Appendices (under separate cover):

* Agricultural Land Use Map, 2000
* West Charlotte Village Wastewater Study
* Groundwater Study
* Significant Wildlife Habitat Protocol
* Historic Resource Inventory
* Charlotte Local Emergency Operations Plan, 2015
* VT State Rail Plan, 2015
* East Charlotte Village Design, 2010
* Hazard Mitigation Plan
* Conserved Lands Map, 2015
* CCRPC Multi-jurisdictional All Hazards Mitigation Plan, 2016
* Report on 1999 Map of Charlotte Public Roads with High Scenic and Conservation Value, 2011
* 2018 Chittenden County ECOS Plan, Supplement 6 – Energy Analysis, Targets, & Methodology, CCRPC
* Analysis, Targets, and Maps for Enhanced Energy Planning (Memorandum), CCRPC, 2018
* A Natural & Cultural Resource Inventory & Planning Recommendations for Thompson's Point, 1990

1.1 VISION & GOALS

The Charlotte Town Plan expresses our vision for the future of Charlotte. In its vision for the future, the Charlotte Town Plan builds on the town's most valuable characteristics – its rural landscape, healthy environment, small-town character, history, and a long tradition of active participation by citizen volunteers in local government and community activities.

Charlotte shall continue to be a town that honors its community and agricultural heritage, adapts to present-day forces and factors, and provides for citizens to live in a traditional rural Vermont setting of village areas surrounded by countryside homes that are compatible with healthy natural areas and working landscapes. We will strive to provide a safe, clean and beautiful environment, including Lake Champlain. We also develop policies and standards that protect our natural and cultural features while encouraging entrepreneurial and traditional economic activities compatible with our values.

Goals

- To balance property owner rights to reasonably use their land in keeping with overall public health, safety, welfare and the goals of this Town Plan;
- To reinforce historic settlement patterns by focusing growth in our hamlets, and east and west villages, while conserving our Areas of High Public Value (see **Figure 1 below**);
- To maintain and enhance the integrity and continued viability of natural and cultural features with high public value, including land and active agricultural use, prime and statewide agricultural soils; steep slopes; flood hazard areas, surface and groundwater resources; shoreland buffers; special natural areas, wildlife habitats, water supply source protection areas, and other ecologically important natural areas; scenic views and vistas; historic districts, sites and structures; and conserved land;
- To recognize and protect the Town's natural and cultural resources through both regulatory and non-regulatory actions;
- To promote social, economic, cultural and racial diversity and sense of community through actions that encourage moderately priced and affordable housing, a sustainable agricultural economy, social, educational and commercial services, and environmentally-sound rural and small business enterprises;
- To promote access and appropriate use for open land and recreational resources;
- To plan for and prioritize capital improvements consistent with the fiscal ability of the Town;
- To promote community interaction, volunteerism, and spirit;

governance, and through designing and maintaining attractive, environmentally sound and efficient public facilities.

5. We will preserve the best of the past, embrace the new opportunities and meet the challenges of the present and future, such as the new food economy, technological advances and climate change, with investments and regulations that provide livability, flexibility and encourage creativity and entrepreneurship.

6. Non-agricultural commercial services will primarily be located within or near the village areas. Locations for light industrial development will be provided in the Commercial/Light Industrial District within the West Charlotte Village. Home occupations are encouraged by the Town. Agriculturally related businesses may be allowed in conjunction with active farms.

7. Densities for proposed development will be reviewed with consideration of existing settlement patterns, distance to and availability of Town services, physical capability of the land for development, the presence of significant *Areas of High Public Value*[1] (view **Figure 1 below**), the size of the parcel, and the need for affordable housing.

Figure 1.
Town of Charlotte
Areas of High Public Value (AHPV)

- Land in active agricultural use
- Primary (prime & statewide) agricultural soils
- Steep slopes (equal to or in excess of 15%)
- Flood hazard areas
- Surface waters, wetlands and associated setback and buffer areas
- Shoreland setback and buffer areas
- Special natural areas (listed in the *Town Plan, Chapter 2 – Charlotte Today*)
- Wildlife habitat (*identified in the 2008 Charlotte Significant Wildlife Habitat Map Project*)[1]:
  - Forest Habitat
  - Persistent Shrubland Habitat
  - Aquatic Habitat
  - Linkage Habitat and Connecting Corridors
- Water supply and ground water recharge areas
- Source Protection Areas (SPAs),
- Historic districts, sites and structures,
- Scenic views and vistas (as identified in *Charlotte Town Plan*), or
- Conserved lands

[1] "Protocol for Assessment of Impacts of Proposed Development on Significant Wildlife Habitat in Charlotte, Vermont", *Charlotte Conservation Commission*, March 2008.

8. Charlotte's *Areas of High Public Value* (listed in **Figure 1**) are protected in various ways:
    a. Development shall not be allowed on the following Areas of High Public Value. Supporting policies can be found elsewhere in this plan:
        - Conserved land, including Town Open Space Agreements (OSAs)
        - Town Conservation District
        - Surface waters and associated setback and buffer areas
        - Wetlands and associated setback and buffer areas
        - Shoreland setback and buffer areas

    b. With guidance from the Charlotte Conservation Commission's *"Ecologist Site Assessment Protocol"*, [2] the Areas of High Public Value below will be avoided and protected from negative impacts of development where possible. When avoidance is not possible, impacts will be minimized and mitigated. When impacts are not able to be sufficiently minimized and/or mitigated, development may not be allowed, but such lands may contribute density for development outside of the Areas of High Public Value, either on the same parcel or on other parcels.

        - Land in active agricultural use
        - Primary (prime & statewide) agricultural soils
        - Steep slopes (equal to or in excess of 15%)
        - Flood hazard / inundation areas
        - Special natural areas (listed in the *Town Plan, Chapter 2 – Charlotte Today*)
        - Wildlife habitat, including natural communities (*identified in the 2008 Charlotte Significant Wildlife Habitat Map Project*)[1]:
        - Forest Habitat
        - Persistent Shrubland Habitat
        - Aquatic Habitat
        - Linkage Habitat and Connecting Corridors
        - Water supply and ground water recharge areas
        - Source Protection Areas (SPAs),
        - Historic districts, sites and structures,
        - Scenic views and vistas (as identified in *Charlotte Town Plan – "Charlotte Today"*)

    What is Development?

    Development includes many different activities, including construction of new structures, a change in what a building is used for, and installation of infrastructure, **including energy generation and transmission facilities**. See the Charlotte Land Use Regulations for the Town's full definition.

    c. To protect and mitigate impacts to the Areas of High Public identified in 8(a) and 8(b), strategies such as the following may be required during development:

[2] "Protocol for Assessment of Impacts of Proposed Development on Significant Wildlife Habitat in Charlotte, Vermont", *Charlotte Conservation Commission*, March 2008.

Monkton

All abutting lands in Monkton are designated as Rural Residential in the Monkton Town Plan (2014). Per the plan, this region houses medium and low-density residential areas, and all of Monkton's agricultural, forest and other open space land.

Ferrisburgh

Ferrisburgh's Town Plan (draft 2016) identifies the following five planning areas along its border with Charlotte: Northern Business Area, North Ferrisburgh Historic Area, Conservation Area, Rural Area and Shoreland Area. The Northern Business Area is located along both sides of Route 7 and extends from the Charlotte border to Lewis Creek. The North Ferrisburgh Historic Area is as its name implies located in North Ferrisburgh and its boundaries are defined by the North Ferrisburgh Historic District. Conservation Areas protect Ferrisburgh's surface waters and wetlands including areas along Lewis Creek and Kimball Brook. The Shoreland Planning Area includes the lands adjacent to the shores of Lake Champlain, running the entire length of Ferrisburgh's most westerly boundary, and includes the lands of the Basin Harbor Club. The rural planning area covers the majority of land in Ferrisburgh. This planning area is characterized by woodlands, wetlands, open farmland and sparse residential development.

Proposed future land uses in Shelburne, Hinesburg, Monkton, and Ferrisburgh are generally consistent with those proposed in Charlotte. Future development should be designed to limit impacts to abutting rural properties including agricultural operations and conserved natural resource areas. Agricultural and resource protection and conservation efforts should continue to be coordinated across town boundaries.

1.5 LAKE & SHORELINE

The Town of Charlotte has approximately 14 miles of shoreline[7] and seven islands in Lake Champlain. The natural communities along the lake include marshy wetlands, rock outcrops and promontories, stony and sandy beaches. Two named streams, Holmes Creek and Thorp Brook, intersect the shoreline and drain directly into Lake Champlain. These two streams comprise numerous tributaries which drain interior lands. Through the responsible management of areas in and along Lake Champlain, Charlotte will work to protect the aesthetic, recreational and natural systems into the future.

Key Planning Considerations:

1. The phosphorus Total Maximum Daily Load (TMDL) for Lake Champlain - The State of Vermont and the U.S. Environmental Protection Agency (EPA) have developed a new restoration plan for Lake Champlain and its tributaries. The Vermont Clean Water Act of 2015 (i.e. Act 64) and the Shoreland Protection Act of 2014 (i.e. Chapter 49A of 10 VSA § 1441 et seq.), include regulations aimed at improving the Lake's water quality.

2. Shoreland / Aesthetics / Flood Damage/ Shoreline Stabilization – In addition to water quality benefits afforded by maintaining a forested buffer and limiting / restricting development in the shoreline area, damage from flooding can also be minimized.

3. Public Access – Currently, primary access points to Lake Champlain in Charlotte include the Town Beach off of Lake Road and the Converse Bay Fishing Access off of Converse Bay Road. There are also a few, smaller access points off of Thompson's Point; however, parking is limited and concerns related to leaseholder privacy have been raised.

