

TOWN OF CHESTER, VERMONT
TOWN PLAN

With updates adopted by the Chester Select Board on May 6, 2020
Expires on May 6, 2028

Chester VT
2020

Introduction

About the Town Plan

In accordance with 24 V.S.A., Chapter 117 (the Vermont Municipal and Regional Planning and Development Act, or “the Act”), the purpose of the Chester Town Plan is “*to guide future growth and development of land, public services and facilities, and to protect the environment*” in the best interest of the citizens of Chester. This Plan is intended to include all ten elements required by § 4382 and to be consistent with state planning goals in § 4302.

This Plan shall be updated every five years or more often in order to meet the changing needs of the town as necessary. Updates to the Plan shall be prepared by the Planning Commission and adopted by the Selectboard (24 V.S.A. §§ 4384, 4385).

The Town Plan was updated in 2009 through the efforts of the Chester Planning Commission with the assistance of the Southern Windsor County Regional Planning Commission. The 2009 update is largely based on input from the townspeople compiled through a series of outreach efforts including: the Town Planning Survey in April 2008, a Community Values Workshop in October 2008, and a Planning Workshop in January 2009. The natural resources and land use chapters are heavily based on the results of these outreach efforts. The survey and workshop results are summarized in Appendices A, B and C.

History of the Town of Chester

Chester was one of the first towns in Windsor County to be chartered by New Hampshire’s Governor Bennington Wentworth. The grant, dated February 22, 1754, divided 23,040 acres into sixty-four equal parts and named it Flamstead. The conditions of the Charter were forfeited by the original proprietors leading to the Charter of New Flamstead, dated November 3, 1761.

The original proprietors, mostly from Worcester, MA, held their first meeting on the third Tuesday of December 1761 in Worcester. The first town meeting held in Chester occurred in March 1765. This was also the last meeting held under the New Hampshire grant, for in July of 1766, a third charter was executed by Governor Tryon of New York. Under this charter Thomas Chandler and thirty-four of his associates became proprietors of the town, now called Chester. At the present time, these three original charters are displayed in the conference room of the Town Hall.

The New York charter also named Chester as the seat of Cumberland County making it the site of the county jail and courthouse with Judge Thomas Chandler presiding. This did not sit well with other residents of the county as Chester was referred to as “a distance from the Connecticut River” and “backward compared with other settlements.” Judge Chandler attempted to squelch this argument by promising to build “a good and sufficient courthouse and jail” at his own expense. His efforts were a failure and in 1772 the county supervisors selected Westminster as the county seat. (Aldrich and Holmes, History of Windsor County Vermont, Syracuse N.Y., D Mason & Co., p. 667.)

1 Chester's next claim to fame occurred at a special Town Meeting held October 10, 1774 wherein
2 the residents of the town:

3 *“Resolved, firstly, That the people of America are naturally entitled to all of the*
4 *privileges of freeborn subjects of Great Britain, which privileges they have never forfeited.*

5 *“Resolved, secondly, That every man's estate, honestly acquired, is his own and*
6 *no person on earth has a right to take it away without the proprietor's consent, unless he forfeits*
7 *it by some crime of his committing.*

8 *“Resolved, thirdly, That all acts of the British Parliament tending to take away or*
9 *abridge their rights ought not to be obeyed.*

10 *“Resolved, fourthly, That the people of this town will join with their fellow*
11 *American subjects in opposing in all lawful ways every encroachment on their natural rights.”*

12

13 Chester did not suffer directly from the Revolutionary War, although many soldiers from the
14 Town served in the war. Its one brief experience occurred in August of 1777 when General
15 Stark marched his troops from Charlestown, NH through Chester South Village on the way to the
16 Bennington battlefield. (Aldrich and Holmes)

17 Chester's growth was probably predicated on its location at the intersection, first of important
18 stagecoach lines, and later railroad lines. Green Mountain Turnpike, the major route from
19 Boston to Montreal still runs through Chester, both under its own name and that of Route 103.
20 In addition, the present Main Street was the route from Hanover, NH to Albany, NY. (League of
21 Women Voter, This is Chester 1766 - 1966)

22 As a result of those thoroughfares three villages grew up in Chester: South Village along Main
23 Street, Chester Depot and Gassetts, named for the stationmaster for the Burlington and Rutland
24 Railroad. The Town expanded rapidly: the first census in 1791 listed it as having a population of
25 981, but by 1820 the population exceeded 2400. The Town included four grist mills, nine saw
26 mills, three fulling mills, one oil mill, two woolen factories, five stores, six taverns, one distillery
27 and four tanneries. During this period there was established the Chester Academy in addition to
28 the nineteen school districts with school buildings, the poor farm and the Congregational, Baptist
29 and Universalist churches.

30 Chester did its part in the Civil War. At a meeting in May of 1861 it was voted to equip the first
31 volunteers with a \$10.00 bounty, a Colt's revolver and a bowie knife. In 1884 the Town
32 appropriated \$2,000.00 to erect the soldier's monument in front of the cemetery on Main Street.

33 Unfortunately, one of the side effects of that war and the opening of the West was a drain on the
34 population. By 1933, the Vermont Year Book lists Chester as having a population of 1,666 and a
35 tax rate of \$3.00 based on a grand list of \$14,042.00.

36

37 **Population and Demographics**

38

39 An important aspect of any town plan is a good understanding of population and demographic
40 trends and future projections. This analysis provides a broad overview of the demographics of

1 the Town. In turn, it helps planners determine how much growth the Town may expect in a
2 given amount of time, and how to plan for future educational, housing, utility, and facility needs.

3 Between 1970 and 2000 the population grew from 2,371 to 3,044 according to the 2000 census
4 data. The U.S. Census Bureau estimates Chester's 2006 population at 3,055, a modest increase
5 since 2000. The majority of this growth came between 1970 and 1980 with a 17.7% increase.
6 The census data indicates the 1990 to 2000 rate of population increase was 7.49%, from 2832 to
7 3044. In the last ten years the rate of population increase for Windsor County was 6.22%, and the
8 towns of Cavendish and Ludlow increased by 11.11% and 6.39%, respectively. Springfield
9 decreased in population -5.23% in that same period. Andover and Baltimore increased in
10 population by more than 30% in the same period. Ludlow, Windsor and Springfield each lost
11 population between 1960 and 2000 at the rate of -4.0%, -4.0% and -17.0%, respectively.

12 The age distribution also changed during this period. The number of school-age children in
13 Chester fell between 1970 and 2000, while the number and percentage of persons between 18
14 and 65 and elderly (over 65) increased (Table 1). It is expected that the elderly population in
15 Chester and statewide will continue to grow as a segment of the population.

16 Chester's density is at 50 people per square mile (U.S. Census Bureau, 2000). Compared to
17 towns in the southern Windsor County region, the Town of Chester has remained above the
18 median range in population density. The towns of Windsor and Springfield ranged between 230-
19 235 persons per square mile, while smaller more rural communities averaged ranged between 9.5
20 for Andover to 73 for Ludlow.

21
22 **Table 1 - Chester Population and Age Distribution – 1970 to 2000**

	1970		1980		1990		2000	
Population	2,371		2,791		2,832		3,044	
Age	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
< 18	804	34%	793	28%	782	28%	731	24%
18 - 64	1,285	54%	1,659	59%	1,659	59%	1822	60%
> 65	282	12%	339	13%	391	13%	491	16%
Totals	2,371	100%	2,791	100%	2,832	100%	3,044	100%

23
24 In Chester during the period between the year 1980 and 2000, while the total number of housing
25 units increased from 1,368 to 1,611, the number of housing units “for seasonal, recreational, or
26 occasional use” decreased from 260 to 250 units, and now this type of housing is 15.5% of the
27 total housing, down from 19% in 1980. These figures show the number permanent resident
28 housing has grown faster than the seasonal, recreation, and occasional use housing. This trend
29 may not continue given the expansion of Okemo Mountain Resort in the neighboring Town of
30 Ludlow. The Town should watch seasonal, recreational, and occasional use housing numbers in
31 planning for infrastructure and services. Whereas the educational facilities may not be impacted
32 by second home growth, facilities such as roads and bridges, water and sewer systems may see
33 expanded use.

1 Chester has experienced increasing levels of growth in recent years. Between 2006 and 2007,
2 conditional use permits have increased 140%. While subdivision permits increased 58%, the
3 number of lots created increased 80% in that same timeframe. Growth in Chester and the region
4 as a whole has slowed considerably since the economic downturn in 2008.

5 Recent commercial growth has been in rural parts of the Town. Of the 24 conditional use
6 permits issued in 2007 (which were primarily for commercial uses), only 10 were located in the
7 village areas.

8

9 **Goals and Objectives**

10 The people of Chester desire to maintain the rural character of the community while encouraging
11 the economic well-being of its residents. The rural character is exemplified by the many
12 attributes of the Town; the vast amount of wooded and undeveloped areas; the unique villages
13 and the streams and abundant wildlife. The Town of Chester illustrates a traditional village
14 character. A mixture of residential and commercial uses exist in harmony. As development
15 pressures increase upon the Town and less densely populated areas, it is vital that the unique
16 characteristics of the Town be preserved. The Town wishes to continue a mixture of residential
17 and commercial development.

18 Most residents indicate a preference for rural character rather than an urban or suburban
19 community. They want growth to occur at a pace and in a manner which does not destroy the
20 character of the community or result in significant tax increases. Growth deemed good for the
21 Town should enhance the social, environmental, cultural, and economic values of the Town. It
22 should not undermine the ability of the taxpayers to support the Town on a sound financial basis.
23 The following goals and recommendations provide a general overview of the direction in which
24 the residents of Chester would prefer to see the Town develop.

25

26 **Goal 1:** To encourage development so as to maintain the existing settlement pattern of compact
27 village centers separated by rural countryside.

28 **Recommendations:**

- 29 1. Intensive residential development should be encouraged only in the areas of the
30 Town serviced by sewer and water; strip development along the highways should
31 be discouraged.
- 32 2. Residential development that occurs in designated rural areas should be designed
33 so as to prevent negative impacts to natural, cultural and aesthetic resources.
- 34 3. Development should be discouraged on slopes greater than 15%.
- 35 4. Development on ridge lines should be limited.
- 36 5. Business and industrial growth should occur in areas adjacent to where business
37 and industry now exist and where town water and sewer are available or plan to
38 be made available.
- 39 6. Public investments, including the construction or expansion of the infrastructure,
40 should reinforce the general character and planned growth patterns of the area.

1 7. Development should be consistent with the existing density pattern of the area and
2 consistent with an historic rate of growth.

3 8. Growth and development should occur at a rate which does not undermine the
4 taxpayers' ability to support the town on a sound financial basis.

5

6 **Goal 2:** To encourage a strong and diverse economy that provides satisfying and rewarding job
7 opportunities.

8 **Recommendations:**

9 1. Economic growth should build upon expansion of existing businesses or
10 encourage businesses that support the goals and aspirations of the community.

11 2. Economic growth should be encouraged in village centers and area designated for
12 industry on the Future Land Use Map and should be employed to revitalize and
13 rehabilitate existing village centers.

14 3. Home occupations are encouraged as long as they are appropriate to adjoining
15 land uses, and do not adversely affect air, water or scenic resources or cause noise
16 that is offensive to surrounding neighbors.

17 4. Businesses that employ sound environmental practices should be promoted.

18

19 **Goal 3:** To maintain and broaden access to educational and vocational training opportunities for
20 all Town residents.

21 **Recommendations:**

22 1. Encourage development of educational and cultural opportunities for all residents.

23 2. Support community wide cultural events and activities.

24

25 **Goal 4:** To encourage and maintain a safe, convenient, economic and energy efficient
26 transportation network.

27 **Recommendations:**

28 1. Improvement or expansion of public utilities and transportation should occur
29 along existing corridors to encourage desired development patterns.

30 2. Alternative forms of transportation such as walking, bicycling and public
31 transportation should be encouraged.

32

33 **Goal 5:** To identify and protect important natural and historical features of the Vermont
34 landscape, including woodland, wetlands, scenic and significant archeological sites, significant
35 architecture, villages, wildlife habitats and agricultural land.

36 **Recommendations:**

- 1 1. Include important resource areas on Future Land Use Map and develop a
2 conservation plan to protect and preserve those features.
- 3 2. Encourage the renovation and preservation of historic buildings in village centers.
- 4 3. Discourage development within flood plains to the extent that it will cause
5 damage to natural or manmade resources.

6

7 **Goal 6:** To maintain or improve the quality of air, water, wildlife and land resources.

8 **Recommendations:**

- 9 1. Discourage development in areas of natural, cultural and scenic significance.
- 10 2. Support state and federal policies and standard to protect the water quality of the
11 Town's rivers, streams and groundwater supplies.
- 12 3. Support measures to encourage areas for habitat for wildlife.
- 13 4. Encourage the use of transportation systems that have minimal impacts on air
14 quality.
- 15 5. Continue policies and practices that promote the extraction of minerals in a
16 manner that ensures that land and water resources are minimally impacted.

17

18 **Goal 7:** To encourage the efficient use of energy through conservation and the use of renewable
19 energy resources.

20 **Recommendations:**

- 21 1. Encourage the development of a transportation system that encourages the use of
22 public transportation and ride-sharing and enables increased non-motorized
23 vehicle and pedestrian traffic. Emphasize links between schools, stores, work and
24 home.
- 25 2. Help to ensure that the design, location and maintenance of existing and future
26 transportation systems are consistent with the land use patterns recommended in
27 the Town Plan.
- 28 3. Encourage the location of community service structures, retail sites, public
29 utilities, day care centers, state offices and other frequently visited sites within
30 walking distance of residential areas.

31

32 **Goal 8:** To maintain and enhance recreational opportunities for residents and visitors.

33

34 **Recommendations:**

- 35 1. Develop and maintain good recreational plans and infrastructure to provide
36 recreation opportunities for all residents and visitors.

- 1 2. Ensure public access to important natural and scenic resource areas for
2 recreational use.

3

4 **Goal 9:** To encourage and strengthen agricultural and forest industries.

5

6 **Recommendations:**

- 7 1. Forest and agricultural lands should be considered for their forest and agricultural
8 potential prior to any non-forest or non-agricultural use.

- 9 2. Encourage businesses and industries that add value to locally produce agricultural
10 or forestry products.

11

12 **Goal 10:** To plan for, finance and provide an efficient system of public facilities and services to
13 meet present and future needs.

14 **Recommendations:**

- 15 1. Analyze current facilities and assess future needs to determine potential demands
16 of infrastructure.

- 17 2. Enact a “Capital Program and Budget Plan” for public utilities and facilities.

18

19 **Goal 11:** To encourage availability of safe and adequate housing.

20 **Recommendations:**

- 21 1. Housing should meet the needs of diverse social and income groups.

- 22 2. New and rehabilitated housing should be safe, sanitary and coordinated with the
23 provision of necessary public facilities and utilities.

- 24 3. All types of housing should be encouraged in the Town of Chester.

1 Chapter 1 - Land Use

2 The two most important considerations in determining desirable land uses are:

- 3 • Does it appear, from objective evidence, expert opinion, public opinion or common
4 sense that the proposed use in the area proposed will be good for Chester and the
5 majority of its residents?
- 6 • If it is good for Chester and most of its residents, is the proposed location compatible
7 with the proposed use of the land?

8
9 The land use recommendations of the Town Plan should reflect both of these criteria in
10 guiding the future growth of the Town. A use which will have an undue adverse effect on the
11 Town should not be undertaken, even if the land is perfectly capable of supporting it. A use
12 which the land cannot support should not be undertaken, even if it might otherwise be good for
13 the Town.

14 The survey and public workshops indicate a preference for encouraging a vibrant village
15 area and conserving the working landscape surrounding the village. Growth should occur at a
16 pace and in a manner which does not destroy the rural character of the Town. Planning for
17 growth and development should enhance the social, environmental, cultural and economic values
18 of a rural community. The ability of the taxpayers to support the Town on a sound financial
19 basis should remain as a basic consideration in future land use planning.

21 **Current Land Use**

22 Land use in the Town of Chester follows patterns of traditional Vermont villages. (See
23 the Current Land Use Map.) The traditional village area includes Main Street, the Depot and
24 Stone Village that feature a mixture of commercial, industrial, and residential uses, with services
25 such as a post office, health care, the elementary school, bus stops, and municipal offices. The
26 village center is served by municipal water and sewer service, while outlying areas are served by
27 private wells and on-site septic systems. Residential areas outside the village centers are
28 primarily rural in nature, and of low or moderate density.

29 The majority of the land area in the Town is forested land. Steep slopes, undeveloped
30 ridgelines, rivers and large wetland areas not only add to the scenic beauty of the landscape, but
31 are also important habitat areas for fur bearing wild game and birds. Open fields and agricultural
32 lands are important assets to the Town and define its rural character.

33 The list below was compiled from the 2008 Chester Grand List. It illustrates the
34 distribution of land parcels among the different Grand List use categories.

35 Of Chester's 33,892.31 acres of land (which does not include the area taken by state and
36 local roads and highways), roughly 118.3 acres are state lands: 2.2 acres for the Agency of
37 Transportation's garage, 8.1 acres of Department of Fish and Wildlife land, and 108 acres of the
38 Department of Forests, Parks, and Recreation Lands, with the remaining lands being privately
39 owned. An additional 694 acres of land are town lands, as discussed in more detail in the
40 Utilities and Facilities Chapter.

1 **Future Land Use**

2 The population in Chester is increasing; the number of housing units has increased over the last
 3 ten years. The ongoing and planned growth of Okemo Mountain Resort and other ski areas may
 4 put some residential and commercial development pressure on the town of Chester. The current
 5 zoning map designates uses and areas of development that are sufficient to handle most of the
 6 development in the foreseeable future. The Town is currently developing a VT Route 103
 7 Corridor Management Plan to address growth along the highway corridor in coordination with
 8 the Southern Windsor County Regional Planning Commission, VTrans and the Town of
 9 Rockingham.

10 The Future Land Use map is a representation of the basic land use patterns that the Town
 11 would like to see develop in the years to come. It is intended to show the types and relative
 12 concentrations of development that are most appropriate for different parts of Chester. This
 13 information is meant to: (1) help the Town to maintain and update effective implementation
 14 bylaws; (2) give clear guidance on local priorities in state planning and regulatory proceedings;
 15 and (3) provide landowners and developers with a tool that will help them locate and design
 16 projects in efficient and locally acceptable ways.

17 It is based on historical development patterns, public input received in the 2008 planning survey
 18 and planning workshops, locations where public water and sewer infrastructure support dense
 19 mixed-use development, and rural areas that support low-density uses and a working landscape.
 20 Workshop participants cherish the historic village area and encourage future growth that will not
 21 diminish the historical character or vitality of the village. The most intensive development
 22 (commercial, industrial and higher-density residential) should occur in and around the village area.
 23 Outlying areas should grow at a slower pace, and should see relatively lower-intensity and lower-
 24 density uses.

25

26 The Future Land Use Map includes the following categories:

27

Forest

28 The majority of land in Chester is forested. The Forest areas support a variety of uses and
 29 encompass predominantly large parcels or tracts that are valuable for working landscape related
 30 uses, including forestry and extraction. In addition, these areas also contribute to the town's
 31 rural character, and serve as habitat for wildlife and outdoor recreational uses, including cross-
 32 country ski trails, snowmobile trails, hiking and hunting, with the cooperation of the owner of the
 33 land. The contiguity of large blocks of forest land is important for many types of wildlife,
 34 especially for large mammals such as deer, bear, and moose, as well as for forestry management
 35 and recreational activities. The forest areas designated on the Future Land Use Map include
 36 large, remote land parcels that support these valuable land uses. These also coincide with areas
 37 identified in the 2008 planning workshop by Chester residents as important resource areas that
 38 serve important functions as wildlife habitat, forest lands and recreational uses. Any
 39 development which occurs in forest areas should be designed so that these important
 40 recreational, forestry and habitat areas are maintained wherever possible. The ability of forest
 41 areas to provide these benefits should not be significantly impaired. Development in these areas
 42 should be undertaken in ways that protect their value and ensure the continued presence of
 43 healthy forest ecosystems in the Town. Applications for local zoning permits and Act 250

1 permits for extraction operations shall be reviewed on a case-by-case basis for positive benefits
2 for the town as well as negative impacts on the environment, infrastructure and adjacent land
3 uses. Cluster development could be considered in these areas for the maximization of forest
4 preservation.

6 **Farmlands**

7 Farms have historically been important to the Town’s economy, food supply, and cultural
8 heritage. There are only a few active farms in Chester now, but there are many other properties
9 with hayfields or other open space that contribute to the land use patterns and aesthetic qualities
10 that make the Town a desirable place to live, work, and visit. In addition, large, contiguous areas
11 of prime agricultural soils (as defined by the USDA Natural Resources Conservation Service)
12 might be valuable for future farming. . The potential for agricultural use and production should
13 not be impaired in designated agricultural areas. Cluster development could be considered in
14 these areas for the preservation of open lands.

16 **Public Lands**

17 Outdoor recreation opportunities are a vital part of the Town’s economy and quality of life.
18 Public lands that support these activities – within the confines of the primary use – include the
19 Williams River State Forest, Green Mountain Union High School lands, and the Water
20 Department land off Reservoir Road, as discussed in the Utilities and Facilities Chapter. These
21 areas should be conserved and efforts made to enhance publicly accessible recreation
22 opportunities where possible.

24 **Rural**

25 Rural areas can support a number of different uses, including low density residential, forest,
26 agricultural (including tree farms and other horticultural uses), open, and transitional
27 (scrub/shrub). The densities of existing development vary throughout the rural areas, ranging
28 from no development to a cluster of homes surrounding the intersection of two roads (e.g. the
29 intersections of Flamstead Road and Cummings Road, and Cavendish Road and Dean Brook
30 Road). The primary concern in rural areas shall be to discourage sprawl and strip development,
31 and to maintain existing, low-density settlement patterns. Growth is encouraged to follow the
32 traditional patterns by concentrating in higher densities at these historic crossroad areas. Cluster
33 development is encouraged wherever possible, as long as the overall density remains low. Open
34 space and recreational resources should be preserved wherever possible.

36 **Mixed Use Village**

37 The village centers, that is, Main Street and the Green, Depot area, and Stone Village, currently
38 have a mixture of high density residential, commercial, industrial, and public uses. These areas
39 should remain as they are in character and settlement pattern. Commercial development has
40 historically been located in the village centers, and is encouraged to occur in these areas because
41 of the availability of Town water and sewage. Commercial development in mixed use areas

1 should be surrounded and interspersed with high density residential, public and light industrial
 2 uses. These areas are intended to continue the long tradition of Vermont's village centers.
 3 Development in these areas should be of the highest density in the Town, and should facilitate
 4 development of a circulation system that accommodates pedestrians and other non-motorized
 5 travel. New development should not detract from the historic character and aesthetic qualities of
 6 the village centers. Affordable housing, assisted living facilities and multi-family residential are
 7 encouraged in these areas, and discouraged in rural areas that are far from services available in
 8 the village.

9

10

Hamlet

11 The Hamlet area in Gassetts currently exhibits a mixture of moderate density commercial,
 12 industrial and residential uses. Density in Gassetts is limited due to soil limitations, as no public
 13 water or wastewater services are currently available. Development and redevelopment in this
 14 area should continue in the current moderate density, with a mix of commercial, light industrial
 15 and residential uses. Access management is a consideration as this location receives a lot of
 16 truck traffic and the intersection of VT Routes 10 and 103 is a high crash location.

17

18 Special Considerations

19 There are several important considerations within any of the land use categories above that merit
 20 special attention. These special considerations include:

21

22 **Important Natural Resources** - They include: floodplains; vegetated areas next to
 23 surface waters; wetlands; Natural Heritage Inventory sites; critical deer wintering habitat
 24 and bear habitat as defined by the Vermont Agency of Natural Resources; regionally
 25 significant historic sites; and other locally defined sensitive natural areas and scenic
 26 resources. Development should be planned as to minimize negative impacts to these
 27 resources, while ensuring the economic benefit to the owner of the land.

28 **Industrial** - Industrial uses are allowable under conditional use review within the mining
 29 and commercial zoning districts, and should be compatible with adjacent land uses with
 30 respect to traffic, noise, vibrations, or other impacts in conflict with residential and some
 31 commercial uses.

32 **Hazardous Materials** - Hazardous materials, either from within or outside the State of
 33 Vermont, shall not be imported to and/or disposed of within the boundaries of the Town
 34 of Chester, except in accordance with accepted business practices as permitted by State
 35 law.

36 **Mineral Deposits** - The mining or extraction of soil, sand, gravel, stone, bedrock, talc
 37 and other minerals and hydrocarbons within the Town of Chester should be encouraged
 38 within the zoning districts where these are allowed. Adequate regulations shall be
 39 established to protect the public health, safety, comfort, and welfare, to reduce negative
 40 impacts on essential wildlife habitat, and to control noise, dust, vibration, air and water
 41 pollution, and to assure the restoration of the land after mining is completed.

1

2 While residential development may be expected in almost all land use categories, higher
3 densities should be concentrated in and around established village areas. Residential
4 development should be compatible with the land use and housing goals of this plan, and should
5 not conflict with the values defined in the land use categories of this plan.

6

7 **Timing of Development**

8 Chester is a rural community, which has historically seen family-by-family growth. Chester
9 residents wish to continue this steady and well paced pattern of growth, and to the extent
10 possible, prevent sudden large increases in population which would place undue stress on Town
11 facilities and village character.

12

13 **Land Use Goals**

- 14 1. To preserve the historical development pattern or mixed-use village areas
15 surrounded by open land, agriculture, forest, and low-density residential use.
- 16 2. To direct growth and development in Town where it will be most effective and
17 efficient to provide the necessary public infrastructure and services.
- 18 3. To achieve the concentration of infrastructure development within the village area
19 and areas identified in this chapter as areas desirable for growth.
- 20 4. To establish land uses and land use patterns that protect and enhanced the values
21 defined in this chapter.
- 22 5. To provide a Town highway system that encourages and complements historic
23 land use patterns.

24

25 **Land Use Policies**

- 26 1. Revitalization of village commercial, residential and mixed-use areas, including
27 the appropriate use, maintenance and reuse of existing historic structures and
28 other existing buildings whenever possible, should be encouraged.
- 29 2. Excessive commercial development along VT Routes 10, 11 and 103 (i.e., strip
30 development) is discouraged. Access management and innovative commercial
31 development that maintain the characteristics of the existing village areas and
32 greens, is encouraged.
- 33 3. Maintaining the density pattern for residential development that protect or
34 enhance the existing settlement patterns and resources is encouraged.
- 35 4. In order to maintain the existing settlement patterns, higher density residential,
36 commercial, and industrial development should be located in the village areas of
37 the Town, and within walking distance of most of the residents of the village.
- 38 5. Necessary transportation improvements, especially road and bridge maintenance,
39 public transit options, car and van pooling, or other techniques to utilize existing

- 1 infrastructure should be supported.
- 2 6. The Town should make efforts to attract and locate viable and appropriate
3 businesses in areas targeted by the town for economic development.
- 4 7. Residential and mixed use development tailored to the tourist and ski industries
5 should be sited and designed to protect the settlement patterns, commercial
6 development and natural resources of the Town.
- 7 8. Use of public funding for the maintenance or improvement of infrastructure,
8 development of affordable housing, and conservation of natural resources is
9 encouraged.
- 10 9. Development adjacent to significant natural resources (waterways, large forested
11 areas, wildlife habitat, etc) should be compatible with the value of those resources
12 and negative impacts on the natural resource should be mitigated with buffer
13 strips or visual screening, where this will be effective mitigation and where
14 possible.
- 15 10. The elimination or mitigation of the adverse effects of development on the natural
16 resources that extend beyond Town borders or which are regionally significant
17 should be considered and is encouraged.
- 18 11. The location of municipal and other government buildings should be in
19 established village areas in order to maintain and encourage pedestrian access and
20 the vitality of the village areas.
- 21 12. Programs that help owners of farm and forestland bear the burden of the
22 mandated financial responsibility for resource protection should be supported.
- 23 13. Any proposed development should not place an undue burden upon Town
24 facilities or services.
- 25 14. Preserve the historical development pattern of mixed-use village areas surrounded
26 by open land, agriculture, mining, forest, and low-density residential use.

27

28 **Land Use Recommendations**

- 29 1. Develop effective land use regulations that are consistent with the purpose and
30 intent of this Town Plan.
- 31 2. Evaluate proposed development projects for possible adverse effects to important
32 natural resources, both within and beyond town borders.
- 33 3. Develop effective bylaws, including zoning and subdivision regulations that are
34 consistent with the purpose and intent of this Town Plan and the needs and plans
35 of abutting Towns and the Region.
- 36 4. Encourage, and communicate to the state and federal agencies, the necessity for
37 notice to the town of plans for, or discussion of, the location or relocation of
38 government buildings within the Town, to the Town, or from the Town.
- 39 5. Consider zoning provisions, such as access management, cluster development,
40 planned unit developments and/or transfer of development rights, to better

- 1 implement the vision established in this Town Plan.
- 2 6. Continue the development of the VT Route 103 Corridor Management Plan and
- 3 incorporate the findings into the Town Plan.
- 4 7. Encourage efforts to revitalize the traditional village center and to develop an
- 5 application for village center designation under 24 V.S.A. § 2793a.

1 Chapter 2 – Transportation

2 Chester has experienced a large increase in automobile and truck traffic in recent years,
 3 especially on VT Route 103 which is part of the National Highway System (NHS) and Vermont
 4 Truck Network (VTN). Recreational and commercial traffic travels down VT Route 103 causing
 5 seasonal weekend congestion and potentially dangerous conditions. Thus, for VT Route 103 as
 6 part of the NHS and VTN, mobility and convenience for regional travel are most important.
 7 However, it is also a local road for Chester residents for whom mobility and speed are reduced in
 8 importance, presenting the classical functional conflict between roadway uses. As a result
 9 mobility, convenience and safety all suffer. The residents of Chester feel this conflict and are
 10 faced with the challenge of balancing the need to provide for increased traffic on State and local
 11 roads while maintaining traffic safety and the rural character and quality of life that are some of
 12 the town’s greatest assets.

13

14 **Roadway Inventory**

15

16 State Highways

17

18 State highways connect large population areas outside Chester. Those highways passing through
 19 Chester are VT Routes 10, 11 and 103. There are 19.1 miles of state highways in Chester.

20 VT Route 103 runs southeast to northwest from I-91 in Rockingham to Route 7 just south of
 21 Rutland. It has been part of the National Highway System (NHS) since 1997 and prior to
 22 becoming a part of the NHS this Route has served large trucks and oversized loads for years.
 23 The NHS roads are intended to be part of an “interconnected system of principal arterial routes”
 24 and “serve interstate and interregional travel.” This Route is also designated as part of the
 25 Vermont Truck Network and this designation allows trucks that are 72 feet in overall length to
 26 travel on the Network without a permit from the Department of Motor Vehicles. Trucks of this
 27 length traveling on highways off of the Network are required to get a permit, which encourages
 28 more trucks to use VT 103. Truck traffic averages about 10 percent of the total traffic volume
 29 along VT Route 103 in southern Windsor County.

30 Running east to west across the southern section of Chester, VT Route 11 connects I-91 in
 31 Springfield to Route 7 in Manchester Center. Truck traffic is 7.6 percent of the total volume of
 32 VT Route 11 between Springfield and Chester.

33 VT Route 10 runs east to west from North Springfield to Route 103 in Gassetts. Truck traffic is
 34 6.1 percent of the total traffic volume on Route 10, between North Springfield and Gassetts.

35

36 Town Highways

37

38 In the Town of Chester there are presently 2.559 miles of Class 1 town highways. VT Routes 11
 39 and 103 become Class 1 town highways as they pass through the village. These sections of the
 40 state numbered routes are maintained by the town with funds being provided to the town through
 41 the State Aid Funding program; however, the Vermont Agency of Transportation is responsible
 42 for scheduled road resurfacing and center line pavement markings. The town has 12.609 miles
 43 of Class 2 town highways, formerly state aid highways or roads that connect town to town.

1 Grafton Road (VT Route 35), Green Mountain Turnpike, Church Street, Flamstead Road, and
2 the Andover Road are examples of Class 2 Highways. There are 75.250 miles of Class 3 town
3 highways, roads that the Selectboard has designated for year-round maintenance. There are
4 more than 7 miles of known Class 4 town highways in Chester. Class 4 town highways are all
5 other town roads, not including ancient roads or trails, and are not maintained by the town. Class
6 4 town highways are highly valued as recreational assets by residents.

7 Act 178, enacted in May 2006, established a new town highway classification for “unidentified
8 corridors,” and encourages towns to conduct research to inventory all ancient town roads. Prior
9 to adoption of this legislation, there was never a reason to inventory Class 4 town highways;
10 Chester – like many towns – does not have comprehensive records of where these legal roads
11 still exist. The Town has hired a consultant to conduct the research to identify these old roads.

12 Trails, established as a public right-of-way under 19 V.S.A. § 302, are not maintained by the
13 town but provide recreational opportunities for residents. There are no trails currently in
14 Chester.

15 The State and Town Highways and the classification of each are shown on all Maps in this Plan.

16 A section of Popple Dungeon Road is eroding and sliding into the river. The Town has made
17 arrangements with an adjacent land owner to move that section of road away from the river bank,
18 and is seeking the financing to fund construction.

19 Based on the on-going VT Route 103 corridor planning efforts, the following intersections were
20 identified as having safety and/or congestion problems. The town should work with the
21 SWCRPC and VTrans to address these needs.

- 22
- 23 • “The Triangle” consisting of the intersections of Main Street, Grafton Road and Maple
24 Street; Depot Street and Maple Street; and Depot Street and Main Street;
 - 25 • Intersection of VT Route 103 and VT Route 11 East;
 - 26 • Intersection of VT Route 103 and VT Route 10.
- 27

28 Bridges and Culverts

29

30 The Town of Chester has 78 large drainage structures, including bridges with a 20 foot or greater
31 span and culverts with a 6 foot or greater span. Based on regular inspections by VTrans and the
32 federal sufficiency rating criteria, 13 structures are eligible for replacement and 27 for
33 rehabilitation. Money spent now to rehabilitate those 27 bridges, can add life to the structures
34 and save significant amounts of money to replace those same bridges later if no preventative
35 maintenance is done.

36 There are approximately 600 other shorter bridges and smaller culverts in town. The Chester
37 Highway Department maintains an inventory of these bridges and culverts.

38 The stone culvert under North Street in the Stone Village is failing and needs to be replaced.
39 The Highway Department has secured funds to engineer the project and is seeking funding for
40 construction.

41
42

1 **Existing Traffic Conditions**

2
 3 Traffic on VT Route 103 in the Town of Chester, and especially in the Village of Chester, is a
 4 growing concern to local residents. Given the lack of a limited access east-west highway in the
 5 state, traffic patterns in southern Vermont tend towards Route 103, which serves as a direct route
 6 between the north-south arteries of I-91 and US 7. In addition to supporting the travel needs of
 7 its local residents, Route 103 carries a large portion of truck traffic, seasonal tourist traffic and
 8 recreation related commuters.

9 Route 103 provides access to Okemo Mountain Resort in Ludlow, and also carries traffic
 10 destined for Killington via Route 100 and Route 4. There are inevitable conflicts between traffic
 11 trying to pass through Chester, and traffic that is trying to access service in the village, resulting
 12 in congestion and reduced traffic safety. This congestion is especially pronounced during ski
 13 season because of the very high, sharp peaks of traffic at the beginning and end of busy ski
 14 weekends. In particular during these high peaks of seasonal tourist and recreation related traffic
 15 and the nearly continuous weekday commercial truck traffic the intersection of Route 103/Route
 16 11 and Maple St. becomes congested and safety is compromised. The turning radius for
 17 commercial vehicles is extremely tight. At this intersection the long trucks and the busses need to
 18 wait for traffic to clear the intersection before making the turn, thus blocking the traffic behind
 19 them, and temporarily block all lanes at this intersection during the turning movement.

20 VT Route 11 west experiences heavy truck volumes as it connects Chester to I-91 in Springfield.
 21 In addition, it also connects VT Route 103 to VT Route 30 in Winhall and US Route 7 in
 22 Manchester. Tourist traffic on Route 11 west bound for Manchester and Magic and Bromley
 23 Mountains is also significant.

24 The following are the Average Annual Daily Traffic Counts (AADT), in 2006 or 2007, for the
 25 Town of Chester.

26

27 **In Village of Chester**

28 <u>Route</u>	<u>Location</u>	<u>AADT</u>
29 103	Between VT 11 East and Maple Street	8,500
30	10 feet north of Marshall Road	6,700
31	200 feet south of Green Mountain Trnpk.	4,800
32		
33 11	0.1 mile east of Cobleigh Street	5,200
34		
35 Grafton Road (VT 35)	0.1 mile south of Main Street (VT 11)	1,300

36

37

1 **Outside the Village of Chester**

2	<u>Route</u>	<u>Location</u>	<u>AADT</u>
3	103	Near Chester - Rockingham line	5,200
4		Just north of Goodrich Road	4,600
5	11	Near Chester - Springfield line	4,000
6		0.2 miles east of Green Mountain Trnpg.	4,100
7		Just west of Reservoir Road	4,000
8		At Chester – Andover line	2,400
9	10	Near Chester - Springfield line	3,300
10		Between Mineral Spring and Davidson Hill	3,100
11	Andover Road	0.1 mile east of Potash Brook Rd.	1,000

12

13 **Chester traffic in relation to other Towns**

14

15 The village of Woodstock, VT (sitting on the US Route 4 corridor), much like Chester, is perceived
 16 to be overburdened with traffic, specifically truck traffic. Much like Chester, Woodstock is home to
 17 a tourist intensive, pedestrian-friendly village center. Ludlow, VT (north of Chester on Route 103) is
 18 also home to high levels of truck traffic and receives heavy ski season traffic.

19 AADT east of the village of Woodstock in Hartford is 4,900, with 8.7 percent of that traffic
 20 being in the form of trucks. West of Woodstock village traffic is 5,900, of which 8 percent is
 21 trucks. Within the Village of Woodstock AADT is 12,900 with 7.8 percent of the traffic being
 22 trucks.

23 AADT south of the Village of Ludlow is 9,200, of which 7.9 percent is truck traffic. Once in the
 24 Village, just south of the Okemo Mountain access road, traffic increases to 10,000, of which 9
 25 percent is trucks. North of the Village the AADT is 8,500.

26 Because Route 4 in Woodstock, like Route 103, serves as an east-west corridor between I-91 and
 27 Route 7 in Rutland, truck traffic in Chester and Ludlow is affected by restrictions on truck travel
 28 through the Village of Woodstock. The more restrictions on use by trucks through Woodstock,
 29 the more truck traffic will use Route 103 and impact Chester and Ludlow with a higher number
 30 of trucks using the Route 103 corridor. Truck traffic levels on VT Route 103 is similar to the
 31 statewide average for state highways of the same functional classification (principal arterials),
 32 but it remains a concern for the residents of Chester and Ludlow.

33 **Seasonal Traffic**

34

35 Ski resorts pose special challenges to Vermont's road system. Ski areas are typically connected
 36 to the interstate highways by older, narrow two-lane rural and village roads and bridges. The
 37 number of ski resorts in Vermont has been declining since 1970; conversely, the remaining
 38 resorts are currently undergoing significant expansion. While this smaller number of ski resorts
 39 have undergone moderate to high levels of growth, the roads and bridges that service those
 40 resorts have not seen appreciable improvement since the early 1970's.

1 With Killington and Okemo becoming four season resorts, the traffic during spring, summer and
 2 fall may increase significantly, causing short term peaks in other seasons of the year. While
 3 Chester struggles with the added traffic from the recreation generated traffic using the narrow
 4 rural roads, it benefits economically from those passing through the Town availing themselves of
 5 the goods and services provided by the business community of Chester. It is important for the
 6 economic life of the Town that future maintenance and road construction take into consideration
 7 the economic benefit of continuing the flow of through traffic through the commercial areas of
 8 the village of Chester.

9 In 2001, a *Ski Corridor Traffic Management Study* was developed by the Southern Windsor
 10 County RPC, Rutland RPC, and Two Rivers Ottauquechee RPC working with the Vermont
 11 Agency of Transportation and the Killington and Okemo Mountain ski resorts. The purpose of
 12 the study was to identify short-, mid- and long-range strategies to assess the impacts of and to
 13 mitigate traffic generated by the region's ski resorts. The report contains roadway mitigation
 14 strategies, such as control and design of curb cuts to manage access, turning lanes to channelize
 15 traffic and prevent traffic backup, roadway realignment, zoning controls on setbacks and use, and
 16 enhancement of pedestrian and bike facilities to all for alternative access for town residents
 17 during peak traffic periods. It also includes mitigation strategies for the resorts and destination
 18 facilities, which the Town may desire to require of the resorts and facilities in mitigation of the
 19 effects of traffic generated by expansion or improvement of the resort. A corridor travel time
 20 model was also developed as part of this study in order to measure the traffic impacts of ski
 21 resort expansion along the ski corridor, including VT Route 103 through Chester. The
 22 intersection of Main Street and Maple Street (VT Routes 103 and 11 West), experiences
 23 significant congestion during the peak traffic on Friday evenings, Sunday afternoons and holiday
 24 weekends. Town traffic control, paid for by Okemo Mountain Resort, used during peak times at
 25 this intersection improves congestion significantly.

26 **Commuter Patterns**

27 The implications of commuting patterns relate to all aspects of transportation planning. Of
 28 particular concern are traffic flow, peak hour traffic patterns, and the capacity and maintenance
 29 of the infrastructure. It is important to take into account the size, density and location of
 30 population and employment when planning for infrastructure improvements and public
 31 transportation needs.

32 According to 2000 U.S. Census data, Chester had the fourth highest number (537) of workers in
 33 the region who worked within their town of residence. Springfield, Ludlow, Rockingham,
 34 Hartford, Brattleboro are the other top work destinations (respectively) for Chester residents.

35 Forty-four percent of people that work in town are Chester residents. Nine percent of Chester
 36 workers commute from Springfield, with 7 percent from Rockingham. Twenty-seven percent of
 37 Chester workers commute from the towns directly surrounding Chester.

38 Peak hour commuting times for Chester residents increased by 35 percent, from an average of
 39 15.9 minutes in 1990 to 21.4 minutes in 2000. Though the majority of Chester's commuters
 40 drive to work alone (76%), seven percent indicated that they carpool to work. There are currently
 41 no Park & Ride facilities in Chester. Almost 8 percent said they bicycled or walked to work, and
 42 eight percent worked at home.

43

1 **Public Parking Facilities**

2 Other than on-street parking, public parking in Chester is very limited. Public parking is limited
3 to the establishments that provide parking for their customers or patrons. There are no facilities
4 for a Park and Ride in the Town. For the economic health and for commuters to and from the
5 Town public parking facilities should be planned and developed.

6 **Bicycle and Pedestrian Facilities**

7 Bicycle and pedestrian facilities take a wide variety of forms. A bicycle facility can be as simple
8 as a road with no additional width beyond the travel lane or as elaborate as a separated path for
9 exclusive use by cyclists. A pedestrian facility can range from a stable, gravel shoulder on a
10 rural road to a paved sidewalk separated from travel lanes by a curb and planted green strip.

11 The 2006 Regional Bicycling and Walking Plan for southern Windsor County outlined several
12 improvements to existing bike and pedestrian network of Chester. The plan identified Bridge #8
13 on VT Route 103, the Mountain View Bridge, to be in need of improvements for cyclists. This
14 bridge provides a critical point of access to the village area, but is currently too narrow to allow
15 bicyclists and/or pedestrians to share the bridge with automobile and truck traffic. Preliminary
16 plans for improvements to Bridge #8, scheduled to be replaced by VTrans in 2011 or 2012,
17 include wider shoulders for cyclists and a sidewalk on the north side of the bridge.

18 VT Route 103 from Gassetts to Chester Village (approximately three miles) has very narrow
19 shoulders. VTrans maximized the existing shoulders during a repaving project in 2007,
20 however, the shoulders remain very narrow. The stretch of road is winding and has several road
21 side obstacles such as the Williams River, ledges, guardrails, loose gravel and debris on the
22 paved shoulder. This stretch of roadway has high speeds and high volumes of traffic. Widening
23 the shoulders by 18 inches to three feet on each side would provide continuity on Route 103 and
24 enhance pedestrian and cyclist safety

25 VT Route 11 westbound out of the village is narrow and the shoulders are almost non-existent.
26 Horizontal curves limit sight distance and the pavement is in poor condition. Levels of traffic,
27 especially large trucks, are heavy and present obstacles for cyclists. Adding or widening the
28 shoulders by 18 inches to three feet on each side would enhance pedestrian and cyclist safety.

29 Two sections of VT Route 10 between North Springfield and the junction of Route 103 have
30 shoulders that are less than three feet wide and traffic volumes tend to be around 4,000 AADT.
31 This route is also very popular among bike touring groups. Widening the shoulders by 18 inches
32 to three feet on each side would provide continuity on Route 10 in these narrow sections and
33 enhance pedestrian and cyclist safety.

34 **Sidewalk Inventory**

35 During the summer of 1999, SWCRPC staff conducted a sidewalk inventory for the village of
36 Chester. The inventory showed Chester to have over 23,000 linear feet (LF) of sidewalk. Fifty-
37 seven percent of the existing sidewalk network was ranked as being in “good” condition, 36
38 percent was in “fair” condition and another seven percent was ranked as “poor.” The
39 overwhelming majority of the sidewalk network, 91 percent, was between four and six feet in
40 width. The remaining nine percent was less than four feet in width.

41 Twenty percent of Chester’s existing sidewalks have a curb to help separate pedestrians from
42 vehicular traffic. Over 80 percent of the sidewalk network is accompanied by a planting strip.

1 The longest stretch of complete sidewalk (sidewalk, curbing, and planting strip) was from
 2 Grafton Street (TH 3) to Lover Lane (TH 43). A stretch of sidewalk, with curbing, runs from
 3 Main St. south on Grafton Rd to the intersection of River St. Another small segment of “good”
 4 sidewalk with a planting strip exists near the Chester Depot area, at the intersection of the Elm
 5 Street and Depot Street. 100 feet of “good” sidewalk with planting strip runs north along the
 6 west side of Route 103/North Street. Near the end of the sidewalk on the west of North St., a
 7 section of “good” sidewalk with planting continues on the east side of the street and continues
 8 another 1000 feet. There is about 800 LF of “good” sidewalk with planting strip running north
 9 along Church St. to its intersection with Main St.

10 A stretch of sidewalk in “fair” condition runs along the north side of Route 103/Main St. from
 11 Pleasant Street to the junction of Depot St. This section of sidewalk is accompanied by a
 12 planting strip. 300 feet of sidewalk runs along the south side of Maple Street from Main Street
 13 to Depot Street. Another of 250-300-foot section of “fair” sidewalk with curb runs along the
 14 west side of Main Street from Maple St. to Grafton Rd. There is also a small stretch of fair
 15 sidewalk along School Street.

16 A stretch of sidewalk, which runs easterly 1000 LF from the intersection of Route 103 along the
 17 south side of Pleasant St./Route 11, was reconstructed in 2000.

18 There is a need for improved sidewalks along the Depot and School Streets, the existing network
 19 is not continuous, traffic is relatively high, existing roadways are wide and lack defined
 20 crosswalks in these areas.

21 Residents at the 2009 planning workshop identified a desire for new sidewalks along VT Route
 22 103 south, connecting the Green Mountain Union High School with existing sidewalks in the
 23 village.

24

25 **Public Transportation, Rail, and Air**

26 Public Bus Service

27 Public bus service by Connecticut River Transit (CRT) is available in the Town of Chester. In
 28 the winter months only this service provides transportation from Springfield and Chester to
 29 Ludlow up VT Route 103. This route serves as the main route for Okemo employees who ride
 30 for free as an incentive to reduce automobile traffic in Ludlow. Dial-A-Ride transportation
 31 services are available in Chester for shopping, medical appointments and general public
 32 transportation. CRT also offers weekend service to travelers on the Green Mountain Flyer and
 33 residents, connecting the train depot to various stores and restaurants around Chester.

34 Green Mountain Railroad

35 The town of Chester is serviced by Green Mountain Railroad. The railroad runs from its terminal
 36 in Bellows Falls through Chester north to Rutland.

37 Primarily a freight line, the tracks do host tourist excursions on the Green Mountain Flyer during
 38 the summer and fall months between Bellows Falls and Chester and on special occasions on to
 39 Ludlow. Okemo Mountain is also hoping to expand this service in winter to bring skiers to their
 40 resort, and thus eliminate some of the peak winter weekend traffic of Route 103. This could
 41 have an adverse impact on the economy of Chester unless stops at Chester Depot were included
 42 in the scheduling to allow for travelers to use the train and find lodging, restaurants and
 43 opportunity to shop in Chester, as well as access the ski resort from Chester. Expansion of the

1 passenger service to include commuter transportation would benefit the Town and residents.

2 An increase in the transport of freight would potentially benefit Chester by reducing the amount
3 of the through truck traffic on VT Route 103, which parallels the track from Bellows Falls to
4 Rutland. Improvement to the track and signaling would be necessary to allow for greater speed
5 along the corridor, which would increase the potential for use for time-sensitive freight
6 shipments. The most common goods shipped efficiently by rail, however, are long distance hauls
7 of bulk goods, such as talc, coal, grain, pulp/paper, wood and minerals, which are not time-
8 sensitive and the loading and unloading are more efficiently done in bulk shipments. Green
9 Mountain Railroad ships such bulk items, and had an increase in carloads is anticipated with the
10 completion of the project expanding the vertical clearance of the Bellows Falls railroad tunnel.
11 The use of rail for these bulk goods has already had the effect of reducing truck traffic on
12 Chester through roads. Improvement of the tunnel at Bellows Falls on the New England Central
13 line would allow for the use on multi-modal rail cars and stacked rail/truck cargo vans, and could
14 potentially allow for more of the trucked goods to be shipped by rail not only through Chester
15 but throughout the region. Efforts by Chester to encourage the improvements to the rail facilities
16 and thus expansion of rail use could potentially reduce auto and truck traffic on VT Route 103,
17 resulting in less congestion and improvement in traffic safety and convenience to local travel.

18 **Road Policy and Maintenance**

19 Maintenance

20 Maintaining a safe and efficient highway system is important but can be very costly. The town
21 should continue to maintain the existing highway network in good condition, which can greatly
22 limit the long-term roadway maintenance costs.

23 Costs for materials have increased dramatically in recent years making the costs for doing the
24 proper road maintenance difficult to impossible. For example, winter sand has increased nearly
25 45% in cost from 2008 to 2009, and asphalt has increased about 60% in the last five years.
26 However, not keeping up with routine maintenance can result in the need to rebuild roads in the
27 future, which will be extremely expensive.

28 A capital budget and program could help to plan for road projects and other capital expenses. A
29 capital reserve fund to generate local funds over time to pay for the necessary road and bridge
30 work can help to reduce dramatic one time impacts to the local budget.

31 A Road Surface Management Plant has been developed by the Town Manager and Selectboard.
32 The highway department should continue to inspect and evaluate the condition of bridges and
33 culverts, and replace deficient or undersized drainage structures annually as funding allows. The
34 department should also continue to keep costs down by doing their own bridge maintenance
35 work, as appropriate. Culverts and drainage ditches should allow for an adequate flow of
36 stormwater so as to protect infrastructure from damage during typical large snowmelt and rain
37 events.

38

39 New Highways

40 All new roads must comply with the Town Highway specifications for subdivision approval
41 and/or zoning permits, and before they will be considered for acceptance by the Selectmen as a
42 Town Highway. On May 20, 2009, the Town adopted Road and Bridge Specifications. Before
43 new roads are accepted as town roads the Selectmen must judge if the public good, or the
44 necessity, or the convenience of individuals require such a highway to be laid out. The capital

1 costs of road construction or improvement of existing town roads to service new residential and
2 commercial development should be borne by the developer. Ample off-street parking should be
3 provided and all accesses to lots should be limited to one curb cut.
4

5 **Access Management**

6 A key component to keeping traffic flowing through a downtown/main street area is being able
7 to balance the number of access points (i.e. driveways or access roads). Access Management
8 balances mobility and access. The logic behind Access Management usually becomes obvious
9 after conditions on a transportation corridor become a problem. The presence of a large number
10 of accesses results in a high level of turning movements and points of conflict, thus increasing
11 the likelihood of traffic accidents. Unlimited curb cuts also contribute to sprawl, and result in
12 dangerous conditions for bicycles and pedestrians. The goal of access management is to ensure
13 that curb cuts, or access points, are properly planned to avoid the above mentioned
14 complications.

15 Controlling accesses along VT Route 103 south and north of the village is important. In 2008-9,
16 the Town of Chester is working with the SWCRPC, WRC, Town of Rockingham and VTrans to
17 develop a VT Route 103 Corridor Management Plan to address access management and other
18 issues.

19 The Residential 40,000 zoning district currently allows many commercial uses along VT Route
20 103 south, which may result in unwanted strip development.

21 **Transportation Goals**

- 24 1. Ensure that future development of transportation related facilities in the town of
25 Chester are designed to maintain the beauty, integrity and rural characteristics of
26 the town.
- 27 2. Keep the existing transportation network in good repair to avoid costly
28 replacement in the future.
- 29 3. Reduce the impact of truck traffic on the village center.
- 30 4. Reduce the adverse impacts of current peak traffic volumes.
- 31 5. Expand the use of public and rail transportation as an alternative to automobile
32 and truck traffic on Route 103.
- 33 6. Encourage bicycle and pedestrian transportation through maintenance and
34 expansion of existing facilities.
- 35 7. Limit access points (curb cuts) wherever possible to discourage sprawl and
36 maintain safe travel conditions for all roadway users.
- 37 8. Widen and realign the intersection of Routes 103/11 and Maple to
38 accommodate the turning radius of trucks and busses.
- 39 9. Provide more parking for commercial uses and provide parking for Park & Ride.
- 40 10. Encourage the expansion of public transit within Chester and between it and
41 regional towns.

1 **Transportation Policies**

- 2
- 3 1. Involve citizens in planning processes concerning the long range structure and
 - 4 viability of Chester’s transportation network.
 - 5 2. Work with Green Mountain Railroad to expand the capabilities of its rail corridor.
 - 6 3. Work with Town and Village Bus to expand its local service and schedule.
 - 7 4. Continue to expand the sidewalk network while at the same time maintaining
 - 8 those segments that are in “good” and “fair” shape.
 - 9 5. Maintain ongoing communication and coordination with the regional planning
 - 10 commission concerning state and federal funding opportunities to expand bicycle
 - 11 and pedestrian facilities and other enhancements to Chester’s transportation
 - 12 network.
 - 13 6. Work with other towns along the Route 103 corridor to coordinate mitigation efforts
 - 14 aimed at alleviating the effects of truck and peak ski/tourist traffic.
 - 15 7. Obtain the property necessary to widen the intersection of Routes 103/11 and
 - 16 Maple Street to provide adequate, or better, turning radius for commercial
 - 17 vehicles.
 - 18 8. Obtain the property necessary to provide more parking for commercial properties
 - 19 and Park and Ride.
 - 20 9. Promote access management techniques along VT Route 103 south in order to
 - 21 balance growth with highway mobility.

22

23 **Transportation Recommendations**

- 24
- 25 1. Create a timeline for replacement of sidewalk sections that are in “poor” shape
 - 26 and expansion of pedestrian facilities to those areas of town that need them.
 - 27 2. Work with the regional planning commission to develop the capabilities to
 - 28 monitor traffic volumes/patterns on an internal basis.
 - 29 3. Identify properties for acquisition by the Town for parking and Park & Ride
 - 30 facilities
 - 31 4. At the intersection of Routes 11/103 and Maple St., acquire the parcel on the
 - 32 northeasterly corner for widening and realignment of the intersection.
 - 33 5. Obtain representation of the Town of Chester on the Public Bus Service Board.
 - 34 6. Continue working with SWCRPC, VTrans and other partners to develop the VT
 - 35 Route 103 Corridor Management Plan. Consider incorporating the Corridor
 - 36 Management Plan, or portions of it, as a component of the Town Plan.
 - 37 7. Examine options to address potential access management problems along VT
 - 38 Route 103 South and allow growth that does not detract visually or economically
 - 39 from the Village.

Chapter 3 Utilities and Facilities

The development of public utilities, facilities and services should be based upon a projection of reasonably expected population increase and economic growth, and should recognize the limits of the Town’s human, financial and natural resources. In addition, any proposed public facilities should recognize the Goals and Objectives set forth in the Town Plan. The town anticipates not more than 6% growth over the next twenty years. The existing municipal facilities and services are generally considered to be adequate to accommodate these anticipated future conditions, unless otherwise indicated in the Town Plan. Town-owned properties as of 2019 are listed in Table 3.1.

Town Property	Acres	Value	Town Property	Acres	Value
Adams Family Aquifer	30.53	\$90,800	Land – Dean Brook Road	3.20	\$26,400
Bouchard Land	0.12	\$19,200	Library Building	0.46	\$623,300
Cemeteries:			North Street Bridge Field	0.50	\$32,000
Adams Road	1.00	\$6,500	Parizeau Rte 11 West	1.3	\$24,800
Brookside	3.80	\$63,900	Peck Land	4.00	\$42,000
North Street	5.74	\$46,500	Perry/Pierce Land	501.35	\$855,900
Pleasant View	8.90	\$93,400	Quimby Land	1.10	\$10,000
Poplar Grove	0.42	\$2,700	Rainbow Rock	1.84	\$23,000
Smokeshire	0.49	\$1,200	Recreation Area (The Pinnacle)	37.28	\$743,500
Spoonerville	0.28	\$1,800	Riverbank	3.47	\$15,200
Colbeth Land	0.12	\$16,200	895 Route 11 West	2	\$12,000
Dodge Land	9.08	\$57,200	Salt Shed/Henry Land	0.63	\$28,300
Emergency Services Land	4.04	\$95,400	Suojanen Land Reservoir Rd.	0.2	\$700
Flamstead Acres (Lot 45)	0.11	\$13,600	Town Garage	6.12	\$717,000
The Green	1.50	\$57,500	Town Hall	0.41	\$580,900
Hadley Land	14.10	\$66,300	Wastewater Treatment Plant	13.45	\$2,752,900
Hammond Park	0.55	\$41,000	Water Tank Site (GMUHS)	1.00	\$20,000
Academy Building/Central School	3.86	\$481,800	Water tank and land VT 103 S	139.57	\$1,449,700
Jeffrey Well Site	17.00	\$834,900	Weatherby Farm Land	40.00	\$105,000
Kingsbury Rd., 93	0.25	\$69,200	Well Site on Canal Street	3.00	\$125,800
Kingsbury Rd., 96	3	\$67,900	Wiley Land	3.00	\$75,200
			Yosemite Fire House	0.11	\$96,800
			Total	865.68	10,461,000

Table 3-1 Source: 2019 Town of Chester Annual Report

1 The Town of Chester annually approves a Capital Plan, which consists of annual capital
2 expenditures. In 2016, the town approved a Bond Plan that finances capital item payments over
3 multiple years for the first time. These planning efforts are beneficial as they identify priority
4 capital needs and plan how to pay for them. These plans were not, however, adopted as a Capital
5 Budget and Program under 24 V.S.A. §4430. A duly adopted Capital Budget and Program can
6 be used to limit or phase development in accordance with 24 V.S.A. §4422, and it is a pre-
7 requisite for levying impact fees under 24 V.S.A. Chapter 131. It would also serve as a legal tool
8 in Act 250 proceedings under criterion 9a (1) “Impacts of growth.”

9
10 **Town Administration**

11 The Town of Chester is under the Town Manager system of Government. Five elected
12 Selectboard members have the responsibility for general supervision of the affairs of the Town.
13 This responsibility is carried out by an appointed Town Manager who administers all
14 Departments of Town Government. The Town Manager system of Government should be
15 sufficient for the foreseeable future.

16
17 A Development Review Board (DRB) was established in 2007, replacing the previous Zoning
18 Board of Adjustment. The DRB is responsible for all local development review, with the
19 exception of zoning permits for permitted uses which the Zoning Administrator issues. The
20 Chester Planning Commission performs planning functions for the Town in accordance with 24
21 V.S.A. § 4325.

22 Table 3.1 lists town-owned lands and facilities.

23
24 **Emergency Services Departments**

25 The Town of Chester is served by an Ambulance Service, a Fire Department and a full time
26 Police Department. The Fire Department and the Ambulance Service have space for their
27 vehicles and offices in the Town Garage. The Police department is located in the northeast
28 corner of the Town Hall. In March, 2018 the newly-formed Chester Building Committee began
29 work on a project to design, fund and construct a new Emergency Services Building which will
30 house the Fire Department, the Ambulance Service, and the Police Department.

31 **Ambulance**

32 The Chester Ambulance Service provides emergency medical services and transportation to
33 residents of Chester and Andover. The service is paid for by tax revenues allocated from the
34 general fund, grants, and donations. The fees collected for service are paid into the general fund.
35 The Ambulance Service is licensed by the State of Vermont and inspected annually. The Fire
36 Department and Ambulance service are dispatched through the Hartford (VT) dispatch center, as
37 are emergency services from neighboring towns. The consolidation of the dispatch function
38 facilitates coordination and sharing of resources among towns and services.

39 The Ambulance Service is staffed by a paid Ambulance Coordinator, a full-time employee
40 licensed at a minimum level of Emergency Medical Technician, and about 25 volunteers. The
41 volunteers range from people who only drive the ambulance to those licensed as Advanced
42 Emergency Medical Technicians (AEMT’s). The levels of licensure available in Vermont are
43 Emergency Medical Responder (EMR), a person trained in basic first aid, CPR and automated

1 external defibrillation, Emergency Medical Technician (EMT), a person trained in all the EMR
2 skills, plus more advanced skills such as nasal pharyngeal airways and intranasal and
3 intramuscular medications, and Advanced EMT (AEMT), a person trained in advanced life
4 support including intravenous and intraosseous access and advanced airway devices. The
5 volunteers are paid a stipend for the calls they attend. The staff is divided into three rotating
6 shifts and provide 24/7 coverage.

7 Chester also has an agreement with Ludlow to share licensed staff when needed. This increases
8 the ability to respond to calls. A minimum of two licensed staff members are required for legal
9 transport, with one staff member having at least an EMT license. The requirement of time for
10 training, and time being available for calls, as well as the life and death responsibilities that are
11 part of emergency medical care, represent a significant commitment on the part of the volunteers.
12 Volunteers are extraordinarily dedicated people and are not easy to recruit.

13 The population is expected to age significantly over the next 20 years. This is already seen in an
14 increase in the number of calls which now approaches 400 per year, but had stayed around 250
15 up until 2012. The age group most frequently served by the ambulance is over 60. An increase
16 of cardiac arrest calls was noted over the winter of 2017 – 2018 as the bitter cold took its toll on
17 our elderly citizens. The opioid crisis has also contributed to the rise in calls. The cost of calls
18 where serious, life-saving medical treatment is administered is an increasing burden to the
19 service.

20 The service has one transport vehicle, purchased in 2012. The Ambulance Service has decided
21 to replace the vehicle after 10 years in order to take advantage of advances in patient transport
22 compartments and chassis design. It will also get a better trade-in value for the old vehicle.
23 With more room in the new Emergency Services building, a stock vehicle which can handle
24 rough and snowy Vermont road conditions can be purchased. Formerly special vehicles with a
25 shorter wheel base to fit in the limited garage space had to be ordered at extra expense.

26 Other equipment the Ambulance Service uses are a transport cot, a stair chair, child restraints to
27 adapt the cot to fit a child and a monitor/defibrillator. Medical supplies must be kept on hand.
28 Many supplies have expiration dates and must be replaced on a regular basis whether used or
29 not. Some life-saving supplies such as Narcan, glucagon and epinephrine have risen in price
30 significantly over the past couple of years. The unexpected price increases make it difficult to
31 budget for the future, as well as afford in the present.

32 There is an informal mutual aid relationship between area towns and for-profit services, which is
33 facilitated by the shared use of the Hartford (VT) Dispatch center. Combined with the
34 arrangement with Ludlow, Chester is able to answer most of the calls it receives. The full-time
35 employee position was unfilled for several months, which put added pressure on the Ambulance
36 Service to handle weekday calls. Ideally, the full-time weekday employee is supplemented by a
37 second licensed employee to cover other times. The cost benefit and possible level of service
38 gain of having staff available at these times is being evaluated.

1 The Ambulance Service is currently housed in the Town Garage. The ambulance is parked in an
2 enclosed, heated bay. Supplies are stored upstairs in a heated area. A small, locked office on that
3 floor has a computer and printer. Some training takes place in a room shared with the Police and
4 Fire Departments. There is a current need for a facility in the building where hazardous material
5 equipment can be safely cleaned. This is one of the needs which will be addressed in the new
6 Emergency Services building.

7
8 **Fire**

9 The Chester Fire Department serves the Town of Chester and contracts with the Town of
10 Andover to serve that municipality as well. The Town of Chester has mutual aid agreements
11 with many other towns through the Connecticut Valley Mutual Aid, the Southwest Mutual Aid
12 and the Upper Valley Mutual Aid organizations. The Chester Fire Department is dispatched by
13 the Hartford (VT) Emergency Communications Center.

14
15 The Fire Department owns the following vehicles:

Vehicle	length
Class A Truck	33'
Class A Truck	28'
Tanker	36'
Rescue Truck	30'
Brush /Utility Truck	27.5'
Boat on Trailer	25'
Brush/Rescue Trailer with ATV and rescue sled	25
Hazardous Materials Trailer	25'

16
17 The Fire Department is staffed by 1 Fire Chief, 1 Deputy Fire Chief, 1 Assistant Fire Chief, 2
18 Captains, 2 Lieutenants and several fully trained Firefighters. The Department's command
19 structure is consistent with standards set forth by the National Fire Protection Agency (NFPA).
20 Firefighters are paid once a year. They receive an hourly wage for the hours spent responding to
21 calls and for the two trainings they attend each month. Firefighters volunteer their time for
22 several other trainings each year.

23
24 Pressure on the Fire Department's resources comes from increasing state and federal
25 requirements for training and safety equipment and changes to building materials and techniques.
26 Some new building materials can give off toxic or carcinogenic smoke and fumes when burning.
27 Firefighters need protection from these dangers. Newer construction techniques may also
28 require different equipment. Training is essential to keep firefighters qualified, effective and
29 safe. Additional training opportunities are constantly being sought.

1
2 The department seeks to meet Insurance Safety Organization (ISO) and National Fire Protection
3 Agency (NFPA) standards. The department’s ISO rating affects fire insurance rates for all the
4 town’s residents. With this goal in view, the department has enhanced equipment testing and
5 servicing procedures and improved record keeping. The department has developed a plan to
6 schedule equipment replacement instead of risking equipment failures. Looking ahead, the
7 department recognizes the need for a simple, used ladder truck, as newer buildings have roof
8 structures that make ground ladders ineffective and dangerous.

9
10 The health and safety of the volunteer firefighters is constantly considered. Gear washing
11 equipment is used to protect firefighters from the toxic chemicals deposited on the gear by
12 smoke from fires. A ladder truck would make fires requiring ladders less dangerous. A
13 ventilation system that would clear toxins in the air emanating from equipment after a fire would
14 also be helpful.

15
16 **Police**
17 The Chester Police Department serves the Town of Chester and is also paid to assist Okemo
18 Mountain Resort in Ludlow, VT with traffic control. It currently has offices in the northeast
19 corner of the Town Hall on the first floor. This is not a secure location and arrests are mainly
20 processed at the Westminster State Police Barracks.

21 The Police Department has a full-time chief, a full-time sergeant, four full-time officers, three
22 part time officers and one canine when fully staffed. All Police officers have graduated from the
23 Police Academy. Currently the Police Department owns and maintains three police cruisers.
24 The vehicles are replaced every 4 years due to high mileage and use on rough roads. Computers,
25 firearms, ammunition and personal protection equipment such as bullet proof vests are paid for
26 out of the town budget and by grants from Homeland Security. The Chester Police Department
27 responded to 1,179 calls for service in 2017.

28 Chester Police officers receive 25 – 30 hours of training annually. In 2017, training topics
29 included interacting with persons having a mental health crisis, administering Narcan, crash
30 investigation, domestic violence, death scene investigation, firearms, and field training officer
31 certification.

32 Chester’s Police Department gets support from the Vermont State Police for processing arrests
33 and background checks. This was formerly done at the Rockingham barracks. With the closing
34 of that barracks in 2016, arrests are now processed at the Westminster State Police barracks.
35 Adjustments are still being made to accommodate the increased distance.

36 Chester has experienced an increase in drug-related crime due to the opioid crisis. State and
37 federal regulations have also increased space demands for the Police Department. The Chief of
38 Police is taking part in the effort to build a new Emergency Services building which will have
39 space for the Police Department as well as the Fire Department and Ambulance Service.

40 **Water**
41 The Village in the Town of Chester is served by the Chester Water Department. The water
42 system has two (2) wells. The water from those wells is particularly delicious and only requires a

1 bit of baking soda added to counteract acidity. The Jeffrey Well #2 Pump Station is located on an
2 aquifer at 391 VT Route 103 North and is the primary pump station and water source for the
3 town. The well is capable of producing 576,000 gallons of water per day. The system has
4 significant capacity to expand. The current average daily use is approximately 164,000 gallons.
5 This location is designed to satisfy the town's water needs for the foreseeable future. The Canal
6 Street Well is located at the end of Canal Street in the middle of the village. It is an emergency
7 backup source only. The water is stored in two water storage tanks. The older tank is west of
8 town and the newer tank is south and east of town. The tanks are drawn down as needed and
9 refilled by the Jeffrey Well. The tanks are normally filled at night to utilize off-peak hours for the
10 best electrical utility rates.

11
12 The water system serves the needs of the community well and correlates well with the Land Use
13 Regulations and the planned future development of the Town. Improvements made in 2016 and
14 2017 include the following:

- 15 • A second storage tank and the piping needed to integrate it into the system was
16 completed.
- 17 • 900 feet of old 4- and 6-inch cast iron pipe on Coach Road was replaced with 8-inch
18 ductile iron pipe. 900 feet of 8-inch ductile iron pipe was added on First Avenue to
19 complete a loop in the system and eliminate 2 dead ends. This improves water quality
20 and service for that area.
- 21 • The water line to the Wastewater Treatment plant was changed from a 1 1/2-inch plastic
22 line to an 8-inch ductile iron pipe, bringing much more reliable service to the Wastewater
23 Treatment plant.
- 24 • 26 hydrants were replaced in the village and an 8-inch line and hydrant were added to
25 Breezy Lane.
- 26 • The Jeffrey Well was modified to reduce the amount of water hammer caused when the
27 pump is activated.
- 28 • Agitators and wireless remote telemetry have been added to both storage tanks, so that
29 the tanks can send signals to the controls at the Jeffrey Well station.

30 These upgrades ensure that the water system is, and will remain, in compliance with the Federal
31 Safe Drinking Water Act. They also allow required fire flows to be maintained during
32 emergencies. The system currently serves 577 accounts containing 886 units. The system
33 historically sees about a 5% increase in demand every 10 years. Ongoing water main
34 replacement over the next 20 years is expected to reduce that by eliminating several leaks in the
35 old pipe.

36 Future projects under consideration include:

- 37 • Mapping all the water and wastewater mains, service connections to them, pump stations,
38 river crossings, manholes, curb stops, gate boxes, and the ground water drainage system
39 using GPS,
- 40 • Isolating ground water to keep it out of the wastewater system,

- 1 • Installing a Supervisory Control and Data Acquisition system (SCADA) for wastewater
2 to improve efficiency, reduce operation cost, improve record keeping and provide more
3 accurate operating information, which may be completed in conjunction with a new
4 mapping program implemented in 2018 that is based on parcel data,
 - 5 • Upgrading water and wastewater maintenance tools, including a small line cleaner, a new
6 pump for draining excavation sites at line breaks and other power tools, to increase the
7 speed of repairs.
- 8 Large projects (with costs in excess of \$100,000) may be funded by the Drinking Water State
9 Revolving Fund or Rural Development.

10 **Wastewater**

11 In 2006, the Town of Chester constructed a new upgrade to the wastewater treatment plant at a
12 cost of nearly \$3 million. The new facility was one of the largest construction projects that the
13 Town of Chester has undertaken in recent years. The town also updated the Wastewater/Sewer
14 Ordinances, which require some pre-treatment for some commercial users due to excessive BOD
15 (biochemical oxygen demand, which is dissolved oxygen needed by aerobic bacteria to digest
16 waste in water) and chemical discharges that cannot be treated at the municipal facility.

17
18 The system currently serves 489 accounts and 786 units, with a steady increase every year. With
19 the current upgrades, the capacity of the wastewater treatment plant is rated at 175,000 gallons
20 per day, with 500,000 per day for emergency operations mode during high-water and flood
21 stages. The average daily usage is between 90,000 to 100,000 gallons per day.

22
23 The Wastewater Department has upgraded the pump station that is located on Pleasant Street to
24 increase efficiency and reduce maintenance requirements. Upgrades are planned to address the
25 ground water drainage in the wastewater service area to reduce the infiltration into the system,
26 which can overload it and require additional and unnecessary treatment at the plant. During the
27 spring thaw and wet periods, some residences run sump-pumps that are discharged into the
28 system. This is not allowed under State and Federal regulations. The town is working on a
29 properly designed storm drainage system which will appropriately direct the ground and surface
30 water to a designated location and bypass the wastewater system. These improvements may be
31 funded by the Clean Water State Revolving Fund, Rural Development or grants such as the
32 Clean Water Block Grant or Ecosystem Restoration Grant.

33 **Solid Waste District**

34 The Town of Chester is a member of the Southern Windsor/Windham Counties Solid Waste
35 Management District, which has prepared a Solid Waste Implementation Plan, with an appointed
36 representative that serves on the District Board of Supervisors. To manage the district, the board
37 engaged the services of the Southern Windsor County Regional Planning Commission. The
38 district has also adopted a Waste Management Ordinance, effective February 1, 2008, that
39 included licensing commercial haulers. They pay a surcharge of \$7.00 per ton on municipal solid
40 waste, construction and demolition waste, and bulky wastes generated within the District, which
41 helps pay District expenses, including maintaining a website, www.vtsolidwastedistrict.org,
42 which contains information about reducing, reusing, recycling and household hazardous waste.

1 The Town does not provide for refuse collection. Residents may contract with a private waste
2 hauler or bring refuse, including recyclables, brush, lawn and garden waste and kitchen waste,
3 directly to the Springfield Transfer Station at 135 Fairground Road in Springfield, one mile north
4 of Riverside School (west side). They operate on a ticket system for trash payment. Tickets can
5 be purchased at the Chester Town Hall, and other places locally.

6 A list of accepted recyclables is available at the Transfer Station or at the regional District
7 website, www.vtsolidwastedistrict.org. Most recyclables are accepted free of charge, including
8 all types of batteries, fluorescent tubes and bulbs, televisions, monitors, printers, hard drives and
9 peripherals. There is a "Second Chance Shop" for unwanted, but still usable, items including
10 books. Architectural salvage can be found or donated. Metal is accepted free of charge; bulky
11 waste is charged by weight. Household Hazardous Waste collection take place at several
12 locations in the District each spring and autumn.

13 In 2012 the Vermont Legislature passed Act 148, The Universal Recycling Law, an "act relating
14 to establishing universal recycling of solid waste." The Vermont Materials Management Plan:
15 Moving from Solid Waste towards Sustainable Management, was effective on June 18, 2014. As
16 of July 1, 2017, kitchen waste must be accepted at all transfer stations in Vermont. Keeping food
17 waste out of landfills will become mandatory on July 1, 2020. Waste haulers and facilities are
18 required to collect recyclables (metal, glass, #1 and #2 plastics, paper and cardboard) leaf and
19 yard debris and clean wood.

20 **Electric Utilities**

21 Electric power for the Town of Chester is provided by Green Mountain Power. Electric
22 transmission service is provided by the Vermont Electric Power Company (VELCO).
23 Underground utilities are encouraged to preserve the historic look of the village and the beauty
24 of scenic areas.

25 **Telephone, Cable Television and Internet Infrastructure**

26 Telephone, high speed internet and television service are available in Chester through the town-
27 wide fiber optic network built by Vermont Telephone (VTel). Comcast provides television cable
28 service, high-speed internet and phone service. Dish provides satellite television service. These
29 vital improvements enable people to work efficiently at home, reducing commuting traffic and
30 benefiting the environment of the Town. It also offers essential support to businesses that may
31 want to locate in this picturesque town.

32 **Communications Towers and Structures**

33 A modern telecommunications infrastructure is essential to the public welfare and economic
34 development. The Town of Chester is fortunate to own a site for a communications tower, a low
35 hill on the western edge of the town center called the Pinnacle. The towers currently on the site
36 cannot be seen in most parts of town. In 1997, at Chester's invitation, US Cellular erected the
37 first cellular telephone tower at that site next to the existing low band tower. A second cellular
38 phone company, Cellular One, rented space on the tower. VELCO offered to build a higher
39 capacity tower for the town in 2015 since VELCO needed to expand its communication system
40 to meet state mandates. The offer was accepted and the new tower was completed in 2018. Cell
41 phone companies lease space on the new tower. The town also uses the towers for police, fire,
42 ambulance and public works radio communications. This arrangement has provided Chester with

1 cellular phone service and given the town rental income as well. It has also prevented a
2 proliferation of towers along ridge lines, which would mar the scenic vistas of the town. The
3 town's ability to control where communication towers may be built is limited by the Federal
4 Telecommunications Act of 1996. This arrangement has worked well for everyone concerned so
5 far.

6 **Recreation**

7 The Town of Chester is fortunate to have some of the finest recreation facilities in the area. The
8 operation of the Pinnacle and Memorial Fields, also known as Cobleigh Street Fields, are under
9 the direction of a full-time Recreation Director. These facilities should continue to receive the
10 financial and volunteer support necessary to maintain the facilities and to provide program
11 leadership. They should be sufficient, with the recommendations set forth herein, to serve the
12 needs of the community for recreation facilities for the next 25 years.

13

14 Recreation Department projects may be funded by Land and Water Conservation Fund grants as
15 well as the Buildings and General Services Grants.

16

17 **Athletic Fields**

18 There are five outdoor athletic facilities available to Chester residents.

- 19 1. Green Mountain Union High School has a soccer field, baseball field, track and other
20 land areas used in school recreation and sports programs.
- 21 2. Chester-Andover Elementary School has a playground and athletic field used for school
22 recreation and sports programs.
- 23 3. Pinnacle Recreation Area contains 25 acres and is the hub of summer and winter
24 recreation for the towns sports program. The area includes a recently upgraded outdoor
25 swimming pool, skateboard park, volleyball courts, basketball court, two tennis courts,
26 two Little League baseball fields, an ice rink, playground and 12-hole disc golf course.
27 The hillside is also used for sledding, tobogganing and snowmobiles, and the area is a
28 VAST snowmobile access area with parking.
- 29 4. Memorial Fields, also known as Cobleigh Street Fields contains a ball field used for
30 softball and soccer.
- 31 5. Green Mountain Softball facility - This privately-owned facility has volleyball courts and
32 two softball fields, which are used for annual softball tournament events and are made
33 available for Green Mountain High School softball games.

34

35 Some future objectives of the Recreation Department are a new Soccer Field, a dog park,
36 walking trails around the Pinnacle and an indoor recreation facility. All recreation fields are
37 utilized to full capacity and the Soccer Program is growing rapidly.

38

39 **Disc Golf**

40 Constructed in 2016, the Chester Disc Golf Course is a popular and highly utilized recreational
41 resource in town. The course winds its way through hilly, wooded and previously under-utilized
42 town property at the Pinnacle Recreation Area. Three more holes have been added in the summer

1 of 2018 and an additional 6 holes are planned for 2019. The course is also used as a snowshoe
2 trail in the winter.

3 **Swimming**

4 The swimming pool located at the Pinnacle Area is the most highly utilized recreation program
5 for the Town. Approximately 200 children per year receive swimming lessons through the
6 Recreation Department. In addition, the swimming pool averages 50 to 60 kids per day during
7 the summer months. The current pool was upgraded in 2017, which will extend the life of the
8 pool to at least 2037. More renovations and improvements are planned for the bathhouse and the
9 snack shack which operates at the pool location.

10
11 **Hiking Trails**

12 There are currently three hiking trails on Chester public land. The town supports the continued
13 expansion of the hiking and biking trail system including the potential purchase of additional
14 lands to achieve this.

15
16 The **Lost Mine Trail** is two miles long and runs through Chester's 550-acre Town Forest. The
17 trailhead is located just west of town off of Balch and Water Farm roads. The trail has a variety
18 of features including a historic mine, pine and hemlock groves, a forest management area,
19 massive and intricate stone walls, mossy streams and hillside caves. The trail is rated moderate
20 for hiking.

21
22 The two-mile **Butternut Hill Trail** is also located in Chester's Town Forest. The trail is adjacent
23 to and connects with the Lost Mine Trail, to form a four-mile loop. It ascends to the summit of
24 Butternut Ridge (1,725 feet) and offers views of Stratton and Magic mountains and other hills to
25 the southwest. There are multiple trails heads with small parking areas that offer access to the
26 moderate/strenuous hike.

27
28 The **Green Mountain Nature Trail** is a two-mile loop trail that traverses through the 160-acre
29 forest adjacent to the Green Mountain Union HS. This trail offers a moderate hike that winds
30 and climbs through evergreen and hardwood forests. The trail also features a large glacial
31 boulder, stone walls, several wooden bridges and views of the South Branch Williams River.

32
33 Looking ahead, the Town will continue to look for trail development opportunities on Town
34 property, in particular a trail that is within walking distance of the village green. The 14-acre
35 Brookside Town Forest Property, directly north of the Brookside Cemetery and across Lover's
36 Lane brook, will continue to be evaluated for the development of a trail. Continued planning and
37 design for enhancing Brookside Cemetery should also incorporate plans to access the Town
38 Forest property across the brook. A pedestrian-style, wooden covered bridge spanning Lover's
39 Lane Brook would be an ideal accent to the landscape and trail, and a unique attraction within
40 walking distance of the village green.

41
42 Likewise, the Town will continue to assess opportunities to develop a flat, pedestrian-friendly
43 trail either along the Williams River, on one of its tributaries, or in some other opportune
44 location or corridor. A relatively flat walking trail, accessible from the village center, would

1 greatly enhance walking and hiking experiences for everyone, and offer a more natural setting
2 than the existing sidewalks in the residential areas.

3
4 At the Pinnacle Recreation Area on Lover’s Lane, the establishment of a loop trail to offer
5 walkers and hikers the opportunity to circumnavigate the pinnacle (summit) will be assessed for
6 development. Construction of a loop trail would provide the Town with another trail asset in the
7 heart of town and enhance and broaden the hiking opportunities at the recreation area.

8
9 For mountain bike enthusiasts, the establishment of a more defined mountain bike trail/trail
10 network (both on and off road) within the greater Chester area will continue to be explored. To
11 encourage winter recreation, all town hiking trails will be promoted for snowshoeing and, where
12 feasible, cross country skiing. The Pinnacle area in particular, will be established and known for
13 its snowshoeing ‘track’.

14
15 Eventually, the existing trails will be linked to create an integrated Chester Town trail network,
16 bookended by the GM Nature Trail to the east and the Pinnacle Trail to the west.

17
18 **Winter Recreation**

19 The Chester Snowmobile Club is a private organization which cooperates with Vermont
20 Association of Snowmobile Travelers (VAST) to bring an exhilarating and safe winter travel
21 experience to Chester residents and visitors alike. With private landowners it plans, lays out and
22 maintains 65 miles of snowmobile trails in the Chester area. These trails connect to the VAST
23 state-wide trail system. Eight miles of those trails are on Town of Chester property and 23 miles
24 of the trails are within the town itself. This system of trails attracts tourists in season, and is
25 beneficial economically to the Town of Chester and its tourist industry. The club has assisted the
26 Chester Fire Department by providing a machine and sled for use in medical emergencies on the
27 local trails. The club grooms the sliding hill at the Pinnacle, the track for sleigh rides and dog
28 sleds at Winter Carnival and provides a Port-a-Potty during the winter at the Pinnacle. An effort
29 to establish a trail-side fuel station in Chester is underway.

30
31 **Forest Lands**

32 The State of Vermont, Department of Forests and Parks owns the Williams River State Forest,
33 130 acres of land located in the southwest corner of town, also known as the Popple Dungeon
34 area.

35
36 The Chester Water Department owns 550 acres of land off Reservoir Road in the geographic
37 center of the town. The land was purchased as a watershed area and holds an 11-acre reservoir
38 which is used for recreational purposes. The reservoir previously served as the town’s drinking
39 water source. It is now preserved for use during an emergency, such as if the Jeffrey and Canal
40 wells are not available. The 550-acre site operates under a ten-year Forest Management Plan
41 prepared and managed by the State Forester. The plan was first adopted in 1983 and is revised
42 annually. Under this plan and careful management the Town Forest provides income to the

1 Water Department. The town also owns a 139-acre parcel at the site of the new water storage
 2 tank. The land is primarily forested and the majority of it is in a conservation easement.

3
 4 The Doctor Adams land (Lot 3 on Map 52) contains 30.53 acres and is also town-owned. It is
 5 valuable as wildlife habitat and is studied by the Environmental class at Green Mountain Union
 6 High School. It is also available to others for studies.

7
 8 **Hunting and Fishing**

9 Chester’s extensive woodlands provide hunting for wild game and game birds. The Town Forest
 10 is open in season for hunting as provided under State Regulations. Rivers and streams available
 11 for fishing are the south, middle and north branches of the Williams River and its tributaries.
 12 Within the Town Forest lands, the reservoir pond has been stocked with trout and provides good
 13 fishing for other species including bass. The Chester Rod and Gun Club, a private organization,
 14 provides Hunter Safety classes, which are required for those wishing to obtain hunting licenses.

15
 16 **Historic Buildings**

17 The Town of Chester has many historic buildings including these owned by the town. The
 18 Chester Historic Preservation Committee maintains them and seeks to promote uses for them by
 19 the town.

Building	Year Built	Present Use	Needs
Academy Building	c. 1881	Chester Historical Society	Regular maintenance for slate roof and building. Interior renovation with the goal of year-round operation.
Hearse House	c. 1830	Museum	Regular maintenance for slate roof and building
Public Tomb	1850	Winter storage of caskets while awaiting spring burial.	Regular maintenance for slate roof and building
Whiting Library	1891-92, 1995	Public Library	Regular maintenance for slate roof and building. Drainage, sidewalk, & driveway repairs
Town Hall	1884	Town Hall offices, Police, Department	Regular maintenance for slate roof and building. Renovation inside & out completed in 2020.
Yosemite Fire House	c. 1870	Stores Town’s antique fire vehicles	Regular maintenance for slate roof and building. Planned creation of VT Fire Fighters’ museum
Jeffrey Barn	1890s	Awarded grant for 2018 condition assessment that will determine possible restoration and future use	Seeking someone qualified to assess the barn’s condition.

1 The Chester Historic Preservation Committee will be pursuing additional grants from the
2 Preservation Trust and Historic Preservation grants from the Vermont Agency of Commerce and
3 Community Development for the Academy Building and the Yosemite Fire House. Capital
4 campaigns are also being planned.

5
6 **Public Facilities and Utilities Goals**

- 7 1. To provide public infrastructure that furthers the goals, policies and recommendations of
8 the Chester Town Plan.
9 2. To plan for, finance and provide a safe, efficient and convenient system of public
10 facilities and services to meet current and future needs.

11 **Public Facilities and Utilities Policies**

- 12 1. Encourage citizen participation at all levels of the local planning process.
13 2. Provide adequate public facilities that meet the needs of Chester residents and support the
14 desired future conditions identified in this Town Plan.
15 3. Require developers to pay for any infrastructure expansions or increases in municipal
16 services required when the demands to serve the new development exceed existing and
17 anticipated capacity levels.

18 **Emergency Services**

- 19 4. Provide the residents of Chester the best possible Ambulance, Fire and Police service by
20 supporting improvements to these services that are prudent and necessary.
21 5. Require any new housing development in Chester to provide fire protection that meets state
22 and local regulations.
23 6. Support the continued cross training of police officers as Emergency Medical Technicians.

24
25 **Water and Wastewater Services**

- 26 7. Provide the Chester Village water customers with a pure, clean and reliable water supply.
27 8. Provide the Chester Village residents with a safe, efficient and reliable sewage treatment
28 system.

29 **Solid Waste and Recycling**

- 30 9. The Town shall continue involvement with the Southern Windsor/Windham Counties
31 Solid Waste Management District to promote continued responsible waste management,
32 cooperation with surrounding towns and expanded trash reduction efforts.
33 10. Work to reduce landfill garbage and increase reuse and recycling.
34 11. Promote the proper disposal of home hazardous materials by placing signs at strategic
35 locations in town to announce the semi-annual collection dates, and announcing the
36 collection dates in the town newsletter and website.
37 12. Support the implementation of Act 148, the Universal Recycling Law by maintaining
38 recycling bins at public gathering places on town property, and in town offices, and

1 allowing solid waste processing businesses in the bylaws.

2 **Recreation**

3 13. Provide recreation programs to the Town of Chester residents that meet the recreation
4 needs of all residents regardless of age.

5 14. Maintain the 550-acres Town Forest as a managed forest and continue access to it for
6 field studies, fishing and hunting.

7 15. Maintain the Doctor Adams land for wildlife and scientific field studies for all.

8 16. Continue the use of the public lands as resources for hunting and fishing and encourage
9 private owners to do the same.

10 17. Pursue expansion of the existing trail network. Purchase of additional lands should be
11 considered to achieve this objective.

12 **Public Utilities**

13 18. Provide residents with safe, effective and efficient utility service.

14 19. Place utility lines in areas designated for growth.

15 20. Place new utility lines along existing corridors whenever possible; multipurpose use of
16 utility corridors is encouraged with common use of utility poles for telephone, electric,
17 cable and fiber optic lines.

18 21. Consider aesthetic and natural resource impacts when placing utility lines.

19 22. Promote underground electric lines where possible and practical.

20 23. Do not construct new towers, access corridors and utility poles serving towers when
21 adequate communication coverage can be obtained through use of existing structures.

22 **Priorities for Action on Solid Waste:**

23 1. Promote education for citizens on trash reduction such as composting and eliminating
24 single use items with poor recycling potential.

25 2. Promote education for businesses and organizations concerning solid waste disposal and
26 reduction.

27 3. Encourage citizens, businesses and organizations to make extensive use of composting
28 and recycling at point of use, the transfer station and curbside pickup.

29 4. Enforce the prohibition of illegal roadside dumping.

30 5. Encourage recycling and compost drop-off and pick-up operations to establish in the
31 immediate Chester area for increased resident convenience.

32

Chapter 4 - Natural and Cultural Resources

Some of Chester’s greatest assets are natural and cultural resources as identified during the extensive public outreach in 2008 and 2009 to update this Town Plan. Residents value the historic charm of the village surrounded by open fields, rivers, hills and large tracts of forested lands. This plan seeks to encourage future growth that also protects these natural and cultural resources articulated in this chapter.

Earth Resources

Topography and Soils

Soils vary greatly in their composition, which will determine where water impoundments occur, the kind and amounts of vegetation, and what types of land use are most appropriate. Outside of the village area, where public water and sewer services are not available, the development potential of each site will be determined by the on-site septic suitability of the soils.

The Town no longer has authority to issue on-site septic permits, but can require developments to use public water and wastewater services. In 2002, the Potable Water Supply and Wastewater regulations (10 V.S.A. Chapter 64) were amended by the Vermont Legislature. As of July 1, 2007, the Vermont Agency of Natural Resources (ANR) has universal jurisdiction over on-site septic and potable water permits. ANR developed new rules on September 29, 2007, which allow for innovative or alternative systems (Subchapter 10 of the *Wastewater System and Potable Water Supply Rules*). These new rules may allow for development on areas of steep slope, where it was not allowable before.

According to the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), all types of construction should be avoided on lands with slopes over 25 percent. However, some uses – such as hiking or ski trails – may be suitable. Slopes between 15 and 25 percent may not be suitable for development due to limitations for septic systems, erosion and stormwater runoff problems, and high construction costs. Development in these areas may require engineering or other special design techniques to avoid these potential problems. Driveways over 10 percent in grade are generally considered to be too steep for safe emergency vehicle access, and difficult for maintenance and any vehicle access in the winter months. All roads and driveways should meet the appropriate town highway standards, as adopted by the Selectboard, in terms of steepness of grade and drainage techniques.

Farmlands

The number of working farms in Chester has been decreasing over the years. Farms provide open space and contribute to the rural qualities that people enjoy about Chester. Forest and farmland provide habitat requirements for a variety of mammals, reptiles, amphibians, and birds. This patchwork of fields, forests, and the viewsheds among them constitute an aesthetic resource that deserves recognition and protection. The farms along the Williams River are considered especially scenic for residents and visitors traveling on VT Route 103 before entering the village

1 of Chester. Many of these farms are also located within floodplains, serving another important
2 function: flood storage capacity.

3 The NRCS has identified the most productive agricultural soils (see the Natural Features Natural
4 Features Map that shows NRCS agricultural soils in Chester). The NRCS category of “prime
5 agricultural soils” has the greatest potential for productivity and is important for current and
6 future food production. “Soils of statewide significance” are also important, but limited in their
7 productive capacity by slope or other mitigating factors. Once these soils are disturbed for
8 construction, their potential for farm productivity is lost. Preserving large contiguous areas of
9 these important agricultural soils is important for future food production for the town.

10

11

Forest Lands

12 Forests serve a variety of functions and uses, and contribute significantly to the town’s rural
13 character. Forests protect air and water quality and support biological diversity. Woodlands
14 provide critical habitat for many species of wildlife, including white-tailed deer, moose, black
15 bear, wild turkey and a variety of songbirds. The larger the blocks of contiguous forestland, the
16 greater the number of wildlife species it supports. Connections between large blocks of forest
17 land allow for larger habitat areas and greater biodiversity.

18 Forests are also important to the local economy by providing products such as lumber,
19 pulpwood, fuel wood, and maple syrup. Vermont and the rest of the New England states have been
20 deforested three times since the settlement of America by early colonialists. Yet, the majority of land
21 in Chester is in woodland or forest. The predominant canopy species have changed since pre-
22 settlement. The forests and woodlands of Chester are currently a mix of broadleaves and conifers.
23 Sugar Maples are important part of Vermont’s, and Chester’s, cultural heritage, providing colorful
24 foliage and maple syrup.

25 Outdoor recreation is enjoyed by many of the Town’s residents and is an attraction for tourists.
26 Woodlands support a variety of recreational pursuits including hunting, trapping, hiking,
27 horseback riding, cross-country skiing, snowmobiling, and nature and foliage viewing.
28 Forestland in Chester also supports some low-density residential uses.

29 Most of the forests in Chester are under private ownership. Currently, 14,360 acres of land in
30 Chester is enrolled in the current use (or Use Value Appraisal) program. The program provides
31 reduced property tax assessment for qualifying owners of forest and agricultural land. The State of
32 Vermont reimburses communities for some of the tax revenue that is lost due to enrollment of land
33 under the program. In addition, nearly 734 acres are protected under a private easement.

34 However, a few important forests are publicly owned, including the Williams River State Forest,
35 the Town Forest and Doctor Adams’ land, as discussed in the Utilities and Facilities Chapter.

36 Forests are threatened by fragmentation caused by roads and residential development, and
37 irresponsible logging practices. Development in forested areas should be encouraged to occur at
38 the periphery where access can be provided by existing roads.

39

40

1 **Mineral Resources**

2 Granite, gravel and sand are the only local earth resource extraction operations at this time, but
3 other resources such as soapstone and talc, as well as minerals, precious stones and metals, such
4 as gold, are present. Mining provides jobs and is a valuable source of income for rural
5 communities. Resources from mining make activities such as building construction, road
6 development, and a variety of other manufacturing processes possible. There are few local
7 sources for sand, gravel and stone for local highway and construction uses. The Town Highway
8 Department’s current source has an estimated 4 to 5 years supply. After that, the nearest source
9 is more than three times as far away, significantly increasing the costs for these materials.
10 Therefore, local production of these materials could benefit the taxpayers. However, mining and
11 mineral extraction can also adversely affect the roads, rural landscape, essential wildlife habitat,
12 and the peace and quiet of the rural community. Residents participating in the public outreach
13 efforts value a working landscape, including mining, but also expressed a desire for strict
14 regulations to protect the environment and adjacent land uses. These adverse impacts can and
15 should be mitigated by conditional use, site plan review and performance.

16
17 **Earth Resources Goals**

- 18 1. To promote the continued use of agricultural and forested lands in a manner
19 which helps to maintain or preserve the natural beauty, function and productivity
20 of the lands.
- 21 2. To encourage sustainable uses of Chester’s marketable natural resources.
- 22 3. To encourage the extraction and processing of mineral resources in a manner that
23 is appropriate and consistent with Chester’s rural character.

24
25 **Earth Resources Policies**

- 26 1. Primary agricultural lands, as defined by the USDA, should be devoted to the
27 production of agricultural products, or to uses that will maintain or preserve such
28 lands for future agricultural operations.
- 29 2. Any development planned for agricultural or forested lands shall locate to the
30 periphery of these resources in order to avoid fragmentation and encourage the
31 natural productivity of these lands.
- 32 3. All logging and forest-related activity should be done in accordance with Best
33 Management Practices (BMP) and Acceptable Management Practices (AMP) as
34 established by the Vermont Agency of Natural Resources (ANR).
- 35 4. The extraction of any earth resource shall be permitted only when the present and
36 future effects of such extractions or related processing are not unreasonably
37 damaging to the surrounding properties, essential wildlife habitat, and the
38 environment.
- 39 5. Special interests shall not override the health and integrity of the entire
40 environment.

- 1 6. Require that earth resource extraction activities do not adversely affect
2 surrounding properties and mitigate adverse impacts on essential wildlife habitat,
3 and that extraction sites be restored to viable condition in a timely manner.
- 4 7. Roads and driveways shall meet town standards and shall provide adequate, safe
5 emergency vehicle access.

6
7 **Earth Resources Recommendations**

- 8 1. Promote, through education, the correct management practices for agriculture and
9 forest-related activities by using the expertise of professionals.
- 10 2. Work with area land trusts, in cooperation with land owners and the community,
11 to educate people on the different methods available to preserve important
12 forested and agricultural lands.
- 13 3. Identify areas of significant aesthetic value to the entire community.
- 14 4. Review local and state regulations to assure that the public interest is protected.
15 Amend local regulations to conform to any revised state regulations.
- 16 5. Consider land use regulations to restrict developments in steep slope areas

17
18 **Water Resources**

19 **Water Bodies and Watercourses**

20 The majority of land area in Chester is within the Williams River watershed, but the northeast
21 corner of the Town surrounding the Great Brook is in the Black River watershed. The village of
22 Chester is located at the confluence of the north, south and middle branches of the Williams
23 River, which meet and form the mainstem of the Williams River just southeast of VT Route 11
24 near Green Mountain Turnpike. The Williams River forms a broad, fertile valley through
25 Chester. There are a few small ponds in Chester; most notable is the Chester Reservoir located
26 in the Town Forest, which is discussed in the Utilities and Facilities Chapter.

27 Water bodies and watercourses serve a variety of important functions, including scenic beauty,
28 recreation, wildlife habitat, food supply, commercial and industrial uses, and drinking water
29 supplies. The rivers and many of the streams contain healthy populations of native fish. The
30 middle and north branches and the mainstem of the Williams River offer good whitewater
31 boating opportunities. Rivers and streams are sensitive to change, and land uses can affect water
32 quality and river stability further downstream.

33 In June 2008, the Vermont Agency of Natural Resources (ANR) adopted a Basin 11
34 Management Plan, which includes the Williams River watershed. The primary water quality
35 problems for the basin include water temperature warming, siltation and sedimentation, and
36 altering the physical habitat. The primary causes of those problems include removal of riparian
37 vegetation, streambank modification and destabilization, and channelization. The North Branch
38 of the Williams River is prone to ice jams and flooding in the late winter and early spring.

1 Due to the significance of these surface waters, it is important that they be protected. Protection
2 of surface waters involves stream bank management, overseeing point source discharges of
3 wastes, and controlling non-point sources of water pollution (for example, agricultural runoff,
4 erosion from logging or construction, and stormwater runoff from roads and impervious
5 surfaces). Naturally vegetated buffers next to surface waters can help to filter pollutants, provide
6 shade for fish, and habitat for birds and mammals. In addition, wider buffers (over 100 feet) can
7 provide natural greenways and wildlife corridors.

Wetlands and Vernal Pools

8
9
10 A number of wetlands are also located throughout Chester, many of which are included in the
11 National Wetlands Inventory. Wetlands) are biologically productive ecosystems and serve a
12 variety of functions: retaining stormwater runoff, reducing flood peaks, protecting groundwater
13 quality, filtering eroded sediment, and providing habitat for a wide diversity of plants and
14 animals. They also provide open space and contribute to Chester’s scenic landscape. According
15 to the Vermont Wetlands Rules, Class 1 and 2 wetlands (those identified in the National
16 Wetlands Inventory) require conditional use review by ANR prior to the issuance of a local
17 zoning permit. Class 3 wetlands are not included in the National Wetlands Inventory and are not
18 protected by the Wetland Rules.

19 Vernal pools are temporary bodies of water which usually occur in woodland depressions and
20 provide important breeding areas for a variety of amphibian and insect populations. Most vernal
21 pools in Vermont are filled by spring rains and snow melt and are dry during the summer. They
22 provide safe breeding grounds for insects and amphibians because they do not support fish
23 populations. Most vernal pools in the state occur in forested habitats, but they may also be found
24 in meadows, sand flats, and river flood plains. Because of their small size and temporary nature,
25 vernal pools are not protected under the Vermont Wetland Rules.

26 The Town may wish to inventory Class 3 wetlands and vernal pools and consider protections in
27 local regulations as well.

Groundwater

28
29
30 Groundwater is Chester’s primary source of drinking water. It moves underground through
31 aquifers, which are water-bearing strata of permeable rock, sand, or gravel. Maintaining good
32 quality and adequate quantities of groundwater are important considerations for preserving the
33 public health and safety. Potential groundwater pollutants include septage from improperly
34 designed or malfunctioning septic tanks and leaching fields for wastewater, leakage from
35 underground gas and oil tanks, and improperly disposed of chemical or radioactive materials.
36 Once contamination occurs, control and abatement are extremely difficult, if not impossible.
37 The key is to prevent pollution from entering rock fractures in the first place. Chester’s Zoning
38 Ordinance established two aquifer protection districts to protect the public water supply.

39 Effective June 9, 2008, Section 1 of Vermont Act 199 sets forth the General Assembly’s finding
40 that groundwater resources of the state are held in trust for the public.

Flood Hazard Areas

1
2 In the 2006 Chester Predisaster Mitigation Plan, flooding is identified as the most probable
3 hazard event in Chester. This is true especially given the proximity of infrastructure and the
4 village area to flood hazard areas, and the large number of river and stream crossings in Chester.
5 Chester has flood hazard regulations in effect and is in the National Flood Insurance Program
6 (NFIP). These regulations establish development standards for areas within floodway and
7 floodplain areas as discussed below. Chester residents or business owners with buildings in the
8 floodplain may purchase flood insurance through the National Flood Insurance Program (NFIP).
9 Through the NFIP Community Rating System (CRS), a town which exceeds the minimum
10 requirements may qualify for a special classification which would reduce flood insurance rates
11 for its policy holders. Any development in the flood hazard areas requires local flood hazard
12 review.

13 Chester flood hazard regulations pertain to both floodway and floodplain areas as mapped by
14 FEMA. These represent land areas in Chester which in any given year have at least a one
15 percent chance of being inundated by flood waters. This is known as a 100-year flood event.
16 Floodways are the river channels during a 100-year flood event. The floodway fringe is the
17 adjacent areas where 100-year flood waters pond, but are not flowing as in the floodway channel.
18 They serve as storage areas for water during periods of heavy rains and spring snow melt,
19 agricultural fields, wildlife habitat and travel corridors. These areas also present limitations to
20 development due to the hazards of flooding and related damage.

21 Development outside of these FEMA-designated flood hazard areas does not guarantee safety
22 from potential flooding. Flash flooding is also a possibility along smaller and seasonal streams.
23 These flood prone areas are not inventoried at this time. Since Chester is in the NFIP, owners of
24 buildings in areas that might be subject to flash flooding may choose to buy flood insurance.

25
26

Water Resources Goals

- 27 1. Maintain or enhance the integrity and functions of Chester’s surface waters and
28 wetlands.
- 29 1. Protect the quality and quantity of groundwater for Chester residents.
- 30 2. To encourage flood resilient communities.
- 31

Water Resources Policies

- 32
- 33 1. Continuous areas of undisturbed vegetation along rivers and streams should be
34 encouraged, thereby protecting shorelines, wildlife habitat and scenic quality.
- 35 2. New development adjacent to streams or rivers must be designed to cause
36 minimal damage to the stream environment. Any such development should be
37 planned so that surface waters do not become silted, contaminated or otherwise
38 degraded.
- 39 3. Natural vegetated buffer strips between development and surface waters should be
40

1 maintained.

- 2 4. Any storing or transporting of chemicals or other hazardous material should be
3 done in such a manner so as to have no adverse effects on streams or other
4 sources of water.
- 5 5. The use of road salts and other chemicals adjacent to sensitive areas such as
6 wetlands, stream crossings, and steep slopes should be minimized.
- 7 6. Any alterations to ponds and wetlands must be in compliance with local zoning
8 and all State and Federal laws.
- 9 7. Restrict development within the aquifer protection districts in order to protect the
10 public drinking water.
- 11 8. Adopt *Chester's All Hazard Mitigation Plan (AHMP)*, as most recently approved
12 under 44 C.F.R. §201.6, to serve as the flood resilience element for *Chester's*
13 *Town Plan*, including the flood resilience-related strategies identified in the
14 *AHMP*.

15 16 **Water Resources Recommendations**

- 17 1. Review zoning regulations to protect rivers and streams, ponds and wetlands not
18 already protected under state law.
- 19 2. Include high elevation streams and buffer areas in a plan for open space
20 conservation.
- 21 3. Consider conducting an inventory of class 3 wetlands and/or vernal pools.

22 23 **Wildlife Resources**

24 25 **Wildlife Habitat and Travel Corridors**

26 Chester's landscape includes a variety of natural resources such as rivers, streams, forests and
27 wetlands that provide habitat for numerous wildlife and aquatic species. Chester residents value
28 watching wildlife in their backyards, hunting, fishing, as well as supporting efforts to preserve
29 open spaces and riparian areas for both recreational uses and preserving wildlife habitat. The
30 abundance and diversity of wildlife provide both economic and recreational opportunities for
31 residents. In addition, lands that are left undeveloped to provide for wildlife habitat also
32 contribute to the rural character of the Region.

33 A diversity of habitat types is needed for the continued existence of the various fish and wildlife
34 species that inhabit the town. Many animals rely on large contiguous areas of forests, fields and
35 other undeveloped lands for food, shelter, breeding grounds and migratory stop-overs. The
36 fragmentation of such land can result in decreases in the number of species and the sizes of
37 populations of many species. Moose, whitetail deer, black bear, bobcat and wild turkey are a
38 few of the animals that can be found in Chester. A variety of songbirds reside in wooded areas

1 that are characterized by less intense human use. Although most development in Chester is done
2 on a relatively small scale, cumulative development can combine overtime to have a major
3 impact on wildlife habitat. These cumulative impacts can cause fragmentation of these habitat
4 areas, potentially diminishing or eliminating the land needed to support some species.
5 Conservation of a diverse mix of natural areas and attention to connections between large tracts
6 of wildlife habitat is necessary in order for a diverse and healthy wildlife population to survive
7 and flourish.

8 The Wildlife Habitat Map shows wildlife habitat suitability areas as mapped by the Vermont
9 Department of Fish and Wildlife. These areas represent undeveloped areas most likely to
10 support a broad spectrum of wildlife. These mapped wildlife habitat suitability areas should be
11 used as an indicator, and more detailed inventories or site investigations should be used to
12 determine the actual critical wildlife habitat areas.

13 Based on state wildlife/vehicle crash data and the proximity of large blocks of wildlife habitat
14 suitability areas, the following approximate areas appear to have potential value as wildlife travel
15 corridors:

- 16 • Grafton Road south of Popple Dungeon Road
- 17 • Ingraham Hill Road
- 18 • Old Stage Road south of Popple Dungeon Road
- 19 • Smokeshire Road west of Miner Road
- 20 • VT Route 11 between Shady Grove Lane and Swett Road
- 21 • VT Route 103 between Jewett Road and Brooks Road
- 22 • VT Route 103 between Cavendish Road and Wyman’s Falls Road
- 23 • Williams Road
- 24 • Wyman’s Falls Road (Class 4 section)

27 **Rare, Threatened and Endangered Species**

28 The Wildlife Habitat Map also shows the approximate locations of rare, threatened and
29 endangered species. According to the Vermont Non-game and Natural Heritage Program, these
30 include two vascular plants occurring along the North Branch of the Williams River. The DRB
31 should contact the Department of Fish & Wildlife to evaluate the potential impacts of any
32 proposed development in these areas.

34 **Wildlife Resources Goals**

- 35 1. Encourage the biodiversity and population of wildlife, including natural predators,
36 by minimizing development impacts on large blocks of habitat and wildlife travel
37 corridors.

- 1 2. Protect rare, threatened and endangered species and their habitats.
2

3 **Wildlife Resources Policies**

- 4 1. Develop strategies to protect areas containing rare species, exemplary natural
5 communities and necessary wildlife habitat. Strategies may include public and
6 quasi-public ownership or conservation easements protecting such lands.
7 2. Encourage the conservation of contiguous properties and discourage practices
8 which fragment wildlife habitat.
9 3. Development should be designed and sited in a manner to preserve contiguous
10 areas of active or potential wildlife habitat by clustering, building to the periphery
11 of habitat areas and/or planned unit developments.
12 4. Corridors connecting habitat areas for large mammals must be incorporated in
13 plans for management and conservation of forested areas.
14 5. Fragmentation of significant and necessary wildlife habitat should not be
15 approved.
16 6. Development shall protect rare, threatened and endangered species.
17

18 **Wildlife Resources Recommendations**

- 19 1. Request that the Regional Planning Commission create and update maps
20 indicating the locations of state regulated natural resource constraints.
21 2. Consider conducting a local inventory of wildlife habitat areas.
22 3. Review subdivision regulation to ensure conformity with wildlife habitat policies.
23 4. Seek input from the Vermont Department of Fish and Wildlife on the potential
24 impacts of development on identified rare, threatened or endangered species.
25

26 **Air Quality**

27 Chester does not have a heavy industrial base or concentrated population that has led to an air
28 quality problem. Accordingly, the Town's good air quality constitutes an environmental
29 resource that has aesthetic as well as human health benefits. Elements that could negatively
30 affect air quality include: smell, light, particulate matter (from dust, smoke or fumes), radiation,
31 chemical vapors, motor vehicle exhaust and power plant emissions.
32

33 Chester's ambient air quality should be maintained. Town equipment should meet emission
34 standards. The town should take an active role in the review of development proposals or plans
35 that could adversely affect air quality.
36

1 **Light Pollution**

2 Chester residents who participated in the 2008 Community Values Workshop identified the dark
3 night sky and rural character as some of the things they love about Chester. Light pollution from
4 development can negatively impact the rural character and quality of life enjoyed by Chester
5 residents. The Chester Zoning Bylaws establish standards to reduce glare from illuminated signs
6 and regulate lighting through site plan review and under performance standards for conditional
7 use review. Lighting levels should be a balance between aesthetics, security, energy efficiency,
8 reducing adverse impacts on the night sky, and safety (i.e. reducing glare).

9 **Air Quality and Light Pollution Goals:**

- 10 1. To maintain Chester’s good ambient air quality and clear night sky.
11

12 **Air Quality and Light Pollution Policies:**

- 13 1. Town equipment should meet emission standards.
14 2. Proposed new lighting should avoid glare and other unnecessary light pollution.
15 3. The DRB should take an active role in reviewing development proposals for air or
16 light pollution.
17

18 **Air Quality and Light Pollution Recommendations:**

- 19 1. Review land use regulations to ensure conformance with air quality and light
20 pollution policies.
21

22 **Ridgelines and Scenic Views**

23 Several areas in Chester are known regionally for their scenic views and landscape. In the 2008
24 Town Planning Survey, a high percentage of respondents answered that scenic views, rural
25 character, ridgelines, wildlife habitat, important farmlands and water resources should be
26 preserved. The following specific resources were identified as “scenic” at the 2008 Community
27 Values Workshop:

- 28 • Wyman’s Falls
29 • Wyman’s Falls Road
30 • The Pinnacle
31 • Town Forest
32 • Williams River
33 • Farms along the Williams River
34

1 Prominent hills and ridgelines are valued by Chester residents. Chester has several hills or ridges
2 that rise above 1,500 feet in elevation, including Steadman Hill (2,309 feet), Ingraham Hill
3 (1,948 feet) and Butternut Hill (1,715). These areas are not only fragile due to high elevation
4 and steep slopes, but are also valued for their scenic attributes, wildlife habitat and forestry.
5 Development in these areas should be discouraged, but if allowed should take precautions to
6 minimize negative impacts, including establishing no-cut zones or requiring landscaping.

7
8 **Ridgeline and Scenic View Goal:**

- 9 1. Preserve the scenic views and ridgelines that most contribute to Chester’s rural
10 character.

11
12 **Ridgeline and Scenic View Policies:**

- 13 1. Development is discouraged in identified scenic areas and ridgelines. Any
14 development in these areas should minimize negative visual and environmental
15 impacts.

16
17 **Ridgeline and Scenic View Recommendations:**

- 18 1. Consider land use regulations to restrict developments along ridgelines and in
19 scenic areas.

20
21 **Cultural Resources**

22
23 The Chester Village Historic District (entered in the National Register on August 8, 1985)
24 corresponds to the village center, focused on the Green together with related historic
25 development along Main Street between Maple Street and Lovers Lane, including seven side
26 streets. The Chester Village Historic District occupies the flat bottomland along the north side of
27 the Middle Branch of the Williams River. The river flows along the base of a ridge whose
28 abrupt slope provides a south backdrop for the village. A similar juxtaposition defines the valley
29 bottom on its north side where a small brook flows essentially parallel to the Middle Branch, also
30 flowing along the foot of a low ridge. There are 156 principal buildings in the district, among
31 which only 17 buildings do not contribute to the district’s historic character. The architectural
32 styles represented include the Federal, Greek Revival, Italianate Revival, Gothic Revival, Queen
33 Anne/Eastlake, Colonial Revival, and Georgian Revival. Most are of wood-frame construction
34 and the buildings generally share the temple form and domestic scale with gable facades oriented
35 toward the street. There are three examples of the “snecked ashlar” construction (which is
36 prevalent in the buildings of the Stone Village Historic District). Although a few intrusions have
37 appeared in the recent decades, Chester Village Historic District retains to an extraordinary
38 extent the integrity of its nineteenth and early twentieth century architectural environment. The

1 description of the district and of the various individual buildings can be found in the National
2 Register under the Chester Village Historic District.

3 The Stone Village Historic District (Entered in the National Register on May 17, 1974) lies
4 northerly of the Village District, on either side of Route 103 between the bridge over the
5 Williams River northerly to the “Tavern” building, a distance of about 0.6 of a mile. The Stone
6 Village is set in the Williams River Valley, where the river’s alluvial plane opens to the west of
7 the community and provides an expansive view to the opposite bluff about a quarter-mile away.
8 The base of Mt. Flamstead is near the rear of the structures on the east side of the two-lane, tree-
9 lined, paved VT Route 103, and the hillside provides a striking backdrop to the village. Of the 18
10 buildings that comprise this Historic District, 13 of the buildings are fine, well-maintained
11 examples of “sneaked ashlar” construction . The buildings described in this historic district are a
12 church, a school, a tavern, a barn and 14 residences. The description of the district and of the
13 various individual buildings can be found in the National Register under the Stone Village
14 Historic District.

15 Other important historic resources identified at the 2008 Community Values Workshop include
16 cemeteries, the Academy building, Yosemite Fire House and historic school houses. Important
17 cultural resources include the town center and “village charm,” Village Green, railroad and train
18 station, Player’s Guild, Ellsworth medical clinic, public transportation services, community
19 events sponsored by local businesses, and a sense of community.

20 Future development, including road and bridge projects, should be sited so as to preserve these
21 historic and cultural resources for future generations.

22

23 **Cultural Resources Goals**

- 24 1. Protect and preserve the structures recorded in the state and national registers of
25 historic places.
- 26 2. Protect and preserve the cultural resources as they are identified by the residents
27 of Chester.
- 28 3. Protect and preserve the physical setting and aesthetics of the area within which
29 the historic villages are set.

30

31 **Cultural Resources Policies**

- 32 1. The demolition of historically significant structures should be discouraged.
- 33 2. Property owners of historic structures seeking inclusion in the State or National
34 Registers should be encouraged and assisted in their efforts.
- 35 3. Encourage the preservation of historic buildings.

36

37 **Cultural Resources Recommendations**

- 38 1. Review bylaws to strengthen protection of historic structures and the aesthetics of
39 the surrounding area.

- 1
 - 2
 - 3
 - 4
2. Cooperate with local Historical Societies and the Vermont Division for Historic Preservation to build a public consensus for the value of historic structures.
 3. Inventory cultural resources as identified by the residents of Chester.
 4. Consider applying for Village Center Designation.

Chapter 5 Education and Child Care Facilities

Education Facilities

School districts in Vermont began a process of consolidation after the passage of Act 46 in 2015. Chester is currently a member of the Green Mountain Unified School District with the towns of Andover, Baltimore and Cavendish. The Green Mountain Unified School District is a member of the Two Rivers Supervisory Union along with the Ludlow Mount Holly Unified Union School District. There are 6 directors from Chester on the 11-member Green Mountain Unified School District board. The Town of Chester has two school buildings. Chester-Andover Elementary School on Main Street houses grades K-6 and Green Mountain Union High School on Route 103 south of the center houses grades 7-12.

Historically, the number of students enrolled in the Chester-Andover Elementary School has ranged between a high of 373 students in 1960 to a low of 239 in 2019-2020. Enrollment has gradually decreased in recent years. This trend may not continue.

The Green Mountain Union High School (7-12), which was built in 1971, has students from the Towns of Andover, Cavendish, and Chester and, since 2000-2001, tuition students from the Towns of Baltimore, Grafton, Ludlow, Londonderry and Weathersfield. Since 1980, the enrollment has fluctuated between a high of 479 in 1980 to a low of 308 in 2019-2020.

Green Mountain Union High School students may receive vocational and technical training at the Howard Dean Educational Center, in Springfield, VT. Continuing education programs are offered through Community College of Vermont and Johnson State College External Degree Programs in Springfield. The Head-Start Program is being offered at Green Mountain Union High School. Opportunities in Learning, an alternative educational program, is offered at Cavendish Town Elementary School, in Proctorsville, VT.

Capital needs are currently being studied and addressed by the Town and the School Trustees.

Homeschooling in Chester is overseen by the Vermont Agency of Education, Home Study Program. Most of the information needed to set up a homeschool in Vermont can be found on the Home Study website at <http://education.vermont.gov/vermont-schools/school-operations/home-study>. Home Study Enrollments and Evaluations, also known as End of Year Assessments (EOYA,) must be received by August 1 each year. In accordance with State Agency of Education accountability goals, and Vermont law, the home study program works to ensure that all students enrolled in home study programs have access to a quality education. When required, the program provides technical assistance to improve the quality of a home study program.

1 Homeschooled students are also able to participate in extracurricular sports and arts/theater
2 programming at the Chester-Andover Elementary School and the middle and high schools at
3 Green Mountain Union High School, as well as up to 3 of the core classes. Additionally, students
4 that are enrolled in the public school in Chester are entitled to participate in home study of up to
5 3 core courses. The number of homeschooled students has been increasing in recent years, up
6 from 14 in 2013 – 2014 to 18 in 2019 – 2020.

7
8 There are a variety of classes and programs available in Chester to enrich both the homeschool
9 and public-school experience. Several homeschool groups meet on a regular basis in the region,
10 and at least one evaluator lives in Andover, part of the Two Rivers Supervisory Union. The
11 Whiting Library in Chester, the Springfield Town Library, and the bookstore in Chester all offer
12 children’s programming throughout the year. Quilting, art, pottery and painting classes are
13 offered at various establishments in Chester, and at Main Street Arts in Saxtons River. Music
14 and dance classes are available through the Community Art Center, a local dance school, and the
15 Chester Recreation Department. There are two outdoor wilderness programs for youth in
16 neighboring Andover. Several yoga classes are available in Chester. The Nature Museum in
17 Grafton hosts programming throughout the year in Grafton and at the NewsBank building and
18 Whiting Library in Chester.

19
20 The Vermont Home Study Team is very active in helping homeschoolers in their educational
21 pursuits. An email list with opportunities is sent out on a regular basis. Other useful list serves
22 are SoVtHomeschoolers@googlegroups.com for Southern Vermont and
23 groups.yahoo.com/neo/groups/cvt_homeschoolresource/info for Central Vermont. Chester is on
24 the edge of these two regions.

26 **Childcare Facilities**

27 Childcare is an important consideration for employers and families with young children. In
28 2018, Chester has two licensed child care providers including:

- 29 ▪ Chester Community Preschool at Green Mountain Union High School
- 30 ▪ Chester-Andover Elementary School After School Program.

31 There are also two registered family child care homes in town, according to the Vermont DCF
32 Bright Futures childcare information [website](#). There are many additional licensed providers and
33 registered homes in the surrounding towns. Childcare facilities are allowed for under Chester’s
34 Unified Development Bylaws in accordance with Section 3.10.

1 **Goals and Policies**

2 **Education and Childcare**

- 3 1. The Town should continue to provide high quality, cost effective educational
4 opportunities and amenities to all students residing in Chester, as well as those attending
5 Chester schools, who reside in other Towns.
6 2. Any new development which results in significant increases in the number of school-age
7 children should not place a significant burden on Chester's taxpayers or existing school
8 facilities.
9 Support the development and operation of child care facilities within the town.

Chapter 6 Energy

1. Purpose

It is the overall intent of this chapter to encourage the efficient use of energy and the development of renewable energy resources in accordance with 24 V.S.A. §4302(c)(7). It is also the intent of this energy chapter to address the requirements of Act 174 of 2016 and to meet the enhanced energy planning standards developed by the Vermont Department of Public Service (DPS). This was prepared based upon the *Guidance for Municipal Enhanced Energy Planning Standards* (DPS; March 2, 2017) in order for the Chester Town Plan to be given greater weight in the Section 248 process. This chapter describes existing conditions in Chester and conveys community policies on energy conservation, renewable energy production, and how land uses can contribute toward energy conservation.

The Southern Windsor County Regional Planning Commission (SWCRPC) has developed a 2018 *Regional Energy Plan* to meet these standards in order to receive Section 248 “substantial deference”. Chester is coordinating the development of this municipal energy plan with the SWCRPC so that:

1. The municipal plan is informed by the ongoing regional energy planning process; and,
2. The municipal plan is compatible with the regional plan.

This energy chapter was developed with assistance from the SWCRPC through funding provided by the Vermont Department of Public Service.

1.1 Community Energy Survey

A survey was conducted in January 2018 to get input from residents to assist in this enhanced energy planning process. Key findings from this survey are summarized below.

1. The vast majority of respondents indicate that energy issues are very important (57%) or important (29%) to them. A majority (about three-quarters of the respondents) support the goal of 90% of energy coming from renewable sources by 2050.
2. There is very strong support for roof-mounted solar arrays.
3. Strong support was expressed for non-residential solar power.
4. Support was expressed for non-residential wind power; however, 23% are not in favor and another 21% are neutral.

For more detail about the survey see Appendix 6C.

Due Consideration: To give such weight or significance to a particular factor as under the circumstances it seems to merit, and this involves discretion. [*Black’s Law Dictionary, 6th ed. 1990*]

Substantial Deference: Means that a land conservation measure or specific policy shall be applied in accordance with its terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy. [*30 V.S.A. §248*]

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1.2 Energy Goals

Through the 2016 Vermont Comprehensive Energy Plan (CEP) and Statute, the State of Vermont has identified a number of goals and strategies to achieve energy conservation throughout the state. The Town of Chester embraces the State Energy Goals¹ including but not limited to the following. Through the detailed policies and actions contained in this plan, Chester will strive to achieve these goals.



**Reduce total energy consumption per capita
by**

15% by 2025

More than one third by 2050

8
9



**Reduce greenhouse gas (GHG) emissions from 1990
levels**

40% reduction by 2030

80% to 95% reduction by 2050

10



**Meet remaining energy need from renewable
sources**

25% by 2025

40% by 2035

90% by 2050

¹ Energy goals as referenced in 24 V.S.A. §4302(7), 10 V.S.A. §578(a), 10 V.S.A. §580, 10 V.S.A. §581, and in the Vermont Comprehensive Energy Plan

2. Analysis of Energy Use

2.1 Power Generation and Transmission Facilities

Green Mountain Power (GMP) is the electric utility provider in Chester and surrounding towns. There are no utility-scale power generation facilities located in Chester. There are 38 known renewable energy generation sites in town presently. Two commercial-scale ground-mounted solar facilities were constructed in Chester within the last few years, both in close proximity to the Chester Substation. There is one known residential-scale wind turbine located in Chester at this time, which is net-metered. See Appendix 6A for more detail about existing energy generation.

Electric transmission is provided by the Vermont Electric Power Company (VELCO). Transmission facilities located in Chester include the following, which are shown on the maps in Appendix 6D:

- Chester Substation, located along VT Route 103 south of the intersection with Trebo Road;
- A 46 KV line that parallels Trebo Road;
- A 46 KV line that cuts through the northeast corner of Chester; and,
- Two 345KV line along the western town boundary with Andover.

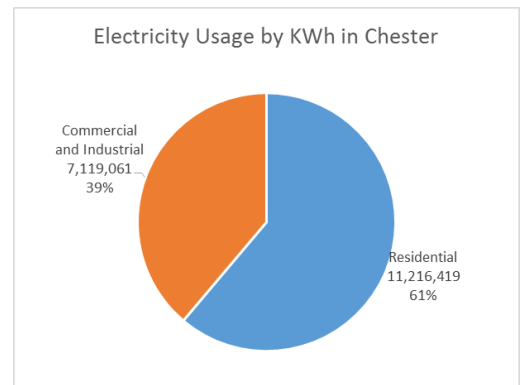
2.2 Energy Usage

As discussed in the *2016 Vermont Comprehensive Energy Plan (CEP)*, “fossil fuels currently play a dominant role in meeting Vermonters’ demand for energy services, with gasoline and distillates (namely diesel and heating oil) alone supplying around half of all of Vermont’s primary energy consumption”. The CEP states that less than 20% of the statewide consumption of primary energy is from renewable energy sources. More than two thirds of that renewable energy comes from the electric power supply, which includes power generated by hydro, biomass, wind, solar and other facilities. The remaining renewable energy consumption in Vermont is largely comprised of wood for home heating and ethanol blended into gasolines².

2.3 Electricity

In 2015, residences accounted for 61% of the current total annual electricity usage, and commercial and industrial uses accounted for 39% of the total 18,335,480 kWh used in Chester. See Figure 6.0 that summarizes electricity use data provided by Efficiency Vermont. Average residential usage is 6,689 KWh (2015).

According to Department of Labor Statistics, there were 129



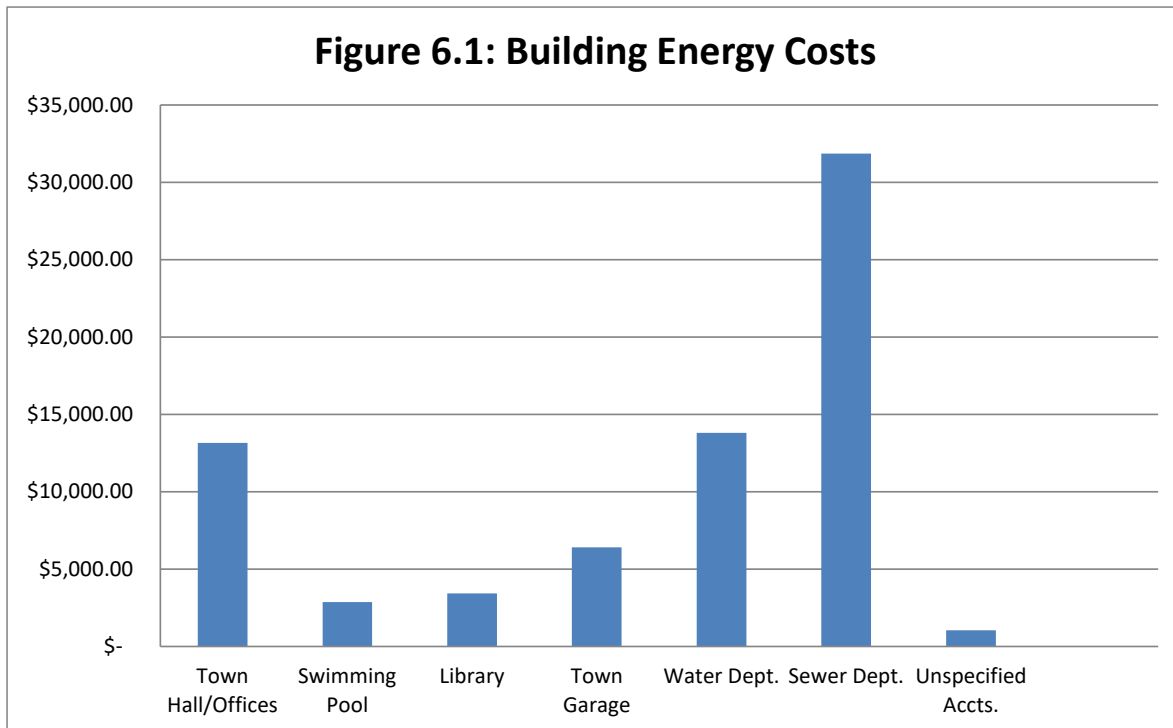
² Vermont Comprehensive Energy Plan (Department of Public Service, 2016)

1 commercial establishments in Chester during 2015.

2 Figure 6.0

3 Total electricity consumption has essentially leveled off in recent years. (There was a slight
4 increase in total electricity usage in Chester between 2014 and 2016.) See Appendix 6A for
5 more detail.

6
7 An older energy analysis found that the Town of Chester spent \$192,795 on fuel (2010), of
8 which 38% was for municipal buildings and 62% for the municipal vehicle fleet. When
9 comparing costs for municipal facilities, the Sewer Department had the highest fuel costs,
10 followed by the Water Department, and then the Town Hall (see Figure 6.1). An energy audit
11 was performed for the Town Hall and a number of recommendations have been implemented to
12 date, including air sealing and basement insulation. The Town is exploring opportunities to
13 make additional energy efficiency improvements to the Town Hall. Audits of other municipal
14 facilities would be helpful to identify cost-effective energy upgrades for other municipal
15 facilities.



16
17

18 2.4 Heating

19 Of the 1,793 total household units in Chester, 18% are seasonal and 20% are renter-occupied.
20 See Table 6-A.2 in Appendix 6A, which summarizes total housing units in Chester by type from
21 the 2010 Census Bureau.

1 Fossil fuels are currently the primary fuel type used for heating structures in Vermont³.
2 According to American Community Survey (ACS) data (2011-2015), the predominant ways to
3 heat homes in Chester include fuel oil (62%), wood (25%) and propane/LP gas (13%). In 2015,
4 the estimated average annual cost to heat a home was \$1,452 and about \$6,248 to heat a
5 business. See Appendix 6A for more detail about heating existing buildings.

6 Wood is the only form of these heating fuels that is renewable and locally produced. Sustainable
7 forestry operations are important not only to supply fuel wood for residents, but also to maintain
8 an active working landscape in rural Chester and support a local forestry economy.

9

10 2.5 Transportation

11 As a rural area, transportation options for Chester residents is dominated by the personal
12 automobile (see the Transportation Chapter for more information about other modes of travel).
13 The negative environmental impacts of single-occupant vehicle driving is well documented.
14 Costs associated with using an automobile for most of your travel needs can be significant (see
15 the Housing Chapter for more information on household transportation costs). About 88% of the
16 local work force travel to jobs located in another town. Common work destinations are Chester,
17 Springfield, Ludlow, Bellows Falls, and Rutland. Approximately 71% of employed Chester
18 residents drive alone to work. The average commute time is 21 minutes.

19 According to ACS data, there were about 1.9 vehicles per occupied household in 2015. The
20 average vehicle miles traveled in a year is estimated at nearly 13,200, which accounts for
21 approximately 1.9 million gallons of total fuel used and an estimated total fuel cost of more than
22 \$4.4 million.

23 Fuel costs are volatile. Gasoline costs of around \$4 a gallon in 2008 and \$3.70 in 2014 were
24 challenging for many household budgets. During June 2018, average motor vehicle fuel costs in
25 Vermont are about \$2.96 per gallon.

26 Chester's *Village Center Master Plan* includes recommendations to improve the walking and
27 bicycling facilities in the villages, some of which the Town is actively implementing.

28

29 3. Energy Targets

30

31 The standards that the Department of Public Service has established for energy targets must be
32 met if this Plan is to receive substantial deference in Section 248 energy siting proceedings.
33 Chester is utilizing targets (or scenarios) developed using the Long-Range Energy Alternatives
34 Planning (LEAP) Model and provided to Chester by the SWCRPC. The background for the
35 targets are described in more detail in the *2018 Southern Windsor County Regional Energy Plan*.
36 The purpose of the targets, when combined with the analysis presented in the previous section,
37 are intended to provide an overview of existing energy use and projections for the pace of change

³ Vermont Comprehensive Energy Plan (Department of Public Service, 2016)

1 that is needed over the next three-plus decades. **The targets simply demonstrate that, in order**
2 **to meet 90% of Vermont’s energy need from renewable sources by 2050, a significant**
3 **amount of change will be needed in the forms of energy conservation, behavior**
4 **modification, and development of new local renewable energy generation.**

5
6 Energy targets for Chester are presented in Appendix 6B.

7 8 **4. Implementation Actions (Pathways)**

9
10 In order to meet our stated energy goals and targets, the Town of Chester identifies the following
11 implementation actions, also referred to as “Pathways”. These implementation action categories
12 are intended to be consistent with those used in the *Guidance for Municipal Enhanced Energy*
13 *Planning Standards* (DPS; March 2, 2017).

14 15 **4.1 Conservation and Efficient Use of Energy**

16 The Town of Chester encourages the conservation and efficient use of energy.

17 Efforts to improve energy efficiency and conservation are Chester’s initial focus. Chester has
18 identified the following implementation actions to achieve this policy.

19
20 In order to assist in implementing these actions, the Town will consider establishing an Energy
21 Committee under 24 V.S.A. §§4433, 4464. The Town will also consider including priority
22 municipal energy efficiency projects into the Capital Budget and Program. The Town may also
23 consider establishing a fund to support appropriate municipal energy projects (e.g. capital
24 projects, outreach efforts, incentives).

25 **4.1.1 Encourage Conservation by Individuals and Organizations**

26 Chester cannot control the use of energy by individuals and organizations. However, the Town
27 can lead by example, serve as a resource, and encourage individuals and organizations to
28 conserve and use energy efficiently. To do so, Chester identifies and promotes the following
29 resources to provide guidance to individuals and organizations:

- 30 a) Inform residents about energy efficiency programs through [Efficiency Vermont](#) and the
31 Weatherization Assistance Program for low-income households through Southeastern
32 Vermont Community Action ([SEVCA](#)) and encourage residents to participate.
- 33 b) Work with partner organizations and Efficiency Vermont to offer workshops and
34 educational opportunities to businesses on efficiency in new construction, retrofits, and
35 conservation practices.
- 36 c) Publicize local energy conservation projects to encourage future private and public
37 activities.

- d) Utilize various methods to disseminate educational information, such as through Springfield Area Public Access (SAPA) TV, brochures, website materials, public events and digital media.
- e) Conduct outreach to service clubs.
- f) Identify large energy usage customers (including large businesses, manufacturing facilities, and schools) as a target audience and encourage participation in commercial and industrial efficiency programs through Efficiency Vermont.
- g) Encourage local business start-ups to conduct energy audits.

4.1.2 Promote Efficient Buildings

Heating buildings accounts for about 30% of all energy consumed in Vermont. Creating more efficient buildings can be achieved through weatherization and high-performance construction methods. Chester identifies the following to encourage efficient buildings:

- a) Promote the use of Vermont’s residential building energy label/score.
- b) Promote the use of the [Residential Building Energy Standards](#) and [Commercial Building Energy Standards](#). To do so, the Zoning Office will distribute State energy code information to all applicants seeking a zoning permit for a structure that is heated or cooled. (Please note that the Town does not currently issue Certificates of Occupancy.)
- c) Promote benchmarking (using the free [EPA Portfolio Manager tool](#) and/or with assistance from Efficiency Vermont) for commercial buildings.
- d) Require that all residential Act 250 projects follow the residential stretch energy code.
- e) Require that all commercial Act 250 projects follow commercial stretch energy guidelines.
- f) Encourage new buildings to incorporate net-zero ready construction methods.
- g) Consider providing incentives (e.g. density bonuses) to developments that exceed the state’s stretch energy code, or net-zero ready or net-zero demonstrated requirements, and that are located in an area identified as appropriate for growth.
- h) Promote building placement and location with [passive solar](#) and active solar in mind, and promote the use of [landscaping for energy efficiency](#).
- i)

Net-Zero: A construction method for buildings that generate as much energy as they consume. Also known as a zero-energy building.

Net-Zero Ready: A building constructed in a manner that, with subsequent on-site renewables installed, it can make as much energy as it uses.

Stretch Code: A building energy code that achieves greater energy savings than the base Residential Building Energy Standards (RBES). The Stretch Code is required for Act 250 projects and may be adopted by municipalities.

4.1.3 Promote Decreased Use of Fossil Fuels for Heating

Heating buildings accounts for about 30% of all energy consumed in Vermont and is the second largest contributor to greenhouse gas emissions. Home heating is heavily reliant on fossil fuels

1 at this time. Solutions to address this situation involve high-efficiency heating system upgrades
2 and fuel switching. Chester identifies the following to encourage using less fossil fuels to heat
3 buildings:

- 4 a) Promote the use of cold climate heat pumps with education/presentations in coordination
5 with the Efficiency Vermont/electric utilities.
- 6 b) Support the use of ground-source heat pump heating and cooling systems for new
7 construction.
- 8 c) Identify municipal buildings that would be good candidates for cold climate heat pumps,
9 and develop a plan and schedule to add the heat pumps to those buildings.
- 10 d) Encourage, promote, and incentivize advanced wood heating in certain situations by:
 - 11 1) Supporting the conversion of existing fossil fuel heating systems to wood;
 - 12 2) Encouraging local manufacturing of advanced wood heat technology with low-
13 particulate emissions;
 - 14 3) Supporting development of wood fuel delivery infrastructure;
 - 15 4) Supporting development of sustainable forestry and procurement services;
 - 16 5) Expanding wood fuel processing facilities, encouraging bulk wood pellet delivery
17 systems; and,
 - 18 6) Providing training and education on the benefits of heating with efficient, clean
19 wood energy systems that have low-particulate emissions.
- 20 e) Promote wood stove change-out programs that take older non-EPA certified stoves out of
21 service and replace them with more efficient and lower emitting cord or pellet stoves.
- 22 f) Identify municipal buildings that would be good candidates for wood pellet or chip
23 heating and develop a plan and schedule to convert those buildings to wood heat.
- 24 g) Explore opportunities for anaerobic digesters as appropriate.

25 4.1.4 Demonstrate the Municipality's Leadership by Example

26 Chester wishes to lead by example and demonstrate to individuals and organizations the benefits
27 of building efficiency through the following efforts:

- 28 a) Seek support and guidance from Efficiency Vermont for efforts to improve the efficiency
29 of municipal buildings.
- 30 b) Develop an inventory and conduct energy audits on municipal facilities, and develop a
31 strategic plan to make energy efficiency and conservation upgrades.
- 32 c) Assess the life cycle costs of potential energy improvements during design and
33 construction planning. For example, investment in a new, efficient heating system may
34 be more expensive up front, but more economical to operate over time.
- 35 d) Incorporate weatherization/energy efficiency projects into the municipal Capital Budget
36 and Program.
- 37 e) Implement [low-impact development](#), [green stormwater infrastructure](#) practices, and/or
38 strategic landscaping to shade buildings and reduce temperatures, thereby increasing
39 overall efficiency.

- 1 f) Develop policies so that if investing in new municipal buildings, municipalities strongly
2 consider locations that will give people the option to get to those buildings without
3 driving – for example, by putting a new town hall near the post office or school or other
4 village location instead of distant from the town center.
- 5 g) Replace older municipal fossil-fired heating systems with high-efficiency, cold-climate
6 heat pumps, geothermal heat, or advanced wood heating systems with low-particulate
7 emissions (including wood-fired district heat), or considering switching over to biofuels.

8 4.2 Transportation

- 9 a) The Town of Chester encourages the reduction of transportation energy demand and
10 single-occupant vehicle use.
- 11 b) The Town of Chester promotes the use of renewable or lower-emission energy sources
12 for transportation (e.g. electric vehicles or hybrid vehicles).

13 Chester has identified the following implementation actions to help achieve these policies.
14

15 4.2.1 Encourage Increased Use of Public Transit

16 There is a public transit operator that has routes that serve Chester (i.e. Southeast Vermont
17 Transit, a.k.a. “The Current”). Maximizing public transit ridership is a priority. Chester will
18 implement the following actions to encourage public transit:

- 19 a) Improve awareness of existing public transit services to residents and visitors.
- 20 b) Plan and advocate for access to public transit, especially for Act 250 proceedings for
21 larger developments.

22 4.2.2 Promote a Shift Away from Single-Occupancy Vehicle Trips

23 Public transit can meet the needs of some mobility needs, but additional efforts will be needed in
24 order to reach the energy goals for reducing transportation energy use. Chester will work to
25 encourage the following actions to encourage a reduction in single-occupant vehicle trips:

- 26 a) Encourage people to re-think their trip before leaving home.
- 27 b) Given the very fast internet speeds in Chester at this time, telecommuting is enabled.
28 Evaluate if these internet speeds are available in all parts of town. Explore opportunities
29 for shared work space that better enable residents to telecommute.
- 30 c) Promote the Go Vermont webpage, which provides rideshare, vanpool, public transit and
31 park-and-ride options.
- 32 d) Support employer programs to encourage telecommuting, carpooling, vanpooling,
33 walking and bicycling for employees’ commute trips. Encourage employers to offer such
34 programs and provide information on tax benefits that may be available for doing so.

35 4.2.3 Promote a Shift Away from Gas/Diesel Vehicles

36 To meet State energy goals, municipalities will need to contribute toward efforts to reduce the
37 number of vehicle-miles traveled, and switch to renewable, non-fossil fuel transportation options.

1 Chester has identified the following pathways to shift toward electric vehicles and other non-
2 fossil fuel travel:

- 3 a) Promote general awareness of the benefits of, and access to, electric vehicles and
4 alternative-fuel vehicles.
- 5 b) Promote and seek grants to fund the installation of DC fast-charging infrastructure at
6 strategic locations along major travel corridors and in transit hubs such as park-and-ride
7 locations.
- 8 c) Plan, advocate for, and consider requiring the installation of Electric Vehicle charging
9 infrastructure as part of new development or redevelopment, especially for developments
10 subject to Act 250.
- 11 d) Encourage the establishment of a local biofuel supplier.
- 12 e) Support the development of additional refueling stations for alternative fuels for both
13 private and public transportation fleets by sharing station development costs between
14 public and private interests.

15 4.2.4 Facilitate the Development of Walking and Biking Infrastructure

16 Active transportation, such as walking and bicycling, offers significant health benefits and
17 requires no outside energy resources. Chester encourages completing short trips by walking or
18 bicycling instead of driving, by planning for safe and convenient infrastructure that support
19 “Complete Streets Principles”. In order to do this, Chester has identified the following
20 pathways:

- 21 a) Update municipal road standards (for maintenance and new construction) to reflect
22 [complete streets principles](#).
- 23 b) Seek to implement bike and pedestrian improvement recommendations identified in the
24 [Village Center Master Plan](#).
- 25 c) Create a committee to create more opportunities to walk and bicycle around town.

26 4.2.5 Leading by Example: Municipal Transportation Efficiency

27 In order to meet the State energy goals, municipalities should lead by example and demonstrate
28 to individuals and organizations the benefits of energy efficiency in transportation. Chester
29 wishes to do so through the following ways:

- 30 a) Establish policies that allow employees to telecommute.
- 31 b) Install electric vehicle charging infrastructure on municipal properties.
- 32 c) Purchasing plug-in hybrid or plug-in all-electric municipal and fleet vehicles when
33 possible, and choosing the most fuel-efficient models if EVs are not practicable.
- 34 d) Establishing minimum fuel efficiency standards for the purchase of new vehicles.
- 35 e) Consider incentives for employees who commute using methods alternative to single
36 occupancy vehicles, e.g. walking, biking, public-transit, and carpooling.
- 37 f) When purchasing diesel fuel, the Town should use the highest biodiesel blend available without
38 compromising the manufacturer’s engine warranty. All manufacturers fully warranty their
39 engines with the use of B5, a blend of 5% biodiesel and 95% diesel.

1 4.3 Land Use Patterns and Densities

- 2 a) The Town of Chester encourages maintaining the historic settlement pattern of compact
3 downtowns and village centers surrounded by rural countryside in accordance with [24](#)
4 [V.S.A. §4302](#) and as described in the Chester Town Plan.
- 5 b) The Town of Chester recognizes that compact development has a number of benefits,
6 including furthering both State planning goals and State energy goals.
- 7 c) The Future Land Use Map and corresponding descriptions in the Land Use Chapter of the
8 Chester Town Plan encourages the types of land use patterns and densities that are likely
9 to result in the conservation of energy.
- 10 d) Zoning bylaws adopted by the Town generally enable the above land use patterns and
11 densities.
- 12 e) Chester’s Village Center has been designated by the State Downtown Board under [24](#)
13 [V.S.A. Chapter 76A](#).

14 According to their Guidance, the DPS anticipates that if municipalities are actively participating
15 in the above statutory frameworks for community planning, they will likely meet Pathways
16 Standard 8.

17 *Chester’s Town Plan* and various implementation methods, both regulatory and non-regulatory,
18 combine to demonstrate a commitment to the above statutory planning framework. This plan
19 documents what the municipality is doing in this area as it relates to encouraging the
20 conservation of energy through land use development patterns and densities.

21

22 4.3.1 Land Use Polices

23 The Plan Includes Land Use Policies (and Descriptions of Current and Future Land Use
24 Categories) that Demonstrate a Commitment to Reducing Sprawl and Minimizing Low-Density
25 Development

26 According to the enhanced energy planning guidance, the reduction of sprawl and low-density
27 development not only reduces energy consumption, but also can improve the local and regional
28 economy.

- 29 a) The Future Land Use Map and corresponding descriptions in the Land Use Chapter of the
30 Town Plan generally calls for growth to occur in the Village areas and in discrete nodes
31 of activity, including Gassetts and the special mixed use area (i.e. by the Armory
32 Building). (See the Future Land Use Map and the corresponding language in the Land
33 Use Chapter.)
- 34 b) Chester’s Future Land Use Map and Town Plan language also calls for maintaining the
35 rural countryside in the areas surrounding the growth areas described in “a” above. (See
36 the Future Land Use Map and the corresponding language in the Land Use Chapter.)
- 37 c) Statements for access management and other provisions intended to control strip
38 development along major roadways are included in both the Land Use Chapter and
39 Transportation Chapter.

1 4.3.2 Strongly Prioritize Development in Compact Mixed-Use Centers

2 As indicated in the enhanced energy planning guidance, households within a compact, mixed-use
 3 center typically use less energy than those located in outlying areas. The energy savings are
 4 realized through reduced vehicle-miles-traveled and generally smaller homes, which require less
 5 energy to heat and cool. Transportation energy use can be further reduced by locating services
 6 such as shopping or daycare within walking or biking distances to the places where people work
 7 and live. This enables people to either choose an alternative to driving a single-occupancy
 8 vehicle or to significantly reduce the length of their drive. Chester chooses to encourage this by:

- 9 a) Maintaining Village Center Designation, and improving the awareness of property
 10 owners about the tax credit opportunities to help pay for improvements to eligible
 11 buildings within Chester’s Village Center.
- 12 b) Coordinating with Southeast Vermont Transit (The Current) and the Go Vermont
 13 program to discuss options to promote car-sharing and public transit services.
- 14 c) Continuing to actively work on making sidewalk improvements based on the recent
 15 Village Center Master Plan.

16 4.4 Statement of Policy on the Development and Siting of Renewable Energy
 17 Resources

18 The heating, transportation and conservation targets and pathways combined are not sufficient to
 19 meet the 90% by 2050 energy planning goal. The Long-Range Energy Alternatives Planning
 20 (LEAP) model also assumes the purchase of additional out-of-state renewable energy will help to
 21 reach this goal; however, that is also not sufficient to meet the energy goals. New local
 22 renewable energy generation is also needed in order to achieve the ambitious “90 by 50” energy
 23 goal. The following sections discuss how the municipality wishes renewable energy generation
 24 to take place in Chester.

25 4.4.1 Evaluate Existing Renewable Energy Generation

26 According to existing data, there are 38 known renewable energy generation facilities in Chester
 27 as of November 2017⁴, as summarized in Table 7. Existing facilities nearly amount to 2.17 MW
 28 of installed capacity. In order to more easily compare existing facilities with the targets for new
 29 renewable energy needs, generation output was estimated in MWh based upon the conversion
 30 factors found in the Guidance for regional enhanced energy plans.

31

Table 7: Existing Renewable Generation in Chester⁴

Type	Number of Sites	Installed Capacity (MW)	Est. Output (MWh)
Solar	38	2.17	2,667
Wind	0	0	0

⁴ Vermont Energy Dashboard (February 2017)

Hydro	0	0	0
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4.4.2 Analyze Generation Potential from Preferred Sites and/or Potentially Suitable Areas

An analysis of renewable energy generation potential was conducted for Chester by the SWCRPC. This consisted primarily of an analysis of existing and available GIS mapping data based upon the guidelines established by the DPS for enhanced energy planning. Table 8 below summarizes the findings of this analysis.

Table 8: Potential Renewable Energy Generation⁵

Type	Capacity (MW)	Generation Output (MWh)
Roof-top Solar	3.1	3,802
Ground-mounted solar	517.2	634,306
Wind	854.6	2,620,326
Hydro	0.016	56
Total	1,375	3,258,490

9

Based upon this analysis, there is significant potential to generate power from renewable sources in Chester, primarily through ground-mounted solar and wind. There is limited potential to generate hydropower from the three existing dam sites that do not generate power at this time. The potential for rooftop solar projects is limited. Without ground-mounted solar and/or some forms of wind, there is not adequate generation potential from hydro and rooftop solar to meet the “90 by 50 goal” alone.

4.4.3 Identify Sufficient Land for Renewable Energy Development to Reasonably Reach the 2050 Targets

Table 9 summarizes Chester’s targets for renewable energy generation⁶. There is more than adequate land area in Chester that has solar potential to meet our 2050 renewable energy target of 24,015 MWh, which is the equivalent of approximately 19.58 MW of ground-mounted solar at the installed capacity. The guidance assumes 8 acres of land is generally needed to support 1 MW of solar. This would amount to about 157 acres of land to meet this target. This represents about 4.3% of the total land area in Chester that is estimated to have potential to generate solar power.

25

⁵ Derived from GIS mapping analysis (SWCRPC, 2017)

Renewable Energy Generation	2025	2035	2050
Chester Targets (in MWh)	6,004	12,008	24,015

1

2 4.4.4 Ensure that Local Constraints do not Prohibit or Have the Effect of
 3 Prohibiting the Provision of Sufficient Renewable Energy to Meet State, Regional
 4 or Local Targets

5 These constraints have been analyzed, and the Town does not believe that these constraints
 6 prohibit or have the effect of prohibiting sufficient renewable projects needed to meet the state,
 7 regional or local energy goals.

8 The following resources are not appropriate locations for renewable energy projects and are
 9 hereby excluded from the potential wind and solar sites as depicted on the map. The following
 10 are consistent with the “known constraints” as described in the DPS mapping guidance.

- 11 a) Vernal pools with a surrounding 50 foot buffer;
- 12 b) Department of Environmental Conservation (DEC) river corridors;
- 13 c) Federal Emergency Management Agency (FEMA) floodways;
- 14 d) State significant natural communities and rare, threatened and endangered species;
- 15 e) National wilderness areas; and,
- 16 f) Class 1 and Class 2 wetlands.

17 The following represent constraints that will likely require mitigation and which may prove a site
 18 unsuitable after a site-specific study has been conducted based upon state, regional or local
 19 policies that are adopted and currently in effect. Points a) through g) below are consistent with
 20 the “possible constraints” as described in the DPS mapping guidance.

- 21 a) Agricultural soils (NRCS-mapped prime agricultural soils, soils of statewide importance
 22 or soils of local importance);
- 23 b) Act 250 agricultural soil mitigation areas;
- 24 c) FEMA special flood hazard areas (floodplain);
- 25 d) Protected lands (state fee lands and private
 26 conservation lands);
- 27 e) Deer wintering areas;
- 28 f) ANR conservation design highest priority forest
 29 blocks; and,
- 30 g) Hydric soils.

31 4.4.5 Statements of Policy to Accompany Maps

32 Chester hereby promotes the development of renewable
 33 energy generation in order to achieve the energy goals and

Undue Adverse Effect (Impact)

An adverse impact that meets any one of the following criteria:

- (1) Violates a clear, written community standard intended to preserve the aesthetics or scenic, natural beauty of the area;
- (2) Offends the sensibilities of the average person (i.e. it is offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area); or,
- (3) Fails to take generally available mitigating steps that a reasonable person would take to improve the harmony of the proposed project with its surroundings.

This definition is based upon Vermont case law. The term undue adverse effect is used in accordance with 30 V.S.A. §248.

1 targets as established in this plan. The following statements of policy apply to renewable energy
2 projects:

- 3 a) All new development should be sited to accommodate solar.
- 4 b) Chester encourages rooftop solar projects.
- 5 c) Chester encourages residential-scale wind turbines.
- 6 d) Renewable energy projects, including ground-mounted solar projects of 15 KW and
7 bigger, must not be located in the following areas:
 - 8 1. Vernal pools with a surrounding 50 foot buffer;
 - 9 2. Commercial scale projects in the river corridors as most recently mapped by the
10 Vermont Department of Environmental Conservation (DEC);
 - 11 3. FEMA floodways;
 - 12 4. State significant natural communities and rare, threatened and endangered species;
 - 13 5. National wilderness areas;
 - 14 6. Class 1 and Class 2 wetlands; and,
 - 15 7. Within 50 feet of all streams and Class 1 and 2
16 wetlands.
- 17 e) All ground-mounted solar projects must meet or
18 exceed the setback standards in 30 V.S.A. §248(s).
- 19 f) Any new biomass facility and all ground-mounted
20 solar projects of 150 kW or greater that are within
21 view of public roadways (i.e. state highways, US
22 routes, and Class 1, 2 and 3 town highways) must
23 provide plantings that blends the project with its
24 surroundings. This shall consist of naturalistic
25 plantings using a mix of native plants and avoid
26 introducing [invasive species](#).
- 27 g) The applicant must replace any dead or diseased vegetation serving as part of the
28 landscape mitigation measures throughout the life of the project or until the project
29 ceases commercial operation.
- 30 h) In accordance with PUC Rule 5.900, the applicant is required to provide a plan for the
31 site to be adequately decommissioned at the time when the project ceases commercial
32 operation. This should involve the removal of all parts of the project from the site
33 including, but not limited to, the solar panels or wind turbine, inverters, metal framework
34 that supports the solar panels, fencing, control invasive species, and any necessary site
35 recovery as stipulated in the permit.

Wind Turbine Categories

Residential-scale – wind turbines that are up to 30 meters (or 98 feet) tall, measured at the hub, or the center of the wind turbine blades.

Community-scale (sometimes referred to as commercial-scale) – wind turbines that are up to 50 meters (or 164 feet) tall, measured at the hub.

Utility-scale – wind turbines that are usually 70 meters (or 230 feet) tall or greater, measured at the hub.

36 Plants for site reclamation and restoration after decommissioning an energy generation
37 site should be chosen with plant communities in mind, and considering the original
38 composition of the community before disturbance. Consideration of soils, hydrology,
39 solar access and physiographic region should guide plant selection. Plants should include
40 canopy, mid-story, and woody and herbaceous understory layers. All plants should be

1 native to Vermont. Publications to refer to include:

2 Mixed Hardwood Forests:

3 http://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/lp_naturalcomm.pdf

4 Lacustrine, Riparian and Wetland Areas:

5 [http://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/pl_native-veg.buffer-](http://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/pl_native-veg.buffer-manual.1994.pdf)
6 [manual.1994.pdf](http://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/pl_native-veg.buffer-manual.1994.pdf)

7 General Information for determining Plant Community to restore:

8 <https://www.uvm.edu/rsenr/sal/vbp/VBP.pdf>

9 <http://vtfishandwildlife.com/node/200>

10 [http://vtfishandwildlife.com/learn-more/landowner-resources/liep-invasive-species-](http://vtfishandwildlife.com/learn-more/landowner-resources/liep-invasive-species-program/terrestrial-invasive-plant-resources/native-plant-sources)
11 [program/terrestrial-invasive-plant-resources/native-plant-sources](http://vtfishandwildlife.com/learn-more/landowner-resources/liep-invasive-species-program/terrestrial-invasive-plant-resources/native-plant-sources)

12 i) Proposed renewable energy facilities must not have
13 undue adverse impacts on significant wetlands,
14 significant wildlife habitat, wildlife travel
15 corridors/habitat connectivity, stormwater, water quality,
16 flood resiliency, important recreational facilities or uses,
17 scenic resources identified in this plan, or inventoried
18 historic or cultural resources.

19 j) Proposed renewable energy facilities must not result in
20 forest fragmentation or perpetuate invasive species.

21 k) For all utility-scale wind (i.e. hub height of 70
22 meters/230 feet) and commercial-scale wind projects (i.e.
23 hub height of 50 meters/164 feet hub height), the
24 applicant must demonstrate that the proposal was
25 evaluated and that reasonable mitigation was considered
26 with respect to the following criteria:

- 27 1. Operational noise, to be measured at the property line, will result in noise levels
28 consistent with state standards.
- 29 2. Avoid or minimize “shadow flicker” through careful project siting, planting trees
30 or other methods.
- 31 3. Avoid or minimize adverse impacts to significant wildlife habitat and wildlife
32 travel corridors, including applicable terrestrial, aquatic and aerial species (e.g.
33 migratory, resident and breeding bird and bat populations).
- 34 4. Avoid or mitigate safety hazards in the vicinity of the project area (i.e. ice
35 shedding or ice throw hazards, blade throw hazard, and tower fall zones).

Shadow Flicker

A flickering effect caused when rotating wind turbine blades periodically cast shadows, such as through the windows of adjacent homes. Shadow flicker is considered by some individuals as a nuisance and may cause headaches. No more than 30 hours per year is commonly used as a limit to reduce nuisance complaints.

36 4.4.6 Maximize the Potential for Renewable Generation on Preferred Locations

37 Preferred locations include specific areas or parcels that are specifically identified to indicate
38 preferred locations for siting a generator or a specific size of type of generator. Identifying

1 preferred sites informs the community where renewable generation is desired. The identification
2 of such sites can help to streamline the permitting process.

3 Preferred sites for Chester include:

- 4 a) Rooftops;
- 5 b) Parking lots;
- 6 c) Brownfield sites; and,
- 7 d) Disturbed portions of extraction sites (i.e. gravel pit, quarry).

8

9 4.4.7 Demonstrate the Municipality's Leadership by Example

10 Chester will lead by example by working with partner organizations to identify opportunities for
11 local renewable energy generation that benefits the community and furthers the goals and
12 policies of this plan.

Appendix 6A: Enhanced Energy Data Summary

Chester



Population Table 6-A.1

Total Population ⁱ (2015):	3,110
Projected Annual Avg. Growth Rate ⁱⁱ	0.0
Population Density:	55.6 persons/square mile



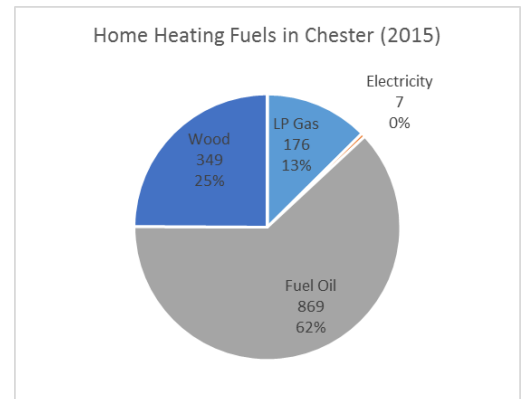
Households Table 6-A.2

Owner-Occupied Units ⁱⁱⁱ	1,040
Renter- Occupied Units ⁱⁱⁱ :	362
Total Households ⁱⁱⁱ :	1,793
Avg. Household Size ⁱⁱⁱ :	2.25 people/ household



Businesses^{iv} Table 6-A.3

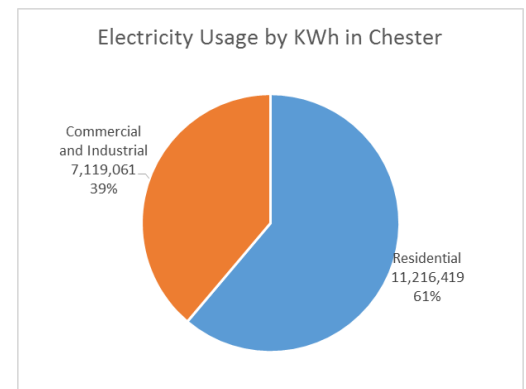
Total businesses in Chester:	129
Employees working in Chester:	909
Average wage:	\$37,378



Heating Table 6-A.4

Residential ⁱ (see figure)
Businesses ^v:

Estimated avg. building space:	5,398 sq. ft.
Total energy use:	33.8 billion BTUs
Estimated total annual cost:	\$806,005
Avg. annual cost per business:	\$6,248



Transportation Table 6-A.5

Number of vehicles:	2,694
Estimated vehicle miles traveled:	35.5 million
Estimated gal. fuel used per year:	1.9 million

Estimated fuel cost per year:	\$4.4 million
Residents driving alone to work:	71%
Average commute time:	21 minutes



Electricity Use Table 6-A.6

Electricity Usage in 2015 ^{vi}	(see figure)
Avg. Residential Usage:	6,689 KWh
Total Usage (2014-2016):	↑ 254,657 KWh
	↑ 1.4%



Energy Generation Table 6-A.7

Existing Renewable Energy Generation

Solar	38 sites	2.17 MW	2,666.6 MWh
Wind	0	0	0
Hydro	0	0	0
Biomass	0	0	0

Renewable Energy Generation Target ^{vii}

2015 (Baseline)	2,666.6 MWh
2025	6,004 MWh
2035	12,008 MWh
2050	24,015 MWh

Potential for Renewable Energy Generation ^{viii}

Rooftop Solar	3.1 MW	3,802 MWh
Ground-Mounted Solar	517.2 MW	634,306 MWh
Wind	854.6 MW	2,620,326 MWh
Hydro	0.016 MW	56 MWh

ⁱ U.S. Census Bureau, American Community Survey (ACS) 2011-2015

ⁱⁱ Based on Scenario B population projections for 2030 (VT ACCD, 2013)

ⁱⁱⁱ U.S. Census Bureau, Decennial Census (2010)

^{iv} Vermont Department of Labor Statistics (2015)

^v Estimated based on number of units, estimated floor space, heating fuel types and average fuel costs for 2015. Floor space was estimated from average commercial/manufacturing floor space per employee from the U.S. Energy Information Administration.

^{vi} Efficiency Vermont (2017)

^{vii} SWCRPC

^{viii} Based upon an analysis of GIS data mapping data (i.e. land area shown on the solar and wind potential maps)

Appendix 6B: Enhanced Energy Plan Targets

Energy Targets

The standards that the Department of Public Service has established for energy targets must be met if this Plan is to receive substantial deference in Section 248 energy siting proceedings. Chester is utilizing targets (or scenarios) developed using the Long-Range Energy Alternatives Planning (LEAP) Model and provided to Chester by the SWCRPC. The background for the targets is described in more detail in the draft *2017 Southern Windsor County Regional Energy Plan*. The purpose of the targets, when combined with the analysis presented in the previous section, is intended to provide an overview of existing energy use and projections for the pace of change that is needed over the next three-plus decades. **The targets simply demonstrate that, in order to meet 90% of Vermont's energy need from renewable sources by 2050, a significant amount of change will be needed in the forms of energy conservation, behavior modification, and development of new local renewable energy generation.**

In order to meet the 90% by 2050 goal, total energy use in southern Windsor County will need to decrease by 50%. Primarily this must involve a vast reduction in the use of non-renewable fuels, such as gasoline and fuel oil. The LEAP model relies on a number of generalized assumptions to reach the 90% by 2050 goal, such as:

- Electricity use today is about 20% of total energy consumption, but it will increase to 35% of total consumption in 2050.
- The use of non-renewable fuels will be vastly reduced from about two-thirds today to about 10% by 2050.
- Renewables will increase from about 18% now to more than half by 2050. This involves wood consumption remaining relatively constant and biodiesel usage increasing substantially.

Please note that the above section is intended to summarize the assumptions made for this LEAP model. In the intervening years between 2018 and 2050, there are likely to be technological advances that may help us to achieve our energy goals and targets in ways that we cannot anticipate today.

B.1 Electricity

Targets for electricity are mixed. Significant efforts to reduce electricity usage through conservation and efficiency measures will be needed. However, the LEAP model utilizes the increased use of electricity to achieve the goal for both transportation (i.e. electric vehicles) and heating sectors (i.e. cold-climate heat pumps). See Figure 6-B.3 below.

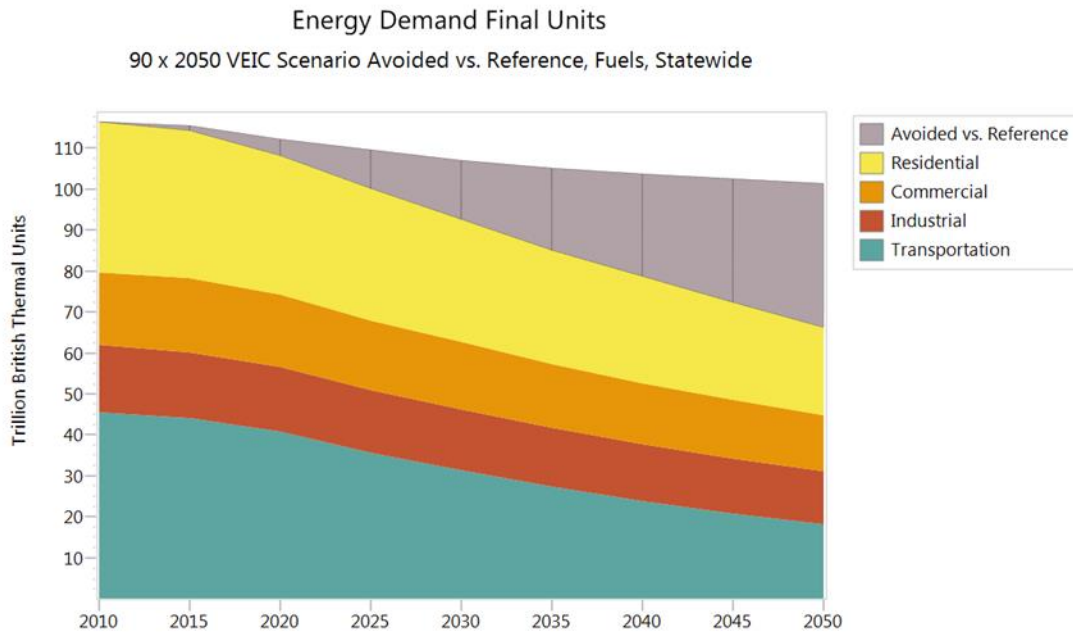


Figure 6-B.3: Vermont must significantly reduce total energy use by 2050 to be successful in implementing the goals of the Comprehensive Energy Plan. The LEAP model referenced in this Plan calls for substantial reductions in energy use by residences and transportation. The line above the grey area represents projections for if we do nothing else to reduce energy demand. The grey area itself represents efforts needed to reduce total energy demand.

Reducing electricity demand through energy conservation and efficiency measures will involve taking advantage of programs offered by Efficiency Vermont, utilization of high-efficiency/energy star appliances, LED lighting upgrades, and other efforts at energy demand management.

Electricity targets also include the development of additional renewable energy generation. The LEAP model includes assumptions for additional imported renewable energy from sources such as Hydro Quebec. However, local generation is also required. Targets for local renewable generation are summarized below in Table 6-B.1 and discussed in more detail in the renewable siting discussion under the Implementation Actions section of the Energy Chapter.

	2025	2035	2050
Total renewable generation in MWh	6,004	12,008	24,015

B.2 Thermal (Heating Buildings)

The first step to reduce energy demand for space heating is to weatherize homes and businesses (e.g. air sealing, insulation). Table 6-B.2 shows the targets for weatherizing existing structures in Chester. Note that the LEAP model-based targets for weatherization in Chester did not appear to be reasonable, so these targets are modified to be more consistent with statutory goals. Based upon our experience over the past few years, it will be difficult to reach these weatherization targets for existing structures. We assume that all new applicable structures will comply with the State energy building codes (i.e. [Residential Building Energy Standards](#), [Commercial Building Energy Standards](#)).

	2025	2035	2050
Weatherize Homes	25%	50%	90%
Weatherize Businesses	25%	50%	90%

The next step is to then move toward the widespread utilization of renewable energy to heat homes and businesses. The LEAP model established the following targets for doing so in Chester. Table 6-B.3 shows the scale to which buildings should switch over to renewable heating systems in order to meet the state energy goals.

Thermal renewable energy use	2025	2035	2050
	49%	64%	92%

In order to achieve the overall renewable target for heating, the LEAP model is calling for investing in new efficient wood heating systems, cold-climate heat pumps or ground-source heat pumps. (See Table 6-B.4.)

	2025	2035	2050
New efficient wood heating systems	6	14	89
New heat pumps	173	468	901

Cold-climate heat pumps are also referred to as air-source heat pumps, mini-splits or ductless heat pumps. These systems are a good option to retrofit existing houses, and can be used to supplement an existing heating system. As explained on the [Efficiency Vermont website](#), “heat is collected from the exterior air, concentrated via an outdoor compressor, and distributed inside through an indoor room unit. Heat pumps require electricity to run, but can deliver more energy than they use.” They also provide air conditioning during the warmer months.

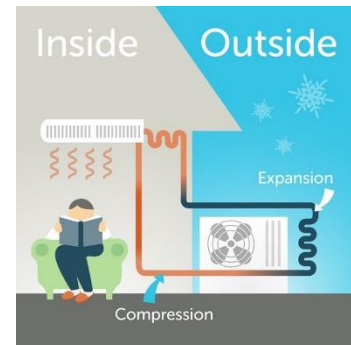


Figure 6-B.4: Illustration of how cold-climate heat pumps work. Source: Efficiency Vermont.

Ground-source heat pumps provide heating and cooling for buildings. They work similarly to air-source heat pumps, but instead they pump water or other fluid through pipes buried in the ground to collect energy. A more detailed description for how these systems work can be found on the [US EPA website](#). These are generally a better option for new construction installations.

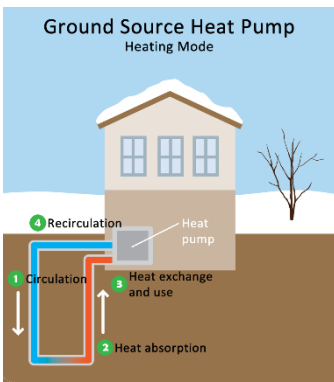


Figure 6-B.5: Illustration of how ground-source heat pumps work. Source: US EPA.

Heating with wood is generally encouraged as it uses a locally-available fuel. However, sustainable wood harvesting is important in order to protect the environment and provide a viable, long-term local energy source. New efficient wood stoves that are EPA-certified are encouraged. Wood-chip heating systems are considered a good option to heat larger commercial, industrial or institutional buildings. See the [Efficiency Vermont website](#) for more information. A number of schools in the region use such heating systems.

B.3 Transportation

Transportation is probably the most difficult area to “bend the curve” to meet the energy goals, considering the rural nature of this area and how challenging it is to change human behavior. However, it must be done if we are to achieve the 90% by 2050 goal. The LEAP model used a number of assumptions in addressing this issue. The following targets are based on that LEAP model.

	2025	2035	2050
Use of renewables for transportation	10%	31%	90%

Overall, transportation needs to shift to renewable fuel sources as shown in Table 6-B.5. The LEAP model is largely expecting this to happen through using electric vehicles, and the use of biodiesel by the trucking industry. Table 6-B.6 below shows the fuel switching targets for Chester.

Also required to meet the goals will be additional efforts to lessen the use of energy for transportation, including land use patterns that encourage walking and bicycling, public transportation, driving less, and ride sharing. Efficiency Vermont has information on its [website](#) about ways to achieve transportation efficiencies.

Table 6-B.6: Transportation Fuel Switching Targets			
	2025	2035	2050
Passenger cars switch to electric vehicles	478	765	1,722
Trucks switch to biodiesel	195	312	703

Appendix 6C: Chester Energy Survey Results

Chester Energy Survey

January, 2018

Five years ago, the State of Vermont embarked on a new energy plan. The goal is to meet 90% of Vermont's total energy needs from renewable sources by 2050. The state has asked towns to create their own energy plans to help reach this goal. State legislators believe Vermont can be a leader in global climate change efforts, while increasing our energy security, improving our economy, protecting ratepayers and reducing our total energy costs. The Town of Chester may choose to participate in this goal by adding an energy plan chapter to its Town Plan, thus gaining some say in the placement of renewable energy installations such as solar and wind. If this chapter is not added, the town will have no voice in the placement of renewable energy projects. The Planning Commission would like to get a sense of how Chester residents feel on this issue. Your input is vital to this process. We included a self-addressed envelope for your reply. You may also find a copy of the survey online by going to the Planning Commission page on the town website: <http://www.chestervt.gov/planning-commission.html>. You may also scan your filled-out form and e-mail it to Cathy Hasbrouck, the Planning Commission recording secretary at cathy.hasbrouck@chestervt.gov.

Thank you from the Chester Planning Commission:

Naomi Johnson, Claudio Veliz, Barre Pinske, Tim Roper and Cheryl Joy Lipton

1. On a scale of 1 – 5, how important are energy issues to you?

207	105	36	8	6	3
1 – Very important	2	3 - Neutral	4	5 - Not important at all	Blank

2. On a scale of 1 – 5, rate your view of non-residential wind power:

113	86	78	34	49	5
1 – I favor it enthusiastically	2	3 - Neutral	4	5 – I oppose it completely	Blank

3. On a scale of 1 – 5, rate your view of non-residential solar power:

166	89	53	24	29	4
1 – I favor it enthusiastically	2	3 - Neutral	4	5 – I oppose it completely	Blank

4. Do you currently have solar energy generating facilities at your home or business?

45 Yes 319 No 1 Blank

5. Do you have a wind generator at your home or business?

1 Yes 363 No 1 Blank

6. Do you burn wood or wood pellets for heat at your home or business?

190 Yes 166 No 9 Blank

7. Would you be in favor of allocating town resources to develop an energy plan chapter for the Town Plan if it gave the town a voice in the placement of renewable energy projects?

291 Yes 46 No 5 Pending or unknown 23 Blank

8. How do you feel about large solar arrays?

<u>106</u>	<u>1</u>	<u>91</u>	<u>76</u>	<u>36</u>	<u>41</u>	<u>14</u>
1 – I favor them enthusiastically	1.5	2	3 - Neutral	4	5 – I oppose them completely	Blank

9. How do you feel about solar arrays on buildings, public or private?

<u>184</u>	<u>89</u>	<u>63</u>	<u>12</u>	<u>8</u>	<u>9</u>
1 – I favor them enthusiastically	2	3 - Neutral	4	5 – I oppose them completely	Blank

10. Do you support the state goal of 90% of energy coming from renewable sources by 2050?

<u>201</u>	<u>73</u>	<u>46</u>	<u>15</u>	<u>18</u>	<u>12</u>
1 – I favor it enthusiastically	2	3 - Neutral	4	5 – I oppose it completely	Blank

11. Do you currently benefit from solar credits which are generated from a location other than your Chester home or business?

13 Yes 336 No 4 Unknown 9 Blank

12. Do you currently live in the village or outside the village center?

90 in the village center 262 outside the village center 13 blank

13. On a scale of 1 – 5 how informed do you feel about energy issues?

88	1	114	117	27	8	10
1 – Well informed	1.5	2	3	4	5 – Not informed at all	Blank

1

1 **Appendix 6D:Enhanced Energy Plan Maps**

- 2 Maps showing wind and solar potential in Chester with existing substations and transmission
- 3 lines are included as separate PDF files.

1 **Chapter 7 – Housing**

2 There were total of 1,611 housing units in Chester, according to the 2000 US Census. Of this
 3 number, 950 units were specified in the 2000 Census as owner-occupied, 346 were rented, and
 4 315 were seasonal, vacant ready to rent or sell, or otherwise vacant. The Census reported there
 5 were 116 mobile homes in Chester, accounting for 07.2% of the total housing units.

6 **Housing Analysis**

7 According to the 2000 U.S. Census, Table 1, there were 1,292 Households and the Median
 8 Household Income (MHI) in Chester was \$39,417. MHI for Windsor County was \$40,688.

9 **Table 1. – Chester Household Income**

Household Income	Number	Percentage	Percentage of Households at or above this Income level	30% of Annual Household Income	30% of Monthly Household Income
Less than \$10,000	103	8.0	100.0	Less than \$3,000	Less than \$250
\$10,000 to \$14,999	81	6.3	92.0	\$3,000 to \$4,500	\$250 to \$375
\$15,000 to \$24,999	201	15.6	85.7	\$4,500 to \$7,500	\$375 to \$625
\$25,000 to \$34,999	195	15.1	70.1	\$7,500 to \$10,500	\$625 to \$875
\$35,000 to \$49,999	231	17.9	55.0	\$10,500 to \$15,000	\$875 to \$1,250
\$50,000 to \$74,999	312	24.1	37.1	\$15,000 to \$22,500	\$1,250 to \$1,875
\$75,000 or more	169	13.0	13.0	\$22,500 or more	\$1,875 or more
Median \$39,417					
Totals	1292	100.0	-		

10 Source: 2000 U.S. Census

11

12 According to the 2000 U.S. Census, there were 861 Families and the Median Family Income was
 13 \$47,083. [See analysis of family income census data in Table 2.]

14 **Table 2. - Family Income**

Family Income	Number	Percentage	Percentage of Families at or above this Income level
Less than \$10,000	25	2.9	100.0
\$10,000 to \$14,999	24	2.8	97.1
\$15,000 to \$24,999	104	12.1	94.3
\$25,000 to \$34,999	139	16.1	82.2
\$35,000 to \$49,999	172	20.0	66.1
\$50,000 to \$74,999	250	29.0	46.1
\$75,000 or more	147	17.1	17.1
Totals	861	100.0	-

15 Source: 2000 U.S. Census

16 The value of residential units from the Chester Lister Records and the 2000 Census Data, as well
 17 as, mortgage status and selected monthly owner costs, and those costs as a percentage of
 18 Household Income are set forth respectively in the following Tables 3, 4, 5, and 6.

19

1 **Table 3 - Value of residential units**

Value	Number	Percentage	Percentage at or below this value
\$50,000 or less	160	11.3	11.3
\$50,001 to \$75,000	236	16.7	28.0
\$75,001 to \$100,000	335	23.7	51.7
\$100,001 to \$125,000	250	17.7	69.4
\$125,001 or more	432	30.6	100.0
Totals	1413	100.0	

2 Source: Town of Chester Lister Records of 2001

3 Table 4 shows, according to the 2000 Census data, 50% of the owner-occupied homes have a
 4 value under \$100,000. 82.4% are under \$150,000. Table 6, below, shows the values from the
 5 Lister’s Records, showing all residential units and their values, and those values are very similar
 6 to, and support the values reflected in, the Census data.

7 **Table 4 - Value of “Specified owner-occupied units”**

Value	Number	Percentage	Percentage at or below this value level
Less than \$50,000	18	3.0	3.0
\$50,000 to \$99,999	286	47.0	50.0
\$100,000 to \$149,999	197	32.4	82.4
\$150,000 to \$199,999	63	10.4	92.8
\$200,000 to \$299,999	36	5.9	98.7
\$300,000 or more	8	1.3	100.0
Totals	608	100.0	-
Median Value (Dollars)	\$100,000		

8 Source: 2000 U.S. Census

9 Table 5 shows that most owner-occupied homes with mortgages (58.8%) have monthly costs for
 10 housing, including mortgage of less than \$1,000.00.

11 **Table 5 - Mortgage status and “selected monthly owner costs” on Owner-occupied units**

	Mortgage and Selected Costs per Month	Number (Total 608 Units)	Percentage	Percentage of Mortgaged Units at or below this level
With a Mortgage		388	63.8	100.0
	\$300 to \$499	10	1.7	2.6
	\$500 to \$699	64	10.5	19.1
	\$700 to \$999	154	25.3	58.8
	\$1,000 to \$1,499	133	21.9	93.1
	\$1,500 or more	27	4.4	100.0
Median \$932		-	-	
Not Mortgaged		220	36.2	
Median \$386	Totals	608	100.0	

12

1 And finally, Table 6 shows that for 75% of the owner-occupied homes the monthly costs,
 2 including mortgage, are less than 30% of monthly Household Income.

3 **Table 6 - Selected monthly owner costs as a percentage of Household Income in 1999 - 681 owner-occupied units**

Percentage Costs/Income	Number	Percentage	Percentage at or below this level
Less than 15.0 percent	176	28.9	28.9
15.0 to 19.9 percent	136	22.4	51.3
20.0 to 24.9 percent	85	14.0	65.3
25.0 to 29.9 percent	59	9.7	75.0
30.0 to 34.9 percent	46	7.6	82.6
35 percent or more	102	16.8	99.4
Not computed	4	0.6	100.0
Totals	608	100.0	-

4
 5 **Affordable Housing based on value and cost of purchasing a home in Chester.**

6 The U.S. and Vermont State Housing goals for affordable housing include the achievement of
 7 housing costs at or below 30% of Household Income (including utility expenses) for households
 8 at or below the county median income level. Chester’s 1999 median Household Income level
 9 (\$39,417) was less than the 2000 Windsor County’s median income level (\$40,688), which
 10 includes the incomes of those near Dartmouth in Hanover, NH and the business center of the
 11 Lebanon, NH. region. Using the 1999 Windsor County Median Household Income of \$40,688,
 12 no more than \$1,017 per month would go toward mortgage payments or rent, heat, electricity,
 13 water, housing related taxes or fees, and other similar housing expenses.

14 The 2000 Census data, supported by the Chester Listers’ data, shows that at least 50% of the
 15 owner-occupied homes are \$100,000 or less in market value.

16 A 30-year mortgage at 7.0% mortgage interest rate for an 80% mortgage on a home costing
 17 \$100,000 would result in \$532 of monthly mortgage costs. One of the largest monthly payments
 18 for homeowners is property taxes. Property tax rate for Chester is \$2.32 for 2001. For a home
 19 costing \$100,000, the annual tax rate would be \$2,320, costing \$193 monthly. With \$725
 20 required for mortgage and taxes, of the \$1017 (30% of the monthly Median Housing Income),
 21 there would remain \$292 for utilities, heat, electricity, water, similar fees. A comparison of
 22 property value and affordability for the purchase of a home in Chester is shown in Table 7. It
 23 would appear from the calculations in Table 7, which are based on 2000 Census data, that there
 24 remains approximately 30% (Table 1) of the households in Chester, that is, those with an annual
 25 Household Income less than \$24,000, are not able to purchase a home in Chester. Stated another
 26 way, based on the known data, in order to purchase a home in Chester, the purchaser at a
 27 minimum must have the \$10,000 down payment on a \$50,000 home and have an income of
 28 \$24,000 or more. Approximately 70% of the Households in Chester have the income to pay the
 29 \$40,000 mortgage and selected costs for the purchase of such a home. Of those owner-occupied
 30 homes in the 2000 Census, of those with a mortgage 75% spent 29.9% or less of the Median
 31 Household Income on selected housing costs. [See Table 6]

1 **Table 7 – Mortgage Amortization Cost and Property Taxes; Percent of Properties available at the cost and percent of**
 2 **Households which can afford to purchase the property.**

Value	Mortgage *	Mortgage (Mo.)	Taxes **	Taxes (Mo.)	Mortgage + Taxes (Mo.)	Other home related expenses (Mo.) ***	Number / Percent of Properties Available at of below this value****	Monthly Income / 30% needed to Afford Purchase	Approximate Percent of Household at MHI is Able to Afford *****
\$100,000	\$80,000	\$532	\$2,320	\$193	\$725	\$290	731 / 51.7%	\$3,383 / \$1,105	45%
\$75,000	\$60,000	\$399	\$1,740	\$145	\$544	\$270	396 / 28.0%	\$2,713 / \$814	60%
\$50,000	\$40,000	\$266	\$1,160	\$97	\$363	\$250	160 / 11.3%	\$2,043 / \$613	70%

3 *Calculation based on 80% mortgage

4 **Based on 2001 Town Property Tax Rate, including School

5 ***Insurance, fuel, electricity, water, sewer, estimated, as there is no hard data in the Census

6 **** Based on 2001 Lister Records from Town Of Chester [Table 3]

7 *****Based on 2000 Census of Household Income (HI) for Chester and 30% of HI available for housing. [See Table 1.]

8 For comparison to Towns in the Southern Windsor County Region, Table 8, below, contains the
 9 number and value of various residential properties in the area.

10 **Table 8 - 1996 Residential Counts and Average Fair Market Values (FMV) and differ from the 2000 Census***

TOWN	R1** count	R1 avg. FMV	R2** count	R2 avg. FMV	MHU** count	MHU avg. FMV	MHL** count	MHL avg. FMV
Andover	65	\$108,478	75	\$164,798	82	\$5,556	12	\$50,608
Baltimore	31	\$63,775	28	\$120,790	1	\$13,752	13	\$39,423
Cavendish	308	\$74,730	117	\$151,593	94	\$7,915	54	\$35,423
Chester	646	\$87,386	233	\$160,863	22	\$9,711	99	\$48,158
Ludlow	572	\$100,466	124	\$167,201	100	\$17,283	66	\$60,515
Reading	115	\$90,753	109	\$208,479	2	\$6,079	22	\$41,435
Springfield	2,554	\$76,934	301	\$150,222	132	\$11,984	79	\$47,989
Weathersfield	501	\$89,866	304	\$132,840	180	\$19,906	124	\$53,278
West Windsor	182	\$123,629	155	\$200,565	1	\$21,118	12	\$53,849
Windsor	895	\$76,253	82	\$139,932	41	\$8,691	37	\$48,504
REGION Median		\$86,127		\$164,634		\$13,337		\$47,969
REGION Average	5,870	\$83,247	1,530	\$160,535	655	\$13,298	518	\$49,292

11 * Figures based on data from the Division of Property Valuation and Review

12 **Property definitions are as follows:

13 R1 - Residential on less than 6 acres

14 R2 - Residential on greater than 6 acres, not including working farms

15 MHU - Mobile home - unlanded (set up on land not owned by the owner of the mobile home, as in mobile home parks)

16 MHL - Mobile home - landed (set up on land owned by the owner of the mobile home)

17

1 **Affordable Housing based on cost of renting a residential unit in Chester.**

2 According to the 2000 Census, 87.7% of residential units rented in Chester cost less in Gross
 3 Rent than 30% of \$1017, which is the Median Household Income for the County of Windsor.
 4 [Table 9]

5 **Table 9 – 2000 Census, Gross Rent on household units in Chester**

Gross Rent	Number (Total 323)	Percent	Percent at or below this level	Percent at or above this level
Less than \$200	34	10.5	10.5	100.0
\$200 to \$299	28	8.7	19.2	89.5
\$300 to \$499	79	24.5	43.7	80.8
\$500 to \$749	124	38.4	82.1	56.3
\$750 to \$999	18	5.6	87.7	17.9
\$1,000 or more	12	3.6	91.3	12.3
No cash rent	28	8.7	100.0	8.7
Median (in \$)	(\$512)	-		
Totals	323	100.0		

6
 7 However, 2000 Census data reports that, in 1999, just 57.2% of renting households paid rent that
 8 was 29.9% or less of the Median Household Income. 33.2% paid 30% or more of the MHI.
 9 [Table 10]

10
 11 **Table 10 – 2000 Census, Gross Rent as a Percentage of Household Income (HI) in 1999**

Gross Rent as a % of HI in 1999	Number (Total 323)	Percent	Percent at or below this level	Percent at or above this level
Less than 15.0 percent	45 (45)	13.9	13.9	100.0
15.0 to 19.9 percent	46 (91)	14.2	28.1	86.1
20.0 to 24.9 percent	46 (137)	14.2	42.3	71.9
25.0 to 29.9 percent	48 (185)	14.9	57.2	57.7
30.0 to 34.9 percent	31 (216)	9.6	66.8	42.8
35.0 or more percent	77 (293)	23.8	90.6	33.2
Not calculated	30	9.4	100.0	9.4
Totals	323	100.0		

12
 13 It is difficult to explain from the available data how 87.7% of the rentable housing units could be
 14 affordable, yet 33.2% paid gross rent above the affordable level. Data from the 1990 Census was
 15 reported in a different format. The following look at the 1990 data could shed light on the 2000
 16 Census data.

17 The 1990 Census reported, in 1989, of the 301 families renting, 276 paid rent (Note: The 2000
 18 Census reported 323 household renting with 295 paying rent.). Of the 276 families paying rent,
 19 178 (or 64.5%) used less than 30% of their Family Income for the rent of the unit, and 98
 20 (35.5%) used more, as follows: Of the 69 families earning \$10,000 or less, 30 paid more than

1 30% of their Family Income for the rental (17 paid no rent). Of the 93 families earning \$19,999
2 or less, 53 paid more than 30% of their Family Income for the rental (2 paid no rent). Of the 102
3 families earning \$34,999 or less, 15 paid more than 30% of their Family Income for the rental (5
4 paid no rent). All families earning \$35,000 or more paid less than 24% of their Family Income
5 for the rental (1 paid no rent).

6
7 The 1990 Census Data shows that those paying more than 30% of the MHI were:

- 8 • 43.5% (30/69) of those earning less than \$10,000.
- 9 • 57% (53/93) of those earning less than \$19,999.
- 10 • 14.7% (15/102) of those earning less than \$34,999.

11
12 If the data from the 2000 Census were reported in the same format as the 1990 Census, it is
13 logical to believe that the spread of affordability of rental housing over the income spectrum
14 would be similar. In any case, the 2000 Census data show the affordability of the rental housing
15 in Chester has not changed significantly. There are 22 more units reported, and 19 more are
16 paying rent. The percentage of households in rental units, which the U.S. and Vermont
17 standards deemed not affordable, increased very slightly from 1990 to 2000, that is, 98 of 276
18 (32.5%) to 108 of 295 (33.4%).

19 20 **Accessory Dwelling Units**

21
22 In 2004, the Municipal and Regional Planning and Development law (24 V.S.A., Chapter 117)
23 was amended to provide for the equal treatment of housing and allows for affordable housing in
24 Vermont. In accordance with 24 V.S.A. §§ 4382(a)(10) and 4412(1)(E), homeowners have the
25 opportunity to add one accessory dwelling (an efficiency or one-bedroom apartment unit that is
26 clearly secondary to the owner-occupied house and that the apartment would include all the
27 amenities needed for independent living) as long as they meet the following conditions:

- 28 • The homeowner must reside in the residence;
- 29 • The property has the capacity to handle the additional demand for wastewater disposal;
- 30 • The size of the accessory dwelling unit equals no more than 30% of the total square
31 footage of the house.
- 32 • The property meets any applicable setback, coverage, and parking requirements
33 contained in the Zoning Bylaws.

34
35 Municipalities can require a conditional use permit for accessory apartments that involve
36 building a new structure, increasing the height or floor area of the house, or expanding the size of
37 the parking area. The new law is an opportunity for communities to create additional rental
38 housing while providing homeowners with supplementary income.

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Housing Goals

1. To guide housing development in Chester to meet the needs of residents of all income levels.

Housing Policies:

1. Allow for multi-family housing or higher density development of single family housing in some areas of town in order to provide for the housing needs of lower income residents.
2. Continue to monitor and review the housing needs of Chester.

Housing Recommendations:

1. Continue to review Chester’s and the region’s job market and economy.
2. The Town should provide for accessory dwelling units in the Zoning Bylaws and establish a streamlined review process in accordance with 24 V.S.A. § 4412(1)(E).

1 **Chapter 8 - Town Plan - Implementation**

2

3 Implementation of the goals, policies and recommendations outlined in this Plan depends on the
4 combined efforts of Town residents and local officials, as well as the resources of the Southern
5 Windsor County Regional Planning Commission, and other regional, state, federal and private
6 entities involved in land use planning activities.

7 At the state and federal levels, the Plan can be used to justify and prioritize the use of federal
8 funds for community development, transportation improvements, natural resource protection and
9 management, and other investments. In addition, Act 250 requires that developers show that
10 projects conform to local and regional plans.

11 At the regional level, the Regional Planning Commission can review the Town Plan for
12 compliance with the requirements of Act 200. Act 200 approval makes the Town eligible to
13 apply for implementation funding from the State in the form of Municipal Planning Grants.

14 At the local level, the Town may take some of the following actions to implement the goals of
15 this Plan:

16

- 17 1. Review and amend, if necessary, zoning bylaws and subdivision regulations so
18 that they are based on the goals, policies and recommendations outlined in the
19 Town Plan.
- 20 2. Refer to the Town Plan when planning additions and improvements to local
21 infrastructure such as local roads and public utilities. Such additions or
22 improvements should be used to plan for appropriate growth and development.
- 23 3. Work with public and private entities to help them design development or
24 resource management plans in ways that will further the goals of this Plan.
- 25 4. Continue to plan and work to conserve important resource lands.
- 26 5. Request that the Regional Planning Commission create and update maps
27 indicating the locations of state regulated natural resource constraints.
- 28 6. Review and amend Capital Program and Budget Plan.
- 29 7. Work with the Regional Planning Commission on meeting local housing needs.
- 30 8. Identify areas of significant aesthetic value to the entire community.
- 31 9. Inventory cultural resources as identified by the residents of Chester.

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Chapter 9 - Relationship to Local and Regional Plans

In order for the Town of Chester to carry out its land use planning goals, the Town must evaluate the Town Plan in relation to plans of neighboring towns and the region. Chester is bordered by the Towns of Grafton, Rockingham, and Windham in Windham County, and by Andover, Baltimore, Cavendish, Ludlow, and Springfield in Windsor County. Chester is located in the south-central area of the Southern Windsor County Regional Planning Commission’s 10-town region. Chester is served by the District 2 Environmental Commission, and is located in Vermont Agency of Transportation District 2, and shares borders with VAOT Districts 3 and 4.

Neighboring Towns

Chester is surrounded by towns which share many similar planning concerns and are faced with varying degrees of development pressure. All of the towns abutting Chester have town plans and zoning regulations, except Cavendish, which has a town plan, but no zoning regulations. The Chester Town Plan does not conflict with the plans of the above towns.

Some neighboring towns share similar concerns to those in Chester with regard to development and traffic. The towns of Chester, Cavendish, Ludlow, and Rockingham, for example, see a significant increase in traffic flow during the winter months, due to the operation of five ski resorts in the area, namely, Okemo, Killington, Bromley, Magic and Stratton. The expansion plans of Okemo Mountain Resort and Killington Resort will cause further increases in traffic through Chester, Cavendish, Ludlow, and Rockingham once they are implemented. The increase in truck traffic and truck size along Route 103 is also a shared concern amongst the towns of Chester, Cavendish, Ludlow, and Rockingham.

According to the Southern Windsor County Regional Transportation Plan, VT Routes 10, 11 and 103 are identified as important roads in the regional transportation network.

Chester shares the watershed of the Williams River and its branches with the Towns of Andover, Cavendish, Grafton, Rockingham, and Windham.

The land use and conservation plans of the neighboring Towns are compatible with those of Chester.

Southern Windsor County Region

The Southern Windsor County Regional Plan provides broad guidelines for planning, coordination and review of the natural, cultural, social and economic features of the Southern Windsor County region. The Southern Windsor County Regional Plan, Regional Transportation Plan and Regional Bicycling and Walking Plan are companion documents to the Chester Town Plan, providing a broader framework and context for local planning efforts. The Town Plan should support and complement the land use and development goals of these regional planning documents and it does.

The 2003 Regional Plan was readopted in 2008. It designates the village area of Chester as a “Town Center,” that is characterized by having localized services, including shopping,

1 employment, government, schools, libraries, and clinics. The village areas of Cavendish and
2 Proctorsville are also identified as Town Centers in the Regional Plan. The Regional Plan
3 encourages future growth to focus within the higher density village areas where sewer and water
4 infrastructure already exists. This section is compatible with the Chester Town Plan, which
5 designates the village areas as mixed use area, where a mix of commercial, civic and high-
6 density residential development should occur.

7 While maintaining Chester’s uniqueness and independence of thought and planning, the Chester
8 Town Plan is compatible with 2003 Regional Plan of the Southern Windsor County Regional
9 Planning Commission in the concerns and goals expressed in Transportation, Land Use,
10 Community Utilities and Facilities, Natural and Cultural Resources, Energy Resources, Housing
11 and Economic Development.

1 **Chapter 10 - Economic Development**

2 The purpose of this Chapter is to describe the current local economic conditions, articulate the
3 desired future economic conditions, and identify municipal efforts that will foster the desired
4 economic growth in Chester.

5

6 **Present Economic Conditions**

7 Chester is a quintessential Vermont town, with a charming village center that is surrounded by a
8 picturesque rural landscape. Current economic activity is generally concentrated within a few
9 parts of town, including:

- 10 1. Traditional commercial center of the village comprised of three sub-sections:
- 11 a) The Green features a very dense cluster of traditional, multi-story buildings that
12 surround the common located on Main Street (VT Route 11). This is the
13 traditional heart of the community’s economic activity. There are a variety of
14 restaurants, stores and inns in this area.
 - 15 b) The Depot area located along Depot Street (VT Route 103) and surrounding the
16 train station exhibits a moderately dense mix of housing, commercial operations,
17 and civic buildings. Economic activity currently involves uses such as antique
18 stores, hair dresser, feed store, Lisai’s Market, and home-based businesses.
 - 19 c) Stone Village comprises an area along North Street (VT Route 103) known for
20 historic stone buildings. Uses currently include a mix of residences, home-based
21 businesses, and a variety of small-scale retail operations that sell antiques, art,
22 produce or furniture.
- 23 2. Elm Street comprises an area that is located along the Green Mountain Railroad and
24 exhibits a mix of commercial or industrial uses, along with some residences. Present
25 economic activity includes businesses that involve such things as screen printing, fuel
26 distribution, equipment and power-sports retail, vehicle maintenance, state highway
27 maintenance, insulation, and propane dealer.
- 28 3. The southern gateway area includes the locations along VT Route 103 South in the
29 vicinity of the Green Mountain Union High School. This area has experienced more
30 recent commercial development and includes a variety of businesses including Drew’s
31 All Natural, arts and crafts retail, antique stores, restaurants, and a credit union. This
32 area serves as a gateway between the village and the rural sections of VT Route 103
33 toward Rockingham and I-91.
- 34 4. Located near the intersection of VT Route 11 and Balch Road, the area surrounding the
35 former armory building represents a very small cluster of commercial uses, including
36 tourist lodging. A new light manufacturing business is proposed for the former Chester
37 Armory building.
- 38 5. Gassetts, located around the intersection of VT Routes 10 and 103, represents a small,
39 moderately-dense cluster of commercial and residential buildings. Non-residential uses
40 in Gassetts include a local foods market and retail of stone and masonry materials.

1 The remainder of the town is primarily rural in character, and current economic activities in these
 2 rural areas involve such things as farming, forestry, home occupations, inns, and small-scale
 3 antique stores. In addition, many residents commute to jobs in other towns. This is discussed
 4 more in the next section. A regional economy that provides good jobs within a short drive from
 5 Chester is highly valuable.

6

7 **Economic Profile**

8 A variety of jobs are available in the larger geographic area (i.e. Chester, Springfield, Ludlow,
 9 Bellows Falls and other towns in the vicinity), including high tech, automotive, food
 10 manufacturing, food distribution, education, health care, recreation, tourism, and school and
 11 governmental services. Major employers in Chester include Newsbank, Drew’s All Natural,
 12 municipal government and the school system. The small businesses that populate Chester’s
 13 economic growth areas are the lifeblood of an economically successful community. Chester’s
 14 economy relies heavily upon tourism to support the many restaurants, inns and many of the retail
 15 shops (e.g. antiques, arts, crafts and other tourist-oriented merchandise).

16 The following tables summarize Chester’s economy based upon the most recent data made
 17 available through the Longitudinal Employer-Household Dynamics (LEHD) dataset from the
 18 U.S. Census Bureau. According to this information, Chester employment for 2013 involved a
 19 total of 1,619 primary jobs⁷.

20 Table 10.1 summarizes jobs that Chester residents held in 2017.

21

Table 10.1		
Summary of Jobs held by Chester residents in 2017		
Total All Jobs		
	2017	
	Count	Share
Total All Jobs	1,366	100.0%
Jobs by Worker Age		
	2017	
	Count	Share
Age 29 or younger	289	21.2%
Age 30 to 54	653	47.8%
Age 55 or older	424	31.0%
Jobs by Earnings		

⁷ The “primary jobs” figure does not include second jobs. This LEHD dataset under-reports self-employed jobs.

	2017	
	Count	Share
\$1,250 per month or less	384	28.1%
\$1,251 to \$3,333 per month	431	31.6%
More than \$3,333 per month	551	40.3%
Jobs by NAICS Industry Sector		
	2017	
	Count	Share
Agriculture, Forestry, Fishing and Hunting	14	1.0%
Mining, Quarrying, and Oil and Gas Extraction	2	0.1%
Utilities	2	0.1%
Construction	86	6.3%
Manufacturing	145	10.6%
Wholesale Trade	36	2.6%
Retail Trade	182	13.3%
Transportation and Warehousing	39	2.9%
Information	54	4.0%
Finance and Insurance	29	2.1%
Real Estate and Rental and Leasing	15	1.1%
Professional, Scientific, and Technical Services	39	2.9%
Management of Companies and Enterprises	15	1.1%
Administration & Support, Waste Management and Remediation	54	4.0%
Educational Services	146	10.7%
Health Care and Social Assistance	196	14.3%
Arts, Entertainment, and Recreation	23	1.7%
Accommodation and Food Services	167	12.2%
Other Services (excluding Public Administration)	39	2.9%
Public Administration	83	6.1%
Jobs by Worker Educational Attainment		
	2017	
	Count	Share
Less than high school	85	6.2%
High school or equivalent, no college	351	25.7%

Some college or Associate degree	328	24.0%
Bachelor's degree or advanced degree	313	22.9%
Educational attainment not available (workers aged 29 or younger)	289	21.2%
Jobs Counts for Chester residents by work destination		
	2017	
	Count	Share
Chester CDP, VT	130	9.5%
Springfield CDP, VT	62	4.5%
Ludlow village, VT	48	3.5%
Brattleboro CDP, VT	42	3.1%
Rutland city, VT	36	2.6%
Bellows Falls village, VT	34	2.5%
Lebanon city, NH	25	1.8%
North Springfield CDP, VT	23	1.7%
Manchester Center CDP, VT	21	1.5%
Keene city, NH	19	1.4%
All Other Locations	926	67.8%

1 Source: U.S. Census Bureau, OnTheMap website application and L E H D Origin – Destination Employment
 2 Statistics

3

4 Table 10.2 summarizes details of the jobs that are located in Chester.

Summary of Chester Jobs – 2017		
Total All Jobs		
	2017	
	Count	Share
Total All Jobs	713	100.0%

5

Jobs by Worker Age		
	2017	
	Count	Share
Age 29 or younger	121	17.0%
Age 30 to 54	332	46.6%

Age 55 or older	260	36.5%
Jobs by Earnings		
2017		
	Count	Share
\$1,250 per month or less	198	27.8%
\$1,251 to \$3,333 per month	252	35.3%
More than \$3,333 per month	263	36.9%
Jobs by NAICS Industry Sector		
2017		
	Count	Share
Agriculture, Forestry, Fishing and Hunting	21	2.9%
Mining, Quarrying, and Oil and Gas Extraction	2	0.3%
Utilities	0	0.0%
Construction	76	10.7%
Manufacturing	40	5.6%
Wholesale Trade	1	0.1%
Retail Trade	47	6.6%
Transportation and Warehousing	16	2.2%
Information	139	19.5%
Finance and Insurance	8	1.1%
Real Estate and Rental and Leasing	6	0.8%
Professional, Scientific, and Technical Services	26	3.6%
Management of Companies and Enterprises	0	0.0%
Administration & Support, Waste Management and Remediation	26	3.6%
Educational Services	133	18.7%
Health Care and Social Assistance	15	2.1%
Arts, Entertainment, and Recreation	0	0.0%
Accommodation and Food Services	76	10.7%
Other Services (excluding Public Administration)	42	5.9%
Public Administration	39	5.5%
Jobs by Worker Educational Attainment		
2017		
	Count	Share

Less than high school	37	5.2%
High school or equivalent, no college	185	25.9%
Some college or Associate degree	181	25.4%
Bachelor's degree or advanced degree	189	26.5%
Educational attainment not available (workers aged 29 or younger)	121	17.0%
Where people who work in Chester live		
	2017 Count	
Chester CDP, VT	58	
Springfield CDP, VT	43	
Bellows Falls Village, VT	14	
Proctorsville CDP, VT	11	
Ludlow Village, VT	10	
Rutland City, VT	9	
New York City, NY	7	
Fair Haven CDP, VT	6	
Saxtons River Village, VT	6	
Brattleboro CDP, VT	5	
All Other Locations	544	

1 Source: U.S. Census Bureau, OnTheMap website application and L E H D Origin – Destination Employment
 2 Statistics

3
 4 According to a comparison of American Community
 5 Survey data, median household income in Chester was
 6 estimated as \$47,656 in 2013, which represents a 12%
 7 increase since 2009. This 2013 income for Chester
 8 lags behind the median household incomes for both
 9 Windsor County at \$52,460 and the State of Vermont
 10 at \$54,267 (see Table 10.3). The 2015 median income
 11 of households that are served by the municipal water
 12 system was \$33,480⁸.

13 According to estimates from the American
 14 Community Survey, the unemployment rate in Chester
 15 was 4.8% in 2013. The poverty rate was 8% in 2013
 16 based upon the same data source.

	Median Household Income		
	2005-2009	2009-2013	% Change
Vermont	\$51,282	\$54,267	5.8%
Windsor County	\$51,066	\$52,460	2.7%
Andover	\$51,667	\$43,750	-15.3%
Baltimore	\$49,792	\$46,875	-5.9%
Cavendish	\$42,130	\$51,667	22.6%
Chester	\$42,535	\$47,656	12.0%
Ludlow	\$44,276	\$39,850	-10.0%
Reading	\$57,100	\$58,125	1.8%
Springfield	\$40,290	\$44,149	9.6%
Weathersfield	\$58,846	\$62,468	6.2%
West Windsor	\$69,722	\$70,250	0.8%
Windsor	\$49,231	\$40,472	-17.8%

Source: Source: 2005-2009 & 2009-2013 American Community Survey, US Census Bureau

⁸ From a household income survey conducted by the Vermont Rural Water Association for the Town of Chester

1 **Existing Programs and Assets**

2 Chester has many outstanding assets that make it an attractive place to live and work. The
3 quaint, charming village surrounding the Green is one of the key assets as it forms the center of
4 the community’s business district and exhibits an attractive “post card” quality. The town is
5 served by municipal water system and emergency services departments. The Chester Telegraph
6 is a local new organization that publishes a newspaper on-line. Other community assets
7 identified during a 2016 public forum include the following:

- 8 • Excellent quality of life;
- 9 • Attractive, walkable village;
- 10 • Historic architecture;
- 11 • Very fast internet speeds;
- 12 • Good proximity to jobs in surrounding communities;
- 13 • Chester is well known for arts and antiques;
- 14 • Strong existing businesses;
- 15 • Traffic volumes along VT Route 103;
- 16 • Large number of skilled workers;
- 17 • Proximity to tourist destinations;
- 18 • Outdoor recreational assets;
- 19 • Successful community events (e.g. Fall Festival).

20 Programs that currently support local or regional economic development efforts include the
21 following:

- 22 • Chester Community Alliance, Inc.:
 - 23 ○ Chester Economic Development Committee;
 - 24 ○ Chester Townscape Committee;
 - 25 ○ Green Mountain Festival Series Committee;
- 26 • Okemo Valley Regional Chamber of Commerce;
- 27 • Springfield Regional Development Corporation;
- 28 • East Central Vermont Economic Development District;
- 29 • Revolving Loan Fund;
- 30 • Village Center Designation.

31 **Desired Future Economic Conditions**

32 Chester’s vision is for a thriving, equitable and resilient economy that strengthens and revitalizes
33 our village, preserves and honors our history and working landscape, maintains the special charm
34 that is what Chester is currently known for, and improves the socio-economic well-being of
35 Chester residents.

36 **Village Center**

1 In 2013, the Vermont Downtown Board approved the designation of Chester’s Village Center.
 2 The designated Village Center boundary is shown in Figure 10.1. Designation under this
 3 program does not create any regulatory requirements for buildings within this area. This
 4 program is intended to recognize local revitalization efforts and provide incentives to help
 5 further local initiatives to improve the Village
 6 Center. Benefits of designation are
 7 summarized below:

- 8 ▪ 10% Historic Tax Credits;
- 9 ▪ 25% Facade Improvement Tax
- 10 Credits;
- 11 ▪ 50% Code Improvement Tax Credits;
- 12 ▪ 50% Technology Tax Credits;
- 13 ▪ Priority Consideration for State
- 14 Grants;
- 15 ▪ Priority Consideration by State
- 16 Building and General Services (BGS);
- 17 ▪ Eligibility for designation of a
- 18 Neighborhood Development Area
- 19 (NDA) within ¼ mile of the Village Center.



Figure 10.1: Chester's Village Center Boundary

20 Renewal of this designation is due by July 2021.

21 As described earlier in this Chapter, the Village Center
 22 represents the traditional commercial center of the
 23 community. The Green and the Depot form the basis of this
 24 area as shown in Figure 10.1. This area is the primary
 25 location where economic growth is to be focused. This area
 26 is served by an extensive sidewalk network, buildings are set
 27 close to the roadway, and historic buildings and related
 28 infrastructure form a pleasant walking environment. Future
 29 investments in this area are expected to be in keeping with
 30 smart growth principles and to maintain or enhance the
 31 existing charm of the built environment. This is where retail,
 32 restaurants, professional offices and other economic activities
 33 typically located within Vermont community centers are
 34 desired.

Smart Growth Principles:

As defined in State Statutes, this term means growth that:

- Maintains the historic development patterns;
- Develops compact mixed-use centers at an appropriate scale;
- Supports a diversity of viable businesses in village;
- Promotes walking and bicycling;
- And as described in more detail under [24 V.S.A. §2791\(13\)](#).

35 In recent years, the Town has been making investments to the
 36 infrastructure in this area to support the desired future conditions. Additional investments in this
 37 regard may be desired to improve signage, parking, sidewalks, pedestrian crossings, public
 38 restrooms, public transportation and other strategic improvements. Particular attention to
 39 making enhancements, such as on-street parking and creating inviting public outdoor spaces, will
 40 help to make the Green an attractive destination for tourists and business investment.

41 *The Village Center designation achieves the following goals:*

- 42 • *Furthering the intent of the Land Use Chapter – The Town Plan identifies the need to*
 43 *revitalize village commercial, residential and mixed-use areas. Continued designation will focus*

1 additional resources to help these areas thrive, including the ability to have tax credits, a special
2 assessment district and priority consideration for several grant programs.

3 • Preserving significant historic, architectural, and cultural heritage – The access to
4 historic tax credits and code improvement tax credits will support redevelopment of older and
5 historic properties, preserving the historic character of the Village Center.

6 • Continued support of transportation improvements – The Town has benefited from the
7 priority consideration for Municipal Planning Grants, Historic Preservation Grants, Agency of
8 Transportation Grants, recreation grants and other state funding opportunities. Some of the
9 projects that were spearheaded by the 2017 Village Center Master Plan and have been funded
10 through these opportunities include:

- 11 ○ Depot Street Sidewalk Design and Construction
- 12 ○ Church Street Scoping Study
- 13 ○ School Street Pocket Park
- 14 ○ Wayfinding Plan
- 15 ○ Signage Design
- 16 ○ Unified Development Zoning Bylaws Rewrite
- 17 ○ Marketing Plan

18
19 *The Village Center Master Plan is a key element for revitalizing the village area that ties in with*
20 *the Village Center designation. Funded through the Strong Communities Better Connections*
21 *Grant, this document was developed with significant community input and presents specific*
22 *initiatives to move Chester forward while still preserving the historic character of the area.*

23

24 **Elm Street**

25 This area is served by the municipal water system and partially served by the municipal sewer
26 system. Elm Street connects to two major highways (i.e. VT Route 11 and VT Route 103) and it
27 is adjacent to the Green Mountain Railroad. Additional commercial and light industrial uses are
28 desired in this area. Such businesses are desired at a scale that is generally consistent with the
29 existing non-residential uses in this area, and to be compatible with adjacent land uses with
30 respect to minimizing impacts related to traffic, noise, smell and other routine performance
31 criteria. Land uses that take advantage of the railroad are encouraged.

32

33 **Southern Gateway**

34 This area has been developed with a mix of commercial and manufacturing uses in recent years.
35 This commercial area is separated from the village by a residential area that runs along VT Route
36 103 between Mountain View and Pleasant Street.

37 When the town was working to develop the VT Route 103 Corridor Management Plan in 2009,
38 concern was raised over the emerging strip development patterns in this area. Since this area
39 forms the initial perception of travelers entering the Chester village area from the south along VT
40 Route 103, its appearance matters significantly for a tourist-oriented economy. The corridor plan
41 explored alternative land use patterns that could extend the village feel through this area.

1 Additional commercial uses are desired in this area, but only in a way that helps to transform this
2 currently automobile-oriented area to look and function more like a village. This would include
3 site design techniques such as traditional village settlement patterns, creating a walkable
4 environment, parking lots placed to the side or rear of buildings, avoiding “big box” building
5 designs, sound access management techniques and other considerations as more thoroughly
6 described in the VT Route 103 Corridor Management Plan.

7 In order to facilitate this development, the Town should investigate infrastructure improvements
8 to encourage these desired future land use patterns. This might include traffic calming by the
9 High School, installing gateway treatments (e.g. welcome signs, landscaping), constructing a
10 sidewalk or walking path to connect to the High School, and other enhancements.

Armory Building Area

13 The area surrounding the Chester armory building near the intersection of VT Route 11 and
14 Balch Road is served by municipal water services, but not municipal sewer. This small area is
15 where a mix of commercial and light industrial uses are desired at a lower-density scale.

Gassetts

17 The density of development in the hamlet of Gassetts is limited by soil conditions since it is not
18 served by municipal water or sewer services. A low- to moderate-density of residential and non-
19 residential uses are desired in this area.

Rural Working Landscape

21 The remainder of Chester is generally rural in character where farming and sustainable forestry
22 activities are desired. In striving to pursue healthy community and local food initiatives, Chester
23 wishes to encourage the local production of farm-fresh foods and value-added farm products in
24 order to improve access to fresh and healthy foods. There may be opportunities to pursue local
25 businesses that tap into the growing farm-to-table and natural food, hormone-free or GMO-free
26 food initiatives.

27 Facilitating a working landscape for sustainable forestry and local foods production is important,
28 but Chester also wishes to build upon our excellent outdoor recreational assets (i.e. The Pinnacle,
29 trails) as an integral part of our economic development strategies.

Home-Based Occupations and Businesses

31 Home-based jobs are encouraged throughout town and particularly in the rural areas as a positive
32 opportunity to diversify the local economy and increase employment. Home-based occupations
33 refers to a resident working out of a minor portion of their home. High-fast internet speeds in
34 Chester encourage telecommuting.

Strategies to Foster Desired Economic Conditions

37 In order to achieve these desired future economic conditions, the Town of Chester wishes to
38 work with partner organizations on the following strategies:

- 39 1. Promote a business-friendly attitude for new and existing businesses that are in keeping
40 with the goals of the Town Plan.

- 1 2. Enhance marketing efforts through a variety of means, such as working with partners,
2 enhanced website, and increased social media presence.
- 3 3. Promote existing events and expand community events and activities.
- 4 4. Promote additional creative economy-based businesses, such as artisans and craft
5 persons, in order to expand on the current business offerings. Consider creating
6 marketing materials to highlight excellent local and regional assets, such as a series of
7 maps or visitor guides that highlight local artisans, historical points of interest, and/or
8 great restaurants in the area.
- 9 5. Explore incentives that the Town may be able to provide to help bring businesses into
10 Chester, which reinforce the scale, character and economy of the community.
- 11 6. Conduct a study to determine if the availability of housing is adequate for local
12 employees , presently and in the future.
- 13 7. Work with educational institutions to better prepare high school graduates for the work
14 force and to provide work force training opportunities for those seeking new careers.
- 15 8. Coordinate with Southeast Vermont Transit, which operates the Current, in order to
16 improve the marketing of existing bus service and identify enhancements to improve
17 access to quality work opportunities.
- 18 9. Maintain Village Center Designation in order to help implement village revitalization
19 efforts called for in this Town Plan. Consider expansion of the existing designated
20 Village Center boundary in order to include more of the center of Chester.
- 21 10. Consider applying for Neighborhood Development Area Designation in order to
22 incentivize the creation of compact, walkable neighborhoods that attract more people and
23 business to our existing Village Center.
- 24 11. Install wayfinding signage in order to direct travelers along VT Route 103 toward the
25 Green.
- 26 12. Improve traffic circulation, sidewalks, crosswalks and parking around the Green.
- 27 13. Design and construct streetscape enhancements that will help to make the Green a
28 destination, such as replacing pavement with pavers, increasing sidewalk width to
29 accommodate outdoor seating, outdoor lighting and planting street trees.
- 30 14. Create an attractive gateway along VT Route 103 through welcome signs, landscaping,
31 traffic calming or other design techniques.
- 32 15. Design and construct a sidewalk or path and streetscape improvements along the VT
33 Route 103 South commercial area in order to transform and improve the appearance of
34 the area.
- 35 16. Develop facilities appropriate in scale and design for Chester that facilitate ridesharing
36 and improve bus service options (e.g. park-and-ride lot, bus shelters).
- 37 17. Evaluate economic growth areas in Chester and identify possible additional sites if the
38 existing options are found not to be adequate.
- 39 18. Coordinate with surrounding towns and regional partners to promote a strong and vibrant
40 regional economy that benefits both Chester and the region.

1 **Economic Goals**

- 2 1. To foster a strong and diverse economy that provides satisfying and rewarding job
3 opportunities and that maintains high environmental standards.
4 2. To promote economic growth that strengthens and revitalizes our village, preserves and
5 honors our history and working landscape, maintains the special charm that is what
6 Chester is currently known for, and improves the socio-economic well-being of Chester
7 residents

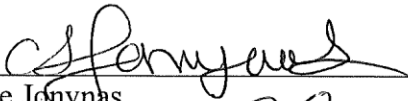
8 **Economic Policies**

- 9 1. Economic growth is desired within the Village Center, Elm Street, Southern Gateway,
10 and in the Armory Building area as described in Chapter 10.
11 2. The Town of Chester will strive to maintain a business-friendly approach to economic
12 development and the associated local permitting process.
13 3. The expansion of existing businesses that support the goals and aspirations of the
14 community is encouraged.
15 4. New business establishments are desired. Such businesses will contribute to furthering
16 the goals of this Town Plan and shall be consistent with the Desired Future Economic
17 Conditions as described in Chapter 10.
18 5. Applications for new businesses and industrial enterprises will demonstrate how they
19 further the community's desire to improve the quality of life, contribute toward the
20 existing charm of the village, and maintain or improve the viability of the local tourist-
21 based economy.
22 6. Home occupations and home-based businesses are encouraged as long as they are
23 appropriate to adjoining land uses, and do not adversely affect air, water or scenic
24 resources or cause noise

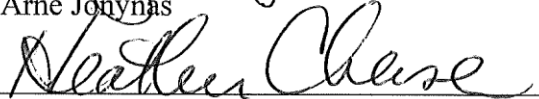
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ADOPTION DATE:

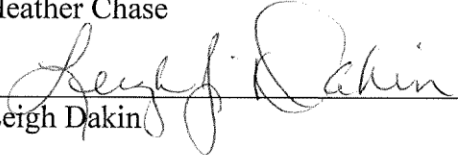
This Town Plan was adopted by the Selectboard of the Town of Chester this 10th day of May, 2020.



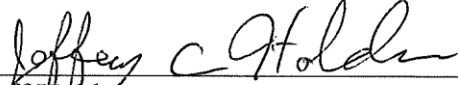
Arne Jonynas



Heather Chase



Leigh Dakin

Lee Gustafson


Jeff Holden

EXPIRATION DATE:

This Town Plan expires the 10th day of May, 2028.

2
