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 Bryan Davis, CCRPC Title VI Coordinator, at 802-846-4490 x *17 or bdavis@ccrpcvt.org, no later than 3 business days prior to the meeting for which services are requested.
Welcome and Introductions

Regina Mahony called the meeting to order at 8:34 a.m.

Approve Minutes

Justin Rabidoux made a motion, seconded by Andrea Morgante, to approve the minutes of July 13, 2017. MOTION PASSED. Jim Donovan abstained.

Comprehensive Economic Development Strategy

Emily Nosse-Leirer provided an overview of the draft that was sent out in the packet. Andrea Morgante asked whether programmatic work should be added back into the CEDS project list, to try to bring relevance and importance to health and social related work that is important to our economy, especially since they also create jobs. Heather Danis stated that she felt that the action lists in Chapter 3 adequately captured the work of the Health Department and other social service agencies, and that there was not a need for these projects to be in the CEDS list.

There was extensive discussion about the Strengths, Weaknesses, Opportunities and Threats (SWOT) section, which was brand new. Emily Nosse-Leirer explained that she recategorized issues identified in the 2012 analysis reports to fit into these categories, and also added issues identified by the LRPC, other committees and other CCRPC work. SWOT analysis compares Chittenden County to both the rest of Vermont and the rest of the county. Several changes were suggested:

- Discussing a “livable wage” instead of a “minimum wage,” and adding it into the strength and weaknesses section. There is still a lot of debate about the benefits and consequences.
- Adding the lack of affordable workforce housing as a weakness. Fifteen highest cost for rental housing in the country – which is a real issue.
- Clarifying that although the quality of public schools is high compared to the rest of the country, the quality is uneven throughout the county, and STEM skills are not as good as employers need.
- Making sure that the opportunities section lists things that are actual opportunities, not just needs.
- Clarifying that VTC is Vermont Technical Council, and adding in other similar organizations to general that strength
- Adding Creative Economy, UVM and aesthetics to the strengths section.
- Differentiating between low unemployment (strength) and labor shortage (bad) need to be differentiated
- Adding equity issues to weaknesses – there is income inequality across economic classes and New Americans are especially affected. However, it is important to clarify that income inequality is a weakness, while the county’s relatively high incomes compared to Vermont and the country are strengths.
• Adding aging infrastructure and limited funds for replacing this infrastructure (water, sewer, stormwater, etc) to the threats section.
• Uncertainty about health insurance was removed from the weaknesses list, as it is a federal issue and not unique to Chittenden County
• Adding chronic disease as a threat. Heather can help with language. Chittenden County is very healthy compared to the rest of the state and country, but our trends are in the wrong direction. Heather argues that being the best of the worst is still a problem, and it should be discussed. We also have higher teenage drinking rates.
• Adding lack of diversity to the weakness section. We are more diverse in our County that the state, but we are not at all diverse in comparison to the rest of the country.
• Adding refugee resettlement area is strength / opportunity. We are socially tolerant, which is a strength.
• Adding the declining workforce age population as a threat.
• Adding expansion of high speed internet to the opportunities section.

Our strengths are often our weaknesses. One reason why housing market is so tight is b/c it is a good place to be; and attractive to retirees (at least for half the year). There was discussion on the degree to which Vermont’s ambitious energy goals and the Clean Water Act are weaknesses or strengths. Do they grow jobs, or are they just costs?

Emily explained that she didn’t add much new information to the Economic Base Analysis, and just updated the data. The committee made a number of suggestions:
• Strengthen references to affordable housing
• Again, explain the distinction between unemployment and labor supply. Low Unemployment is not necessarily a bad thing.
• Examine whether it’s good, bad or neutral that UVM and the Medical Center is the largest employer and non-profits.
• Link food insecurity with high risk of obesity and chronic conditions.
• Instead of discussing the federal poverty level as an indicator, examine the Basic Needs Budget.
• The committees asked to include renewable energy in the working lands section, since it can co-exist with agriculture and help farms stay profitable.

The Economic Resilience section is brand new, and must be included to meet CEDS requirements. The committee agreed that equity issues should be discussed here. Also, specific examples for Chittenden County and the ECOS Plan are needed. Perhaps AHMP content can be added here.

The committee agreed to add outdoor recreation and food systems to the strategic industry sectors discussion, but not to the target sectors list.