Lake and Shoreline Policies:

1. The biological diversity and unique geological characteristics of the lake and shoreline will be protected and restored using regulatory and non-regulatory means.

2. Indirect discharges to surface waters, including those associated with Required Agricultural Practices, access management, or other development, will not be allowed to increase the degradation of lake water quality.

3. The Town will provide, protect and enhance opportunities for the public to enjoy the shoreland. This should be accomplished by consideration of the provision of public access by acquisition through purchase, donation, or other agreement, or by requiring the provision of public physical or visual access from uplands to the water. Where public access is provided, the access should be designed and used in a manner consistent with the natural shoreline character, water quality, private property rights, and public safety.

WRONG.

[7] *Shoreland area is defined as area 250 feet from the mean high water mark.* - The Vermont Shoreland Protection Act (Summary), Vermont Department of Environmental Conservation (DEC). October, 2015.

4. Work in and around Class 2 wetlands, including those along the shorelines of Lake Champlain requires review and approval from the State of Vermont Agency of Natural Resources and the Army Corps of Engineers. The Town will work to increase community awareness about the positive benefits of these Areas of High Public Value.

5. Cutting vegetation, dredging, draining, filling and other land development activities in the Shoreland and Shoreland Seasonal Home Management Districts will be limited in order to protect the scenic beauty and environmental qualities of the lake and shoreline. There will be no additional lots or dwelling units permitted in the Shoreland Seasonal Home Management District. Other structures will be evaluated in the context of total lot coverage and the addition of such structures shall not reduce scenic beauty, ecological qualities, or increase surface water runoff to the Lake. Charlotte, through consultation with the Tree Wardens (or other qualified professionals), shall continue to evaluate and manage town implemented shoreline protection management practices that may exceed the requirements of the State.

6. No development shall be allowed within 150 feet of the *Mean High Water Mark* of the Lake Champlain shoreline.

LUR-98' NAD 88
ACOE -
NYS - 99.8'

Lake and Shoreline Strategies:

1. Zoning regulations will continue to emphasize preserving natural land cover along the shore to protect the natural systems for their environmental, recreational and scenic values.

2. Advisory design standards will be established to encourage man-made structures to blend into the natural landscape, including buildings and facilities within the Shoreland District whether visible from land or the Lake. Existing design standards for the Shoreland Seasonal Home Management District will be evaluated and revised as necessary, to blend into the natural landscape as well as the cultural and historic landscape of Thompson's Point.

3. Shoreline stabilization methods which can be vegetated and/or blend in with the natural surroundings in areas of erosion will be required.

4. A subcommittee comprising members of the Planning Commission, Conservation Commission and Recreation Commission will inventory existing public access areas and the shoreline. The inventory will include information on existing site conditions. The subcommittee will complete an access management plan to be approved by the Town with recommended improvements to allow for fair and responsible access to the Lake and maintain the overall integrity of the shoreline vegetation. A timeline for the completion of these improvements will be included in the management plan and the plan will be updated at least every five years.

5. The ferry docking facilities at McNeil Cove should be maintained and protected from private boat traffic and facilities.

6. The Town should explore the feasibility of stabilizing the historic rock foundations of the Old Dock to save the dock from further deterioration.

7. The Selectboard will explore the possible future need to establish Mooring Management Areas for the Lake Champlain shoreline.

8. Stormwater management "best practices" should be applied to all development, regardless of whether a state stormwater permit is required. Low impact development (LID) methods of stormwater management should be considered during all development reviews, and required where site circumstances warrant.

9. Land use regulations will be reviewed and updated as necessary to be compliant with statutory requirements. Charlotte will also encourage the use of best management practices for preexisting development as a means to prevent degradation of water quality and to protect habitat and the natural stability of shoreland.

1.7 HISTORICAL & CULTURAL RESOURCES

In addition to its agricultural heritage, Charlotte residents have consistently sought to identify, protect and preserve other important cultural and historical features of Charlotte's landscape and built environment including historic districts, sites and structures; traditional settlement pattern; and scenic views and vistas.

Key Planning Considerations

1. In 2013, the Vermont Legislature enacted Act 59: An act relating to neighborhood planning and development for municipalities with designated centers. Designated centers including Village Centers, recognize and encourage local efforts to revitalize Vermont's traditional settlement patterns. Once designated, the community receives priority consideration for state grants and other resources and commercial property owners are eligible for tax credits to support building improvements. In 2015, the Charlotte Town Plan was amended to include a statement of intent to apply for Village Center designation with the Vermont Agency of Commerce and Community Development, which would encourage preservation of the historic character and economic development of the East and West Villages (indicated in **Figures 2** and **3** below).

2. Many camps on Thompson's Point have undergone renovations in the past 10 plus years. Design review requirements associated with development in this area are incomplete and often result in uncertainties encountered during the development review process.

3. The lack of outreach in the siting of new energy installations and the process for public notice and involvement associated with these facilities has led to drawn out permitting processes and local land use disputes in the past. Recent state legislation and changes to state regulations have increased a municipality's ability to influence energy generation, and has stipulated minimum setback and screening requirements for these facilities. For more details on energy planning in Charlotte, including policies on energy facility siting, see Section 1.12: Energy.

4. Advisory design review guidelines, similar to those used for Thompson's Point, have been suggested for other areas of town including village areas, Ferry Road / Ethan Allen Highway intersection, and Church Hill Road (which is part of the *"Charlotte Center Historic District"* listed in the *National Register for Historic Places*).

5. Adaptive reuse of eligible structures may be limited by existing development and potential land use conflicts. Subdivisions of land involving structures that may be considered for adaptive reuse should be designed to foster future uses.

6. A dark night sky is considered to be a part of Charlotte's rural character and heritage. While still relatively undisturbed, Charlotte's natural darkness at night, augmented by a brilliant array of stars, is beginning to be threatened by light pollution and glare.

Historical & Cultural Resources Policies

ongoing efforts will be needed to plan for, mitigate and respond to natural and manmade hazards, to strengthen community networks and emergency response services, to increase the energy efficiency of public buildings, and to update municipal facility and infrastructure standards to accommodate changing environmental conditions.

6. Changing community needs, and additional demands on local government, may require some changes in local governance. The town and town-supported organizations, including fire and rescue services, depend heavily on volunteers and the local property tax base to support needed facilities, equipment and services. As a rural community with an aging population, reliance on volunteers to provide critical services will become increasingly difficult – especially as the demand for those services increases.

7. As a town facility, the Charlotte Library is poised to support the current and future generation of readers to providing additional resources and information to Charlotte's aging population, to fostering resilience in our community, the library is a key player in the future of our town.

Utilities, Facilities, and Services Policies:

1. The rate of growth and development in Charlotte shall not exceed the ability of the town and other organizations serving the community to provide supporting public facilities and services.

2. The Town will, within its means, continue to plan for, finance and provide public facilities and services necessary to meet existing and anticipated community needs, in an efficient and cost-effective manner. These include town government, highway, fire and rescue, police, educational, library, recreational and senior services and facilities, water and wastewater systems and solid waste management, and other planned facilities and services supported by the Charlotte community.

3. Public investments in land, facilities and infrastructure shall reinforce the traditional pattern and character of development in Charlotte, consisting of compact villages, including West and East Charlotte, hamlets and historic summer communities on Thompson's Point and Cedar Beach – separated by rural countryside, including large blocks of productive farm and forest land and undeveloped lakeshore.

4. Public investment in land, facilities and infrastructure will be planned and designed to minimize development pressure on and adverse impacts to Areas of High Public Value, including prime and statewide agricultural soils, steep slopes, surface and groundwater resources, shoreland buffers, wildlife habitat and other ecologically important natural areas, scenic views and vistas, historic districts, sites and structures, land in active agriculture, and conserved land.

5. New public facilities and infrastructure shall be located to avoid or designed to withstand flood and fluvial erosion hazards. Improvements to existing facilities will avoid or mitigate potential impacts.

continue to plan for and regularly update its hazards mitigation plan for FEMA-approval, and its emergency response and operation plans.

b. The Selectboard and Planning Commission will implement recommendations included in Charlotte's All Hazards Mitigation Plan[25] as resources allow.

c. The Town will study, based on available information, the potential effects of rising lake levels on the Charlotte shoreline, and shoreland property owners.

d. The Town will continue to limit and regulate new development within known hazard areas, including mapped flood hazard areas to ensure community participation in the National Flood Insurance Program.

e. The Selectboard will continue updating the town's road standards, including local culvert and bridge standards, as necessary to improve infrastructure resilience to flooding, compatibility with stream morphology and aquatic organism passage, and to qualify for available state program incentives.

f. The Planning Commission will update the town's flood hazard area bylaws as necessary to meet any new National Flood Insurance Program (NFIP) requirements, and to qualify for state and federal program incentives for improved infrastructure resilience.

g. The Planning Commission will consider regulations to limit development within River Corridor Protection Areas identified on maps provided by the State, and as recommended in the Town's most recently adopted All-Hazards Mitigation Plan.

h. The Charlotte Library will seek to serve as an up-to-date information resource for preparation and planning for natural and manmade hazards and the effects of climate change through its work with the American Library Association (ALA), Sustainability Roundtable.[26]

Solid Waste Management

18. The Town will continue to participate as an active member of the Chittenden Solid Waste District (CSWD) to meet its municipal responsibilities for the sustainable management of materials (aka solid waste) under Vermont statute.

a. The Town will seek to reduce overall waste production and better its recovery and disposal processes, taking into consideration lowest carbon footprint vis-à-vis transportation (hauling), energy and cost. Promotion of local soil health will be a factor in the Town's approach to organics (food waste) management.

