



# CHITTENDEN COUNTY RPC

*Communities Planning Together*

## Planning Advisory Committee

**Wednesday, September 14, 2016**

**2:30pm to 4:30pm**

**CCRPC Main Conference Room, 110 West Canal Street, Winooski**

## Agenda

- 2:30 Welcome and Introductions, Joss Besse**
- 2:35 Approval of July 13, 2016 Minutes\***
- 2:40 Amend Municipal Plan Review Guidelines\*, Regina Mahony and Emily Nosse-Leirer**  
We will review draft amendments to CCRPC's Municipal Plan review policy to add our process for a Town Plan amendment (as opposed to readoption), replace Appendix A with the more simple ACCD form (with reference to latest legislative changes), and change 5 year expiration to 8 years. Please note that we did not include reference to the flood resiliency checklist that we are currently required (under our ACCD contract) to fill out along with municipal plan review.
- 3:10 Statewide Property Parcel Mapping Program Project, Leslie Pelch from VCGI**  
An overview of this project will be provided by Leslie Pelch. The project is funded by the VT Agency of Transportation to create or update parcel data to meet the state data standard over 3 years AND to establish an ongoing Program to support annual updates to that data. The Vermont Center for Geographic Information is providing staff and coordination to the creation of the Program. A request for proposals will be published in late fall of 2016, seeking mapping contractors interested in working with multiple towns. It is anticipated that about 1/3 of the state will be mapped each year for 3 years. Project information can be found here: <http://vcgi.vermont.gov/parcels>.
- 3:40 Building Homes Together Campaign Training Topics\*, Regina Mahony**  
We are planning a housing training schedule for the PAC for the coming year. Please review the attached schedule and come prepared to discuss whether these topics would be valuable or not.
- 3:50 Charlotte Readoption of Updated Town Plan\*, Emily Nosse-Leirer**
  - Review Staff Summary*
  - Questions and Comments*
  - Recommendation to the CCRPC Board (will hold public hearing at this stage)*
- 4:20 Regional Act 250/Section 248 Projects on the Horizon, Committee Members**

In accordance with provisions of the Americans with Disabilities Act (ADA) of 1990, the CCRPC will ensure public meeting sites are accessible to all people. Requests for free interpretive or translation services, assistive devices, or other requested accommodations, should be made to Emma Vaughn, CCRPC Title VI Coordinator, at 802-846-4490 ext 21 or [evaughn@ccrpcvt.org](mailto:evaughn@ccrpcvt.org), no later than 3 business days prior to the meeting for which services are requested.



## CHITTENDEN COUNTY RPC

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### 4:25 Other Business

- a. We recommend **holding an October PAC meeting on October 12<sup>th</sup>**. We will need to review Williston's readoption of their existing Plan, and we anticipate sharing housing data, demographic data and potentially energy planning.
- b. **ACCD Annual Report** – We'll hand out the annual report for your review for your municipality so you can mark it up if necessary.
- c. Grants and Technical Assistance:
  - i. The **Municipal Planning Grants** are due October 31<sup>st</sup>. See the attached email from Annina Seiler for more detail\*, and here: [http://accd.vermont.gov/strong\\_communities/opportunities/funding/overview/municipal\\_planning\\_grants](http://accd.vermont.gov/strong_communities/opportunities/funding/overview/municipal_planning_grants)
  - ii. **American Institute of Architect's Sustainable Design Assessment Team (SDAT)** program offers free technical design assistance from AIA. Deadline 12/9/16. To view the application packet and other related resources, please visit the [AIA Center for Communities by Design website](#). Example project from Shelburne is [here](#).
  - iii. The VT Department of Environmental Conservation (DEC) announces four workshops in September following the release of the next Request for Proposals (RFP) for the **DEC Ecosystem Restoration Grant Program**. The *tentative* date for release of the RFP is September 15th with an expected application deadline of October 25th. Of the four workshops, this one is in our region: Sept 20<sup>th</sup> from 1pm to 4pm at the Act 250 conference room, DEC Fish and Wildlife office, 111 West St., Essex Junction. Attendance and RSVPs are strongly encouraged for questions and discussion. Contact Marli Rupe – [marli.rupe@vermont.gov](mailto:marli.rupe@vermont.gov), 490-6171.
- d. The proposed **2017 Vermont Stormwater Management Manual Rule** was filed to initiate adoption of the Manual through rulemaking. A public meeting to solicit comment on the proposed rule will take place on Tuesday, October 25th, 2016 from 9:00 AM until 12:00 PM, at the Pavilion Building Auditorium, located at 109 State Street in Montpelier. Public comments will be accepted from Friday, September 16, 2016 through 4:30 PM on Tuesday, November 1, 2016. A copy of the proposed rule and associated filings is available on the VT DEC Stormwater Program website at the following link: [http://dec.vermont.gov/watershed/stormwater/manual\\_update](http://dec.vermont.gov/watershed/stormwater/manual_update). Full email announcement from Kevin Burke is attached\*.
- e. The Urban Institute and National Housing Conference have joined forces to create a new tool that puts readers in the shoes of a developer, trying to build an affordable apartment building. <https://nextcity.org/daily/entry/affordable-housing-development-online-game>

### 4:30 Adjourn

\* = Attachment

NEXT MEETING: October 12, 2016 at 2:30pm to 4:30pm; and/or November 9, 2016 at 2:30pm to 4:30pm.

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CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION  
PLANNING ADVISORY COMMITTEE - MINUTES

DATE: Wednesday, July 13, 2016

TIME: 2:30 p.m. to 4:30 p.m.

PLACE: CCRPC Offices, 110 West Canal Street, Suite 202, Winooski, VT

**Members Present**

Joss Besse, Bolton

Ken Belliveau, Williston

Dana Hanley, Essex

Jacob Hemmerick, Milton (left at 3:40pm)

Greg Duggan, Essex

Andrew Strniste, Underhill

Clare Rock, Richmond

David White, Burlington

Sarah Hadd, Colchester

Paul Conner, South Burlington (arrived at 3:30pm)

Dean Pierce, Shelburne

Katherine Sonnick, Jericho

**Staff**

Regina Mahony, Planning Program Manager

Lee Krohn, Senior Planner

Emily Nosse-Leirer, Planner

Charlie Baker, Executive Director

**1. Welcome and Introductions**

Joss Besse called the meeting to order at 2:40 p.m. .

**2. Approval of May 11, 2016 Minutes**

Jake Hemmerick made a motion, seconded by Katherine Sonnick to approve the May 11, 2016 minutes. No further discussion. MOTION PASSED.

**3. Shelburne Town Plan Amendment – Added to the Agenda**

Regina Mahony explained that the Plan amendment that the PAC reviewed a few months ago was changed by the Selectboard before they adopted it. Dean Pierce explained that the amendment originally included two parts: village center designation and a bike/ped map. The village center designation was adopted, but the bike/ped map was not. Alex Weinhagen asked if the Plan as adopted still meets all requirements. Emily Nosse-Leirer verified that it does. Dean Pierce added that they were originally going to start a new clock with this amendment, but the new legislation does not allow for that and he debated whether they needed CCRPC approval at all. He decided he might as well keep it moving through the process.

Alex Weinhagen made a motion, seconded by Sarah Hadd, to forward their original approval recommendation to the CCRPC Board without the bike/ped piece. MOTION PASSED. Dean Pierce recused himself.

**4. Energy Planning**

Melanie Needle presented information on the in-depth regional energy planning effort underway at the Regional Planning Commissions – and how CCRPC will approach the process in Chittenden County. This work will be conducted under the Long Range Planning Committee, with an energy sub-committee. The work will be kicked off in July, with a draft Plan by May, and a final plan ready for incorporation into the ECOS Plan by December 2017. The Plan needs to include quantitative targets tied to VT's energy goals; and the development of regional strategies for reducing energy consumption; increasing renewal energy production; and increasing efficiency and using renewable sources in the transportation sector.

Discussion included:

- Dana Hanley suggested that scenic resources should be added to the secondary constraint lists.
- Alex Weinhagen asked if the Plans will include other fuel sources and other forms of energy generation. He wouldn't want to see a Natural Gas plant in a level 1 resource constraint area. Charlie Baker indicated that we can probably address other energy sources.
- Dean Pierce asked if the plan should address energy being moved through the State and exported or imported? There was some discussion that we may be able to talk about it, but it isn't likely to hold very much weight. Those are really state issues.

- 1 • Dean Pierce asked if there is a clear slide about what we need to do for the contract and the State, and  
2 what else we can do on our level. CCRPC can work on this, though we won't know the certification  
3 requirements until November 1<sup>st</sup>.
- 4 • There was some discussion regarding roof-top solar versus new solar fields. In Bennington they  
5 showed that they couldn't meet the solar targets with roof-top, but it is certainly a piece of the puzzle.  
6 David White explained that we need to consider the impact of solar rights protection – could pose a  
7 challenge to our overall goals of infill in our downtowns (OGE as an example of wanting to put solar  
8 on their roof and the impact of that on the mall re-development).
- 9 • Sarah Hadd asked where wetland buffers are considered; and where noise issues come into play for  
10 wind. Bennington buffered existing residential and mapped those buffers.
- 11 • Dana Hanley asked about issues with public safety and fire concerns with solar. Sarah Hadd indicated  
12 that the Fire Departments do need to be prepared for a different kind of fire with solar fields.

13  
14 Melanie Needle showed the PAC the two resource maps for Chittenden County (solar and wind). There were  
15 questions about the firing range, downtown Burlington (is there really wind potential with some many tall  
16 buildings), wildlife habitats and corridors, and road reference points. Melanie explained that the wind  
17 resources are based on modeling at three heights.

18  
19 Melanie Needle explained the energy demand by sector and source. Jake Hemmerick suggested looping in the  
20 CSWD and what they are planning for digestors. Greg Duggan asked how much the Residential and  
21 Commercial Building Energy Standards are going to help with reductions in energy consumption? Melanie  
22 did not know the exact number but it is considered in the LEAP model as part of the energy conservation  
23 piece.

24  
25 Melanie Needle showed Bennington's Regional Electricity & Production targets, and clarified that the amount  
26 of electricity use will increase, but the source of the electricity will shift to renewable and more local.  
27 Bennington has set a target of 50% generated locally – we may not be able to get there since we have more  
28 demand and less available land area. Paul Conner suggested that while we have the development, perhaps we  
29 don't have the energy generation facilities – perhaps we can look at this as more than a regional level.

30  
31 Melanie Needle provided a quick overview of the Community Energy Dashboard website (soon to be  
32 released). Clare Rock asked if the website includes financial benefits – Melanie didn't know, but that is a  
33 good suggestion.

34  
35 There was some discussion regarding the timing of waiting for the RPC Plan or going forward to the PSB for  
36 certification first. Hinesburg probably can't do it on their own; Colchester and Shelburne thought there may  
37 be some local motivation to go straight to PSB. Most are unsure without knowing what the certification  
38 criteria will be. There was some discussion regarding the approach we should take in getting municipal input.  
39 Ken Belliveau suggested that we may need to do some outreach since there are other State Agencies that may  
40 be at odds with this work. Clare Rock suggested that she'd be happy to host a sub-regional meeting in  
41 Richmond because she can see the value in having a multi-Town discussion about it.

#### 42 43 **5. Building Homes Together Campaign**

44 The Building Homes Together Campaign officially kicked off on June 27<sup>th</sup>. For more information visit:  
45 <http://www.ccrpcvt.org/our-work/economic-development/housing/>

46  
47 Regina Mahony provided the PAC with the two-pager that describes the housing need, and what needs to be  
48 done to address it. She also provided a rough outline of what CCRPC next steps are in terms of data analysis,  
49 and asked the PAC what would be the most helpful from their perspective. There was some discussion about  
50 whether the 3,500 should be broken down by type, and whether any historical trends would be helpful. While  
51 a more robust break-down, needs analysis (using VHFA's methodology), and formal policy would be helpful  
52 to some, there was general consensus that historical trends are not needed, but a break-down of the existing  
53 unit types and demographic projections (particularly population and household size) would be helpful.

1  
2 The PAC provided a few things to stay aware of:

- 3 • The number of units in the pipeline is not accurate considering the number of units that are in litigation  
4 or won't happen for other reasons.
- 5 • The municipalities haven't been providing unit counts (or beds) for group quarters so if we bring those  
6 into the mix we have to very clear how we are describing them and what we are comparing them to.  
7

8 CCRPC asked if there would be any benefit in an analysis of housing impacts on municipal budgets. There  
9 was a general consensus that it may be helpful but only at a municipal level as it is going to be different in  
10 each municipality. However, the analysis can be quite complex and will require a number of assumptions that  
11 may discredit the analysis when used at the local level to inform decision making. Regarding education costs  
12 – generally, more kids are going to drive down per pupil cost until you max out of capacity and need to expand  
13 or build a new facility.  
14

15 Regina Mahony added that we will not likely break down the affordable units by municipality. It was not  
16 received well last time we took that step.  
17

18 **6. Amend Municipal Plan Review Guidelines – didn't get to this.**  
19

20 **7. Regional Act 250/Section 248 Projects in the Horizon – didn't get to this.**  
21

22 **8. Other Business**

- 23 a. FYI – We will conduct the following initial Plan consultations in FY2017 using the standard ACCD  
24 template and Flood Resiliency checklists: Buel's Gore, Burlington (by 3/2017), Charlotte (by 7/2016),  
25 Colchester (by 4/2017), Hinesburg (by 9/2016 if not reviewed before then), Milton (by 7/2016), Shelburne  
26 (by 2/2017 though may not be doing an update), and Winooski (by 4/2017). Not discussed but kept for  
27 information purposes.
- 28 b. Changes to the Open Meeting Law from VLCT – this summary was attached to your packet. Not  
29 discussed but kept for information purposes.
- 30 c. Long Range Planning Committee Rep (and could also participate in Transportation and Energy sub-  
31 Committees). Regina will send out an email to request a representative or two.  
32

33 **8. Adjourn**

34 The meeting adjourned at 4:40 p.m.  
35

36 Respectfully submitted, Regina Mahony

# DRAFT Chittenden County Regional Planning Commission Guidelines and Standards for Confirmation of Municipal Planning Processes and Approval of Municipal Plans

Adopted September 23, 2002;

Amended January 13, 2003, November 28, 2005, May 22, 2013 & [REDACTED], 2016

## Introduction

A municipality adopts a plan in order to define the kind of community that it desires to be. The approval of a municipal plan by the Regional Planning Commission supports this vision. In Vermont, a municipality is under no obligation to

- ♦ adopt a plan,
- ♦ have its plan be approved by a Regional Planning Commission, or
- ♦ have its municipal planning process be confirmed by a Regional Planning Commission.

However, a municipality that elects to have its planning process be confirmed obtains these benefits (24 VSA 4350(e)):

- ♦ Eligibility to charge impact fees ~~and~~ to apply for municipal planning grants, [and to participate in State Designation Programs](#);
- ♦ Immunity from review by the Department of Housing and Community Affairs of the municipality's plan for compliance with affordable housing criteria established under 24 VSA §4351; and
- ♦ State agency plans adopted under 3 VSA Chapter 67 must be compatible with the municipality's approved plan.

## Role of the Regional Planning Commission

Vermont law [24 VSA §4350(a)] requires each Regional Planning Commission to review the planning process of each of its member municipalities at least twice during an eight-year period (or more frequently at the request of a municipality). This "Guidelines" document identifies the procedures and standards that the Chittenden County Regional Planning Commission (CCRPC) will use for approving the plans and confirming the planning processes of CCRPC's member municipalities.

Section 4350(a) establishes that CCRPC must confirm a municipal planning process that meets ~~both~~ all of the following criteria:

- 1) The municipality is engaged in a continuing planning process that, within a reasonable time, will result in a plan that is consistent with the goals of Chapter 117 [see 24 VSA 4302]; and
- ~~4)2)~~ The municipality is engaged in a process to implement its municipal plan, consistent with the program for implementation required under 24 VSA §4382; and
- ~~2)3)~~ The municipality is maintaining its efforts to provide local funds for municipal and regional planning.

Section 4350(b) additionally requires that a municipality must have its plan be approved by the Regional Planning Commission in order to obtain or retain confirmation of its planning process. CCRPC shall approve a municipal plan if CCRPC finds that the plan meets all of these criteria:

- 1) The municipal plan is consistent with the goals established in 24 VSA §4302 [CCRPC may consider if a municipality has a valid explanation for why its plan does not address a State goal];
- 2) The municipal plan is compatible with CCRPC's current *Regional Plan*;
- 3) The municipal plan is compatible with the approved plans of other municipalities in the region; and

- 4) The municipal plan contains all [the elements required by state law in 24 VSA §4382\(a\). At the time of the adoption of these guidelines, there are 12 required elements. However, the number of required elements may change based on future legislation. 10 elements required by State law \[24 VSA 4382 \(a\) \(1\) \(10\)\]. Note: 4350 \(b\) has not been revised to include the 11 elements, however it is clear within 4382 that 11 elements are now required.](#)

## Definitions

For the purposes of administering this policy, the following terms shall have the following meanings:

**Adopted Plan:** A municipal plan that

- 1) has been legally adopted by the local legislative body or voters, having followed the procedures of 24 VSA 4385,
- 2) includes the 11 required elements set out in 24 VSA §4382, and
- 3) is consistent with the goals set out in 24 VSA §4302.

**Approved Plan:** An adopted plan that has been approved by CCRPC because CCRPC has found that the plan meets all of the requirements of 24 VSA §4350 (b) [the four criteria listed at the end of the preceding section of these “Guidelines”].

**CCRPC:** Chittenden County Regional Planning Commission.

**Compatible with:** A plan is compatible with a second plan when the first plan

- 1) will not significantly reduce the desired effect of the implementation of the second plan or
- 2) includes a statement that identifies
  - a) the ways that the first plan will significantly reduce the desired effect of the second plan,
  - b) an explanation of why any incompatible portion of the first plan is essential to the desired effect of the plan as a whole,
  - c) an explanation of why there is no reasonable alternative way to achieve the desired effect of the plan, and
  - d) an explanation of how the first plan has been structured to mitigate its detrimental effects on the implementation of the second plan.

**Consistent with:** A plan is consistent with the goals of 24 VSA §4302 if

- 1) the plan is making substantial progress toward attainment of those goals or
- 2) the planning body determines that a particular goal is not relevant or attainable (subject to review), in which case the planning body shall identify the goal in the plan and describe the situation, explain why the goal is not relevant or attainable, and indicate what measures should be taken to mitigate any adverse effects of not making substantial progress toward that goal.

**Confirmed**

**Planning Process:** A municipal planning process that has been confirmed by CCRPC because CCRPC has found that the planning process meets the requirements of 24 VSA §4350 (a).

**Municipality:** A town, city, incorporated village, or unorganized town or gore. An incorporated village shall be deemed to be within the jurisdiction of a town, except to the extent that a village adopts its own plan and one or more bylaws either before, concurrently with, or subsequent to such action by the town.

Program: A schedule of sequenced actions that identifies information such as who is to undertake each action, anticipated costs, possible financing, and expected or desired outcomes.

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## Guidelines for Evaluating the Municipal Plans

Appendix A includes the goals as specified in 24 VSA §4302 with which the municipal plans must be consistent, and the elements as specified in 24 VSA §4382(a) which must be contained within the municipal plans. ~~In addition, Appendix A includes guidelines in question form that are intended to both assist a municipality in meeting these statutory requirements; and help CCRPC assess whether a municipal plan is meeting these statutory requirements.~~ There are many ways to satisfy each goal and element and a municipality should tailor the approaches it uses to local considerations. CCRPC encourages each municipality to confer with CCRPC staff early in the planning process to review how the municipality proposes to meet the goals and elements as well as to request assistance from CCRPC in developing its plan.

## Section 1: Requesting CCRPC to Confirm a Municipal Planning Process & Approve a Municipal Plan

### Materials to Submit:

A municipality requesting CCRPC to confirm its municipal planning process and to approve the municipal plan needs to provide the following materials to CCRPC:

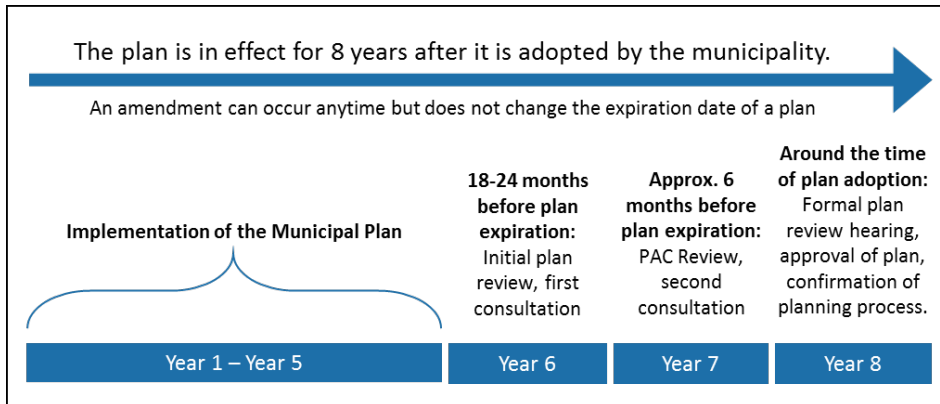
- ◆ A letter signed by the appropriate municipal authority requesting CCRPC to consider confirmation of its planning process and approval of its plan (a sample letter is available from CCRPC staff);
- ◆ A summary of the municipality's funding over the prior five years dedicated to municipal and regional planning purposes;
- ◆ A concise summary, in the format provided in Appendix ~~A-B~~ (CCRPC will make Appendix ~~BA~~ available electronically), referencing the locations of statements within the municipal plan relating to how the plan:
  - ◇ Is consistent with the goals of 24 VSA §4302,
  - ◇ Is compatible with the most recent version of the Chittenden County Regional Plan,
  - ◇ Is compatible with the approved plans of adjacent municipalities (including those outside of Chittenden County), ~~and~~
  - ◇ Contains the ~~11~~ required elements of 24 VSA §4382(a); ~~and~~
- ◆ Documentation of the municipality's process to implement the adopted plan, as described in 24 VSA §4350(c). Examples of implementation documentation will be provided by CCRPC upon request.
- ◆ One hardcopy and one pdf version of the plan (including maps) submitted for approval.
- ◆ If a municipality is requesting re-approval of an existing plan, the municipality should clearly describe, within the review request letter, the planning process the municipality is currently engaged in for the Plan re-write.

### CCRPC Review Process for ~~Confirming~~ a Municipality's Planning Process & Approving a Municipal Plan

The general process is as follows:

**Commented [RM1]:** We are suggesting that CCRPC continue to follow current practice of **consulting twice** within an eight year period and **confirming** the planning process **once**, during the CCRPC Board review.





1. Initial Staff Review – Staff will initiate informal plan reviews approximately ~~18-24 months~~ 2-years prior to the expiration of each municipal plan. Staff will share these reviews with Municipal Staff, Municipal Planning Commissions and the PAC. This review shall also function as one of the two required consultations within an 8-year period (§4350(a)), and will include a review of progress made on the existing plan's implementation program.

The municipality may also request staff and/or PAC review of their draft Plan at any point in the Plan development process prior to the formal review described below. This allows the municipality to gain detailed feedback and suggestions from staff and the PAC while there is still time to incorporate it.

CCRPC receives 30-day Planning Commission public hearing notice for Town Plan amendments. If not concurrent with the municipal request for approval as described in Step 2 below, CCRPC staff will review the draft plan and provide an informal Staff recommendation to both the Planning Advisory Committee (PAC) and the municipal Planning Commission in time for their public hearing. The CCRPC Board will be cc'd on the informal Staff recommendation.

2. Planning Advisory Committee Review of Draft Plan – In accordance with 24 VSA §4385(c) the municipal request for approval from the RPC may be before or after adoption of the plan by the municipality, at the option of the municipality. However, CCRPC would prefer if the formal request is made 120 days before the current municipal plan expires to aid with CCRPC review scheduling. Upon receipt of the formal review request, Staff will review the plan.

Review the proposed plan against the informal Staff recommendations (from Step #2b) and Staff will schedule the formal plan review for the next available PAC meeting (and potentially hold the required public hearing at this meeting if there is adequate time to warn the hearing). The CCRPC Commissioner and Alternate Commissioner from the municipality and Commissioners/Alternate Commissioners from the municipality's neighboring municipalities will be invited to participate in this formal PAC Review.

CCRPC staff will review the draft plan and provide an informal Staff recommendation to both the Planning Advisory Committee (PAC) and the municipal Planning Commission in time for their public hearing. The CCRPC Board will be cc'd on the informal Staff recommendation.

Then The PAC provides will provide its written recommendation to CCRPC and the municipality. If the PAC recommends that the plan not be approved because of deficiencies, the municipality may address that recommendation at the full CCRPC Board or agree to rectify the deficiencies and resubmit its plan for PAC review. The PAC review will serve as the second of the two consultations required every eight years by 24 VSA §4350(a).

~~The PAC may hold the required public hearing at this meeting, and subsequently may provide a conditional recommendation to the CCRPC Board for approval following this review, or recommend that the municipality come back to the PAC for a second informal review. The CCRPC Board will be cc'd on the conditional recommendation for approval. The PAC generally meets every other month.~~

- ~~i. The CCRPC Commissioner and Alternate Commissioner from the municipality and Commissioners/Alternate Commissioners from the municipality's neighboring municipalities will be invited to participate in this Informal PAC Review. They can help to resolve any potential concerns of compatibility with the *Regional Plan* and the plans of neighboring municipalities.~~

~~Informal Staff Review CCRPC receives 30 day Planning Commission public hearing notice for Town Plan amendments. If Step #2a does not take place,~~

3. CCRPC Review and Public Hearing & Action - CCRPC will hold a public hearing (if not held under Step 2) and consider the recommendation of the PAC at a regularly scheduled meeting. Scheduling of this meeting will occur in consultation with the municipality. The municipality may attend the CCRPC meeting and voice its positions related to the PAC's recommendation.
  - a. The CCRPC may approve or not approve the municipal plan. CCRPC must approve or disapprove a municipal plan or amendment within two months of CCRPC's receipt of the plan following a final hearing held by the municipality to adopt the municipal plan pursuant to 24 VSA 4385.
  - b. Pursuant to 24 VSA 4350 (f) CCRPC's decisions to confirm a municipal planning process and to approve a municipal plan must be made by a majority vote of the Commissioners representing municipalities in accordance with CCRPC's bylaws.
  - c. If CCRPC disapproves a plan or plan amendment, it must state its reasons in writing and, if appropriate, suggest modifications that would be acceptable to CCRPC. If the municipality requests approval of a resubmitted plan with modifications, CCRPC must give its approval or disapproval within 45 days. The municipality may appeal the decision in accordance with 24 VSA 4476.

The CCRPC forwards a copy of its resolution of approval to the Department of Economic, Housing and Community Development and the municipal clerk.

4. The CCRPC's approval of the plan and confirmation of the planning process will remain in effect until the plan expires, which will occur eight years after the plan is adopted by the municipality.

## Section 2: Amending an Un-Expired Plan

With the clarification in Act 90 that an amendment to a plan does not affect or extend the plan's expiration date (24 VSA §4385(d)), CCRPC has a simplified review process for plan amendments. Upon request, CCRPC will review plan amendments to ensure that the amendment would not alter or risk the municipality's standing plan approval and confirmation status. If a municipality would prefer a formal approval from CCRPC of the plan amendment, CCRPC will follow the process described in Section 1, Parts 2 and 3, for review.

### Materials to Submit

A municipality requesting CCRPC to review an amendment to a municipal plan needs to provide the following materials to CCRPC:

- ◆ A letter signed by the appropriate from the municipality authority requesting CCRPC to consider approval review of its plan amendment and briefly describing the amendment and the reason for amending (a sample letter is available from CCRPC staff);
- ◆ An electronic copy of the amended section/chapter in its entirety with the changes clearly indicated. It is not necessary to send a copy of the full plan.

### CCRPC Review Process for Reviewing an Amended Municipal Plan

**Commented [RM2]:** Discussion for the PAC – should we only do this upon request, or should we always do this when we get the 30 day public hearing notice?

**Commented [RM3]:** Discussion item for the PAC – we aren't intending to "approve" your amendment. Okay with that?

1. The municipality will contact CCRPC staff to inform staff of the intent to amend an unexpired plan that has been previously approved and for which the planning process has been confirmed.
2. Review & Recommendation - Upon receipt of the amendment review request, Staff will review the amended section(s) of the plan to determine whether the section(s) continue to meet the required elements and goals related to the amended section(s), and consistency with the Regional Plan.
  - a. If staff determines that the proposed amendments do not need to be reviewed by the PAC and the CCRPC, following staff review, staff will provide a letter stating that the plan amendment does not impact the municipalities standing plan approval and planning process confirmation, or not. If not, Staff will provide recommendations to address the issues of concern.
  - b. If the municipality would prefer formal CCRPC approval of the plan amendment, the process described in Section 1 above will be followed for the amended sections of the plan.
- ~~2.3.~~ The CCRPC will forward a copy of this letter to the Department of Economic, Housing and Community Development, the PAC, -and the municipal clerk.

# Appendix A – Municipal Plan Review Tool

## Chittenden County Regional Planning Commission

### Guidelines and Standards for Confirmation of Municipal Planning Processes and Approval of Municipal Plans

This form addresses the statutory requirements of the State of Vermont for town plans, as cited in the Vermont Municipal and Regional Planning and Development Act, Title 24 V.S.A Chapter 117 (the Act). It includes the 12 required elements found in § 4382 of the Act; the four planning process goals found in § 4302(b), the 14 specific goals found in § 4302(c); and the standard of review found in § 4302(f), which covers consistency with goals and compatibility standards.

During the Regional approval and confirmation process, specified in § 4350 of the Act, the regional planning commission is required to assess town plans and the process whereby they are developed according to the criteria of the Act. Sections of relevant statute are quoted at each question.

	<b>Required Elements § 4382</b>	<b>Met</b>	<b>Not Met</b>
1	Statement of Objectives, Policies, Programs	<input type="checkbox"/>	<input type="checkbox"/>
2	Land Use Plan	<input type="checkbox"/>	<input type="checkbox"/>
3	Transportation Plan	<input type="checkbox"/>	<input type="checkbox"/>
4	Utility and Facility Plan	<input type="checkbox"/>	<input type="checkbox"/>
5	Rare Natural Resources/Historic Resources	<input type="checkbox"/>	<input type="checkbox"/>
6	Educational Facilities Plan	<input type="checkbox"/>	<input type="checkbox"/>
7	Implementation Program	<input type="checkbox"/>	<input type="checkbox"/>
8	Development Trends	<input type="checkbox"/>	<input type="checkbox"/>
9	Energy Plan	<input type="checkbox"/>	<input type="checkbox"/>
10	Housing Element	<input type="checkbox"/>	<input type="checkbox"/>
11	Economic Development Element	<input type="checkbox"/>	<input type="checkbox"/>
12	Flood Resiliency Plan	<input type="checkbox"/>	<input type="checkbox"/>

	<b>State Planning Goals § 4302</b>	<b>Met</b>	<b>Not Met</b>
1	Development Pattern	<input type="checkbox"/>	<input type="checkbox"/>
2	Economy	<input type="checkbox"/>	<input type="checkbox"/>
3	Education	<input type="checkbox"/>	<input type="checkbox"/>
4	Transportation	<input type="checkbox"/>	<input type="checkbox"/>
5	Natural and Historic Resources	<input type="checkbox"/>	<input type="checkbox"/>
6	Quality of Resources	<input type="checkbox"/>	<input type="checkbox"/>
7	Energy	<input type="checkbox"/>	<input type="checkbox"/>
8	Recreation	<input type="checkbox"/>	<input type="checkbox"/>
9	Agriculture and Forest Industries	<input type="checkbox"/>	<input type="checkbox"/>
10	Use of Resources	<input type="checkbox"/>	<input type="checkbox"/>
11	Housing	<input type="checkbox"/>	<input type="checkbox"/>
12	Public Facilities	<input type="checkbox"/>	<input type="checkbox"/>
13	Child Care	<input type="checkbox"/>	<input type="checkbox"/>
14	Flood Resiliency	<input type="checkbox"/>	<input type="checkbox"/>

## TOWN PLAN REQUIRED ELEMENTS

### Title 24 Chapter 117: Municipal and Regional Planning and Development

#### **24 V.S.A. § 4382. The plan for a municipality**

(a) A plan for a municipality may be consistent with the goals established in section 4302 of this title and compatible with approved plans of other municipalities in the region and with the regional plan and shall include the following:

**(1) A statement of objectives, policies and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment.**

Comments:

Choose an item.

Pages:

**(2) A land use plan, consisting of a map and statement of present and prospective land uses, that indicates those areas proposed for forests, recreation, agriculture (using the agricultural lands identification process established in 6 V.S.A. § 8), residence, commerce, industry, public and semi-public uses and open spaces, areas reserved reserved for flood plain, and areas identified by the State, the regional planning commission, or the municipality that require special consideration for aquifer protection; for wetland protection, for the maintenance of forest blocks, wildlife habitat, and habitat connectors; or for other conservation purposes; sets forth the present and prospective location, amount, intensity and character of such land uses and the appropriate timing or sequence of land development activities in relation to the provision of necessary community facilities and service; identifies those areas, if any, proposed for designation under chapter 76A of this title, together with, for each area proposed for designation, an explanation of how the designation would further the plan's goals and the goals of § 4302 of this title, and how the area meets the requirements for the type of designation to be sought; and indicates those areas that are important as forest blocks and habitat connectors and plans for land development in those areas to minimize forest fragmentation and promote the health, viability, and ecological function of forests.**

Comments:

Choose an item.

Pages:

MAPS

Present Land Use Plan ☐

Prospective Land Use Plan ☐

**(3) A transportation plan, consisting of a map and statement of present and prospective transportation and circulation facilities showing existing and proposed highways and streets by type and character of improvement, and where pertinent, parking facilities, transit routes, terminals, bicycle paths and trails, scenic roads, airports, railroads and port facilities, and other similar facilities or uses, with indications of priority of need;**

Comments:

Choose an item.

Pages:

MAP

Transportation ☐

(4) A utility and facility plan, consisting of a map and statement of present and prospective community facilities and public utilities showing existing and proposed educational, recreational and other public sites, buildings and facilities, including hospitals, libraries, power generating plants and transmission lines, water supply, sewage disposal, refuse disposal, storm drainage and other similar facilities and activities, and recommendations to meet future needs for community facilities and services, with indications of priority of need, costs and method of financing;

Comments:

Choose an item.

Pages:

MAP

Utility and Facility ☐

(5) A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources;

Comments:

Choose an item.

Pages:

(6) An educational facilities plan consisting of a map and statement of present and projected uses and the local public school system;

Comments:

Choose an item.

Pages:

MAP

Educational Facility ☐

(7) A recommended program for the implementation of the objectives of the development plan;

Comments:

Choose an item.

Pages:

(8) A statement indicating how the plan relates to development trends and plans of adjacent municipalities, areas and the region developed under this title;

Comments:

Choose an item.

Pages:

(9) An energy plan, including an analysis of energy resources, needs, scarcities, costs and problems within the municipality, a statement of policy on the conservation of energy, including programs, such as thermal integrity standards for buildings, to implement that policy, a statement of policy on the development of renewable energy resources, a statement of policy on patterns and densities of land use likely to result in conservation of energy;

Comments:

Choose an item.

Pages:

(10) A housing element that shall include a recommended program for addressing low and moderate income persons' housing needs as identified by the regional planning commission pursuant to subdivision 4348a(a)(9) of this title. The program should account for permitted accessory dwelling units, as defined in subdivision 4412(1)(E) of this title, which provide affordable housing.

Comments:

Choose an item.

Pages:

(11) An economic development element that describes present economic conditions and the location, type, and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth.

Comments:

Choose an item.

Pages:

(12)(A) A flood resilience plan that:

(i) identifies flood hazard and fluvial erosion hazard areas, based on river corridor maps provided by the Secretary of Natural Resources pursuant to 10 V.S.A. § 1428(a) or maps recommended by the Secretary, and designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and

(ii) recommends policies and strategies to protect the areas identified and designated under subdivision (12)(A)(i) of this subsection and to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.

