CHITTENDEN COUNTY RPC
Communities Planning Together

CCRPC Long Range Planning Energy Sub -Committee

AGENDA

*=attached to agenda in the meeting packet

DATE: **Tuesday, August 15, 2017**

TIME: **5:00 p.m. to 7:00 pm**

PLACE: **CCRPC Office, 110 West Canal Street, Suite 202, Winooski, VT.**

WIFI INFO: **Network = CCRPC-Guest; Password = ccrpc$guest**

1. **Welcome + Introductions (5 minutes)**

2. **Review July 18, 2017 Minutes* (5 Minutes)**

3. **Discuss Revised Generation Targets for Municipalities**
   At the last meeting staff presented revised county level renewable energy generation targets that are technology neutral. Staff allocated the targets to the municipal level taking into account the average of a municipality's share of county population and electricity consumption. This approach was previously agreed upon by the sub-committee. An addition to setting municipal targets is subtracting out the existing generation for each town as opposed to subtracting it out at the county level. This will give municipalities a sense of their progress on renewable generation to date. The sub-committee will review the targets for each municipality and also discuss an equitable approach for treating generation that is owned by one municipality but is sited in another. Data will be provided at the meeting.

4. **Screening of Local Constraints***
   To date we have received numerous comments from municipalities on their local known and possible constraints based on their town plans and/or zoning regulations. Staff developed a methodology for screening these local constraints for inclusion in the ECOS Plan (see attached). The attached matrix of local constraints is a result of applying these rules of thumb to the feedback we heard from municipalities and for identifying which constraints are known and which are possible. We would like to vet this through the energy sub-committee for feedback.

5. **Discussion of Siting Policy Statements***
   Please see the attached draft of energy siting policy statements which considers the CCRPC's board feedback on their preference to use "should" language. They also asked for policy language on where renewable energy generation facilities should and should not locate with respect to the scale of facilities. Additionally, the state/local constraints policy statements have been moved from strategy 2 to the existing ECOS Plan policies 3 and 4. The rational for this is to better connect with existing policy statements on river corridor protection, habitat preservation, and working lands to further advance the protection of these natural resources in Act 250 and Section 248 for all types of development.

6. **Next Steps** *(5 minutes)*

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CCRPC Long Range Planning Energy Sub -Committee
AGENDA
*=attached to agenda in the meeting packet

DATE: **Tuesday, July 18, 2017**
TIME: **5:00 p.m. to 7:00 pm**

Attendees:
- Catherine McMains, Jericho (Chair)
- Matt Burke, Charlotte
- Will Dodge, Essex
- Keith Epstein, South Burlington
- Jeff Forward, Richmond

Staff:
- Melanie Needle, Senior Planner
- Emily Nosse-Leirer, Planner
- Regina Mahony, Planning Program Manager
- Charlie Baker, Executive Director
- Marshall Distel, Transportation Planner

1. **Welcome + Introductions**
   The meeting began at 5:00 pm.

2. **Review May 16, 2017 Minutes**
   The minutes were unanimously approved, with minor edits for clarity.

3. **Discussion of Targets, Review Local Known Constraints, and Siting Policy Statement**
   Melanie presented the PowerPoint that has been created for the CCRPC Board meeting on 7/19/2017 (attached). The presentation covers the latest thinking on establishing electric generation targets for 2050 in Chittenden County. The committee expressed that the latest way of breaking down the electricity generation targets for Chittenden County and establishing high and low generation targets is much easier to understand than previous method.

   Matt wondered if there is a benefit to breaking the targets out into generation targets per capita, to look at the amount of generation that would be needed for each municipality based on municipal population.

   The committee wondered if it would be possible to represent all energy generation and consumption in MWh instead of BTU in the future.

   The committee expressed concern about the analysis of solar and wind generation breakdowns that could meet the generation targets, and staff found a mistake and corrected it in the analysis which alleviated the concern.

   Jeff expressed concern that the wind generation per acre factor is off, and that 25 acres per 1 MW of wind is too large, because wind turbines have a much more limited footprint and even ancillary development doesn't take that much acreage. Keith wondered if there would be a benefit of looking at the capacity of recently built projects and the acreage impacted by those projects.

Matt asked for an analysis of how much energy could be generated on preferred sites as identified by towns. Melanie indicated that this may be possible in the future, and that we currently have a rough analysis of generation potential for rooftops in the county.

CCRPC has received feedback from DPS on draft policy language. The committee discussed the feedback that development prohibitions must be equally restrictive between different types of development.

Catherine expressed her belief that towns will need to lean on the regional plan to get substantial deference in PUC proceedings. Charlie discussed the feedback received from Sharon Murray on behalf of the Bolton Planning Commission and Selectboard (attached), and expressed his concern that due to the nature of the regional plan, it will never be able to capture the subtleties of regulation and zoning at the local level. Regina reiterated this, saying that CCRPC staff's interpretation of zoning bylaws and plans represents that nothing is black and white.

Will said that the Essex energy committee is thinking that they may benefit more from the writing and enforcement of town-specific solar siting standards instead of broad prohibitions, and that this would be allowed best by "should" language at the regional level, rather than "shall."

The committee discussed the fact that there is still the option for a joint letter of support from the RPC and a municipality to define a preferred site, per the 7/1/2017 net metering rules. Melanie clarified that we would look for the town to initiate this process.

Regina reviewed a sheet of pros and cons that she developed to help the Board determine whether to say "shall," "should" or neither in the ECOS Plan (attached). The Board will review and take action on this at the meeting on 7/19/17. She explained that Option C contains language that will be in the ECOS Plan no matter what, and Options A and B are options for additional language.

Keith expressed some concerns, saying that the RPC shouldn't necessarily be regulating state defined constraints.

Regina stated that having a "shall" statement will lead to more staff work to review Act 250 projects as well, and Jeff asked why these standards would influence Act 250 review. Regina explained that since this policy would prohibit all development, not just energy, it would influence our Act 250 review as well.

Charlie clarified that the board is looking to give general policy guidance right now, and that a "shall" or "should" statement can still be wordsmith-ed later.

The committee discussed state constraints further, and wondered who would advise for the protection of state identified constraints if they weren't in the regional plan. Regina and Charlie confirmed that ANR, DEC and AAFM would all be able to provide comments.

The committee decided to advise the board that options B and C make the most sense. This guidance is the opinion of the committee members individually, not the position of their municipalities.Matt expressed that he is not comfortable taking a strong stance on this right now and does not represent the position of Charlotte, but personally would favor C and B combined.

Jeff mentioned that even though wetlands are a state known constraint, ANR sometimes allows development in them, and "shall" language may lead to the plan disallowing this kind of mitigation. Jeff prefers Option C as an example, and thinks we should look at where we want development, not where we don't want it. He's strongly against the shall and thinks it would be problematic for CCRPC to play a regulatory role. He motions that the energy committee recommend that the board adopt Option C.