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[25] Town of Charlotte, Vermont 2017 All-Hazards Mitigation Plan, The Chittenden County Regional Planning Commission and the Town of Charlotte, Vermont, 2017

[26] American Library Association (ALA), Sustainability Round Table (SustainRT), 2017, http://www.ala.org/sustainrt/ and http://www.ilovelibrares.org/librariestransform/trends/

Utility Lines

30. New or replacement electrical, telephone, cable or other utility lines, shall be located underground to protect scenic views and vistas and recognized view corridors (as identified in the *Charlotte Town Plan – "Charlotte Today"*)., increase reliability, and potentially reduce long-term maintenance costs.

    a. The Town will continue to require underground utility lines feeding and within subdivisions.

    b. The co-location of utility lines and infrastructure is encouraged, as is utilization of existing rights-of-way.

31. The Town supports improvements to the power grid to adequately support existing uses and planned future growth.

    a. The height of utility poles will not be increased unless necessitated by technical requirements (e.g. to avoid interference).

Town Governance

32. The Town will retain a primarily volunteer form of government.

    a. The Selectboard will continue to evaluate the need for additional staffing and contracted services as necessary to meet the Town's obligations under state law, and to the Charlotte community.

    b. The Selectboard will seek to maintain a constant effective tax rate, adjusted for reappraisals and inflations, consistent with past practice.

Town Land & Facilities

33. The Town will continue to manage and maintain existing public and community facilities, including town-owned land and buildings, in a cost-effective, ecologically sound and energy-efficient manner.

    a. The Selectboard will oversee and ensure the timely implementation of a master plan for the Burn's Property, as required under its agreements with the Vermont Land Trust, and to incorporate the recommendations of the 2011 Wastewater Committee for the upgrade and expansion of the municipal wastewater system.

    b. The Town will prepare a land management plan for Thompson's Point to inform annual management strategies for resources such as AHPV, recreation, wastewater and scenic views.

    Additional strategies on Town Land and Facilities can be found in Section 1.12 – Energy.

Roads

1.13 IMPLEMENTATION

A strategy to implement plan objectives is a required component of any Vermont municipal plan.

> *"Any municipality that has adopted and has in effect a plan and has created a planning commission under this chapter may implement the plan by adopting, amending and enforcing any or all of the regulatory and nonregulatory tools provided for in this chapter. All such regulatory and nonregulatory tools shall be in conformance with the plan, shall be adopted for the purposes set forth in section 4302 of this title, and shall be in accord with the policies set forth therein." (24 V.S.A. § 4401)*

Furthermore, 'conformance with the plan' by definition of State statute includes all of the following criteria (according to *24 V.S.A.§ 4303*);

1. *Makes progress toward attaining, or at least does not interfere with, the goals and policies contained in the municipal plan.*

2. *Provides for proposed future land uses, densities, and intensities of development contained in the municipal plan.*

3. *Carries out, as applicable, any specific proposals for community facilities, or other proposed actions contained in the municipal plan.*

The following table lists the actionable strategies within each section of this Chapter and proposes their estimated timeline and the municipal party or cooperating entities responsible for undertaking the task ***(view listing of the parties at the end of table)****.

Strategy	**Responsible Municipal Party and / or Cooperating Entities**	**Timeframe** *(Anticipated Completion)*	**Status**
The Town will develop a framework for moving forward with the work completed by the Charlotte Wastewater Committees of 2010, 2015, & 2017.	SB, PC	2020	In progress
Review Land Use Regulations	PC, SB	On-going	
• The outcomes of the East Charlotte Village Planning Project will be considered by the Planning Commission when proposing future land use regulations.	PC	2020	
• Advisory design guidelines – including Thompson's Point, Historic Districts, Villages, US Route 7 / Ferry Road, seawalls.	PC	2020	

glacial tills support banks up to 15 feet and where in their natural state are mapped as eroding at moderate rates. Least resistant clays, silts and sands are found in the ends of many of the deeper bays and may have the highest erosion rates. These shorelines, where unprotected, continue to have significant losses of shore banks and their vegetation. The many streams which reach the lake have developed deltas with well vegetated wetland areas and may have more stable shorelines.

Historically the lake line area is thought to have been completely forested until the late 1700s. Subsequent agricultural practices led to the development of fields and orchards on the more tillable shore lands. Around the turn of the 20th century, summer homes became fashionable and many can still be seen along with at least two historic steamship docks at Cedar Beach and Thompson's Point. Today, continued development of the shoreline areas for year-round homes is occurring.

The environmental quality of the shoreline and lake are often adversely impacted by activities on the land, in streams and from other parts of the lake. A recent State report lists exotic species and nutrients as major problems facing Lake Champlain's waters.

Exotic species in Charlotte include zebra mussels, water chestnuts, Eurasian milfoil and purple loosestrife. While little can be done to control the spread of the non-native zebra mussels, actions can be taken to lessen the effects of the nuisance aquatic plants. Water chestnuts represent the greatest threat to the lakeshore environment and were mapped in McNeil Cove and Northern Converse Bay in the summer of 1998 as the northern most extent in Lake Champlain. Bays to the south of Charlotte are currently harvested mechanically in attempts to control the weeds which carpet the bays and reduce almost all uses of the lake. State contractors will likely be available to continue hand pulling water chestnut plants in Charlotte, either on annual visits to our shore line or as requested by individuals who have reported new areas of infestation. Eurasian milfoil and purple loosestrife can be hand-pulled without a permit. Purple loosestrife should not be planted as an ornamental flower as it spreads and replaces valuable wetland species. Those interested in learning more about identification and removal of these species can contact the Charlotte Conservation Commission.

Nutrients can accelerate the growth of aquatic weeds and in some cases carry pathogens to the lake. Nutrients may reach the lake from use of fertilizers at home and farms, and from animal wastes and poorly operating household septic systems. Continued work is needed to control excessive use of fertilizers both for home-lawn care and for agricultural activities. Steps taken to control erosion also help in reducing nutrient loading as many nutrients are bound to topsoil particles.

The significant named tributaries that discharge to the lake along the shoreline are Pringle Brook, which combines with Holmes Creek and discharges south of the Town beach, and Thorp Brook in Town Farm Bay. Other brooks, the LaPlatte River, and Lewis Creek discharge directly or indirectly into the lake but in adjacent Towns. Due to water current systems in the lake, these discharges could still impact water quality on the shoreline in Charlotte. Therefore, nutrients and waste products that discharge to water bodies anywhere in the Town have the potential for impacting the lake water quality.

In 1989, a complete inventory of shoreline conditions was mapped from a visual inspection. An updated inventory of shoreline conditions should be conducted in the next three years to help identify problem areas and prioritize areas in need of further protection measures. The fourteen miles of shoreline vary from steep cliffs, rock ledges, natural stone, slope, artificially filled stone, some sand, man-made walls, wetland strips, and emergent vegetation. This inventory identified several areas as wetland management zones, including the mouth of Holmes Creek, McNeil Cove, Converse Bay by the fishing access, Converse Bay along its southeast shoreline, and Town Farm Bay west of Point Bay Marina to the southern edge of the Thorp Brook wetland area. Along most of the shoreline the nuisance aquatic plant, Eurasian milfoil, was observed.

The following is a summary of the 1989 inventory by region.

Hill's Point Region: Much of the natural scenic beauty of Hill's Point has been altered. There is still an undisturbed region at the extreme northern section where cliffs and natural stone landscapes still exist.

Town Recreational Area to Wings Point: South of the Town recreational area to Wings Point the landscape and shoreland have retained much of their scenic beauty. This is due in part to many steep cliffs that extend directly into the water or end with narrow natural stone and small sections of filled stone. The area also contains some large tracts of land in single ownership, one of which is protected by a 1,683-foot shoreline conservation easement held by the Lake Champlain Land Trust.

Wings Point: The west shore of Wings Point has segments of rock interfaces, small bays with natural stone, and cliffs. Subdivision and residential development has resulted in the cutting of trees in the Shoreland District to increase views for the new landowners.

McNeil Cove: This cove, from the jetty at the northwest entrance to the south cove, has many areas of emergent vegetation and valuable wetland. The wetland provides habitat for waterfowl and other birds, as well as wildlife and fish, and also affects water quality, shoreline stabilization, and recreational opportunity. These wetlands are presently impacted by the Lake Champlain Ferry dock and Fischers Landing. In the southern section recent development has resulted in clear-cutting of trees to the edge of the water.

Cedar Beach: The numerous trees surrounding and in front of the camps at Cedar Beach greatly reduces the adverse visual impact of development, and Cedar Beach retains much of its scenic beauty. Cedar Beach north cove areas has evidence of man-made modifications: cuts in natural stone cliffs, a small concrete pier, a concrete ramp, and stairways.

Converse Bay, North Cove: The northern portion of Converse Bay west of the fishing access to the rock ledge to the south forms a significant shallow cover wetland habitat with much emergent vegetation. Alterations along this shoreline and use of the fishing access has dramatically changed the appearance of this area.

Converse Bay, South Cove: This area has a significant shallow cove wetland habitat. The shoreline has been adversely altered in several locations by a concrete retaining wall and the destruction of cattails and bulrushes for boat docking facilities.

Thompson's Point: This area consists of a mosaic of natural and cultural features. Although Thompson's Point is heavily developed, it has retained much of its scenic beauty. Camps for the most part are hidden by trees. The north-facing region and the point itself have very steep rock banks; access to the water is generally by stairways, some with high visual impact. On the south-facing side the banks are gradual.