(B) A flood resilience plan may reference an existing local hazard mitigation plan approved under 44 C.F.R. § 201.6.

Comments:

Choose an item.

Pages:

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## GOALS AND STANDARDS OF REVIEW

### GOALS

#### 24 VSA § 4302

(a) General purposes . . .

(b) It is also the intent of the legislature that municipalities, regional planning commissions and state agencies shall engage in a continuing planning process that will further the following goals:

(1) To establish a coordinated, comprehensive planning process and policy framework to guide decisions by municipalities, regional planning commissions, and state agencies.

(2) To encourage citizen participation at all levels of the planning process, and to assure that decisions shall be made at the most local level possible commensurate with their impact.

(3) To consider the use of resources and the consequences of growth and development for the region and the state, as well as the community in which it takes place.

(4) To encourage and assist municipalities to work creatively together to develop and implement plans.

(c) In addition, this chapter shall be used to further the following specific goals:

#### Goal 1:

To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.

(A) Intensive residential development should be encouraged primarily in areas related to community centers, and strip development along highways should be discouraged.

(B) Economic growth should be encouraged in locally designated growth areas, or employed to revitalize existing village and urban centers, or both.

(C) Public investments, including construction or expansion of infrastructure, should reinforce the general character and planned growth patterns of the area.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

Choose an item.

Pages:

#### Goal 2:

To provide a strong and diverse economy that provides satisfying and rewarding job opportunities and that maintains high environmental standards, and to expand economic opportunities in areas with high unemployment or low per capita incomes.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

Choose an item.

Pages:



**Goal 3:**

To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Vermonters.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

Choose an item.

Pages:

**Goal 4:**

To provide for safe, convenient, economic and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.

- (A) Highways, air, rail and other means of transportation should be mutually supportive, balanced and integrated.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

Choose an item.

Pages:

**Goal 5:**

To identify, protect and preserve important natural and historic features of the Vermont landscape including:

- (A) significant natural and fragile areas;
- (B) outstanding water resources, including lakes, rivers, aquifers, shorelands and wetlands;
- (C) significant scenic roads, waterways and views;
- (D) important historic structures, sites, or districts, archaeological sites and archaeologically sensitive areas

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

Choose an item.

Pages:

**Goal 6:**

To maintain and improve the quality of air, water, wildlife, forests and other land resources.

Choose an item.

Pages:

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 7:**

To encourage the efficient use of energy and the development of renewable energy resources.

Choose an item.

Pages:

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 8:**

To maintain and enhance recreational opportunities for Vermont residents and visitors.

Choose an item.

Pages:

(A) Growth should not significantly diminish the value and availability of outdoor recreational activities.

(B) Public access to noncommercial outdoor recreational opportunities, such as lakes and hiking trails, should be identified, provided, and protected wherever appropriate.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 9:**

To encourage and strengthen agricultural and forest industries.

Choose an item.

Pages:

(A) Strategies to protect long-term viability of agricultural and forestlands should be encouraged and should include maintaining low overall density.

(B) The manufacture and marketing of value added agricultural and forest products should be encouraged.

(C) The use of locally-grown food products should be encouraged.

(D) Sound forest and agricultural management practices should be encouraged.

(E) Public investment should be planned so as to minimize development pressure on agricultural and forest land.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 10:**

To provide for the wise and efficient use of Vermont's natural resources and to facilitate the appropriate extraction of earth resources and the proper restoration and preservation of the aesthetic qualities of the area.

Choose an item.

Pages:

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 11:**

To ensure the availability of safe and affordable housing for all Vermonters.

Choose an item.

Pages:

(A) Housing should be encouraged to meet the needs of a diversity of social and income groups in each Vermont community, particularly for those citizens of low and moderate income.

(B) New and rehabilitated housing should be safe, sanitary, located conveniently to employment and commercial centers, and coordinated with the provision of necessary public facilities and utilities.

(C) Sites for multi-family and manufactured housing should readily available in locations similar to those generally used for single-family conventional dwellings.

(D) Accessory apartments within or attached to single family residences which provide affordable housing in close proximity to cost-effective care and supervision for relatives or disabled or elderly persons should be allowed.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 12:**

To plan for, finance and provide an efficient system of public facilities and services to meet future needs.

Choose an item.

Pages:

(A) Public facilities and services should include fire and police protection, emergency medical services, schools, water supply and sewage and solid waste disposal.

(B) The rate of growth should not exceed the ability of the community and the area to provide facilities and services.

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 13:**

To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.

Choose an item.

Pages:

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

**Goal 14:**

To encourage flood resilient communities.

(A) New development in identified flood hazard, fluvial erosion, and river corridor protection areas should be avoided. If new development is to be built in such areas, it should not exacerbate flooding and fluvial erosion.

(B) The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.

(C) Flood emergency preparedness and response planning should be encouraged.

Choose an item.

Pages:

How has the Town Plan addressed this goal:

If the goal is not relevant or attainable, how does the plan address why:

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**STANDARD OF REVIEW**

**24 V.S.A. § 4302(f)**

(1) As used in this chapter, "consistent with the goals" requires substantial progress toward attainment of the goals established in this section, unless the planning body determines that a particular goal is not relevant or attainable. If such a determination is made, the planning body shall identify the goal in the plan and describe the situation, explain why the goal is not relevant or attainable, and indicate what measures should be taken to mitigate any adverse effects of not making substantial progress toward that goal. The determination of relevance or attainability shall be subject to review as part of a consistency determination under this chapter.

(2) As used in this chapter, for one plan to be "compatible with" another, the plan in question, as implemented, will not significantly reduce the desired effect of the implementation of the other plan. If a plan, as implemented, will significantly reduce the desired effect of the other plan, the plan may be considered compatible if it includes the following:

- (A) a statement that identifies the ways that it will significantly reduce the desired effect of the other plan;
- (B) an explanation of why any incompatible portion of the plan in question is essential to the desired effect of the plan as a whole;
- (C) an explanation of why, with respect to any incompatible portion of the plan in question, there is no reasonable alternative way to achieve the desired effect of the plan, and
- (D) an explanation of how any incompatible portion of the plan in question has been structured to mitigate its detrimental effects on the implementation of the other plan.

**Details of CCRPC's review process can be found in "Chittenden County Regional Planning Commission Guidelines and Standards for Confirmation of Municipal Planning Processes and Approval of Municipal Plans," as adopted \_\_\_\_\_, 2016 (DRAFT TO BE DISCUSSED AT 9/7 PAC MEETING).**



## **MEMORANDUM**

TO: Planning Advisory Committee Members  
FROM: Regina Mahony, Planning Program Manager  
DATE: 9/7/2016  
RE: Housing Training Topics

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We are contemplating a standing 'housing' agenda item at the PAC meetings for the next year or so. In addition to providing the housing data we've previously discussed, we'd like to know if the following topics would be valuable:

1. Housing Tools – Accessory Units & Bonus Densities – we have a summary of the provisions that exist in the municipal bylaws, and we'd like to have a discussion on whether these are being used, and if not, why not? Would it be helpful to have a developer's perspective as well?
2. Homeless Issues – A presentation from the Chittenden County Homeless Alliance on the Point in Time data, their strategic plan information and performance measures.
3. Elderly Housing Issues – maybe AARP and/or an assisted living developer to get a sense from them on what they see as the needs in the future?
4. Housing Tools – Inclusionary Zoning – maybe David E. White can tell us what they learned from the consultant in Burlington?
5. Housing Tools – Housing Trust Fund – ask South Burlington or others to share info on their local Trust Fund? Perhaps we can also bring in CHT to explain how they can partner.
6. VNRC Inclusive Communities Work – Density Done Right case studies and reinstating the Housing Endorsement Program (Smart Growth VT used to do this).
7. Form Based Codes & other Tools to achieve the kind of development and infill that the community would like to see.

**CCRPC Formal Staff & PAC Review – 2016 Charlotte Town Plan**  
**September 14, 2016 PAC Meeting**

**Staff Review of the 2016 Charlotte Town Plan**  
**Emily Nosse-Leirer, CCRPC Planner**  
**September 7, 2016**

---

The Town of Charlotte has requested, per 24 V.S.A §4350, that the Chittenden County Regional Planning Commission (1) approve its 2016 Town Plan; and (2) confirm its planning process.

This draft 2016 Charlotte Town Plan is a full rewrite. The 2008 Charlotte Town Plan was readopted in 2013 with some changes, and then amended on March 1, 2016 to include a consideration of Village Designation and a revised energy section. This plan is intended to be presented to voters for adoption on Town Meeting Day, March 7, 2017.

CCRPC staff has completed this formal review of the Draft 2016 Charlotte Town Plan in advance of the Charlotte Selectboard's public hearing on it, which was warned and will be held on September 29, 2016.

Following the Chittenden County Regional Planning Commission's (CCRPC's) *Guidelines and Standards for Confirmation of Municipal Planning Processes and Approval of Municipal Plans (2013)* and the statutory requirements of 24 V.S.A. Chapter 117, I have reviewed the draft 2016 Charlotte Town Plan to determine whether it is:

- Consistent with the general goals of §4302;
- Consistent with the specific goals of §4302;
- Contains the required elements of §4382;
- Compatible with the 2013 Chittenden County Regional Plan, entitled the *2013 Chittenden County ECOS Plan* (per §4350); and
- Compatible with approved plans of other municipalities (per §4350).

Additionally, I have reviewed the planning process requirements of §4350.

**Staff Review Findings and Comments**

1. The 2016 Charlotte Town Plan is consistent with all of the general goals of §4302. See the attached Appendix A submittal that describes how the Plan is consistent with these goals.
2. The 2016 Charlotte Town Plan is consistent with the specific goals of §4302. See the attached Appendix A submittal that describes how the Plan is consistent with these goals.
3. The 2016 Charlotte Town Plan contains the required elements of §4382. See the attached Appendix A submittal that describes compliance with these required elements.
4. The 2016 Charlotte Town Plan is generally compatible with the planning areas, goals and strategies of the 2013 Chittenden County Regional Plan, entitled the *2013 Chittenden County ECOS Plan*.
5. The 2016 Charlotte Town Plan is compatible with the municipal plans for Shelburne, Hinesburg, Monkton and Ferrisburgh.

CCRPC Formal Staff & PAC Review – 2016 Charlotte Town Plan  
September 14, 2016 PAC Meeting

6. Documents to regarding the planning process and information about Charlotte's planning budget have not been received at the time of the writing of this memo, but will be reviewed by staff before the meeting on 9/14/2016.

Additional Comments/Questions:

CCRPC staff reviewed the 2012 Charlotte Town Plan in 2012 when it was adopted, as well as reviewed plan amendments in 2013, when the town added an economic development section. With the understanding that this plan is in the final stages of development, staff comments are limited only to issues that might affect the plan's ability to be approved by the CCRPC board. **While Staff does not find that any changes are necessary for approval and confirmation of the process by the CCRPC, the following recommendations are offered to improve the efficacy of plan implementation:**

1. Historical and Cultural Resources Strategy #1 states that the Town intends to apply for village designation for both the West Charlotte and East Charlotte Village Areas. Act 59, which took effect in July 2013, requires that communities applying for any state designated center have a confirmed planning process and a municipal plan that has been approved by the regional planning commission and includes the following:
  - a. A description of how the proposed Village Centers would support the plan's land use and other goals, and
  - b. Maps showing the proposed designated Village Centers boundaries.Because applying for Village Center designations for two communities is one of the identified strategies of the plan, staff highly recommends adding those two items before the plan is adopted. Upon request, CCRPC can provide an example of brief language and maps that will meet the Act 59 requirements.
2. The plan makes many mentions of "Areas of High Public Value," which is a combination of multiple natural, scenic and historic resources. This grouping allows these features to be succinctly referenced throughout the plan, but the full list of features included as "Areas of High Public Value" is not clear. Is Policy 4 of the Utilities, Facilities and Services section the full list (page 1-34)? If yes, it would be useful to define it earlier in the plan, as AHPVs are mentioned several times in earlier sections, including Land Use, without definition. Additionally, on the maps, features that are included as "Areas of High Public Value" are not specified. Indicating which features in the legend are Areas of High Public Value may make the maps more useful to the user.
3. In Section 3.8 (page 3-11), the plan states that "it is the Planning Commission's responsibility to develop, maintain, review and revise the plan at least every five years." While the town is free to create a new plan every five years, it is worth noting that as of July 1, 2016, state law requires a re-adoption every eight years rather than every five.
4. The plan does a great job listing areas that should be protected during future development, which provides a strong foundation for the Town's land use policies and regulations. Energy Strategy #2 states that "the Town will review new projects using Site Plan Review Standards as identified in the Charlotte Land Use Regulations" (Page 1-47). While these standards can provide a good list of what the town values and chooses to advocate for during PSB proceedings, CCRPC staff recommend that towns avoid direct reference to zoning regulations (with the exception of setbacks) during PSB proceedings and instead directly reference plan policies, such as those listed beginning on Page 1-46. (However, the review of energy siting is in a state of flux due to the recent signing of Act 174, and may change over the next few months.)

Proposed Motion & Next Steps: Staff will provide a proposed motion and list of next steps after receiving and reviewing information related to Charlotte's planning process and planning budget.



# **CHARLOTTE TOWN PLAN DRAFT**

August 30, 2016

Adopted: xx/xx/xxxx

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## **INTRODUCTION**

The Charlotte Town Plan is the principal policy statement for the Town of Charlotte. It presents existing conditions in Charlotte, a vision for the future, and means to achieve this vision. This Plan addresses many areas including town services and facilities, housing, transportation, economic development, and resource protection. The Plan will be implemented through the Town's land use regulations and will help guide the work and decisions of the Selectboard, Planning Commission, and other town groups and employees, as well as the actions of residents, property owners, businesses, organizations and developers.

### **Purpose**

The authority to prepare and implement the Plan is granted through Vermont Statutes Annotated (VSA) Title 24, Chapter 117, Municipal and Regional Planning and Development. The purpose of the Chapter is to "... encourage the appropriate development of all lands in this state by the action of its constituent municipalities and regions, with the aid and assistance of the state, in a manner which will promote the public health, safety against fire, floods, explosions, and other dangers; to promote prosperity, comfort, access to adequate light and air, convenience, efficiency, economy, and general welfare; to enable the mitigation of the burden of property taxes on agricultural, forest, and other open lands; to encourage appropriate architectural design; to encourage the development of renewable resources; to protect residential, agricultural, and other areas from undue concentrations of population and overcrowding of land and buildings, from traffic congestion, from inadequate parking and the invasion of through traffic, and from the loss of peace, quiet, and privacy; to facilitate the growth of villages, towns, and cities and of their communities and neighborhoods so as to create an optimum environment, with good civic design; to encourage development of a rich cultural environment and to foster the arts; and to provide means and methods for the municipalities and regions of this State to plan for the prevention, minimization, and future elimination of such land development problems as may presently exist or which may be foreseen and to implement those plans when and where appropriate".

### **Process**

The roots of this Plan were established with the adoption of Charlotte's 1990 Town Plan. The most significant public involvement in the formulation of that plan was through survey, committee work, and informal discussions with neighborhood groups and individuals. The 1990 Town Plan was readopted in 1995.

A comprehensive assessment of conditions in 1999 was conducted by seven committees: housing, economy, community facilities and transportation, agriculture, natural resources, lake and lakeshore, and neighborhoods and villages. This committee work was supplemented by survey information. After revisions crafted by the Planning Commission and the Selectboard, a 2000 Town Plan was put to vote. This Plan was defeated; however, much of the content carried forward into an adopted 2002 Town Plan. The principal content change associated with the

2002 Plan was the added focus on village development, particularly of the West Charlotte Village. This Plan was readopted in 2008.

In 2012, Charlotte again recognized the need to reassess its Town Plan in full. Significant events like 9/11, the bursting of the housing bubble and accompanying economic downturn, and Tropical Storm Irene had occurred. State policy initiatives involving the development of renewable energy resources and flood resiliency were added to the state's land use goals related to "good civic design" and the preservation of agriculture. Property taxes and education funding continued to be hot topics in Montpelier. Charlotte had also completed several specific plans including the 2002 West Charlotte Village Plan, the 2009 East Charlotte Village Plan, the 2011 West Charlotte Village Wastewater Study, and the 2012 West Charlotte Pedestrian Improvements Plan. In 2007, the Town became one of the two communities to receive Delegation Authority under the State Wastewater Rules (Environmental Protection Rules, Chapter 1, Wastewater System and Potable Water Supply Rules). Additionally, Land Use Regulations have been revised to promote agriculturally-related businesses (i.e. commercial farm stands and farm cafes).

A consultant was hired to coordinate efforts towards completion of the 2013 Plan; however, time constraints related to process, staffing, and other duties of the Planning Commission resulted in the re-adoption of the 2008 Town Plan. The Commission has continued to work on a more comprehensive revision. In 2011, a Town Plan Kickoff Workshop was conducted at the Charlotte Senior Center. Several policy considerations were identified during this workshop and there was also consensus on the need to reformat the Plan to make it more reader-friendly. The Conservation Commission and the Energy Committee provided expertise and content for the Natural Resources and Energy Sections, respectively. Other sections were drafted by Commission liaisons for public review in the summer of 2014. Workshops targeting significant changes or addendums were conducted throughout the summer and fall of 2014 and the language in the Plan evolved based on these discussions. *The Charlotte News* ran a series entitled "Charlotte's Web", which focused on key planning considerations including demographic "dichotomies", housing costs, agriculture and natural resources, and community. In 2015, the Planning Commission reviewed two proposed amendments to the Plan – consideration for village designation and an updated Energy section – as well as several key land use regulation amendments. The Town Plan amendments were adopted by town vote in March of 2016. Work on the comprehensive update resumed in 2016 to have a final document ready for voting on the Town Meeting Day of 2017.

This Plan is based on new state law and current conditions in the Town and region. As specific local conditions change, public attitudes evolve, and more data become available, the Plan will be updated and revised. At a minimum, the Plan will be updated every eight years as is required under state statute.

## **VISION**

## **CHAPTER 1.1**

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, increasingly diverse population, 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 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. 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 villages and hamlets and by further developing our town center;
- To maintain and enhance the integrity and continued viability of natural and cultural features with high public value, including prime and statewide agricultural soils; steep slopes; surface and groundwater resources; shoreland buffers; wildlife habitats and other ecologically important natural areas; scenic views and vistas; historic districts, sites and structures; land in active agriculture; and conserved land;
- To recognize and preserve 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.



## **FUTURE LAND USE**

## **CHAPTER 1.2**

Charlotters value their connection to nature and rural quality of life including an active, outdoor lifestyle. Charlotters value their town as a highly scenic rural community that seeks to provide community services at a scale that complements their small rural community. Similarly, smaller scale farm and forest enterprises, home occupations, commercial and industrial enterprises are also valued and encouraged. Charlotte continues to promote its agrarian heritage with its abundance of excellent productive soils and proximity to the Burlington, NYC, and Boston markets. Charlotte continues to support efforts towards the realization of more active village centers and is in the midst of transition as the discussion regarding community water supply and wastewater disposal in these areas continues. Like much of the region, it is hampered by a dwindling school population higher taxes and by land values that make it more difficult to provide affordable and moderately priced housing. In this Town Plan, we seek to address these key issues through regulatory and non-regulatory means.

This Chapter lays out the policies and strategies which the Town will use to review and guide development proposals in all of Charlotte's land use districts while also informing land use discussions and voluntary implementation activities in the next 8 years.

### **Key Planning Considerations:**

Land Use can be defined as the framework for integrating the uses and values mentioned in this plan. As such, the key planning considerations specific to land use can be considered as a summary of the key planning considerations described within each of the previous sections and therefore, they will not be repeated here.

### **Land Use Policies:**

1. We will support small rural community with excellent and affordable educational opportunities for our younger generations, and strengthen our strategies to address our changing demographics and moderate our tax burden. With an aging population, we will work to attract younger families.
2. We will plan for healthy communities by working to monitor, maintain and enhance the health of our community by encouraging land use activities that are informed by all sections in this plan.
3. We will identify and preserve the important features of Charlotte that are treasured by residents including the working landscape, natural resources, scenic views and gravel roads, public access to Lake Champlain, historic and cultural resources and small town character.
4. We will build community pride and cohesion through continued emphasis on volunteer participation in planning and public services, through competent and respectful 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.

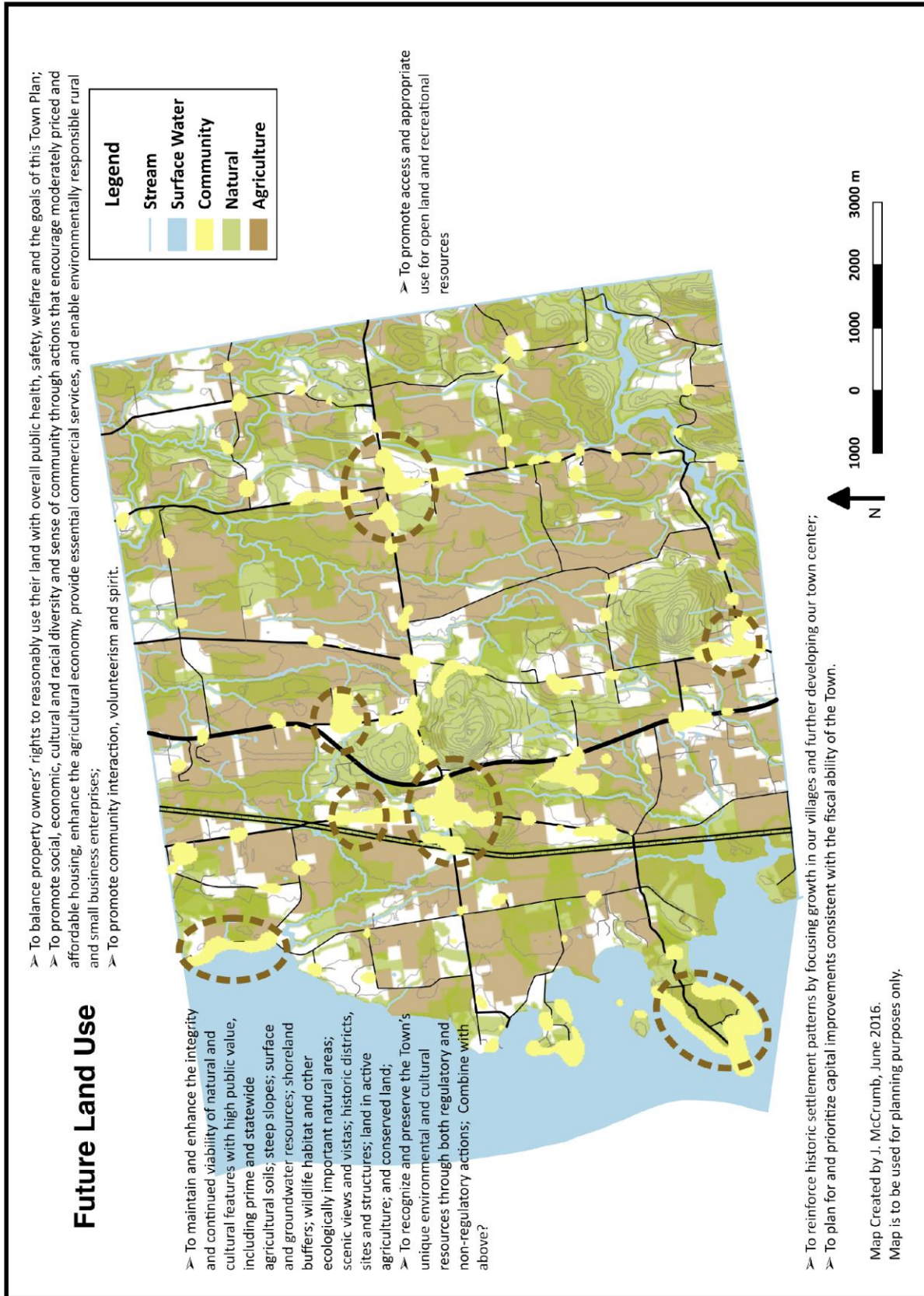
**Land Use Strategies:**

1. The Town will develop a framework for moving forward with the work completed by the Charlotte Wastewater Committee.
2. The outcomes of the East Charlotte Village Planning Project will be considered by the Planning Commission when proposing future land use regulations.
3. The Town will consider the adoption of an Official Map for village areas which enables the reservation of lands for drainage, streets, parks, schools and other public facilities. To foster the creation of “complete streets” (multi use) within the village areas, the Town should require the layout of infrastructure including roads to be in accordance with an Official Map.
4. The Town should consider establishing design guidelines for the existing village areas, which will be advisory only. The design guidelines could apply to site and building design and guide new development to protect the rural, historic character of the village areas.
5. The Town will reevaluate the adequacy of the commercial / light industrial district to incubate and attract entrepreneurial enterprises that will provide high quality local employment.
6. The Town will encourage through its regulations and policies the development of a more economically active town center with business services to fulfill local needs and moderately priced housing.
7. During development review, Areas of High Public Value will be identified and prioritized based on the qualities and relative values of each resource. This analysis will be site specific but will also consider resources in the broader context as appropriate. Land development projects will be designed to complement existing land uses.
8. The Town will continue to promote the use of non-contiguous PRDs and PUDs as a means to transfer density to areas deemed appropriate for development.
9. The Town will evaluate the need for more specific zoning districts or overlay districts within the currently defined rural area. These may include but not be limited to areas intended to protect the long-term viability of productive farmland in Charlotte; areas appropriate for low density, clustered residential development; and areas with significant, limited or irreplaceable natural or scenic resources.

10. The Town will complete an Open Space and Conservation Action Plan to aid in the identification of parcels or portions of parcels for nature based economies, resource protection and stewardship.
11. The Town will develop a program to work with public and private organizations to insure the protection of resources identified in the Open Space and Conservation Action Plan.

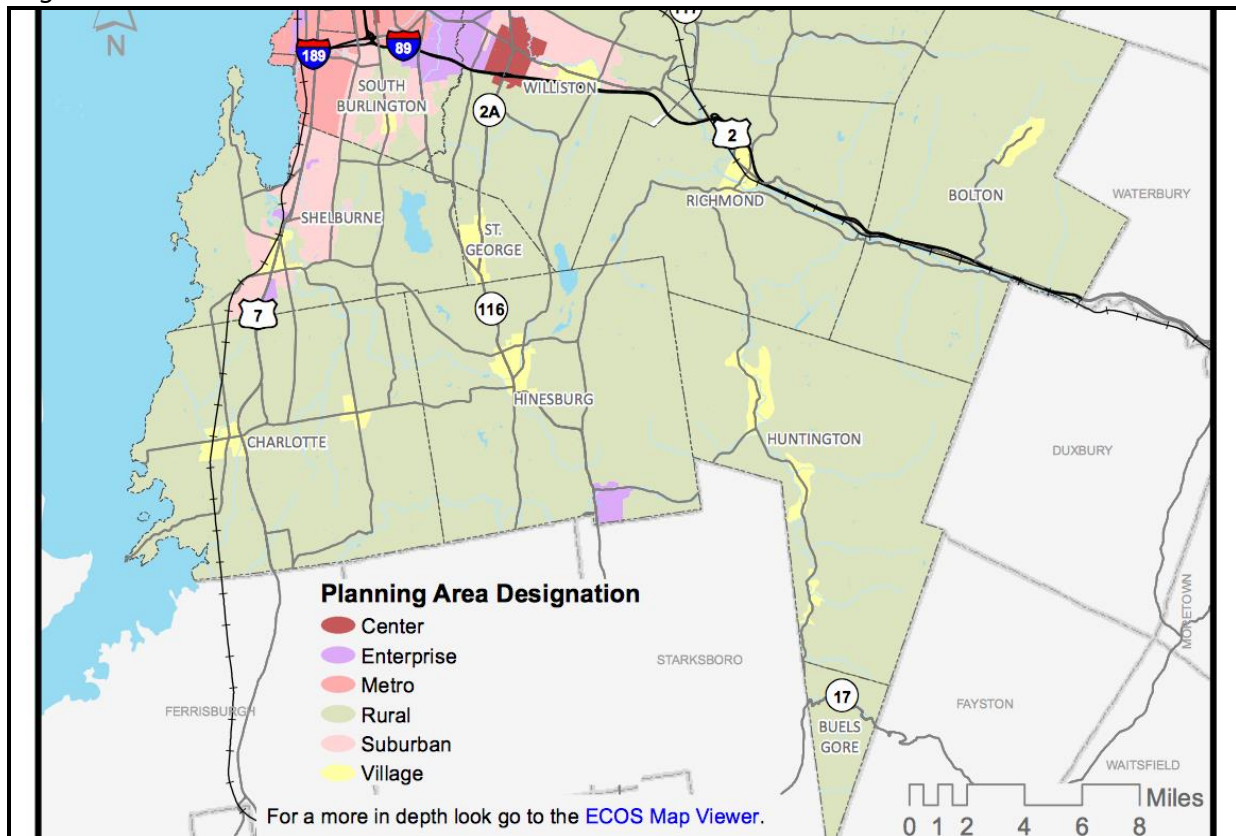
MAP: change title to future settlement plan, add settlement areas to legend, add transportation and north rte 7 underpass and south rte 7 underpass, include future density range in yellow settlement areas. Move narrative to another page.

Areas circled with dashed lines need definition. Deleting all of the bullets – legend needs to be expanded to define the map and explain where it came from. Add something to the effect that this is the basis of future land use/zoning maps.



**REGIONAL CONTEXT****CHAPTER 1.3****Regional Plans**

The *2013 Chittenden County Regional Plan - ECOS Regional Plan* – identified two types of planning areas (broad land uses) in Charlotte: Village and Rural. An Enterprise Area and Suburban Area are identified in Shelburne on Charlotte's northern border and lands in Hinesburg that are adjacent to Charlotte are identified as Rural. The ECOS Plan uses the Planning Areas concept to identify places that share similar existing features and future planning goals. Following are the descriptions for the Rural and Village Areas from the *ECOS Regional Plan*:



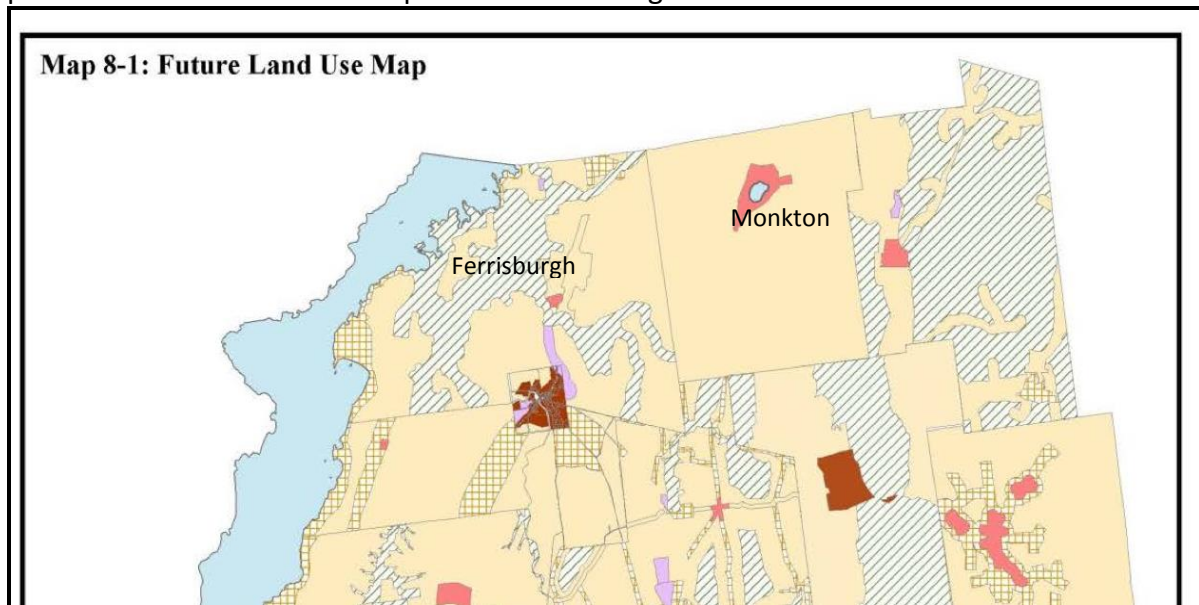
**Village Planning Areas** are areas where local zoning authorizes a variety of future residential and nonresidential development at densities and scales in keeping with the character of a Vermont village, generally between 2 and 9 dwelling units per acre if sewered and between 0.2 and 4 units per acre if not sewered. Village Planning Areas are compact areas of mixed-use activities that maintain the character of a Vermont village. This type of Planning Area is intended to serve its local surroundings as a place where people can live, work, shop and recreate.

**Rural Planning Areas** are areas where regional and town plans promote the preservation of Vermont's traditional working landscape and natural area features. The Rural Planning Area also provides for low-density commercial, industrial, and residential development (generally 1



*dwelling unit per acre or less) that is compatible with working lands and natural areas so that these places may continue to highlight the rural character and self-sustaining natural area systems. Development in the rural planning areas is typically outside the sewer service area.*

The 2016 Addison County Regional Plan identified three broad categories of land uses in the town of Ferrisburgh immediately south of Charlotte: Forestland and Conservation Floodplain, Residential (lots less than 2 acres w/ mixed use), and Rural and Agriculture. Lands in Monkton that abut Charlotte were categorized as Rural and Agriculture. The Addison County Plan did not provide a more detailed description of these categories.



### **Neighboring Town Plans**

#### ***Shelburne***

Shelburne's Town Plan (2016) identifies a Planned Residential Growth Area 2 just north of the Charlotte border between the Vermont Railway and Route 7 (Wake Robin and Ridgefield Subdivision). The plan states that this area will be 'comprised of pleasant neighborhoods with a mixture of attached and detached dwellings.' Town sewer serves this area. The remaining areas adjacent to Charlotte are designated as Rural or Conservation on Shelburne's future land use map. Shelburne's policy is clear in discouraging development in the Rural areas in favor or encouraging in growth areas. The plan states that 'While some development is anticipated in the Rural Area, it should be limited, of low density, and should give very high priority to identifying and preventing undue adverse impacts to the area's scenic and natural features and resources.'

#### ***Hinesburg***

The Hinesburg Town Plan (2013) describes the area bordering Charlotte as Rural Agricultural. Protection of natural resources and land conservation is envisioned in this area and Hinesburg and Charlotte currently work together on resource related projects.

### ***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.

### **Policies:**

### **Strategies:**

**NATURAL RESOURCES****CHAPTER 1.4**

Charlotte's landscape is a mosaic of uplands and lowlands, forest communities, the lake and its shoreline, stream corridors and wetland areas. Interactions of climate, geology, topography, hydrology and land use have shaped its natural resources and provided the essential clean air, water, soil and quality habitat for diverse species of plants and animals, land-based economies, extraordinary scenic beauty and related tourism. The Town Plan acknowledges these resources as having high public value that provide the basis for Charlotte's agrarian economy, quality of life and rural character.

**Key Planning Considerations:**

1. Water quality – Soil erosion is a significant factor influencing water quality. When soil from tilled fields, construction sites, gravel roads or severely eroding streambanks reach a stream, it often results in negative effects on water quality and aquatic habitat. In 2015, the Legislature enacted *Act 64 - An act related to improving the quality of State waters*. This Act outlines an 'all in' approach and includes requirements pertaining to stormwater runoff from roads and existing development, agricultural practices, tactical basin planning and forestry.
2. Habitat Fragmentation - Fragmentation of habitat blocks and barriers to wildlife movement caused by housing, commercial development, roads and utility corridors can result in the direct loss or inaccessibility of important habitat which can render the forest and other habitats unsuitable for some species of plants and animals.
3. Invasive Species – Exotic, invasive species are introduced either accidentally or intentionally into an ecosystem where they do not naturally occur. They proliferate and can aggressively replace native species and even alter natural communities.
4. Climate Change – Changes in weather patterns impact Vermont's unique natural resources and quality of life. Warmer conditions and an overall increase in precipitation are expected to continue over the next 50 years. More frequent short-term droughts are also expected in the summer months resulting in reduced streamflows at that time. These warming temperatures and changing precipitation patterns affect snowpack and the timing and volume of streamflow.