Catherine reiterated that local constraints need to be considered because that's the purpose behind Act 174 and this whole process, so we can't ignore local constraints. She expressed that she previously thought "shall" was the right

option, but now she isn't based our discussion. She thinks that B combined with C is the correct option. This is the correct "first step" down this road, and it's a good cautious first step.

Keith is in agreement with Jeff, but wonders if there is a way to say that building on local constraints should only be allowed if there is a significant positive impact. Charlie thinks that this would be a bit of a warning to developers.

Will's opinion is that he personally prefers C because renewable energy development is key for economic development. He says that he would feel better about B if statute stated that preferred sites could be identified by a joint RPC and municipal letter, instead of having this just in the net metering rules. He thinks there are already sufficient regulatory options for challenging projects and shall is not necessary.

Constraints and Suitability – Draft August 10, 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 local constraints based on the following methodology:

> **Known Constraints**: Zoning districts or resource areas where development is prohibited with no exceptions.
>
> **Possible Constraints**: Zoning districts or resource areas where
>
> - Development is not completely prohibited, but impacts of development should be "minimized", "avoided," "limited," 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.

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, or only requested that a portion of their regulations be considered.

No region-wide constraints were added.

Constraints are discussed in Strategy 4 of the ECOS Plan, which addresses the protection of natural resources.

DRAFT

Known Constraints Requested by Municipalities, with Adequate Supporting Regulation, Incorporated into Mapping

Municipality	Resource Areas with Development Prohibition (aka known constraints)	Supporting Regulation
Bolton	1. Wetland Buffers	1. BLUDR Section 3.17(C)(3) All structures and other impervious surfaces shall be set back at least 50 feet from… wetlands identified on Vermont Significant Wetland Inventory (VSWI) maps or through field investigation, as measured from a delineated boundary.
Colchester	1. Steep Slopes 20% 2.Water Protection Overlay District (Wetlands and Surface Waters **Only)**	1. Zoning Regulation Setback from Slopes. The minimum setback from a slope exceeding 45 degrees (See Appendix B) shall be fifty (50) feet (ARTICLE 2). 2. It is the purpose of this Section to provide for the protection and improvement of the surface waters and wetland within the Town of Colchester. These regulations and standards are intended to lead to the establishment and protection of natural areas along the Town's surface waters and wetlands to provide improved protection for water quality and the provision of open space areas and wildlife habitat. It is the further purpose of this Section to provide for the retention of preexisting residential neighborhoods located along surface waters and streams in a manner consistent with the resource protection goals of this Section and the Municipal Plan. For the FEH portion of this district, permitted uses are those uses which are permitted in the underlying zoning district. **For wetlands and surface waters, encroachment is allowed only for very specific uses recreation, access, stormwater management, or agriculture.**
Essex	1. Steep Slopes 20 Percent or Higher	1. Town Plan Page 63: Development shall be designed to prevent the destruction of important natural resources, including wetlands, floodplains, unique geological features, primary agricultural soils, and slopes exceeding 15 percent; and Zoning Regulations 5.6.B.2: Development...shall be prohibited on slopes of 20 percent and steeper due to the likelihood of environmental damage.
Hinesburg	1. Steep Slopes (25% or greater)	1. Hinesburg Zoning 5.26.2(1): Building sites and related development areas…shall avoid primary resource areas…including steep slopes of 25% or greater.

Jericho	1. Well Protection Area Overlay District 2. Natural Areas and Natural Communities 3. Primary Conservation Areas	1. Only the following uses are permitted within 200 feet surrounding the water supply wells service the Jericho Village Water District, the Foothills water supply, the Jericho East water supply, and the Underhill-Jericho Water District, the Jericho Heights water supply, and any other public water supply: Wildlife management, Passive recreation, Proper operation and maintenance of existing dams, splash boards, and other water control, supply and conservation devices, Maintenance and repair of any existing structure, Agriculture and forestry provided that fertilizers, herbicides, pesticides and other leachable materials are neither applied nor stored outdoors. (No conditional uses) [Land Use Regulations 6.6.2] 2. Natural Resources Overly District: §6.7. The purpose of the Natural Resources Overlay District is: to preserve wildlife habitat such as deeryards; to conserve and protect **identified natural areas and natural communities** such as significant habitat for flora and fauna; and to preserve identified scenic resources such as ridgelines. Only wildlife management, passive recreation, selective timber cutting and agriculture not involving structures is allowed in the natural areas and natural communities. Areas delineated as "natural areas and natural communities" shall consist of areas designated by the Vermont Natural Heritage Program and indicated on the map titled "Biological Natural Areas of Chittenden County" dated January, 1991 which are hereby incorporated by reference and made a part of this section. 3. Tiered Conservation Priorities, as shown on Map 9 of the Town Plan, depicts all the conservation priorities identified in Jericho in three tiers of priority. • Primary Conservation Areas are the most sensitive places: the rare natural communities, rare species, vernal pools, riparian areas, river corridors, and wetlands. These areas occupy a small percentage of the town and should not be developed. (pg. 38) [May be added to zoning in next update]
Westford	1.Steep Slopes 25% or greater 2. Deer Wintering Areas 3. Ledge Outcroppings; Flood Hazard Overlay District, Water Resources Overlay	1. Development must not occur on areas containing steep slopes (pgs. 3-20, 3-51) 2. Development must not disturb areas with significant natural resources (SNR),deer wintering areas are included in the definition of SNR (pg. 3-52) 3. For the purposes of this provision, unbuildable land will include: (a) Land within the Water Resources or Flood Hazard overlay district. (b) Land with a slope of 25% or greater. (c) Ledge outcroppings. (pg. 3-20) **[ALL EXCERPTS FROM ZONING REGUALTION]**
Williston	1. Watershed Protection buffers 2. Primary Viewshed Areas	1. Williston Unified Development Bylaw 29.9.6: Watershed protection buffers shall remain undeveloped, except as provided here: Development within watershed protection buffers shall be limited to utility and road crossings; trails and trail crossings, with minor related facilities like signs and benches; and runoff and erosion control measures (29.9.6.3). 2. Bylaw 27.9.4: Site work, structures, and/or impervious surfaces shall not encroach upon the designated Scenic Viewshed except: All lands that are included in Williston's designated growth center, and all minor improvements to residential property listed in Chapter 20.

Possible Constraints Requested by Municipalities, with Adequate Supporting Regulation, Incorporated into Mapping (* means that the municipality requested that a constraint be considered a "known" constraint, but staff did not feel that there was adequate regulation to support the request, and it was changed to a possible constraint)

Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Burlington	1. Historic Districts 2. Mixed Use, Institutional Core Campus and Enterprise Zoning Districts 3. Historic Neighborhoods (Eligible for Listing) 4. Designated Downtown and Neighborhood Development Area 5. Official Map Features 6. View Corridors	1 and 3. Burlington's Standards for Historic Buildings and Sites state that new additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment. (5.4.8) 2. Development Ordinance Section 4.4.1 and 4.5.2: Development [in the Downtown Mixed Use Districts and institutional Core Campus Overlay] is intended to be intense with high lot coverage and large tall buildings placed close together. Development in the Enterprise District is intended to ensure that sufficient land area is appropriately designated within the city to provide an adequate and diversified economic base that will facilitate high-density job creation and retention (4.4.3) 5. Designated Downtown and Neighborhood Development Area are intended to be the center of Burlington's economic and commercial development 6. City Council Authority 7. Development Ord. section 4.4.1 states that building heights and forms shall respect the principal view corridors, defined as the rights-of-way of Pearl, Cherry, College, and Main Streets, and preserve or enhance views to the lake and mountains.	
Bolton	1. Conservation District * 2. Very Steep Slopes (25% or more) * 3. Forest District 4. Steep Slopes (15-25%) 5. Surface Water Buffers* 6. Town-Owned Land* 7. Flood Hazard Overlay II*	1. BLUDR Table 2.7(A): The Conservation District includes all land above 2,500 feet in elevation, the town's permanently conserved lands, including town and state owned parks, forests and conservation land, and existing private in-holdings on Honey Hollow Road. Conditional Uses: Alpine Ski Facility, Primitive Campground, Nordic Ski Facility, Public Facility, Recreation/Outdoor, Telecommunications Tower. 2. BLUDR Section 3.16(B): All development is specifically prohibited on very steep slopes in excess of 25% except for the following which may be allowed by the Development Review Board subject to conditional use review and the requirements of Subsection (A): ski lifts and ski trails associated with an approved alpine or Nordic ski facility, hiking and rock climbing trails, development on pre-existing lots legally in existence as of the effective date of these regulations for which the Board determines that there is no portion of the lot on which the slope does not exceed 25% and, as such, that the total prohibition of development on slopes in excess of 25% would unduly preclude reasonable use of the lot. 3. BLUDR Table 2.6(A): The purpose of this district is to protect Bolton's more remote and inaccessible forested upland areas from fragmentation, development, and undue environmental disturbance, while allowing for the continuation of traditional uses such as forestry, outdoor recreation and compatible low density residential development 4. BLUDR Section 3.16(A): Development on steep slopes equal to or in excess of 15%, or which results in such slopes, shall be subject to conditional use review under Section 5.4 and [provisions including stormwater management, erosion control and design intended to minimize visual impacts from public vantage points]. 5. BLUDR Section 3.17(B)(3) and (C)(1): All structures and impervious surfaces, except for allowed encroachments under Subsection (D) below, shall be set back at least…200 feet from Goose Pond, Preston Pond and Upper Preston Pond, as measured from the annual mean high water mark.In addition, all structures and other impervious surfaces shall be set back at least 50 feet from… the shorelines of all other naturally occurring lakes and ponds with a surface area greater than one (1) acre, as measured from the mean water line. 6. Selectboard Authority 7. BLUDR Table 2.8 states that the only new construction allowed in the FHO II district is an accessory structure to an existing use	

** Municipality requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis. Conserved Lands are a Possible State Constraint.

Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Charlotte	1. Shoreland Setback and Buffer Area Surface Waters, Wetlands, and Buffer areas* 2. Flood Hazard Areas* 3. Special Natural Areas* 4. Wildlife habitat* 5. Conserved Land 6. Historic Districts, Site, and Structures 7. Slopes greater than 15% 8. Land in Active Agriculture 9. Water Supply Protection Areas 10. Scenic Views 11. Significant Wildlife Habitat	1-4: Zoning Regulation page 65 states Land development in Charlotte is evaluated and sited so as to avoid and / or minimize impacts to the following AHPV as identified in Charlotte's Town Plan and Land Use Regulations: flood hazard areas, Surface waters, wetlands and associated setback and buffer areas, Shoreland setback and buffer areas, special natural areas, Wildlife habitat (as identified in Charlotte Town Plan or as field delineated) 5-11: Zoning Regulation page 65 states Land development in Charlotte is evaluated and sited so as to avoid and / or minimize impacts to the following AHPV as identified in Charlotte's Town Plan and Land Use Regulations: Historic districts, sites and structures (as listed in Vermont State Historic Register); Steep slopes (equal to or in excess of 15%),Land in active agricultural use	
Colchester	1. Shoreland Setback and buffer area 2. Shore Land Overlay District* 3.Water Protection Overlay District (EXCEPT for wetlands and surface waters)*	1. Zoning Regulation To preserve the natural growth and cover of the shorelines, to preserve water quality, to prevent pollution, to regulate development and appearance of the shorelines, to prevent erosion, to prevent nuisance, and to preserve the property rights of the shoreline property owners. Permitted uses are those uses which are permitted in the underlying zoning district. 3. It is the purpose of this Section to provide for the protection and improvement of the surface waters and wetland within the Town of Colchester. These regulations and standards are intended to lead to the establishment and protection of natural areas along the Town's surface waters and wetlands to provide improved protection for water quality and the provision of open space areas and wildlife habitat. It is the further purpose of this Section to provide for the retention of preexisting residential neighborhoods located along surface waters and streams in a manner consistent with the resource protection goals of this Section and the Municipal Plan. For the FEH portion of this district, permitted uses are those uses which are permitted in the underlying zoning district.	

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Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Essex	1. Scenic Resources Protection Overlay District* 2. Resource Protection District Industrial 3. Steep Slopes 15-20% 4. Core Habitat* 5. Habitat Blocks*	1. Essex Zoning Table 2.20.A: The purpose of this overlay district is to avert or minimize the adverse impacts of development on identified scenic resources, viewsheds and roadscape corridors in the Town of Essex through appropriate site planning and design practices. The standards are intended to provide flexibility so that proposed development can be designed to fit the particular characteristics of the site on which it is located. 2. Essex Zoning Table 2.14: The objective of the RPD-I and the related O1 District parcel is to protect such natural attributes for public enjoyment, and, to carry out development activities in harmony with the natural surroundings. Of the 751.7 acres in this district, 60 percent has been formally designated for recreation/conservation use (including all of the related O1 District acreage) and the remaining 40 percent for permitted uses as set forth in (B) below that satisfy all other district requirements. 3.Zoning Regulations 5.6.B.2: Development is discouraged on slopes of 15 percent or steeper due to the likelihood of erosion and stormwater runoff problems. 4 and 5. Town Plan Policy 3(S).4 (p. 63): "Critical wildlife habitat, including but not limited to deer wintering areas, rare and/or endangered species habitat, local fisheries, and identified travel corridors, shall be protected from inappropriate development and land management activities." Town Plan p. 63: "By recognizing its natural features – topography, slopes, geology, soils, water resources, agricultural and forest lands – a town can protect those resources and ensure a high quality of life for its residents." Town Plan p. 72, Forest Lands: "Essex's forests provide large habitat blocks for animals and offer economic potential through timber harvests. Forest trails open to hiking, mountain biking, horseback riding, cross-country skiing and snowmobiling improve quality of life and can support a recreation-based sector of the economy. Nearly 13,000 acres in Essex are forested, yet forest fragmentation from development is a major problem in Vermont, including Essex. The largest forests in Essex stretch north from the northeastern and northwestern parts of town into Colchester, Milton, Westford, and Underhill. The largely unbroken woodlands serve as prime habitat – the Vermont Agency of Natural Resources scores both forests as 9 out of 10. When development must occur in those habitat blocks, every effort shall be taken to minimize the intrusion on the forests through the use of siting standards."	
Essex Junction**	See footnote		
Hinesburg**	1. Moderately Steep Slopes (15-25%) 2. Core Wildlife Habitat 3. Village Growth Area and Industrial zoning districts Town requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis per their individual development restrictions	1 and 2. Hinesburg Zoning 5.26.2(1): Building sites and related development areas…shall minimize impact on secondary resource areas...including slopes between 25-25% and core wildlife habitat. 3. Hinesburg Zoning, Section 3.1: Village Growth Area Purpose. Development densities should be maximized to the extent practical in order to better realize Hinesburg's overall "smart growth" strategy.	

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Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Jericho	1. Secondary Conservation Areas 2. Village Centers	1. Tiered Conservation Priorities, as shown on Map 9 of the Town Plan, depicts all the conservation priorities identified in Jericho in three tiers of priority. Secondary Conservation Areas are also very sensitive but some activities can occur within them without compromising their integrity. These include wildlife road crossings, a larger area surrounding vernal pools, significant (but not rare) natural communities, and ledge and cliff habitat that may be important for wildlife. In general, these places should be evaluated carefully when development is proposed within them for potential conflicts with the natural resource values. (Town Plan Pg. 38) 2. The purpose of the Village Center District is to encourage the concentration of people and community-focused activities in traditional centers (Land Use Regulations 3.2.7)	
Milton**	1. Agriculture Soils* 2. Town Forest and Municipal Natural and Rec Areas with Management Plans* 3. Habitat Blocks 8-10* 4. Encumbered Open Space*	1. For PLANNED UNIT DEVELOPMENTS-Residential that occur outside of the Town's core, in areas zoned Agricultural/Rural Residential, Shoreland Residential and Forestry/Conservation/Scenic Ridgeline, a key goal for PLANNED UNIT DEVELOPMENTS-Residential shall be to retain rural community characteristics through the selection of appropriate BUILDABLE ENVELOPES that will minimize the visual impact of proposed developments from existing roadways. Included within the realm of rural community character is the preservation of existing farms and prime agricultural soils 2. Selectboard Authority 3. Town Plan Goal 8.1: Continue protection of existing natural resources identified in this chapter. [Including critical habitat] 4. Section 804.6: OPEN SPACE Requirements for developments with ten (10) or more multi-family residential units. The proposal shall provide for the preservation and maintenance of OPEN SPACE which is designed to be an integral part of the whole development. The size, shape and locations of OPEN SPACE shall be approved by the Development Review Board. The OPEN SPACE shall be protected by appropriate legal devices to ensure the continued USE of such lands for the purpose of AGRICULTURE, FORESTRY, recreation or conservation. Such mechanisms include dedication of development rights, conservation easements, homeowners associations, restrictive covenants, conveyance to land trusts, or other appropriate grants or restrictions approved by the Development Review Board. Permitted future USES and maintenance of the OPEN SPACE shall be specifically identified as part of the approval of development with ten (10) or more multifamily units. HOWEVER, the town plan recognizes the need to improve these regulations: Goal 8.5 is to "Establish standards for more appropriate, useful, and usable open space that is set-aside as a result of cluster subdivisions, such as Planned Unit Developments."	
Richmond	Richmond has requested the following constraints, but there is not supporting language for them in the zoning or in the town plan, as the plan is expired and a drafting process is ongoing. The following will be considered by CCRPC staff after the adoption of the Town Plan: 1. Ridges 2. Slopes >_ 30% 3. Trails 4. Conserved Land 5. ANR Primary Conservation Areas 6. Highest Priority Habitat derived from STA Report		
Shelburne	1. Significant View Areas 2. Archeologically Sensitive Areas 3. Lakeshore Buffer	1. Direct development in a manner to minimize undue adverse impacts on the Town's scenic beauty, open lands, shorelines, and ridgelines with particular attention paid to roadside views or views from Lake Champlain. Identification of such resources can be aided by the maps listed in Objective 1 (Town Plan pg. 30) 2. could not map these 3. The purpose of this district is to preserve vegetation and natural cover of the shore adjacent to Lake Champlain in order to preserve views both from and of the lake, the preservation of water quality and prevention of pollution, the recognition of the extreme vulnerability of lakeshore properties to erosion and other nuisances, and the avoidance of problems resulting from over intensive exploitation of the lakeshore. Uses are permitted according to underlying district (Zoning)	

** Municipality requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis. Conserved Lands are a Possible State Constraint.

Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
South Burlington	1. Source Protection Area Zone 1* 2. Wetlands and buffers 3. Habitat Blocks and Riparian Connectivity 4. Slopes 20% or greater 5. SEQ Natural Resource Protection Area	1. The 2016 Comprehensive Plan includes a section on energy siting (page 3-41) states "South Burlington recognizes that there may at times be competing goals. While the City supports the harnessing of renewable energy, particularly in the case of solar arrays, it must consider the impacts of such structures on open spaces and wildlife corridors. As such, this plan shall strive to provide guidance as to where the siting of renewable energy facilities should be avoided in favor of certain conservation areas: • All Primary Conservation Areas identified per the map included in the 2014 South Burlington Open Spaces Report • Uncommon Species, Habitat Blocks identified per the Secondary Conservation Maps included in the 2014 South Burlington Open Spaces Report." SPA-Zone I is indicated on the Primary Conservation Areas map. 2. Zoning It is the purpose of this Section to provide appropriate protection of the City's wetland resources in order to protect wetland functions and values related to surface and ground water protection, wildlife habitat, and flood control. Encroachment is conditional with State CUD and/or DRB approval (Article 12) 3. this plan shall serve to provide guidance as to where the siting of renewable energy facilities should be avoided in favor of certain conservation areas: All Primary Conservation Areas identified per the map included in the 2014 South Burlington Open Spaces Report. Uncommon Species, Habitat Blocks identified per the Secondary Conservation Maps included in the 2014 South Burlington Open Spaces Report. (Town Plan, 3-41) 4. The presence of important ecological resources, as well as steep slopes, shallow soils, and extensive bedrock outcroppings should be incorporated into all types of planning for development and conservation (Town Plan, 2-105). 5. ??? Dwellings are permitted	The City as requested that their Source Protection Area - Zone 1 be a Known Constraint, but the source policy for this reads more like a possible constraint.

** Municipality requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis. Conserved Lands are a Possible State Constraint.

Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Underhill	1. Steep slopes (15-25%) 2. Mt. Mansfield Scenic Preservation District* 3. Wetlands and associated buffers, Surface Waters and buffers* 4. Steep Slopes (>25%)* 5. Above 1,500 ft. Elevation*	1. The purpose of this section is to regulate land subdivision and development to minimize site disturbance and construction on steep slopes (15% to 25%), and to avoid site disturbance on very steep slopes (> 25%) 2. Zoning Regulation: All structures, with the exception of telecommunications and wind towers and ancillary 25 facilities, tent platforms and lean-tos, and alpine and Nordic ski facilities, are prohibited over 1,500 feet in elevation above mean sea level. Town Plan: The Planning Commission should continue to support the current regulation prohibiting development above 1500'; but the Commission should also ascertain whether the community desires alternative energy structures on hillsides and ridgelines, including those above the 1500' elevation level (pg. 21). The Planning Commission shall reconcile the seeming conflict between the competing interest of 1500' elevation ridgeline protection and wind power development through regulatory tools such as specific regulations; individual site plan review; and conditional use review (pg. 67). 3. Zoning Regulations: Protect the beneficial functions of wetlands including retaining stormwater runoff, soil stabilization, pollutant filtering, flood reduction, and protecting groundwater quality and quantity. Prevent soil erosion and river/stream channel instability. Protect and maintain water quality. .Protect wetland and riparian wildlife, fish, and rare, threatened or endangered species habitat. Preserve public health and safety through the establishment of vegetated riparian buffer zones, which serve to slow and absorb floodwaters (pg. 60). 4. Zoning Regulations- to avoid site disturbance on very steep slopes (> 25%),Exemption Utilities, including telecommunications facilities, power generation facilities, and transmission lines regulated by the Vermont Public Service Board. (pgs. 53-54) 5. All structures, with the exception of telecommunications and wind towers and ancillary facilities, and tent platforms and lean-tos are prohibited in this district over 1,500 feet in elevation above mean sea level (pgs 14,17,20,23)	1. There is a conflict between the zoning and town plan. Dwelling units are a permitted use in the Mt. Mansfield Scenic Preservation District. The towns desire to restrict renewable energy development does not match their zoning regulations. The language in the Plan expresses that that the Town has a desire to protect its ridgelines for all types of development.
Westford	1. Prime (and State-wide significant) Agricultural Soils	1. Development must not disturb areas with significant natural resources (SNR),prime or statewide ag soils are included in the definition of SNR (pg. 3-52)	Check to ensure the Water Resource Overlay District covers streams draining less than 2 miles, Town requested ag soils as a possible constraint but regulation is more restrictive--should possibly be a Known Constraint?

** Municipality requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis. Conserved Lands are a Possible State Constraint.

Municipality	Possible Constraints	Supporting Regulation	Comments (if provided)
Williston**	1. Conservation Areas/Natural Communities*	1. 27.4.4 Avoid Undue Adverse Impact. Alternative site designs may be required, alternative locations for the development may be required, and the minimum amount of land required to be set aside as open space may be increased, if necessary to avoid undue adverse impacts to **Conservation Areas.**	The town also requested that there be difference constraints for wind (viewsheds, watersheds, conservation areas) and solar (watershed, conservation) The town requested that Significant Wildlife Habitat Areas be listed as a possible constraint, but 27.5.6.4 specifically exempts alternative and renewable energy installations from SWHA regulations. The WCC stated that in consideration of renewable energy projects within Significant Wildlife Habitat Areas, a Habitat Disturbance Assessment should be conducted (similar to the Town's requirement for new development) and that there should be no forest clearing.

** Municipality requested that Conserved Lands be elevated to a Known Constraint. CCRPC staff finds that the development of conserved lands are governed on a case-by-case basis. Conserved Lands are a Possible State Constraint.

Comments on "Shall" Language and Technical Assistance

Municipality	Respondent	Should the ECOS Plan prohibit energy generation in areas with known constraints, using "shall" language?	Do you want assistance from CCRPC on enhanced energy planning?
Burlington	Planning Commission	the Planning Commission does not feel comfortable providing comment on this issue until the CCRPC receives feedback from the state.	No
Bolton	Sharon Murray, Selectboard Member	Yes (also see above)—otherwise how do these differ from "potential" constraints? Per §4384a(3) the regional energy element/plan and enhanced local energy elements/plans are required to identify both "potential areas for the development and siting of renewable energy resources ***and areas that are unsuitable for siting those resource*** s…" That was the intent behind A.174 w/re to integrating energy and land use planning, in association with giving more weight to regional and municipal plans in Section 248. This also suggests however, that known constraints should be given pretty careful consideration at the regional as well as local level.	At some point RPC assistance in this area would be welcome, but likely not in FY18. As you know, our Planning Commission will be focusing on an update of our development regulations over the next year or so—which potentially could include some assistance with solar facility screening standards?
Charlotte	Planning Commission, Energy committee	According to Act 174, "the ECOS Plan will carry greater weight—substantial deference—in the Section 248 siting process for energy generation. The EC recommends that yes, we want our regional plan (ECOS Plan) to prohibit energy generation in areas that have "known" constraints." If this were not the case, then making the distinction between "known" and "possible" constraints would be rendered meaningless and not have any weight or credibility. It's crucial for public buy-in on the "possible" constraints to demonstrate a willingness to protect the "known" constraints.	Yes
Colchester	Planning Commission	The Commission was supportive of including language in the regional plan regarding renewable energy prohibitions in areas of known, previously called Level 1, constraints. The Commission did agree that projects located on existing structures or impervious areas were acceptable (i.e. an existing home located within the Floodplain), and that any prohibition should be based on a site investigation to ensure the presence of the constraint. There was not support for prohibiting renewable energy generation in areas of possible constraints, previously called Level 2.	We are currently working with Colchester in FY 2017 and work will likely continue in FY18
Hinesburg	Planning Commission	We do want the regional plan to prohibit energy generation in areas with known constraints; however, we recognize that gaining access to unconstrained areas may require passing through a constrained area. We allow for this in traditional development projects as follows (section 6.12.1 #2, Subdivision Regulations): "Building sites and related development areas (e.g., roads, driveway, lawn, etc.) shall avoid primary resource areas and minimize impact on secondary resource areas. Limited impacts to primary resource areas for access (e.g., road or driveway) may be allowed, at the discretion of the Development Review Board, if there are no alternate development plans and no other means of access. In such cases, the access shall be designed to impact as little of the primary resource area as possible." We encourage the regional plan to take a similar approach.	Yes
Jericho	Planning Commission	[The Planning Commission members] are generally OK with that [the statement] but are concerned about potential future technology for renewable structures that could be developed that would not be intrusive or harmful to these areas. If that could be considered in the language, that is OK. Also, just for clarity, they would like it to add the following underlined word "… unless located on an existing structure or <u>existing</u> imperious surface."	Yes
St. George			Yes
South Burlington	Staff with input from energy committee	I would recommend that renewable energy siting be treated, in these areas, as any other form of development would be treated. In most cases, this will mean that yes, these facilities would be prohibited. But there may be circumstances where a State or Federal permit would grant other forms of development in these areas; renewable energy should be treated similarly.	Yes assistance with identifying preferred sites

Underhill	Planning Commission and Energy Committee	Both the Planning Commission and the Energy Committee answered in the affirmative to this question, as both generally believed that the regional plan should regulate energy generation in areas with State and local known constraints.	Yes

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.

b. The intent of this plan is to provide for the development of renewable energy resources per 24 V.S.A.§4302(c)(7) in order to achieve the goals established in the 2016 Vermont Comprehensive Energy Plan. In particular, to meet 90% of Vermont's energy need from renewable sources by 2050, in addition to conservation efforts. A significant amount of new renewable energy generation will be necessary. Our target to meet this 90% by 2050 goal is for xxx,xxx MWh of new renewable energy generation output to be developed in this region.

The following statements are CCRPC's energy facility siting policies~~:~~. Many of the policy statements overlap with other statements in this section and within sections of 3.2.3 and 3.2.4.

i. Renewable energy generation should locate on preferred sites[1] as defined by state statute.

ii. Renewable energy generation should locate in our areas planned for growth provided infill development is not precluded.

iii. Ground-mounted solar larger than 15 kW and large-scale wind[2]installations should not locate within state designated village centers, growth centers, downtowns, new town centers, neighborhood development areas, or and historic districts on the State or National

[1] "Preferred Site" means one of the following and applies to net-metered projects up to 500kW and to one-sixth of the annual increase to new standard offer plants of 2.2 MW or less, separately, one-sixth of the annual increase to new standard offer plants that will be wholly located over parking lots or on parking lot canopies.
(1) A new or existing structure whose primary use is not the generation of electricity or providing support for the placement of equipment that generates electricity;
(2) A parking lot canopy over a paved parking lot, provided that the location remains in use as a parking lot;
(3) A tract previously developed for a use other than siting a plant on which a structure or impervious surface was lawfully in existence and use prior to July 1 of the year preceding the year in which an application for a certificate of public good under this Rule is filed. To qualify under this subdivision (3), the limits of disturbance of a proposed net-metering system must include either the existing structure or impervious surface and may not include any headwaters, streams, shorelines, floodways, rare and irreplaceable natural areas, necessary wildlife habitat, wetlands, endangered species, productive forestlands, or primary agricultural soils, all of which are as defined in 10 V.S.A. chapter 151;
(4) Land certified by the Secretary of Natural Resources to be a brownfield site as defined under 10 V.S.A. § 6642;
(5) A sanitary landfill as defined in 10 V.S.A. § 6602, provided that the Secretary of Natural Resources certifies that the land constitutes such a landfill and is suitable for the development of the plant;
(6) The disturbed portion of a lawful gravel pit, quarry, or similar site for the extraction of a mineral resource, provided that all activities pertaining to site reclamation required by applicable law or permit condition are completed prior to the installation of the plant;
Vermont Rule 5.100
Effective July 1, 2017 Public Utility Commission Page 10 of 58
(7) A specific location designated in a duly adopted municipal plan under 24 V.S.A. chapter 117 for the siting of a renewable energy plant or specific type or size of renewable energy plant, provided that the plant meets the siting criteria recommended in the plan for the location; or a specific location that is identified in a joint letter of support from the municipal legislative body and municipal and regional planning commissions in the community where the net-metering system will be located

[2] Commercial and Industrial Wind Generation is a turbine or collection of turbines with a minimum hub height of 50m or greater not including the height of the blades and has a capacity of between 100 kW and less than 1MW for commercial scale. Utility scale wind has a capacity of 1MW or more.

Register, with the exception of generation on preferred sites provided infill development is not precluded.

iv. 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.

v. Large scale wind installations should only be located on prime and base wind potential areas as indicated on Map X.

~~vi.~~

~~vii.~~vi. Energy generation should locate where distribution and transmission infrastructure has or will have adequate capacity, and does not interfere with the reliability of the electricity grid provided the site is not otherwise constrained per strategy 3.2.3.1.f, 3.2.4.1.e~~.~~, 3.2.4.2.e.~~-~~)

~~viii.~~vii. All ground- mounted solar projects must meet or exceed the setback standards in 30 V.S.A. §248(s).

~~ix.~~viii. All ground-mounted solar electric generation facilities~~,~~ shall comply with 30 V.S.A. §248(b)(B).

~~x.~~ix. Renewable energy generation should avoid state and local known constraints and minimize impacts to state and local possible constraints, defined in strategies 3.2.3.1.f, 3.2.4.1.e, 3.2.4.2.e.)

~~xi.~~x. Other types of renewable energy generation including sustainable uses of biomass for heating, bio-digesters for electricity generation, and optimizing the energy potential for existing hydro-electric dams are supported by CCRPC.

~~xii.~~xi. 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.

~~xiii.~~xii. 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.

xiii. .

~~xiv.~~

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

Commented [MN1]: The intent here is to provide direction on where wind development should go. How can we re-word this so that we have a policy statement on where wind could be located? Should we say base and prime wind potential are suitable for large scale wind development provided state and local known constraints are avoided and impacts to state and local possible constraints are minimized?

See attached Wind Resource Areas Map

Local Constraints are not yet considered in the map.

Commented [MN2]: Distribution and Transmission Infrastructure will be added to Map 3 of the ECOS Plan

Commented [MN3]: FYI: This means that in-state ground-mounted solar electric generation facilities along a State or municipal highway, measured from the edge of the traveled way, have a set back of 100 feet for a facility with a plant capacity exceeding 150 kW or 40 feet for a facility with a plant capacity less than or equal to 150 kW but greater than 15 kW. If the ground-mounted solar electric generation facility is not along a State or municipal highway, 30 V.S.A. §248(s) requires a setback from each property boundary that is not a State or municipal highway of 50 feet for a facility with a plant capacity exceeding 150 kW or 25 feet for a facility with a plant capacity less than or equal to 150 kW but greater than 15 kW.

Commented [MN4]: which requires compliance with the screening requirements of a municipal bylaw adopted under 24 V.S.A. § 4414(15) or a municipal ordinance adopted under 24 V.S.A. § 2291(28), and the recommendation of a municipality applying such a bylaw or ordinance, unless the Board finds that requiring such compliance would prohibit or have the effect of prohibiting the installation of such a facility or have the effect of interfering with the facility's intended functional use.

Commented [MN5]: Distribution and Transmission Infrastructure will be added to Map 3 of the ECOS Plan

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. CCRPC's Section 248/250 Review Policy- To advance river hazard protection, development should not take place in field verified state and local known constraints as shown in map 6 and defined herein. Any development should be designed to minimize impacts to field verified state and local possible constraints
    i. State and Local Known Constraints: DEC River Corridors, FEMA Floodways, and Municipal Water Quality Setbacks. Local Known Constraints: TBD
    ~~i.~~ii. State and Local Possible Constraints: FEMA Special Flood Hazard Areas and hydric soils. Local Possible Constraints: TBD

Commented [MN6]: Map 6 needs to be updated to reflect act 174 constraints

Commented [MN7]: Need to source date of map. How do we address changes to zoning? We think that we may not need to if a municipality is more restrictive than what we say in the ECOS Plan.

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

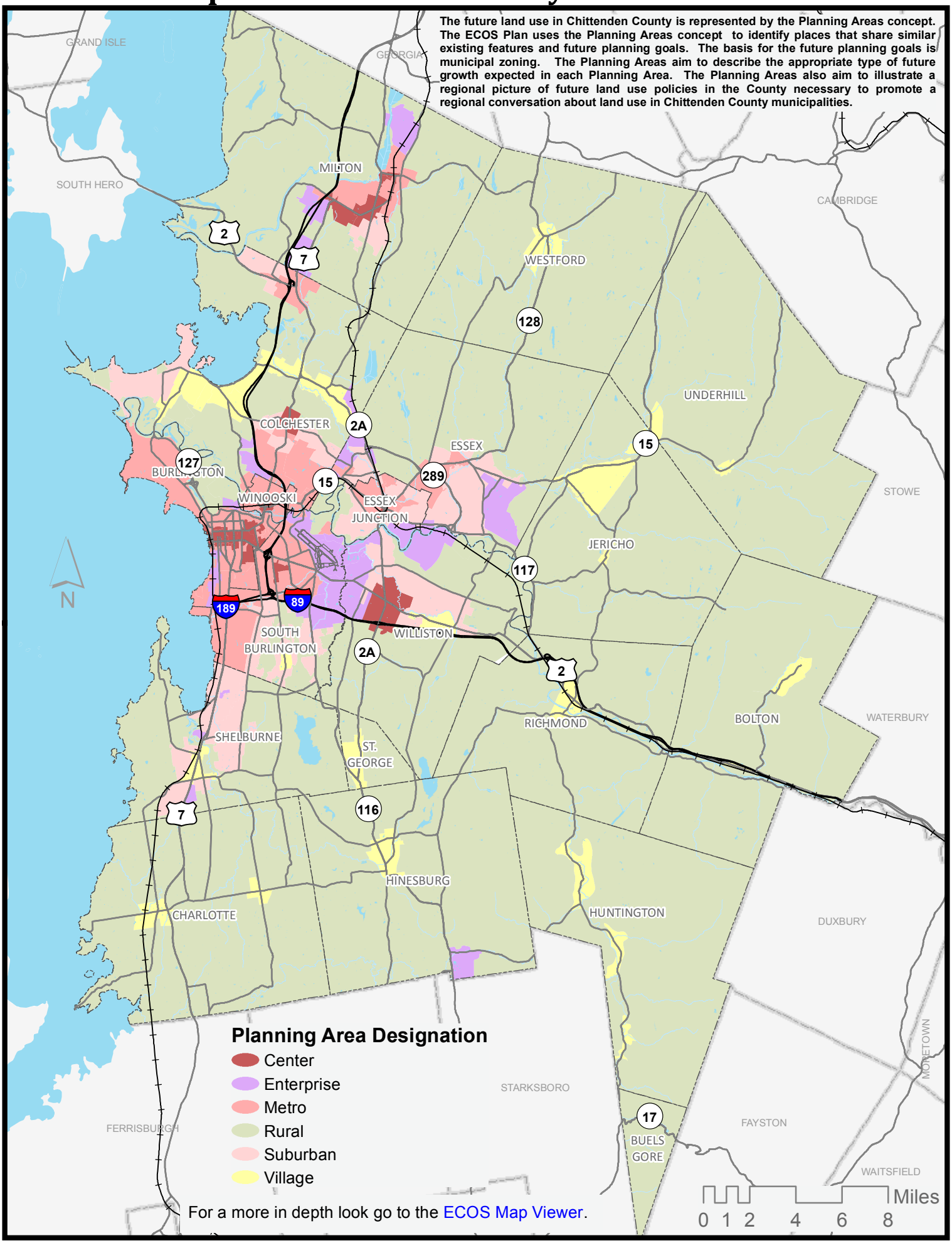
1. **Habitat Preservation** - Protect forests~~,~~ and wetlands ~~and agricultural lands from development~~, and promote vegetative landscaping in urban areas in order to maintain natural habitats, natural storm water management and carbon sequestration. This will keep people and infrastructure out of 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. CCRPC's Section 248/Act 250 Review Policy- To advance habitat preservation, development should not take place in field verified local known state and local constraints as shown on map 6 and defined herein. Any development should be designed to minimize impacts to field verified state and local possible constraints shown on map 6 and defined herein
      - State and Local Known Constraints: State -significant natural communities and rare threatened and endangered species, vernal pools (unconfirmed and confirmed), and Class 1 and Class 2 Wetlands. Local Known Constraints: TBD

      Possible State and Local Known Constraints: 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