Town Farm Bay: From the west emergent vegetation appears in Town Farm Bay, indicative of a wetland. This wetland has been altered and degraded by several clear cuts through the bulrush stands for individual docks. The south side of Williams Point forms a significant wetland habitat that extends to Thorp Brook.

The following values should be preserved through volunteer efforts, incentives and, where needed, regulatory actions to restore, maintain and enhance the scenic beauty and environmental quality of the shore lands.

1. Restore, maintain and enhance vegetated areas along the lake. It is noted that some limited development will continue to occur along the shore lands and continued efforts will be needed near existing homes and new development to minimize future impacts. In several areas of cleared shorelines, new plantings could add greatly to preserving the vegetated cover along the shore.
2. Encourage man-made structures to blend into the natural landscape. This applies to shoreline docks, stairs, and buildings in the shoreline area as well as new facilities beyond the 1,000-foot zoning boundary placed on exposed ridgelines closest to the lake.
3. Maintain reasonable control of lakeshore wetlands. Current zoning bylaws prohibit any docks within wetlands, and about 75% of the shoreline is mapped as wetlands. The Town should study the existing bylaws and consider making them more consistent with existing state wetland rules which contain appropriate restrictions in wetland.
4. Continue existing controls on commercial development relating to near-shore facilities such as boat yards, boat maintenance and ferry service. Controls are needed to maintain environmental quality and scenic beauty.
5. Encourage shoreline stabilization methods which can be vegetated and/or blend in with the natural surroundings in areas of highly erodent soils.

There are existing water-related environmental and zoning statutes designed to protect the scenic beauty and environmental quality of the lake and its shoreline. The Charlotte Shoreline Committee for the 2002 Town Plan reviewed these statutes and made an assessment of some of them with regard to their efficacy, which are listed below along with more recently enacted statutes and policies.

State Water Quality Standards: These standards regulate point discharges to the lake. Application of individual home septic tank effluent to farm fields is also regulated.

Agriculture Nonpoint Source Pollution Reduction Program: These standards apply to agricultural nonpoint sources of contamination.

State Environmental Protection Rules: Designed to protect public health from sewage disposal; direct and indirect sewage disposal systems need permits. The Town now administers the Wastewater System and Potable Water Supply Rules.

State Management of Lakes and Ponds: Regulates land below 95.5 feet mean sea level (MSL) only.

State Wetlands Rules: Regulates activities in wetlands.

Corps of Engineers: Regulates activities in or affecting navigable waters and associated wetlands below 98 feet MSL.

Charlotte Zoning: The Shoreland zoning district covers 1,000 feet inland from low water mark. It offers a good opportunity to protect scenic beauty, recreational opportunities and environment. Zoning Bylaw amendments to improve shoreline protection were added in the 1995 bylaw revisions and are adequate. The amendments removed deficiencies from the standards. Conditional uses were more clearly identified, setbacks from the shoreline for septic systems were established, height restrictions were added, special requirements for shoreline districts were added to protect shoreline vegetation, enhance erosion control and add more restrictions to shoreline wetlands. In addition, the bylaws improved language to preserve existing public access. In the past the Charlotte shoreland bylaws have not always been enforced, especially regarding cutting of vegetation, but resident awareness of the bylaws and enforcement is improving.

2014 Vermont Shoreland Protection Act: Provision of Lake Shoreland protection standards.

Public Access to the Lake

There are 11 existing points of public access to the lake on the shoreline in Charlotte. These points of access vary in their accessibility and use potential due to roads, parking, fees, and owner preferences. The following is an inventory of these areas:

- Town Beach: Available for swimming, picnicking, and sail boarding. Adjacent ball field and tennis court. Parking available. Open to public. Fee charged.
- McNeil Cove Marina: Boat launch and mooring facilities available for a fee. Also boat storage and parking.
- McNeil Cove-Town: Use is limited by parking and available mooring space. The Town should explore means to find parking and make the launch useable on a limited basis for Charlotte residents.

- Cedar Beach: Townspeople's suggested right to use private pier at Cedar Beach requires clarification. A legal opinion sought by Cedar Beach Association determined that Cedar Beach Dock is not required to be open to the public.
- State Fishing Access on Converse Bay: State-owned boat launching site limited by statute to use for fishing purposes, but the launching of pleasure boats is generally permitted. Parking is limited. Used in winter for ice fishing and skating.
- Converse Bay South (Deer Point): Town access point; no parking available. Lack of clarification of adjacent leaseholders lot lines. Appropriate for mooring access and canoe launching. A bicycle path point of interest.
- Whiskey Bay-Thompson's Point: Town access point; no parking available but could be developed on adjacent Town land. Used extensively for ice fishing. Appropriate for controlled, pocket-sized park for swimming, picnicking, and ice fishing access. Will require stabilization of bank and walkway leading to the beach, provision of picnic tables and trash receptacles as well as monitoring and servicing by Town employees.
- Old Dock-Thompson's Point: Town access point; no parking immediately available but within short walking distance from proposed Whiskey Bay parking area.
- Gibb's Lot-Thompson's Point: Town access point; no parking available. Expansion of use would have adverse impact on adjacent leaseholders.
- Caretaker's Lot-Thompson's Point: Town access point, no parking immediately available but could be developed nearby at Whiskey Bay site. Potential use as limited boat launch facility.
- Lane's Lane-Thompson's Point: Town access point; no parking available but could be easily developed on adjacent Town land. Potential use for small boat launch facility and/or picnic area.
- Point Bay Marina (private): Individuals are permitted use of the ramps to launch or retrieve boats whenever they are not in use by Marina staff.

The current access to Lake Champlain for townspeople needs improvement in the future to meet the needs of the Town's growing population.

Mooring Management

Parts of the shoreline have experienced explosive growth in moorings for boats owned by both townspeople and the public at large. This situation has created the following problems:

- Location of moorings in areas unsuitable because of navigational concerns, extreme exposure, protection of wildlife, maintenance of natural areas, and protection of public swimming areas.
- Lack of a procedure to deal with the demand for mooring to assure good and reasonable access to boating on the lake for residents and the public.
- Parking problems to serve the users of the boat moorings
- Lack of designated anchorage areas for overnight use
- Concern for unreasonable use of the lakeshore by transient boaters

The Shoreline Committee has identified five areas where moorings may be designated and managed by the Town should the situation warrant:

- McNeil Cove
- Converse Bay, North
- Converse Bay, South
- Caretaker Access, Thompson's Point
- Lane's Lane, Point Bay Marina area on Thompson's Point

Thompson's Point

The Town of Charlotte purchased the 230 acres of lakeshore, woods, and meadowland on Thompson's Point in 1839 for $4,200. The Town originally derived income from this land from the lease of hunting and fishing rights from 1839-1874. In 1874, the Town began leasing camp lots to individuals for a modest fee. During the following century, approximately 120 camps were built on lakeshore lots averaging a half acre. The camps occupy 50 acres; the remaining 180 acres has been maintained for farming and woodland. A Poor Farm was operated on the point until the 1930s, where the official use of the land for agriculture (including farm animals) continued through the 1940s.[3] Thirty-four of the outbuildings on Thompson's Point are listed on the Vermont State Register of Historic Places.

Thompson's Point has been identified as a significant feature of the Town that was recommended by town committees for further study since at least 1987. The 1990 Charlotte Town Plan incorporated these recommendations, which stated that a *"long range plan should be developed for use of the town-owned land that is in the Conservation-Recreation District"* (known since the adoption of the 1997 Charlotte Zoning Bylaws as the "Shoreland Seasonal Home Management District").

The soils on Thompson's Point are heavy clay and poorly drained. The interior land is rolling to gently sloping in all directions. The woods are a mixture of hardwoods and conifers. The lakeshore varies from steep rock cliffs with limited water access to gently sloping ledges and shale beaches and marshy land in Town Farm Bay.

Even though the camps are relatively close together, one has the feeling of privacy and open space at Thompson's Point, due to the large amount of undeveloped land in the center of the Point, dense woods, and the lake.

The camps themselves vary in size and value. Their style is representative of 1880s and 1890s resort architecture. The camps are well-placed within this landscape. Their design harmonizes with the setting, incorporating irregular plans and projecting gables or turrets. The camps located in an area from the tennis courts west and south back to the western part of Town Farm Bay are within the Thompson's Point Historic District, which is listed on the State Register of Historic Places.

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[3] Harris, Paula Millar. "A Natural & Cultural Resource Inventory & Planning Recommendations for Thompson's Point, Charlotte, Vermont", Department of Botany, University of Vermont, Burlington, Vermont, *September 1990.*

Originally most of the camp owners were local residents. As of March 1999, 14% of leaseholders were residents; 36% reside in other Vermont towns; and 50% live out-of-state. Further, 22% of the leaseholders reside in Chittenden County. Although most camp owners are from out-of-state, many of them can trace ownership of their camps back through several generations of family to the original owners.

The meadowland is leased for agricultural purposes, and the forest is managed under guidelines recommended in 2000 by a Selectboard-appointed advisory committee. New dwellings, whether seasonal or year-round, are not allowed. The soils have severe limitations for on-site sewage disposal, and therefore a community wastewater treatment system was permitted and constructed in 1994 as a "best fix" system to serve only the existing camps on Thompson's Point. Water supply comes from the lake for most camps. Many of the pipes run overland and are not suitable for winter use. Roads in the area have charm and character, although their narrow and tree-lined condition sometimes pose problems for motorists and emergency vehicles. To date, the general consensus is that improvements to the roads would diminish the character of the area.

The leases permit only seasonal use of the camps due to the limitations of soils, wastewater system permit conditions, water supply, and roads.

