carlson	0.42		0.42
Brown	0.10		0.10
Pratt	0.75		0.75
Collar Hill	0.08		0.08
Mill	0.11		0.11
Kimball	0.10		0.10
Hults	0.32		0.32
Hersey	0.11		0.11
Untraveled		0.26	0.26
Downs	1.06	0.94	2.00
Ledge	0.20		0.20
Gould Hill	1.10		1.10
Norton	1.10		1.10
Dugar	0.05	0.15	0.20
Kaeding	0.26	0.04	0.30
Keyser	0.26		0.26
Total mileage by class	5.77	15.03	2.77 23.57
			(20.8 maintained)

Some changes in traffic volume along Route 12 can be seen in the table below. The most recent comparison of years shows variable data but no conclusive trends. Fewer vehicles entered our Village from both the north and south in 2015 than in 2012 and may indicate increased car-pooling. This phenomenon appears somewhat specific to our section of Route 12 and does not occur in other Vermont routes, including neighboring Route 14 in Calais.

Average Annual Daily Traffic (AADT)

Daily counts were measured by automatic traffic recorders and rounded to the nearest 100.

<i>From</i>	<i>2010</i>	<i>2012</i>	<i>2015</i>
Worcester Village <-> north	1300	1400	1300
Worcester Village <-> south	1500	2000	1500

Source: VT Agency of Transportation.

Because Route 12 is the main commuter road between Montpelier and Morrisville, traffic speed is a constant concern in the Village center where pedestrians, and bikers have no

sidewalk access and only limited shoulder space on the roadway. Vehicles also frequently enter and exit the Route 12 along this stretch to access Village Center services.

It's interesting to note, that even with commuters, traffic volume on Route 12 through Worcester is low when compared to other sections of Route 12. This low traffic volume contributes to the Town's solitude and rural character and its frequent use as a scenic drive or bike road. Speed management is supported by good signage and periodic contracts with the Sheriff's Dept. Conversations about off-road sidewalks and bike paths, especially around Doty Elementary School, have begun and there are State initiatives to support this move.

The Town continues to hold right-of-way on many legal foot trails. Although infrequently used and sometimes impassible by vehicles, these Town right-of-ways serve a useful purpose for recreation, and provide access to seasonal residences and remote areas of Town which otherwise would be inaccessible. Class 4 roads that provide access to both year round and seasonal dwellings are maintained in accordance with state statute. Motorists interested in traveling on the Class 4 Eagle Ledge Road extension, but who don't reside there, must first obtain a permit from the Town. On the east side of Town, the Ellis-Bruce Trail provides a woodland connector trail between Worcester and Calais, suitable for bikers, pedestrians, and horses.

It is the Town's intention to maintain the present highway patterns shown on the general highway map on file at the Town Clerk's office (**ref: Map 10 Transportation & Roads**). There are no Town plans to construct new roads or reconstruct roads currently classified as Class 4 roads or trails. The Town will assume responsibility for new roads *only* if they meet established Class 3 Road standards and are specifically approved by the Select Board. Persons seeking to construct a driveway leading into any Town highway must first secure a driveway permit from the Select Board.

F. Scenic Roads

Worcester is blessed with many scenic roads which are characterized by sweeping vistas that include twisting narrow valleys, uninterrupted forests, meadows, nestled village views, and, of course, the Worcester Mountain Range. It is Worcester's intention to preserve and/or enhance the scenic characteristics of these roads whenever possible, but not at the expense of vehicle or pedestrian safety.

Because virtually all of Worcester's roads are "scenic", it becomes difficult to use that term judiciously. However, there is one roadway in Worcester that warrants particular attention. Route 12, especially north of the village through the Worcester Woods is a rare byway from a view shed perspective, especially its five miles of undeveloped (no utility infrastructure) passage to Elmore. In this regard, if a "scenic highway" designation provides any type of local foil to the build-out of large-scale wind or solar or transmission lines, Route 12, as one of the most recognized scenic highways in Vermont, is clearly worthy of scenic road designation by the State.

G. Transit

Pedestrian, bicycle and vehicular traffic are the major means of transit in Worcester. No public transit options are currently available, with the exception of limited school bus transportation for Worcester children K-12.

The Green Mountain Transit Agency, in their 2012 Transit Development Plan, listed the Route 12 corridor (passing through Worcester) as a designated area of “service need” and recommended future service to be implemented as funds become available. As of this writing in 2021, no action has occurred.

H. Conclusion

There is currently no public transportation nor a designated area for a park and ride, bike path or pedestrian sidewalk in Worcester....all of which have been identified as priority areas of need by citizen survey. A public transportation service through Worcester Town Center would lessen traffic serving both safety and environmental concerns.

PART 6. ENERGY

A. Overview

In a rural community such as Worcester, energy has a large impact on cost, safety and the environment. Worcester recognizes that energy efficiency and renewable energy are key to protecting and conserving the natural environment, wildlife, and clean water and air, and therefore play an essential part in maintaining our rural character and affordability.

Although energy markets are complex and largely beyond the influence of individual communities, local planning can play a positive and effective role in guiding energy decisions. By promoting efficient land use patterns, participating in energy project decisions, facilitating alternative transportation options, and encouraging energy efficiency strategies, even small towns can play a meaningful role in achieving a sustainable energy future.

B. Goals

The following Goals, drawn from the complete list of Town Planning Goals found in Part I,

are relevant to this topic.

Goal 4. Promote a future that includes public transportation options and non-motorized travel.

Goal 6. Conserve and protect the Town's important natural resources of water, mountains and their ridge lines, protected open space, air, wildlife habitat, historic structures and view scapes.

Goal 7. Promote energy conservation and efficiency, and homeowner-scale and municipal-scale renewable energy sources.

Goal 9. Facilitate the responsible use of Worcester's agricultural land, forest land, open spaces and extractive deposits.

C. Strategies

Worcester supports Vermont's statutory greenhouse gas emission requirements as contained in 10 V.S.A. Section 578, as updated by the Global Warming Solutions Act of 2020 (Act 153). We support efforts by Worcester residents, businesses, and town and school facilities to do our part by reducing our own greenhouse gas emissions and engaging in land use practices that contribute to these efforts.

As a small town, we recognize that we must work individually and as a community with organizations, government agencies, utilities and other entities that can provide us with financial support and incentives, guidance, technical and other assistance so that Worcester can do its part in addressing the causes and the effects of climate change. Such entities include but are not limited to the electric utilities serving Worcester (Green Mountain Power and Washington Electric Co-op), Efficiency Vermont, Vermont Housing Finance Agency, Capstone Community Action, Central Vermont Regional Planning Commission, the Vermont Department of Public Service, and the Vermont Agencies of Natural Resources, Agriculture, and Transportation.

Specifically:

1. Worcester encourages weatherization and energy efficiency activities for existing or new homes, businesses and public buildings.
2. Worcester endorses the concept of energy saving transportation alternatives such as ride sharing, public transit, electric vehicle charging, and non-motorized travel.
3. Where physical conditions and infrastructure permit, the use of shared renewable energy and facilities is encouraged.
4. Worcester encourages residents to reduce home heating costs and energy use through the use of renewable energy such as: auxiliary solar systems, passive solar design and building orientation, proper insulation/weatherization of both new and existing structures, solar-electric heat pumps, and geothermal heat pumps. New construction can and should utilize these appropriate renewable energy techniques.