Actions need to be added to discuss funding for adequate public infrastructure and housing affordability. The discussion of permit streamlining must be more nuanced.

New indicators to show economic resilience were discussed. Emily will investigate data on economic diversity (percentage of population in various income brackets and NAICS sector diversity); housing available at various price points, and wages (minimum wage over time, married with average starting wage within the County by sector, and historical trends of starting wages in low wage jobs to see if that has changed over time).

4. Transportation Plan Update

Peter explained the financial plan, which is a required component of the Metropolitan Transportation Plan. Three elements: (1) How much money will we reasonably have? (2) How much is needed for preservation and maintenance? (3) The difference can be used for new projects. Alex asked whether CCRPC has to show we
have money to maintain the new projects we proposed. We don’t, but we do show and look at the history of
our maintenance costs. Peter explained how we’ve determined how much money we can reasonably expect to
have - $211 million for the State, and we’ve gone with 19.5%, which VTrans has signed off on. Discussion
ensued, because the percentage of state funds to Chittenden County has been lower since 2007. However, staff
feels that 20% is appropriate for Chittenden County considering our percentage of the population and economy
in Chittenden County.

The committee talked about the maintenance percentage and which percentage (54% vs. 70%) is appropriate.
Jim feels the 70% makes the most sense. Andrea asked why stormwater maintenance looks like it is staying
steady. Staff explained that the category allocation is based on a trend, but perhaps we want to increase that
category. Justin stated that the gray area is a good idea, because we haven’t had any macro projects that will
fix the global problem. Alex stated that a conservative approach makes sense, with the flexibility to go below
the line. It’s important to understand the long-term maintenance costs down the line, and we should think
about this as we decide what projects get above the line.

Jason showed two maps of congestion issues in 2015 and 2025. These are congestion issues regarding lane
capacity, not operational capacity; and these are based on a no build scenario. These maps show volume to
capacity ratio: Yellow: 70 to 79% at capacity; Orange: 80 to 89% at capacity; Red 90 to 100% capacity; and
Purple is over capacity. Jason explained the difference between operational capacity v. lane capacity, and said
that we also need to see the congestion points, married with these in order to be able to see the real problem
and help us figure out where to identify priority projects. He clarified that this maps shows that even if we
make operational changes to the intersections, such as different signaling, we’d need new lanes in these areas.
There was extensive discussion regarding the local congestion issues verse what the model shows (such as the
North Williston Road bridge), because the map appears different than what most people experience on the
ground. It may be that the experience is similar near Rte. 116, and 189, but the number of cars is so much
greater at 189 and potentially more of a regional priority.

The committee suggested using the term intersection control rather than signalization so that round-about are
included.

5. Next Meeting

The next meeting will be on September 14, 2017 from 8:30am to 10:00am.

10. Adjourn

The meeting adjourned at 10:25 a.m. Respectfully submitted, Regina Mahony and Emily Nosse-Leirer.
2018 ECOS Plan Update Schedule - Revised 8/23/2017

<table>
<thead>
<tr>
<th>Date</th>
<th>TAC Exec.</th>
<th>PAC LRPC</th>
<th>Energy CCRPC Board</th>
<th>Key Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Sep-17</td>
<td>TAC</td>
<td></td>
<td></td>
<td>Review MTP: financial plan, 2015 &amp; 2050 base/no build scenario results (volume to capacity, delay and safety), and schedule.</td>
</tr>
<tr>
<td>13-Sep-17</td>
<td>PAC</td>
<td></td>
<td></td>
<td>Review schedule, Energy policies, other status updates, and PA map edits.</td>
</tr>
<tr>
<td>14-Sep-17</td>
<td>LRPC</td>
<td></td>
<td></td>
<td>Review: Energy Siting Policies (and other Plan components); MTP 2015 &amp; 2050 base/no build scenario results (volume to capacity, delay and safety); review outreach strategy.</td>
</tr>
</tbody>
</table>

Use FPF to publicize ECOS Plan update process, and methods for input.