In 1984 a committee appointed by the Selectboard to study the relationship between the Town and the camp owners issued the following findings and recommendations:

- There is no need in the foreseeable future for increased public access to Thompson's Point
- The open space should be maintained in perpetuity.
- No additional lots should be leased.
- The seasonal-use-only rule should be strictly enforced.
- In 1983 the Town derived an income of $111,184 from Thompson's Point.
- The Town should retain ownership of Thompson's Point in its entirety.
- The Town should continue leasing lots to the camp owners.

The 1999 Lake and Shoreline Committee reviewed the report and updated Thompson's Point information. It found that seasonal use only with no further camp development continues to be appropriate. However, the Committee found that there is a need for increased and enhanced public access for Townspeople, as detailed in Section 4.5.2 above.

Cedar Beach

Cedar Beach is a summer colony founded as the Jolly Club by Burlington business men in 1873. Today there are 19 cottages in the Cedar Beach Association. Several cottages are owned by descendants of the original owners.

Originally the Cedar Beach Association had two boat houses, several ice houses, and its own electric company. The Association still operates a pump house for water distribution to members. It also operates a club house, tennis courts, dock, and trash pick-up service. The

Association owns the land and approves all sales and rentals of cottages; it prohibits the use of camps for year-round occupancy.

The cottages were built in the 1870s and 1880s and are representative of resort architecture of the period. The cottages are in the Cedar Beach Historic District on the State Register of Historic Places.

Cedar Beach has some of the same limitations for expanded residential development as Thompson's Point. Roads are narrow and tree-lined; water supply is from the lake; and septic systems are on-site, in some cases on problem soils. Unlike Thompson's Point, however, portions of Cedar Beach have adequate soils for on-site sewage disposal. The Lake and Shoreline Committee has recommended that septic disposal regulation be routinely monitored in this area of the shoreline

Lake Champlain Islands

The Lake Champlain Islands are an important feature of Lake Champlain. They serve as significant wildlife habitat for nesting birds, recreation areas, and seasonal home sites, in addition to contributing to the scenic beauty of the lake. The Lake Champlain Islands in Charlotte include Sloop Island, Pickett Island, Garden Island, Cedar Island, and the Dean Islands. Sloop Island (less than 1 acre) is owned by the Vermont Agency of Natural Resources; it is a popular picnic, swimming and fishing site. Pickett Island (less than 1 acre) is in private ownership; a proposal for building on it was defeated several years ago. It is also a popular picnic and swimming site. Garden Island (25 acres), is in private ownership and has several camp lots and one large land holding. It is used primarily for nine seasonal homes. Cedar Island (2 acres) is in private ownership and has three dwellings on it. The Dean Islands (1 acre in total) are in private ownership; one island has a seasonal home; another a boathouse; and the third is undeveloped. The islands are very vulnerable to human abuse and environmental degradation due to shallow soils, nesting sites for birds, and the prominence of the islands on the lake.

Surface Waters, Wetlands, Flood Hazards (AHPV, Map 4)

Charlotte's waters drain into two 'Tactical Basin Planning Areas' as defined by the State Agency of Natural Resources, Department of Environmental Conservation:

- The Northern Direct to Lake Basin Area, basin 5 receives direct drainage from the northern border of Charlotte to the southern border and Kimball Brook. It includes small direct to lake tributaries, Pringle Brook and Holmes Creek, Thorp Brook, Kimball Brook and the LaPlatte River with McCabe's Brook, Bingham Brook, and Mud Hollow Brook. The LaPlatte River from its mouth to Hinesburg is listed as impaired by the State of Vermont (Vermont Priority Waters List Part D draft 2016) due to high levels of *E. Coli*.
- Other portions of these streams have documented high levels of phosphorus and solids and warrant water quality improvement investment to avoid impairment status (South Chittenden River Watch and VT DEC LaRosa Program 2015). Kimball Brook from Town Farm Bay upstream approximately 1 mile is listed as stressed (high turbidity and nutrient content) due to agricultural operations and lack of a riparian buffer.

- **Thompson's Point site**: rare plant community;
- **Vermont Wildflower Farm**: rare plant community; and
- **Williams Woods**: rare plants and significant natural community.

There are several parcels of land in the Town under public or private non-profit ownership as conservation reserves, or in private ownership with conservation easements in order to protect and steward their natural features with high public value. Map 13: Conserved & Public Lands, which indicates these conserved areas as well as public lands is updated annually by the Charlotte Planning & Zoning Office in cooperation with the Chittenden County Regional Planning Commission.

2.2 CULTURAL & HISTORIC RESOURCES (AHPV, MAP 7)

The 1990 Town Plan Town Environment Committee, and other committees since then, listed the types of special features that contribute to the character of the Town. Several of these features were classified into Areas of High Public Value and the Town, through its regulations, strives to protect these areas from undue, adverse impacts associated with land development. The following features are considered important cultural and historic resources within Charlotte: historic structures, districts and settlement patterns; scenic views and vistas; a dark night sky; working farms, meadows and pastures; and archaeological sites.

Historic structures, districts and settlement patterns

The Charlotte Historical Society has brought Town attention to the importance of Charlotte's historic resources. The Historical Society maintains a museum at the former Town Meeting House and sponsors town-wide events at the museum. The Historical Society helped the Conservation Commission and the Charlotte Quinlan School Corporation to relocate and restore the old Quinlan School to the Town Green. The Society also published a report on the history of the Town's roads, partnered with the Charlotte Community School during 1999-2000 to conduct an inventory of homes in Town, and assisted with the nomination of the *"Charlotte Center Historic District"* to the National Register of Historic Places.[12]

Charlotte has significant historic resources, including the villages, the summer camp communities, unique structures such as the covered bridges, sites such as the ferry landing, buildings which currently or formerly served for public uses, and homes, barns, and farmsteads. These resources represent the Town's heritage and contribute to the character and culture of the community.

During the summer of 1976, the Vermont Division for Historic Preservation conducted an inventory of the Town's historic resources, known as the Historic Sites and Structures Survey (HSSS).[13] As a result of this inventory, 64 sites and/or districts were placed on the State Historic Register on April 9, 1980. Additional sites, such as the Vermont Railway Guesthouse were added to the State Register on December 17, 2004. These sites have been mapped on the Historic and Cultural Resources Map (Map 7). The identified historic sites and districts are considered an Area of High Public Value within the subdivision, site plan review and conditional use review permitting processes. The Thompson's Point Historic District is also considered during the design review process required for proposed development within the Shoreland Seasonal Home Management Zoning District.

The Town's historic districts and complexes include (See Map 7: Cultural & Historic Resources);

- **Baptist's Corners (H1):** A historic business and social center of the Town around the intersection of Hinesburg Road and Spear Street which contains a unique concentration of

[12] *National Register of Historic Places*, US Department of the Interior, National Park Service, 2018. https://www.nps.gov/nr

[13] Cramer, Adele. Vermont Historic Sites and Structures Survey. Montpelier: Agency of Commerce & Community Development, Vermont Division for Historic Preservation, 1976. (Town of Charlotte). http://accd.vermont.gov/historic-preservation/identifying-resources/hsss

Greek Revival style residences and public buildings, including two churches (one now a residence) and the Grange Hall.

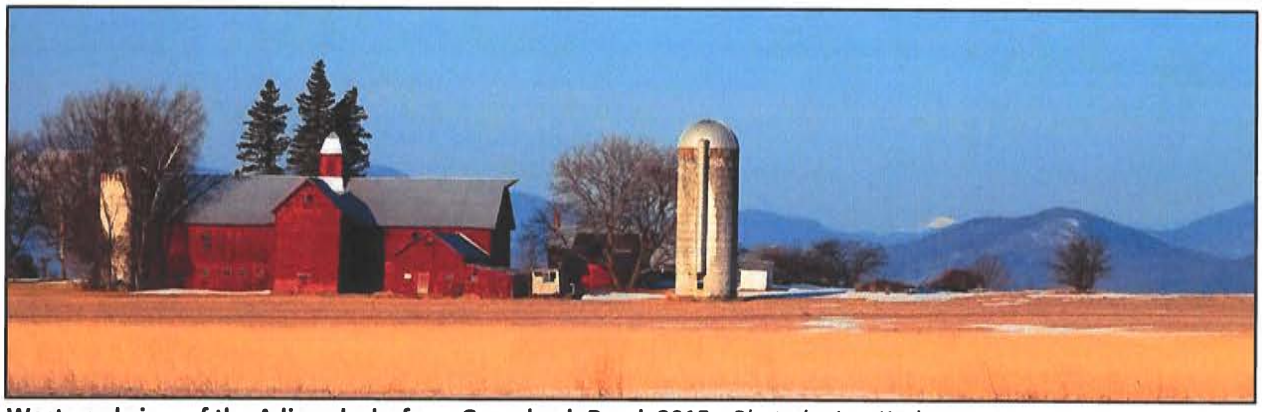
- **Old Route 7 Historic District (H2):** The former transportation center on the main stage road between Burlington and Vergennes providing services to travelers and now a residential district with two key buildings providing fine examples of Federal style architecture-the *Rayta House* and the *Swenor House* (otherwise known as the *"Tavern on Mutton Hill"* or the misnamed *"1812 Tavern"),* which was added to the National Register of Historic Places on December 10, 1982 (NRHP Reference ID# 82001763).
- **Charlotte Center Historic District (H3)**: The geographic center of the Town and a focal point for early settlement where public buildings, such as the Congregational Church and the Meeting House, and businesses were established for the convenience of residents. The district contains buildings of distinctive architecture, dating from the 1780s to the 1900s, including examples of Federal, Greek Revival, and Queen Anne styles. The 27-acre district was added to the National Register of Historic Places on July 19, 1984 (NRHP Reference ID# 84003460).
- **Four Corners Historic District (H4):** The largest of the Town centers, its position between the ferry landing and the main stage road and its physical setting on a ridge with magnificent views of the lake and the Adirondack Mountains contributed to its settlement and early growth. Development was further stimulated by a railroad station half a mile west. By the 1880s the district contained a church, school, two stores, a shoe shop, blacksmith shop, and about 20 dwellings. The architecture consists of buildings constructed between 1811 and 1900 in Federal, Greek Revival, and Queen Anne styles.
- **Cedar Beach Historic District (H5):** The earliest resort area in Charlotte, started in the 1870s and 1880s and containing numerous examples of resort architecture of the period.
- **Thompson's Point Historic District (H6):** A significant concentration of 1880s and 1890s resort architecture located on the old Town poor farm. The architecture harmonizes with the setting, incorporating irregular plans and projecting gables or turrets. The district includes 33 cottages and their related outbuildings, garages, ice houses, boat houses and club house. Until 1924 the side wheel steamships, the Chateaugay and the Ticonderoga made scheduled stops at Thompson's Point and Cedar Beach.
- **Bucklin Estate (H7):** Added to the State Register of Historic Places on April 9, 1980, the complex hosts a variety of architecturally notable structures from different historical periods, including a stone house that was constructed circa 1792, a Queen Anne-style water tower built around 1895, and a number of other outbuildings.
- **Mt. Philo Inn Complex (H8):** A historical scenic summer resort facility with a number of buildings dating from 1896 to the 1930s, the venue includes the Mt. Philo Inn building (constructed in 1896) and the Terrace Cottage constructed in 1904. The property abuts *Mount Philo State Park* to the east; a 237-acre State park surrounding a 968' summit that is endowed with one of the most scenic and sweeping views within the Champlain Valley, in addition to trails, a 1930s lodge, covered pavilion, picnic areas, and a small camping area. Created in 1924 as the Vermont's first State park, *Mount Philo State Park* was added to the National Register of Historic Places on November 29, 2001 (NRHP Reference ID# 01001286).