5. Worcester supports the use of sustainably harvested local firewood and wood biomass. Worcester sees appropriate forest use to center on firewood, lumber production, and wood biomass from forest residues (ie: wood left over from traditional logging operations) which encourages a sustainable forest economy.
6. Development of residential and municipal renewable energy generating sources is encouraged. Siting and installation are encouraged to be done in a manner that considers neighboring viewsheds and solar access.
7. Worcester encourages the integration of renewable energy generation with forestry and agriculture. Examples include solar pastures, which use the land under and around solar panels for livestock grazing, and converting waste from forestry into biomass.
8. Worcester supports the exploration of potential commercial-scale renewable energy generation sources, which may be implemented in areas where low elevation, moderate slopes, and adequate soil conditions are favorable.
9. Promote and encourage energy storage capabilities to manage surplus renewable generation and help with grid capacity concerns. Storage facilities can include small scale residential units as well as utility/commercial scale which can dispatch stored energy to the grid when needed.

D. Actions

1. Develop Worcester Energy Plan per Act 174 through creation of an Energy Task Force comprised of members from the community. Assure CVRPC guidelines are followed so Worcester receives “substantial deference” at Public Utility Commission hearings regarding energy development in Worcester.

Responsible party: Planning Commission, Energy Committee

Timeframe: 2021-22

1. Explore opportunities for public EV charging stations.

Responsible party: Planning Commission, Energy Task Force (pending)

Timeframe: 2021-2024

1. Research renewable energy sources to heat the school and town buildings. Research will include the sustainability, viability, and appropriate scale of each option.

Responsible party: Planning Commission, Select Board, Energy Task Force (pending)

Timeframe: 2021-2024

1. Explore the feasibility of creating an ordinance that limits residential wind tower height, perhaps in accordance with existing cell tower ordinance.

Responsible party: Select Board & Planning Commission

Timeframe: 2021-2024

1. Provide information to Town on renewable energy opportunities, including net-metering to encourage renewable energy use.

Responsible party: Planning Commission, Energy Task Force (pending)

Timeframe: ongoing

1. Educate and encourage residents to take advantage of energy efficiency and conservation programs available to all Vermont residents, such as those offered through Efficiency Vermont and Residential Energy Efficiency Program (REEP).

Responsible party: Planning Commission

Timeframe: ongoing

1. Explore potential to partner with other municipalities for renewable energy generation.

Responsible party: Planning Commission, Select Board, Energy Task Force (pending)

Timeframe: ongoing

E. Background

In Vermont, fossil fuels are the primary source of our energy. Our reliance on fossil fuels contributes to climate change, acid precipitation, human health hazards resulting from declining air quality and increased extreme weather events, and our dependence on foreign countries.

As a rural town that values our natural areas, resources, and landscape, Worcester recognizes the inherent need to create a sustainable energy plan that supports Vermont's Comprehensive Energy Plan of 2016. Vermont's plan calls for 90 percent of our energy use to come from renewable sources by the year 2050 (often referred to as the 90 by 50 plan).

The Planning Commission will begin work on an enhanced energy plan to meet the requirements of Act 174 upon approval of the Town Plan. [Act 174 of 2016](#) establishes a new set of municipal energy planning standards, which if met, allow plans to carry greater weight – substantial deference – in the Section 248a siting process for energy generation. Meeting the standards is entirely voluntary.

A basic assessment of energy consumption in Worcester follows.

Resources

- The forests hold high potential for biomass generation and provide an abundant local supply of firewood for home heating
- There is one existing hydro-electric generating facility and some potential exists for in-stream generating capabilities.
- Limited and scattered prime siting locations exist for Solar generation potential:, with scattered secondary locations (see CVRPC Solar Resources Map), including rooftops.
- Limited sites exist for wind generation due to protected ridgelines.

Needs

- Renewable energy infrastructure is needed to serve public facilities, including Town offices, schools and the highway garage.
- Lack of reliable, adequate, public transportation to serve work-day commuters with a reasonable schedule
- Limited/low electric vehicle charging capabilities at residences, businesses, public buildings, and a public charging facility available to the public for a cost, at a commercial or public location.
- Strengthening resilience of buildings, roads, waterways, and energy and communications infrastructure to deal with the continuing and growing impacts of climate change.

Scarcities

- According to an analysis undertaken by CVRPC, Worcester has very limited prime locations for siting wind generation facilities .
- Only a small amount of land has been identified as being prime for solar siting
- Worcester lacks EV charging stations and public transportation between the village and Montpelier and Morrisville.

Costs

While some municipally-used-level of energy conservation and renewable energy development will be supported by taxpayers, most energy related savings will be supported by Federal and State grants, utility subsidies and private investment.

Problems

- Worcester must reconcile the gap between residents supporting the idea of renewable energy while not wanting to see renewable energy projects implemented here.
- Worcester has limited land designated as prime for solar or wind energy development.

F. Current Energy Use

The three main consumers of energy in Worcester are private vehicles (transportation), household heating, and electricity.

Transportation

Transportation accounts for about 37% of Vermont's total fuel consumption (2017 Vtrans Energy Profile). In Vermont more than 90% of all energy used for transportation is derived from petroleum fuel. According to 2015 Census data, 80% of Worcester's workforce commutes for at least 30 minutes each day and 84% make their trip alone in a private vehicle.

TIM - all chart originals may be found here:

https://centralvtplanning.org/wp-content/uploads/2016/12/Municipal-DataMaps_Worcester1.pdf

Current Transportation Energy Use – Worcester

Transportation Data	Municipal Data
Total # of Vehicles (ACS 2011-2015)	649
Average Miles per Vehicle (Vtrans)	12,500
Total Miles Traveled per year	8,112,500
Average Gallons Used per Vehicle per Year (Vtrans)	576
Total Gallons Use per Year	436,156
Transportation BTUs (Billion)	53
Average Cost per Gallon of Gasoline (RPC)	2.31
Gasoline Cost per Year	\$1,007,520.00

The tables in this section use 2017 data from the American Community Survey (ACS) and Vermont Agency of Transportation (Vtrans) to calculate current transportation energy use and energy costs. See the Central Vermont Regional Planning Commission website:

<https://centralvtplanning.org/>

Heating

The main heating sources in Worcester are wood, fuel oil, and propane. While electricity currently represents 1.6% of heating, the installation of efficient electric heat pumps may offset non-renewable sources of fuel oil and propane.

Current Heating Use – Worcester

Fuel Source	Municipal Households (ACS 2011-2015)	Municipal % of Households	Municipal Square Footage Heated	Municipal BTU (in Billions)
Natural Gas	0	0.0%	0	0.00
Propane	78	20.2%	123,144	7.39
Electricity	6	1.6%	11,184	0.67
Fuel Oil	141	36.4%	252,112	15.13
Coal	0	0.0%	0	0.00
Wood	162	41.9%	275,600	16.54
Other (Includes Solar)	0	0.0%	0	0.00
No Fuel	0	0.0%	0	0.00
Total	387	100%	662,040	39.72

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

Electricity

Electrical energy is supplied to Worcester by Green Mountain Power and Washington Electric Co-Op. (ref: **Map 9**) Other details of these utilities are discussed in Part 4 Utilities and Facilities of this Plan. The table below identifies current electricity usage within the municipality

Current Electricity Use – Worcester

Use Sector	Current Electricity Use
Residential (Efficiency Vermont) (kWh)	2,539,698
Commercial and Industrial (kWh)	2,718,522
Total (kWh)	5,258,221

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

G. Future Energy Use

Energy Efficiency (Conservation)

Efficiency programs and initiatives, including replacing outdated appliances and switching to more efficient technologies, and participating in weatherization programs, can create significant energy and cost savings. These conservation methods are included in the strategies above, and the cost of efficiency upgrades may be offset by state and federal programs as well as utility subsidies.