**Natural Resource Policies:**

1. Surface water and river corridor planning will be promoted recognizing the importance of streams, rivers, lakeshores, wetlands and upland forests in fostering wildlife movement, improving water quality, stream stability and attenuating and moderating flood and fluvial erosion events.



2. Existing contiguous forest habitat will be maintained and conserved and the subdivision or parcelization of that habitat will be discouraged. In addition, the town will seek means to expand large patches of contiguous forests and to protect corridors linking these areas through regulation, conservation and outreach.
3. State significant natural communities and other large-scale natural communities within the region will be protected. The town will ensure that conserved lands encompass a diversity of habitats and landforms and will control and when possible eradicate invasive species on town lands to minimize ecological and economic impacts to our native species and habitats, working forests and agricultural fields.
4. This and future town plans will be reviewed and written within the framework of climate change adaptation. Our strategies are and will continue to be consistent with management actions recommended by the Agency of Natural Resources. The actions identified in the 2013 Climate Change Report include identifying and conserving natural areas that provide important ecosystem services (i.e. flood control, water filtration; carbon capture); capturing as much clean precipitation as is possible using low impact development; building streams crossing (bridges, culverts) to accommodate sediment transport and connectivity; promoting riparian stability and filtering functions through appropriately sized stream, river, lake and wetland buffers; and monitoring pests and invasive species.
5. Development projects will continue to be evaluated using a suitability analysis that incorporates Charlotte's Areas of High Public Value.

**Natural Resources Strategies:**

Water Quality

1. Protect lakes, ponds, rivers, streams and wetlands to maintain, and in some instances restore, their natural conditions. Fluvial erosion hazard areas and areas prone to inundation flooding will be examined to ensure that regulations adequately protect these areas.
2. Assess (field) and map seasonal streams and their associated watersheds to increase the overall understanding and oversight of the hydrologic systems in the Town.
3. Evaluate riparian buffer and setback standards in the land use regulations and revise as necessary to incorporate new and best available science in the protection of natural resources and Areas of High Public Value.
4. Partner with local organizations and state regulatory personnel in identifying and rectifying violations.

5. Adopt, and update every four years, the State approved 2013 “Vermont Town Road and Bridge Standards” and meet or exceed these codes and standards to help maintain safety and flood resiliency and to protect water quality and riparian corridors in close association with transportation corridors. Adopting these standards will enable the Town to be eligible for federally declared disaster State share benefits, and maximum match benefits for class two roadway and Town highway structure improvements.
6. Endorse Vermont Agency of Natural Resources (ANR) and Vermont Agency of Transportation (VTrans) Act 110 standards as recommended minimums, and consider adopting more specific flood resiliency and water quality standards related to transportation infrastructure oversight, planning and management.
7. Work with CCRPC and VTANR in completing a road inventory and road stormwater management plan as is required under Act 64.
8. Evaluate current land use regulations and other town standards and ordinances as relates to stormwater runoff and will consider drafting local stormwater regulations that incorporate low impact design and Green Stormwater Infrastructure (GSI) design principles for attenuating stormwater flows and diverting them from direct discharge into town right-of-way and eventually surface waters. Options should include, but not be limited to, the use of green infrastructure such as vegetated swales, infiltration trenches, raingardens, and constructed wetlands.

#### Fragmentation

9. Develop a procedure for updating resources when new data become available (e.g. through site assessments associated with development review).
  - a. Continue to update the Town Significant Habitat Map and associated database in accordance with the procedure and review overall map accuracy at least every 8 years.
  - b. The Conservation Commission and the Planning Commission will meet annually to review current trends.
10. Develop a Town Open Space/Conservation Action Plan that identifies priority areas for protection and conservation. The plan will include information on state and locally significant natural communities, areas of regionally significant contiguous forest and supporting habitats, riparian corridors, flood and erosion hazard areas, locally identified wildlife road crossings, locally significant natural areas, scenic views, and other features that have been identified as having high public value in Charlotte’s Land Use Regulations.
11. Encourage the maintenance, restoration, protection, and long-term stewardship of habitats and natural communities that support rare, threatened and endangered species as

identified by the Wildlife Diversity Program and the Charlotte Significant Habitat map.

#### Invasive Species

12. Develop and recommend roadside mowing schedules to control the spread of invasive plant species. The Town will create no-mow zones to prevent the cutting of certain invasive plant populations, including Japanese Knotweed, as advised by the Conservation Commission.
13. Eliminate the use of plants identified as invasive in the State of Vermont for landscaping of Town-owned lands<sup>1</sup>. Through education, encourage similar practices on private lands.
14. Create and execute invasive management plans for Town-owned lands and right-of-way (ROWs) employing a combination of paid and volunteer labor to control invasive plant populations.
15. Consider means for funding work (including invasive species control) that restores and maintains ecosystem services and significant natural areas.

#### Climate Change

16. Protect groundwater resources, including aquifer recharge areas by regulating land use and development to avoid aquifer contamination and aquifer depletion.
17. Identify wetlands that exemplify the most biologically diverse or characteristic native wetlands within town. Develop a procedure for providing information on site-specific delineations to the Agency of Natural Resources. Identify stressors (i.e. non-permitted uses, invasive species, altered hydrology) to wetland values and functions and develop a plan to mitigate these effects.
18. Map existing riparian forest cover throughout the town using GIS. Overlay these areas with fluvial erosion hazard and flood areas to identify priority areas for protection and conservation. Incorporate this information into the Open Space / Conservation Area Plan.
19. Review management practices on Town-owned lands and if necessary, establish management plans that protect the ecological functions of riparian areas associated with these lands.

#### General, Administrative, Education, Outreach, Funding

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<sup>1</sup> The Nature Conservancy. "Invasive Plants in Vermont." 2015.  
<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/vermont/volunteer/invasives-in-vermont.xml>.

20. Develop procedures for updating and maintaining Charlotte-based GIS layers. Identify other clearinghouses for resource related information and work to ensure that the best, available data are used in all resource related work involving mapping and analysis.
21. Work with local watershed associations, conservation commissions, and Natural Resource Conservation Districts to assist landowners in protecting and restoring riparian and upland forest habitats on their lands.
22. Continue allocating a percentage of the Town tax rate for the Conservation Fund to protect significant natural and agricultural resources. Explore potential use of conservation fund for other conservation protection projects including stewardship activities.
23. Work with neighboring towns to protect large, undeveloped habitat blocks that span town borders.
24. Support the Charlotte Conservation Commission's role in: maintaining and updating databases and maps of natural resource information relevant to Charlotte; advising the Planning Commission and Selectboard on natural resource issues and development reviews; and promoting public understanding of local natural resources and ecosystem functions.
25. Public and private stewardship work and sustainable use of natural resources will be promoted by supporting education, field work and outreach programs of the Conservation Commission, Recreation Committee, Lewis Creek Association, Charlotte Sustainable Living Network, Charlotte Central School, and other similarly qualified groups.
26. Research and support financial incentives and strategies that aid in the protection of Areas of High Public Value and will provide outreach on new and existing approaches such as Vermont's current use program, conservation easements, and purchase and lease options.

**LAKE AND SHORELINE****CHAPTER 1.5**

The Town of Charlotte has approximately 14 miles of shoreline<sup>2</sup> 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 are comprised of 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 Title 10 §1441 et seq.), include regulations aimed at improving the Lake's water quality.
2. Shoreline 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 through limiting and managing existing and proposed uses of the land and water.
2. Indirect discharges to surface waters, including those associated with agricultural practices and access management, will not be allowed to accelerate the degradation of lake water quality.
3. The Town will provide, protect and enhance opportunities for the public to enjoy the shoreline. This should be accomplished by consideration of the provision of public access by

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<sup>2</sup> Shoreline area is defined as area 250 feet from the mean high water mark. - [The Vermont Shoreline Protection Act](#) (Summary), Vermont Department of Environmental Conservation (DEC). October, 2015.

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, private property rights, and public safety.

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 partner with the State in identifying alleged violations and will petition for enforcement actions that will minimize impacts. The Town will also request restoration where applicable.
4. 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 dwelling units permitted in the Shoreland Seasonal Home Management District. Other man-made structures will be evaluated in the context of total lot coverage and the addition of such structures shall not reduce scenic beauty or increase surface water runoff to the Lake. Charlotte shall continue to evaluate and manage town implemented shoreline protection management practices that may exceed the requirements of the State.

**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 comprised of 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 that will outline 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 will be maintained and protected from private boat traffic and facilities.
6. The Town should explore stabilizing the old rock foundations of the Old Dock to save the dock from further deterioration.
7. The Selectboard will monitor the possible future need to establish Mooring Management Areas for the Lake Champlain shoreline. If the Town determines that it is necessary to control these mooring areas, the Town will apply to the Natural Resources Board to delegate authority to the Town to manage these areas through a mooring management ordinance in accordance with 24 V.S.A. Chapter 59.
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 preserve habitat and the natural stability of shorelines.

**AGRICULTURE & FORESTRY****CHAPTER 1.6**

Agriculture has been a significant part of the landscape, rural character, and economy of the Town of Charlotte since the Town's early settlement. Loss of forestlands, farms and farmers would dramatically change the Town's rural character, which is strongly valued by current Charlotte residents. The preservation of working farms and natural areas is a clear, longstanding community priority, as is access to healthy, locally produced food.

**Key Planning Considerations**

1. Charlotte has an abundance of fertile soils well suited to agriculture and forestry. Of the Town's total land area (26,520 acres), 12.4% is classified by the Natural Resource Conservation Service (NRCS) as "*Prime Farmland*" (having the ideal availability and combination of physical and chemical characteristics for producing food, feed fiber, forage, and oilseed crops)<sup>3</sup>. Another category of soil known as "*Additional Farmland of Statewide Importance*" (with similar, but limited characteristics)<sup>4</sup> determined by the State of Vermont constitutes an additional 56.1% of Charlotte land area. In tandem, the two categories total some 68.5% of the Town.<sup>5</sup>
2. The amount of land in active agricultural production has been observed to have decreased over the years, due to the conversion of farmland to residential subdivisions.
3. For the past 70 years, commodity dairy farming has been the primary form of agriculture in Charlotte. The number of dairy farms has continued to decline, however, from 16 in 1995 to 6 in 2016, due to low milk prices, high production costs, capital and labor shortages and other industry trends. Small to medium dairy farms have consolidated into larger, more efficient, confined feeding operations, shifted into crop or hay production, converted to estate farms, horse farms or ceased production altogether.
4. Charlotte's agricultural base is diversifying into production of a variety of products for the local and regional wholesale and retail markets. The 2007 USDA Census of Agriculture identified 71 farming operations within the Charlotte zip code area.<sup>6</sup> Of these, more than half (56%) were less than 50 acres in size. This previous Census Agriculture which also collected data by zip code in 1997 reported 58 farming operations (of which about 41% were less than 50 acres). The Town's smaller farms produce sheep, beef, pork and poultry products, organic grains, vegetables, berries and flowers, nursery stock and orchard and vineyard products. Horse boarding, breeding and training facilities are important

<sup>3</sup> [Code of Federal Regulations 7CFR657](#), U.S. Government Publishing Office.

<sup>4</sup> [Vermont Soil Fact Sheet- Detailed Definitions & Explanations](#), Vermont Important Farmland Classification, USDA Natural Resources Conservation Service (NRCS).

<sup>5</sup> Calculated from the NRCS County Soil Survey Data.

<sup>6</sup> The census definition of a farm is: *any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year* ([USDA, Census of Agriculture](#)).



agricultural services that rely on pasture and hayfields. The viability of these smaller enterprises is enhanced by their proximity to the larger Chittenden County market.

5. New business models, including on-farm and farm-related businesses are critical to the economic viability of Charlotte farms. Local agricultural cooperatives, community supported agriculture (CSAs), direct and online marketing operations, value-added production (e.g., specialty foods and commercial composting), farm equipment sales, supply and support services, farm cafes, and “rural or agricultural enterprises”<sup>7</sup> can benefit farms and keep them economically viable.
6. Historically, local farmers, through high local taxes, partially subsidized the rural character and open land enjoyed by all Charlotte residents. Farmers have indicated that without the state’s tax abatement (use value appraisal or current use) program, they could no longer afford to farm. High land values also affect the ability of new and existing farmers to access land, and / or to transfer farms from one generation to the next.
7. Charlotte residents currently have access to locally grown food through on-farm sales and local CSAs. There are no farmers’ markets or general grocery stores in town. The nearest full service grocery stores are located in Shelburne and Hinesburg. Both of these communities also support local farmers’ markets.
8. Forested lands are important for wood and non-wood forest products, aquifer recharge, wildlife habitat, erosion control, stream buffer zones, nature study and aesthetics.
9. Compared to many towns in Vermont, Charlotte has few productive woodlands remaining, and the Town values those few that exist. Conversion to agricultural use is the primary reason for limited woodlands.
10. Forest products such as maple sap, mushrooms, fiddleheads, nuts, and Christmas greens, are harvested from Charlotte’s forested land. Only firewood, maple syrup and Christmas trees have important commercial value, but many residents gather the other products for their own use. Many economically unproductive wooded areas are also extremely valuable for wildlife habitat including forest habitat, aquatic habitat (riparian and wetland protection), shrubland habitat or other linkage habitat and for prevention of soil erosion.

### **Forestry and Agriculture Policies**

1. Agriculture is and shall remain one of the primary land use activities in Charlotte.
2. Economic activities must not be in conflict with the existing agricultural and rural character of the town.

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<sup>7</sup> NOFA-VT defines “rural enterprises” as activities on the farm that support the farm operation, but are not considered agriculture. <http://nofavt.org/resources/rural-enterprises-information>

3. Healthy, locally produced food should be available for consumption by Charlotte residents, through local stores, farmsteads and farmers' markets.
4. Agricultural soils will be protected for agricultural use under town regulations according to the following priorities:
  - a. Prime (high potential) agricultural soils will be given priority for permanent conservation and protection;
  - b. Agricultural soils of statewide importance will be protected wherever physically feasible;
  - c. Low potential agricultural soil will be protected when they support an existing agricultural operation.
5. To conserve farmland, development or subdivisions on farms shall use the minimum amount of land feasible for development purposes. In major subdivisions, land set aside for agricultural use shall be subject to permanent conservation restrictions held by the municipality, State of Vermont, and/or a qualified, nonprofit organization. Co-holding of restrictions will be pursued wherever possible. Such easements or agreements shall specify the allowable uses of the restricted property, restrict or prohibit further land subdivision, control the type and placement of structures and the location of roads and other infrastructure, remove density, and achieve the maintenance of the restricted property as a viable agricultural unit. The restricted farmland may be held in common or individually as long as the goal of farmland preservation is met.
6. Where residential subdivisions and PRDs are proposed adjacent to farm operations, reasonable setbacks will be required for wells and residences from lot lines next to farm land. Buffers between new residences and active farming areas (e.g., farm roads, crop and pasture land) will be required as necessary to minimize conflicts between farming operations and residential and other nonfarm uses.
7. Renewable energy facilities, including solar farms, shall be sited, clustered and designed to avoid siting on prime agricultural soils, and to minimize their encroachment on soils of statewide significance and farmland currently in production. Off-site mitigation and/or site restoration that allows for the resumption of agricultural use shall be required for any facility that impacts primary agricultural soils or farmland currently in production.
8. Sustainable, economically viable farming alternatives are important to the future of farming in Charlotte. Diverse agricultural enterprises, including dairying, livestock and hay production, and specialty farms such as nurseries, orchards, vineyards, vegetable, flower and berry farms are encouraged.
9. The production, processing, and marketing of food and fiber and other natural resources and agricultural products will be accommodated and promoted as important local industries.

10. Charlotte endorses the use of “Required Agricultural Practices” (RAPs) on local farms and sees itself as a partner in the enforcement of these practices.
11. Charlotte observes Vermont’s “Right-to-Farm” laws, recognizing that reasonable agricultural practices, as defined by state policy, benefit farming operations and contribute to a working landscape, harmony with neighbors and community pride. New and potential residents should be aware of the importance of agriculture to the community, and should recognize that agricultural practices may create conditions, including noise and odors, that can impact neighboring properties and desired lifestyles.
12. Farm-related businesses and housing will be allowed on farm properties as permitted or conditional uses.
13. The town encourages forestland owners to have a forestry management plan for their land. Forest management plans should address the ecological functions of the property while providing for the sustainable extraction of forest products. Any new forest plantations in Charlotte should be established with species native to the Northeastern United States only.
14. Maple sugaring is a relatively low impact, sustainable industry that is supported in Charlotte.
15. Increased use of wood as a renewable energy source, particularly for firewood should be encouraged, using sustainable management procedures.

#### **Forestry and Agriculture Strategies**

1. Establish a Charlotte “Farm and Food Council” to create a directory of local farms and food outlets, to work with local farmers and businesses on agricultural development strategies, to access outside resources such as the UVM Extension Service and the Vermont Agency of Agriculture, Food and Markets, and to increase community awareness of and access to healthy, locally produced food (Selectboard).
2. Inventory and track farmland acreage, the number and type of farming operations, and farm ownership patterns in town (Conservation Commission, Farm and Food Council).
3. Explore establishing a farmers’ collaborative to help expand the market for local agricultural products and to increase access to healthy, locally grown food (Farm and Food Council).
4. Continue to support the efforts of the Charlotte Land Trust, the Vermont Land Trust, the Vermont Housing Conservation Board, and similar organizations to provide technical assistance, to develop master plans for farm properties, and to negotiate private, voluntary agreements for the protection and management of designated agricultural and natural resource lands (Conservation Commission, Farm and Food Council, Selectboard). In particular, the town supports and will work with the Charlotte Land Trust to:

- Provide technical assistance to farmers and other large property owners to maximize the preservation of farmland, natural resources and rural character;
  - Collaborate on public outreach initiatives; and
  - Assist farmers in planning for the disposition of their property in conformance with the Charlotte Town Plan, e.g., by helping farmers and other large property owners to prepare master plans for their properties that maximize farmland and natural resource protection, including soil health and water quality.
5. Update town land use regulations as needed to accommodate farm-related businesses on farm property in the Rural District – including but not limited to direct-marketing, value added production (such as cheese and wine), farm equipment sales, supply and support services, associated services, commercial on-farm composting facilities, methane digesters and services, and agri-tourism events and activities – with consideration given to the scale of the operation, frequency of events and the potential impacts on the community, community facilities and services, local traffic and neighboring properties (Zoning Board of Adjustment, Planning Commission, Selectboard).
  6. Strongly promote the use of “non-contiguous PRD/PUD” provisions under town land use regulations to help conserve farmland and other open land by allowing the transfer of development rights from conserved farmland into village and other areas zoned for development (Planning Commission).
  7. Maintain a registry of available, conserved farmland for access and use by new and existing farmers, in collaboration with regional and statewide farmland access programs (Conservation Commission, Farm and Food Council). Town properties should be included on this list.
  8. Continue to pursue both regulatory and non-regulatory techniques (e.g., conservation easements, tax abatements, bylaw amendments) to implement agricultural development and farmland conservation objectives (Planning Commission, Conservation Commission, Farm and Food Council, Select board). These include, but are not limited to the following: preservation of largely contiguous tracts (“critical mass”) of productive farmland, preservation of the scenic characteristics of open farmland while promoting agricultural use, agricultural diversification and on-farm business development, including agri-tourism, value-added production, and direct marketing and sales, and the potential development of a local food hub or food incubator space as needed to support value-added production (e.g., specialty, frozen foods) and the aggregation, marketing and distribution of agricultural products.
  9. Direct landowners to resources for forest management. This includes but is not limited to the State Agency of Natural Resources, Forestry Division *Acceptable Management Practices*

*for Maintaining Water Quality on Logging Jobs, 2016 and Voluntary Harvesting Guidelines for Landowners in Vermont, 2015; and Vermont's Use Value Appraisal Program.*

10. Encourage landowners to band together cooperatively their small holdings into units of larger size that could support professional forestry services and increase opportunities for marketing.

## **HISTORICAL & CULTURAL RESOURCES**

## **CHAPTER 1.7**

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.
2. Several 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 often leads to drawn out permitting processes and local land use disputes. Recent state legislation stipulated minimum setback and screening requirements for these facilities and also requires town plans to be 'energy compliant' with regional and state plans. 'Energy compliant' towns will receive substantial deference in Public Service Board proceedings. In 2015, the Charlotte Town Plan and Land Use Regulations were amended to include some direction regarding the siting of energy projects.
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 (historic district).
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. Energy efficiency improvements may result in increased or ongoing light pollution and glare.

### **Historical & Cultural Resources Policies**

1. Development shall be sited and designed to be consistent with Charlotte's traditional settlement pattern, including historic densities and scales of development, local road networks, and streetscapes, particularly within designated historic districts.
2. Development shall be sited and designed to avoid adverse impacts to Charlotte's historic sites and structures, and historic architectural styles should be considered when developing within designated historic districts.
3. Changes to historic structures should maintain their historic integrity to the extent feasible. Adaptive reuse shall be allowed where appropriate to preserve structures that no longer serve their original function.
4. Development shall be sited and/or clustered to avoid undue adverse visual impacts to scenic resources. Screening, buffer areas and/or landscaping may be required where appropriate to minimize visual impacts.
5. Energy and telecommunication facilities, including utility lines shall be sited and designed in a manner that avoids impacts to cultural and scenic features (AHPV).
6. Utilities serving developments shall be located underground, unless the Board of Adjustment or Planning Commission finds that requiring utilities to be placed underground is not necessary due to the presence of above-ground utilities serving nearby contiguous properties and that the requirement would place an unfair financial burden on the applicant.
7. The dark night sky shall be protected through the design and control of lighting to prevent glare and light pollution. Cut-off fixtures, down casting and limiting levels of illumination are examples of techniques to be used to avoid new light pollution and reduce existing pollution.

### **Historical & Cultural Resources Strategies**

1. Apply for village designation from the Vermont Department of Housing and Community Development for West Charlotte and East Charlotte Village areas to access additional resources and financial assistance for historic preservation and economic development.
2. Continue to inventory, catalogue and map Charlotte's historic and cultural features.
3. Update land use regulations as needed to further protect Charlotte's historic and scenic resources, including the consideration of adopting additional historic and/or design review

overlay districts to protect the town's traditional settlement pattern, cultural resources, and scenic landscape.

4. Adopt specific lighting standards under the town's land use regulations and, at the same time, conduct public informational meetings to educate the public regarding strategies to avoid light pollution.
5. Improve upon the current scenic road inventory by recommending guidelines for development review and road maintenance.



**DEMOGRAPHICS AND HOUSING****CHAPTER 1.8**

Population trends in Charlotte and Chittenden County have generally outpaced those of the state in the past 50 years. The age distribution of the county population differs slightly from that of the state in that the county has a smaller proportion of older persons as compared to younger persons. That being said, the population of the region, including Charlotte, is aging with the 65 and older age group expected to increase by 122% over the next 20 years.

Housing in Charlotte has been concentrated in the village settlements, clustered in summer camp communities, or located in a dispersed pattern in the surrounding countryside. It is this dispersed pattern that has become prevalent over the past 30 years. Subdivisions in rural areas have increased, while the village settlements have remained relatively unchanged. Significant concerns of water and septic capacity in the west village have been repeatedly raised by some in the village. While the dispersed pattern has offered a desirable lifestyle, it has the potential to reduce air quality, increase energy consumption and consume open space including viable farmland. It has also failed to provide adequate housing located more convenient to services and prospective public transportation to accommodate a diverse array of residents. Surveys continue to reinforce the importance of protecting Charlotte's rural character, natural resources and agricultural resources. Changes to the land use regulations have been made over the last 15 years to retain these characteristics by encouraging clustered, well-integrated housing and development.

**Key Planning Considerations:**

1. Charlotte is projected to experience a slower rate of growth over the next 20 years (8.1%) compared to that of the last 30 years (47%).
2. Our regional population is aging. The number of individuals aged 65 and older in Chittenden County is projected to increase by 122% over the next 20 years. The next fastest growing age group is those aged 30-44. This age group is projected to increase by 22% over the next 20 years.
3. Broad diversity in housing will continue to be necessary to support the required tax base to keep Charlotte financially sound. This must include opportunities for more affordable and senior housing.<sup>8</sup>

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<sup>8</sup> In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities is considered affordable housing. In the context of this plan, Charlotte further defines affordable housing as that affordable to low or moderate-income households. Households whose incomes are less than 80 percent of the median income for the area are considered low-income families. Households whose incomes are between 81 and 95 percent of the median income for the area are considered moderate-income families (Source: United States Department of Housing and Urban Development).

4. Over the past twenty years, the development of new homes has occurred primarily in rural areas.
5. The quality of education provided by the Charlotte Central School is critical to the continued evolution of the Town's population, financial health of the Town, support of property values and is a key driver for young families selecting Charlotte as a place to live.

**Housing Policies:**

1. The Town, primarily through its Land Use Regulations, and through other incentives, will encourage the development of affordable and senior housing as well as moderately priced housing to meet the needs of individuals and families who live and/or work in Charlotte and families who wish to settle in Charlotte. This will include encouraging alternatives for the elderly who live in their own homes and would like to continue to do so.
2. The Town recognizes the need for safe, sanitary, energy efficient and affordable housing in locations convenient to existing public and community services and facilities, and will seek solutions to address this need. Creating opportunities for affordable housing supports the town's goal of promoting diversity in Charlotte. Affordable housing created in the town through density bonuses shall be perpetually affordable.
3. The rate and pattern of residential growth shall remain compatible with Charlotte's rural character. The town will work to direct the majority of future growth into the village areas and existing and new community settlement areas and hamlets so as to preserve the Areas of High Public Value in the rural areas.
  - a. Housing in rural areas should maximize open space by clustering development and using conservation agreements when applicable. More emphasis on non-contiguous Planned Residential Developments will promote development in the village areas and minimize the impact on Areas of High Public Value.
  - b. Development in the village districts should be encouraged. Such development should consider planned improvements and capital expenditures and allow for the adequate provision of services.

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Senior or elderly housing is defined as housing which is specifically designed and intended for occupancy by at least one person who is 55 years of age or older. In accordance with the federal Fair Housing Act, elderly housing includes housing that: (1) is specifically designed for and occupied by elderly persons under a federal or state housing program; (2) is to be occupied by a person 62 years or older; or (3) at least 80% of the dwelling units are to be occupied by at least one (1) person who is 55 years or older, in adherence to adopted policies to house persons who are 55 years or older.

- c. New development in the village areas should provide strong visual, vehicular and pedestrian connections to the existing settlement and infrastructure.
- 4. The Town recognizes the importance of and will strongly encourage adaptive reuse of existing buildings as a means of providing affordable and market rate housing. This will result in the preservation of structures that might otherwise fall into disrepair and be demolished.

**Housing Strategies:**

- 1. Charlotte's Land Use Regulations provide for the creation of Planned Residential Developments (PRDs) and Planned Unit Developments (PUDs) as well as simultaneous conservation of contiguous and non-contiguous areas. The use of these provisions will be strongly encouraged, and in most cases required, in development projects.
- 2. The Planning Commission will work to promote the use of non-contiguous PRDs as a means to increase project densities in desired locations and protect rural open space areas.
- 3. Evaluate strategies for the possible build out of areas in and around existing villages, including the analysis of existing and planned facilities (e.g. wastewater, runoff, and highway access, and Complete Streets).
- 4. Reappoint members to an Affordable / Senior Housing Committee. This group will work with the Planning Commission in evaluating land use regulation incentives for the creation of affordable / senior housing. (Selectboard)
  - a. Work with regional organizations in educating citizens about available resources including in home services. (Affordable Housing Committee)
  - b. Work with the Planning Commission in identifying locations for potential projects and project partners. (Affordable Housing Committee)
- 5. Encourage development review applicants to consider affordable or senior housing when presenting their subdivision proposals at Sketch Plan Review and provide information about the Affordable Housing Trust Fund. (Planning Commission)
- 6. Establish an annual meeting between the Planning Commission and the Affordable / Senior Housing Committee to assess the Town's progress in meeting housing needs. (Planning Commission)
- 7. Encourage the preservation and reuse of existing buildings through the application of density bonuses and / or flexibility in other dimensional requirements of Charlotte's Land Use Regulations. (Planning Commission)
- 8. Continue to remit permit fees for affordable housing units. (Selectboard)

## **ECONOMIC DEVELOPMENT**

## **CHAPTER 1.9**

The long-range success of economic development projects generally hinges on an area's competitive advantages (e.g. policies), market characteristics and community values. Smart economic development recognizes that prosperity both depends on and drives quality of life. The economy in Charlotte is inextricably linked to agriculture, the environment and sustainability. While agriculture contributes little to the job /wage base in Charlotte, it does contribute to the overall economy (wholesale trade) and the preservation of the cultural landscape which is appealing to both residents and visitors alike. Opportunities exist, however, for supplementary businesses that could provide products and services to residents and visitors and for entrepreneurial enterprises that could create jobs within the community.

### **Key Planning Considerations:**

1. Preservation of Charlotte's natural, cultural and historic resources is essential to the maintenance of key industries including agriculture, real estate, and construction. Water and wastewater rights and use, solid waste management, stormwater management and transportation all have a profound effect on the Town.
2. Charlotte is bisected by Route 7, the main north / south arterial on the western side of the state. Route 7 provides easy access for those travelling to and from Charlotte as well as for business related shipping and receiving. Ferry Road provides another transportation link to the region connecting ferry traffic with Route 7 and northern New York. The location of businesses directly on Route 7 is not a desirable land use and opportunities along Ferry Road are limited.
3. The 2015 Vermont State Rail Plan calls for the expansion of both freight and passenger travel along the railway in Charlotte. Passenger stops may be planned in Charlotte. Recent controversy regarding the siting of a railroad facility has resulted in questions regarding a Town's ability to regulate rail projects.
4. Potential economic development can be either encouraged or discouraged by the availability of public infrastructure – water, wastewater, broadband, transportation, etc. Some existing businesses in the West Charlotte Village cannot grow due to limitations associated with their wastewater systems and physical limitations for system expansion.
5. Home occupations and agricultural enterprises are a thriving component of Charlotte's economy. Excessive traffic, noise, etc. associated with some businesses can create conflict among / between neighbors.

### **Economic Development Policies:**

5. The Town will promote actions that protect and enhance agriculture and other traditional industries and support local job creation. Compatible, entrepreneurial enterprises will also be supported.
6. The Town will encourage the provision of adequate infrastructure that is supportive of a healthy economy and environment.
7. The Town will advocate for the safe and responsible use of the railway and associated facilities.
8. The Town will continue to support agricultural enterprises and home-based occupations that do not detract from the character of the area.

**Economic Development Strategies:**

1. Encourage and support the formation of a local 'Farm and Food Council' to create a directory of local farms and food outlets, to work with local farmers on agricultural development strategies, to access outside resources such as the UVM Extension Service and the Vermont Agency of Agriculture, Food and Markets, and to increase community awareness of and access to healthy, locally produced food.
2. Support efforts by the Charlotte Library to serve as a clearinghouse for job seekers.
3. Support the development of community based water and wastewater systems in West Charlotte Village. Develop a framework for moving forward with the work completed by the Charlotte Wastewater Committee in 2010-2011. This framework should include the establishment / reestablishment of a Wastewater Advisory Committee made up of one or more members of the Selectboard, Planning Commission, Community Development Group; village residents; and at least 1 non-village resident.
4. Review environmental assessments completed for the state owned property near the railway (north of Ferry Road) and determine if more information is needed. This information will be used when considering zoning alternatives or acquisition as part of the Land Use Regulation process update.
5. Evaluate the Charlotte Land Use Regulations and determine if there are opportunities for improvement in the regulatory and permitting process. Examples would include consideration of changes in use category and / or establishment of clear and non-redundant review standards.
6. Consider consolidating development review related functions under one Development Review Board. This Board would be responsible for reviewing applications against all development review standards outlined in the Land Use Regulations providing clarity and

certainty to both applicants and interested parties to the application including abutting property owners.

**UTILITIES, FACILITIES & SERVICES****CHAPTER 1.10**

Town government and many locally supported nonprofit groups rely heavily on volunteer time and community financial support to provide the facilities, infrastructure, services and programs needed to serve local residents and enhance community life. As a rural community, Charlotte's capacity to accommodate new growth and development and adapt to changing circumstances, is limited by available community resources, supporting infrastructure, and the town's tax base. That said, because of the generosity of its residents, the town has been able to provide and continues to support truly exceptional facilities, programs and services that help make for a strong and vibrant community.

**Key Planning Considerations:**

1. Charlotte's population is aging. Additional health care, emergency response, transportation and in-home support services will be needed to assist an aging population. Senior housing options are also needed for local residents that want to downsize or need additional care, but want to remain part of the community. Additional cemetery space may also be needed.
2. School enrollments are expected to decline through 2020. Ongoing strategic planning, involving the town, school board and larger community, is needed to ensure that our children continue to receive a quality education, at a reasonable cost per pupil, and that the Charlotte Central School is maintained for use as both an educational and community facility.
3. Additional wastewater infrastructure is needed in the West Charlotte Village. As documented in the 2011 "Final Report on Potential Community Wastewater Service to the West Charlotte Village" issued by the Charlotte Wastewater Committee, there is sufficient in-ground capacity available to expand the existing wastewater system to address inadequate or failed onsite systems, and to accommodate limited new development in West Charlotte Village.
4. The Universal Recycling law (Act 148), an "act relating to establishing universal recycling of solid waste," passed into Vermont law in 2012. The law includes bans on the disposal of certain materials into landfills; collection requirements for transfer stations, drop-off centers, and other facilities permitted to accept trash; curbside collection requirements for haulers licensed to accept trash; a hierarchy for managing food scraps and yard debris; the implementation of 'pay-as-you-throw' variable rate pricing; and requirements for recycling containers to be provided in publicly owned spaces.
5. Greater community responsiveness will be needed to adapt to changing community needs, and a changing environment. Charlotte, as a relatively undeveloped rural town with a long history of active, volunteer governance, is better suited than many communities to adapt to a changing climate, including anticipated increases in severe storm events. Nevertheless, 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.

**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 designed to avoid or withstand flood and fluvial erosion hazards. Improvements to existing facilities will avoid new impacts and will minimize or mitigate existing impacts to these same areas.

**Utilities, Facilities and Services Strategies:**

Recreation

1. The Town of Charlotte will continue to develop, maintain and enhance recreational facilities and programs for local residents and visitors, in association with the state and other organizations that have facilities and programs that serve the community.



2. Public access to noncommercial outdoor recreational opportunities, including walking and hiking trails, recreation paths, municipal and state parks and conserved lands, and to Lake Champlain, will continue to be identified, developed, managed and protected.
  - a. The Trail Committee, in association with the Planning Commission, will continue to plan for, develop and maintain an interconnected, town-wide network of trails and public byways.
  - b. The Conservation Commission will work with the Trails Committee and the Recreation Commission in evaluating the suitability of sites for recreation and shoreline access, and access to conserved land.
3. In village areas, trails or sidewalks to serve development shall be incorporated in subdivision or site plan design to where feasible, connect to existing and planned public trail and sidewalk networks as expressed elsewhere in this plan (see Map 5B).
4. Outdoor recreational facilities, including trails, shall be sited, designed and managed to complement and incorporate their natural settings, and to minimize adverse environmental and ecological impacts. Trails should follow and/or incorporate local topography and landscape features in their design.

#### Education

5. The Town will work closely with the CVU and CCS School Boards to monitor the educational needs of the town's children and adults and the condition and level of use of local school facilities and to address existing and anticipated needs in a cost-effective manner that maximizes the community's benefits.