Other significant historic resources within the Town include; the residential properties listed on the National Register of Historic Places, such as the *McNeil Homestead* that was added to the

rights-of-way where appropriate and to encourage property owners to do the same. Since its inception in 2006, the project has resulted in the planting of over 450 roadside trees.

Views and Vistas (Based on 1990 information - *direction of view from location*):

- Northwest to southwest from Mt. Philo State Park (V1);
- West off Mt. Philo Road, south of the base of Mt. Philo State Park (V2);
- West off Route 7, vicinity of the north end of Old Route 7 (V3)Town scenic overlook);
- East and north off Route 7, north of Nordic Farm (V4);
- West off Lake Road at the Town beach (V5);
- Southeast off Mt. Philo Road, north of Spear Street (V6);
- Southeast off lower Spear Street, north of the covered bridge (V7);
- Southeast at the intersection of Greenbush Rd. and Thompson's Pt. Rd. (V8);
- Guinea Road near the intersection with Bingham Brook Road (360 degrees) (V9);
- East and north on Spear Street, west of the covered bridge (V10);
- South off of Spear Street on the south side of Mt. Philo (V11);
- East on Hinesburg Road, near Dorset Street and Bean Road (V12);
- East off Mt. Philo Road, just north of One Mile Road (V13);
- West on Lake Road, descending towards Orchard Road (V14);
- East on Prindle Road between Spear Street and Bean Road(V15);
- North on Roscoe Road, vicinity of Lewis Creek Road (V16);
- Both sides of Spear Street, between Hinesburg Road and Prindle Road (V17);
- East on Ferry Road, near Lake Road (V18); and
- West on Garen Road at top of the hill (V19).



Westward view of the Adirondacks from Greenbush Road, 2015 - *Photo by Lee Krohn*

This information was updated in 1999 and is also shown in Map 7: Cultural and Historic Resources. Ubiquitous overhead utility lines for power, telephone and cable television have the impact of diminishing the Town's scenic vistas, views and general landscape quality. These are important services, but the vision for an aesthetically beautiful Charlotte includes the replacement of overhead lines with underground lines and requires the installation of new lines underground. It is the objective of the Town that all utilities will be underground.

2.3 DEMOGRAPHICS

The Town of Charlotte is proud of its diverse population which is a product of many years of change in the character of the community and the economy of the region. In 1790 the Town, with 635 people, was the most populated in the county. Charlotte held this position until sometime between 1800 and 1810 when it was surpassed by Burlington. In 1840, Charlotte reached a peak in its population for that century of 1,702 people. However, over the next 100 years the Town experienced a decline in population to a low of 1,082 in 1940. This pattern was consistent with that of the state during that period when there was a large migration of Vermonters to the west. This situation turned around over the next 40 years as the population steadily increased (see Table 1). Resident surveys undertaken with several Town Plan updates have identified growth pressures and rate of growth as one of the biggest challenges currently confronting the Town.

Table 1: Population Growth in the Town of Charlotte: 1790-2015

Year	Population	Year	Population	Year	Population
1790	635	**1900**	1,254	***2005** (est.)*	3,651
1800	1,231	**1910**	1,163	**2010**	3,754
1810	1,679	**1920**	1,160	***2011** (est.)*	3,778
1820	1,526	**1930**	1,089	***2012** (est.)*	3,812
1830	1,702	**1940**	1,082	***2013** (est.)*	3,828
1840	1,620	**1950**	1,215	***2014** (est.)*	3,856
1850	1,634	**1960**	1,271	***2015** (est.)*	3,861
1860	1,589	**1970**	1,802		
1870	1,430	**1980**	2,561		
1880	1,342	**1990**	3,148		
1890	1,240	**2000**	3,569		

Source: U.S. Census, Vermont Department of Health (intercensal estimates)

Charlotte's population consists of both seasonal and year-round residents. There are no estimates of the number of seasonal residents in the Town although the Vermont Health Department estimated there were 184 seasonal housing units in 1992, 166 seasonal housing units in 1996, and 174 seasonal housing units in 2000. Some seasonal housing units have been renovated to year-round residences over the past 15 years, although the zoning regulations restrict conversions on Thompson's Point, where many seasonal houses are located. Due to the limited number of overnight accommodations and large tourist attractions in the Town, the number of transients is estimated to be very low. Therefore, the Town's Service Population is comprised almost entirely of year-round and seasonal residents.

Charlotte exhibits the characteristics of many of the "outer ring" towns of the county - a relatively small but growing population. Table 2 compares Charlotte's growth from 1960 to 2000 with that of Chittenden County as a whole.

Property Id	Facilities	Services / Uses	Other Amenity	Funding Sources	5-10 Year Projects
Town Hall and Library	Library	Books, ebooks, software Adult and Youth Programs	Computers, wifi	Town Budget, Fees, NPO, Donations	
		Meeting space, Work space			
		Computer hotspot			
		Informational Clearinghouse			
Burns Property	Wastewater / Potable Water Supply	Public works	Flea Market Site	Town Budget	Management plan
	Open	Natural Resource and Agriculture			Future village wastewater
	Trails	Recreation			Private well responsibility
Town Garage	Salt Shed	Storage		Town Budget	
Lewis Creek Access	Open	Fishing access	limited parking	Town Budget	Water quality / parking improvements
Thompson's Point	Leased land	Summer residences	limited parking	Town Budget, Leases	Lane's Lane hookup
	Wastewater Treatment	Recreation	Lake access		Water quality improvements
	Roads	Agriculture			Management Plan
	Trails	Natural Resource			
Charlotte Volunteer Fire & Rescue Service (CVFRS)	CVFRS Station / Adm Bldg	Public Safety		Town Budget, NPO, donations	
		Training Facility			
Charlotte Central School	K-8 Public School	Education	Kitchen	Town School Budget	
	Athletic Fields	Recreation	Skating rink		
	Gym and Multi-purpose Room	Meeting space	Parking		
Other	Trail Network	Recreation		Grants, donations	
	Berry Farm Ballfields	Recreation		Town Budget	
	State owned rail property / station	Transportation, Open		PILOT?	
	Mt. Philo State Park	Recreation, Natural Resource		PILOT?	
	UVM - Pease Mtn	Education, Natural Resource		Private?	

Water / Wastewater

There are 13 public water supplies in Charlotte. Four of these are community water systems, 4 are non-transient non-community (e.g. schools) and 5 are transient non-community systems (e.g. deli / café). A public water system provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. A public water system may be publicly or privately owned. Public water supplies are regulated by the Agency of Natural Resources, Department of Environmental Conservation. Source protection areas (AHPV) are delineated for all public water systems and routine monitoring is also required.

The town is responsible for the maintenance and operation of three wastewater systems and contracts with private entities for this work; Thompson's Point, West Charlotte Village, and the Charlotte Central School.

The Thompson's Point System is operated seasonally and has a design flow of 20,000 *gallons per day (GPD)*. This flow is based on an estimate of water usage for existing seasonal residences and the expected occupancy of those residences. Historical data indicated that the system has utilized up to 80% of its capacity during peak usage times, such as the week of the 4th of July. As of the 2016 annual inspection of the system, the recently replaced flow meters measured the highest *Average Daily Demand* to be 8,356 GPD (recorded for the week ending on July 25, 2016), where the *Average Daily Flow* from May through early August 2016 was measured to be a 5,608 GPD output to the septic mounds.[21] As of 2016, the Town intends to expand the system to include at least seven residences along Lane's Lane. Adding greater capacity to the system may be challenging due to environmental constraints.