<table>
<thead>
<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>19-Sep-17</td>
<td></td>
<td>Energy</td>
<td></td>
<td></td>
<td>Review Energy Plan: review DPS comments (if we have them), Siting Policies, Preferred Sites methodology.</td>
</tr>
<tr>
<td>3-Oct-17</td>
<td>TAC</td>
<td>Board</td>
<td></td>
<td></td>
<td>Review scenario results, and discuss potential MTP scenario.</td>
</tr>
<tr>
<td>4-Oct-17</td>
<td>EC</td>
<td>Board</td>
<td></td>
<td></td>
<td>Most emphasis on CEDS, with necessary minor updates on energy and MTP.</td>
</tr>
<tr>
<td>12-Oct-17</td>
<td>LRPC</td>
<td>Board</td>
<td></td>
<td></td>
<td>Review CEDS with GBIC edits incorporated into SWOT and Actions; and discuss potential MTP scenario. Authorize Staff to send both to municipalities for 30 to 45 day comment. Also review Planning Area Map edits. Energy?</td>
</tr>
</tbody>
</table>

Begin outreach to Municipal Managers, Planners & Public Works Directors, SLBs, PCs, EDCs and others regarding MTP Scenario, Energy data and policies, and CEDS actions and project list. Intention is to gather feedback by the end of November. Also use FPF to solicit feedback on the Energy Siting Policies.

<table>
<thead>
<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>17-Oct-17</td>
<td></td>
<td>Energy</td>
<td></td>
<td></td>
<td>Review draft energy plan with DPS comments incorporated (including appendix - methodology, in depth data, etc.): Present LEAP scenario based on potential MTP scenario.</td>
</tr>
<tr>
<td>18-Oct-17</td>
<td></td>
<td>Board</td>
<td></td>
<td></td>
<td>Most emphasis on CEDS, with necessary minor updates on energy and MTP.</td>
</tr>
<tr>
<td>1-Nov-17</td>
<td></td>
<td>Energy</td>
<td></td>
<td></td>
<td>Review full final energy draft (including LEAP scenario results of the final MTP scenario), and make recommendation to LRPC.</td>
</tr>
<tr>
<td>7-Nov-17</td>
<td></td>
<td>TAC</td>
<td></td>
<td></td>
<td>Review MTP scenario results; ECOS components (key issues, indicators and actions).</td>
</tr>
</tbody>
</table>

Use FPF to solicit feedback on MTP scenario/project list.

<table>
<thead>
<tr>
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<th>PAC LRPC</th>
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<th>Key Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-Nov-17</td>
<td></td>
<td></td>
<td>Review CEDS &amp; MTP summaries</td>
</tr>
<tr>
<td>9-Nov-17</td>
<td></td>
<td></td>
<td>Review MTP scenario results; other plan edits (reorganization, etc.). Implementation section.</td>
</tr>
<tr>
<td>15-Nov-17</td>
<td></td>
<td></td>
<td>Review full MTP with updates on revisions to Energy, CEDS and other minor components of the Plan to update (reorganization, etc.).</td>
</tr>
<tr>
<td>21-Dec-17</td>
<td></td>
<td>Energy</td>
<td>Review full final energy draft (including LEAP scenario results of the final MTP scenario), and make recommendation to LRPC.</td>
</tr>
<tr>
<td>5-Dec-17</td>
<td></td>
<td></td>
<td>Perhaps not needed b/c they will see it in January.</td>
</tr>
<tr>
<td>14-Dec-17</td>
<td></td>
<td>LRPC</td>
<td>Review full final draft of Energy, MTP &amp; CEDS (now with municipal edits incorporated) and all other minor pieces including reorganization (Chpt 3 in beginning and indicators on scorecard only). Make recommendation to Board to warn first public hearing.</td>
</tr>
<tr>
<td>19-Dec-17</td>
<td>Energy</td>
<td></td>
<td>Perhaps not needed if LRPC already reviewed final draft.</td>
</tr>
</tbody>
</table>