#### Social Facilities & Services

6. The Town will, within its means, continue to support and provide access to social and cultural facilities, organizations, and events that serve the needs of Charlotte residents and highlight and celebrate the Charlotte community.
  - a. The Town will continue to fund, through annual appropriations, those organizations that provide needed family, social and health services for Charlotte residents, as approved by Charlotte voters.
  - b. The Town will continue to advocate for affordable childcare services to meet the needs of local families, including after school and early education programs offered through the Charlotte Central School.
  - c. The Town will continue to monitor the availability of childcare services in association with the update of the town plan; and ensure that home-based childcare facilities are adequately accommodated under the land use regulations.

- d. The Town will work with the Charlotte Senior Center to survey local residents, to identify additional resources, programs and housing options that may benefit Charlotte's aging population, including their desire and ability to age in place.
  - e. The Town, in association with local organizations, will continue to plan for and host events that celebrate community history, diversity and volunteerism.
- 7. The Town will work with the Senior Center in developing a parking plan. The plan will help to identify areas for additional parking including opportunities for shared parking with other uses in the West Charlotte Village.
  - 8. The Town supports the ongoing communication between / among the Senior Center, Charlotte Central School and Library in an effort to pool resources and provide compatible services within the community.

#### Public Safety

- 9. The Town will continue to support the Charlotte Volunteer Fire and Rescue Services Inc. (CVFRS). Major capital improvement projects and equipment purchases for CVFRS will be programmed through the Fire and Rescue capital budget and program.
  - a. The Selectboard and Planning Commission will continue to work with the CVFRS to plan for and strategically locate fire ponds and dry hydrants needed to improve local fire protection.
  - b. The Planning Commission, in association with the Selectboard, Road Commissioner and CVFRS, will update standards for the creation, maintenance and repair of private roads, driveways, fire-protection ponds and dry hydrants.
  - c. The Planning Commission will update municipal bylaws as necessary to ensure that private roads, driveways, fire ponds, dry hydrants or other fire protection measures necessary to serve new development, as recommended by CVFRS, are paid for and installed by the developer.
- 10. The Town will continue to contract for policing services to enforce town traffic ordinances and improve safety on town highways.
  - a. The Selectboard will continue to sponsor traffic studies to establish enforceable speed limits under the town's traffic ordinance.
- 11. The Selectboard will continue to contract with neighboring or state police departments to provide limited crime response, reporting and investigation services, as available funding permits.
- 12. The Town will continue to update the E911 database and map in a timely manner and will encourage the immediate installation of newly assigned and appropriately designed 911 numbers (addresses).

13. The Town will work to strengthen community resiliency in response to natural and manmade hazards and the anticipated effects of changing climate.
  - a. The Selectboard and Planning Commission, with the assistance of the Chittenden County Regional Planning Commission and local emergency service providers, will 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 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, 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 fluvial erosion hazard areas (river corridor protection areas) identified on maps provided by the state, as recommended in the Town's adopted All-Hazard Mitigation Plan.

#### Solid Waste Management

14. The Town will continue to participate as an active member of the Chittenden Solid Waste District (CSWD) to meet its municipal responsibilities for sustainable materials (aka solid waste) management under the Universal Recycling Law (Act 148).
  - a. The Town will consider opportunities for the development of small composting facilities. Town regulations and policies will be updated as determined necessary.
  - b. The Town will continue to support its Policy Regarding Waste Management at Town Facilities as adopted in 2014.

#### Wastewater & Potable Water

15. The Town will develop a framework for moving forward with the work completed by the Charlotte Wastewater Committee in 2010-2011.

- a. This framework should include the establishment / reestablishment of a Wastewater Advisory Committee made up of one or more members of the Selectboard, Planning Commission, Community Development Group; village residents; and at least 1 non-village resident.
  - b. The reassessment of local need should be considered including information on potential health concerns and current use constraints.
  - c. If the Advisory Committee decides to move forward based on need, then a town-wide education and outreach campaign should be initiated. This campaign should include alternatives to a public system including private, community systems. A consultant could evaluate alternatives and the evaluation could be funded through a grant.
16. All development outside of municipal infrastructure service areas shall be served by privately owned systems and maintained onsite, or via community potable water supplies and wastewater systems. The Town will continue to regulate private systems under its state-delegated authority.
17. All new or expanded subdivisions will be required to demonstrate that there will be an adequate supply of potable water to serve their development without adverse impacts to Areas of High Public Value, existing water supplies or to land uses on neighboring properties.
18. Private water and sewer utility lines may cross town roads only with Selectboard approval, and only if the development served meets applicable goals and policies of the Charlotte Town Plan or the lines are necessary to serve a failed system for which no physically feasible alternatives exist. The Selectboard will require permits and licensing agreements or similar legal agreements for utility lines that cross town rights-of-way.
19. Land development shall be restricted and regulated within designated Source Protection Areas (SPAs) serving community water supply systems.
- a. The Planning Commission will evaluate the approach to protect other groundwater resources under the land use regulations, including recharge areas identified on groundwater maps recently developed for the town (see Map 1).
20. All new development will be designed to conserve water, through site planning and development techniques that maximize onsite stormwater retention and infiltration, and through the use of low-flow fixtures.
- a. Low flow fixtures shall be included in the development and construction of all new, renovated or expanded public buildings and facilities.
  - b. The Planning Commission will review and update the land use regulations as necessary to incorporate “Low Impact Development” (LID) standards that maximize

onsite stormwater retention and infiltration thereby limiting the need for more capital intensive stormwater collection and treatment facilities.

- c. The Town will seek State funding to prepare a storm water master plan for the Town of Charlotte.

#### Telecommunications Facilities & Services

21. The Town of Charlotte supports new and relocated telecommunications facilities and services that are consistent with land use regulations, and are necessary to provide adequate wireless and high speed internet coverage for Charlotte residents, businesses and emergency response services.
22. Radio frequency interference and emissions from telecommunications facilities, while currently subject to FCC jurisdiction, should not be allowed to adversely affect public health and safety or interfere with existing telecommunications equipment and signals.
23. New and relocated telecommunications facilities shall be sited to avoid where physically feasible, or to otherwise minimize adverse visual and physical impacts to areas of high public value, electrical and signal interference, and potential health impacts to the occupants of residences, schools and other public facilities in the vicinity of the facility.
24. New telecommunications towers shall be designed to allow for the co-location of additional telecommunications equipment. New equipment shall be co-located on existing towers wherever physically feasible, unless it is determined by the regulatory board that a new tower would have less adverse impact on areas of high public value or existing uses in the vicinity of the facility.
25. New and relocated telecommunications towers in locations that are highly visible from public vantage points shall be sited and designed to minimize their visibility and to avoid the need for nighttime lighting.

#### Utility Lines

26. New or replacement electrical, telephone, cable or other utility lines, shall be located underground to protect areas of high scenic value, 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.
27. 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

28. 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

29. 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 Selectboard, in association with the Energy Committee, will evaluate options to incorporate more energy-efficient heating, ventilation and air conditioning systems in public buildings.
- c. The Town will develop a capital budget and 5-year capital improvement program (CIP), for Selectboard consideration and adoption, that identifies and schedules planned capital improvements in relation to existing debt service and available sources of funding.
- d. 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.

#### Roads

30. The Town will continue to require that new roads be developed as private roads so as to reduce the cost of town provided road services.

- a. The Planning Commission will implement the 2013 "Vermont Town Road and Bridge Standards" on all new and existing roads, and will further consider alternative designs within sensitive areas.

- b. The Town will update the “Recommended Standards for Development and Homes, 1997” policy for private driveways.
  - c. The Town will redevelop the current “Highway Access Permit Policy and Procedure” into a municipal ordinance.
31. The Town will reevaluate the above policies as they relate to village area development. Complete Streets, which include accommodation for pedestrians, cyclists, equestrian, and other modes of travel are desired in these areas, and as such, municipal control of village roads may be warranted.
32. The Town will support the inclusion of appropriate accommodations for pedestrians and cyclists whenever improvements to major paved roads (e.g. Route 7, Spear Street, Hinesburg Road, Church Hill Road, Mount Philo Road, etc.) are undertaken.
33. The Town will continue to be a member of the Chittenden County Regional Planning Commission and will actively participate on the Transportation Advisory Committee.

#### Cemeteries

34. The Town Cemetery Commission will conduct a survey of existing locations for human burial and memorial and will assess future needs. This information will be used to review planning related concerns including zoning and long-term maintenance.

**TRANSPORTATION****CHAPTER 1.11**

Charlotte is located within commuting distance of the cities of Burlington and South Burlington as well as areas in and around Middlebury. The town is bisected by 6.5 miles of US Route 7, a major north / south arterial highway and also contains approximately 74 miles of State Class 2 and 3 highways which serve as connectors to other regional arterial systems and as transporters of traffic within town. The remaining roads in Charlotte are private roads or Class 4 highways which provide access to adjacent land as their primary function. In addition to auto traffic, Charlotte's road network serves agricultural vehicles, bicycles, pedestrians, and equestrians. The larger transportation system includes a ferry route, a railroad, and limited sections of both on and off road routes for pedestrian, equestrian, bicycle, agriculture and / or snow mobile use. The Town encourages multi-modal forms of transportation while acknowledging that the most extensive portion of its transportation system is designed for use by automobile related traffic.

**Key Planning Considerations:**

1. Scheduled improvements to US Route 7 (Ethan Allen Highway) south of F-5 (Ferry Road) are on-track to begin in 2016. This project will result in temporary traffic delays for commuters and travelers along this route.
2. The planned expansion of Hinesburg's village will result in a significant number of new dwelling units and in square footage of commercial space. Plans for improvements to Route 116 to improve traffic flow in and around Hinesburg have been completed. Delays in the funding and timing for implementation of the traffic improvement plan associated with the planned increase in development in Hinesburg's village area may result in an increased use of Charlotte's north / south collector roads by commuters to and from Burlington.
3. The Vermont Agency of Transportation has asked the Chittenden County Regional Planning Commission to complete a scoping study of potential locations for a park and ride facility near US Route 7 in Charlotte to serve 50-80 vehicles.
4. In 2011, the legislature passed Act 34: *An act relating to a transportation policy that considers all users:*

*The purpose of this bill is to ensure that the needs of all users of Vermont's transportation system— including motorists, bicyclists, public transportation users, and pedestrians of all ages and abilities—are considered in all state and municipally managed transportation projects and project phases, including planning, development, construction, and maintenance, except in the case of projects or project components involving unpaved highways. These "complete streets" principles shall be integral to the transportation policy of Vermont.*

Accommodating a wide variety of users on major and minor collector roads can be challenging and necessitates thoughtful consideration as to design.



5. The repair and maintenance of town roads is the largest non-school budget item incurred by property owners in Charlotte.
6. Town residents have voiced concerns through a number of forums about excessive speeds of motor vehicles on Town highways. Adjusted Average Daily Traffic (AADT) and speed data for roads in Charlotte are gathered infrequently, making it difficult to observe trends over time.
7. Substandard design, development and maintenance of roads, bridges and culverts (ROWS) can contribute to an increase in repair and maintenance costs over time and can also result in environmental concerns related to water quality, control of invasive species, fragmentation of wildlife habitat and working lands, and inundation and erosion hazards.
8. The Town of Charlotte has not adopted a capital budget and program which would aid in the scheduling of capital expenditures, including road construction and maintenance over time.
9. There is little guidance within Town documents on types or priorities of improvements needed for better bicycling and walking conditions on Town highways or throughout the Town other than the Trail Vision Map.
10. The 2015 Vermont State Rail Plan calls for the expansion of both freight and passenger travel along the railway in Charlotte. Passenger stops may be planned in Charlotte. Recent controversy regarding the siting of a railroad facility has resulted in questions regarding a Town's ability to regulate rail projects.

**Transportation Policies:**

1. The function of Route 7 as the main north-south corridor in the Town and a regional arterial highway shall be protected through the limitation of access points and the control of land use along the highway. The Route 7 corridor shall be protected as a scenic travel corridor.
2. Expansion of Route 7 to increase its capacity by the addition of new lanes shall only occur when the need has been clearly demonstrated, when all reasonable alternatives have been carefully examined, and when such improvements have been prepared within the context of the Chittenden County Long Range Transportation Plan for the Route 7 Corridor. Any improvements to the corridor shall make provisions to enable safe agricultural, bicycle and pedestrian travel and crossings.
3. Improvements to Route 7 shall consider east west travel connectivity needs and not adversely affect Areas of High Public Value.
4. Alternative regional arterial highways will not be considered within Town boundaries due to the potential for adverse impacts to areas of high public value and the disruption to existing land use patterns.

5. Town highways will be upgraded according to a Town capital budget and program. Improvements to Town highways required by new development and not programmed by the Town will be the responsibility of developers. Conversion of gravel roads to paved roads will be discouraged unless there are compelling reasons to make the change.
6. The Town will not accept new roads for public ownership unless there is significant public input to do so to support land use policies of compact growth.
7. The Town will continue to support a privatized highway department.
8. The Town, with the help of the Chittenden County Regional Planning Commission (CCRPC) and the State of Vermont, will continue to monitor the intersection of Route 7 and Ferry Road (F5) and Church Hill Road to ensure that safety issues are rectified. The Town recognized that actual improvements or modification to the intersection are the responsibility of the State. In addition, the Town will control land development in the vicinity to minimize traffic congestion and safety problems at this location that inappropriate land uses might cause. The Town will work to make sure that pedestrian and bicycle safety will be given appropriate attention when improvements are considered for this intersection.
9. The Town supports the development of park and ride facilities within the Town but only at appropriate locations that have been examined by the Town and the CCRPC for their appropriateness and have been found acceptable. The Town supports the incorporation of electric vehicle charging stations at these locations.
10. The Town will incorporate appropriate accommodations for bicyclists and pedestrians of all ages and abilities when improving Class 2 and Class 3 Town highways, based on the number of anticipated walkers, bicyclists and other users; the AADT of the highway; the existing road widths; the posted speed limits and the surrounding land use and environmental conditions.
11. The Town will continue to be a member of the Chittenden County Regional Planning Commission and actively participate on the Transportation Advisory Committee and the Clean Water Advisory Committee.
12. The Town will advocate for the safe and responsible use of the railway and associated facilities.
13. The Town will maintain its covered bridges as transportation facilities and will seek to protect these bridges from damage, destruction or excessive or incompatible use because they are a significant part of the character of the community and its heritage.
14. Designated scenic roads (see Map 5A) will be maintained and only altered by the Town in accordance with "The Vermont Backroad," a 1974 manual prepared for the Scenery Preservation Council, the Agency of Transportation, and the Ottauquechee Regional Planning Commission and / or as required by the State of Vermont. All improvements of

other Town highways will be made as nearly as possible in conformance with the guidelines of this manual.

15. The Town supports the use of appropriate roads and trails to be available for uses such as bicycling, equestrian and walking for transportation.
16. The Town will maintain a uniform set of road and driveway standards for use in the development of new roadways or the expansion of use of existing roadways.

**Transportation Strategies:**

1. The Town will review and update, as necessary, the Recommended Standards for Homes and Development, 1997. Standards will then be considered for incorporation into the Land Use Regulations.
2. New private developments shall be required to establish adequate maintenance funds or other mechanisms to ensure compliance with the Town road and driveway standards. The Town will reserve the right to make improvements where needed and charge the development directly for the repairs.
3. The Selectboard will adopt a Capital Budget and Program, which will include transportation and stormwater control infrastructure, as well as other town structures and capital equipment. A Capital Improvements Program will allow for the scheduled maintenance of town roads as needed and will prevent budget and tax rate fluctuations associated with large single expenditures.
4. The Town will work with the State of Vermont / CCRPC to collect data on automobile, bicycle and pedestrian crashes; safety issues; and traffic volumes of Town roads on a routine basis.
5. The Town will consider the creation of park and ride lots at appropriate locations in the West Charlotte and East Charlotte villages, which might also serve as transit stops.
6. The Town will promote road development and maintenance regimes in accordance with the Vermont Better Roads Manual, as most recently updated.
7. The Town, with the help of the Trails Committee, will review and update and expand the Trail Vision Map into a town-wide walking, equestrian and bicycling master plan to provide guidance on where, when and how bicycling, equestrian and walking opportunities for on-road and off-road transportation will be expanded and upgraded.
8. The Planning Commission will, where appropriate, consider provisions for sidewalks or trails and user amenities for new development in village districts.
9. The Selectboard shall review posted speed limits and consider adjusting them in accordance with State guidelines to promote safety.

10. The Town will work with the Senior Center in developing a parking plan. The plan will help to identify areas for additional parking including opportunities for shared parking with other uses in the West Charlotte Village.
11. Railroad crossings on Town roads will be gated crossings with bicycle safe surfaces to ensure traffic, pedestrian and bicycle safety, and will include adequate mitigation of other adverse impacts from railroad activity.
12. The Town shall be proactive with regard to the prevention of further development of additional rail sidings used for storage of railcars, or an alternate railyard site. The storage of railcars represents an intensification of an industrial use amidst primarily residential and agricultural uses, and is not desired by the Town. The current use of the siding as a de-facto railyard is not desired by many residents along the line, who are impacted by late-night moving of cars and scenery degradation.

**ENERGY****CHAPTER 1.12**

The Town Plan seeks to guide local policy as it relates to energy demand and potential generation. Charlotte seeks to minimize energy use and greenhouse gas emissions within the Town while ensuring a secure energy future through conservation, improvements in efficiency and an increase in renewable energy use and production.

**Key Planning Considerations:**

1. The State of Vermont has promulgated a Comprehensive Energy Plan (CEP) that has set a statewide goal to reduce total energy consumption per capita by 15% by 2025, and virtually eliminate reliance on fossil fuels by 2050 by meeting 90% of the state's energy needs from renewable sources. This same plan has a goal of substantially improving the energy fitness of 25% of the state's housing stock by 2020.
2. Climate change and more frequent intense weather events have increased our focus on the link between energy planning and a secure future.
3. The average cost of energy inputs continues to rise with price fluctuations that are often volatile. Energy efficiency and conservation efforts such as improved insulation and weatherization of new and existing structures often have a dramatic impact on reducing fuel consumption and household bills.
4. There is a growing awareness of the complementary relationship between energy independence and a strong economy. Energy efficiency investments in Vermont continue to provide significant positive net impacts to the state's economy and the renewable energy sector continues to grow.
5. Siting renewable energy projects requires a careful balance between the local and regional public benefit of local generation, the appropriate use of land and the impacts on individuals and communities directly impacted by siting. Early communications and outreach can help to achieve an appropriate balance for new renewable energy projects.
6. According to the CEP, transportation fuel accounts for the largest portion (33.7%) of Vermont's total energy consumption and almost half (47%) of the state's greenhouse gas emissions.

**Energy Policies**

1. Energy planning will be incorporated into all planning efforts, most notably those related to healthy communities, sustainability, transportation and land use.
2. The Town, through its Energy Committee, will educate citizens (including other volunteer Boards and Committees) regarding energy related matters. This will include information on emerging technologies and policy discussions.

3. In keeping with the state energy plan, the Town will seek to minimize energy use in private, public and commercial buildings and work toward 'zero net energy' use in all sectors by 2050<sup>9</sup>.
4. The Town will support the siting of appropriately scaled renewable energy resources in Charlotte that avoid or minimize impacts to Areas of High Public Value. To this end, the Town will seek opportunities for early involvement in the planning / permitting process and will encourage outreach to and among neighbors. The Town will actively encourage and support the development of renewable energy that complements the working landscape and avoids dramatic impacts to the view sheds of the neighboring properties. Developers should practice a "good neighbor policy". The siting of projects should be done in such a manner that the project creates no greater burden on neighboring property owners or public infrastructure than it does on the property on which it is sited.
5. The Town will support efforts to reduce the use of greenhouse gas emitting transportation fuels and create opportunities for the increased use of high occupancy vehicles.
6. The town will support state legislation and regulations aimed at improving energy efficiency in buildings.

## **Energy Strategies**

### **Renewable Energy**

1. The Town Selectboard and Planning Commission will assess impacts to Areas of High Public Value from proposed energy projects and will participate in PSB proceedings if warranted.
2. The Town will review new projects using Site Plan Review Standards as identified in the Charlotte Land Use Regulations.
3. The Planning Commission and the Energy Committee will analyze town-owned lands for potential renewable energy generation projects. This analysis will include factors related to environmental constraints and aesthetic concerns as well as resource potential.
4. Charlotte will strive to generate 10% of its total energy needs through locally-produced renewable energy sources in Charlotte by 2020.
5. Sites planned for or intended to accommodate planned energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to be shown on site development and subdivision plans reviewed by the town.

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<sup>9</sup> A building that uses only as much energy as it produces through on-site renewable energy in a single year. Source: Efficiency Vermont.

6. Charlotte will support increased use of renewable energy by encouraging greater use of renewables among municipal buildings; supporting local production of biofuels, small-scale wind, solar, and other renewable electric generation by local residents and businesses.

#### Energy Efficiency in Structures

7. The Planning Commission will stress the importance of energy efficient design in the context of Subdivision and Site Plan design. Where applicable, the Zoning Board of Adjustment will do the same.
8. The Planning Commission will update the Outdoor Lighting Section of the Land Use Regulations to include specific energy efficiency standards for outdoor lighting.
9. The Town will support the Energy Committee's efforts to encourage greater energy efficiency among existing residences and businesses and the use of energy audits and building performance certification where appropriate, so that at least 25% of existing homes and 50% of new homes shall meet the minimum energy star requirements and 25% of existing businesses and 50% of new businesses meet the minimum requirements for the Efficiency Vermont Building Performance program by 2020.

#### Transportation

10. The Town will work with the Chittenden County Regional Planning Organization, the Chittenden County Transportation Authority and the Vermont Agency of Transportation in exploring opportunities for ridesharing, park-n-ride facilities, bus stops, bike and pedestrian amenities, and other measures to reduce energy consumption and greenhouse gas emissions in transportation.
11. The Energy Committee will work with the elementary school to improve bus ridership and carpooling percentages and analyze the potential for use of biofuels or other means to reduce the environmental impact of school transportation.
12. The Town will support the implementation of bike lanes to accommodate bicycle commuters, where feasible.

#### Incentives and Partnerships

13. The Energy Committee will review and where appropriate recommend the implementation of financial incentives such as a modified permit fee structure to encourage residents and businesses to undertake more weatherization renovations and energy efficient building.
14. The Town will support local organizations in their efforts to implement efforts to meet the Town's energy efficiency, conservation, sustainability and production goals.

**IMPLEMENTATION****CHAPTER 1.13**

Strategy	Responsible Town Party and / or Cooperating Entities	Timeframe	Status
The Town will develop a framework for moving forward with the work completed by the Charlotte Wastewater Committee in 2010-2011.	SB, PC		
<p>Review Land Use Regulations</p> <ul style="list-style-type: none"> <li>• The outcomes of the East Charlotte Village Planning Project will be considered by the Planning Commission when proposing future land use regulations.</li> <li>• Advisory design guidelines – including TP, historic districts, Rte 7 / Ferry Road, seawalls</li> <li>• Reevaluate district boundaries</li> <li>• Riparian buffer and setback standards</li> <li>• Stormwater management including best management practices for existing development if involved in new development project</li> <li>• Farm related businesses</li> <li>• Flood hazard areas</li> <li>• Adequate water supply / no interference / public notice</li> <li>• Recharge areas</li> <li>•</li> </ul>	PC		
The Town will consider the adoption of an Official Map for village areas which enables the reservation of lands for drainage, streets, parks,	PC, SB		



schools and other public facilities.			
During development review, Areas of High Public Value will be identified and prioritized based on the qualities and relative values of each resource. This analysis will be site specific but will also consider resources in the broader context as appropriate. Land development projects will be designed to complement existing land uses.	PC, ZBA		
The Town will continue to promote the use of non-contiguous PRDs and PUDs as a means to transfer density to areas deemed appropriate for development	PC, Staff		
Complete an Open Space and Conservation Action Plan and work with organizations to insure protection of identified resources.	CC, CLT, PC		
Complete a road inventory and road stormwater management plan	SB, RC, CCRPC, VTANR		
Continue updating / maintaining the Significant Wildlife Habitat Map and review land use trends annually	PC, CC, CCRPC	Ongoing	
Update Road and Driveway Development Standards (or Development Standards) <ul style="list-style-type: none"> <li>• Include stormwater management options, management recommendations like roadside mowing to control spread of invasives etc</li> <li>• Incorporate B71 and A76 standards as appropriate</li> <li>• Fire ponds and dry hydrants</li> <li>• Flood resiliency</li> </ul>	PC, RC, CVFRS, SB	1	
Develop procedures for updating and maintaining Charlotte-based GIS layers. Identify other clearinghouses for resource related information and work to ensure that the best, available data are used in all resource related work involving mapping and analysis.	Staff, CCRPC, VCGI		
Inventory existing public access areas and develop an access management plan which outlines recommended improvements if any	PC, CCC, ReC, TrC		
Monitor the possible future need to establish Mooring Management Areas for the Lake Champlain shoreline	SB	Ongoing	
Establish a Charlotte Farm and Food Council	SB		

Inventory and track farmland acreage, the number and type of farming operations and farm ownership patterns in town; create registry	FFC, CC		
Explore re-establishing a farmers market	FFC		
Apply for village designation from the Vermont Department of Housing and Community Development for West Charlotte and East Charlotte Village areas to access additional resources and financial assistance for historic preservation and economic development	CCDG, PC, SB		
Continue to inventory, catalogue and map historical and cultural resources	CC, PC, Staff		
Adopt specific lighting standards under the town's land use regulations and, at the same time, conduct public informational meetings to educate the public regarding strategies to avoid light pollution	PC, EC, SB		
Improve upon the current scenic road inventory by recommending guidelines for development review and road maintenance	PC, CC, Consultant, Staff, RC		
Complete a build out analysis of areas in and around existing villages. The analysis will be completed in the context of existing and planned facilities (e.g. septic). Land use regulations will be evaluated and revised, if appropriate, to encourage village densities that are greater than those in surrounding rural areas	PC, CCRPC, Consultant	Following WW	
Reappoint members to an Affordable / Senior Housing Committee. This group will work with the Planning Commission in evaluating land use regulation incentives for the creation of affordable / senior housing	SB, PC	2	
Encourage development review applicants to consider affordable or senior housing when presenting their subdivision proposals at Sketch Plan Review and provide information about the Affordable Housing Trust Fund	PC, Staff	Ongoing	
Establish an annual meeting between the Planning Commission and the Affordable / Senior Housing Committee to assess the Town's progress in meeting housing needs	Staff, PC, ASHC	2	
Review environmental assessments completed for the state owned property near the railway (north of Ferry Road) and determine if more information is needed. This information will be used when considering zoning alternatives as part of the Land Use Regulation process update	PC, Staff		
Consider consolidating development review related functions under one Development Review Board. This Board would be responsible for reviewing applications against all development	PC, SB, Staff		

review standards outlined in the Land Use Regulations providing clarity and certainty to both applicants and interested parties to the application including abutting property owners			
Continue to plan for, develop and maintain an interconnected, town-wide network of trails and public byways; establish annual meeting	TrC, PC, SB	1	
The Town will, within its means, continue to support and provide access to social and cultural facilities, organizations, and events that serve the needs of Charlotte residents and highlight and celebrate the Charlotte community. See Utilities and Facilities.	SB, PC, SC	Ongoing	
The Town will work with the Senior Center in developing a parking plan. The plan will help to identify areas for additional parking including opportunities for shared parking with other uses in the West Charlotte Village	SB, PC, SC, Consultant	1	
Regularly update the hazards mitigation plan for FEMA-approval, and the emergency response and operation plans	SB, PC, CVFRS, RC	Ongoing	
The Selectboard will oversee and ensure the timely implementation of the master plan for the Burn's Property	SB	1	
Evaluate options for energy efficiency in town buildings	SB, EC	Ongoing	
The Planning Commission will develop a capital budget and 5-year capital improvement program (CIP), for Selectboard consideration and adoption, that identifies and schedules planned capital improvements in relation to existing debt service and available sources of funding	PC, SB, RC	2	
The Town will support the inclusion of appropriate accommodations for pedestrians and cyclists whenever improvements to major paved roads (e.g. Route 7, Spear Street, Hinesburg Road (Church Hill Road), Mount Philo Road, etc.) are undertaken.	RC, SB, CCRPC	1	
Conduct a survey of existing locations for human burial and memorial and will assess future needs. This information will be used to review planning related concerns including zoning and long-term maintenance.	CeC	3	
The Town will work with the State of Vermont / CCRPC to collect data on automobile, bicycle and pedestrian crashes; safety issues; and traffic volumes of Town roads on a routine basis	SB, PC, CCRPC	1	
The Town will consider the creation of park and ride lots at appropriate locations in the West Charlotte and East Charlotte villages, which might also serve as transit stops	PC, SB, EC, CCRPC	Ongoing	

The Selectboard shall review posted speed limits and consider adjusting them in accordance with State guidelines to promote safety	SB	1	
Insert Energy Strategies here			

- 1- years 1 and 2
- 2- years 3 and 4
- 3- years 5 and 6
- 4- years 7 and 8

SB – Selectboard, PC – Planning Commission, EC – Energy Committee, CeC – Cemetery Commission, RC – Road Commissioner, ReC – Recreation Commission, TrC – Trails Committee, CCDG – Charlotte Community Dev Group,

## 2.1 **NATURAL RESOURCES & PHYSICAL GEOGRAPHY**

The Town of Charlotte is located in northwestern Vermont on Lake Champlain about 10 miles south of the urban center of Burlington in Chittenden County. The Town encompasses approximately 50 square miles (32,320 acres), almost 20% (5,700 acres) of which is water. Situated in the Vermont Lowlands physiographic region, Charlotte is relatively flat with a few gently rolling hills and elevations ranging from 98 feet at Lake level to 980 feet on the top of Mount Philo. Lake Champlain has a significant effect on this region as it modifies temperatures resulting in a longer growing season as compared to the rest of the state.

### Geology and Groundwater (AHPV - Source Protection Areas, Map 2)

Charlotte's bedrock geology is largely characterized by the presence of the Champlain thrust. Areas west of the thrust (lower plate) are mainly Ordovician black shales and carbonates while areas east of the thrust (upper plate) consist of Lower Cambrian to Ordovician quartzites, dolostones and limestones. Surficially, lacustrine silts and clays overlie most of the town with some sand and gravel deposits scattered throughout. These latter deposits are thought to be from stream sediments deposited in tunnels or fans beneath the ice sheet that once covered the area.

In 2010, the Vermont Geological Survey completed a study of the geology and hydrogeology of Charlotte<sup>1</sup>. The conclusions as stated in the final report of the study are as follows:

- Looking at all of the 1,027 water wells in the water well database for Charlotte (located and unlocated), 72 % have a yield of greater than or equal to 2 gallons per minute (GPM) and 85 % have a yield greater than 1 GPM. Yield and depth statistics for the 336 located water wells are as follows: Located bedrock wells: number of wells = 306; mean yield = 12 GPM, mean depth = 417 feet. Located gravel wells: number of wells = 30, mean yield = 28 GPM, mean depth = 149 feet.
- Five bedrock hydrogeologic units were delineated based on rock properties and mean and median yields. See Table 1 for statistics and Plate 3 of Open File Report VG10-1 for the distribution of the units. The 5 hydrogeologic units are summarized briefly below.
  - Unit I includes predominantly carbonate rocks with some interbedded quartzites on the upper plate of the Champlain thrust fault. The rocks are generally fractured with resultant secondary permeability due to the interconnected nature of these fractures. Median yield is 4 gallons per minute for 112 bedrock wells.
  - Unit II is similar to Unit I except that the carbonate rock outcrops reveal evidence of dissolution, and the fractures are solutionally enlarged resulting in open channels in the rock. Outcrop exposure is relatively abundant. The median yield is 23 GPM for 9 bedrock wells. This is the highest median yield of any of the hydrogeologic units.
  - Unit III occurs in the flat lowlands west of Rte. 7. The rock is mainly black shale with interbedded limestone and is on the lower plate of the Champlain thrust. Outcrop is not abundant, with most exposures occurring either along Rte. 7 or the lake shore. The bedrock is overlain by impermeable clay, silt and/or clayey-till so that water likely does not readily infiltrate the underlying bedrock. The median yield is 2 GPM

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<sup>1</sup> Vermont Geological Survey, *Geology and Hydrogeology of Charlotte, Vermont*, June 3, 2010.  
<http://dec.vermont.gov/geological-survey/groundwater/town-gw/charlotte>

- for 132 bedrock wells. Wells drilled in this unit have the lowest mean and median yields in town.
- Unit IV is mainly carbonates near the lake shore on the lower plate of the Champlain thrust. Rocks are highly fractured and bedrock is exposed. Median yield is 6 GPM for 52 bedrock wells.
  - Unit V is an igneous intrusive rock and only one bedrock well (with a yield of 50 GPM) is located in the unit.
- Overburden thickness is shown on Plate 4 of Open File Report VG10-1 and varies from zero to 300 feet as reported in the well logs. Although areas of thick permeable sediments may be good prospects for overburden aquifers, in Charlotte the thick materials are largely impermeable clay and silt. Therefore, the thick overburden does not generally correspond to possible high yield aquifers. See the next paragraph for discussion of areas of buried sand or gravel deposits.
  - Plate 5 shows an interpretation of the favorability of surficial materials based on a classification of the stratigraphy of the surficial deposits in the bedrock and surficial wells. As shown on Plate 5, the high-yielding wells in surficial materials are generally in buried sand or gravel below thick clays. These wells are scattered throughout much of the town. However, concentrations of wells with buried sand and/or gravel occur on the south flank of Mt. Philo, about 2 km west-southwest of Mt. Philo, south-southeast of Barber Hill, and in the northern part of town along Orchard Road and the northern portion of Greenbush Road.
  - The blanket of thick clays in the lowlands impedes direct recharge to the underlying bedrock. Static water levels in the wells suggest that the piezometric surface roughly follows the topography and groundwater flow is generally from the hills (where surficial materials are thinner, more permeable, and commonly absent) down into the lowlands. There does not appear to be significant groundwater flow from Lake Champlain eastward, although pumping of wells near the lake shore could certainly induce local flow from the lake toward the well being pumped. Note that on the uplands, groundwater flow appears to most closely follow the topography (see the areas labeled I on Plate 6). In the clay lowlands, flow is not so closely related to the surface topography, as this surface is separated by a barrier of silty clay and clay that commonly exceeds 40 feet in thickness.
  - This general pattern of flow of groundwater from the uplands into the lowlands should be taken into account in any bedrock or surficial aquifer protection plans. Note that more detailed studies would be needed to accurately define an aquifer recharge area for any specific location in the town.
  - Although direct groundwater recharge appears to be limited in the clay lowlands, this does have the benefit of largely isolating bedrock aquifers and buried surficial aquifers from surface waters. This could reduce the chance of surface contamination reaching these aquifers.
  - Our analysis of the water well logs indicates that in general, bedrock wells with the greatest yields tend to have intermediate depths of between 200 and 500 feet. Yield per foot of depth is generally highest in wells that are located near the contact between till uplands and the fine-grained lacustrine and marine deposits (Springston and others, 2010).
  - Because of the presence of carbonate-bearing lithologies, groundwater throughout Charlotte tends to be hard.

- Iron, manganese, and fluorine tend to be most abundant in the groundwater of the Lower Plate rocks.
- Although we did not find any elevated levels of fluoride, the Vermont Dept. of Health (VDH) found that some wells in Charlotte and Ferrisburgh had fluoride levels exceeding primary and secondary standards (Figure 7 on Plate 7, Open File Report VG10-1). All of these wells were located in or near shales. Long term consumption of water with fluoride levels >2 can cause brown staining and pitting of teeth in children whereas levels > 4 ppm can result in bone disease (<http://www.epa.gov/safewater/hfacts.html>).
- One well out of the 27 tested was above the Arsenic standard and another well exceeded the Uranium standard (Figures 8 and 9 on Plate 7, Open File Report VG10-1).