The West Charlotte Village System has a design capacity of 6,000 GPD. The Town offices, Library, Fire & Rescue and Senior Center, currently use approximately 3,100 GPD and this is the extent of the current service area. A study Committee created in 2012 recommended an additional 435 GPD be retained for these uses resulting in 1,462 GPD of excess capacity as currently permitted. The 2012 Committee also indicated that an additional 1,500 GPD could be permitted at this location (total design capacity equal to 6,499 GPD) resulting in almost 3,000 GPD of additional capacity. Questions remain as to if and how this excess capacity might be allocated.

The Charlotte Central School is served by an innovative wastewater system with a design flow of 10,250 GPD and a disposal capacity of 6,000 GPD. This represents the upper limit of school capacity, where expansion would prove to be difficult due to environmental constraints.

Charlotte is one of two towns in the State of Vermont to have been delegated the authority to issue State Wastewater and Potable Water Supply permits. Permits are typically reviewed and issued by a Sewage Control Officer in consultation with a technical review consultant.

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[21] Marshall, David S. *"Thompson's Point Wastewater Disposal System: 2016 Annual Inspection – System ID-9-0244"*. Civil Engineering Associates, Inc., August 5, 2016.

2.7 TRANSPORTATION (Map 9)

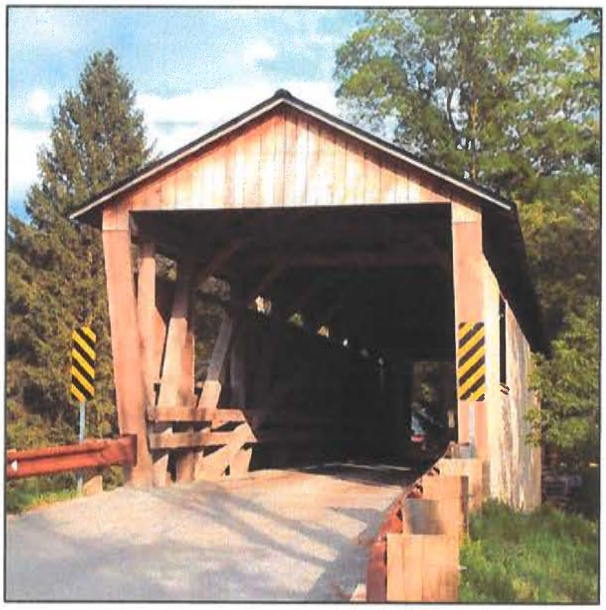
Charlotte's transportation routes are considered part of Chittenden County's Southern Corridor as identified in the *2025 Chittenden County Metropolitan Transportation Plan* initially adopted in 2005 and integrated into the *2013 Chittenden County ECOS Plan* which is the Regional Plan mandated under state law.

Roads

US Route 7 is the primary north / south arterial on the western side of the state and was under construction during 2016-18 to improve traffic congestion and safety concerns from south of Ferry Road extending to the Ferrisburgh town line. Spear Street, Mt. Philo Road, and Dorset Street also serve as north / south travel routes and there are ongoing concerns as to their increased use as alternatives to Route 7. The primary east / west travel route in Charlotte is Church Hill Road / Hinesburg Road which extends from Route 7 to the eastern town boundary with Hinesburg. Ferry Road (Vermont Route F-5) also serves as the east / west travel route originating from Route 7 extending westward to the ferry dock in McNeil Cove on Lake Champlain. Access to Mt. Philo State Park, the most heavily visited park in the state, is generally via State Park Road, another east / west travel route which runs from US Route 7 to Mt. Philo Road.

The Town maintains approximately 74 miles of highways. The Town contracts for its road maintenance and owns no equipment of its own. Highways are perennially the largest item within the Town (non-school) budget.

Projects in the last 5-10 years included bridge projects, such as; The rehabilitation of the Quinlan Covered Bridge (costing about $800,000), the Sequin Covered Bridge (costing $600,000 with a Town match of 2.5%), and the Lewis Creek bridge culvert replacement to accommodate aquatic organisms, which was funded in part with a $20,000 grant from U.S. Fish and Wildlife Service.



Quinlan Covered Bridge, 2016 - *Photo by Niranjan Arminius (CC BY-SA 4.0), via Wikimedia Commons*

Local roads projects have included; Annual grants from State Town Highway Grants Programs totaling about $195,000, and two 2016 grants from the Vermont Better Roads Program for about $28,000 to install Green Stormwater Infrastructure (a bio-retention area) and to upgrade a culvert and ditching along East Thompson's Point Road. Another $19,200 Better Roads grant was received to rock-line the ditching on Lime Kiln Road between US Route 7 and Mount Philo Road. Another was obtained by CCRPC that has been used to conduct a "road erosion inventory" in Charlotte and other municipalities in Chittenden County.

2.9 EXISTING LAND USE

It is important to understand how land and other resources are used before recommendations can be developed regarding future land uses since the type and intensity of existing land uses have a strong influence on future development patterns.

Many factors influence a community's land use patterns including natural resources constraints and opportunities, agricultural and forestry practices and the development of residences, commercial and light industry. Regulations have also been a factor in shaping development since the inception of zoning in Charlotte over fifty years ago.

Land Use Categories

Towns commonly employ two types of instruments to guide and enact legislation – policy documents, such as this comprehensive plan, and regulatory documents such as land use regulations (aka zoning). Both are intentionally distinct but must be coordinated and complementary. Land use designations included in the comprehensive plan are plans for the future. Whereas zoning designations more specifically define what use is currently allowed on a specific parcel, and outline design and development guidelines for those intended uses such as setbacks, minimum lot sizes, buffering and landscaping requirements, etc. Zoning designations are what you can legally do with your parcel today; land use designations, in conjunction with development guidelines, describe how you may be able to use your parcel in the future.

In general, land is categorized according to its physical characteristics and the present use occurring on it. Following is a listing and purpose for the current, broad land uses found in Charlotte:

Natural – To provide for effective long-term management of tracts of land consistent with their significant, limited or irreplaceable natural or scenic resources essentially undisturbed by human occupancy. Characteristics: major wetlands, undeveloped shoreland; lands that are unique, fragile, or hazardous for human development (Significant Natural Communities; Rare and Irreplaceable Natural Areas; Rare, Threatened or Endangered Species; River Corridors; Flood Hazard Areas; steep slopes (greater than or equal to 15%); large, intact tracts of forest habitat and connecting habitat.)

Rural – To provide for agriculture and forest management and various other low intensity uses on large sites, including residences where community services will not be provided and natural resources will not be unduly impaired; to encourage preservation of scenic resources and guard against the premature or unreasonable alteration of irreplaceable, limited or significant natural, scenic, historic, or other resources not otherwise classified. Characteristics: large tracts of farm plus smaller integrated sites.

Developed / Community – To provide for clustered uses to fulfill housing, employment and public and private service needs within the Town. Characteristics: villages, hamlets, crossroads, clustered residential.

Historic Development Patterns

Charlotte's development pattern can be described as having three components: 1) village nodes, 2) frontage along town roads and 3) clustered developments or neighborhoods. As described in greater detail in Part 3 of this Plan entitled Charlotte Yesterday, Charlotte has always had a somewhat dispersed settlement pattern largely due to its agricultural heritage. Water also played a critical role - necessary for powering early gristmills and sawmills (Holmes Creek, Lewis Creek and LaPlatte River), transporting goods and people along the Lake and providing potable water sources (Church Hill Road at Hinesburg Road). Three distinct 'villages' emerged early in Charlotte's history: Charlotte Four Corners (now West Charlotte Village), Charlotte Center (at the intersection of Hinesburg Road and Church Hill Road), and Baptist Corners (now East Charlotte Village). Thompson's Point and Cedar Beach have been summer 'colonies' since the late 19th century.

The first Comprehensive Plan, written in 1969, identified two villages: Charlotte Village (now West Charlotte Village) and East Charlotte Village; summer residential and recreation at Thompson's Point and Cedar Beach and along the Lake; a proposed State Park adjacent to Town Farm Bay and an expansion of Mt. Philo State Park; a residential community near Mutton Hill; and "Low Density, Agricultural and Rural Residential Cluster Developments" in spaces between. Limited access and the prevention of strip development along Route 7 were also called out in this first plan and that guiding principle has been a consistent component of Charlotte's Town Plan since that time.

The general land use pattern today is not appreciably different from that of 1969. Development along town roads and in clusters has been occurring; however, the size of lots within clustered developments and developable areas within those lots has been a concern in some instances. Clustering is a relative term and dispersed clusters can incrementally eat away at both farm and forestland and other *Areas of High Public Value*.

Charlotte Land Trust

The Charlotte Land Trust (CLT) was originally formed in 1986 as an outgrowth of an agriculture committee appointed by the Planning Commission to assist in developing a new town plan. Members of the committee were concerned about increasing development in town and decided to form a local land trust. In the early years, the organization assisted in an impressive number of local conservation projects, primarily resulting in conservation easements that are held by the Vermont Land Trust. In 1995 the board filed for incorporation to become a non-profit, 501(c)(3) corporation in order to be able to hold easements and make it possible to raise money for conservation projects. In the last 6 years, CLT has welcomed numerous "Friends of the Land Trust" who support the land trust's work through contributions to the organization.

From the start, CLT's focus has been to conserve farmland and to make affordable farmland available to farmers. Other notable goals are to preserve land for wildlife habitat and corridors, public recreation, scenic vistas and significant natural areas.

CLT helped educate town residents in 1995 about the proposed Town Conservation Fund, which was voted on and approved at Town Meeting in March 1996, and renewed for another ten years in March 2006. This fund has been extremely helpful in making local conservation

3.1 EARLY SETTLEMENT

The Town of Charlotte was founded in June 1762, when Benning Wentworth, Royal Governor of the Province of New Hampshire, granted charter to a group of 65 men in Duchess County, New York, for the Town "Charlotta," in the name of King George III, and in honor of his bride, the German princess Charlotta Sophia of Mecklenburg Strelitz.

Thousands of years before this event the land that was to be Charlotte lay beneath the glacier, and after its receding, beneath cold glacial seas. Marine fossils can still be found in the fertile valley that remains. When the Rutland & Burlington Railway was cut through Charlotte in 1849, the bones of a small whale were found just north of Thompson's Point Road.

Before its settlement by Europeans, the land in Charlotte was home for more than 12,000 years to Native Americans. The Abenaki, otherwise known as the *"People of the Dawn Land"* camped and hunted in the heavily forested and rolling terrain where bear, deer, beaver, and other wildlife prospered. A site in Charlotte where indigenous occupancy has been meticulously excavated is the Thorpe Brook Site near Lake Champlain. Here were found the remains of two semi-permanent log house structures that were occupied by a family of Western Abenaki during the early-1800s. The absence of any historic roads to the site indicates that access originated from Lake Champlain; a pattern of settlement typical of Native American habitations on the edge of the European-American population centers within the Champlain Valley of Vermont during the first half of the 19th century.[1]

Although some of their children did, none of the original European-American proprietors ever settled in Charlotte. They were the first of the Town's landowners with, as W.S. Rann relates in *The History of Chittenden County, Vermont*, the "desire to buy cheap and sell dear." Consequently, they "did little more than open roads, construct bridges, and provide for the building of the necessary mills, in order to increase the market value of their property."[2]

The first settler of Charlotte is said to be Derrick Webb, of English/Dutch origin, who, in March of 1776, arrived and left, as he did again the following spring. The true settlers of Charlotte came, Webb among them, in 1784, and in greater numbers over the next ten years, primarily from Massachusetts and Connecticut. They came alone or with families, up the Champlain Valley following a trail of blazed trees, up the lake from Whitehall by raft, sometimes across the frozen lake. Settlement was rapid, induced in part by the thick forests of oak and pine which were felled and rafted to Quebec for the masting of the Royal Navy of Great Britain. The settlers soon found the good soil, gentle slopes and flat, well-drained meadows of Charlotte to be ideally suited to agriculture, which quickly became their principal industry.

In less than ten years, Charlotte was the county's largest settlement, a town of 635. James Hill and his family had settled on Hill's Bay, at a place still known as Hill's Point. John McNeil had

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[1] Vermont Electric Power Company (VELCO), University of Vermont Consulting Archaeology Program (UVM CAP), and the Archaeological Services at the University of Massachusetts Amherst, & Vermont Electric Power Company's (VELCO) Northwest Reliability Project. *"Powerful History: The Archaeology of Native People in the Champlain Lowlands: Native American archaeological sites along the VELCO Northwest Reliability Project corridor in Chittenden, Addison and Rutland Counties"*, Rutland, Vermont, 2011, p. 31.

[2] Rann, W.S. *The History of Chittenden County, Vermont*, Syracuse, New York, D. Mason & Co., 1886, p. 535.

Charlotte Four Corners

Charlotte Four Corners developed quickly from its earliest days as a crossroads, with gristmill to the north, ferry to the west. In 1811, Joseph Barton built his tavern at the northwest corner, famous for its upstairs ballroom with a swing floor. The Methodists built a church in 1823. Sixty years later the corner was home to two stores, a shoe shop, a blacksmith's shop, the Charlotte Female Seminary, a cheese factory which produced 40,000 pounds of cheese a year, a post office and, just to the west, the railroad station. In 1882, at the railroad depot, Wilbur Fields operated a hay barn and hay press which received and pressed some 700 tons of hay a year. In the later part of the 1800s, John Holmes had a 100-acre orchard on a slope overlooking the lake, and a dock on Hill's Bay from which he shipped apples not only to cities across the United States, but also to London.

Thompson's Point

The late 19th century saw the rise of two unique communities in the west of Charlotte. The first was at Thompson's Point at the south end of Converse Bay. The Town of Charlotte purchased the entire point of land in 1839 and has owned it ever since. Its earliest use was for a 'poor farm' supported in part by tent camping, but in the late 1800s, striking Gothic cottages were built on lots leased from the Town, and a thriving summer community evolved.

Cedar Beach

Cedar Beach was the site of another summer colony which developed in Charlotte, but in a manner quite different from Thompson's Point. In 1872, J.T. Bagley, a gentleman from Burlington selected a campsite and pitched his tent for a few weeks of summer camping. He so enjoyed himself that the next summer he invited friends to join him and the "Jolly Club" at Cedar Beach was born. From one cottage in 1873, the community grew over the next ten years to include an ice house, a stable, a large pier, many cottages and some 1,000 people. In 1883, the Jolly Club became the Cedar Beach Association, Inc., more houses were built, and improvements made. The pier was extended to facilitate the docking of the great lake steamers which stopped in the morning to pick up commuters to Burlington and returned them to their families in the evening. For the next 30 years or more, the colony prospered, a utopian summer community of swimming and boating, card games, dances, and canoes of young singers floating in the moonlit night. The Association and the camps still remain, but the end of steamer service on the lake signaled the close of an era at Cedar Beach.

Church Hill Road

Progress on Church Hill Road was early and swift,[4] as it quickly became the principal stage road north to Burlington. In 1786, Hezekiah Barnes, Captain in the Colonial Army and later General of the Vermont Militia, with his wife and four children, settled and built a large log tavern next to the great spring. Across the road, on the southeast corner of the intersection, General Barnes established a trading post. Added to and changed over the years, the structure stands today. In 1789, he added the stone house, now the home of Mr. and Mrs. William Pinney. In 1790, Gen. Barnes's clientele overflowed the log tavern, and he built a substantial frame tavern with ten

[4] Thornton, Francis J., "Charlotte Road Statistics: Their Locations and Widths as Recorded in the Charlotte Town Records", Charlotte, Vermont, March 1986.

3.4 MUNICIPAL HISTORY

The municipal history of Charlotte is a straightforward one. The first Town Meeting was held in Moses Yale's log cabin facing Converse Bay on July 6, 1785. The Town was officially organized at a meeting in March 1787 at which men were elected to serve as clerk, constables, selectmen, listers, leather sealer, half-tithing men, surveyors of highways, and sealer of weights and measures. Twelve prominent men were appointed jurymen. It was decided that hogs should be confined. In 1786, Daniel Horsford was elected first justice. John McNeil was elected as the first representative to the legislature of the independent Republic of Vermont in 1788.

By 1886, Town offices included: Selectmen, Treasurer, Town Clerk, Constable and Tax Collector, Overseer of the Poor, Listers (3), Auditors, Trustee of Public Money, Fence Viewers, Grand Jurors, Inspector of Leather, Inspector of Wood and Shingles, Superintendent of Thompson's Point, Town Agent, and Superintendent of Schools.

In 1869, Charlotte had 14 school districts; by 1948, nine remained. In 1949, the four remaining districts were consolidated and Charlotte Central School was built. An addition to the school was completed in 1968 and a kindergarten added. Further additions were completed in 1989 and 1997 providing additional classrooms, gymnasiums, and support facilities. Today, students in kindergarten through 8th grade attend CCS. Charlotte high school students, with students from Hinesburg, St. George, Williston and Shelburne, attend Champlain Valley Union High School built in Hinesburg in 1963.

It was not until the mid-1960s that Charlotte developed planning and zoning ordinances to control growth over the Town's 26,520 acres and to protect its resources. Interestingly enough, those resources have not changed significantly since Charlotte's earliest days; the superior soil and breathtaking environment are still valuable assets.

1. Rezoning the industrial/commercial district on East Thompson's Point Road to residential, and
2. Language regarding Transfer of Development Rights (TDRs) which had been understood to require the Town to enact such a program.

The Planning Commission deleted these sections and voters adopted the Town Plan on March 5, 2002.

The 2002 plan maintained much of the structure and content of the earlier plans; the main structural change being the delineation of policies and strategies in some of the plan's sections. The principal content change was the added focus on the villages, particularly the West Charlotte Village.

The reasons for this focus were twofold. First, the West Charlotte Village has become, within the last ten years, a real town center where municipal, cultural/social, postal and commercial services are provided. The fact that this village hosts these services currently and may in the near future provide additional services warrants a close look at how they interrelate and how they can be provided most effectively, efficiently, and aesthetically.

Secondly, in looking forward, the Town's need for housing is projected to grow. The provision of housing in village areas accomplishes several goals:

1. It can address affordability issues by allowing for smaller lots, shared structures and shared infrastructure; and
2. It reinforces the village concept by providing a mixture of residential and commercial uses and also by establishing a clear contrast with the surrounding rural countryside, especially when coupled with protective mechanisms for outlying areas.

The 2002 plan laid the groundwork for future studies, such as groundwater studies, village master plans for the West and East Charlotte Villages, and a town-wide plan for open space protection, in order to assure that future growth in the Town will be environmentally sound and will be in keeping with the current character of the village and non-village areas.

Village Planning

A West Charlotte Village Plan was completed in October 2002. As a majority of the ideas in that plan were not broadly endorsed by the public, the Planning Commission decided not to adopt its recommendations. Nevertheless, the four "goals" identified as the most popular within the plan may hold enough merit today to apply for Village Center Designation with the State of Vermont. An East Charlotte Village Plan was completed in May 2010.[8]

Further detail on the villages that the Town considers as candidates for Village Center Designation are covered in Chapter 1.

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[8] East Charlotte Village Planning Project / Community Workshops - Final Report, prepared by LandWorks, Middlebury, Vermont, May 4, 2010.