2018 ECOS Plan Update Schedule - Revised 8/23/2017

Outreach strategy

<table>
<thead>
<tr>
<th>Date</th>
<th>Executive Committee</th>
<th>CCRPC Board</th>
<th>Key Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Jan-18</td>
<td></td>
<td></td>
<td>Executive Committee reviews final entire draft because Board would have last seen it in November.</td>
</tr>
<tr>
<td>17-Jan-18</td>
<td></td>
<td>CCRPC Board</td>
<td>CCRPC Board presentation of entire draft and set first public hearing date. Notice in paper (send 1/18), and draft plan sent to municipalities &amp; other parties, no later than 1/22/2018.</td>
</tr>
<tr>
<td>21-Feb-18</td>
<td></td>
<td></td>
<td>First Public Hearing</td>
</tr>
<tr>
<td>6-Mar-18</td>
<td>TAC</td>
<td></td>
<td>CCRPC Board review changes and set second Public Hearing date. Notice in paper (send 4/12), and changes sent to municipalities, no later than 4/16/2018.</td>
</tr>
<tr>
<td>16-May-18</td>
<td></td>
<td>CCRPC Board</td>
<td>CCRPC Board hold second Public Hearing</td>
</tr>
<tr>
<td>20-Jun-18</td>
<td></td>
<td></td>
<td>CCRPC Board (with GBIC) Adopt at Annual Meeting</td>
</tr>
</tbody>
</table>

Notes:
Regional Plan Adoption Process - Section 4348

Meeting Schedule:

<table>
<thead>
<tr>
<th>TAC Exec. Comm.</th>
<th>PAC LRPC</th>
<th>Energy SubCom m</th>
<th>CCRPC Board</th>
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<tbody>
<tr>
<td>1st Tues</td>
<td>1st Wed</td>
<td>2nd Wed</td>
<td>2nd Thurs.</td>
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</table>

Outreach strategy
3.2.2 STRIVE FOR 80% OF NEW DEVELOPMENT IN AREAS PLANNED FOR GROWTH, WHICH AMOUNTS TO 15% OF OUR LAND AREA AND PROTECT NATURAL, CULTURAL, HISTORIC, OR SCENIC RESOURCES

4. Energy – Transform the Region’s energy system to meet the goals of Vermont’s energy and greenhouse gas reduction goals.

a. Reduce energy consumption and decrease greenhouse gas emissions, to support the State’s goals:
   
   • Reduce greenhouse gas emissions 50% from 1990 levels by 2028,
   • Reduce greenhouse gas emissions 75% from 1990 levels by 2050,
   • Reduce per capita energy use across all sectors (electricity, transportation and heating) 15% by 2025,
   • Reduce per capital energy use across all sectors (electricity, transportation and heating) by more than 1/3 by 2050, and
   • Weatherize 25% of all homes by 2020.

   i. Continue partnerships with Vermont Gas, Burlington Electric Department, Efficiency Vermont and the State Weatherization Assistance Program to facilitate the weatherization and increased energy efficiency of housing stock and other buildings.

   ii. Promote alternatives to fossil fuels for heating by working with partners such as Efficiency Vermont to educate developers and homeowners on the benefits of technology such as cold climate heat pumps, wood heating and geothermal systems, and by supporting alternative forms of heating. Examples of alternative forms of heating include district heating (for example, using waste heat from the McNeil Plant to heat buildings in Burlington) and biogas generation (capturing the methane produced by landfills or farms and using it instead of natural gas).

   iii. Work with partners to establish a consistent energy code for all jurisdictions and geographic areas to avoid disincentives for infill development in areas planned for growth.

   iv. Reduce fossil fuel consumption in the transportation sector, through the Transportation Demand Management and electric vehicle promotion strategies outlined in Part 6c of this section and in the Metropolitan Transportation Plan (MTP) included in this plan.

   v. Collaborate with the State of Vermont and utilities to ensure that state energy policy implementation (i.e. permits for non-renewable fuels) reflect state energy goals.

   vi. Work with partners to increase rooftop solar generation wherever possible, especially net metering on publicly owned buildings to reduce public money spent on energy costs, provided infill development is not precluded.

   vii. CCRPC will provide assistance to municipalities to enhance town plans to be consistent with Act 174 standards for the purpose of enabling municipalities the ability to gain substantial deference in the Certificate of Public Good Section 248 process. This assistance will include working
with municipalities to identify natural, cultural, historic, or scenic resources to be protected from all development types and identify preferred locations for renewable energy generation facilities.

viii. Use the Vermont Energy Action Network (VEAN) Energy Dashboard to educate residents and municipalities about opportunities to reduce energy use and switch to renewable energy sources.

b. To meet the Vermont Comprehensive Energy Plan's goal of using 90% renewable energy by 2050, xx,xxx MWh of new renewable energy generation will need to be sited in Chittenden County. This energy can be produced through a variety of technologies, including solar, wind, biogas, biomass generators, expanded hydroelectric capacity at existing dams. The following statements are CCRPC's energy facility siting policies.