#### Soils (AHPV - Prime and Statewide Ag Soils, Map 3)

The Natural Resource Conservation Service (NRCS) has classified the soils in the Town as part of the *Soil Survey of Chittenden County, Vermont* ([www.nrcs.usda.gov](http://www.nrcs.usda.gov)). The information in the survey is valuable for identifying soils that are suitable for agriculture, forestry, recreation, and other land development. Extreme stoniness, shallow depth to bedrock, high water table, and low permeability create limitations for buildings, roads, and septic systems. Much of Charlotte consists of silts and clays – predominantly Covington Silty Clay and Vergennes Clay - with very low permeability. Though generally poor for sewage disposal systems, these soils have been classified as having statewide agricultural significance.

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#### THE LAKE AND ITS SHORELINE

The Town of Charlotte has approximately 14 miles of shoreline and seven islands in Lake Champlain. The shoreline varies from marshy wildlife areas to rocky cliffs and promontories, to stony and, more rarely, sandy beaches. It is cut by three drainage systems comprised of numerous brooks which drain the interior lands. Charlotte's shoreline on Lake Champlain is very beautiful, a source of pleasure to its residents, seasonal homeowners, and visitors and a priceless asset to the Town.

#### Scenic Beauty and Environmental Quality

The scenic beauty of the shoreline area is enhanced by the undisturbed natural shoreline and evolving pattern of working farm lands and shoreline communities. Changes in this landscape and ecology are occurring every year. This section will briefly discuss how the shore lands have evolved, describe some of the changes, and highlight some of the values Charlotte is working to preserve.

The present shape of the shoreline reflects the local geologic setting. Beginning with the deepest part of Lake Champlain, about 400 feet off McNeil Cove, the lake bottom quickly rises in the near shore areas along the points of and at the mouth of the many bays. These bays have continued to erode into the shorelines, as they have over the last ten thousand years, at varying rates depending on the resistance of the shoreline materials. The most resistant points of land are made of bedrock and typically rise 10 to 30 feet above the lake. Lesser resistant 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 Shoreline 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: 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. (See below)
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.

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: Shoreland 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 shoreline bylaws have not always been enforced, especially regarding cutting of vegetation, but resident awareness of the bylaws and enforcement is improving.

The State uses a special wetlands definition for lake settings. Charlotte bylaws uses a definition based on State Wetland Rules that the state does not apply to a lake setting. Under Charlotte's current definition, over 75% of the shoreline is wetland and Section 4.5, E, 5. of the bylaws prohibits docks, stairways, boat launches and other traditional shoreline uses in wetlands. It is probable that there are many non-conforming structures along the shoreline based on the existing wetland definition and bylaws. The Town should amend the wetlands definition in the zoning bylaws for wetlands along the shoreline to match the definition in the State Wetland Rules for Lakes, Ponds, and Reservoirs (Section 3.2, b, (1)).

*“b. Wetlands/Deepwater Habitat Boundary Criteria...Wetlands shall be distinguished from deepwater habitat by the following criteria: (1) Lakes, Ponds and Reservoirs: When adjacent to any lake, pond or reservoir that is a public water, a wetland's boundary shall extend to the maximum extent of a prevalence of surface, emergent, or woody wetland vegetation at any time during the growing season. For all other lakes, ponds, or reservoirs, a wetland boundary shall extend to a depth of two meters.”*

The Town should also amend the bylaws to allow for removal of purple loosestrife, water chestnuts and Eurasian Watermilfoil which are considered non-native nuisance plants along the shoreline and in shoreline wetland areas.

### 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

Since 1839 the Town has owned 230 acres of lakeshore, woods and meadowland on Thompson's Point. In 1874 the Town began leasing camp lots to individuals and, as a result, 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.

The soils 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 on the State Register of Historic Places.

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.
- The Otter Creek Basin Area receives drainage from Lewis Creek. A portion of Lewis Creek mainly east of Spear Street is listed as impaired by the State of Vermont (Vermont Priority Waters List Part D draft 2016) due to high levels of *E. Coli*.

#### Inundation and Fluvial Erosion Hazard Areas (AHPV, Map 4)

Charlotte has experienced inundation hazards (flooding) along Lake Champlain and inland along tributaries draining directly into the Lake, along the LaPlatte River in the northeastern part of town, and along Lewis Creek. The area along the LaPlatte, portions of Mud Hollow Brook, Lewis Creek and portions of smaller streams including Kimball Brook and Thorp Brook also experience fluvial erosion hazards.

Inundation flooding is characterized by rising and falling water and damage to low-lying structures. Mapped areas have a 1% chance of being inundated in any given year (commonly referred to as the 100-yr or base flood). Fluvial erosion is erosion in a stream corridor caused by unstable rivers and streams, and can range from gradual bank erosion to adjusting changes in river channel location and dimension during flood events. The Agency of Natural Resources has developed river corridor maps that depict a zone for the avoidance and management of water quality and erosion hazard areas.

#### Wetlands Advisory Layer and Significant Wetlands (AHPV, Map 4)

As defined in the *Vermont Wetland Rules*, wetlands shall mean "those areas of the state that are inundated by surface or ground water with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. The image below depicts state regulated Class 2 wetlands (olive green) and additional 'advisory' areas based on soil type as mapped by the Agency of Natural Resources.

#### Wildlife Habitat (AHPV, Map 6)

While most of the Town can be considered wildlife habitat, this Plan is concerned primarily with locally and regionally significant wildlife habitat, particularly that which is in short supply, such

as wetland and contiguous forest including upland forest. Locally and regionally significant wildlife habitat in Charlotte includes 18 Vermont Natural Heritage Communities and several habitat blocks as identified by the Agency of Natural Resources, Department of Fish & Wildlife. The largest habitat blocks in Vermont are at higher elevations in the Green Mountains and other remote areas. The Champlain Valley, as well as the Vermont Valley and most of the piedmont biophysical regions, have very few large habitat blocks remaining because of concentrated development in these areas. These regions are also some of the most biologically diverse in the state .

As part of the 1990, 1995, and 2000 Town Plan, wildlife habitat was identified and mapped by the Charlotte Conservation Commission and other interested individuals in the Town. Technical assistance was provided by local experts as well as consulting ecologists, University of Massachusetts air photo interpreters, University of Vermont faculty and graduate students in the School of Natural Resources and the Field Naturalist Program, the Vermont Agency of Natural Resources, the Natural Resources Conservation Service, The Nature Conservancy and the Chittenden County Regional Planning Commission. In 2000, the previously hand drawn layers were digitized and linked to a database for the collection and storage of field information and for future accessibility. Information available includes descriptions of existing and historical land use, natural plant communities (particularly wetlands and upland forests), wildlife species (or signs observed), small-scale habitats or features (e.g. vernal pools, mast trees, inactive dens), recognized ecological principles and habitat value relative to the Town and region.

In 2008, the Charlotte Conservation Commission and a habitat working group sought to refine and strengthen the 2000 map by describing the framework used for the classification and identification of Charlotte’s wildlife habitat. The framework used is consistent with the “coarse filter-fine filter” approach utilized in *Vermont’s Wildlife Action Plan*.<sup>2</sup> The underlying concept is that if examples of all coarse-filter features are conserved at the scale at which they naturally occur, many of the species they contain may also be conserved. The State framework focuses on three scales of conservation: landscape, habitat and natural community, and species / groups of species. The Charlotte framework is largely a habitat-based, or coarse filter, approach to maintaining viable animal and plant populations in the Town and surrounding area.<sup>3</sup> Here, animal and plant species of conservation need are not singly protected. Instead, the habitats and natural communities these species are associated with are the priorities for conservation.

Charlotte’s framework evaluates land based on its ability to support one or more of the following 7 ecological principles:

1. Maintain large, intact patches of native vegetation. (***Core Habitat***)

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<sup>2</sup> Agency of Natural Resources, Department of Fish & Wildlife, *Vermont’s Wildlife Action Plan*, 2016.

<sup>3</sup> Six of the eight landscape ecology principles evaluated address coarse-filter conservation needs, with rare and high public value species protection being the exceptions.



2. Protect habitats that are key to the distribution and abundance of priority species (priority species habitat is based on the *Vermont Wildlife Action Plan*). **(Priority Species Habitat)**
3. Protect exemplary natural communities and aquatic features. **(Rare Landscape Features)**
4. Maintain connections among wildlife habitats for movement and gene flow. **(Connectivity)**
5. Maintain significant ecological processes (such as those associated with wetlands and floodplains for recharging groundwater and filtering surface water). **(Maintenance of Ecological Process)**
6. Contribute to the regional persistence of rare species by protecting their habitat locally. **(Rare Species Protection)**
7. Represent the full diversity of Charlotte’s ecosystems. **(Representation)**

As a result of this project, the four categories of habitat were refined using updated orthophotography and revised state data layers: forest, aquatic, shrubland, and linkage habitat areas. As part of this process, the term ‘Critical’ was replaced with ‘Significant’ when describing Charlotte’s habitat areas to avoid confusion with the term “critical habitat,” which is more commonly associated with the Federal Endangered Species Act.

The 2008 Significant Wildlife Habitat map categorizes wildlife habitat as follows:

- Forest Habitat where trees are the dominant vegetative life form. Forest habitat includes forests (with canopy cover of 60% or more) and woodlands (canopy cover of 25%-60%). Core habitat areas were also incorporated into the Significant Habitat Map. Core areas were defined as part of the VT Biodiversity project that was completed in 2000.
- Aquatic Habitat defined as areas inundated or strongly affected by surface water. Aquatic habitat includes streams, rivers, lakes, and wetlands, and their adjacent water- and sediment-affected lands. Note that these water influenced and influencing adjacent lands (buffer zones) actually vary in width and location due to topography and stream meandering. However, for practical purposes when mapping, uniform 100-foot buffers are indicated on each side of wetlands and named streams in Charlotte. Buffers of 330 feet are indicated on each side of Thorp Brook, Lewis Creek and the LaPlatte River, in keeping with state and international standards.
- Persistent Shrubland Habitat where shrubs and young trees are the dominant vegetative life form. Note that only areas likely to persist as shrubland for 10 years or more due to natural conditions that prevent tree establishment (such as beaver-maintained wetlands, floodplains, shrub swamps, and the margins of rock outcrops) are considered persistent enough to assess as Significant Wildlife Habitat. Since other Shrubland Habitat in Charlotte is maintained only through human intervention (periodic brush-hogging), it is not stable enough to be classified as persistent and included on this map.

- Linkage Habitat which consists of areas in addition to the above that provide corridors or connections for animal movement and plant dispersal among forest, aquatic, and shrubland habitat areas across the larger region. This may include hedgerows, fields, small lawns, vegetated drainage ways, and fallow lands that provide needed links to feeding, denning, and breeding grounds. Note that since wildlife species vary in their tolerance of activity of humans and domestic animals within their linkage habitat, these areas are generally swaths or vegetative zones rather than narrow paths. Furthermore, functional linkages, or those being used, should be differentiated from structural linkages, or those that may be used, in the field. Functional linkage should be preserved wherever possible.

*A Technical Guide for Identifying and Classifying Habitat in Charlotte* and a *Protocol for the Assessment of Impacts of Proposed Development on Significant Wildlife Habitat in Charlotte, Vermont* were also developed as part of the Significant Wildlife Habitat Map update project. The purpose of these documents is to provide consistent development review guidelines and data collection standards for use by Town groups, consultants and the broader community. The Significant Wildlife Habitat map (Map 4) is available as an interactive map through the Chittenden County Regional Planning Commission website.

#### Special Natural Areas (may overlap with AHPV)

Natural areas are areas of land or water that retain their natural character and contain unusual or significant flora, fauna, geological, or related features of ecological and educational interest. Information on special natural areas in Charlotte has been obtained by the Conservation Commission from the Vermont Natural Areas Inventory, the Vermont Natural Areas Map, the Nature Conservancy, the Vermont Non-Game and Natural Heritage Program, and citizens of the community. Details are available to property owners, but only the general locations of the less fragile areas are provided below:

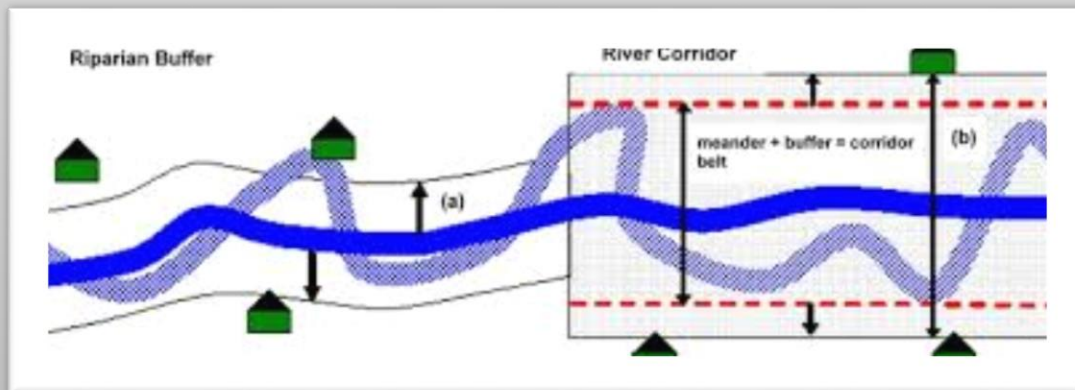
- Charlotte Road Cut (N1): unique geological feature;
- Pease Mountain (N2): geological feature (Champlain Overthrust), aquifer recharge area, location of rare plants and natural communities;
- Barber Hill (N3, R1): geological feature, aquifer recharge area, rare plant community;
- Mt. Philo (N4): geological feature (Champlain Overthrust), exceptional views, aquifer recharge area, location of rare plants and natural communities, deer wintering area;
- Town Farm Bay and Thorp Brook (N5): unusual fossil evidence, wetland, rare animal and natural community; waterfowl area;
- Lewis Creek (N6): whitewater rapids, historic bridges; sport fishing, scenic stretches;
- Old Landfill (N7): geologic features (fossils, Champlain Sea Beach);
- Railway site (N8): fossils;
- McNeil Cove (N9): fossils;
- Monkton Cave (N10): unique geological feature;
- Scenic overlook (N11): panoramic view of Adirondack High Peaks and Champlain Valley;
- Garden Island (R4): rare plant community;
- Cedar Island (R3): rare plant community;
- Thompson's Point site (R5): rare plant community;

- Vermont Wildflower Farm (R2): rare plant community; and
- Williams Woods (R6): 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. A map of these conserved areas is updated annually and is available in the Planning & Zoning Office.

### **FLOOD RESILIENCE & HAZARD MITIGATION**

In 2013, the Legislature passed Act 16 - An act relating to municipal and regional planning and flood resilience. The Act established a goal to encourage flood resilient communities by restricting development in known flood hazard areas including fluvial erosion hazard areas and in river corridor protection areas that buffer flood and fluvial erosion hazard areas. The Act also encouraged the restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion and **required that municipal plans contain a flood resilience element that identifies the above areas and recommends policies and strategies to protect these areas and mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.** An inventory of known inundation and fluvial erosion hazard areas and state river corridors is presented in the Natural Resources & Physical Geography inventory section. Related policies and strategies are presented in Part 1 through incorporation into other plan elements most notably Natural Resources; Lake & Shoreline; and Utilities, Facilities & Services. Charlotte also has effective local hazards mitigation plan which is a multi-jurisdictional plan prepared by 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.

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 1970s, the Vermont Division for Historic Preservation conducted an inventory of the Town's historic resources<sup>4</sup>. As a result of this inventory, 64 sites and/or districts have been placed on the State Historic Register. These sites have been mapped on the Historic and Cultural Resources Map. With the exception of the Thompson's Point Historic District, the historic districts identified do not have any local regulatory purpose. The Thompson's Point Historic District has a design review process which is implemented through the Charlotte Zoning Regulations.

The Town's historic districts include: (Map key indicated in parentheses)

- **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 Greek Revival style residences and public buildings, including two churches (one now a residence) and the Grange Hall.
- **Old Route 7 Historic District (H2):** former transportation center on the main stage road between Burlington and Vergennes providing services to travelers and now a residential

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<sup>4</sup> Cramer, Adele. [Vermont Historic Sites and Structures Survey](#). Montpelier: Agency of Commerce & Community Development, Vermont Division for Historic Preservation, 1976. (Town of Charlotte).

district with two key buildings providing fine examples of Federal style architecture-the Rayta House and the Swenor House.

- **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. This district is on the National Register of Historic Places.
- **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.

Other significant historic resources in the Town include the residential properties listed on the State Historic Register; the public buildings, some of which today are used for private purposes; the covered bridges; and the farmhouses, barns and farm buildings that dot the landscape and contribute to the agricultural character of the Town. As part of the Town's heritage, it is important that these resources be protected and retained in their current locations.

#### Scenic Views and Vistas (including Scenic Roads)

In 1990 and again in 1999, the Town assessed scenic views and vistas. The 1999 work was organized by the Charlotte Tree Warden and Conservation Commission and focused on scenic and conservation values of Charlotte's roadsides. Locational data from each of these assessments has been merged into one map with assets listed within the Historic (see Map 7: Cultural and Historic Resources).

The Charlotte Roadside Tree Restoration project, which was started in 2006, continues to be funded through generous donations. The goal of this project is to plant trees along public 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).

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.

The Charlotte Roadside Beautification Fund was created in 2006 with a generous endowment and the possibility of on-going matching funds from the William Rutter Jr. family. Under the leadership of the Town Tree Warden and an advisory committee appointed by Selectboard, this Fund will result in tree planting along public rights-of-way, starting with higher use areas, and will also encourage property owners to plant trees to beautify their land along public roads. (The Road Commissioner's advice will be included regarding how to avoid interference with road and utility maintenance and line-of-sight distance issues.)

#### Dark Night Sky

One of Charlotte's special features is its dark, rural night sky. 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. Light pollution is the upward and outward distribution of light projected directly from fixtures or reflected off the ground or other surfaces. Glare is direct light shining from a fixture that makes it difficult to see or causes discomfort. Light pollution, in particular, comes from the cumulative effect of individual exterior lights within the

Town, as well as from development and associated night lighting outside of Town. Charlotte has adopted Outdoor Lighting standards which apply to new and existing development. In general, the standards state that 1) outdoor lighting be kept to the minimum required for safety, security and intended use, consistent with the character of the neighborhood in which it is located and 2) permanent outdoor lighting fixtures shall be designed to minimize glare, and shall not direct light upward or onto adjacent properties, roads, or public waters or result in excessive lighting levels that are uncharacteristic of the surrounding neighborhood area.

### Agriculture

As the brief Town history notes, from early settlement to today, agriculture has been a significant part of the landscape, rural character, and economy of the Town of Charlotte. Beers Atlas in 1869 stated that "the superior adaptation of the Town to agricultural pursuits was one cause of its rapid settlement." Child's Gazetteer in 1882 mentions that the industry of the people of Charlotte has always been devoted to agriculture due to its rich fertile soil.

Community input received during the Town Plan update process as well as during other community initiative meetings indicate the preservation of working farms and natural areas continues to be a clear priority for Charlotte residents. Soils, including prime and statewide primary agriculture soils, are discussed in the Natural Resources section. Agriculture as a land use is discussed in that section. This section will focus on the cultural element of Charlotte's farms by identifying those that have shaped the landscape and thus represent Charlotte's 'way of life'.

Merriam – Webster defines a farm as 'a tract of land dedicated to agricultural purposes'. Agriculture is defined as 'the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products.' Charlotte has a growing myriad of farms producing a diversity of agricultural products and services.

The United States Department of Agriculture (USDA) uses a fairly broad definition, defining a farm as any place that sells or normally could sell, at least \$1,000 of agricultural commodities. This definition is used to measure statistics on agricultural activity at the national level and to determine eligibility for Federal aid. The USDA acknowledges that this broad definition can be misleading and that narrower definitions may help policymakers achieve goals "such as establishing price and farm income support, providing support to beginning farmers to increase U.S. agriculture's future viability, and protecting and preserving natural resources."<sup>5</sup>

The State of Vermont through its Required Agricultural Practices Rule<sup>6</sup> defines a farm as "a parcel or parcels of land owned, leased, or managed by a person and devoted primarily to farming as defined in Section 2.15 of this rule and that meets the threshold criteria as

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<sup>5</sup> O'Donoghue, Erik J., Robert A. Hoppe, David E. Banker, and Penni Korb. [\*Exploring Alternative Farm Definitions: Implications for Agricultural Statistics and Program Eligibility\*](#). EIB-49, U.S. Department of Agriculture, Economic Research Service, March 2009.

<sup>6</sup> Vermont Agency of Agriculture, Food, and Markets, Required Agricultural Practices Proposed Rule, May 2016.

established in Section 3 of this rule, provided that the lessee controls the leased lands to the extent they would be considered as part of the lessee's own farm. Indicators of control may include whether the lessee makes day-to-day decisions concerning the cultivation or other farming-related use of the leased lands and whether the lessee manages the land for farming during the leased period."

2.15 Farming means:

- (a) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or
- (b) the raising, feeding, or management of livestock, poultry, fish, or bees; or
- (c) the operation of greenhouses; or
- (d) the production of maple syrup; or
- (e) the on-site storage, preparation, and sale of agricultural products principally produced on the farm; or
- (f) the on-site storage, preparation, production, and sale of fuel or power from agricultural products or wastes principally produced on the farm; or
- (g) the raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding, training, and the management of equines.

By and large, farms must be 4 or more contiguous acres in size. Smaller areas may be considered farms if they produce an annual gross income from the sale of agricultural products of \$2,000.00 or more in an average year or are managed by a farmer filing a 1040(F) income tax statement in at least one of the past two years. The primary purpose of this narrower definition, as compared to that of the USDA, is to protect and preserve Vermont's natural resources including Lake Champlain.



*"Nordic Farms Roof" by Laurel Waters*



3.1 Persons engaged in farming and the agricultural practices as defined in Section 3.2 of this rule and who meet the minimum threshold criteria for applicability of this rule as found in Section 3.1(a) – (g) must meet all applicable Required Agricultural Practices conditions, restrictions, and operating standards. Persons engaged in farming who are in compliance with these conditions, restrictions, and operating standards, as applicable, shall be presumed to not have a discharge of agricultural wastes to waters of the State. Compliance with the Required Agricultural Practice Rule is required if a farm:

- (a) is required to be permitted or certified by the Secretary, consistent with the requirements of 6 V.S.A. Chapter 215 and this rule; or
- (b) has produced an annual gross income from the sale of agricultural products of \$2,000.00 or more in an average year; or
- (c) is preparing, tilling, fertilizing, planting, protecting, irrigating, and harvesting crops for sale on a farm that is no less than 4.0 contiguous acres in size; or
- (d) is raising, feeding, or managing at least the following number of adult livestock on a farm that is no less than 4.0 contiguous acres in size:
  - (1) four equines; (2) five cattle, cows, or American bison; (3) 15 swine; (4) 15 goats; (5) 15 sheep; (6) 15 cervids; (7) 50 turkeys; (8) 50 geese; (9) 100 laying hens; (10) 250 broilers, pheasant, Chukar partridge, or Coturnix quail; (11) three camelids; (12) four ratites; (13) 30 rabbits; (14) 100 ducks; (15) 1,000 pounds of cultured trout; or (16) other livestock types, combinations, or numbers as designated by the Secretary based upon or resulting from the impacts upon water quality consistent with this rule; or
- (e) is raising, feeding, or managing other livestock types, combinations, and numbers, or managing crops or engaging in other agricultural practices on less than 4.0 contiguous acres in size that the Secretary has determined, after the opportunity for a hearing, to be causing adverse water quality impacts and in a municipality where no ordinances are in place to manage the activities causing the water quality impacts; or
- (f) is managed by a farmer filing with the Internal Revenue Service a 1040(F) income tax statement in at least one of the past two years; or
- (g) has a prospective business or farm management plan, approved by the Secretary, describing how the farm will meet the threshold requirements of this section.

**Working Farms (*This is a working list in development*)**

- Titus Farm, Guinea Road
- Nordic Farm, Route 7
- Varney Farm, Route 7
- Charlotte Berry Farm, Route 7
- Philo Ridge Farm, Mt. Philo Road
- Marble's land, "Garrow" farm
- Mack Farm, Greenbush Road
- LaBerge Farm, Greenbush Road and Thompson's Point Road
- Hinsdale Farm, Spear Street Extension

- Stearns Farm, Spear Street Extension
- Bean Farm, Hinesburg Road
- Bean Farm, Bean Road
- Watson Farm, Dorset Street
- Horsford's Nursery, Greenbush Road and Route 7
- Windever Farm, State Park Road
- Gecewicz Farm, Spear Street Extension
- LaBerge Farm, Lime Kiln Road
- Vermont Land Trust property, Greenbush Road
- Burleigh Farm, Spear Street Extension
- Robert Titus Farm, Spear Street Extension
- Knowles Farm, Ferry Road
- Whalley Farm, Lake Road
- Golden Apple Orchard, Whalley Road
- Hall Farm, Hinesburg Road
- Miskell Farm, Greenbush Road
- Vogler Farm, Hinesburg Road
- Nichols Farm, Spear Street
- Garvey Farm, Baldwin Road
- Goss Farm, Prindle Road
- M. Hinsdale Farm, Hinesburg Road
- Sheldon Farm, Lake Road
- Kaplan Farm, Spear Street

#### Archaeological Sites

The lands on either side of the following water bodies are areas of *known archaeological sensitivity*, according to the State Archaeologist as are areas in the vicinity of The Tavern At Wings Point: Mud Hollow Brook, Bingham Brook, LaPlatte River, Lewis Creek east of Scott Pond.

The lands on either side of the following water bodies are areas of expected archaeological sensitivity, according to the State Archaeologist: Thorp Brook, Kimball Brook, Holmes Creek, Pringle Brook, McCabe's Brook, and Lewis Creek west of Scott Pond.

**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: 1790-2014**

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		
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.

**Table 2: Population Growth in the Town and Region: 1960-2010**

	Charlotte		Chittenden County	
	# Increase	Ave. Annual %	# Increase	Ave. Annual %
<b>1960-70</b>	530	4.18%	24,706	3.32%
<b>1970-80</b>	759	4.21%	16,403	1.65%
<b>1980-90</b>	587	2.29%	16,227	1.40%
<b>1990-2000</b>	421	1.34%	14,810	1.12%
<b>2000-10</b>	185	0.52%	9,974	0.68%

Source: U.S. Census

Population trends serve as an important indicator of the potential pressures and demands a community must consider in planning for future facilities, services, housing, and land use patterns. However, forecasted population trends should be regarded with caution. Between the years 1990 and 2000, Charlotte received approximately 421 of the 14,810 new county residents, or 2.8% of the county's growth, which represented an average annual growth rate for the Town of 1.34% and 1.12% for the County. Growth had declined between the years 2000 and 2010, where Charlotte received 185 of the 9,974 county's increase (or 1.85% of the county's growth), which represented 0.52% and 0.68% of the average annual growth rate for the Town and County, respectively.

For 2020, the Vermont Agency of Commerce and Community Development (ACCD) has projected that the population will reach between 3,852 to 3,945 persons for the Town, for an average annual growth rate of %0.26 to 0.51%. County projections estimate the population growth to reach 161,812 to 165,690 by 2020, for an average annual growth rate of %0.33 to 0.58%. Projections for the year 2030 estimate that population will reach between 3,853 to 4,059 for the Town, and 162,967 to 171,718 for the County. Both the 2020 and 2030 series of projections estimate about 2.4% of the county's growth would occur in Charlotte.<sup>7</sup>

Charlotte's population is expected to increase by 8% between 2010 and 2030. Population projections are inherently considered 'best estimates' at a given point in time. The 8% estimate is, however, consistent in its placement between county (higher) and state (lower) estimates.

**Table 3: Population Forecast 2020-2030**

	Base Year 2010	2020	2030	% Change 2010-2030
<b>Charlotte</b>	3,754	3,945	4,059	8.1
<b>Chittenden County</b>	156,545	165,690	171,718	9.7
<b>Vermont</b>	625,741	653,575	670,073	7.1
<b>Charlotte as % of County</b>	--	2.1	1.9	

Source: Vermont Agency of Commerce and Community Development, August 2013

<sup>7</sup> Jones, Ken, Ph. D, and Lilly Schwarz. "[Vermont Population Projections, 2010 – 2030](#)". Vermont Agency of Commerce and Community Development, August 2013.

During the late 1990s, the Chittenden County Regional Planning Commission (CCRPC) had projected Charlotte's population to reach 4,062 persons by 2010, a growth totaling about 2.8% of the county's growth and representing an average annual growth rate of 1.5%. In this period, several companies had either located or expanded within the region, including Husky and IDX. At that time these companies felt that their labor needs would not be filled by the existing county labor pool. For example, the IDX projection included within its Act 250 application indicated that its expansion could result in approximately 95 new Charlotte residents and the need for 37 new homes in the Town by the year 2008. As the proprietary data seemed to suggest that the CCRPC projections were underestimating growth, the 2010 Census proved that their estimate was too high. Nevertheless, the expansion of these firms has yet to occur as they have predicted.

Consistent with regional trends between 1970 and 1980, Charlotte saw a growing share of its population in the 25-34 age category and a smaller share in the school-age category as the "baby-boom" generation matured. As this generation in turn created its own families, the "baby-boom echo" affected the demographics of the school-age population. In 1980, the percentage of the Town's population under five years old was 7.3%. This percentage grew to almost 10% in 1990. This percentage then dropped to 5.6 % in 2000, and to 4.3% in 2010. The American Community Survey (ACS) estimated this figure to be 3.75% in 2014.<sup>8</sup> This undulation has impacted elementary school enrollment.

In contrast, between 1980 and 2000 there was a steady increase in the absolute population in the 65-and-over age group. The number of persons 65 or older increased from 181 in 1980, to 199 in 1990, to 275 in 2000. In percentage terms, the percent of Town residents aged 65 or older was 7.1% in 1980; it was 6.3% in 1990; 7.7% in 2000; and rose to 11.7% in 2010. The ACS estimated the figure to have leveled off for 2014. This situation has continuing implications for the provision of community services and housing for seniors, especially as the large middle-aged group of residents move into older age.

**Table 4: Racial and Ethnic Make-up of Residents**

	2000	Percent	2010	Percent
<b>White</b>	3,523	98.7%	3,658	97.4%
<b>Black or African American</b>	14	0.4%	18	0.5%
<b>American Indian or Alaska Native</b>	5	0.1%	5	0.1%
<b>Asian</b>	36	1.0%	32	0.9%
<b>Other Race</b>	20	0.6%	8	0.2%
<b>Hispanic or Latino (any race)</b>	25	0.7%	71	1.9%

Source: U.S. Census

The Town has witnessed dramatic changes in the composition of its residents from the early settlers of the 18<sup>th</sup> century who were primarily farmers or people engaged in local Charlotte businesses and industries. Today, most of the Town's workforce commutes to jobs outside the Town, although 12% work at home (according to the 2000 Census). In 2000, 52% of Charlotte

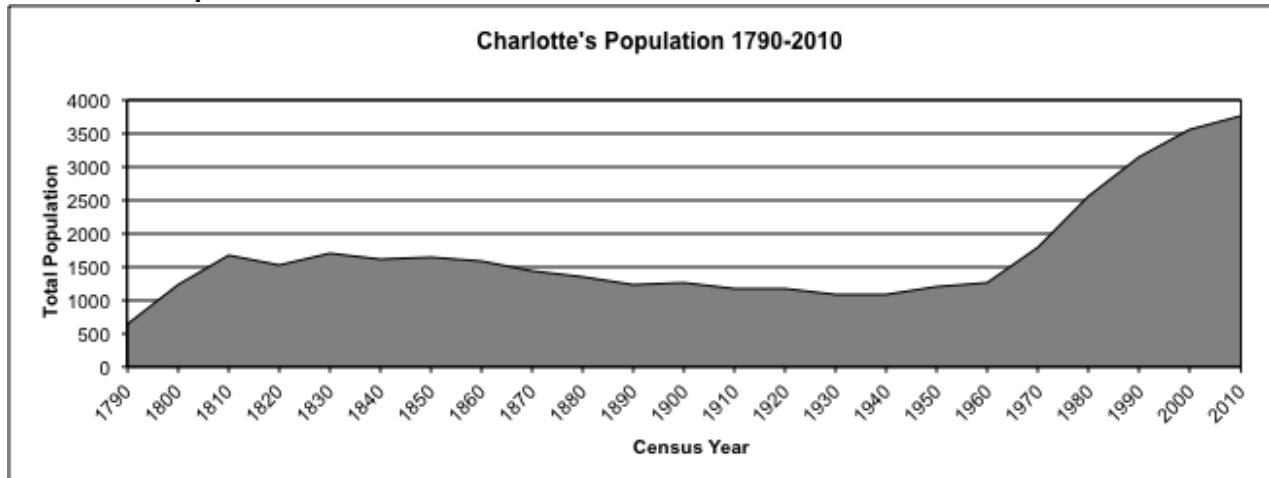
<sup>8</sup> 2010-2014 American Community Survey 5-Year Estimates, US Census Bureau.

residents in the work force were employed in management or professional occupations, while 1.8% were employed in farming or forestry occupations. The Town has also seen a small increase in its ethnic diversity in recent years, although about 97% of residents were classified as white in 2010.

### Population

Charlotte ranks 12<sup>th</sup> in population in Chittenden County with a 2010 (US Census) population of 3,754. This accounts for approximately 2.4% of Chittenden County's total population and this percentage of county population has remained consistent over the past thirty years.

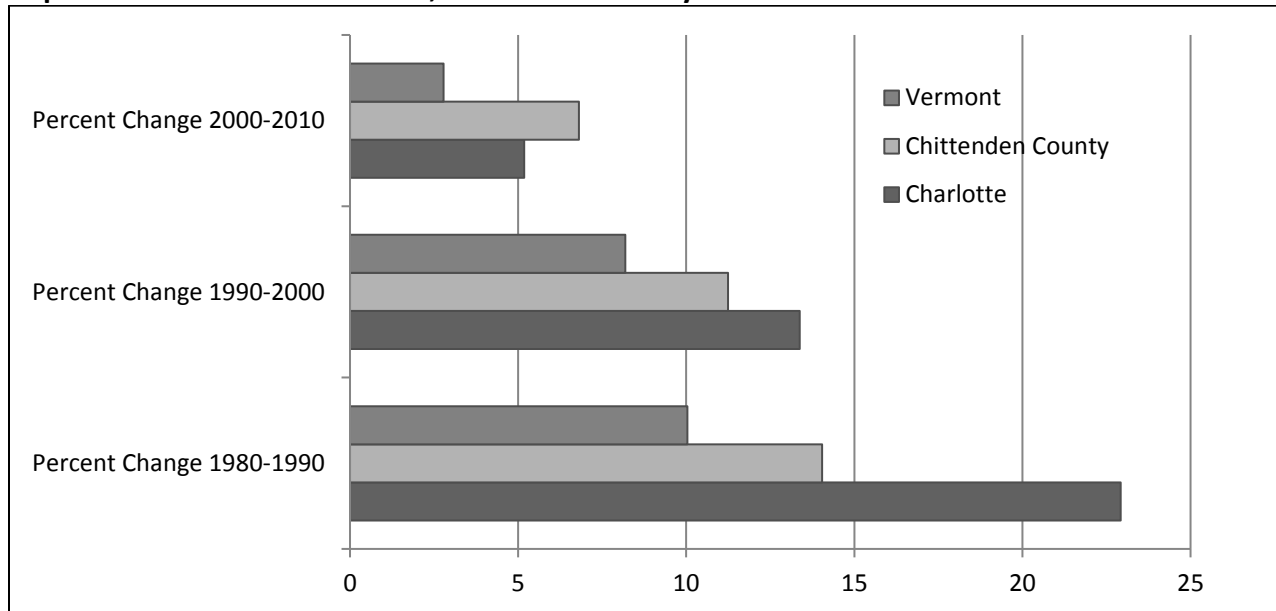
### **Charlotte's Population 1790-2010**



Source: US Census

Between 1980 and 2000, Charlotte experienced a higher percentage of population growth compared to Chittenden County and the State. More recent trends indicate lesser growth as compared to the county but higher growth when compared to the state overall.

Charlotte's population as a percentage of the County's population has remained fairly consistent over the past 30 years and is equal to the average percentage of growth for other 'outer ring' communities.