Renewable Energy

Worcester fully recognizes and respects the importance of renewable energy sources and is dedicated to working toward state and federal goals of a clean and sustainable future. While

there may be times where the presence of energy facilities have the potential to disrupt important wildlife corridors or valuable public viewscapes, we believe that thoughtful siting will allow both priorities to work in concert.

The table below identifies current electricity usage from renewable sources within the municipality.

Existing Renewable Generation – Worcester

Renewable Type	MW	MWh
Solar	0.07	84.62
Wind	0.00	0.00
Hydro	0.17	595.68
Biomass	0.00	0.00
Other	0.00	0.00
Total Existing Generation	0.24	680.30

Table 10 shows existing renewable generation in the municipality, in MW and MWh, based on information available from the Vermont Department of Public Service.

The State has identified preferred sites on which to locate renewable energy generation facilities. They include rooftops, parking lots, previously developed sites, brownfields and gravel pits. The Town may also choose to identify preferred sites in addition to those already identified by the State as a method to guide these facilities to appropriate locations which are compatible with Town goals. Identification of such locations will be considered when Worcester develops its enhanced Energy Plan.

Until substantial deference is achieved through an enhanced Energy Plan, the following will be used as an interim guide for preferred renewable energy generation siting.

1. A “preferred” site should not include potential constraints such as headwaters, streams, shorelines, floodways, rare and irreplaceable natural areas, necessary wildlife habitat, wetlands, endangered species, productive forestlands, or primary agricultural soils, as defined in 10 V.S.A. chapter 151.
2. A “preferred” site should not be on conserved land, including conserved Town-owned lands, State forests, or other protected lands.
3. A “preferred” site should not be constructed on, or negatively affect nearby historic resources or scenic roads as identified in the Town Plan.
4. A “preferred” site should not require a change in use of Worcester’s roads traffic patterns after the project is completed.
5. A “preferred” site should not disrupt groundwater flow or lower groundwater water quality in the area of the site or in the area surrounding the site.
6. A “preferred” site should not generate surface water runoff that adversely affects 1) adjacent landowners, 2) surface water movement or 3) surface water quality in the watershed.
7. A “preferred” site should be placed in such a location as to minimize visual impact from local roads and passers-by.

8. A “preferred” site should not block traditional wildlife habitat connectors.
9. A “preferred” site should not contribute to forest fragmentation as defined by Act 171, described in Part 3 The Land and Its Resources.
10. A “preferred” site should not negatively affect the recreational potential for the locality

Solar

In the 2019 survey, Worcester residents expressed interest in community-scale solar power as a renewable energy source. Currently, residential rooftop solar panels and solar arrays are utilized by a small percent of Worcester residents. Worcester has scattered prime and secondary solar siting locations, and potential to increase both municipal and residential solar generation.

Wind

An analysis undertaken by CVRPC show Worcester has no prime, and limited secondary, locations for siting commercial wind turbines due to a variety of identified known and possible natural resource constraints including permanently conserved lands and lands with steep slopes and high elevations. Residents support protecting the Worcester Range, ridgelines and critical wildlife habitat and corridors from wind development.

Hydroelectric

Worcester has a **hydroelectric** generation facility on the North Branch of the Winooski River, owned by Worcester Hydro Co. Inc. This facility produces approximately 450,000 kWh of electricity per year and currently contracts with Vermont College of Fine Arts (VCFA). CVRPC has also identified two additional sites in Worcester with potential for low hydroelectric capacity (< 50 kW). One is located north of the Village on the North Branch, the other west of the Village along Minister Brook. The recreational use of use of these additional sites makes it unlikely that these areas will be developed.

Biomass

Worcester has a high potential for wood biomass and supports biomass production from forest residues (wood left over from traditional logging operations) which encourages a sustainable forest economy while reducing reliance on fossil fuels.

Energy Efficiency Targets

The targets below are a subset of energy targets developed for Worcester to meet the State Comprehensive energy plan targets, by the Central Vermont Regional Planning Commission and located in full on the CVRPC website. These targets will be used to advise future discussions and for incorporation into the enhanced energy plan.

The tables below show Worcester’s energy efficiency targets to meet the State’s 90 by 50 plan:

Table 1E. Residential Thermal Efficiency Targets

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

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

Table 1F. Commercial Thermal Efficiency Targets

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

This table shows the same information as Table 1E, but sets a target for commercial thermal efficiency. Information from the VT DOL is required to complete this target.

Worcester’s energy targets will be met through a combination of energy efficiency and conservation measures and establishment of new renewable energy facilities (see strategies above). This may include an increase of renewable heating sources such as heat pumps and efficient wood heat systems, an increase in electric vehicles and public transportation options, and renewable electricity generation.

H. Conclusion

The 2021 Town Plan supports actions that enable both the conservation of energy and the generation of renewable energy. Home-owner scale and municipal-scale renewable energy projects are encouraged. For Worcester to better meet its future energy goals and receive substantial deference from the State, an enhanced Energy Plan needs to be developed according to the criteria outlined in Act 174. In an effort to meet the conservation and natural resource protection objectives, commercial scale, grid-tied wind generation facilities shall not be sited in visually prominent or ecologically sensitive areas including, but not limited to, ridgelines, core forest, wildlife connecting corridors and critical wildlife habitat.

PART 7. HOUSING

A. Overview

The availability, cost, and location of housing within a community have far-reaching implications. These factors affect land use, employment, and transportation patterns. Part 7 describes the current state of housing in Worcester and what role the Town can play in its development.

Snapshot of Housing in Worcester

	Vermont	Worcester
Households	260,029	424
Number of homeless individuals (county level)	1,110	172
Median household income	\$61,973	\$60,769
Median household income as % of countywide median		100%
% of severely cost-burdened households	15%	14.0%
% of location's workers commuting in from other towns	67%	85%
Average annual % increase in housing stock	0.20%	1.25%
Median home sale price	\$245,000	\$305,000
Median days on market (county level)	90	84
Median gross rent	\$985	\$994
Rental vacancy rate (county level)	3.4%	2.5%

Source: housingdata.org powered by Vt Housing Finance Agency 2020

B. Goals

Shelter is among the most basic of human needs. The following Goals, drawn from the complete list of Town Planning Goals found in Part 1, are relevant to this topic.

Goal 2. Support and guide reasonable growth – both economic and residential – that is compatible with the Town's rural character.

Goal 10. Advocate for the availability of safe/affordable housing and childcare for Worcester families.

Goal 12. Provide a blueprint for the Town, its citizens, the District Environmental Commission and other State agencies to reference and use as guidelines for any Act 250 permitting process involving development and or land use in Worcester.

C. Strategies

1. Large-scale residential developments do not fit with the scope and character Worcester

and therefore are not advised. For the purposes of this Plan, a “large residential development” means any residential development or subdivision that would increase the total number of housing units in Worcester by more than 4% during the life of this Plan.