Constraint Policies: Energy generation is constrained in certain areas due to state and local restrictions on development.

i. Site all types of renewable energy generation to avoid state and local known constraints and to minimize impacts to state and local possible constraints, as defined in strategies 3.2.3.1.f, 3.2.4.1.e, 3.2.4.2.e.

ii. Ground-mounted solar development must comply with applicable state regulations, including setback standards as defined in 30 V.S.A. §248(s) and screening requirements as defined in 30 V.S.A. §248(b)(B).

Suitability Policies: Not all unconstrained areas are equally suitable for all types and scales of energy generation. In unconstrained areas, this plan includes the following guidance for suitable locations for energy generation facilities. Energy generation facilities should meet as many of the following guidelines as possible and relevant:

iii. Site/locate solar generation on previously impacted areas (such as existing structures, parking lot canopies, previously developed sites, brownfields, landfills, or the disturbed portion of gravel pits or quarries).

iv. Locate solar generation and residential scale wind installations outside of state designated village centers, growth centers, downtowns, new town centers, neighborhood development areas, and historic districts on the State or National Register.

v. Locate ground-mounted solar larger than 15 kW and large-scale wind installations outside of state designated village centers, growth centers, downtowns, new town centers, neighborhood development areas, and historic districts on the State or National Register.

vi. Locate solar and wind generation in areas identified in plan as preferred or suitable sites in a municipal plan or in a joint letter from the municipality and CCRPC, as described in Chapter 4.

---

1 Large-Scale Wind means any wind turbine with a hub height of 50m or higher, not including the blade. Commercial-scale wind has a capacity between 100kW and 1MW, and utility scale wind has a capacity of 1MW or more.

Commented [EN1]: Flagging this for discussion. Is it OK that we only specifically discuss these policies in relation to energy? We don't have a similar policy in our housing section, for example.

Commented [EN2]: We will need to expand on this policy in Chapter 4.
vii. Locate wind generation in areas with high wind potential, such as the prime and base wind potential areas shown on Map X.

i-viii. Locate energy generation where distribution and transmission infrastructure has adequate current capacity, where it will not interfere with the reliability of the electric grid, and where any needed connections or extensions can be made within 1,000’ of existing infrastructure.

Commented [EN3]: Melanie is researching whether 1,000 feet is a reasonable distance or not, given past development in the county.
3.2.3 Improve the safety, water quality, and habitat of our rivers, streams, wetlands and lakes in each watershed.

While striving toward all of these ECOS strategies, and particularly Strategy #2 – 80% of growth in 15% of our land area, it is essential to do so in such a way that we do not impair our essential water resources (including potable water) and that we prepare ourselves for the impacts of a changing climate.

1. **River Hazard Protection** – Develop and implement adaptation strategies to reduce flooding and fluvial erosion hazards. While supporting planned growth, ensure that growth is evaluated in terms of preparedness for a changing climate. Chittenden County will continue its efforts, along with the municipalities, to avoid development in particularly vulnerable areas such as floodplains, river corridors, wetlands, lakeshore and steep slopes; protect people, buildings and facilities where development already exists in vulnerable areas to reduce future flooding risk; plan for and encourage new development in areas that are less vulnerable to future flood events (see Section 3.2.2); and implement stormwater management techniques to slow, spread and sink floodwater (see the Non-Point Source Pollution section below).

   a. **Identify problem locations** - Conduct on the ground inventories and map flow and sediment attenuation locations and problematic infrastructure (undersized culverts, eroding roadways, "vulnerable infrastructure" - infrastructure subject to repeat damage and replacement, etc.).

   b. **Revise bridge/culvert designs** - Revise public works and zoning ordinances with culvert and bridge design specifications that allow for wildlife passage and movement of floodwater and debris during high intensity events. Implement culvert and bridge designs that produce stable structure in river channels (i.e. fluvial geomorphology).