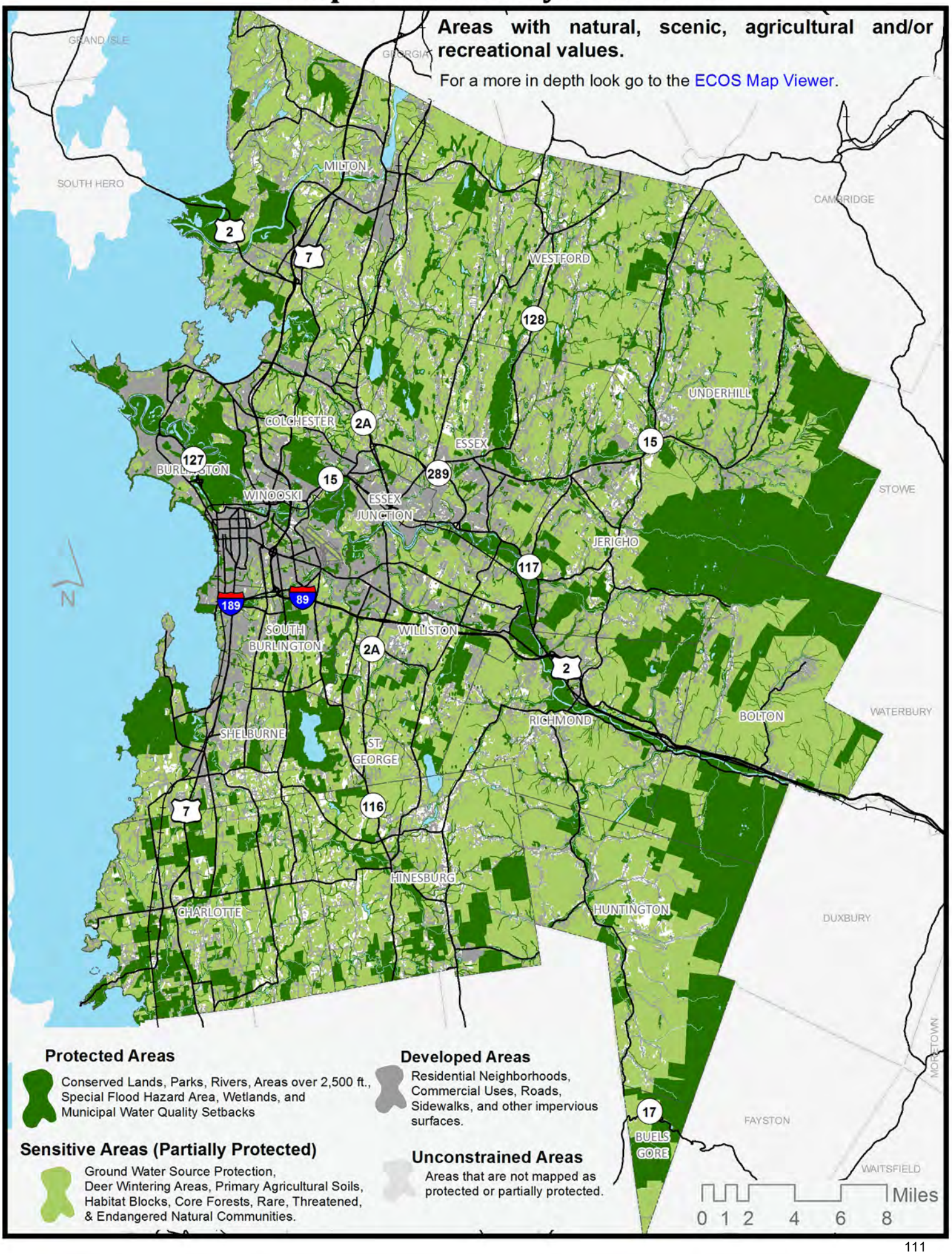
2. **Working Lands Implementation** – To preserve the soul of Vermont, as well as move forward into the future with resiliency, Vermont needs to protect the farmland and forestland we have and support existing and new operations (including, but not limited to, un-intensive urban and suburban home gardens 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 strengthen the local food system balanced with the need for the production of renewable energy.
e. CCRPC Act 250/Section 248 Review Policy- To protect agricultural land, any development should be designed to minimize impacts to field verified state and local possible constraints shown on map 6 and defined herein.
    - Possible State or Local Constraints- Agricultural soils and Act 250 agricultural soil mitigation areas. Local Known and Possible Constraints: TBD

Map 2 - Chittenden County Future Land Use



Map 6 - Natural System Areas



Wind Energy Resource Areas

DRAFT

Chittenden County, Vermont
Act 174
The Energy Development Improvement Act of 2016

Date: 5/11/2017

Legend

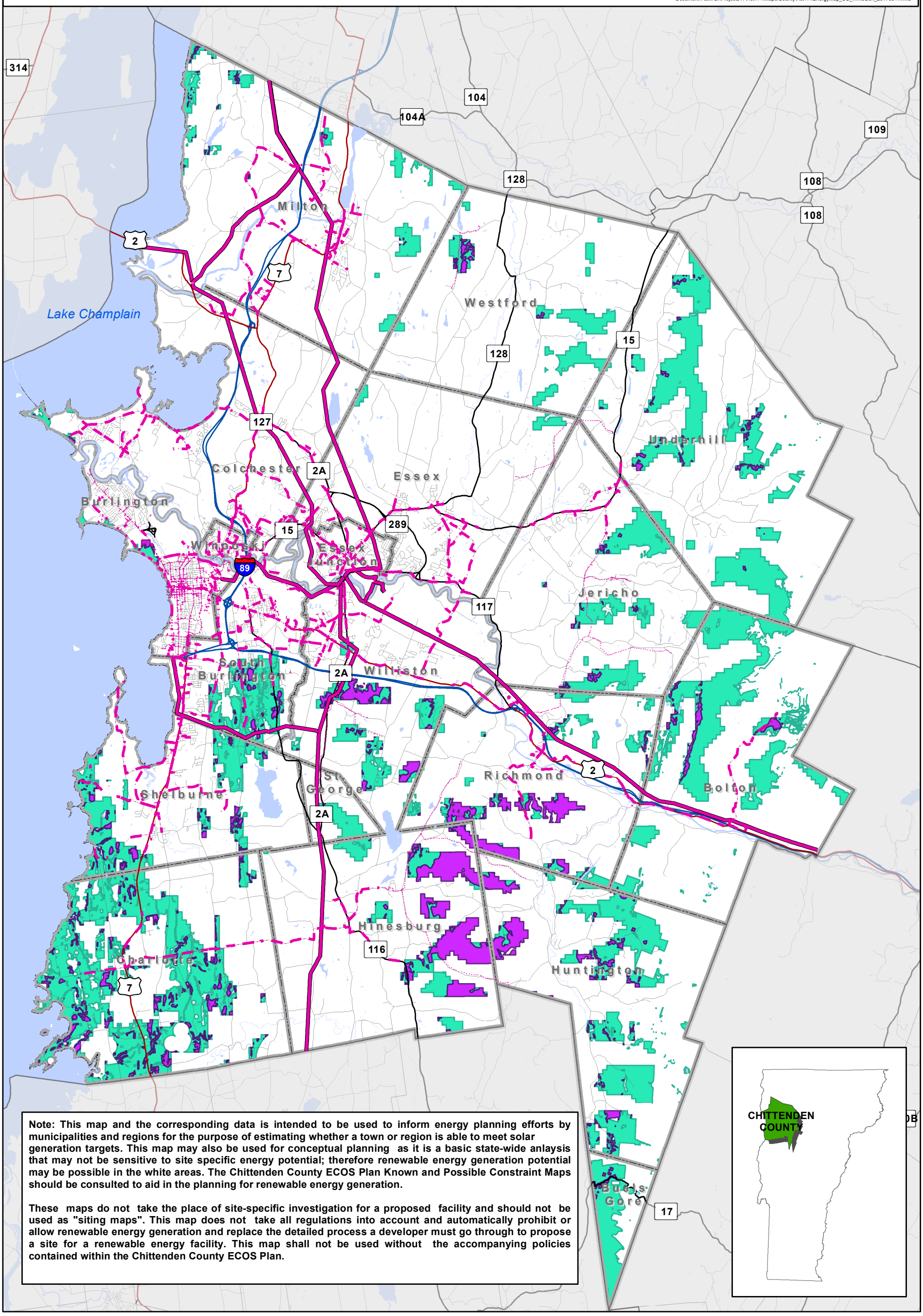
- Prime Wind Potential: Areas of high wind potential for commercial generation and no known state constraints
- Base Wind Potential: Areas of high wind potential for commercial generation and the presence of possible state constraints
- 3 Phase Power Lines
- Transmission lines

0 2.5 5 10 Miles

N

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.

Document Path: D:\Projects17\Act174\Maps\County\Act174EnergyMap_CC_WindGen_20170511.mxd



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 anlaysis 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.