2. Worcester endorses housing opportunities for all segments of its population including the elderly, disabled, minority, and lower income groups. Worcester also supports “accessory” apartments in existing and new housing where groundwater, septic, and site parameters permit greater occupancy.
3. The Town encourages low impact development, including clustering, as a means to reduce infrastructure and land costs, and thereby promote affordability.
4. Partnerships with non-profit agencies, including community land trusts, the Vermont Housing Finance Agency and more, will be pursued to provide assistance in financing affordable housing projects.
5. Worcester will rely on Town ordinance to ensure that housing is not a threat to public health and safety and is built to the specifications under which it is approved. Housing concerns related to public health and safety will be addressed by the Worcester Health Officer.

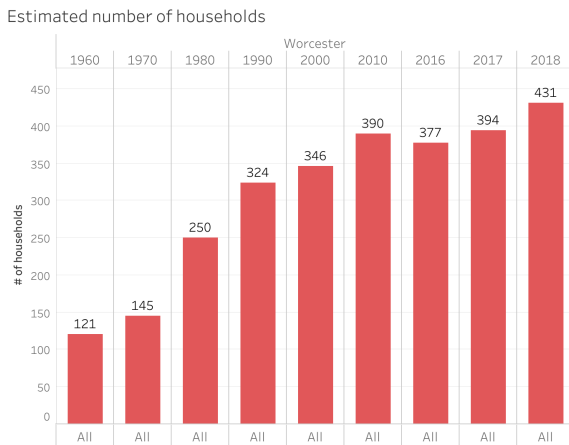
D. Actions

1. Arrange for community education about opportunities from Vermont Housing & Conservation Board and Vermont Housing Finance Agency.
Responsible party: Planning Commission, Select Board
Timetable: ongoing
2. Promote and support home share programs as a way to support senior residency and affordable housing.
Responsible party: Select Board
Timetable: ongoing
3. Explore grant funding to assist in the development of elderly, multifamily and homeless housing. Also evaluate town-owned properties which could be developed for affordable housing.
Responsible party: Planning Commission, Select Board
Timetable: ongoing

E. Background

Households in Vermont grew steadily from the 1960’s until 2010 when the number began to flatten, peaking at a total of 431 households for 990 citizens in 2018 or approximately 2.3 individuals per household.

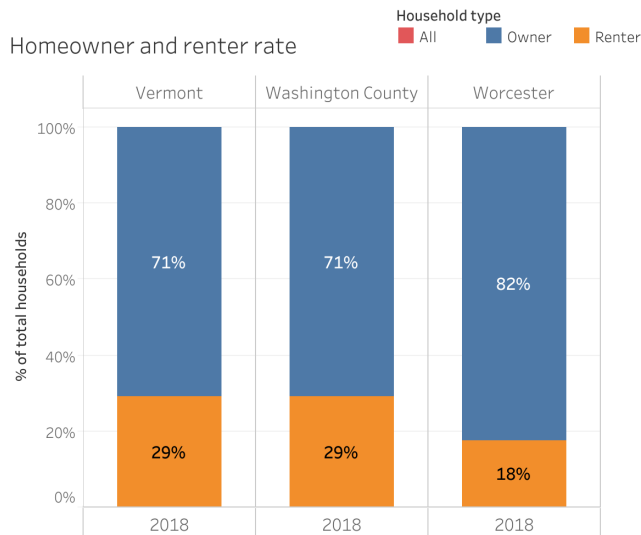
Chart 7.1 Number of households in of Worcester



US Census Bureau: American Community Survey 5-year estimates, HousingData.org

Most residents in Worcester own their own home, exceeding the rate of ownership in both Washington County and Vermont.

7.2 Homeowner and renter rate



Source:
U.S. Census Bureau: American Community Survey 5-year estimates

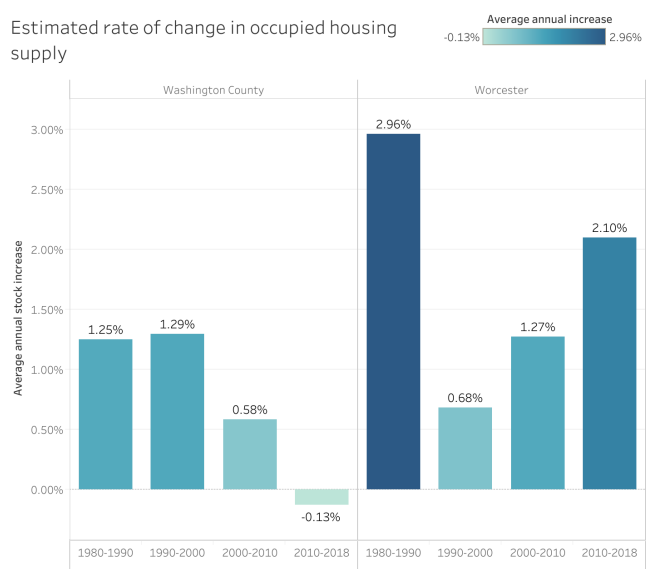
US Census Bureau: American Community Survey 5-year estimates, HousingData.org

F. Growth

Even without the presence of large subdivisions or large-scale residential developments, Worcester has the distinction of one of the fastest rates of growth in the region. This is likely due to the Town's desirable location with respect to regional job centers and outdoor amenities.

Growth will remain an important issue as Worcester works to retain its identity as a small rural community while striving to provide good municipal services for its residents.

Chart 7.3 Rate of change in housing growth in Washington County and Worcester



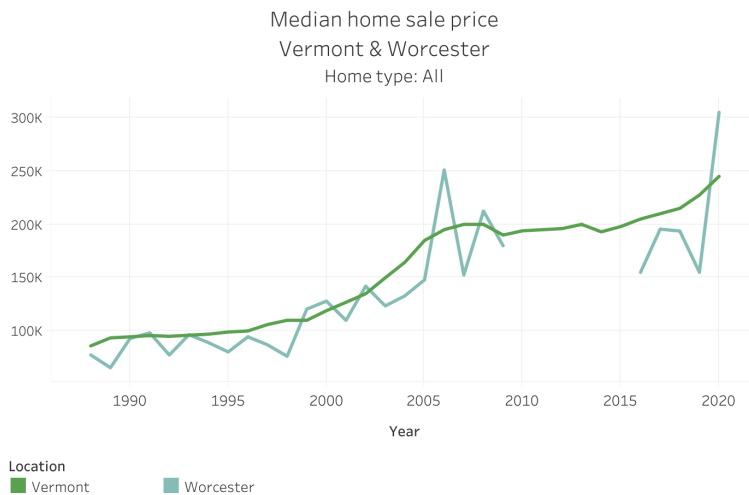
Source:
U.S. Census Bureau: American Community Survey 5-year estimates (Table B25003), US Decennial Census (for years prior to 2010)

US Census Bureau: American Community Survey 5-year estimates, HousingData.org

G. Affordability

The median price of a primary home in Worcester is \$305,000, exceeding the median price for a house in Vermont at \$245,000.