   c. **Protect river corridors** – Existing bylaws protect the majority of Fluvial Erosion Hazard (FEH) areas with stream setbacks and floodplain regulations. Work with ANR to get the FEH data incorporated into the River Corridor Protection Area maps. Work with municipalities and ANR to improve bylaws to protect the River Corridor Protection Areas or River Corridors not currently protected and enforce these bylaws. Continue protection of river corridors including non-regulatory protection measures such as stream re-buffering, river corridor easements on agricultural lands, river corridor restoration and culvert and bridge adaptation.

   d. **Support non-regulatory conservation and/or preservation of vulnerable areas through public and land trust investments**, including identification of repetitively damaged structures and provide assistance to elevate, relocate or buy out structures, and identify where flood storage capacity may be restored and conserved.

   e. **Participate in the development and implementation of the Lamoille, Winooski and Direct to Lake Tactical Basin Plans.** CCRPC will work with the State, municipalities and other partners to address river hazard protection, flood resiliency and water quality through these Plans – including prioritizing projects for funding.

   f. **Locate development to avoid field-verified state and local known constraints, and to minimize impacts to field-verified state and local possible constraints.**

      i. **State and Local Known Constraints**, as protected by municipalities and State agencies, are shown on Map 6 and include the following: DEC
River Corridors, FEMA Floodways, and Municipal Water Quality
Setbacks, Local Known Constraints TBD, as of (date)

iii. State and Local Possible Constraints are shown on Map 6 and include
the following: FEMA Special Flood Hazard Areas and hydric soils, Local
Possible Constraints TBD, as of (date)

3.2.4 Increase investment in and decrease subdivision of working lands and significant
habitats, and support local food systems.

1. Habitats Preservation - Protect forests, and wetlands and agricultural lands from
development, and promote vegetative landscaping in urban areas in order to
maintain natural habitats, natural storm water management and carbon
sequestration. This will keep people and infrastructure out of harm’s way and allow
for natural flood attenuation areas.
   a. Inventory - Conduct on the ground surveys and inventories of significant habitats
      (include wetlands), connectivity corridors, scenic resources and locations of
      invasive species and map this information. Incorporate this data into municipal
      and regional plan text and maps and establish specific policies that address and
      protect these resources.
   b. Municipal Development Review Regulations - Develop clear definitions of the
      resources to be protected and establish standards to describe how to protect
      these resources within zoning and subdivision regulations.
   c. Education - Educate engineers, developers, real estate professionals, planners
      and the public regarding resources and methods for restoration and protection.
   d. Non-regulatory Protection - Support non-regulatory conservation and/or
      preservation through public and land trust investments. Establish invasive plant
      removal management plans, implement the plans and include long-term
      monitoring.
   e. Locate development to avoid field-verified state and local known constraints,
      and to minimize impacts to field-verified state and local possible constraints
      • State and Local Known Constraints, as protected by
        municipalities and State agencies, are shown on Map 6 and
        include the following: State-sigificant natural communities and
        rare threatened and endangered species, vernal pools
        (unconfirmed and confirmed), and Class 1 and Class 2
        Wetlands. Local Known Constraints: TBD (as of date)
      • Possible State and Local Constraints, as protected by
        municipalities and State agencies, are shown on Map 6 and
        include the following: Protected Lands (state lands in fee simple
        ownership and privately conserved land), deer wintering areas,
        the Agency of Natural Resources Vermont Conservation Design
        Highest Priority Forest Blocks. Local Possible Constraints: TBD
        (as of date)

2. Working Lands Implementation – To preserve the soul of Vermont, as well as
move forward into the future with resiliency, Vermont needs to protect the farmland
and forestland we have and support existing and new operations (including, but not limited to, un-intensive urban and suburban home gardens and mini-homesteads).

Support implementation of the Farm to Plate Strategic Plan and the VT Working Landscape Partnership Action Plan.

a. Municipal Development Review Regulations - Develop clear definitions of working lands to be protected and establish zoning and subdivision standards to describe how to protect these areas from development so that they may be retained and accessible as “working” lands. Maintain access and scale of working lands to ensure viability after subdivision in the rural landscape (including but not limited to protection of log landings of previously logged forested parcels, zoning techniques such as fixed area ratio zoning to separate lot size from density, conservation zoning and homeowners association bylaws that allow for farming on the open space lots, etc.); while promoting urban agriculture in areas planned for growth. While farming is generally exempt from municipal zoning, some structures such as farm houses, processing facilities, the generation of energy for on-farm use, and on-farm retail and related enterprises may be regulated. The economic viability of farm enterprises can often depend on these facilities so municipal regulation should not impede reasonable farm related improvements.