**Population Trends for Charlotte, Chittenden County and Vermont 1970-2010**

Source: US Census; VT Dept of Health Intercensal Population Estimates 2000-2010, January 2013.

**Table 5: Municipal Growth as Percentage of Chittenden County Growth, 1980-2010**

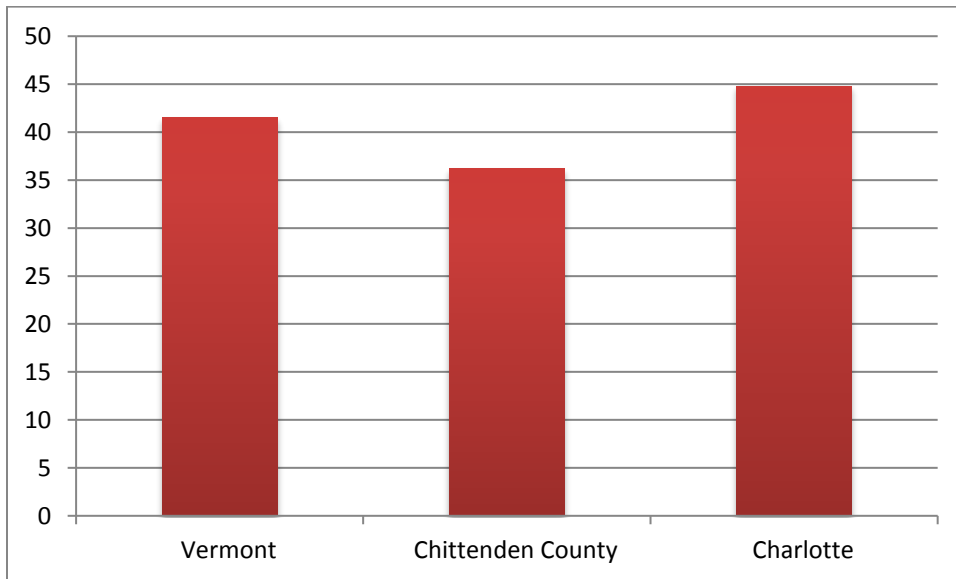
Municipality	1980-1990	1990-2000	2000-2010	1980-2010
Bolton	1.6	0.0	2.1	1.1
Buel's Gore	0.0	0.1	0.2	0.1
<i>Burlington*</i>	8.7	4.7	26.0	11.5
<b>Charlotte</b>	<b>3.6</b>	<b>2.8</b>	<b>1.9</b>	<b>2.9</b>
<i>Colchester*</i>	13.0	15.2	0.8	10.8
<i>Essex Junction*</i>	8.4	1.3	6.8	5.5
<i>Essex Town*</i>	13.0	14.4	9.6	12.7
Hinesburg	6.7	3.8	0.6	4.2
Huntington	2.8	1.7	0.8	1.9
Jericho	4.5	4.8	-0.1	3.5
Richmond	3.5	2.4	-0.1	2.2
<i>Milton*</i>	9.7	7.3	8.8	8.6
Shelburne	5.4	7.2	2.0	5.2
<i>South Burlington*</i>	13.1	14.0	30.3	17.6
St. George	0.2	0.0	-0.2	0.0
Underhill	3.9	1.2	0.4	2.1
Westford	2.0	2.3	-0.6	1.5
Williston	6.4	18.7	10.5	11.8
<i>Winooski*</i>	2.0	-0.6	7.1	2.3
<b>Total Average</b>	<b>5.7</b>	<b>5.3</b>	<b>5.6</b>	<b>5.6</b>
Average-Rural	3.1	2.4	0.6	2.2
Average-Metro-Urban*	9.3	9.4	12.5	10.1

(1) Subcounty Region 3, Economic & Policy Resources Inc., 2000. Source: US Census Data 1980, 1990, 2000; VT Dept of Health Intercensal Population Estimates 2000-2010, January 2013.

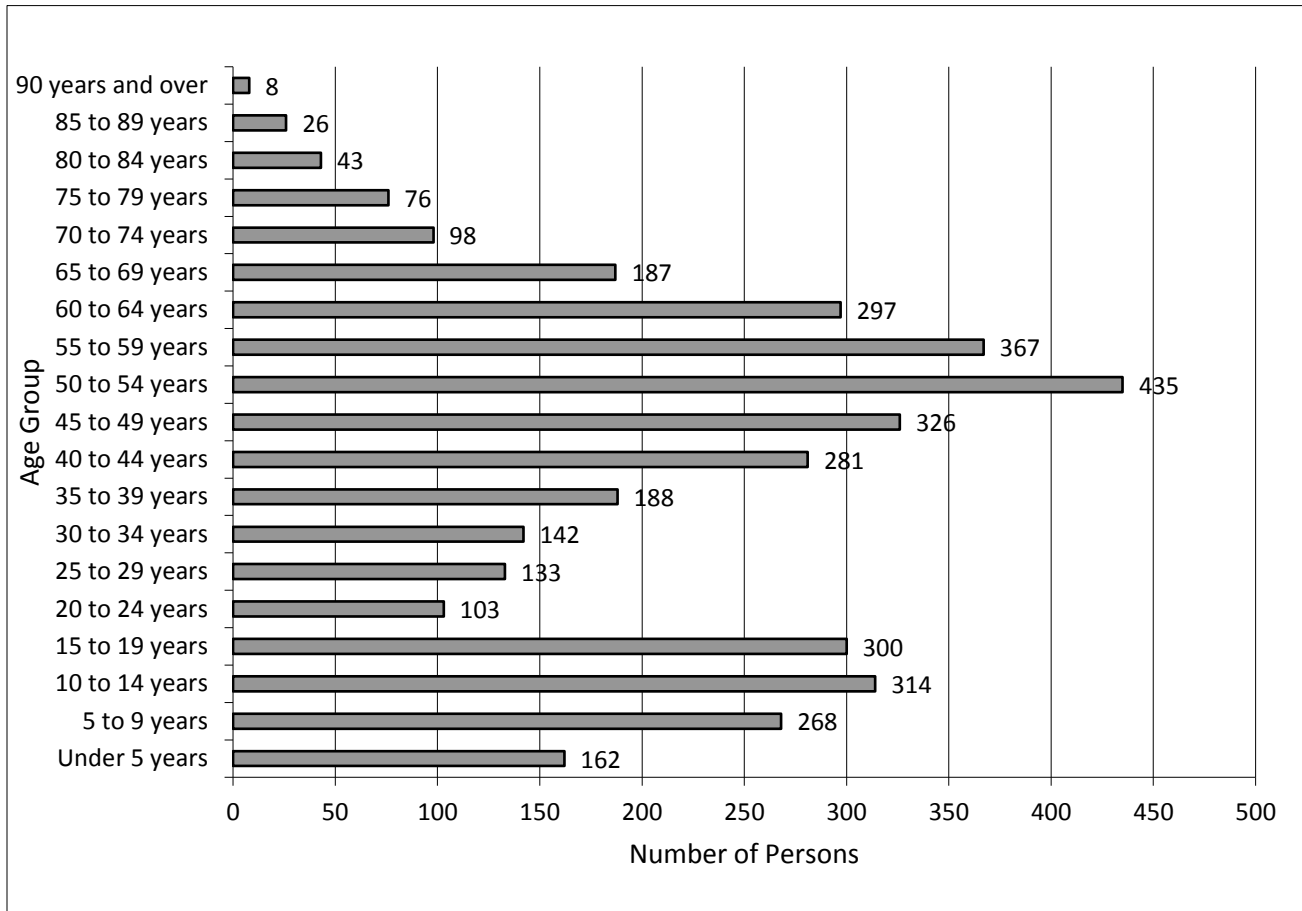
### Population Characteristics

The median age in Charlotte in 2010 was 44.8 years of age. The median age in Chittenden County and the State was 36.2 and 41.5 years of age, respectively. A younger demographic residing in Burlington largely influences Chittenden County's median age. Charlotte's population is older than both the county and state median. The age distribution chart depicts lesser numbers of individuals in the 20-39 age range in 2010. If this trend is projected to today, this indicates that this same group of individuals would be 25-45 years of age, a demographic comprised of young, working families.

### **Median Age in 2010**





**Age Distribution of Charlotte Population, 2010**

Source: US Census Data 2010 Summary File 1.

The median household income in Charlotte has been consistently higher than incomes within the County and State as a whole with Charlotte's household incomes averaging 65% higher than state incomes between 1990 and 2010 and 41% higher than county incomes during that same timeframe.

**Table 6: Median Household Income**

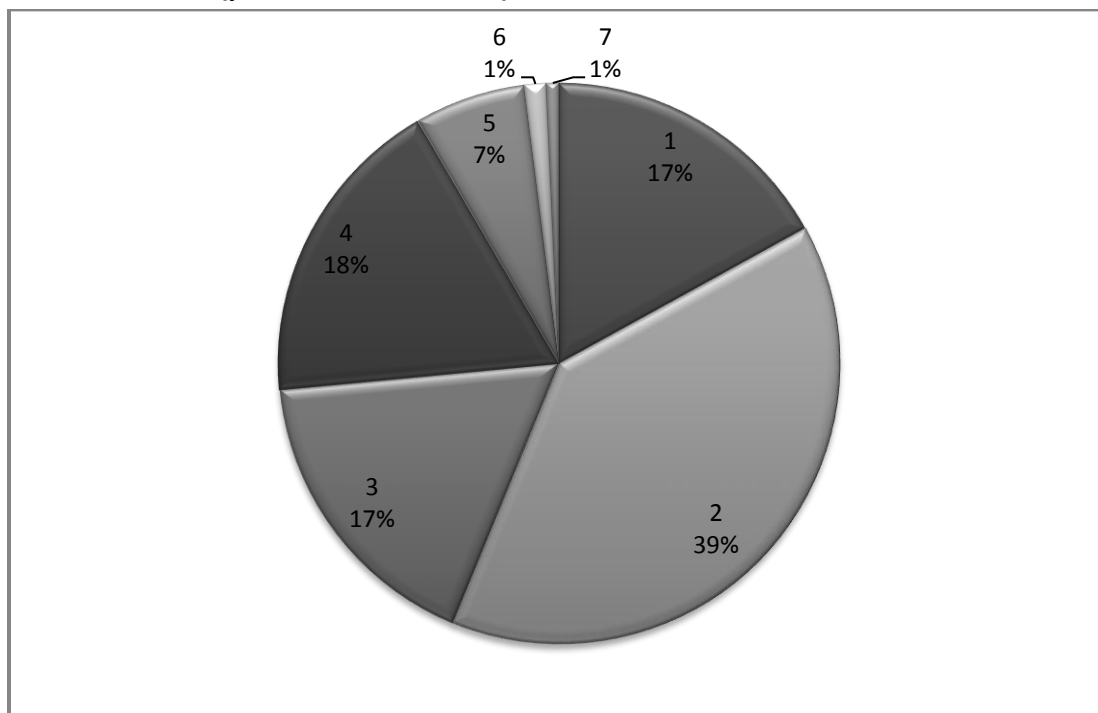
	1989	1999	2009	2013
<b>Charlotte</b>	<b>\$51,004</b>	<b>\$62,313</b>	<b>\$92,475</b>	<b>\$110,344</b>
Chittenden County	\$36,877	\$47,673	\$59,634	\$63,989
Vermont	\$29,727	\$40,856	\$51,284	\$54,267

Source: US Census Data 1990, 2000; 2010

**2.4****HOUSING**Households**Table 7: Total Number of Dwelling Units 1990-2010**

	1990	2000	2010	Percent Change 1990-2000	Percent Change 2000-2010	Percent Change 1990-2010
<b>Charlotte</b>	1329	1500	1706	12.9%	13.7%	28.4%
<b>Chittenden County</b>	52095	58864	65722	13.0%	11.7%	26.2%
<b>Charlotte as % of Chittenden County</b>	2.6%	2.5%	2.6%			

Source: US Census Data 2010 Summary File 1.

**Household Size (persons / household), 2010**

Housing Trends**Table 8: Market Conditions**

	Charlotte	Chittenden County	Vermont
Number of primary residences sold, 2015	43	2,138	6,473
... single family homes	41	1,546	5,503
... condominiums	1	576	789
... mobile homes with land	1	16	181
Average price of primary residences sold, 2015	\$405,734	\$298,075	\$227,217
... single family homes	\$416,604	\$325,827	\$234,063
... condominiums	\$320,000	\$228,790	\$212,400
... mobile homes with land	\$45,826	\$110,895	\$83,653
Median price of primary residences sold, 2015	\$369,000	\$270,000	\$198,000
... single family homes	\$370,000	\$294,050	\$205,000
... condominiums	\$320,000	\$200,000	\$190,000
... mobile homes with land	\$45,826	\$124,000	\$75,000

**Table 9: Vacant Units**

Year	Charlotte Total	Charlotte Seasonal, Recreational, Occasional Use	Chittenden County	Vermont
1980	31	---	1,507	17,619
1990	233	184	3,656	60,564
2000	213	174	2,412	53,748
2010	287	238	3,895	66,097

Source: U.S. Census Bureau - Census of Population &amp; Housing, 2010

Housing Stock**Table 10: Types of Housing**

	Charlotte	Chittenden Co.	Vermont
Total housing units, 2010	1706	65722	322539
... owner-occupied	1189	40310	181407
% owner occupied	70	61	56
... renter-occupied	230	21517	75035
% renter-occupied	13	33	23

Source: U.S. Census Bureau - Census of Population &amp; Housing, 2010

Housing

The type, location, and price of housing affects the social, economic, and physical character of the Town. Historically, housing in Charlotte has been concentrated in village settlements, clustered in summer camp areas along the shoreline, or located in a dispersed pattern on farms and in the surrounding countryside. It is this dispersed pattern that has become prevalent in the last 30-40 years. Subdivisions in the rural areas have increased the percentage of “rural residents,” while the village settlements have grown only slightly, and the summer camp areas have increasingly been converted to year-round residences.

While this dispersed pattern has offered many people a desirable rural lifestyle, it has eroded the open spaces and viable farmland so important to the Town's landscape, and it has created strips of development along the Town's roads and highways. As important, it has failed to locate housing more convenient to services and prospective public transportation.

Since at least 1990, the Town Plan has discouraged these dispersed patterns of development. During the Town Plan 2002 update, the 100+ residents attending community meetings, others working on Town Plan Update Committees and the 215 people completing written surveys reinforced the importance of curtailing these development patterns. They generally recommended that clustered housing and well-designed, integrated, viable Planned Residential Developments should be even more strongly encouraged by Town regulations to help better protect natural resources and large undeveloped parcels of land.

The majority of respondents to the 2006 survey and those attending public sessions for the 2008 Town Plan update continue to want the Town to remain rural and to protect the working farms. Although homeowners choose to live in Charlotte for its rural character and open farmland, the increase of residents is diminishing the character that makes Charlotte so attractive. Furthermore, in some parts of Town conflicts have surfaced between farming operations and their residential neighbors, as residents become concerned about the impacts of farming, such as surface and groundwater pollution, odor from manure, noise and light from night-time work, and oversized farm vehicles on Town roads.

#### Affordability of Housing (Median sales price, Rental rates in relation to income)

Housing prices in Charlotte are high relative to the County and State. The 2000 Census indicated that the median value of dwellings in Charlotte was \$203,100, compared with \$136,500 for Chittenden County and \$111,200 for the State. These indicators were not collected for Census 2010. Notwithstanding that Census 2000 has a limited level of comparison with American Community Survey 5-year estimates, **Table 11** (below) indicates housing units have more than doubled in value since 1999.

**Table 11: Median Value of Owner-Occupied Housing Units**

Year	Charlotte		Chittenden Co		Vermont	
	Result	MOE±	Result	MOE±	Result	MOE±
2000*	\$203,100	N/A	\$136,500	N/A	\$111,200	N/A
2005-2009	\$424,600	\$60,771	\$246,000	\$2,972	\$200,600	\$1,478
2007-2011	\$477,300	\$59,450	\$263,200	\$3,646	\$213,000	\$1,574
2009-2013	\$490,700	\$41,761	\$267,500	\$3,281	\$216,800	\$1,536

Source: US Census Bureau – American Community Survey. \*Census 2000 figures (sample-collected data for 1999)

**Table 12: Owner-Occupied Housing Costs, 2009-2013**

	Median Household Income	Median value of owner-occupied housing unit	Median Sales Price of owner-occupied housing unit	% of owner-occupied units at or above 30% household income	% of owner-occupied units at or above 50% household income
Charlotte	\$110,344	\$490,700	\$369,000	23.4%	9.3%
Chittenden Co	\$63,989	\$267,500	\$270,000	29.4%	10.1%
Vermont	\$54,267	\$200,600	\$198,000	32%	12%

Source: US Census Bureau – American Community Survey

**Table 13: Rental Housing Costs, 2009-2013**

	Median Gross Rent (All Units)	As percentage of household income	% of housing units with gross rent at or above 30% household income	% of housing units with gross rent at or above 50% household income
Charlotte	\$1,418	28.4%	44.5%	13.9%
Chittenden Co	\$1,026	32.6%	55.7%	29.4%
Vermont	\$875	31.1%	52.5%	26.4%

Source: US Census Bureau – American Community Survey

Average sale prices increased almost 40% between 2000 and 2006, and almost 200% since 1986. Some of the increase is influenced by sales of waterfront properties; nevertheless non-waterfront properties have increased significantly as well.

**Table 14: Average Housing Sale Prices in Charlotte 1986-2006**

Year	1986	1993	1998	2000	2006
<b>All Sales</b>	\$163,906	\$230,000	\$331,094	\$347,040	\$483,400
<b>Residential</b>					\$567,000
<b>&lt;5 acres</b>	\$101,048		\$254,803	\$258,144	\$585,900
<b>&lt;5 acres non-waterfront</b>					\$352,600

Source: Vermont Department of Taxes and Multiple Listing Service (1993)

There are a limited number of dwellings that are available for families with a median-level income, as well as incomes that are lower than median. For example, based on the 2000 Census, 89% of homes in Charlotte are single-family dwellings, while approximately 9% are attached, and 2% are mobile homes. Furthermore, there are a limited number of rental properties available (approximately 13%), and most of these are single-family dwellings or seasonal dwellings.

Many factors play a role in the price of housing, including the desirability of the Town as a place to live. The predominance of poor quality soils for on-site sewage disposal, the lack of municipal sewer or water systems, and the five acre density requirement for residential dwelling units are all contributing factors. Additionally, many building sites require mound systems to overcome the limitations for sewage disposal, which contribute to the cost of housing.

As a result of these factors, most new housing in Charlotte is considerably above what is considered “affordable” or even “moderate” (based on Chittenden County thresholds) even when the Planning Commission has required clustered developments. For example, homes that were built in a recent subdivision, which was approved (as a planned residential development) with building lots of one acre and less and a restriction on dwelling sizes of 2,500 square feet, have sold in the range of \$350,000 to \$450,000.

This situation has contributed to a lack of affordable housing for low- and moderate-income families, and a concern for the Town's ability to achieve social, economic, and cultural diversity in Town.

The Town took a big step towards addressing the lack of affordable housing when it adopted new Land Use Regulations in March 2006. The new regulations provide a much higher density allowance — 1/4 acre in village areas, ½ acre for adaptive reuse, and 1 acre in rural areas — for housing that is permanently affordable. The regulations are the culmination of a several-year effort by the Charlotte Affordable Housing Committee, the Planning Commission, the Selectboard, and many others who worked on this provision, as well as an earlier provision that the Town voted down the previous year.

In November 2006, a non-binding ballot item was approved supporting implementation of the master plan for the Town-owned Burns parcel, which included the creation of up to nine affordable dwellings. In preparing for Town Meeting 2007, the Selectboard initially planned on asking voters to approve the conveyance of five acres of the Burns parcel to a non-profit housing organization, but ultimately decided against warning this ballot item because of new information that was recently generated regarding the use of the wastewater disposal capacity on the parcel. The Selectboard is still analyzing information and options for the parcel.

The Charlotte Affordable Housing Committee has also been working with interested landowners to identify sites for either the conversion of existing dwellings or the development of new dwellings for affordable housing. The Committee has worked on several other initiatives as well, including the creation of a dedicated Town fund to be funded by the municipal property tax, similar to the Conservation Fund. The fund, named the Charlotte Housing Trust Fund, was approved by voters at Town Meeting 2007, as was initial funding of \$40,000 per year for three years from the municipal budget.

In the summer and fall of 2006, with the assistance of a grant from the Vermont Housing and Conservation Board, the Town contracted with Douglas Kennedy of LandVest to conduct an Affordable Housing Needs Assessment. The study had several purposes:

1. To compare the availability of affordable housing to the need, in order to obtain a rough estimate of the number of affordable dwellings that are needed in Town;
2. To determine the type of dwellings that are needed, e.g. the number of bedrooms, and rental or owned; and
3. To conduct a survey of residents and those who work in Town which will assist with analyzing the above questions by querying residents about whether their offspring or parents are in need of affordable housing, and also by querying people who work but do not live in Town whether housing affordability is a factor in their decision to not live in Town.

Below are excerpts from the Executive Summary of the study, which used a market-based approach:

*For purposes of the needs assessment, three ‘market areas’ were defined for analysis:*

1. *The Town of Charlotte;*
2. *The ‘Primary Market Area’ – defined as the area within seven to eight miles of the center of Charlotte—this is the geographic area from which the majority of residents of a Charlotte-based affordable housing project would most likely be drawn; and*
3. *The ‘Region’ - defined as the area within 17 to 18 miles of the center of Charlotte—this area was used to identify some of the broader demographic changes occurring in the Charlotte area.*

The demand side of the analysis focused on estimating the number of households that might be eligible for and interested in moving to an affordable dwelling. These estimates were performed at a number of levels – ranging from rental housing (oriented toward very low income households) to ownership housing (oriented toward moderate income households). Affordable demand is summarized below – broken down by rental/ownership and income level in terms of number of households. The figures are for the Primary Market Area, the most realistic area from which to estimate demand for affordable housing in Charlotte.

**Table 15: Summary of Demand in Primary Market (# of Households)**

	Rental Demand		Ownership Demand
	Family	Elderly	Total
<b>&lt;50% Median Income</b>	103	20	
<b>50-60% Median Income</b>	67	11	
<b>60-80% Median Income</b>	77	12	118
<b>80-100% Median Income</b>			107
<i>Source: “Market Study of Affordable Housing Needs in Charlotte Vermont”, Douglas Kennedy, December 2006</i>			

The supply side of the analysis looked at existing housing supply, with a focus on housing that is affordable to – or specifically targeted to – households with low to moderate incomes. It is estimated that in the Primary Market Area the current supply of affordable housing is approximately 245 in the rental market and 209 in the ownership market.

Rental housing vacancy is low and market rents have moved up at a strong pace in recent years.

The median price of R1 residential properties sold in Charlotte increased at an annual rate of 12.5 percent between 2000 and 2005. The number of lower value (less than \$200,000) homes available on the market has declined significantly in the town in recent years. Although the grand list indicates that properties in this price bracket remain, sales and listing data make it clear that few are available on the market.

Seasonal housing accounts for 12 percent of Charlotte’s housing stock. The seasonal housing stock in combination with significant waterfront real estate has tended to push pricing upward in the community. We note that comparatively high housing values in Charlotte act to prevent some households from living in the town.

There are several recent rental and ownership housing projects oriented toward the affordable market in the area. All of these projects have experienced strong demand and are either at or near 100 percent occupancy or completely sold out.

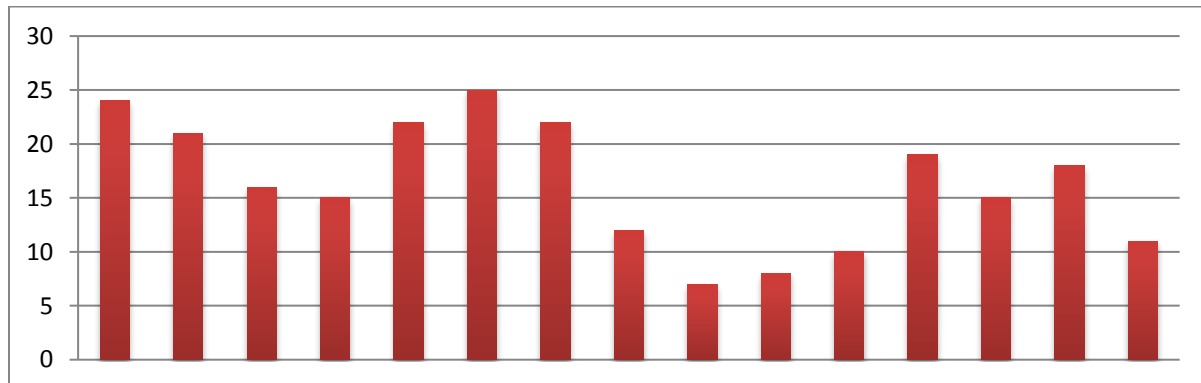
The findings indicate a combined gap (family and elderly, all income groups) in rental categories is approximately 46 units; the gap for families alone is 36. Findings also show a need for 16 ownership units at the primary market area level. Overall, these findings are relatively consistent with the Regional Housing Targets (see below) of approximately 40 affordable and moderate units in Charlotte between 2000 and 2010, although the LandVest study is seemingly based on more specific analysis than the Regional Housing Targets.

**Table 16: Residential Values in Charlotte – 2000 & 2006**

Value	2000		2006	
	Sales	Units	Sales	Units
<b>Up to \$100,000</b>	3	61	0	13
<b>\$100,001 - \$150,000</b>	5	186	1	38
<b>\$150,001 - \$200,000</b>	11	220	2	78
<b>\$200,001 - \$250,000</b>	4	180	6	147
<b>\$250,001 - \$300,000</b>	5	181	5	140
<b>More than \$300,001</b>	19	403	35	858
<b>Total</b>	<b>47</b>	<b>1,231</b>	<b>49</b>	<b>1,274</b>

Source: Charlotte Listers Office

**Residential Building Permits Issued, Town of Charlotte, 2000-2014**



Source: U.S. Census Bureau - Census of Population & Housing, 2010, Town of Charlotte Planning & Zoning



## 2.5

## ECONOMIC CONDITIONS

**Employment:** Employment refers to the number of individuals at work. Employees mean only wage and salary workers, and excludes the self-employed. The labor force means individuals who are either working or not working but actively looking for work (the unemployed).

**Compensation:** Compensation means all monetary and in-kind benefits (including health insurance, sick leave, etc.) that a worker receives. Earnings mean all monetary compensation. Wages are monetary compensation paid by an employer (i.e., excluding self-employment earnings) and may exclude irregular pay such as bonuses. Benefits are non-monetary forms of compensation.

**Industry and Occupation:** For more information, see the Census Bureau's [Frequently Asked Questions on Industries and Occupations](#), [contact the industry and occupation statistics branch](#), and [Comparisons of ACS-CPS Data on Industry, Occupation, and Class of Worker](#).

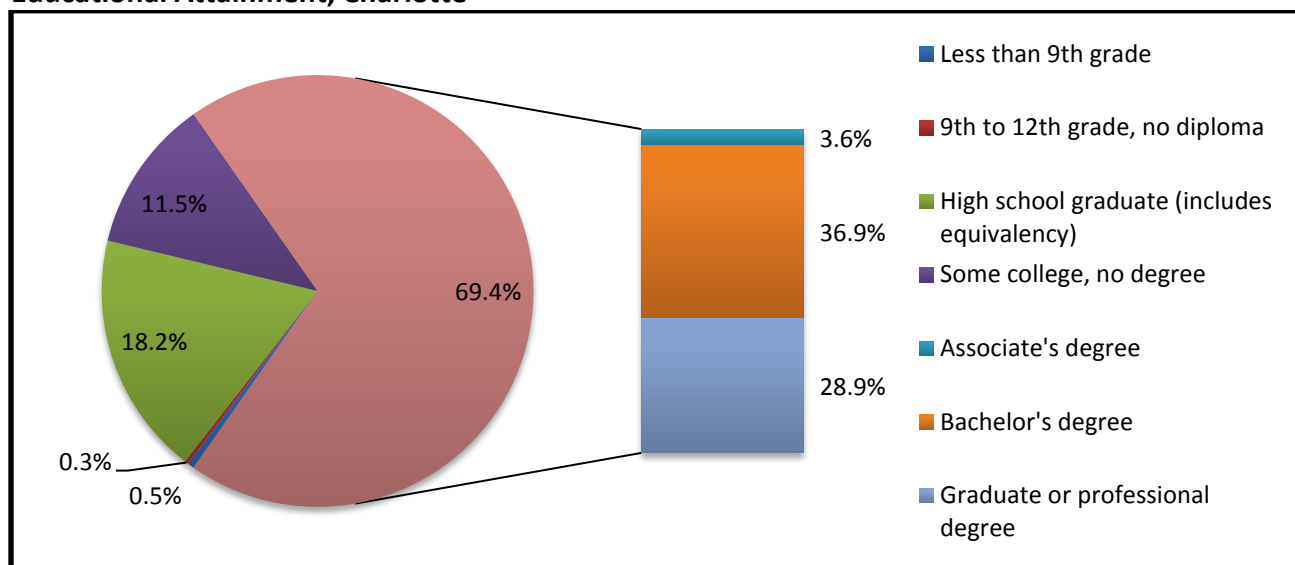
### Workforce

**Table 17: Civilian Labor Force**

	1990	2000	2010	2015
<b>Charlotte</b>				
Total	1,950	1,980	2,110	2,170
Employed	1,910	1,940	2,030	2,130
Unemployed	40	40	80	50
Unemployment Rate	2.2	1.9	4.0	2.2
<b>Chittenden County</b>				
Total	78,250	85,250	91,050	95,250
Employed	75,200	83,350	86,450	92,700
Unemployed	3,050	1,850	4,600	2,600
Unemployment Rate	3.9	2.2	5.0	2.7
<b>% County</b>				
Total	2.5%	2.3%	2.3%	2.3%
Employed	2.5%	2.3%	2.3%	2.3%
Unemployed	1.3%	2.2%	1.7%	1.9%
<b>Vermont</b>				
Unemployment Rate	4.9	2.7	6.2	3.7

Source: Vermont Department of Labor, Labor Market Information

### Educational Attainment, Charlotte

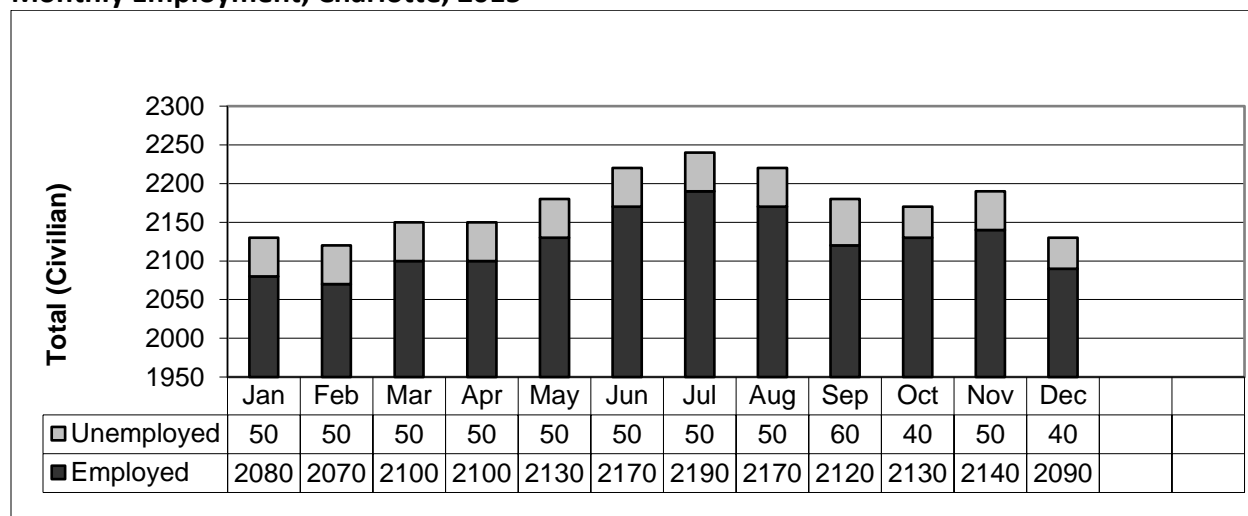


Source: American Community Survey, 2010-2014

Charlotte has a population comparably educated to the rest of Chittenden County. Two exceptions to this statement include a lower percentage of those 25 years and younger without a high school diploma which is estimated at 0.8% for Charlotte and 6.1% for the county and those with an Associate's degree or higher which is estimated at 69.4% for Charlotte and 56.6% for the county. **Insert info on trade schools?**

### Unemployment

#### Monthly Employment, Charlotte, 2015



Source: Vermont Department of Labor, Labor Market Information Website

Recent American Community Survey figures impute that of the estimated 2,192 people in Charlotte's labor force that were 16 years and over during 2010-14, 95.7% were employed. This figure dropped from the reported 98.6% employment of the labor force in the 2000 Census.

Establishments, Worksites and Employers:

An establishment is an economic unit, such as a farm, factory, or store, which produces goods or provides services at a single physical worksite and engaged, predominantly, in one type of economic activity. Most employers operate only one establishment or place of business so all of their activity is reported under one reporting unit. Employers who operate more than one establishment in the state are requested to report each worksite separately.

In some cases the employer aggregates the worksites into several units, though not at the establishment level. Occasionally, a single physical location encompasses two or more distinct and significant activities that, if possible, are reported as separate units. In these cases, a reporting unit is only one worksite, or a group of worksites, or part of a worksite and not all of an employers' activity in the state.

**Table 18: Establishments**

	Charlotte			Percent Change	As Percentage of Total in Charlotte	As Percentage of Total in Chittenden Co.
	2000	2010	2014	2010-2014	2014	2014
<b>Total</b>	<b>108</b>	<b>116</b>	<b>140</b>	<b>29.6%</b>	<b>100.0%</b>	2.2%
Private	102	113	137	34.3%	97.9%	2.2%
Goods	19	22	28	47.4%	20.0%	3.3%
Ag/For/Fish	3	3	3	0.0%	2.1%	12.0%
Construction	13	16	20	53.8%	14.3%	3.3%
Manufacturing	3	3	5	66.7%	3.6%	2.3%
Services	83	92	109	31.3%	77.9%	2.1%
Wholesale Trade	7	8	10	42.9%	7.1%	2.5%
Retail Trade	15	8	10	-33.3%	7.1%	1.3%
Transport	1	1	1	0.0%	0.7%	0.8%
Utilities	0	1	1	100.0%	0.7%	20.0%
Information	3	9	7	133.3%	5.0%	4.6%
Financial	2	4	4	100.0%	2.9%	0.7%
Prof/Bus	28	30	43	53.6%	30.7%	2.8%
Educ/Health	7	7	9	28.6%	6.4%	1.4%
Leisure/Hospitality	3	4	6	100.0%	4.3%	1.1%
Other	17	20	19	11.8%	13.6%	3.5%
Government	6	3	3	-50.0%	2.1%	1.3%
Federal	3	1	1	-66.7%	0.7%	1.6%
State	1	0	0	-100.0%	0.0%	0.0%
Local	2	2	2	0.0%	1.4%	1.6%
Public Admin	1	1	1	0.0%	0.7%	1.9%
Education	1	1	1	0.0%	0.7%	4.0%

Source: Quarterly Census of Employment and Wages Program (QCEW) produced by the Economic and Labor Market Information Division of the Vermont Department of Labor in cooperation with the U.S. Bureau of Labor Statistics.

**Table 19: Employment**

	Charlotte			Percent Change	As Percentage of Total in Charlotte	As Percentage of Total in Chittenden Co.
	2000	2010	2014	2010-2014	2014	2014
<b>Total</b>	<b>566</b>	<b>441</b>	<b>524</b>	<b>18.8%</b>	<b>100.0%</b>	<b>0.53%</b>
Private	438	322	417	29.5%	79.6%	0.50%
Goods	86	57	68	19.3%	13.0%	0.44%
Ag/For/Fish	10					
Construction	61	34	43	26.5%	8.2%	0.87%
Manufacturing	16					
Services	351	265	349	31.7%	66.6%	0.52%
Wholesale Trade	18	15	17	13.3%	3.2%	0.51%
Retail Trade	116	31	29	-6.5%	5.5%	0.23%
Transport						
Utilities						
Information		38				
Financial						
Prof/Bus	94	73	86	17.8%	16.4%	0.70%
Educ/Health	34	40	50	25.0%	9.5%	0.29%
Leisure/Hospitality	21		69			0.68%
Other	27	29	30	3.4%	5.7%	0.43%
Government	128	119	108	-9.2%	20.6%	0.65%
Federal	12	9	2	-77.8%	0.4%	0.09%
State	8	0				
Local	108	110	106	-3.6%	20.2%	1.44%
Public Admin	14	14	16	14.3%	3.1%	1.09%
Education	94	96	90	-6.3%	17.2%	1.83%

Source: Quarterly Census of Employment and Wages Program (QCEW) produced by the Economic and Labor Market Information Division of the Vermont Department of Labor in cooperation with the U.S. Bureau of Labor Statistics.

**Table 20: Wages and Earnings**

	Charlotte			Chittenden Co	State	% Difference Town / County	% Difference Town / State
	2000	2010	2014	2014	2014	2014	2014
<b>Average Wage</b>							
<b>Total</b>	<b>\$29,477</b>	<b>\$44,527</b>	<b>\$46,238</b>	<b>\$49,663</b>	<b>\$43,017</b>	<b>-7.4%</b>	<b>7.0%</b>
Private	\$29,816	\$45,344	\$47,336	\$48,852	\$42,158	-3.2%	10.9%
Goods	\$24,314	\$38,195	\$42,796	\$61,986	\$51,090	-44.8%	-19.4%
Ag/For/Fish	\$11,860	NA	NA	\$23,273	\$30,641		
Construction	\$28,090	\$41,141	\$41,879	\$53,767	\$46,228	-28.4%	-10.4%
Manufacturing	\$17,073	NA	NA	66545	55290		
Services	\$31,170	\$46,889	\$48,218	\$45,884	\$39,963	4.8%	17.1%
Wholesale Trade	\$102,784	\$93,578	\$166,136	\$63,596	\$56,493	61.7%	66.0%
Retail Trade	\$26,966	\$17,564	\$20,243	\$28,589	\$28,356	-41.2%	-40.1%
Transport-Warehouse	NA	NA	NA	\$39,453	\$38,970		
Utilities	NA	NA	NA	\$101,351	\$104,332		
Information	NA	\$71,782	NA	\$60,405	\$53,850		
Fin/Ins/Real	NA	NA	NA	\$69,921	\$61,575		
Prof/Bus+A75	\$31,367	\$51,538	\$63,526	\$66,107	\$58,452	-4.1%	8.0%
Edu/Health	\$23,695	\$34,603	\$38,790	\$50,280	\$42,277	-29.6%	-9.0%
Leisure/Hospitality	\$22,451	NA	\$16,769	\$20,232	\$20,304	-20.7%	-21.1%
Other	\$23,343	\$38,918	\$37,107	\$32,027	\$31,308	13.7%	15.6%
Government	\$28,324	\$41,316	\$41,987	\$53,687	\$47,095	-27.9%	-12.2%
Federal	\$34,098	\$43,269	\$55,729	\$72,500	\$69,254	-30.1%	-24.3%
State	\$35,921	NA	NA	\$55,540	\$52,691		
Local	\$27,108	\$41,148	\$41,738	\$46,021	\$39,047	-10.3%	6.4%
Public Admin	\$9,975	\$22,025	\$24,320	\$47,908	\$36,904	-97.0%	-51.7%
Education	\$29,603	\$43,985	\$44,770	\$45,497	\$39,318	-1.6%	12.2%

Despite the changes in the Town's population and the composition of its workforce, continued presence of a farming population and the Town's relatively low population density help keep Charlotte's rural character.

**Table 21: Population Density (Persons per Square Mile)**

	1960	1970	1980	1990	2000	2010
<b>Charlotte</b>	30.7	43.5	61.7	76.2	86.1	91.0
<b>Chittenden County</b>	138.0	183.9	214.3	244.4	271.9	291.7
<b>Vermont</b>	40.5	46.2	53.2	58.5	65.8	67.9

Source: Calculated from U.S. Census data

Charlotte's density grew from 62 persons per square mile in 1980 (or about one person for every 10 acres), to 76.2 persons per square mile in 1990, and to 86.1 persons per square mile in 2000, and 91 persons per square mile in 2010. Several of the aforementioned trends in the socioeconomic data raise some issues that the Town must address in order to accomplish town-wide goals:

- ¶ How to maintain the social and economic diversity of the Town in the face of increasing incomes of residents and the declining farm population;
- ¶ How to identify and address the needs of the low and moderate income persons and the over age-65 population in the Town;
- ¶ How to monitor and address the Town's growth rate in order to provide efficient delivery of Town services while maintaining the Town's rural character and primarily volunteer form of government; and
- ¶ How to plan for energy-efficient and economical transportation for the commuting workforce.

**2.6****UTILITIES, FACILITIES & SERVICES****Local Government**

Local government in Charlotte is primarily a volunteer form of government. Volunteers serve as elected board members and on appointed boards, commissions and committees. Following is a list of current boards, commission and committees: Board of Auditors, Cemetery Commission, Conservation Commission, Design Review Committee, Energy Committee, Planning Commission, Recreation Commission, Trails Committee, Village Wastewater Committee, and Zoning Board of Adjustment.

Town employees include the Town Clerk / Treasurer, Assistant Clerk / Treasurer, Town Administrator, Town Planner, Zoning Administrator (who is also Sewage Control Officer and Deputy Health Officer), Administrative Assistant to the Planning & Zoning Department, Senior Center Coordinator, Senior Center Activities Director, Recreation Coordinator, Library Director, Library Assistants, Youth Librarian, and Listers. The following services are provided contractually: engineering services (primarily review for sewage and subdivision permits), highway maintenance, professional assessor, and legal services.

**Local Schools and Childcare**

Due to both its fiscal and social significance, education is perhaps the single most important community service provided by the Town of Charlotte. Socially, the education services have a critical impact on the lives of Charlotte's youth. In addition, the school provides a focus for community activities. In 1995 school expenditures were \$4,704,162, which accounted for 79% of all municipal expenses. In 1999 fiscal year budget, expenditures for schools (\$5,764,861), increased to 81.8% of total municipal expenses, representing a 22.5% increase over 1994-1995. In FY06 total expenditures were \$8,908,560.

**Charlotte Central School**

Charlotte has one public school, Charlotte Central School, which provides education for kindergarten through eighth grade. It also serves as a place for large gatherings, such as Town Meeting. The school is centrally located on Hinesburg Road just west of the intersection with Mt. Philo Road. Charlotte Central School was constructed in 1949 and added to in 1969, 1987 and 1996. The 1987 improvement added a multi-purpose gym, five classrooms, a lab, and spaces for technical education, art, and living arts to the school. In 1996 a second story and a full size gym facility was added. There are 44 classrooms, a gym, cafeteria, and library within the building. Outside there is a playground and playing fields, which were improved in 2000, and provide recreational space for the entire Town

In previous years the Charlotte School Board projected that physical expansion and renovation projects would be necessary. Since then the Town has completed the most recent expansion; the School Board does not project a need for expansion in the near future. The capacity of the school is 620 students; in 2005 enrollment was 506. Over the past ten years, the highest enrollment was 535 students, which was in 1999. The School Board and Chittenden South Supervisory Union had forecasted that enrollment would continue to decline, reaching

approximately 375 students in 2016. However, this decline did not prove to be quite as dramatic, only dropping to 423 students in 2015.

Currently, there are 91 full-time and part time teachers and staff (67 Full Time Equivalent) employed at the school.

**Table 22: Charlotte Central School Enrollment and Teaching Staff Trends, 1980-2015**

Year	Students	Teachers (FTE)	Year	Students	Teachers (FTE)	Year	Students	Teachers (FTE)	Year	Students	Teachers (FTE)
1980	435	25	1990	473	32	2000	529	49.11	2010	462	38.18
1981	425	25	1991	467	32.9	2001	517	46.91	2011	451	36.78
1982	392	24	1992	479	33.9	2002	533	47.4	2012	473	37.54
1983	374	26	1993	488	34.2	2003	521	46.29	2013	465	36.24
1984	350	26	1994	501	34	2004	521	47.26	2014	452	30
1985	341	28.5	1995	498	35.6	2005	506	47.56	2015	423	29.15
1986	369	27.9	1996	514	37.26	2006	476	42.08			
1987	392	27.9	1997	514	37.1	2007	470	39.66			
1988	425	30.7	1998	525	39.1	2008	462	41.66			
1989	450	31.5	1999	535	42.71	2009	470	40.66			

Source: Charlotte Central School, Chittenden South Supervisory Union, and the Vermont Department of Education

### Champlain Valley Union High School

High school students attend Champlain Valley Union High School (CVU) in Hinesburg along with students from Shelburne, Williston, St. George, and Hinesburg. CVU was built in 1962 and added to in 1979, 1983 and 2005. Site improvements were made in 1987 and 2005.

1,371 students were enrolled in the 2005-06 school year, 17% of which were from Charlotte. The Chittenden South Supervisory District estimated the 2007-08 enrollment to be 1,374 students, and then enrollment will start to decline, reaching 1,198 in 2012-13. However, as with the estimates for the Charlotte Central School, the actual trend deviated rendering enrollments of 1,245 students in 2013; 1,279 in 2014; and 1,210 in 2015.

In addition to CVU, high school age students may attend the Center for Technology in Essex or the Burlington Technical Center. CVU also provides educational opportunities for adults through the Access Program.

### Child Care

Title 24 VSA Section 4302(13) states that towns' planning processes include the following goal: "to ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development."

### Existing Services

There are currently four known facilities that provide child care in Town, based on a 2005 inventory conducted by Child Care Resources (a consulting firm located in Williston) and



supplied by Chittenden County Regional Planning Commission. The Deer Path School on Greenbush Road discontinued its operation in 2003.

The Charlotte Children's Center is located in the West Charlotte village, and is run as a not-for-profit organization. The Children's Center opened in 1984. It runs a daytime program for children between six weeks old to Kindergarten age, and an after-school program for Kindergarteners. It is licensed to serve 38 children. The program has positive relationships with the Senior Center, the Charlotte Fire and Rescue, the Library, and until its recent move to Shelburne, the Flying Pig Bookstore. Crossing Ferry Road from the Children's Center to the Library can be difficult because of the speed of car traffic. The cost of the program is relatively high (approximately \$6,000/year) however the Center has attempted to implement a scholarship program. According to management (Kristin McClary, the Executive Director) the main limiting factor for accepting more children is wastewater disposal capacity. Maintenance of the building can be an issue, since the building is an older structure. Parking is not a limiting factor. The Center has not had a problem finding employees, most of whom are not from Charlotte.

The YMCA, which is also a not-for profit organization, uses the Charlotte Central School facility. It is a licensed child care program, and serves school-age children with after-school activities until 6 p.m. The program has a capacity for 50 children, but usually serves 20-25 children who tend to be from Kindergarten through third grade ages. A summer program is run in Shelburne, and an infant/toddler program is run in Burlington. Management (Marsha Faryniarz) has indicated that additional infant/toddler services are needed throughout the county, but it requires a higher ratio of staff to children (1 staff person to every 3 children) than higher ages, so is more expensive to run. A subsidy is provided by the state to families that meet income criteria, and the YMCA makes scholarships available to families who don't qualify for the state subsidy but still need some assistance. Except for additional infant/toddler services, management did not indicate that the Charlotte program has any particular needs. The program has not had a problem finding staff, most of whom are from Burlington.

The two other facilities are privately run for-profit businesses: Creative Explorer's Daycare is located on One Mile Road, and Kid Zone on Dorset Street near the Shelburne Town line.

Many parents who work in other towns use child care facilities that are closer to their places of employment, as this provides convenient visiting, drop off and pick up arrangements. Some employers provide child care as a means of attracting employees. Charlotte residents who work in the larger towns in Chittenden County and Addison County likely use child care services in those towns.

#### Public Safety: Fire, Rescue, and Police

Public safety services are provided by Charlotte Fire and Rescue Services, Inc. (CVFRS) and the Vermont State Police. The State Police provide police service to the Town, with the exception of dog complaints, which are handled by the Town's Animal Control Officer.

The State Police currently have one officer assigned to the “South Patrol” which includes Charlotte, Huntington and St. George, although staffing has been reduced in the past few years. The Shelburne Police also respond to incidents in Charlotte. Both the State Police and Shelburne do not charge Charlotte for their service, although this may change in the future. The Town has also hired the Chittenden County Sheriff to enforce speed limits. Speeding vehicles on local roads is an important safety issue that should be addressed in the near future. The Town has, on occasion, undertaken traffic studies to determine appropriate speeds, and adopted and updated a Traffic Ordinance to establish speed limits. To obtain local police protection service the Town has four options in the near term: 1) employ our own police force; 2) establish a volunteer police department; 3) contract for police services with an adjoining town; or 4) enable the Town Constable to have law enforcement authority. Over the next five years it is not expected a full-time police department will be required.

CVFRS is a private, not-for-profit corporation run by its volunteer members and governed by a 10 person Board of Directors. It is comprised of two agencies – the Charlotte Volunteer Fire Department and the Charlotte Volunteer Rescue Squad. There has been a steady increase in both Fire and Rescue responses over the past 5 to 6 years.

As of 2015 there were 36 volunteers in the Fire Department which responds to fires, hazard conditions, mutual aid calls to neighboring departments, and false alarms. Assistance is also provided to the rescue squad. In addition the department is responsible for training its members, maintaining the facilities and equipment, fire prevention, and participation in community events.

As of 2015 there were 5 volunteers on the Rescue Squad (a sharp decline from past years) and 18 paid staff. In the past, a varying number fire-fighters have also been qualified to drive the ambulance. Paid Emergency Medical Technicians (EMTs) are on duty six days per week, 7 a.m. to 5 p.m. The Town expects to continue to rely on the volunteer fire department and rescue squad.

In November 1998, the Town voters approved a \$450,000 bond to finance the reconstruction of the fire station and the purchase of a new ambulance.

During 2000-2001, the Fire Department and the Rescue Squad rebuilt the fire station now consisting of a four-bay station and a second building consisting of meeting and training rooms and enhanced facilities located on F5 (Ferry Rd.) just west of the Route 7 intersection. Charlotte Fire and Rescue has considered the need for a Fire-Rescue sub-station to be located on the east

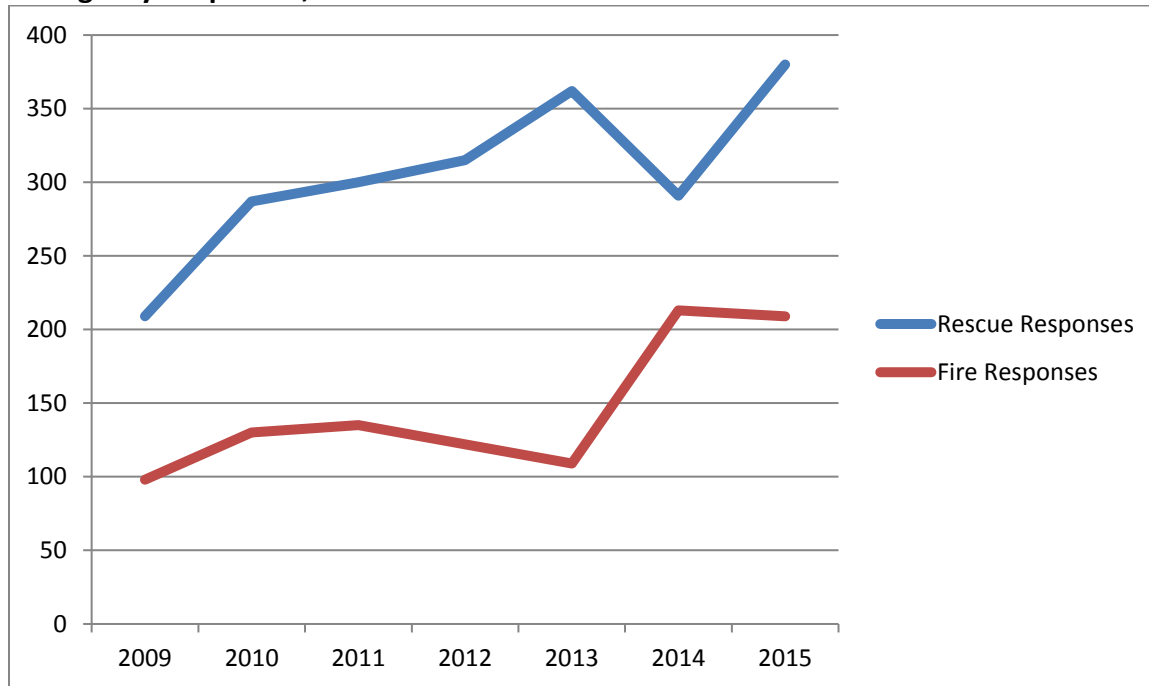
**Table 23: Emergency Response Volunteers for Charlotte, 2005-2015**

Year	Fire Department Volunteers	Rescue Squad Volunteers	Rescue Squad Paid-Staff
<b>2015</b>	36	5	18
<b>2014</b>	23	15	15
<b>2013</b>	22	14	14
<b>2007</b>	37	30	18
<b>2005</b>	29	36	15

Source: Town Annual Reports

side of Town, preferably near the Spear Street-Hinesburg Road intersection to ensure adequate protection for this area.

#### Emergency Responses, CVFRS 2009-2015



Source: CVFRS, 2015

CVFRS has planned for the replacement of the 1980 pumper, 2006 Ambulance, and 1993 tanker over the next 5 years. They have also planned for the replacement of a thermal imagery camera, airpack bottles and bunker gear and the addition of airpack bottles, a stretcher, lifepacks and airbags over this same timeframe.

The Charlotte Volunteer Fire Department oversees 67 dry hydrants in town, inspecting regularly and working with owners if maintenance problems exist.

**Table 24: VT State Police Report**

	Patrol Activity	Incident Activity
<b>Apr-16</b>	78	12
<b>2014/15</b>	2601	31
<b>2013/14</b>	2476	12

Source: Charlotte Town Administrator

The Town has completed an Emergency Response Plan and a Hazard Mitigation Plan.

#### Municipal Tax Base

Town grandlist (tax base) and tax rate values are provided in the following table:

**Table 25: Grand List and Tax Rates**

Fiscal Year	Grandlist	Town Tax Rate	Education Tax Rate (Nonresidential/ Homestead)	Total Tax Rate
2015/16	\$9,560,151	0.1439	1.4609 / 1.5145	1.6048 / 1.6584
2014/15	\$9,504,758	0.1590	1.5161/1.4375	1.5965 /1.6751
2013/14	\$9,426,058	0.1670	1.460/1.4050	1.6270/1.5720
2012/13	\$9,413,013	0.1121	1.3691/1.3613	1.4812/1.4732

Source: Charlotte Town Clerk, Town Reports

Over the past four years, the town's grand list grew by 16% while total homestead taxes assessed increased over the same period by 13%. In 2015 Charlotte had a lower overall tax rate than Shelburne (1.8526), Hinesburg (2.115), Richmond (2.1315), and Ferrisburgh (1.9).

Town Land and Facilities (Map 8)

Property Id	Facilities	Services / Uses	Other Amenity	Funding Sources	5-10 Year Projects
Town Beach	Bath house	Recreation		Town Budget, Fees	
	Beach	Natural Resource			
	Picnic tables				
	Tennis Courts				
	Volleyball Courts				
	Disc Golf Course				
	Baseball Field				
Town Landfill	Closed landfill	Open		Town Budget	Trailhead Parking?
	Trails	Recreation			
Whalley Woods	Open			Town Budget	
Barber Hill	Open	Open		Town Budget	
	Trails	Recreation			
Charlotte Park & Wildlife Refuge	Open	Natural Resources		Town Budget	Updating Management Plan
	Trails	Recreation		Donations	Long - range park plan (e.g. access / parking)
	Thorp Barn	Historic / Cultural Resource			
Galbreath Property	Open	Scenic		Town Budget	
Walter Irish Senior Center	Senior Center	Senior Programs	Kitchen	Town Budget, Fees	Addition 2016
		Meeting / Banquet space			Parking
		Meals			
Town Pound	Open			Town Budget	Management Plan
Charlotte Museum	Museum	Cultural / Historic Resource		Town Budget	
Town Hall and Library	Town Hall	Governance/ Administration / Organizational Support	Large screen tv, wifi	Town Budget, Fees	
		Meeting space			

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 4<sup>th</sup> 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.<sup>9</sup> 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 4,999 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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<sup>9</sup> Marshall, David S. "Thompson's Point Wastewater Disposal System: 2016 Annual Inspection – System ID-9-0244". Civil Engineering Associates, Inc., August 5, 2016.

**Table 26: Wastewater and Potable Water Supply Permits Issued, 2008-2015**

Year	2008	2009	2010	2011	2012	2013	2014	2015
Number of Permits Issued	32	24	23	24	22	25	19	28

Source: Town of Charlotte Planning & Zoning Office

### Recreation

In addition to the town owned lands and facilities outlined in the table above, Charlotte offers a number of recreation programs including soccer, basketball, lacrosse, drivers education, music lessons and boot camp and pilates for adults. The Town is also working on developing a comprehensive network of trails. Several sections are completed and others are planned as land and money become available (see Transportation section and Trails Vision Map).

### Library

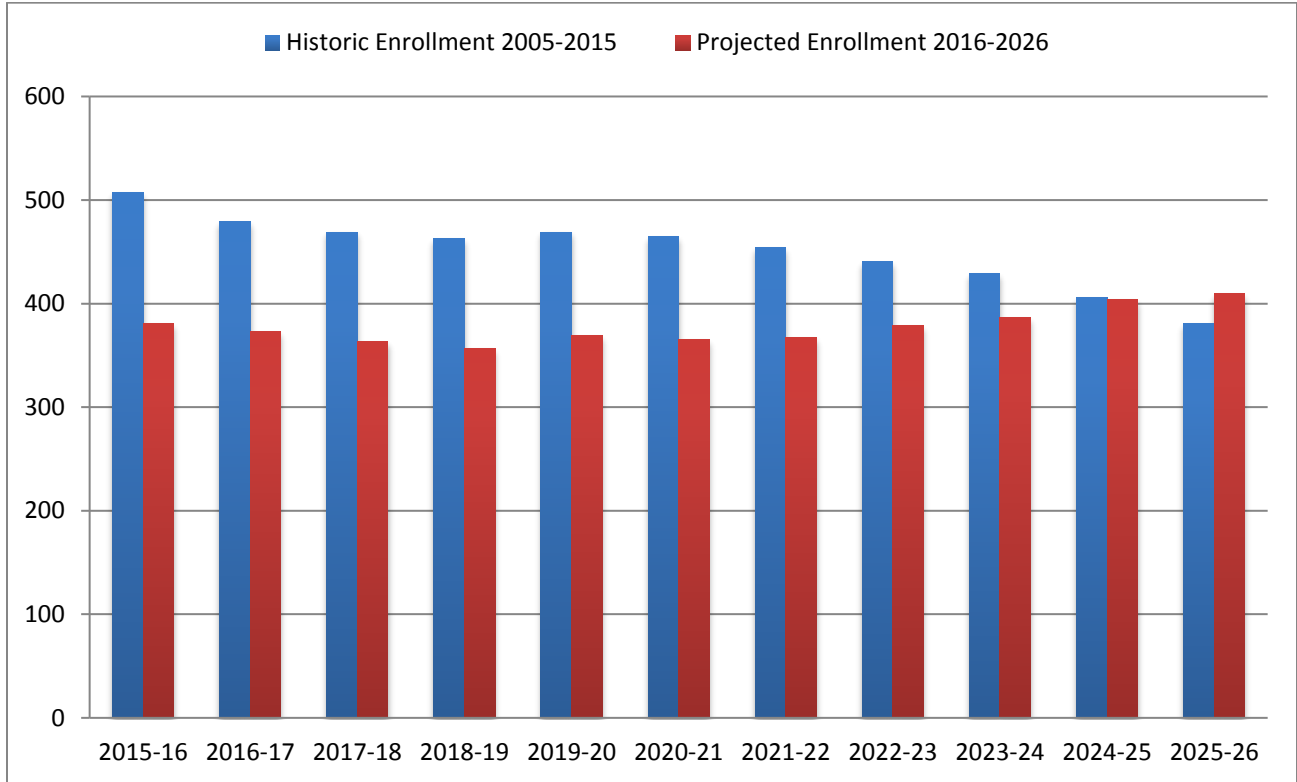
Approximately 61 percent of Charlotte's population borrows from the town library. In addition to having a large book (13,389), audiobook (1,424), and DVD (954) collection, members can download ebooks (4,092) and audiobooks (8,627). The library also offers programs including adult book groups, how-to workshops and guest speakers; and youth story times, after school reading programs, and arts & crafts.

### Education

Charlotte children are served by the Charlotte Central School (PK-8<sup>th</sup> Grade) and Champlain Valley High School (9<sup>th</sup>-12<sup>th</sup> grade).

The chart below depicts historical and projected enrollment for the Charlotte Central School. On average, enrollment is expected to decline over the next 5 years followed by slight increases predicted for 2021-2026. Overall enrollment is, however, lower than has been experienced over the past 10 years. Enrollment at Champlain Valley High School is also expected to be lower.



**Historical / Projected Enrollment, Charlotte Central School (PK-8<sup>th</sup> Grade), 2005-2026**

Source: New England School Development Council Projections, 2015

In response to state incentives for voluntary school district consolidations and mergers (Act 46, 2015), the Chittenden South Supervisory Union voted in 2016 to form a Unified District, which will be known as the Champlain Valley School District.

Childcare in Charlotte is offered by the Charlotte Central School (early childhood (capacity = 12) and school-age care (35)), the Charlotte Children's Center (early childhood program (12)) and 2 registered, private residences (10 each). The State of Vermont, Department for Children and Families maintains the 'Building Bright Futures Child Care Information System' which allows parents to search for licensed and registered providers in their area.

### Solid Waste Management

The town dump closed in August 1992. Charlotte now meets its statutory responsibilities to plan and provide facilities for local solid waste management through its membership and participation in the Chittenden County Solid Waste Management District. The District maintains materials recovery and composting facilities in Williston, and transports other wastes to landfill facilities outside of the county. Currently there are no certified collection or separation facilities located in town – curbside services are provided through private haulers. Recent changes in state laws that apply to all municipalities and the district require the collection and separation of mandated recyclables (2014), leaf and yard residuals (2015), and food residuals (2017) from the waste stream. As of July 1, 2015, all public buildings must include an equal number of recycling and trash containers for public use. In addition, commercial on-farm composting operations – as expected to manage food waste – are not currently addressed under local regulations.

### Telecommunications

Waitsfield – Fayston Telephone Co., Inc. provides telephone service to Charlotte residents. Green Mountain Access and Xfinity provide broadband service. The Department of Public Service has published a map indicating that all of Charlotte is covered by wireless service.

### Other Service Programs / Organizations

The town routinely appropriates monies to the following entities: Lewis Creek Association, Visiting Nurses Association, Champlain Valley Agency on Aging, Women Helping Battered Women, Vermont Center for Independent Living, HOPE Works, Vermont Association for the Blind, Howard Human Services, Chittenden Food Shelf, Committee on Temporary Shelter, American Red Cross, Vermont Rural Fire Protection, Front Porch Forum (new in 2016), Charlotte News and Lund Family Center.

## 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

Route 7 is the main north / south arterial on the western side of the state and has undergone/ is undergoing construction to improve traffic congestion and safety concerns along this route. 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. 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 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**

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.

Between 1999 and 2009 most of Charlotte's gravel roads were reconstructed by stripping grading material and installing a predominantly shale base layer with sections up to 1 foot in thickness. The base was resurfaced with gravel. Additional gravel layers have been applied over time. Shoulder and ditching work was also completed at this time. As a result, the roads themselves are generally in very good condition. Shoulders, drainage ditches, intersecting private roads and driveways and other components of the road system present ongoing maintenance concerns related to ownership, topography, and adjacent land uses. The Town is



### Bus

The Chittenden County Transportation Authority operates a Regional LINK Express Route between Burlington and Middlebury. A commuter parking lot located at the intersection of Route 7 and Church Hill Road serves as limited stop along this route. Service is available Monday through Friday and Saturday.

In 2014, the Town participated in a scoping study for development of a 20-50 space commuter parking facility (park and ride) near Route 7. The current commuter lot used by CCTA was discussed as a candidate for a regional facility.<sup>10</sup>

### Rail

Parallel to Route 7 is the railroad line owned by the State of Vermont and operated by Vermont Railway, Inc. The primary role of this line is in providing freight services to its Burlington yard and moving some cargo to the New England Central line via the Winooski Branch. The *2015 Vermont State Rail Plan* (<http://vtrans.vermont.gov/rail/reports>) lists several goals including the implementation of a “new intercity passenger rail service along western corridor (Burlington, Vergennes, Middlebury, Rutland, Manchester, Bennington) and extend *Vermont* to Montreal” and increasing “the use of rail by shippers and receivers currently using the rail” and attracting “new rail shippers and receivers to locate along rail lines.”

Additional rail related infrastructure located in Charlotte includes a passenger station and an extended side rail. The station was built in the early 2000’s when for a short period; there was passenger service between Charlotte and Burlington. The Champlain Flyer still provides some passenger rail service on holidays; however, the Charlotte station and associated park and ride are markedly underutilized and the station has become a target for vandalism in recent years. The side rail parallels portions of the main track in Charlotte. With the dissolution of the Champlain Flyer, the side rail has shifted in use from being primarily a turnoff to allow passing of trains to a location for the storage of freight cars including fuel tank cars.

There are a total of five railroad crossing locations in Charlotte, three of which are public with the remaining two providing private access to farm properties. With the exception of one roadway underpass, all of the crossings are ‘at grade’ meaning they are level with the road. At grade crossings with public roads require warning / control devices under Federal Law. Increasing safety at rail-highway grade crossings by decreasing collisions is another goal outlined in the *State Rail Plan* as is participation in disaster planning with local, state, and federal authorities.

### Ferry Service

Ferry transportation between Vermont and New York has been operating in Charlotte since 1801. Today the Lake Champlain Transportation Company operates the ferry service between Charlotte and Essex, New York. This crossing remains open year-round as weather permits. During the winter months, it may be closed temporarily due to bad ice conditions or high

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<sup>10</sup> Technical Assistance Report - [Park and Ride Feasibility Study: Charlotte VT](#) - US 7 Corridor, Chittenden County RPC; Town of Charlotte, revised June 2016.



northern winds. During the summer months two ferries run providing service every half hour. The ferry serves tourists as well as commuters and people on business.

An extra ferry slip and an upgraded parking facility were added in 1998, which increased the ferry's capacity. The road serving the ferry, F5, is narrow, steep, and winding near the ferry dock. Ferry traffic on F5 is heavy especially in summer months and excessive speed has been an ongoing concern as voiced by residents. Parking contiguous to the ferry is limited given the topography of the area. Soils are poor for on-site sewage disposal and sanitary facilities are currently provided by portable facilities. Any future expansion of ferry service must address these issues as well as traffic safety, including pedestrian safety, and impacts on Charlotte's West Village.

#### Bikes, Pedestrians and Other (Maps 9 and 10)

An integrated trail system that links every sector of Town for pedestrian, bicycle, ski, and equestrian travel has been supported by a variety of community groups and planning documents for over 25 years. In 1998 a vision for an integrated trail system was created by LANDSCAPES in consultation with town committees and groups and with the assistance of the National Park Service. The comprehensive "Charlotte Trails Vision Map" (Map 10) included within this plan depicts generally desirable routes, but not their actual specific alignments. The actual alignments are to be determined as easements, which become available either through donation or purchase. To date, the Town through its Recreation Path Committee has constructed about 10.7 miles of trails.

Two Route 7 underpasses are planned for Charlotte to link East and West Charlotte bike, pedestrian and equestrian traffic. These locations include the southern Route 7 location at the Berry Farm and Mount Philo State Park, and the northern Route 7 location at the Town Park and Galbreath land. The southern Route 7 underpass is currently in the planning and construction phase.

The Lake Champlain Bikeway is an on-road route that follows Greenbush Road south to Lake Road west and south thence turning left (east) onto Ferry Road and then back onto Greenbush Road headed south into the Town of Ferrisburgh. Variations of this route as well as routes along Mount Philo Road, Spear Street and to a lesser extent Dorset Street provide for sought after opportunities for biking outside of the more urbanized areas in Chittenden County. With the exception of portions of Spear Street, shoulder widths on these roads are inadequate for safe bicycle travel. Mount Philo Road and Spear Street serve as a Route 7 alternative for automotive traffic and thus safety concerns are ongoing as different user groups attempt to share the road.

**2.8****ENERGY**

According to the U.S. Department of Energy’s Energy Information Agency (EIA), 60 percent of Vermont’s energy use was met by petroleum-based fuels, 9.7 percent by natural gas and 32 percent, which includes nuclear energy and all renewable energy sources (hydro, biomass, wind and solar) accounted for the remaining energy supply in 2013.

Most of our energy is used by the transportation sector – 37 percent -- with an additional 32 percent used in the residential sector and 31 percent in the commercial / industrial sector(s).

**Table 27: Total Annual Vehicle Miles of Travel (VMT), Vermont and U.S.**

	2007	2008	2009	2010	2011	2012	2013	2014
<b>VT per Capita VMT</b>	12118	11555	11506	11572	11599	11528	11356	11281
<b>US per Capita VMT</b>	10050	9777	9697	9692	9506	9459	9452	9800
<b>% difference VT and US</b>	17.1	15.4	15.7	16.2	18.0	17.9	16.7	13.1

Source: Vermont Agency of Transportation, VT Transportation Energy Profile 2013 & 2015; FHWA Highway Statistics 2014.

The Vermont Agency of Transportation Profile outlines a series of objectives used to quantify the transportation's sectors progress in meeting the goals of the State Comprehensive Energy Plan. Vehicles powered by renewable energy, fuel economy, vehicle miles travelled, public transit and bicycle and pedestrian commuters are just some of the objectives that will be measured by the Agency.

In 1997, the Legislature enacted Act 20 “Residential Building Energy Standards” (RBES) and “Commercial Building Energy Standards” (CBES) which established basic building standards for new construction projects. In 2013, the Legislature enacted Act 89 which clarified the applicability of Energy Standards to mixed use buildings. RBES and CBES are based on International Energy Conservation Codes and include performance-based standards as well as some Vermont specific additions and exemptions. The standards apply to most new construction in Charlotte and also apply to renovated portions of existing buildings and additions.

In 2011, the State of Vermont released a Comprehensive Energy Plan which set an ambitious goal of obtaining 90 percent of our total energy from renewable sources by 2050. To that end, the state has amended the 1998 Net Metering Law by expanding the permissible size limit per installation to 500 kW, simplifying the administration for net metering groups, allowing a registration process for photovoltaic (PV) systems 5 kW and under, increasing the overall net metering capacity cap per utility to 4 percent of the 1996 utility system peak or previous year’s peak (whichever is higher), and creating a solar credit payment for all customers who have installed PV net metered systems. 2012 data from the Public Service Department indicate that net metering applications increased 4-fold between 2008 and 2012. Most applications were for PV installations and these increased from 140 applications to 603 applications.<sup>11</sup>

<sup>11</sup> Evaluation of Net Metering in Vermont, VT Public Service Department, 2013.

Currently Charlotte has 50 net-metering sites that generate up to 360 kW of electricity. Charlotte also has a larger PV installation that can generate up to 2.2 mW of electricity.<sup>12</sup>

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<sup>12</sup> Vermont Energy Atlas, updated 7/1/2015.



## 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 19<sup>th</sup> 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 projects possible and has been used towards the funding of ten conservation projects in town

totaling 702 acres—some of the easements on these properties are held by the Charlotte Land Trust and others are held by the Vermont Land Trust.

Since 1995, CLT has acquired 11 easements on local land, totaling 360 acres. They have assisted the Vermont Land Trust on numerous other projects in town. As of 2007, the amount of conserved land in Charlotte totals approximately 3,812 acres (out of the 26,530 acres in town). In addition, the Town holds approximately 1,308 acres in open space agreements.

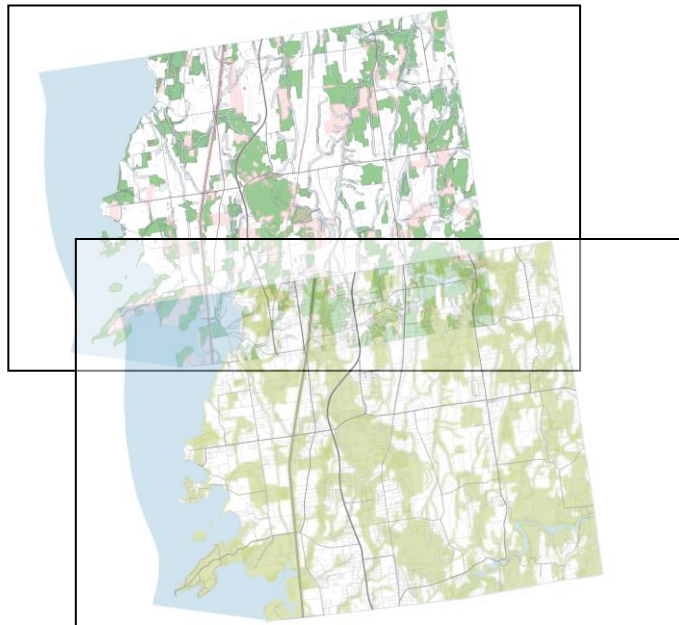
In 1995 the Town sponsored an inventory of agricultural land to inform the Town’s agricultural district planning and land conservation priorities. The Charlotte Land Trust oversaw the consultant who mapped existing and potential farmland, agricultural uses of each farm unit, conservation lands, agricultural management districts, and agricultural soils. This information has been incorporated into the Town Plan, and is used by the Charlotte Land Trust and the Planning and Zoning Office.

During the 2002 Town Plan Update, discussion participants felt that it is important that the Charlotte Land Trust initiate more contact with farm landowners. They also indicated the need for the Land Trust to educate the public more clearly about how the Land Trust can help property owners protect farmland and natural areas. In addition, residents recommended that the Land Trust focus more on making land affordable for farmers.

### Existing Land Use Analysis

This section examines the land use categories above and identifies those uses based on tax records, aerial photography, visual surveys, and zoning information. Categories are presented graphically on the Existing Land Use Map.

To establish boundaries for ‘Natural’, the component layers of the 2008 Significant Wildlife Habitat Map – Forest, Aquatic, Shrubland and Additional Linkage - were merged into one layer. This wildlife mapping project and the layers that resulted used individual layers of data matching the purposes for the category defined above. These individual layers included surface waters, wetlands, and associated buffers; State Significant Natural Communities (SNCs), State Rare, Irreplaceable Natural Areas (RINAs), areas containing Rare, Threatened and / or Endangered Species (RTE); Flood Hazard Areas; steep slopes; and contiguous forest. The ‘Natural’ layer was compared to the State’s Habitat Block Layer, 2011 and boundaries were similar. Use of this information is consistent with the *Vermont’s Wildlife*



*Action Plan*, 2016 which summarizes the multiple scale approach to conservation planning (see Natural Resources Section for more information).



‘Rural’ boundaries were established by starting with the Agricultural Land Use map that was created in 2000 by the Planning Commission, the Charlotte Land Trust and staff from the Vermont Housing and Conservation Board.

During the 1999/2000 inventory, observational surveys of properties were completed and deference was given to the agricultural use of a property in instances where multiple uses existed on a property. The 2000 Agricultural Land Use map layer was reviewed against the 2015 tax map to identify areas which were recently delineated into parcels. These areas were subcategorized as transition (for further review) but were retained on the

Agricultural Land Use map layer and the consequent Rural layer. Known managed forested parcels were denoted as such and were removed from the Rural layer as they were already properly captured in the ‘Natural’ category.

‘Developed / Community’ boundaries were identified by creating a ‘heat map’ of E911 building points, identifying ‘hotspots’ (areas of point intensity) and turning the ‘hotspot’ polygons into a map layer.

An Existing Land Use Map was created by bringing together the ‘Natural’, ‘Rural’, and ‘Developed / Community’ layers. Though broad in effect, it provides a snapshot of how development has been occurring in Charlotte.



### Review of Earlier Plans and Planning Related Efforts

As noted earlier in this section, the general land use pattern today is similar to that prescribed in Charlotte’s first Comprehensive Plan in 1969 as well as subsequent plans. Notable subsequent plans include the 1990 Charlotte Town Plan, the first plan adopted following the State’s passing of Act 200 -- the Growth Management Act in 1988 -- and the 2002 Charlotte Town Plan, which defined policies and strategies for each of the State’s required planning

elements, with an increased focus on the village areas for both housing and services (private and public).

Act 200 was an amendment to the Vermont Municipal and Regional Planning and Development Act (Chapter 117), first enacted in 1967. The amendment sought to improve the effectiveness, coordination, and comprehensive view of planning at the local, regional, and state level. While the original (1967) purpose and guiding principles of Chapter 117 were left largely intact, a major achievement of Act 200 was to create a new framework of land use goals. The Act also sought broader public participation in the planning process, with a goal to press for land use decisions “to be made at the most local level possible commensurate with the impact of the decision.”

Several smaller planning related studies resulted in the principles outlined in the 1990 and 2002 plans including the mapping of wildlife habitat, scenic views and roads, and wetlands. In 1996 the Town established a Town Conservation Fund to help with local conservation projects administered by the Charlotte Land Trust which was originally formed in 1986 and incorporated in 1995.

The 2002 Plan was revised in 2008 and again in 2013. These revisions incorporated new statutory requirements including affordable housing and safe and affordable childcare protections, but other elements of the plan were not changed. In 2016, the plan was amended to include 1) language recommending consideration of village designation and 2) an updated energy section.

Since adoption of the 2002 Plan (revised / readopted in 2008 and 2013), the Town completed a West Charlotte Village Planning Project (2002), an East Charlotte Village Planning Project (2010), a Report on Potential Community Wastewater Service to the West Charlotte Village (2011), and a Report on the Geology and Hydrogeology of Charlotte (2010). Recommendations from the West Charlotte Village Planning Project were not adopted by the Planning Commission due to a lack of endorsement by the broader community. It’s important to note that this effort relied heavily on the premise of commuter rail serving Charlotte, a premise that has since been dissolved at that State level. The other planning projects were conducted to further the vision of reinforcement of historic settlement patterns – villages surrounded by rural areas – a component of Charlotte’s vision that remains today. Public input associated with these studies simultaneously stressed the need to balance this reinforcement with preservation of historic resources and Charlotte’s small town characteristics.

### Development Trends

In 2014 the Town worked with PlaceSense in preparing materials and facilitating outreach workshops as part of this planning process. A Land Use Workshop was held in September of 2014 and the following trends and patterns were presented as observed between 2004 and 2013:

- Approximately 140 residential lots were created<sup>13</sup>

<sup>13</sup> Residential lots were defined as those categorized as R1 or R3 in the grand list so may include farm properties.

- Approximately 1,300 acres of undeveloped or farm land was converted to residential land<sup>14</sup>
- 70 percent of new residential development occurred on parcels containing primary agricultural soils<sup>15</sup>
- 58 percent occurred on parcels containing wildlife habitat<sup>16</sup>
- 25 percent of Charlotte’s land is conserved
- 48 percent of Charlotte’s land is enrolled in the Use Value Appraisal (aka Current Use) Program

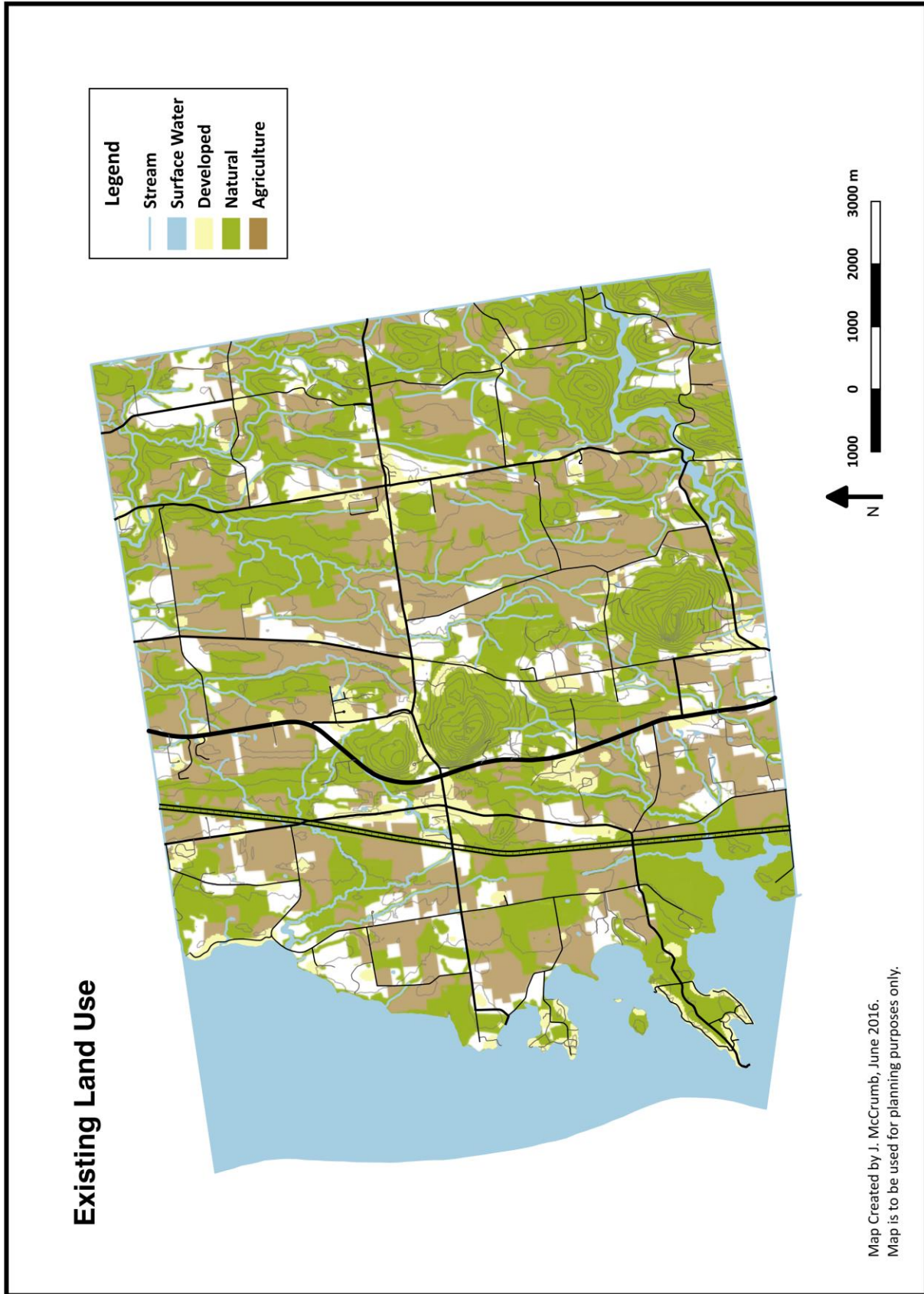
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<sup>14</sup> Ibid

<sup>15</sup> A cursory review indicates most of the structures are on primary agricultural soils but this does not preclude use of the land for farming which may still occur or be occurring on some properties. Approximately 70 percent of Charlotte’s land area is considered primary agricultural soil (18,478 acres).

<sup>16</sup> Actual structure may not be within mapped wildlife habitat and thus actual impacts to wildlife habitat were not determined. Approximately 43 percent of Charlotte’s land area is mapped wildlife habitat (11,438 acres). There are approximately 3,325 acres of land that is mapped as both primary agricultural soil and wildlife habitat.





### 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 Dutchess 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 was home to nomadic American Indians, probably Algonquins, who camped and hunted in the heavily forested, rolling terrain where bear, deer, beaver, and all manner of animal life prospered.

Although some of their children did, none of the original 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."<sup>1</sup>

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 arrived from Litchfield, Connecticut and, using a sailing vessel, established a ferry service to Essex, New York. Land was cleared, wheat was planted, roads were opened and Charlotte was a major stop on the stage route from Montreal to southern New England and New York.

In many ways, water determined the pattern of colonial development in Charlotte. Holmes Creek, emptying into the lake in the northwestern corner of Town, just south of Hill's Point, powered the Town's first gristmill and drew development in the west. The covered bridge at the Town Beach marks this historic site. The lake itself and the advantages of ferry transportation offered further incentives to western settlement. In Charlotte Center, just at the intersection of what are now Church Hill and Hinesburg Roads, arose a fresh, clear spring which provided settlers with good drinking water and fostered development. Farther to the east were Lewis Creek and the "LaPlotte" River, ideally suited to powering the gristmills and sawmills that were needed in the growing community.

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<sup>1</sup> Rann, W.S. *The History of Chittenden County, Vermont*, Syracuse, 1886, p. 535.



Also critical to the pattern of Charlotte's development is the ridge of hills which runs north/south, Mutton Hill, Pease Mountain, Mt. Philo, dividing the Town through its center, separating east from west and limiting their mutual access. Not only has it led to the growth of separate villages, some feel it has demonstrated how "peoples separated by territorial barriers cannot always be at one in sentiment."<sup>2</sup> As early as 1869, the *Vermont Historical Gazetteer* said "the effect has been a separation of interest, mutual jealousy, and want of harmony between the two sections."

Be that as it may, villages developed in three distinct spots: Charlotte Four Corners, at what is now the intersection of Greenbush and Ferry Roads; Charlotte Center, on Church Hill Road; and Baptist Corners, at what is now the intersection of Hinesburg Road and Spear Street.

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<sup>2</sup> Rann, W.S. *The History of Chittenden County, Vermont*, Syracuse, 1886, p. 535.

## 3.2

## PATTERN OF SETTLEMENT

### 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, 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 fireplaces just north of the stone house. This building served many purposes over the years and ended as a two-family tenement in the 1940s. It stood empty when in 1948 Mr. and Mrs. J.

Watson Webb purchased the building for the Shelburne Museum, where it now stands proudly renovated as the Stage Coach Inn. When stage travel was at its peak, Gen. Barnes kept a team of oxen in yoke day and night to help teamsters through the mud, up the steep hill to the north. With the decline of stage travel, this hill became a sledding favorite for young Charlotters of the 1880s and '90s.

The Congregational Church was the first church in Charlotte, built in Charlotte Center in 1798. The Charlotte Town House, or Town hall, was built in 1850; it now houses the Charlotte Museum. By 1880, Alanson Edgerton and Sons operated a cider mill, horse-powered, which produced 20 barrels a day, 700 a year, from apples grown along Greenbush Road, Hill's Point, and Mt. Philo Road. These farmers shipped their best apples by freight to New York City and took the remaining apples to the mill for cider and vinegar. H.D. Alexander had a vineyard and fruit farm on Church Hill Road with several thousand choice vines covering eight acres.

### **Baptist Corners**

Baptist Corners saw early growth and industry. In 1798, Gad Root ran a tannery and shoe shop; in 1807, the Baptist Church was built which gave the settlement its name. By 1815, the section of Spear Street between Carpenter Road and the Four Corners boasted a brickyard, blacksmith shop, gristmill, sawmill, chair factory and marble mill. Lewis Creek just north of what is now the Quinlan covered bridge was the site of many mills. Both covered bridges across Lewis Creek saw great activity; sawmills, gristmills, clothing mills, woodworking mills, a cooper's shop, a butter tub manufactory and a foundry were all established along the banks of the creek. By 1858, Baptist Corners was home to a Catholic Church as well. In 1870, the Charlotte Young Men's Literary Club had raised funds to build the Lyceum Hall where the club, renamed the East Charlotte Lecture Association, carried out spirited debates on Friday nights. Lyceum Hall now houses the Charlotte Grange.

### 3.3

### ROLE OF AGRICULTURE

Despite its mills and smithies, taverns and stores, Charlotte's principal industry was always agriculture, as its pattern of development demonstrates; apart from the villages, settlements in Charlotte were individual and widely separated. In its colonial days, Charlotte's agriculture was one of self-sufficiency; cattle were kept for milk, butter, cheese and beef, as well as for shoe and harness leather; sheep provided mutton and wool; swine, turkey, geese and chickens were kept for family use; maple products provided sweetness in lieu of imported sugar; and wheat, corn and oats were grown for family needs and livestock feed.<sup>3</sup> "The superior adaptation of the Town to agricultural purposes was one cause of its rapid settlement."<sup>4</sup> As early as 1806, the grand list of Charlotte was \$31,961, surpassed by only ten other towns in the state.

Because of its excellent farming, by the early 1800s, the Champlain Valley was known as New England's breadbasket. Wheat was of great economic importance and was taken to markets in Albany and Troy, New York. Dairy and poultry products found their way as far as the markets in Boston. In 1806, Charlotte had eight hotels, supported in great part by farmers on their way to market. This shift from self-sufficiency to a market-oriented agriculture was aided by changes in transportation, in particular the building of the southern canals. The addition of a railroad to Charlotte in 1849 contributed greatly to the ability to reach other markets. By 1837, a large industry of Merino sheep breeding had developed in the area for export to Australia and the west. After the Civil War, Australian wool was, in turn, flooding the American market, and dairying became dominant in the valley, primarily in the form of butter and cheese production.

By the 1880s, competition from western markets, and later from oleomargarine, transformed the dairy industry, and the shift to fluid milk began. With the advent of the automobile and the truck and highway system, Charlotte farmers were able to reach the big Boston market with their high quality milk.

In the late 1800s, Charlotte produced some notable agriculturists including field botanist Cyrus Pringle, a renowned collector and hybridizer, whose extensive collections were housed in UVM's Pringle Herbarium. Orson Alexander introduced eight new potato varieties including the still dependable "Green Mountain." Frederick Hinsdale Horsford, who studied botany and later specialized in hybridizing, introduced the telephone pea and "Little Giant Corn." He and Pringle went into the nursery business in 1883. By 1893, Horsford had bought out Pringle's interest and established the F.H. Horsford Nursery at its present site. Horsford went on to become internationally known as a pioneer in lilies. His sons and grandsons continued his horticultural work.

The 1900s saw a decrease in the number of farms in Charlotte. As has been the case throughout the Champlain Basin, farm size and herd size have tended to increase. An increase of herd size has generally meant an increase in the amount of pasture land a farmer must have, a development that can be extremely expensive in an urbanizing area.

Since the end of World War II, economic opportunities in Vermont have increased, decreasing the economic importance of agriculture in the region. Yet if one considers the income from recreation and tourism, much of which is related to a working rural landscape, and the income

<sup>3</sup> Lapping, Mark B. *Shelburne Farms: The History of an Agricultural Estate*, p. 77.

<sup>4</sup> Beers Atlas, 1869.

from those economic opportunities which are drawn to Vermont because of its high quality, rural life, then agriculturally-derived income is still substantial in the State.<sup>5</sup>

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<sup>5</sup> Lapping, Mark B. *Shelburne Farms: The History of an Agricultural Estate*, p. 78.

**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.

## 3.5 THE PROCESS FOR DEVELOPING THE PLAN

### 3.5.1 Previous Town Plans

The Charlotte Planning Commission is responsible for developing the plan. For the first Town Plan, the Planning Commission sought broad citizen involvement. Work began in earnest in 1984 when an advisory committee submitted preliminary findings and conclusions on planning issues to the Planning Commission. In 1986, a questionnaire was distributed at Town Meeting to obtain public opinion on the most pressing planning issues.

#### *1990 Plan*

In July 1987, the Planning Commission took a significant step to involve the community in planning for its future. With the assistance of the Town's planning consultant, the commission organized eight citizen committees to research issues important to the Town and to develop recommendations for future action. The committees were Housing, Farming, Pattern of Future Growth, Lake Champlain and its Shoreline, Community Facilities and Services, Town Environment, Natural Resources, and Commercial and Industrial Development. The committees were given instructions on what tasks they were to accomplish, the form for their reports, and the time-frame for their work.

Three months later the committees presented their findings in a town-wide meeting. The results of the committees' work were astounding. Utilizing the talent and commitment of residents, the Town was able to obtain detailed analysis of its natural resources, the farm economy, affordable housing opportunities, water quality data for Lake Champlain, commercial and industrial potential, and significant vistas and other items. The reports were pulled together in papers summarizing goals, objectives, and strategies for the Town. Each committee then reviewed these papers.

A town-wide meeting was held in August 1988. The proposed land use strategy was presented, with slides illustrating the significant features and pressing planning issues facing the Town, and public comment was solicited. Many summer residents, as well as year-round residents, were present at that meeting. Maps of the Town showing the proposed land use strategy were then displayed in the Town planning office. People were invited to comment on the maps and to discuss questions or comments with the Planning Commission. Neighborhood meetings were held in the East Charlotte and West Charlotte villages. Both the Planning Commission and the Selectboard held public hearings to obtain formal comments on the Plan. The most significant public involvement in the formulation of the plan was through the survey, committee work, and informal discussions with neighborhood groups and individuals.

In response to a petition signed by Charlotte residents, the Selectboard warned a public meeting to determine by Australian ballot whether town plans would be voted on by Australian ballot at duly warned Town Meetings. Residents voted in favor of a Town vote on plans. The 1990 Town Plan was the Town's first "Act 200 Plan." This meant that the plan was developed and adopted according to the procedures of Act 200. These procedures include requirements that the plan be consistent with statewide goals and policies set forth in Section 4302 of Chapter 117 and be compatible with the approved plans of adjoining municipalities and the regional plan.

#### *1995 Plan*

In August 1994, the Planning Commission decided, provided the plan's statistical information was updated, that the Town Plan should be re-adopted. This decision relied upon two premises:

1. Considerable effort and public participation was conducted to develop the plan as originally adopted by Australian Ballot at the March 1990 Town Meeting; and
2. Based on the confidence in the process to develop the plan, the policies, goals, objectives, and other pertinent sections remained applicable for the ensuing five years.

Between 1994 and 1998 zoning bylaws in the Conservation and Industrial areas were amended.

#### *2002 Plan*

In January 1999, the Planning Commission began a comprehensive assessment of the Plan for the 2000 update with the help of a part-time planning consultant and Town staff. Seven Town Plan Update Committees were established and chaired by Planning Commissioners, their task being to review the existing Plan and make recommendations for any changes based on updated information and trends. The committees were: Housing; Economy; Community Facilities and Transportation; Agriculture; Natural Resources; Lake and the Lakeshore; and Neighborhoods and Villages. Approximately 100 volunteers joined in the work, with many attending weekly community workshops of the various committees over a five-month period, and in this way the Update Committees developed recommendations.

Two written public surveys were also used to collect additional information about residents' desires for Charlotte's future. One survey was placed as an insert to the January 28, 1999 *Charlotte News*. With 125 responses, the results of the survey were published in the *Charlotte News* on March 11, 1999 and discussed at a subsequent community workshop. The second survey, prepared by the Economy Committee, addressed economic development. It was distributed at 1999 Town Meeting. Nearly 90 residents responded and results were discussed at a community workshop. Survey results were integrated throughout the plan and are included in Appendix B.

The Selectboard identified some important unresolved issues remaining in the draft, and so decided to place the 1995 Town Plan on the ballot for re-adoption at the March 2000 Town Meeting, and continue work on the revisions. The 1995 Town Plan was re-approved and adopted by the voters on March 7, 2000.

During the spring and summer of 2000, the Planning Commission and Selectboard worked on a new draft of the Town Plan. Public hearings were held in the fall and winter of 2000. The new draft was on the ballot of the 2001 Town Meeting, and was defeated.

The Planning Commission tried to determine why that version of the plan was not acceptable to the community. They recognized two items in the defeated plan which needed further investigation and evaluation:

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.

### **3.5.2 West Charlotte Village Plan**

A West Charlotte Village Plan was completed in October 2002. There were ideas in that plan which were not broadly endorsed by the public, consequently the Planning Commission decided not to adopt the recommendations of the plan, although some of the concepts of the plan may be revisited. There have been recent discussions regarding undertaking an East Charlotte Village Plan; the Planning Commission foresees this to occur following the adoption of this Town Plan.

### **3.5.3 Current Town Plan**

The 2007 Town Plan revision has been approached by the Planning Commission as a relatively minor update because:

1. There is no new census information since the last amendment;
2. Voters were satisfied with the last Town Plan; and
3. The Town has not changed significantly since the last Town Plan was adopted.

Nonetheless, the update process has included public input and addresses new statutory requirements. Public feedback included a 2006 town-wide survey patterned after the 1999 survey, with a few additional questions—tallies of both surveys are included as appendices. Several public work-sessions were also held.

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## **3.6 THE LAYOUT OF THE PLAN**

The chapter entitled "Goals for the Future of the Town" states the public aspirations and the objectives that will lead to the accomplishment of those aspirations. "Charlotte Yesterday" provides a brief history of the Town. "Charlotte Today" describes the current social, economic, land use, environmental, and community service conditions of the Town. "Charlotte Tomorrow" outlines the policies and strategies necessary to implement the vision for the future of the Town.

### 3.7 USE OF THE TOWN PLAN

The Town Plan must meet the requirements of Title 24 Chapter 117 Section 4382 of Vermont Statutes Annotated (VSA). Additionally, the Town Plan may be consistent with the goals established in 24 VSA Section 4302, and compatible with approved plans of other municipalities in the region and with the regional plan. However, in order to be approved by the regional planning commission (under the provisions of 24 VSA Section 4350, the Town Plan must be consistent with the goals of Section 4302 and compatible with other municipal plans and with the regional plan.

The Town Plan is intended to guide the work and decisions of the Selectboard, and all official Town boards and bodies, as well as residents, seasonal homeowners, private employers and Town employees.

In some places, the plan specifies policies and these are to be used to review and guide development proposals and use of public resources. In other places, the plan offers suggestions of possible strategies that would need to be enacted, for example, in the Land Use Regulations or through a Town Committee; these suggestions are meant to guide discussion and need further action and scrutiny before implementation.

The purpose of the Town Plan is:

- ☞ To plan for the future of the Town in a manner that the community desires;
- ☞ To provide the basis for revisions to the Land Use Regulations and (if the Town so wishes) for the adoption of an Official Town Map;
- ☞ To guide decision-making under the Land Use Regulations;
- ☞ To provide the framework for a capital budget and program (if adopted);
- ☞ To provide a guide and a resource for community programs and decision-making;
- ☞ To provide a standard for review under the provisions of Title 10 Chapter 151 (Act 250) and Title 30 Chapter 248;
- ☞ To provide a standard for review under the provisions of Title 24 Chapter 117;
- ☞ To assist with the development of the Regional Plan and the plans of neighboring municipalities; and
- ☞ To be a source of information about the Town.

### 3.8 PROCESS FOR MANAGING AND AMENDING THE PLAN

It is the Planning Commission's responsibility to develop, maintain, review and revise the plan at least every five years. The Planning Commission will review annually the plan to determine progress towards its implementation. As part of this annual review, the Planning Commission will note any changes that should be considered in the next five-year update of the plan.

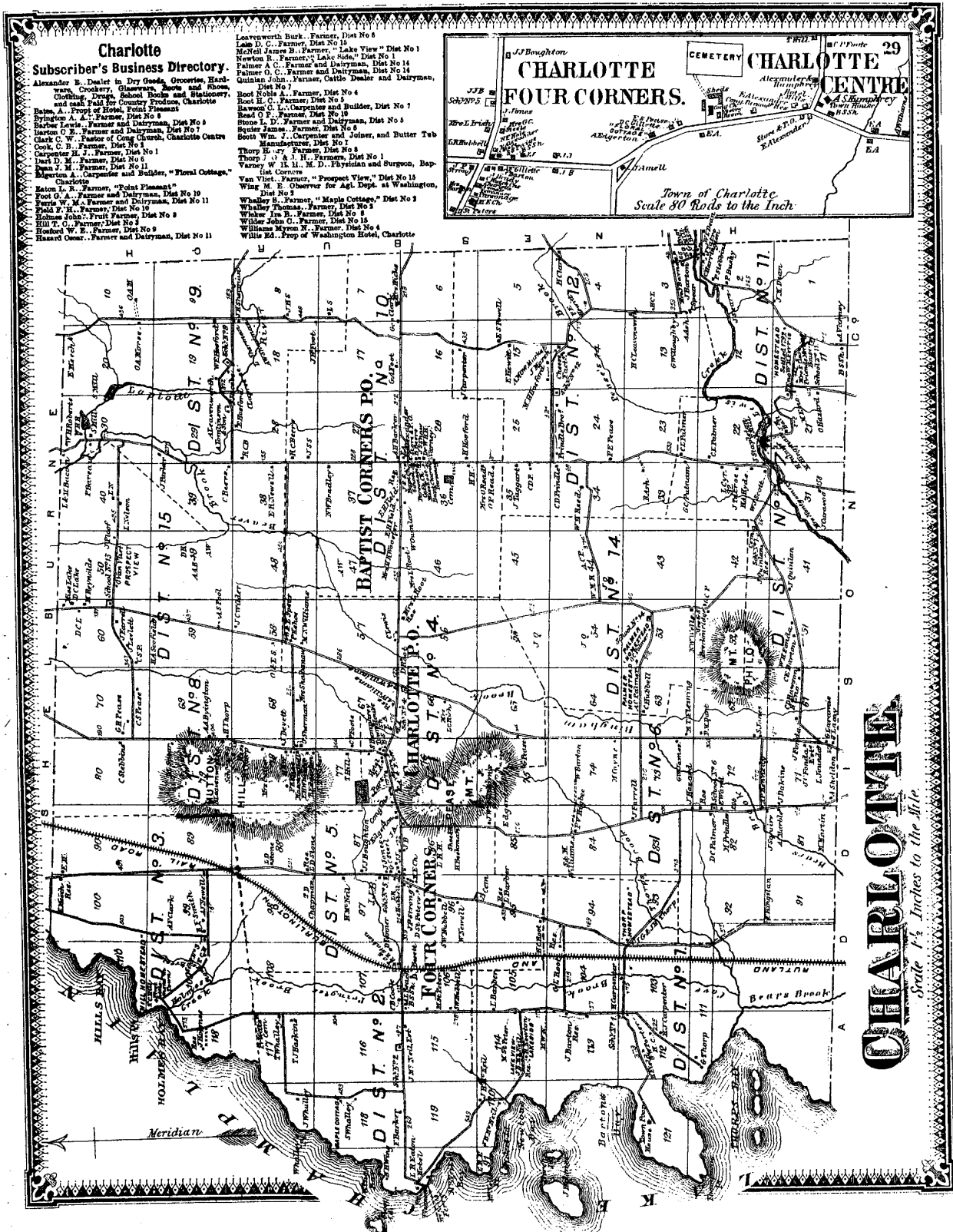
In preparation for the next update of the plan, the Planning Commission will conduct a comprehensive assessment of the current plan. Statistical data on changes occurring over this period will be reviewed, the status and effectiveness of policies and implementation strategies will be reassessed, and assumptions on issues facing the Town reevaluated. With this information policies can be amended and new implementation programs developed as necessary.

Title 24 Chapter 117, Vermont's growth management and planning statute, requires that town plans be consistent with statewide planning goals as provided in the statute, be coordinated with the plans of

neighboring municipalities, and be compatible with regional plans. In particular the Town should consult with the Chittenden County Regional Planning Commission, which reviews towns' plans to determine their conformance with the requirements of the statute.

When considering an amendment to the plan, the Planning Commission is required to prepare a written report on the proposal. The contents of the report are specified in Section 4384(c) of the Vermont Municipal and Regional Planning and Development Act.

Charlotte circa 1869 (from Beers Atlas, Tuttle Publishing Company)



**From:** [Seiler, Annina](#)  
**Subject:** MPG Application Resources  
**Date:** Tuesday, August 30, 2016 3:08:39 PM

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Good Afternoon,

[Municipal Planning Grant \(MPG\)](#) applications are due on Halloween – October 31, 2016 this year. Access to the online application is delayed to mid-September. We apologize for the delay and will notify you when the site is opened. The agency is updating its website and to avoid problems with linked documents, the online application will be unavailable until the new website is launched. In the meantime, we encourage you to begin preparing your application using the following resources:

- [Program Description](#) – describes how MPGs work with a focus on eligibility and the competitive criteria.
- [Application Questions](#) – provides a template for you to begin drafting your application offline.
- [Instructions and Templates for Starting an Application](#) – everything you need to prepare the application before using the online application system.
- **MPG Application Training** – if you are interested in participating in a GoToMeeting training on using the online system and preparing a competitive MPG application, please contact staff at [annina.seiler@vermont.gov](mailto:annina.seiler@vermont.gov) or 802.828.1948.

We also wanted to share the following new resources to help you assemble a winning application.

- [Guidance on Procurement](#) – explains the requirements for selecting a consultant. Read about the advantages of selecting a consultant before the application is submitted.
- [Project Examples](#) – work plans, budgets and deliverables from a number of recently completed MPG projects to help inspire and inform your projects.

Please feel free to contact me with questions. I look forward to hearing from you.

**Annina Seiler** | Grants Management Specialist  
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**From:** [Burke, Kevin](#)  
**To:** [Burke, Kevin](#)  
**Subject:** Proposed 2017 Vermont Stormwater Management Manual Rule  
**Date:** Wednesday, August 31, 2016 1:43:08 PM

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Dear Stormwater Designers, Stakeholders, and Vermont Stormwater Management Manual (VSMM) Revision Workgroup Participants:

Concurrent with the release of the March 1, 2016 draft revision to the VSMM, the VT DEC (the Department) requested feedback and comment on the draft in advance of initiating adoption through rulemaking. Following release of the March 1, 2016 draft, the Department held both internal and external stakeholder meetings and reached out to and worked with many of you on an individual basis to discuss comments, request additional feedback, and to work through changes reflected in the next draft.

In response to your feedback and comment received on the March 1, 2016 draft, the Department has made changes and revised the draft now reflected in the proposed 2017 Vermont Stormwater Management Manual Rule.

**The Department is pleased to announce that the proposed 2017 Vermont Stormwater Management Manual Rule was filed with the Interagency Committee on Administrative Rules (ICAR) on Tuesday, August 30, 2016, to initiate adoption of the Manual through rulemaking.**

The Department has scheduled a public meeting to solicit comment on the proposed rule on **Tuesday, October 25th, 2016** from 9:00 AM until 12:00 PM, at the Pavilion Building Auditorium, located at 109 State Street in Montpelier. **The Department will begin accepting public comments on the proposed 2017 VSMM Rule on Friday, September 16, 2016 through 4:30 PM on Tuesday, November 1, 2016. Comments may be provided in person at the public meeting or in writing.**

A copy of the proposed rule and associated filings is available on the VT DEC Stormwater Program website at the following link: [http://dec.vermont.gov/watershed/stormwater/manual\\_update](http://dec.vermont.gov/watershed/stormwater/manual_update)

The proposed rule as filed with ICAR, is reflective of proposed requirements, and is not reflective of guidance, schematics, photos, or other depictions that would serve as guidance, as previously had been included in the March 1, 2016 draft. In addition, many changes that were made in response to public comments will later appear as guidance, rather than in requirements that are specific to stormwater design and treatment standards.

The Department expects to package the content of the adopted final rule in a manual format, with applicable guidance, including design schematics and photos, subsequent to the rulemaking process. In advance of adoption, the Department will also package the proposed requirements with the draft guidance to serve as an example in manual format, and post to the above webpage within the next few weeks. At that time, the Department also plans to post a response to public comments that were received on the March 1, 2016 draft. This distribution list will be notified by email when the information is posted.

We sincerely appreciate feedback and participation thus far, and consider the next draft to be reflective of this collaborative effort.

Thank you,

Kevin Burke  
Stormwater Program



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