Chart 7.4 Median home sale price

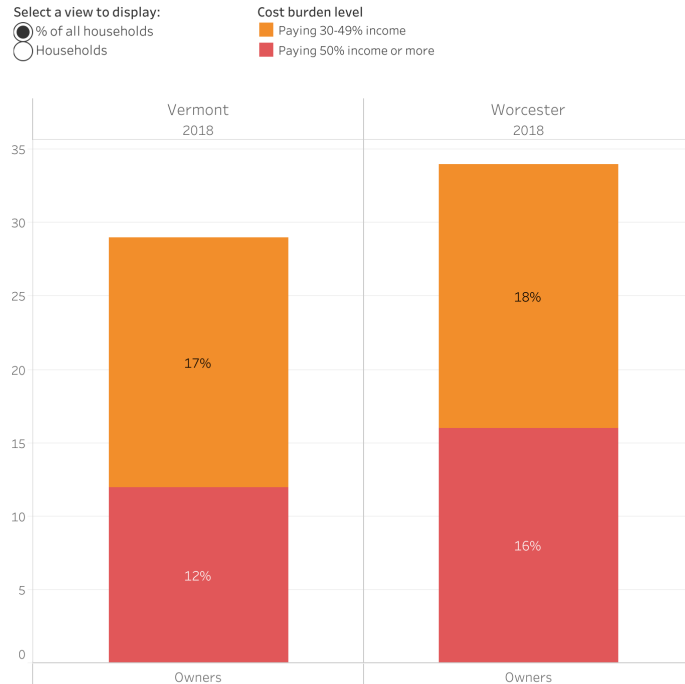


Year
2020

Source: Vermont Dept of Taxes: Property Transfer Tax record

Thirty-four percent of homeowners in Worcester pay greater than 30% of their income toward house payments while 29% of homeowners in Vermont pay more than 30% for housing

Chart 7.5 Homeowner costs as percentage of household income

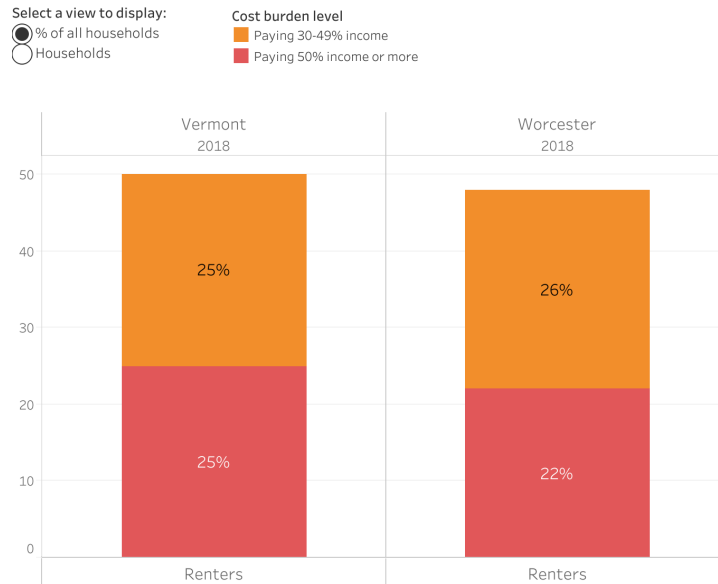


Source:
U.S. Census Bureau: American Community Survey 5-year estimates (Table B25091)

US Census Bureau: American Community Survey 5-year estimates, HousingData.org

Rental prices are even higher. Even though renters represent only 18% of households in Worcester, the affordability gap for renters is greater than for homeowners with roughly half (48%) of the renters in Town directing more (and often much more) than 30% of their income towards rent. High cost of renting may explain why fewer Town residents choose to rent than residents of either Washington County or the State.

Chart 7.6 Renter costs as percentage of household income



Source:
U.S. Census Bureau: American Community Survey 5-year estimates (Table B25070)

US Census Bureau: American Community Survey 5-year estimates, [HousingData.org](https://www.housingdata.org/)

H. Availability

Estimates from the 2018 US Census shows that there are 80 vacant housing units in Worcester, half of those dedicated to seasonal, recreational or occasional use.

Chart 7.7 – Worcester Housing Vacancy

Estimated vacant housing units

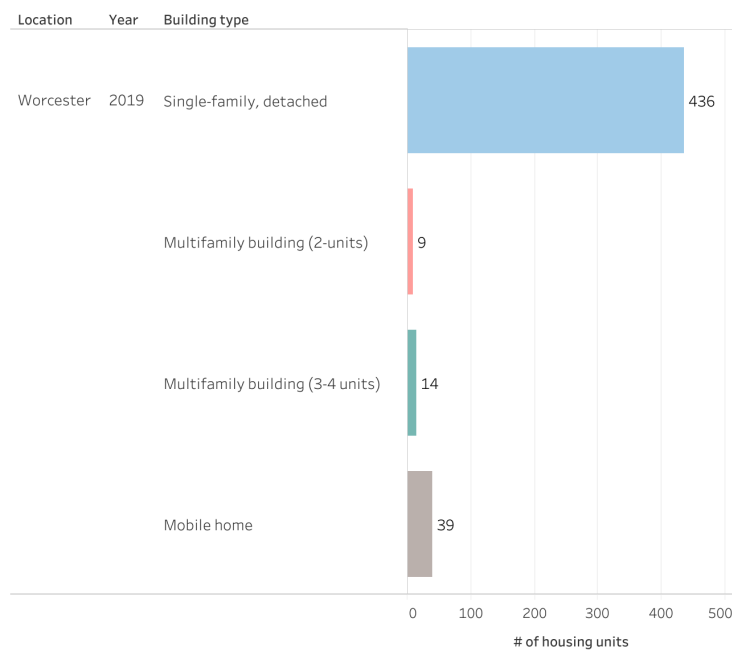
Location	Year	Vacancy type	Data reliability rating	Number of vacant units
Worcester	2018	For rent	Use with caution	13
		Rented, not occupied	N/A	0
		For sale	N/A	0
		Sold, not occupied	N/A	0
		For seasonal, recreational or occasional use	Use with caution	40
		For migrant workers	N/A	0
		Other vacant	Use with caution	27

US Census Bureau: American Community Survey 5-year estimates

Virtually all of the housing available in Worcester consists of single family buildings with a smattering of multi-family buildings – none larger than four units. Housing that is specifically designated for low income residents, elders or multi-family use is, for the most part, not available in Worcester. A housing monoculture such as this may be an impediment to a more diverse community and a barrier to extended family living. The future development of such residential options is not impeded by Worcester regulation, although the usual limitations outlined by septic capability and Act 250 regulation remain.

Chart 7.8 – Residential Building Types

Residential building type estimates



Source:

U.S. Census Bureau: American Community Survey 5-year estimates (Table B25024)

Homelessness in Vermont is measured at the county level by the Vermont Housing Finance Agency. During 2020, 172 homeless individuals were identified in Washington County. While homelessness is not an identifiable problem in Worcester, casual observation suggests that it does exist. Characteristics of homelessness in Washington County are predominantly male and in the 25-54 age group. The Worcester Neighbor Network stands at the ready to problem-solve episodes of homelessness in Worcester as they are identified.

I. Conclusion

Steadily increasing housing costs combined with a scarcity of available units threaten to “price out” current residents as well their descendants and prospective newcomers to the community. Rental properties, while available, currently place an even bigger cost burden on residents than ownership. While this situation is not unique to Worcester, the confluence of higher costs and incomes lower than neighboring communities, poses a challenge for future generations of Worcester residents.

PART 8. ECONOMY

A. Overview

The oft-repeated sentiment that Worcester citizens prefer small-town rural characteristics provides some tension with a growing appeal for growth and economic stability among some residents.

The economic well-being of Worcester is directly tied to Vermont's economy. A good state economy provides employment, social/cultural opportunities, as well as resources for the community services, education and infrastructure that Worcester residents enjoy. On the local level, hard-working Worcester residents earn less than neighboring towns despite almost non-existent unemployment.

B. Goals

Worcester's economic goals are directed toward an improved infrastructure that supports appropriate development for small-town environment, and quality of life for its citizens. The following Goals, drawn from the complete list of Town Planning Goals found in Part 1, are relevant to this topic.

Goal 2. Support and guide reasonable growth – both economic and residential – that is compatible with the Town's rural character.

Goal 8. Provide an efficient system of public facilities, utilities, broadband, recreation opportunities and services that meet the needs of Worcester residents.

Goal 9. Facilitate the responsible use of Worcester's agricultural land, forestland, open spaces and extractive deposits.

C. Strategies

1. Worcester encourages the growth and development of a diversified, small-scale local economy compatible with its historic village center and natural resources and residential living.
2. Worcester encourages the creation and expansion of locally based industries that utilize the region's natural resources and raw materials, with particular emphasis on value-added processing of agricultural and wood products.
3. In support of a growing local economy Worcester will advocate for a Town infrastructure that provides improved public transportation, improved telecommunications, and

increased use of appropriate renewable energy.

4. Worcester supports local farming and draws attention to the State's Right to Farm law (12 V.S.A. § 5751) which protects reasonable agricultural activities conducted on the farm from nuisance lawsuits.
5. Worcester will work toward a reasonable and affordable tax rate by recognizing municipal taxes as an economic factor and moving to stabilize those taxes.

D. Actions

1. Support the upgrade and expansion of high speed internet service through partnership with CVFiber with the intention of reasonable service to all residents. Also, maintain a Select Board appointed delegate from Worcester on CVFiber Board. (see Part 4)
Responsible party: Select Board, Planning Commission, community delegate.
Timeframe: ongoing
2. Seek Village Center Designation to help support the historic village and its vitality as an economic center.
Responsible party: Select Board, Planning Commission, Citizen Task Force.
Timeframe: initiated in 2021
3. Maintain an inventory of all businesses in Town and list those interested on Town website as a community resource.
Responsible party: Planning Commission, Town website manager.
Timeframe: ongoing

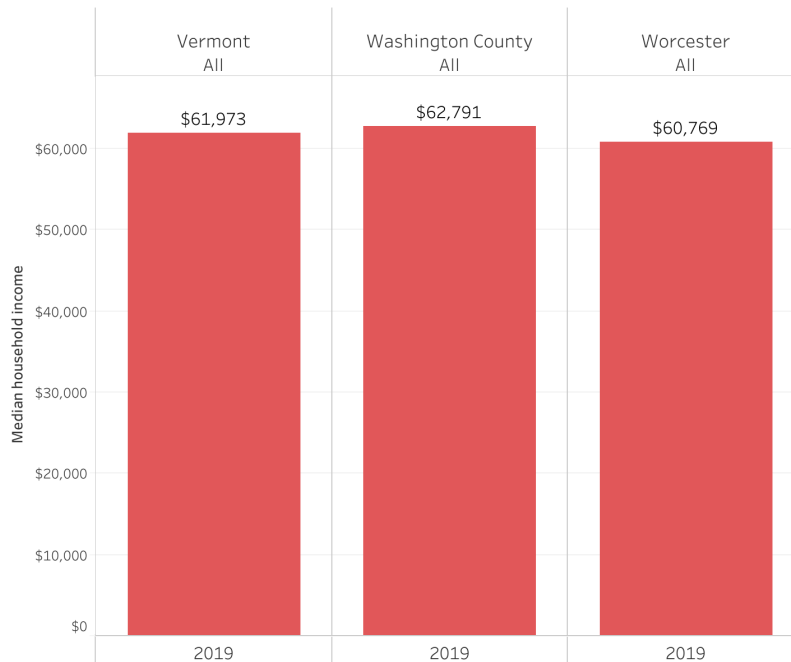
E. Background

Until the second half of the 20th century Worcester's economy was based on use of its natural resources. Mill powered manufacturing, timber, and agriculture were the Town's employment mainstays. Most residents made their living in Worcester. Today, less than 10% of Worcester residents work in town.

In spite of their hardworking reputation, Worcester residents earn less than their neighbors. In 2018, the median income of citizens in Worcester was less than the median income of either Washington County or Vermont.

TIM - charts found here: <https://www.housingdata.org/profile/income-employment>

Estimated median household income by tenure



Source: US Census Bureau: American Community Survey 5-year estimates

F. Employment & Un-employment

Although the Vermont Department of Labor listed 26 businesses in Worcester in 2017, most workers no longer depend on employment in town. The Town has no large employers and a huge majority of workers are employed outside of Town. The percentage of people who work at home in Worcester is comparable to the percentage of people who work at home in Vermont (5.7%, U.S. Census Bureau).

Where Worcester citizens work

	2010	2015
	# employed	Worcester
# Employed (16 yo and over)	645 (100%)	447 (100%)
Work in Worcester	69 (10.7%)	44 (9.8%)
Work at Home	10 (1.6%)	27 (6.0%)
Work outside of Worcester	576 (89.3%)	403 (90.2%)

Source: American Community Survey/US Census

Employment patterns in Worcester follow similar trends in Vermont with a few exceptions: 1) Worcester has a lower percentage of people working in construction and retail trade, and 2) Worcester residents are more likely to work in transportation and public administration than Vermonters as a whole. The State of Vermont is one of the largest employers in the region and Worcester's high employment in the public administration may indicate the importance of state government to the Town. Work in social service-related programs rank as the largest employer in both Worcester and Vermont.

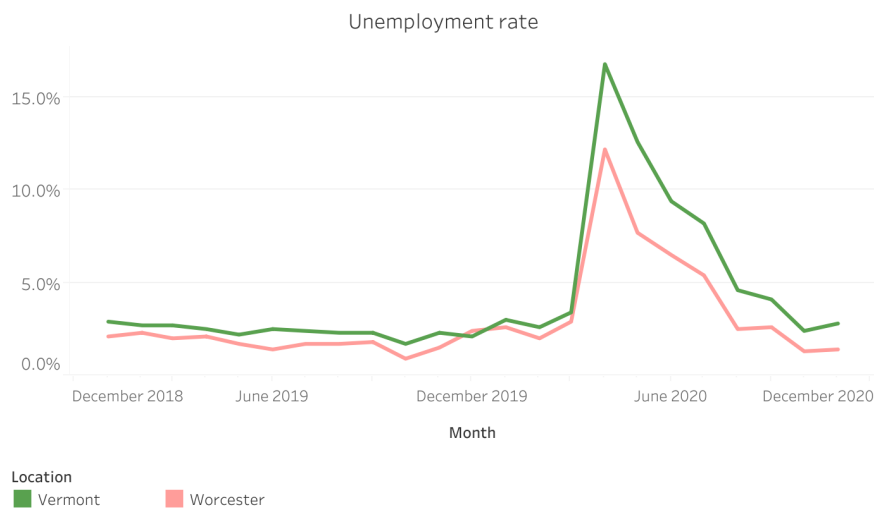
Worcester Employment by Industry

2010			2015	
Worcester		Vermont	Worcester	Vermont
Agriculture/Forestry	2.9%	2.6%	3.8%	2.6%
Construction	8.2%	7.8%	3.6%	7.4%
Transportation, Warehousing, Utilities Industry	3.2%	3.6%	6.4%	3.3%
Manufacturing	5.0%	10.8%	8.7%	10.8%
Wholesale Trade	3.0%	2.6%	3.0%	2.2%
Retail Trade	13.4%	11.7%	7.7%	11.3%
Information Industry	1.4%	2.0%	1.9%	2.0%
Finance/Real Estate/Insurance	4.1%	4.8%	4.5%	4.8%
Professional, Management, Administration	7.0%	8.7%	10.4%	8.5%
Arts/Recreation/Hosp itality Services	6.3%	9.2%	7.4%	9.2%
Education/Health Services/Social Services	31.1%	26.9%	26.4%	28.6%
Public Administration	10.2%	4.8%	9.8%	4.8%

Other Industries	Service	4.1%	4.6%	6.4%	4.5%
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Source: American Community Survey/US Census

According to the Vermont Department of Labor, Worcester consistently enjoys one of the lowest unemployment rates in Vermont. But in April 2020, a serious spike in unemployment associated with a world wide pandemic of the COVID-19 virus occurred in both Worcester and Vermont. At that time, the Vermont unemployment rate soared to 16.8% while Worcester's rate grew to 12.2%. Even with the sharp spike in unemployment during 2020, by year's end, Worcester's unemployment rate fell to 1.4%, half the Vermont rate of 2.8%.



Vermont Department of Labor **TIM - chart found here:**
<https://www.housingdata.org/profile/income-employment/labor-force>

By the numbers it may appear that unemployment is generally not a significant problem for Worcester residents, but appearances may be misleading. Unemployment rates are based on people who meet the following criteria: jobless, looking for a job, and available for work. Residents who are not working but who do not meet those three criteria are not included in the unemployment figures. This may result in an under-reporting of people without jobs or incomes in the town of Worcester and beyond.

G. Taxes

Worcester has a relatively small grand list. The ability to raise funds through the property tax is difficult. In 1997 the Vermont legislature enacted Act 60, the Equal Education Opportunity Act, which created a State-wide tax base such that property rich towns share

taxes with property poor towns like Worcester. Worcester was a plaintiff in the original lawsuit that triggered Act 60. Today many property owners in Worcester find their education taxes reduced through this system.

Other property owners find a measure of tax relief through participation in Vermont's Use Value Appraisal Program ("Current Use") that subsidizes the tax burden of citizens who contract with the State to employ approved farm and forestry management practices.

H. Commercial Development

Worcester's devotion to rural small-town, small-scale living establishes limits to its development potential. Development in Worcester is also somewhat restricted by large protected forest blocks, wildlife corridors, rural roads, small population and citizen preference for small-town characteristics.

With improved broadband, and some degree of public transit, there are many types of businesses that can potentially thrive in Worcester, such as: eateries, catering, computer services, homesteader farms, tree farms, community farms, hemp farms, maple sugaring, music teachers, therapists of all sorts, on-line services, consultants, legal services, artists, writers, breweries, photography and more.

Many amenities not available in Worcester are available in Montpelier-Barre to the south or Morrisville to the north. Non-profit organizations headquartered out of town consistently receive voluntary financial support from Worcester residents at Town meeting. These groups provide library, meals on wheels, health services, opportunities for seniors, shopping and recreation at affordable costs.

I. Conclusion

Overall, Worcester's approach to development is a cautious one. Because Worcester seeks to preserve its small-town nature, it rejects big development in either housing or business. Worcester does, however encourage the expansion of locally-based industries that utilize the region's natural resources and raw materials, with particular emphasis on agricultural and wood products. Reasonable growth in Worcester would be much facilitated by a more robust infrastructure of improved broadband, public transportation, and renewable energy.

PART 9. LAND USE PLANNING

A. Overview

How the land is used, how it is protected, and how it is developed is of prime importance to

Worcester citizens. Without the restrictions and benefits of zoning, Worcester relies on a strong Town Plan to guide the thoughtful use of its resources.

Worcester also depends on action by the State to apply the goals of the 2021 Worcester Town Plan. Through Act 250, the Vermont Natural Resources Board and District 5 Environmental Commission have the ability to issue or deny permits to applicants for industrial and commercial development on land parcels larger than one acre in size in Worcester.

In this section we seek to bring all the aspects of planning described in Parts 1-8 of this Plan into a comprehensive vision of Worcester's future and the role Land Use Districts may play in achieving that vision.

B. Goals

In Part 9, all of the Goals listed in Part 1 provide the backbone of land use planning and how Land Use Districts in Worcester may be used to realize those goals. Refer to Part 1 Goals 1-12.

C. Strategies

Strategies designed to meet the above Goals are described in prior chapters relevant to the topic.

D. Actions **fix spacing**

1. Recognize the four Land Use Districts in Worcester and use them to guide opportunities for development.

Responsible party: Select Board, Planning Commission, citizens of Worcester

Timetable: ongoing

2. Seek "Village Center Designation" for Worcester through the Agency of Commerce & Community Development

Responsible party: Planning Commission

Timetable: 2021-22

2. Utilize expertise and programming from the Regional Planning Commission, Vermont Natural Resource Board, Department of Environmental Conservation, or other State agencies to inform and educate town officials and interested community members about relevant topics.

Responsible party: Planning Commission, Select Board

Timetable: ongoing

4. Utilize Act 250 to reinforce Plan implementation in land-use situations where proposed development exceeds one acre. Utilize the Public Utility Commission (PUC) process as may be necessary to ensure the objectives and requirements of this plan are fully implemented.

Responsible party: Planning Commission, Select Board

Timetable: ongoing

5. Research and implement appropriate vehicle that will allow the Worcester Select Board and Planning Commission to review all proposed industrial energy projects prior to development.

Responsible party: Select Board, Planning Commission

Timetable: 2021-2022

E. Land Use Districts

Worcester is proposing recognition of four proposed Land Use Districts (**ref: Map 11 Future Land Use Districts**) described in this section are based on four informal but identifiable patterns that presently exist in Worcester. These districts recognize that Worcester's scenic and natural resources are important assets to the Town and existing patterns continue to be the preferred guide for future development and settlement.

The four districts are: 1) Village District, including the Village Center, 2) Village Transition District, 3) Rural Residential District, and 4) Forest District.

The Village District is a primarily residential area that includes pastures, woodland, hillsides and waterways that serve as a backdrop to the **Village Center**. All of Worcester's municipal services are located in this District and home-based and small scale businesses are welcome.

Worcester is blessed with the bones of a superb Village Center. Anchored by intersecting roads, the North Branch of the Winooski, and a large greenspace, the Town is already alive with a small but practical collection of businesses and historic buildings – all within walking distance of one another.

This District is characterized by soils and slopes that are generally suitable for housing. Housing in this District tends to be more compressed along the roadways than in other areas of Town. Protection of Worcester's rural setting would be enhanced by continuing a cluster pattern of housing in the Village District.

Several topographical features tend to make the Village District unique and particularly scenic. The Village lies in the narrow valley created by Long Meadow Hill, Hersey Hill, and Robinson Hill to the east and the Worcester Range to the west.

The steep surrounding hills also funnel residents into the Village and Route 12 for access to the Montpelier-Morrisville corridor and other areas of employment, shopping and entertainment. The well-being of the Village District assumes a special role since most residents pass through it every day.

The Village District includes the Ladd Field and 14-acre Hay Meadow Field in the center of the Village. The land is permanently conserved through the VT Land Trust. Under the easement, agricultural and recreational activities are allowed but residential development and other activities consistent with alteration of the property are prohibited. These open lands add to the beauty and tranquility of the Village.

Following approval of this Plan it is Worcester's intention to seek "Village Center Designation" – a program offered through the Agency of Commerce and Community Development to support strong community centers through historic preservation and economic development. The boundaries of the area seeking Village Center Designation will follow those previously approved by the Agency of Commerce & Community Development in 2012.

The Village Transition District plays a key role in Worcester as a "gateway" between the more densely populated Village District and more undeveloped Rural District.

Distinct for its outstanding scenic vistas on both north and south ends of Town, these scenic corridors include pasture land, single family homes, open fields and unobstructed mountain views – all traced by the North Branch of the Winooski River

Maintenance of this settlement pattern is an important hedge against the type of commercial "strip" development that occurs on the outskirts of some villages.

The Rural Residential District lies beyond the Village and Transition Districts and is low density residential in nature. Housing is currently spaced so that the rural nature of the District is maintained and scenic views are preserved.

This District is characterized by higher elevations, steeper slopes and more severe soil limitations for subsurface sewage disposal than the Village or Village Transition Districts. Access to public roads is limited. The roads that serve this district are unpaved and, in places, very narrow and/or steep, making them more vulnerable to abuse and overuse than the paved roads in other areas of town. Nevertheless, the unpaved nature of these roads and similar roads in the other districts of Worcester has been identified by the community as a major component of the town's preferred rural nature.

Despite the limitations noted above, there are areas in the District that are well suited for residential development. Accordingly, a growth in housing starts is expected to continue. Because the Rural Residential District contains some of the Town's most scenic countryside and plays an important role in providing residents with outdoor recreational opportunities, future development is encouraged to cluster in a manner that supports access to amenities

such as broadband, while preserving its rural environment .

This district is generally served by the Town's Class 3 and Class 4 roads. Some forms of home-based businesses are appropriate to this rural environment.

The Forest District is a vast, unsettled part of Worcester outside those areas that have traditionally served residential and agricultural uses. It encompasses all parts of Town not included in the other three districts and those areas not served by Town roads. The Forest District includes the State Forest lands and privately owned forestland. It is distinguished by rugged topography, mountain ridges and rushing streams. The steep terrain, shallow soils and lack of public road access have preserved the Forest District in a near-wilderness condition. The district is important for replenishment of regional water supplies and is prone to significant high soil erosion.

The Worcester Block of the Putnam State Forest is 8,158 acres in size (as of 2017) and makes up a large part of the District. In fact, the State Forest accounts for about one-third of Worcester's total acreage of 24,851 acres. All State land above 2,500 feet has been classified by the State of Vermont as Worcester Range Natural Area. The public land, combined with large, private tracts of forestland, has resulted in largely unrestricted, public use of the Forest District.

A separate section of the Forest District occurs in the northeast corner of Worcester near Eagle Ledge. The Eagle Ledge area is characterized by rugged, undeveloped terrain with limited access.

The vast stretches of unbroken, wooded terrain in the Forest District provide excellent habitat for upland game species. The District has populations of bear, moose, deer, wild turkeys and other animals and birds. The wilderness nature of the District has made it an important local and regional recreational area. Popular activities include hunting, skiing, touring and snowmobiling. Foot trails also attract many hikers to the peaks of the Worcester Range, which afford views of Mount Mansfield, Camel's Hump and other mountains.

Recreational activities that have minimal environmental impact and demonstrate respect for landowners when enjoyed on private lands are encouraged. ATV use is permitted within the Forest District on existing private roads, including logging roads. Off-road use is discouraged to maintain soil integrity and protect fragile plant communities. ATV is not permitted on State Forest lands except in rare road-crossing situations requiring approval from the Agency of Natural Resources.

Abandoned cellar holes dot this district and stone walls now snake their way through woodland. These artifacts demonstrate early settler's willingness to face hardscrabble conditions in a rugged setting.

The District is significant for the panorama created by the Worcester Mountain Range, which is prominently visible within the Town and from many neighboring communities. The range has several mountains that rise nearly 2,500 to 3,000 vertical feet or more above the North

Branch Valley, including Mount Hunger (elevation 3,539 feet) and Mount Worcester (3,293 feet). In order to preserve the scenic beauty of the mountain slopes and ridges of this district, new development should only occur at low densities below 2000 foot elevation and on land that slopes less than 25% gradient.

Access to the Forest District is limited to several foot trails with trailheads located near or on private property. Any public access to wilderness recreational areas in private ownership will be maintained with due respect for private property. Travel within the District is limited mostly to trails and logging roads. Development in the Forest District is practically nonexistent and discouraged, except for small structures and dirt roads associated with environmentally sound logging or recreational uses. Development of industrial wind on the Worcester Range is ill advised due to Town support for the fragile forest environment, viewsheds, dark skies, and quiet natural areas.

F. Other Land Uses

Thoughtful use of the land is not limited to the settlement patterns discussed above and also includes considerations of **agriculture** (Part 3), **renewable energy siting** (Part 6), **flood resilience** (Part 3) and **forest blocks** (Part 3). A more complete discussion of those topics are included in the referenced parts of this Plan.

G. Act 250 and Worcester

Act 250 is Vermont's land use and development law, established in 1970 and administered by the Vermont Natural Resources Board. Nine District Environmental Commissions review development projects using 10 criteria that are designed to safeguard the environment, community life, and aesthetic character of the state.

Because Worcester has no zoning, Act 250 regulation applies to development on parcels that exceed one acre in size, with the exception of farming. For more information about Act 250, refer to the [Natural Resource Board](#).

Review of the Act 250 database indicates there are currently twenty-five Act 250 permits in Worcester which suggests that most development is not triggering the state permit process at this writing.

H. Conclusion

Four identifiable land use districts, presently exist in the Town. These districts represent present land use patterns and the preferred guide for future development and settlement. To date, Act 250 has had minimal impact on development in Worcester.

PART 10. FINAL WORDS

A good Town Plan is a framework for reaching the goals of its citizens. It relies as much on public participation and neighborliness, as it relies on policy. It is in that spirit that this Plan was written. In many ways, it continues the sentiments of previous plans, thereby providing a sense of history and continuity for our Town.

The new strategies proposed within this Plan were developed with community input and are intended to preserve and protect the Town's assets while providing a future vision for Town officials, businesses and citizens of Worcester.

The 2022 update of the Worcester Town Plan may be complete for now, but the work continues. Thanks for being part of it.

The Worcester Planning Commission & Task Force

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APPENDIX A – Maps

Maps 1-5

https://drive.google.com/file/d/1f0HeKTwN2d7agtbcY6XVBYDNQD1uwQld/view?usp=share_link

Maps 6-11

https://drive.google.com/file/d/1Gxo8ZGLRS7_qf1XG6jKxqBZh2kebYNLX/view?usp=share_link

Map 12

https://drive.google.com/file/d/1aOMh-b8AaffR3yaFEr_aKyUIAr8xHJAA/view?usp=share_link