b. Infrastructure & Systems – support establishment of food processing industries, value-added product markets, workforce training, etc to help support the viability of these industries.

c. Support non-regulatory conservation and/or preservation through public and land trust investments (including but not limited to municipal land conservation funds).

d. Work with farmers and the Farm to Plate Initiative to balance this plan’s goals of a strong local food system and increased production of renewable energy.

e. Locate development to avoid field-verified state and local known constraints, and to minimize impacts to field-verified state and local possible constraints:

- Possible State or Local Constraints, as protected by municipalities and State agencies, are shown on Map 6 and include the following: Agricultural soils and Act 250 agricultural soil mitigation areas. Local

Possible Constraints TBD
Note: This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions for the purpose of estimating whether a town or region is able to meet solar generation targets. This map may also be used for conceptual planning as it is a basic state-wide analysis that may not be sensitive to site specific energy potential; therefore renewable energy generation potential may be possible in the white areas. The Chittenden County ECOS Plan Known and Possible Constraint Maps should be consulted to aid in the planning for renewable energy generation.

These maps do not take the place of site-specific investigation for a proposed facility and should not be used as “siting maps”. This map does not take all regulations into account and automatically prohibit or allow renewable energy generation and replace the detailed process a developer must go through to propose a site for a renewable energy facility. This map shall not be
that may not be sensitive to site specific energy potential; therefore renewable energy generation potential
municipalities and regions for the purpose of estimating whether a town or region is able to meet solar
Lake Champlain

Legend
3 Phase Power Lines
Transmission lines
Local Possible
Constraints
Presence of
resources or
conditions that would
likely require
mitigation
Prime Wind Potential:
Areas of high wind
potential for
commercial
generation and no
state/local known
constraints.
Base Wind Potential:
Areas of high wind
potential for
commercial
generation and the
presence of possible
state constraints

Sources:
Wind Energy Resource Areas; VCGI.2017

Disclaimer:
The accuracy of information presented is determined
by its sources. Errors and omissions may exist.
The Chittenden County Regional Planning
Commission is not responsible for these.
Questions of on-the-ground location can be
resolved by site inspections and/or surveys by
registered surveyor. This map is not sufficient for
delineation of features on-the-ground. This map
identifies the presence of features, and may
indicate relationships between features, but is
not a replacement for surveyed information or
engineering studies.

Areas of high wind
generation potential

Areas of high wind
generation potential

Note: The local known constraints have been removed from the prime wind resource areas. The Williston
possible constraint of conservation areas still need to be
added.
Prime wind areas which overlap local possible constraints
are considered to be base wind potential areas.

Areas of high wind
generation potential

Areas of high wind
generation potential

Note: This map and the corresponding data is intended to be used to inform energy planning efforts by
municipalities and regions for the purpose of estimating whether a town or region is able to meet solar
generation targets. This map may also be used for conceptual planning as it is a basic state-wide analysis
that may not be sensitive to site specific energy potential; therefore renewable energy generation potential
may be possible in the white areas. The Chittenden County ECOS Plan Known and Possible Constraint Maps
should be consulted to aid in the planning for renewable energy generation.

These maps do not take the place of site-specific investigation for a proposed facility and should not be
used as "siting maps". This map does not take all regulations into account and automatically prohibit or
allow renewable energy generation and replace the detailed process a developer must go through to propose
a site for a renewable energy facility. This map shall not be used without the accompanying policies
contained within the Chittenden County ECOS Plan.
Appendix X of the 2018 ECOS Plan

Energy Analysis and Methodology

Constraints and Suitability – Draft August 15, 2017

Constraints Methodology

State Constraints

The Department of Public Service has distributed energy planning standards, which establish known and possible constraints at the state level. Regions and municipalities can make constraints more restrictive (i.e. turn a possible constraint into a known constraint) but not less restrictive (i.e. turn a known constraint into a possible constraint). CCRPC has not made any changes to state constraints.

Local and Regional Constraints

Because one of the purposes of Act 174 is to give local land use policies greater weight in the Public Utilities Commission process, CCRPC’s ECOS Plan includes local constraints in the energy siting maps and policies. In late 2016, CCRPC staff discussed the possibility of substantial deference for municipal land use policies with planning commissions and municipal staff, and asked municipalities to provide a list of “constraints” that they would like to see given substantial deference. The CCRPC Long Range Planning Committee Energy Subcommittee (the Subcommittee) asked staff to map the constraints provided by the municipalities. Municipalities requested known constraints (areas in which they wanted no renewable energy development), possible constraints (areas on which they wanted renewable energy development to be limited or impacts to be mitigated or minimized). All requested constraints were mapped in early 2017 and reviewed by the Subcommittee.

Based on feedback from the Department of Public Service, it was determined that for constraints on energy to be consistent with the Act 174 energy planning standards, the constraints had to be restrictive of all development, not just renewable energy development. With this in mind, CCRPC staff screened the constraints originally requested by municipalities and determined that a number of them originally requested as known constraints were not equally restrictive of all development. These constraints were considered possible constraints, based on the description below. If no supporting policies or regulations could be located to support a request for a possible constraint, the constraint was not included at all.

Please note that this is an ongoing process and CCRPC staff will work with municipalities to ensure that constraints are adequately characterized.

The ECOS Plan included classified local constraints based on the following methodology. However, the description of constraints below is for classification only, and these descriptions are not the definitions of known and possible constraints as discussed in the policies of the ECOS Plan.

**Known Constraints**: Zoning districts or resource areas where development is prohibited with no exceptions. Typically, phrases such as “development shall not take place” are used to denote these areas.

**Possible Constraints**: Zoning districts or resource areas such as those in which:

- Development is not completely prohibited, but impacts of development should be “minimized,” “avoided,” “limited,” “avoided where possible” or similar;
- Development is allowed only following conditional use review;
- The goals of the zoning district are such that large scale energy development may not be appropriate, such as scenic overlay districts;
- The regulation or plan describing the development restriction is in draft format.

These constraints may be identified in an adopted municipal plan or municipal land use regulations such as zoning regulations or subdivision regulations, in effect as of December 1, 2017[7]. These constraints are included in the ECOS Plan due to their importance at the local level.

Commented [EN1]: Discuss: How to classify policies that say “avoid?” Some policies say that development should be "avoided where possible...but development may be allowed if mitigation is not possible," which is clearly a possible constraint. However, should we classify language such as "impacts shall be avoided" as a known constraint?
Appendix X of the 2018 ECOS Plan

CCRPC staff evaluated constraints based on the requests of the municipality. Not every development constraint in Chittenden County is reflected in the regional energy planning process, because some municipalities did not request any known or possible constraints (no requests from Buel’s Gore, Huntington or St. George), or only requested that some of their resource protections a portion of their regulations be considered.

While there was some overlap between the constraints requested by each municipality, no constraints emerged as being universal restrictions to development across the county. Therefore, no region-wide constraints were added. Constraints are discussed in Strategies 3 and 4 of the ECOS Plan, which addresses the protection of natural resources.

Suitability Methodology
Constraints represent areas in which all development, including energy generation, is restricted. However, areas in which development is generally appropriate still have different levels of suitability for different types and scales of renewable energy generation. This may be due to conflicts between energy generation and other types of planned development, or infrastructure capacity issues. Therefore, we have incorporated considerations of scale into our siting policy statements in Chapter 3 to address suitability.
Chittenden County Daily Travel - Scenario Modeling Results

Vehicle Miles Traveled (VMT)

VMT per Capita

Vehicle Hours Traveled (VHT)

Delay per Capita

Transit, Walking & Biking Mode Split

Average Length of Trip
Figure X-X: 2015 AM & PM Peak Hour Congestion (No Build)
Figure X-X: 2015 AM & PM Peak Hour Delay (No Build)
The presence of features, and may indicate relationships between features, delineation of features on-the-ground. This map identifies the surveys by registered surveyor. This map is not sufficient for the-ground location can be resolved by site inspections and/or Planning Commission is not responsible for these. Questions of on-Errors and omissions may exist. The Chittenden County Regional The accuracy of information presented is determined by its sources.

Disclaimer:

State Plane Coordinate System NAD83.

Map produced by J. Charest using ArcGIS,

Town Boundary and Water Body - VCGI

Major Roads and Railroad - VTrans

2050 delay data exported from TransCAD.

Sources: