Central Vermont Regional Planning Commission

REGIONAL PLAN COMMITTEE

Change of Location!

August 29, 2018 at 4:00pm

Montpelier City Hall, City Manager's Conference Room

Page		AGENDA
	4:00[1]	**Adjustments to the Agenda**
		Public Comments
2	**4:05**	**Winooski Tactical Basin Plan**, *Pam DeAndrea* & *Clare Rock* (enclosed)[2] The Draft Plan can be viewed at: http://centralvtplanning.org/programs/watershed/. a) Introduce the Plan and the Committee's role b) Recommend Plan comments and a Regional Plan compatibility determination to the Board of Commissioners
	4:35	**Rick Weston, Director of Policy at the Regulatory Assistance Project (RAP)** RAP is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future. Weston also served as Chair of the Waterbury Planning Commission through 2011. He will discuss community planning opportunities and issues for energy and siting.
20 22 27	**5:00**	**Preferred Site Designation** (enclosed) a) Recommend components of a municipal preferred site designation process b) Discuss when and how CVRPC would participate in designation discussions
 37 39	**6:00**	**Meeting Minutes** (enclosed)[2] a) January 31, 2018 b) July 16, 2018
	6:00	**Next Meeting** Set next meeting date and regular meeting day/time
	6:00	**Adjournment**

[1] Times are approximate unless otherwise advertised.
[2] Anticipated action item.

29 Main Street Suite 4 Montpelier Vermont 05602
802-229-0389 E Mail: CVRPC@CVRegion.com

Central Vermont Regional Planning Commission

MEMO

Date: August 23, 2018
To: Regional Plan Committee
From: Clare Rock, Senior Planner
Re: Winooski Tactical Basin Plan

⌦ ACTIONS REQUESTED:

1) Propose comments on the Basin Plan for adoption by the Board of Commissioners, and
2) Make recommendations to the Board of Commissioners regarding the Basin Plan's conformance with the 2016 Central Vermont Regional Plan.

The Agency of Natural Resources (ANR) is updating the Winooski Tactical Basin Plan. Karen Bates, ANR Watershed Planning presented the planning process at the May Commission meeting.

CVRPC has the opportunity to provide recommendations to the Agency of Natural Resources regarding tactical basin plans pursuant to 10 V.S.A §1253(d). Statute directs the Agency to "develop, in consultation with the regional planning commission, an analysis and formal recommendation on conformance with the goals and objectives of applicable regional plans." Plus, regional planning commissions are to assist the Secretary in implementing a project evaluation process to prioritize water quality improvement projects within the region to assure cost effective use of State and federal funds.

The Regional Plan Committee is tasked with providing a recommendation to the Board to approve CVRPC Basin Plan comments and conformance finding. The Committee must prepare the recommendation for approval at the Commission's October 9, 2018 meeting. Committee actions noted above can be taken at the Committee's August or September meeting.

Staff reviewed the Draft Winooski River Tactical Basin Plan. Staff then prepared a Draft Memo to ANR on the conformance of the Draft Winooski River Tactical Basin Plan and the Regional Plan and Project Prioritization. The Memo includes the following attachments:

- Conforming Goals and Objectives Table
- Clean Water Advisory Committee (CWAC) July 18, 2018 comments

The Draft Basin Plan can be viewed here: http://centralvtplanning.org/programs/watershed/.

Central Vermont Regional Planning Commission

MEMO

Date: August 21, 2018
To: Vermont Agency of Natural Resources
From: Clare Rock, Senior Planner
Re: Plan Conformance of the Draft Winooski River Tactical Basin Plan and the Regional Plan and Project Prioritization

---

The Central Vermont Regional Planning Commission has reviewed the *Draft Winooski River Tactical Basin Plan, dated 7/02/2018*. The purpose of this memorandum is to analyze the relative conformance of the Draft Tactical Basin Plan with the relevant Goals, Strategies and Recommended Actions of the Regional Plan and to provide recommendations regarding project prioritization.

Introduction

The CVRPC has the opportunity to provide recommendations to the Agency of Natural Resources regarding tactical basin plans pursuant to Vermont Statutes Title 10, Chapter 47, §1253(d). Statute directs regional planning commissions to:

- (2)(G) … the Secretary [of Natural Resources] shall: develop, in consultation with the regional planning commission, an analysis and formal recommendation on conformance with the goals and objectives of applicable regional plans.
- (3)(D) … [the regional planning commissions are to] assist the Secretary in implementing a project evaluation process to prioritize water quality improvement projects within the region to assure cost effective use of State and federal funds.

Staff completed a review of the *Draft Winooski River Tactical Basin Plan, dated 7/02/2018* on *(insert date of crosswalk completion? or date of Pam memo dated June 1, 2018?)* Following that review …. The Basin Plan was then reviewed by CVRPC's Regional Plan Committee on September 29, 2018 (and additional date?) and by the Board of Commissions on October 9, 2018. Based upon this review process the CVRPC presents these comments to the VT Agency of Natural Resources.

Plan Conformance

The *Draft Winooski River Tactical Basin Plan* and the *2016 Central Vermont Regional Plan, amended 2018*, contain overarching conforming Goals and Objectives. The accompanying table on page 3 lists the

Basin Plan's top objectives and strategies and identifies those Regional Plan goals, policies, and actions which are mutually supportive. (See attachment titled "Conforming Goals and Objectives")

CVRPC provides the following analysis and accompanying recommendations to strengthen plan conformance:

- Tactical Plan Basin Objective: *Protect river corridors and floodplains to increase flood resilience and allow rivers to reach equilibrium*.
  From an emergency management perspective, the Regional Plan discourages development and investment in floodplains, yet it should be noted that overall the Regional Plan (as outlined within the Land Use Chapter) recognizes that our Regional and Town Centers are locations for continued investment and redevelopment. Due to the historic nature of the region, portions of these Regional and Town Centers are located in floodplains and possibly even within River Corridors. It should also be noted that municipal regulations within some central Vermont municipalities do allow development within floodplains. Strict conformance with this Tactical Basin Plan Objective may not be achievable.

  - Recommendation: Include language within the Basin Plan that recognizes the presence of historic Regional and Town (and Village) Centers in river corridors and floodplains and clarify how DEC will work with regional organizations and municipalities to accommodate these special circumstances. More specifically:

    - Add recognition of historic development pattern on page 10, within the Rivers section and on page 32, within the Stream Geomorphic Assessment section.
    - Include further discussion and analysis of the NFIP base requirements compared to the recommendations of the State River Program model flood hazard regulations and model river corridor regulations. The model river corridor regulations make an allowance for infill within state designated historic downtowns and villages. This information could be added into the Flood Hazard Regulation section on page 121.

<u>Recommendations on Project Prioritization</u>

The CVRPC has been working with other RPCs to develop a prioritization process for projects, but it has not yet been finalized nor adopted by the ANR for incorporation into their prioritization process. When this is finalized, the CVRPC will provide further recommendations through the Clean Water Advisory Committee (CWAC) on regional project priorities.

For project selection for funding and prioritization on the DEC's level, the CVRPC has the following comments:

- Based on concerns raised by the CWAC during the Basin Plan review, CVRPC recommends additional strategies and projects be included beyond those that address phosphorus loading.

One example is projects that address pesticides/herbicide, toxins, and nitrate from groundwater entering streams and wetlands that may impact water quality and aquatic life health.

- The CVRPC also recommends for larger projects, such as expensive stormwater remediation, the grant programs reduce the amount of match required. Many towns do not have the resources to come up with match beyond in-kind and that would make funding through grant programs more accessible to these municipalities.
- The CVRPC recommends that stormwater master planning not be limited to very developed municipalities such as Waterbury and Williamstown. More rural municipalities could benefit from stormwater master planning in addition to road erosion inventories that address compliance with the Municipal Roads General Permit. Many of the rural towns in our region without a stormwater master plan have villages that have impervious surfaces in need of stormwater management, such as Worcester and Middlesex. Furthermore, more complex road projects can be addressed through stormwater master planning, such as those needing dry well design to help slow and infiltrate runoff from steep roads.

Other Comments

This plan is very comprehensive and technically in-depth. CVRPC offers the following general comments:

- Incorporate more lay-person language to increase readability and understanding by the general public. Avoid using acronyms, such as TMDL or TP.
- Add conclusion statements at the end of each chapter or section to summarize data and provide succinct reasoning for the subsequent objectives and actions.
- Organize the Top Objectives and Strategies listed on page ix with those listed within Table 36 on page 139 to strengthen and reiterate the desired outcomes of the plan.
- Develop a statewide template for basin plans to:
    - strengthen the relationship between the plans and the statewide objectives they strive to attain;
    - assist the plans to work cooperatively and in a coordinated manner to improve water quality through the state; and
    - improve understanding of the statewide effort, especially in communities served by multiple basin plans.

The CVRPC Clean Water Advisory Committee (CWAC) conducted a thorough review of the Basin Plan and had some specific comments. Please refer to the attached memo on CWAC recommendations for the Draft Winooski Basin Plan. (See attachment titled “CVRPC Clean Water Advisory Committee (CWAC) comments on the DRAFT Winooski Tactical Basin Plan Submitted July 18, 2018”)

Conforming Goals and Objectives

Draft Winooski River Tactical Basin Plan, dated 7/02/2018	*2016 Central Vermont Regional Plan, amended 2018*
Top Objectives and Strategies (page ix)	*Goals, Policies, & Actions (as contain through out the Plan)*
Protect river corridors and floodplains to increase flood resilience and allow rivers to reach equilibrium	**Future Land Use Planning Areas Policies:** 1. In order to maintain the existing settlement patterns, higher density residential, commercial, and industrial development should be located in Regional Centers and Town Centers. 10. Identify key areas with flood storage capacity and encourage floodplain protection measures such as land acquisition or restrictive land use regulation in areas upstream of Regional and Town Centers. **Industrial Land Use Planning Area Policies:** 1. Industrial uses are encouraged to locate first in existing industrial areas and secondly in industrial areas assigned in municipal plans which are in accordance with the goals and policies included in this plan. **Mixed-Use Commercial Land Use Planning Policies:** 1. Encourage the transformation of existing commercial areas into areas serving a mix of uses, including residential, and offering diversified transportation options, while also conforming to traditional historic development patterns. **General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources 5. Avoid or limit development and investment in identified flood hazard areas. Where established economic and institutional centers exist, development in these centers shall adhere to strict floodplain management standards to minimize flood damage and public safety risk. Strategy 5b. Encourage and provide technical assistance to municipalities in enhancing the regulatory standards in their municipal flood hazard regulations, including the incorporation of River Corridor regulations. Strategy 5e. Assist municipalities in identifying and limiting development on lands adjacent to waterways that provide flood storage or other beneficial function through acquisition, easement, deed restriction or zoning that encourages cluster design, particularly for those upstream floodplains that provide flood protection functions for the Region ’s downtowns and village centers. **Facilities, Services and Utilities Goals, Policies and Strategies:** EMERGENCY MANAGEMENT GOALS: 1. To build disaster resistant communities in Central Vermont through sound emergency planning and management. 2. To ensure that all communities in Central Vermont have the appropriate information, resources, and tools to respond to disaster events and recover from their impacts. Policies: 6. Discourage residential, commercial, or residential development in floodplains.

Increase knowledge of water quality conditions in the basin, including the identification of high quality lakes	**General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 3. Support the betterment of surface water quality in the Region. 6. Improve flood resilience planning, education and outreach activities to create a citizenry aware of flood risks, potential costs, and actions that can serve to reduce risk and future property loss.
Implement agricultural Best Management Practices (BMPs)	**General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 3. Support the betterment of surface water quality in the Region. Strategy 3a. Storage and utilization of fertilizers, pesticides, petro-chemicals, herbicides, sludge, or other potentially harmful industrial, agricultural, commercial or residential materials, must be accomplished in a manner compatible with existing regulations. Goal 7: To manage the quality and quantity of storm water runoff in order to avoid property damage and negative impacts on surface and groundwater. Policies: 3. Acceptable Management Practices (AMP's, as defined by the Vermont Agency of Natural Resources) should be employed on all agricultural, silvacultural and earth extraction operations.
Resolve E. coli impairments in along Winooski between Plainfield and Cabot, Huntington, Mad Rivers and Allen Brook	**General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 3. Support the betterment of surface water quality in the Region. 4. Encourage enhanced educational opportunities on watershed functions, protection and restoration, particularly those targeted to youth. **Facilities, Services and Utilities Goals, Policies and Strategies:** WASTEWATER TREATMENT GOAL: Improvement and expansion of wastewater treatment facilities and options so as to protect public health, maximize public investment, and reinforce desired patterns of growth. Policies: 3. Encourage continued efforts to improve water quality through the separation of combined sewers or other method to ameliorate the harmful impacts of combined sewer overflows
Manage stormwater from developed areas through the development and implementation of stormwater master plans and Flow Restoration Plans in MS4 communities	**General Land Use Goals, Policies, and Strategies** Goal 7: To manage the quality and quantity of storm water runoff in order to avoid property damage and negative impacts on surface and groundwater. Policies: 1. New development should, through design and maintenance, attempt to minimize changes in the volume and chemical composition of runoff. (The strategy includes a bulleted list of recommended methods on page 2-44) 2. Structural Best Management Practices (BMP's) should be used, as appropriate, to control storm water on new development sites before, during and after construction, including plans for long term maintenance and operations. (The strategy includes a bulleted list of objectives and applications on page 2-44.) 4. Efforts should be made to minimize the extent of impervious surfaces and surface runoff associated with parking facilities. (The strategy includes a bulleted list of recommended methods on page 2-44.) 5. Municipalities should consider adopting policies and practices to reduce the volume and impacts of storm water runoff,… (The strategy includes a bulleted list of policies and practices on page 2-44.)

Improve littoral zone habitat along Lake Champlain, and ponds in the Kingsbury Branch	**General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 3. Support the betterment of surface water quality in the Region. Strategy 3d. Native vegetated buffer strips in riparian zones and shoreland areas should be protected or maintained according to Best Management Practices outlined in the Vermont Handbook for Shoreland Development and VT ANR Guidance Regarding Riparian Buffers to protect functional habitat and improve water quality. Strategy 3g. Assist landowners in identifying funding opportunities to support buffer plantings on their properties that would support stream bank and shoreland restoration. **Facilities, Services and Utilities Goals, Policies and Strategies:** WASTEWATER TREATMENT GOAL: Improvement and expansion of wastewater treatment facilities and options so as to protect public health, maximize public investment, and reinforce desired patterns of growth. Policies: 13. CVRPC encourages the use of shoreline zoning powers (24 V.S.A., Chapter 117, and Section 4411), in compliance with the Vermont Shoreland Protection Act, to regulate the design of sanitary facilities on lands adjacent to surface waters.
Inventory and prioritize municipal road erosion features that discharge into surface water and implement high priority actions in existing road erosion inventoried sites	**Transportation Goals and Policies:** Goal 2: To preserve and maintain the existing transportation system. Policies: 1. Support the necessary steps for evaluating, prioritizing, and implementing preventive maintenance programs for all elements of the transportation system. Goal 5: To establish a transportation system that minimizes consumption of resources and maximizes the protection of the environment. Policies: 1. Support efforts to minimize negative environmental impacts associated with the transportation system (including air quality, noise levels, surface water, vegetation, agricultural land, fragile areas, and historical/archaeological sites).
Provide technical and as available, financial assistance to wastewater treatment facilities	**Facilities, Services and Utilities Goals, Policies and Strategies:** WASTEWATER TREATMENT GOAL: Improvement and expansion of wastewater treatment facilities and options so as to protect public health, maximize public investment, and reinforce desired patterns of growth. Policies: 4. Support efforts to upgrade components of aging wastewater systems to address depreciation, improve energy efficiency and increase flood resilience of the Region's systems. 4B. Perform outreach to municipalities whose systems are approaching 20-yr design life and connect local operators/commissions with available technical assistance.

Prioritize wetland and floodplain restoration projects	**General Land Use Goals, Policies, and Strategies**: Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 3. Support the betterment of surface water quality in the Region. Strategy 5d. Wetlands that provide a flood storage function as determined by the VT Wetlands Program should be left undisturbed or development should be required to provide compensatory storage or restoration on-site or in the immediate vicinity, if disturbed. Goal 4: To protect environmentally sensitive or unique areas. Policies: 8. It is the policy of CVRPC to encourage the preservation of wetlands so as to protect their function and productivity. Efforts (including consideration of site design options) should be made to mitigate against the possible adverse impacts of development on the Region's wetlands.
Prioritize remediation of forest roads and log landings with high erosion risk	**General Land Use Goals, Policies, and Strategies:** Goal 7: To manage the quality and quantity of storm water runoff in order to avoid property damage and negative impacts on surface and groundwater. Policies: 3. Acceptable Management Practices (AMP's, as defined by the Vermont Agency of Natural Resources) should be employed on all agricultural, silvacultural and earth extraction operations.
Assist municipalities in identifying areas of landslide hazards for benefit of future development	**General Land Use Goals, Policies, and Strategies:** Goal 1: To promote sound management, conservation and use of the Region's natural resources. Policies: 6. Improve flood resilience planning, education and outreach activities to create a citizenry aware of flood risks, potential costs, and actions that can serve to reduce risk and future property loss. Strategy 6a. Continue to assist municipalities in developing local hazard mitigation plans and flood resilience elements as part of municipal plans. **Facilities, Services and Utilities Goals, Policies and Strategies:** EMERGENCY MANAGEMENT GOALS: 1. To build disaster resistant communities in Central Vermont through sound emergency planning and management. 2. To ensure that all communities in Central Vermont have the appropriate information, resources, and tools to respond to disaster events and recover from their impacts. Policies: 3. Encourage municipalities to undertake and periodically review an all-hazards assessment in their community to identify potential hazards and the at-risk people and property. [Note: While landslide not explicated mentioned in a Goal or Policy, the Emergency Management section of the Facilities, Services and Utilities Chapter states that “[I]n Central Vermont, the most common types of natural disasters include: floods, winter storms, hurricanes, landslides, wildfires, earthquakes, and even tornadoes.”(page 5-35)]

Central Vermont Regional Planning Commission

CVRPC Clean Water Advisory Committee (CWAC) comments on the
DRAFT Winooski Tactical Basin Plan
Submitted July 18, 2018

The following comments summarize the suggestions from CVRPC's Clean Water Advisory Committee (CWAC) for the Draft Winooski Tactical Basin Plan. CVRPC along with its CWAC, Regional Planning Committee, and the Board of Commissions will provide more comments as further drafts develop and to ensure conformance with CVRPC's Regional Plan.

Amy Hornblas - CVRPC Commission Member, Cabot
Comments July 18, 2018

Main concern with the plan is that it does not address commercial/industrial pollution, which there is much of up and down the Winooski. Lots of companies have set up shop, and release pollutants into the river, the wastewater treatment plants, and the fields along the waterways daily. Also, I have friends who live by various wastewater treatment plants along the river and along the shore of lake Champlain, and they complain of frequent "releases" of untreated (or under-treated) waste into the waterways.

I do not understand how residences, roadways, and farms are more polluting than these other sources (industry and wastewater treatment plants), especially in respect to the phosphorus release. I have not brought this up at the meetings, because it is not in the design of the plan to address these sources. However, since it is our last chance to weigh in, I felt I had to say something about it.

Larry Becker - Member of the Middlesex Conservation Committee
Comments to date – July 4, 2018 based on July 2018 draft

Comments below are as of July 4, 2018 but these comments are not to say there are no other elements to consider but what I had time for before traveling overseas. Focus is larger elements and not tables.

1. Executive Summary New Objective Needed:

BASELINE MONITORING
This is fundamental to any water quality endeavor. Without baseline monitoring, changes in key parameters are difficult to determine. Is a constituent of concern increasing or decreasing in concentration and then what is the appropriate action to mitigate?
Testing for Roundup (Glyphosate) came up at the June 14 meeting. This is a worthy parameter to study based on the discussion and the ubiquity as described but is not the only one. Other parameters should

be considered such Nitrogen (Nitrate or other chemical species of nitrogen). Nitrate in groundwater can be delivered to streams from seepage resulting from farm manure application and septic tanks.

2. Groundwater: In the document, there are only oblique references to the groundwater quality component that can deliver constituents of concern to surface water. These are “iron seeps from soil” and “metals” but there is no explicit paragraph that explains any framework for the groundwater contribution to surface water quality concerns. (As stated above, farms and septic tanks). As a number of advisory committee members stated, both groundwater and surface water are part of one system and to stay silent in this document about the physical/chemical system is inappropriate and therefore should be included.

3. Objective: “ Assist municipalities in identifying areas of landslide hazards for benefit of future development”

Hazard mitigation in this case is to put a check on development above and below unstable slopes to prevent damage and loss of homes, businesses, infrastructure, and lives from incremental change and slope failure. In the event of failure events or change, mitigation reduces the potential for delivery of excess sediment to streams. Construction activity such as loading a slope can destabilize slopes; remove vegetation that provides stability: and locate improper drainage that can erode banks and slopes Therefore, there is a water quality benefit from hazard mitigation by reducing sediment loading released from unstable slopes made worse by anthropogenic activity. Phosphorus can be delivered as well depending on the nature of the soil at the top of a slope and other materials on the slope.
This water quality benefit from landslide hazard mitigation should be so stated in the document.

4. The section covering: ”reducing phosphorus attributable to unstable stream channels” on page 78 to 80 is improved since the last draft. What needs special care is the reference stream segments from which phosphorus loading is extrapolated to the non-measured stream segments that come up high in the Tetra Tech method to address the TMDL contribution from unstable streams. As written there is not enough information about the reference reaches as to whether the whole scheme will work. Another point of confusion that needs more explanation is the difference between restoration activities and corridor and floodplain activities. To the average reader corridor and floodplain activities are part of restoration activates. Why the distinction?

5. The total package of delivered sediment and phosphorus from unstable streams and anthropogenic influenced landslides should be addressed. At the June 14 meeting, I thought I heard that landslides might contribute up to 40% of the sediment load. How much then from unstable stream reaches? Could the total package of both be over 60% 75% 80%? What percentage is natural and what percentage from anthropogenic change and hence what percentage could be mitigated by addressing anthropogenic activities? A percentage could be offered so we know how much work there is to do for these two major components to the phosphorous and sediment TMDL load.

6. Page 36 – The landslide work is coming from "the Division of Geology and Mineral Resources in cooperation with Norwich University" and should be so stated. On Page 37 there is reference to "The WSMD Geology program". I don't think this is intended but if there is a geology program in the Watershed Management Division there is a duplication of effort and an inefficiency in government and should solely reside with Geology.

Stew Clark – Member for the Worcester Planning Commission
Comments 6/4/18 based on Draft dated April 2018

I realize this document is well on its way to completion. My suggestions come late in the process and are likely made without knowledge of limits in place on your document. Please do consider my suggestions and don't hesitate to contact me to discuss.

TITLE: The present title is: "Winooski River Tactical Basin Plan". What is a "tactical basin"? You are producing a "tactical plan". Suggest: change title from 'Winooski River Tactical Basin Plan' to 'Winooksi River Basin Tactical Plan'

OVERALL CONTENT:

Water quality within the Winooski watershed includes the chemistry of precipitation, surface water, and groundwater. If the tactical plan's focus is surface waters we should still acknowledge / identify issues and concerns with the water quality of precipitation and groundwater. Rationale:

- Acid rain and deposition of mercury by precipitation affects the water quality of surface water and groundwater.
- Water in rivers and streams is primarily groundwater. Research shows rainfall and snowmelt percolate into the ground, raising the water table which increases groundwater discharge to streams. "Overland flow" of water during rainfall contributes some volume to streams but is not the major factor. Groundwater discharge to streams is continuous, always active, not just present during low-flow / base-flow conditions.
- Locally water quality of groundwater is reduced by arsenic, radon, and industrial contaminants. We need to know where these problems exist.

TABLE OF CONTENTS – FIGURES (page iv)

Figures 3, 4, 5, 6: Figure titles identify "303d". ???? What is this ? Do you mean "30 third"?? Can this be more clearly stated ???

TABLE OF CONTENTS – TABLES (page vii)

Table 33 through 41 titles refer to "Basin 8" This plan is about the Winooski River Basin so, to see "Basin 8" the reader assumes this refers to a basin within the Winooski River Basin. I know you mean the whole Winooski Basin when you say "Basin 8" but the reader ?? Please clarify by changing "Basin 8" to the "Winooski River Basin".

EXECUTIVE SUMMARY (page ix)
first paragraph, first sentence: The first sentence states Vermont has 15 river basins. (well it doesn't say that as such but…) There are hundreds of watersheds in Vermont. What criteria define the 15 river basins identified by the clean water act? Make your first sentence more clear by identifying the special nature of these 15 basins. …….. example: Vermont's Clean Water Act requires ….. "Vermont's 15 largest river basins"…. or "Vermont's 15 most populous river basins" or "Vermont's 15 river basins with greatest river discharge".
end of first paragraph: word order at end of last sentence change to: "…… partner support (Appendix A), and the public rulemaking process for certain protection efforts."
last paragraph, bottom of page: You say:

"The main souces of the elevated phosphorus, sediment and pathogen levels include agricultural, urban and road runoff, and eroding river channels due to a lack of equilibrium in the river system."

Please re-write as follows:

The main source of elevated phosphorous and pathogen levels is agricultural, urban, and road runoff. Eroding river channels, due to a lack of equilibrium in river systems, and road runoff contribute sediment that itself lowers water quality.

Rationale:
Fine-grained sediment (silt and clay) is not the source of phosphorus in streams. We seek to control addition of fine-grained sediment to streams because these particles attract, hold, and transport phosphorous as they move downstream toward Lake Champlain. Erosion of stream banks is not a source of phosphorous unless this happens in agricultural areas where phosphorous has been added to fields or leaches from manure and dead livestock mismanagement.

TOP OBJECTIVES AND STRATEGIES (page x)

Objective number 4 states:

"Resolve E. coli impairments in along Winooski between Plainfield and Cabot, Huntington, Mad Rivers and Allen Brook ……."

The meaning is not clear. …. "between" is a term that means from one point to another. You do say 'between Plainfield and Cabot" which is clear, but then you add Huntington, Mad River (which should be singular) and Allen Brook. You need to fix this. Do you mean ??? Resolve E. coli impairments between Cabot and Allen Brook ?????

Do you mean: 'Resolve E. coli impairments along the Winooski River between Cabot and Plainfield and in the Huntington and Mad Rivers and in Allen Brook" ???? I am guessing this is your proper message…….

Objective number 5: Please omit the "MS4" descriptor and give the meaning of MS4. This is

an important statement of objectives. Their meaning must be clear.

Objective number 6: says: "Improve littoral zone habitat along Lake Champlain……"

The littoral zone of Lake Champlain is the whole coastline. If the focus of this tactical plan is the Winooski River Basin then it should not include the entire Lake Champlain coastline. The Winooski River Basin makes up a tiny fraction of the total littoral zone of Lake Champlain.

Suggest re-word by just omitting the reference to Lake Champlain. like this:

Improve littoral zone habitat of ponds in the Kingsbury Branch watershed through direct outreach with landowners to encourage participation in the Lake Wise Program that promotes implementation of lakeshore BMPs.

Objective number 11: (as discussed during CWAC meeting 5/10/18)

Change objective's outcome from "the benefit of future development" to include the concept of restricting development as given in the minutes from 5/10/18. like this:

Assist municipalities in identifying areas of landslide hazards which will restrict development including the towns of Jericho, Williston, Essex, Duxury, Plainfield, Marshfield, and Barre Town.

I also wonder why these specific towns are identified ? Should you drop the town names???

---------- another point about landslides:

During our discussion of landslides on 5/10/18 the point was made that they happen everywhere including along stream banks where meandering streams erode material. Please consider (for use elsewhere):

Landslides are the downslope movement of unconsolidated materials. Normal stream processes include meandering movement of the stream channel by erosion and deposition. Sediments incorporated from stream banks are not considered landslides. Landslides are downslope movement of materials above bank-full stream stage.

COMMENTS ON TABLES AS REQUESTED BY KAREN - SF CLARK – 6/5/18
General reaction: Feels like being parachuted into the midst of turmoil; need background to react with reasonable answers.
The document of "revised" tables sent by Karen lacks identification for the first table. What is this ???
Karen's question 3 refers to Table 13 which does not contain information matching her question.
Sadly requests for more information have not been answered…. so review response is not possible. We need to do better. …..kind of discouraged.

---

1. *Review table 37 of objectives to determine* (looking at table 37, page 135)

Have all pollutants/stressors been addressed? (not sure of level of detail expected)

No, all the stressors are not addressed. Reference: table 4 which lists identified "stressors"; Missing from table 137 (as defined by Table 4) are: chloride, mercury, other toxics, thermal stressors, flow alteration.

Have we accurately identified the geographic areas for where we should focus?

No, not all geographic areas are identified in Table 37. The table shows a column for "Priority Subbasin" yet many rows lack any geographic information. Suggest you say "all" or "multiple" or "basin wide" as you have done on some rows in the table. I wonder why you ask such an obvious question which make me think I am not addressing the proper question. Please advise.

Do we have all the partners that could help identified?

Cannot answer this question as I need a link to the list of possible partners. One missing partner comes to mind: Federal agencies such as USGS. (?)

2. *Review Table 12: Have we accurately described the fields included in the subbasins listed?*
Information seems clearly presented: subbasins clearly defined, I don't have the background to know if all stressors/concerns are included or if the "priority strategy" is proper. I suggest telling the meaning of "MS4" as used in this table.
Not sure what the comment "Focus breaks" refers to; do you mean: 'basin boundaries determined by these criteria' ???

3. *Review Table 13: Are there any other rivers, lakes or wetlands where we need more information about condition, either physical, chemical or biological?*
No explanation received re Table 13 from Pam or Karen so review is not possible.

4. *Review Table 4 and Table 5: collecting information for this list is part of another process. If you believe that other surface waters should be listed as stressed or impaired, we would consider for additional monitoring (see table 13) so that we were able to determine status and list appropriately.*

No explanation received re Table 13 from Pam or Karen so review incomplete.
Revised Table 4 ??? Is this the un-labeled table at the start of the "revised table document" sent by Pam ???? YES; OK
Suggest: Add to list

- Patterson Brook (flows through Shady Rill in Middlesex).; focus on sediment loading from Macy Road.
- Handcock Brook (Worcester) new development / third and fourth class road adjacent; gravel road / potential sediment and low pH due to composition of bedrock (oops, you've got that)

- Not sure what "upper Worcester" refers to in Table 5; upper Worcester Pond ? why not both Worcester Ponds ?
- The pond list looks fairly complete.
- Are the ponds of Groton State forest listed. I expect these may tend to acidic and nutrient-poor based on the character of the surrounding bedrock.

5. *Chapter 4. We didn't have time to talk about the goals for water resources, most importantly the areas proposed for reclassification from A2 to B2 or B2 to B1, ORW and Class I proposals. At another meeting, I could discuss to help the CWAC members who have not been introduced to classification system better direct comments.*

I am not sure what the question is? Review Chapter 4 ? Seems like more information is coming before review.

REVIEW OF WINOOSKI RIVER BASIN TACTICAL PLAN DATED 7/3/18
WITH FOCUS ON TABLES 37, 12, 11, 4, 5 AND GENERAL POINTS WITHIN THE PLAN

S.F. CLARK 7/15/18 SENT VIA PAM ANDREA

I've sent pages of comment dated 6/5, 6/6 in reference to the draft of the technical plan dated April 2018. Some suggestions have been applied to the new draft dated 7/3/18. This document contains previous suggestions (not applied) for the record as well as new comments.

TITLE: The present title is: "Winooski River Tactical Basin Plan". What is a "tactical basin"? You are producing a "tactical plan". Suggest: change title from 'Winooski River Tactical Basin Plan' to 'Winooksi River Basin Tactical Plan'

OVERALL CONTENT:

Water quality within the Winooski watershed includes the chemistry of precipitation, surface water, and groundwater. If the tactical plan's focus is surface waters we should still acknowledge / identify issues and concerns with the water quality of precipitation and groundwater. Rationale:

- Acid rain and deposition of mercury by precipitation affects the water quality of surface water and groundwater.
- Water in rivers and streams is primarily groundwater. Research shows rainfall and snowmelt percolate into the ground, raising the water table which increases groundwater discharge to streams. "Overland flow" of water during rainfall contributes some volume to streams but is not the major factor. Groundwater discharge to streams is continuous, always active, not just present during low-flow / base-flow conditions.

- Locally water quality of groundwater is reduced by arsenic, radon, and industrial contaminants. We need to know where these problems exist.

TABLE OF CONTENTS – FIGURES (page v)

Figures 3, 4, 5, 6: Thank you for trying to improve these titles. Please use this word-order for clarity -> Figure 3. Stressed or impaired/altered surface waters on the 303d-State list in the Lower Winooski River Basin <- Use this format for Figure 3, 4, 5, 6

TABLE OF CONTENTS – TABLES (page vii)

Table 33 through 41 titles refer to "Basin 8" This plan is about the Winooski River Basin so, to see "Basin 8", the reader assumes this refers to a basin within the Winooski River Basin. I know you mean the whole Winooski Basin when you say "Basin 8" but the reader ?? Please clarify by changing "Basin 8" to the "Winooski River Basin". Clarity. Will everyone who reads this plan know Basin 8 = the Winooski River Basin ?

EXECUTIVE SUMMARY (page vii)
p. vii line 7: change to "Plans for each of Vermont's 15 ***primary*** river basins…..
Objectives and Strategies
p. ix objective 5 rewrite:
Manage stormwater from developed areas through the development and implementation of stormwater master plans and Flow Restoration and Phosphorus Reduction Plans in communities with Municipal Separate Storm Sewer Systems (MS4 systems). (see Appendix C).

Chapter 1:
p 4; (change "north" to "east") last line should read:
west of the city of Montpelier and the Stevens Branch entering just ***east*** of Montpelier.

TABLE 2 (major suggestion that will simplify and clarify Table 2 as well as several other tables that follow) It is clear that you are dividing the Winooski Basin into sub-basins along the main stem of the Winooski and including major tributaries as sub-basins that contribute to the divisions along the main stem. I urge you to set your table such that the main stem sub-basins are listed in order (west to east) AND that the tributary sub-basins are attached to the main stem sub-basins. (((Not listed as floating unattached elsewhere.))) Make you table look like this: note indent on trib sub-basins for clarity. (please check assignment of tributary sub-basins to sub-basins along the Winooski main stem, My assignment may not be correct but I hope you will follow the pattern in this presentation.

Subwatershed	*Cultivated*	*Forested*	*Developed*
Tributaries to Lower Winooski	23.43	30.36	31.13
Tributaries to Lower Mid-Winooski	7.20	82.24	5.69
Huntington River	7.30	88.21	2.51

Lower Little River	4.75	85.62	4.42
Upper Little River	7.51	79.55	8.18
Tributaries to Upper Mid-Winooski	7.72	79.88	8.73
Lower Mad River tributaries	8.51	85.34	3.75
Upper Mad River tributaries	6.24	87.03	4.85
Dog River	5.74	84.08	5.44
North Branch Winooski River	3.85	88.36	3.38
Tributaries to Upper Winooski	15.93	71.36	6.23
Stevens Branch Winooski River	18.07	58.36	16.17
Kingsbury Branch Winooski River	9.09	76.23	4.87
Jail Branch Winooski River	9.46	75.74	7.80
Winooski River Headwaters	9.60	77.01	4.19

Figure 2, Page 22 has the title: **Figure 2. Stressed and impaired/altered surface waters on the 303d or state lists in Lower Winooski River Basin** BUT Figure 3, Page 23 has the title **Figure 3. Stressed and impaired/altered surface waters on the 303d or state lists in Lower and Mid-Winooski River Basin.**

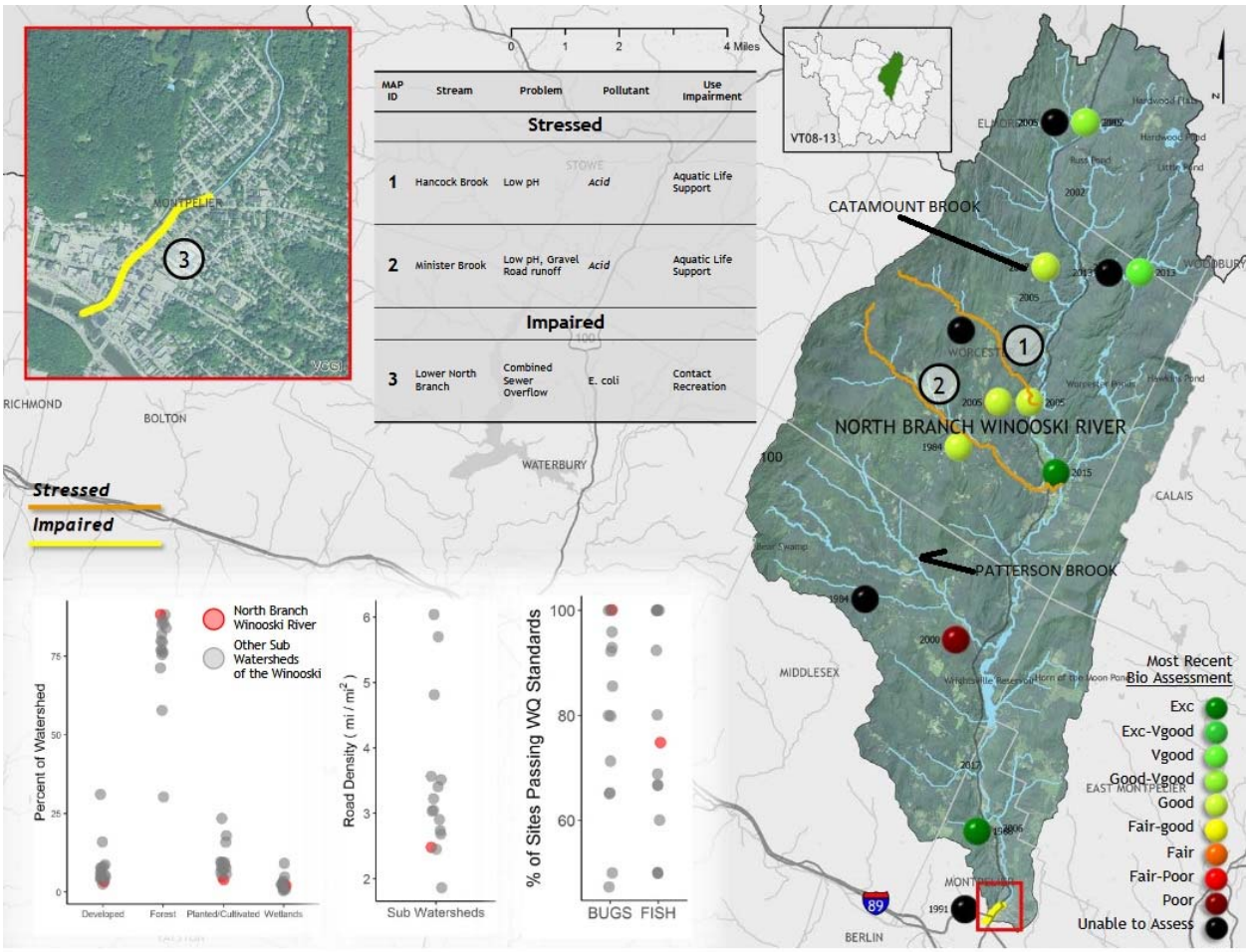
I believe figure 3 has the wrong title: Should say Figure 3. Stressed and impaired/altered surface waters on the 303d or state lists in Lower Mid-Winooski River Basin. My point is why repeat data from the "Lower Winooski River Basin" Don't you mean the "Lower Mid-Winooski River Basin" ???? Look at Table 2. You identify a "Lower Mid-Winooski Basin" Isn't Figure 3, page 23, that basin ????

Table 2 lists "Tributaries to Upper Mid-Winooski River Basin" BUT there is no map in the sequence Figures 2, 3, 4, 5 pages 22 through 25 which shows "Tributaries to Upper Mid-Winooski River Basin". You need this map / figure even if there are no major tributary sub-basins.

PLEASE re-arrange the sequence of waters referenced in Table 4 so that the reader can follow the problems in The Winooski Basin from mouth to headwaters. Arranging in proper sequence is a good way to show trends in problems within the basin. Now it's like a shotgun pattern spraying problems with no internal organization.

PAGE 21; TABLE 4: IMPORTANT: You identify Hancock Brook and Minister Brook in Worcester as affected by acid rain (low alk- conditons). The bedrock geology which controls the chemistry of glacial till and chemistry of groundwater / surface water in these brooks is

responsible for this condition. The bedrock trends NNE along the eastern flank of the Worcester Range. Patterson Brook, Middlesex and Catamount Brook, Worcester will have the same impaired/stressed conditions as Minister and Handcock Brooks and should be included in Table 4. See image below showing location of Patterson and Catamount Brooks:



Add Patterson Brook and Catamount Brook to Table 11.

TABLE 12: PLEASE arrange the sequence of waters identified to match the pattern suggested for Table 2. Present a clear flow of information from mouth to headwaters along sub-basins on the main stem and attach tributary basins to the sub-basins in proper order.

TABLE 37: Re – other "partners to identify" How about the US Geological Survey; Water Resources Division. USGS has "partnered" with Vermont on several Lake Champlain water quality projects and has extensively studied phosphorous problems in basins around the Lake. ….. think studies at Englesby Brook; PCBs and Hg studies throughout the basin; stream gaging; etc.

Central Vermont Regional Planning Commission

MEMO

Date: August 26, 2018
To: Regional Plan Committee
From: Bonnie Waninger, Executive Director
Re: Preferred Site Designation

⌦ **ACTIONS REQUESTED:** No action is being requested beyond reviewing materials and providing guidance on next steps.

At its July meeting, the Committee requested three actions from staff:

- research the issue of energy generation facility scale and provide a de minimis-level recommendation regarding when CVRPC should weigh in on site designations,
- outline components of a municipal process that might be required by CVRPC for preferred site designation deference, and
- recommend when and how CVRPC would weigh in on preferred site designation.

Information for these questions is enclosed. I am also enclosing resources that may be useful in considering preferred site designation: Excerpts from the Municipal Best Practices Guide and VAPDA's comments to the PUC on Preferred Site Definitions.

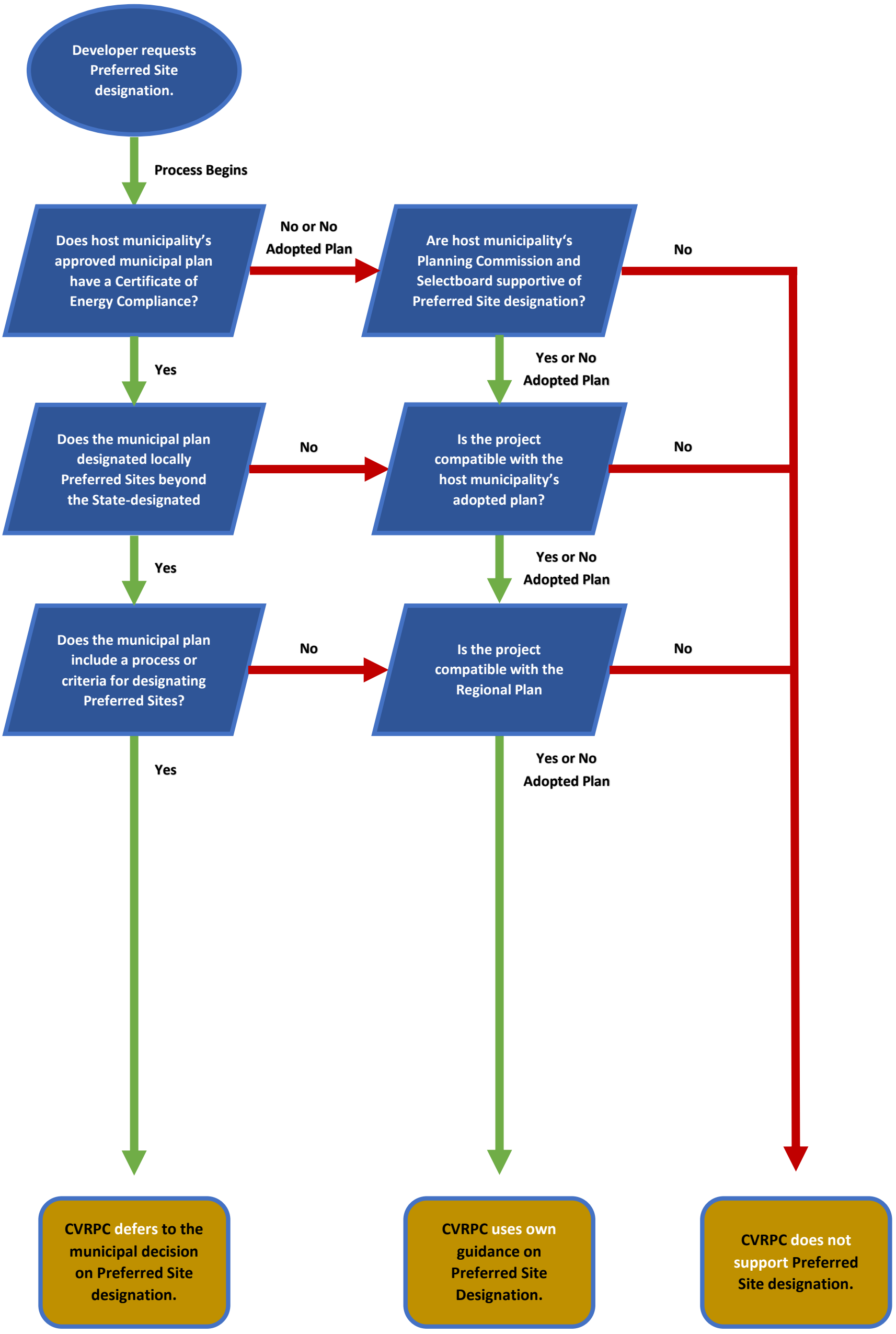
The objective of Wednesday's discussion is to frame concepts that the Project Review Committee can use to foster its decisions at its Thursday meeting. These concepts will not have been approved by the Commission. They can help shepherd a more cohesive approach to preferred sites review and obtain feedback for the Regional Plan Committee on its approach.

The Decision Tree was adapted based on comments received last month. It provides a visual for clear paths to CVRPC deference on municipal preferred sites and two other outcomes. Once the Committee creates materials for the Commission's review, the Decision Tree would be updated to reflect that information and included as an appendix to a municipal document or CVRPC project review guidance.

CVRPC Decision Tree

Municipal Preferred Site Designation Deference

08/29/18



What are "Preferred Sites"?

Public Utility Commission Rule 5.100 pertains to construction and operation of net-metering systems. Section 5.103 of the Rule defines categories of net-metering systems. The categories vary based on the size of the system and whether the system is located on a "Preferred Site". The State incents systems sized between 15kW and 500 kW and located on preferred sites. Qualifying systems earn higher net-metering rates. Hydroelectric facilities do not qualify for net-metering.

Preferred sites designation also is described in Section 5.103. Sites may automatically qualify if they meet one of eight State–defined locations. Sites also may qualify if the location:

a) is designated in a duly adopted municipal plan or

b) is identified in a letter of support from the municipal legislative body and the municipal and regional planning commissions in the community where the system will be located.

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION


Star Tribune, Minneapolis, MN

Preferred Site Designation

Recommended Components of a Municipal Process

Preferred sites designation was established because a project-by-project approach does not provide the predictability needed to build a renewable energy future at the pace and scale required to meet Vermont's renewable energy goals. This document provides guidance to municipalities on best practices for designating preferred sites for renewable energy generation systems.

The Central Vermont Regional Planning Commission (CVRPC) will defer to municipal decisions on preferred site designation when a municipality:

- employs and documents its use of these best practices,
- adopts its municipal plan,
- requests and receives approval of the municipal plan, and
- requests and receives a Certificate of Energy Compliance.

Deferring to the municipal decision means:

- the sites are compatible with the Central Vermont Regional Plan,
- the sites will be adopted into the Regional Plan when it is updated, and
- CVRPC will support the municipality's preferred site designations.

Concluding language will be developed and document formatting will be completed as this document moves towards completion.

Components of a Municipal Planning Process

People want government to be transparent. They want to be engaged in making decisions. Because preferred site designations are locational decisions, resulting projects affect enjoyment and use of other properties. Advanced conversations about siting reduce conflict and resource investment when projects are proposed.

Best practice planning for preferred site designation involves:

- robust community engagement in the designation process.
- consideration of different energy resource type, consideration of different scales of renewable energy generation systems, and designation of appropriate locations for each in the context of the municipality's future land use planning districts and other planning areas, such as a designated village center.
- consideration of the State-designated preferred sites within the context of the municipality's development and conservation goals.
- consideration of what, if any, municipally-owned properties should be designated as preferred sites.
- development of setback and other energy siting requirements allowable under Vermont law or, at minimum, a recommendation as to whether the municipality should develop such requirements.
- identification of criteria that will be used to evaluate requests for preferred site designation if such a request is raised after the community designates its sites in the municipal plan.

***ROBUST ENGAGEMENT:** The municipality engages in a robust process to involve its residents and property owners in preferred site designation.*

People want to know when something might impact them. Municipalities that invest in engagement during planning spend less time and resources responding to angry calls later. Municipalities using best practices for engagement will:

- meet Open Meeting Law requirements for all meetings related to preferred site designation.
- provide notice to CVRPC upon initiation of the preferred site designation process. We can be a resource and will highlight any Regional Plan conformance issues if they become apparent. CVRPC will participate in meetings as time and resources allow.
- engage other board and committees in the site designation process, at minimum:

  - Selectboard/City Council/Village Trustees,
  - Planning Commission,
  - Development Review Board/Board of Adjustment,
  - Energy Committee,
  - Conservation Commission,
  - School Board Chair,
  - School District Superintendent,
  - Library Board,
  - other committees and boards whose work may be affected by designations, such as Economic, Recreation, and Town Forest Committees,
  - interest groups and land managers, such as land trusts, utility companies, non-profit landowners, and State or Federal land managers, and
  - emergency service providers.

- publish a description of the municipality's anticipated planning and engagement activities as its first activity. The process and/or engagement activities may expand as the project evolves.
- send a notice to the Planning Commission Chair and, as applicable, the municipal Administrator/Manager in adjacent municipalities informing them that a preferred sites designation process has been initiated.
- post recent information at the municipal office and two other locations in the community. Publish ongoing information about the preferred site designation process on the municipality's website and in municipal newsletters, if they exist, and on Front Porch Forum.
- publish maps depicting prime renewable energy resource locations in relation to potential preferred sites. At minimum, maps must include parcel boundaries, roads, and names of adjacent municipalities and be posted on the municipality's website. CVRPC can assist with map development.
- if a potential preferred site is within _____ feet of a municipal boundary, post a notice about potential preferred site locations in at least three locations in adjacent municipalities potentially affected by development of a renewable energy generation facility. The notice should state that the designation may impact properties in the adjacent community, describe where to find additional information, and provide a contact person.
- mail information to potentially affected property owners notifying them that their property is proposed for, or may be affected by, designation of a preferred site.
- retain documentation of all the above.

If a single site is being considered for designation outside a full municipal designation process, best practice is to complete all relevant steps above, and to:

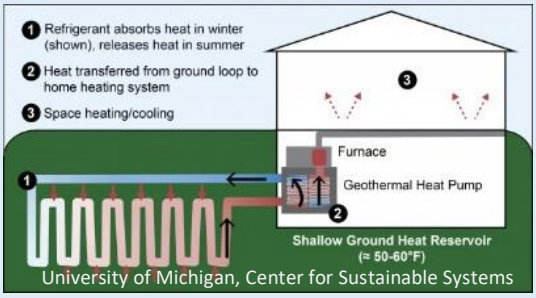
- list the site's e-911 address (or approximate address if no addressed structures) in all public information.
- mail/email individual notices at least two weeks in advance of meetings to all property owners who may be affected by the proposed project.
- provide documentation of all the above when a letter of support is requested from CVRPC.

CVRPC expects to respond to most requests within 30 days; it can take up to 60 days depending on the time of year or other items on the CVRPC review committee agenda. CVRPC recognizes that a municipality may employ robust engagement techniques without resulting participation by its residents and property owners.

STATE-DESIGNATED SITES VETTED FOR MUNICIPAL GOALS: The municipality demonstrates State-designated preferred sites were considered within the context of the municipality's development and conservation goals.

If using the State's preferred sites list in the municipal plan, it is prudent to evaluate the state-designated sites evaluated within the context of the community's development and conservation goals. Mapping these sites can be helpful. Global declarations regarding state-designated sites may not be acceptable to the community once the state-designated sites are viewed in a local context. Example: Is redevelopment of a village center brownfield site into a medium-sized solar facility the best use of the property based on municipal goals?

State-designated sites include: rooftops, parking lot canopies over paved parking lots, impervious surfaces and structures on previously developed tracts, brownfield sites, landfills, disturbed portions of gravel pits, quarries or other mineral extraction sites, sites on the National Priorities List, and sites on the same parcel as or directly adjacent to a customer that has been allocated more than 50 percent of the net-metering system's electrical output.



TYPE AND SCALE OF SYSTEM CONSIDERED: The preferred site designation process considers different energy resource type, considers scales of renewable energy generation systems, and designates appropriate locations for each.

Each renewable energy source has different impacts based on the sources and the infrastructure (roads, transmission lines) associated with constructing and maintaining it. For medium and utility-scale systems, the community often will be asking itself which greenfields are appropriate for renewable energy development. Potential impacts include[1]:

- *Wind:* Construction and maintenance of turbines can affect the surrounding land by way of habitat fragmentation from roads and the footprint of the turbines, soil erosion from surface area disturbance, and potential pollution from runoff. These effects can be mitigated by keeping the impacts on land to a minimum by using existing roads, reclaiming the topsoil once construction is finished, and use of standard erosion controls. Sound and visual impact are the two main community impacts. Sounds can impact those living near the facility and those living across a valley from it.

- *Solar:* Large-scale solar development requires landscape changes. Land must be graded to a slope of less than five percent, and vegetation must be removed to reduce the risk of fire and panel shading. Grading and clearing is particularly significant for most utility-scale solar plants. Vegetation removal from large areas could lead to loss of habitats, loss of important forest blocks, and opening of views or disruption of viewsheds.

- *Geothermal:* Large scale systems are located near geologic "hot spots". In Vermont, geothermal is installed at the residential or commercial level. Geology can make it challenging to install loops of tubing in the ground. Blasting may be required.

- Biomass & Biofuels: Energy generation systems using plants and animals, woody biomass, off-gassing of landfills, and alcohol share similar, but not identical, impacts as fossil fuel plants. Transportation of the energy resource can be a significant impact.

At this time, the use of natural gas in Central Vermont is a fuel storage and transportation issue rather than a renewable energy generation issue.

MUNICIPAL PROPERTIES CONSIDERED: The preferred site designation process considers whether and how municipal properties and structures might be suited to renewable energy generation.

Municipal lands may include offices, garage, solid waste facilities, forests, recreation facilities, vacant lands, libraries, schools, cultural facilities, and more. These varied uses call for focused community discussions when energy generation may be added as a new use. Deeds may contain use limits; user interests may conflict; and neighbors may have located nearby for specific reasons. Example: Is open space in the town forest or parking at the town garage the appropriate

[1] The Wilderness Society, Land Use and Renewable Energy Generation, https://wilderness.org/sites/default/files/legacy/Website-Land%20Use%20and%20Renewable%20Energy%20Generation.pdf

place for wind generation systems? Digging deeper into these properties before encouraging energy developers to use them can strengthen a municipality's understanding of competing needs and use requirements.

SOLAR SITING REQUIREMENTS: The engagement process assists in identifying whether the municipality should develop solar siting requirements allowed under Vermont law.

24 V.S.A. § 4414(15) and 24 VSA § 2291(28) permits a municipality to adopt a freestanding bylaw or ordinance to establish screening requirements that apply to a ground-mounted plant that generates electricity from solar energy. The bylaw cannot prohibit or have the effect of prohibiting the installation of such a plant nor have the effect of interfering with its intended functional use. The engagement process for preferred sites designation may result in a recommendation to update local bylaws or enact an ordinance for this purpose. The recommendation can be included as a municipal plan action item.

CRITERIA FOR FUTURE DECISIONS: The planning process identifies criteria the municipality will use to evaluate designation requests raised after the community incorporates designates sites into its municipal plan.

Over time, community needs can change; new neighbors can bring different perspectives; and landowners can modify their decisions. Municipalities that prepare for change are better able to respond to it. A robust preferred sites designation process will develop criteria for how requests for new site designations will be evaluated in the future.

Preferred sites designation was established because a project-by-project approach does not provide the predictability needed to build a renewable energy future at the pace and scale required to meet Vermont's renewable energy goals. Municipalities also should develop a process for how and when to *de-designate* sites while maintaining a predictable development and planning environment.

Preferred Site Designation

Regional Review

When Would CVRPC Weigh in on Preferred Site Designation?

Staff recommends CVRPC weigh in on all commercial and utility scale renewable energy generation projects for at least the next five years. Municipalities that have not taken advantage of the opportunity to completed enhanced energy planning within the next five years are not likely to pursue the opportunity. In 2024, CVRPC should re-evaluate whether it needs to continue weighing in on preferred sites or whether it can defer fully to municipal decisions.

CVRPC should begin deferring to municipal decisions when:

- a municipality has an approved municipal plan,
- a municipality has received a Certificate of Energy Compliance, and
- a municipality has employed CVRPC's best practice guidance during development of that plan.

Approved plans meet all statutory requirements for planning (contain all required elements and make substantial progress towards state goals). A Certificate of Energy Compliance means the municipality has engaged in enhanced energy planning. It demonstrates the municipality understands its energy needs and has demonstrated the intent to assist the State in achieving a 90x50 renewables future. Employing best practices guidance provides assurance to Regional Commissioners that municipalities completed robust engagement and considered the impact of state-designated sites at the local level.

Enhanced energy planning has the potential to highlight conflicts among municipal approaches to development and conservation, especially regarding renewable energy generation development on ridgelines and within other viewsheds. It will be important for CVRPC to review of how municipal plans respond to the requirement of 24 V.S.A. § 4382(8), A statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas and the region, and of § 4350(b)(1), which includes compatibility with the regional plan and with approved plans of other municipalities.

How Would CVRPC Weigh in on Preferred Site Designation?

Asses a Development's Relationship to the Regional Plan

Staff recommends CVRPC consider:

- a site's relationship to its Land Use Planning Area as defined in the Regional Plan.
- a development's known impacts related to other goals and policies of the Regional Plan.
- the energy source type and the scale of development proposed.

Relationship to Land Use Planning Areas: Identification of property-specific preferred site locations in the Regional Plan is not prudent given the scale of the plan. Land use planning areas cover broad swaths of land. The Regional Plan should address preferred sites at that scale. This can be accomplished by considering:

a) how different types and scales of renewable energy generation systems might interact with each land use planning area, and
b) how state-designated preferred sites might interact with each land use planning area.

Unlike other types of development, renewable energy generation systems at the middle to upper end of the commercial scale and at the utility scale will need to be constructed on rural parcels. Commissioners will need to answer the question of, *"On which greenfields should medium and large net metering projects to locate?"* in a manner that achieves regional consensus.

CVRPC should also define criteria the Project Review Committee can use when making designation decisions. These should include resource impact guidance from the Regional Plan and guidance for each renewable energy source.

Known Impacts Related to Other Goals and Policies of the Regional Plan: Beyond Land Use Planning Areas, the Regional Plan uses its goals and policies to address other impacts and to direct development and conservation. However, nearly all policies in the Regional Plan use advisory language (should, encourage, discourage, where feasible). Advisory policies do not offer substantial guidance in development review because they can be interpreted in different ways for different developments and may be interpreted inconsistently.

The following policies provide directive language that could be used effectively in Section 248 development review.

- Protect or maintain native vegetated buffer strips in riparian zones and shoreland areas using Best Management Practices
- Avoid or limit development and investment in identified flood hazard areas. Development in established economic and institutional centers shall adhere to strict floodplain management standards. [staff note: may be considered advisory]
- Fill and new structures within mapped floodways as identified on FEMA Flood Insurance Rate Maps shall be prohibited, except where a substantial public benefit is provided. [staff note: may be considered advisory]
- Specifically, development activities in designated WHPA's [wellhead protection areas] shall be carefully reviewed for groundwater impacts.
- Prevent the spread of terrestrial invasive species and forest pests.
- Light sources shall be shielded and not directly visible from public roads or adjacent residences.

- Utility infrastructure and corridors shall be sited so as to minimize aesthetic impacts, particularly in areas of local and regional scenic importance. [language in A, B, and C may negate the "shall"]
    A. Wherever practicable, utility lines will be installed underground or behind structures in downtowns and village centers
    B. The use of wood support structures, appropriate conductor colors for the background, and landscape compatibility techniques are encouraged.
    C. Municipalities, in their plans, should consider the visual impacts of the siting of utility poles. Traffic safety and water quality issues may also be pertinent in certain locations.
- Resource areas, as identified by this Plan, shall be avoided wherever possible, in the location or routing of new substation or transmission facilities. [wherever possible may negate the "shall"]
- CVRPC will track indicators that show impacts on aesthetic quality and natural beauty in Central Vermont.
- CVRPC will exercise its status as a statutory party in Act 250 whenever new development has the potential to impact the form and function of an interchange area or adjacent communities.
- New development that places a significant impact on local and regional educational systems must address and mitigate these impacts.

Resource Type and Scale of Development: Potential impacts by resource energy type include[1]:

- *Wind:* Construction and maintenance of turbines can affect the surrounding land by way of habitat fragmentation from roads and the footprint of the turbines, soil erosion from surface area disturbance, and potential pollution from runoff. These effects can be mitigated by keeping the impacts on land to a minimum by using existing roads, reclaiming the topsoil once construction is finished, and use of standard erosion controls. Sound and visual impact are the two main community impacts. Sounds can impact those living near the facility and those living across a valley from it.

- *Solar:* Large-scale solar development requires landscape changes. Land must be graded to a slope of less than five percent, and vegetation must be removed to reduce the risk of fire and panel shading. Grading and clearing is particularly significant for most utility-scale solar plants. Vegetation removal from large areas could lead to loss of habitats, loss of important forest blocks, and opening of views.

- *Geothermal:* Large scale systems are located near geologic "hot spots". In Vermont, geothermal is installed at the residential or commercial level. Geology can make it challenging to install loops of tubing in the ground. Blasting may be required.

[1] The Wilderness Society, Land Use and Renewable Energy Generation, https://wilderness.org/sites/default/files/legacy/Website-Land%20Use%20and%20Renewable%20Energy%20Generation.pdf

- Biomass & Biofuels: Energy generation systems using plants and animals, woody biomass, off-gassing of landfills, and alcohol share similar, but not identical, impacts as fossil fuel plants. Transportation of the energy resource can be a significant impact.

Development scale has the following impacts:

- *Residential* scale renewable energy generation systems are incorporated into preferred site incentives by right. CVRPC does not need to address these.

- *Commercial* scale does not always equate to commercial land use planning areas. Commercial land use areas are used for trading goods and services. They are most valuable when they receive heavy traffic from potential customers. Commercial business facilities interact fairly regularly with their customers, land is usually more valuable, and locations see heavy traffic from residential areas. Commercial scale renewable energy generation system range from 15kw to <1 MW is size. A 150 kW system is considered a medium scale commercial system. Systems over 500 kW do not qualify for preferred site incentives.

  Staff recommends CVRPC limit small-scale commercial energy generation (size TBD) to onsite power use, rooftops, and over existing parking areas. Medium and large-scale commercial systems would be better sited in Rural planning areas, especially in areas adjacent to Commercial land use planning areas.

- *Industrial* scale, referred to in the Regional Plan as *utility scale*, energy generation does not equate to industrial land use planning areas. Utility scale generation is considered to begin at 1 MW in size. Both utility scale energy generation systems and industrial land use areas serve as sites of production. However, industrial business facilities typically manufacture, process or otherwise generate products that are sold to commercial businesses later. Factories, storage facilities, and some mining and shipping operations also are considered industrial. Industrial areas benefit from easy and quick access to transportation (post-construction, energy generation equivalent is grid access).[2]

  It would be helpful to think of utility scale systems as a fourth type of development. Using industrial-designated land use areas for utility scale renewable energy generation systems would not be the highest and best use of those properties. Post-construction impacts are very different from industrial development. Staff recommends utility-scale energy generation projects be prohibited in all land use planning areas except Rural areas unless the system is located on rooftops of buildings in a Mixed-Use Commercial or Industrial land use planning area.

Property Ownership: The Regional Plan does not direct development based on property ownership (private, non-profit, public) except to direct placement of municipal and government buildings and

[2] Legal Beagle: https://legalbeagle.com/6878691-commercial-land-vs-industrial-land.html

development of public places and cultural events into Regional and Town Centers. It would not be prudent to use property ownership as a criterion for preferred site designation either unless the Commission believes certain types of owners should accrue economic benefits more than others.

Use Criteria for Decision Making

Solar:

- Direct solar to flat landscapes allows for cost effective construction
- Use Regional Plan guidance to address conflicts with protected areas and resource impacts
- Address setback and screening requirements
- Address loss of vegetation
- Evaluate proximity to existing or need for new transmission, roads and other associated infrastructure. Site within 1/4–mile of existing transmission lines. Limit new road development to _____ feet. Cluster support buildings away from natural resource areas.
- Use Regional Plan guidance to address low/no impact to historic and cultural resources

Wind:

- Use Regional Plan guidance to address conflicts with protected areas and resource impacts
- Exclude wind development from sensitive areas as noted in the Regional Plan
- Direct to areas that are pre-screened and found to have minimal environmental conflicts
- Evaluate proximity to existing or need for new transmission, roads and other associated infrastructure. Site associated transmission lines in low-conflict areas. Limit new road development to _____ feet. Cluster support buildings away from natural resource areas.
- Offsetting unavoidable impacts from development or "mitigating" by protecting or restoring other lands and wildlife habitat

Geothermal:

- Use Regional Plan guidance to address conflicts with protected areas and resource impacts
- Direct to areas with bedrock below required excavation depth to avoid blasting
- Incent systems that serve multiple structures
- Prohibit systems that would negatively affect groundwater levels

Biomass & Biofuels:

- Use Regional Plan guidance to address conflicts with protected areas and resource impacts
- Direct to areas where transportation infrastructure can accommodate resource delivery needs
- Evaluate proximity to existing or need for new transmission, roads and other associated infrastructure. Site within 1/4–mile of existing transmission lines. Limit new road development to _____ feet. Cluster buildings away from natural resource areas.

Question for the Committee's Consideration

Should economic return be a consideration in preferred site designation?

- For economic development reasons, such as job or wealth creation, creating diversified revenue streams, supporting non-profit missions that enhance community services
- For municipal reasons, such as encouraging diversified revenue streams, creating dedicated facility/service maintenance funds, fostering community sustainability (power use by households, businesses or the municipality), supporting critical facility operations during power outages

Attachment A

Regional Plan Land Use Planning Area Guidance

The Land Use Planning Area section of the plan:

- contains policies to guide the future growth and development of land and of public services and facilities and to protect the environment
- uses visuals and text to indicate:
  - areas proposed by CVRPC for a variety of uses
  - areas identified by the State, CVRPC, or municipalities that require special consideration for conservation purposes
  - locations proposed for developments with a potential for regional impact
  - describe present and prospective locations, amount, intensity, and character of land uses and the timing or sequence of land development activities in relation to community facilities and services development
  - areas that have the potential to sustain agriculture and recommendations for maintaining them
  - areas that are important to maintaining forest integrity

The 2016 Regional Plan was a readoption of the 2008 Regional Plan with updates to the land use, utilities/facilities, and energy elements and addition of a future land use planning area map and plan implementation table. It did not envision the plan being used to designate preferred sites for renewable energy generation.

Abbreviated Description of Land Use Planning Areas

Key Concepts: scale, impact and infrastructure availability matter

Regional Centers are the Region's core downtowns, plus their surrounding mixed use neighborhoods, which accommodate high density commercial, institutional, industrial and residential uses. They contain state-designated Downtown districts and extensive infrastructure, provide regional services and employment, and are areas where efforts to reduce travel demand through ridesharing, transit and multi-modal transit options are critical. They attract significant numbers of trips from the outside the Region.

Town Centers are less densely populated settlements and smaller than regional centers, but similarly accommodate many of the same residential, civic, commercial and light industrial uses. They are "Villages" and have a state-designated village center, local road network, availability of public utility infrastructure, relatively dense development and smaller lot sizes (at least 1 unit per acre), a mix of land uses, and a distinct separation from surrounding rural areas. They serve as sub-regional retail and employment centers. "New Town Centers," as defined and designated by the State, are included.

Policies related to Regional and Town Center planning areas:

- Support locating higher density residential, commercial, and industrial development in both areas.
- Support community and regional shopping centers in regional centers and mix-use commercial areas, and small-scale shopping centers in town centers, hamlets, and rural areas.
- Encourage infill, redevelopment, adaptive reuse of existing buildings and reuse of "brownfield" sites.
- Set public funding priority for maintenance or improvement of [transportation] infrastructure supporting concentrated development, and for affordable housing and assisted living facilities development.
- Direct placement of municipal and government buildings and development of public places and cultural events to these areas.
- Direct areas implementation of flood storage capacity and floodplain protection measures to areas upstream of these areas.

Industrial consists of areas where existing and future commercial and industrial activities are encouraged, including new development and redevelopment. These areas include industrial parks and active quarries. They are largely clustered in the vicinity of urbanized areas. The specification of commercial/industrial sites allows for location of these types of businesses without creating adverse impacts on adjacent land uses. Large-scale commercial/industrial uses, which are important to the region, need to be located in areas where off-site impacts such as noise, traffic and light/glare can be mitigated.

Policies related to the Industrial planning area:

- Encouraged location first in existing industrial areas and secondly in industrial areas assigned in approved municipal plans.
- Acknowledge that commercial activity and small scale, individual industrial activities will take place in other parts of the region as directed by town plans, which can address the town needs with more specificity.

Mixed-Use Commercial include areas of commercial, office and mixed-use development built in a spread out pattern and served by water and wastewater infrastructure. Commercial service industries dominate these areas. Transforming these areas into higher-density, mixed-use settlements through infill and redevelopment is promoted. Strip development is discouraged.

Policies related to the Mixed-Use Commercial planning area:

- Encourage transforming these areas to serve a mix of uses with diversified transportation options, traditional historic development patterns, and implementation of access management principals.
- Some large scale retail constituting a substantial regional impact is permitted with limitations.

Resort Centers are developments that are associated with large-scale recreational facilities, such as ski area facilities.

Policies related to the Resort Center planning area:

- Recognize the direction provided in local plans and bylaws.
- Limit alpine ski area development to expansion of existing facilities rather than development of new ones.

Rural areas are generally rural in character with a low-density pattern along transportation routes. These areas encompass large forest blocks, sand/gravel/mineral deposits, and prime agricultural soils. Rural areas also include residential, small-scale commercial and industrial, and recreational uses. Clustering development with Hamlet-type character is recommended.

Hamlets are smaller than villages, and are typically concentrated residential settlements woven into the fabric of Rural Land Use Planning Areas that may or may not provide minor commercial and civic services. They are defined by the locally recognized extent of the hamlet as it is delineated in a municipality's plan.

Policies related to the Rural and Hamlet planning areas:

- Minimize impact to the viability of agricultural operations and forest fragmentation.
- Encourage location of development outside of farms and along the edges of forests, preferably with buffers between such development and the ag/forest resource.
- Support enabling owners of farm and forestland to bear the financial responsibility of resource protection.
- Provide direction on development principles to be used related to:
    - vehicular and pedestrian movement,
    - compact development as it related to power and transportation infrastructure,
    - maintaining traditional density and settlement patters as development occurs,
    - protecting wildlife corridors from fragmentation,
    - limiting the number and size of non-residential uses,
    - enabling home occupations, and
    - enabling expansion and development of outdoor recreation areas.

Resource areas are dominated by lands requiring special protection or consideration due to their uniqueness, irreplaceable or fragile nature, or important ecological function. *Critical resource areas* are given maximum protection.

Policies related to the Resource planning area:

- seek conservation of the areas while allowing for development to occur after extensive planning, review, and conditions that ensure protections
- give priority to avoiding development in critical resource areas and allow for mitigation of

natural resource impacts when avoidance cannot be achieved

- discourage extension of permanent roads, energy transmission facilities, and utilities into the area
- Recommend avoiding or limiting development and investment in identified flood hazard areas, where feasible

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
REGIONAL PLAN COMMITTEE
JANUARY 31, 2018
Meeting Notes

A meeting of the Central Vermont Regional Planning Commission's Regional Plan Committee was held on Wednesday, January 31, 2018 in the Conference Room of the Central Vermont Regional Planning Commission.

Committee Members Present:

Laura Hill-Eubanks –	Town of Northfield
Ron Krauth –	Town of Middlesex
Janet Shatney –	Barre City
Scott Bascom –	Vtrans

Committee Members Absent:

Dan Hoxworth –	Capstone Community Action
Dara Torre –	Town of Moretown

Others Present:

Clare Rock –	CVRPC Senior Planner
Eric Vorwald, AICP –	CVRPC Senior Planner

CALL TO ORDER

At 4:05pm, without a quorum of the committee present, it was determined that the meeting could not be brought to order.

CHANGES OR AMENDMENTS TO THE AGENDA

No changes to the agenda were offered.

PUBLIC COMMENTS

No members of the public were present.

DISCUSSION OF DRAFT LAND USE ELEMENT

Mr. Vorwald provided an overview and introduction regarding the purpose for reviewing the land use element. He explained that statute was updated to require a discussion of forest integrity for any plans that are updated after January 1, 2018. Since the regional plan was being updated to incorporate energy planning, the land use section would also need to be amended. He further noted that staff was proposing only the necessary updates to comply with statute and that a more in-depth discussion would occur during the update for Plan Central Vermont.

After Mr. Vorwald concluded, Ms. Rock provided an overview and update of the type of information that was being required and the process that has been on-going in the development of the guidance. The

committee members decided to work through the draft on a page by page basis to review the changes. Ms. Rock led the committee through the document and noted updates, changes, and amendments to the draft language. This also included the addition of a new map that outlines the highest priority forest blocks and the highest priority surface waters (including riparian areas). The committee suggested comments that would aide in the readability and clarification of the document.

At the end of the discussion, the committee generally agreed that future meetings were not needed and that they were comfortable with the document being forwarded to the full commission for their consideration. Since a quorum was not present, no official action could be taken to recommend this action.

With no other information to discuss, the meeting concluded at 5:30pm.

Approved:_____, 2018

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
Regional Plan Committee
DRAFT Minutes
July 16, 2018

Present:

☒	Laura Hill-Eubanks, Chair	☒	Julie Potter	☐	Ron Krauth
☒	Dara Torre, Vice Chair	☒	Kirby Keeton		

Staff: Bonnie Waninger
Guests: John Brabant, Calais Commissioners

B. Waninger called the meeting to order at 4:03 pm. Quorum was present to conduct business.

Adjustments to the Agenda
None.

Public Comment
None.

Elections
J. Potter nominated L. Hill-Eubanks as Chair; K. Keeton seconded. No additional nominations were made, and Waninger closed nominations. *The Committee elected L. Hill-Eubanks as Chair.*

J. Potter nominated D. Torre as Vice Chair; K. Keeton seconded. No additional nominations were made, and the Chair closed nominations. *The Committee elected D. Torre as Vice Chair.*

Preferred Site Designation
Waninger provided a presentation to establish a shared understanding among Committee members. She:

- discussed New England's energy profile and Vermont's approach to 90x50,
- reviewed the electric energy supply pipeline,
- discussed private and public activities for energy siting,
- reviewed underlying assumptions,
- discussed siting considerations and challenges, and
- reviewed the Committee's role.

She asked the Committee to consider five questions:

- Where does the Commission reside on the spectrum of deferring decisions to municipalities and establishing regional preferred locations?
- Does the scale of development (residential, commercial, utility) matter and, if so, how?
- Will CVRPC treat all technologies the same? If not, is the treatment based on impact?
- Will CVRPC consider cumulative impacts and, if so, how?
- To what extent should community and municipal (and developer?) engagement occur during this process versus when a project is proposed?

Where does the Commission reside on the spectrum of deferring decisions to municipalities and establishing regional preferred locations?
The Committee suggested the Commission would defer to municipal preferred siting decisions when:

- the municipality used a robust public engagement process when making preferred siting decisions.
- the municipality had an approved [24 V.S.A. § 4350(b)(1)] and certified (Act 174) plan.
- the affected transmission and distribution utilities (Washington Electric Cooperative/Green Mountain Power/VELCO) had been engaged in the decision process. Ex. Transmission is adequate or energy storage is addressed.
- power users are located on the same site as power generator.

Does the scale of development (residential, commercial, utility) matter and, if so, how?
The Committee agreed that scale mattered. The Committee discussed scale in relation to regional impact. It directed staff to research this issue and provide a de minimis-level recommendation at the next meeting.

Will CVRPC treat all technologies the same? If not, is the treatment based on impact?
The Committee did not address this questions.

Will CVRPC consider cumulative impacts and, if so, how?
The Committee recommended that CVRPC consider cumulative impacts.

To what extent should community and municipal (and developer?) engagement occur during this process versus when a project is proposed?
The Committee recommended engagement occur during energy plan development and for proposed projects.

Meeting Minutes
J. Potter moved to approve the April 20, 2018 meeting minutes as presented; D. Torre seconded. Motion carried.

Approved:_____, 2018

Meetings

The Committee did not set a regular meeting date. The next Committee meeting was scheduled for Wednesday, August 29 at 4pm.

The Committee requested that staff develop documentation:

- outlining components of a municipal process that might be required by CVRPC for preferred site designation deference.
- regarding when and how CVRPC would weigh in on preferred site designation.

The Committee requested staff contact Rick Weston, Director of Policy at the Regulatory Assistance Project (RAP). RAP is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future. The Committee would appreciate a discussion with Weston on community planning opportunities and issues for energy and siting.

Adjourn

J. Potter moved to adjourn at 6:00 pm; K. Keeton seconded. Motion carried.

Appendix D: Renewables Siting Policy Language for PUC Interpretation - Examples

The development of an enhanced energy element allows a municipality greater input in Section 248 proceedings of the Public Utility Commission. Policy language on the siting of renewable energy facilities to be referenced in these processes should be well-crafted to be easily interpreted and administered in PUC decisions. This appendix provides some notes on clear policy language and examples that have been developed by Vermont municipalities with ease of interpretation in mind.

Please note that the examples provided below have come from municipalities that have NOT yet sought a determination of energy compliance from the Vermont Public Service Board or a regional planning commission.

Policy language - Phrasing matters (taken from Act 171 Guidance document, 2017):

POLICIES are statements of the town's intent, or position, with regard to specific issues or topics. In certain settings, such as Act 250 and Section 248 proceedings, policy statements will serve as the basis for determining a project's conformance with the Town Plan.

❖ SHALL, MUST, MAXIMIZE, MINIMIZE: Use these terms to write strong policies. "Must" is preferred over "shall" according to the New Federal Rules of Appellate Procedure.13

❖ SHOULD, MAY: These terms indicate that a policy is advisory.

❖ WHERE FEASIBLE, WHERE REASONABLE: The inclusion of the terms "where feasible" and "where reasonable" weaken policies. If there are specific reasons that a policy might not apply, such as topography or cost effectiveness, mentioning those reasons specifically can increase the strength and enforceability of the policy.

❖ SHALL BE ENCOURAGED: While the phrase "shall be encouraged" does include "shall," requiring the encouragement of something is not a strong policy and weakens the statement.

Town of Windham

- Encourage any potential commercial generation facilities to be within the areas deemed most suitable as described in Section 3 area, "Windham's Preferred Locations"*, and within the Energy Generation Potential maps, and maximize potential for those facilities in these preferred areas. - Windham
  *Town promotes energy generation development in locations that are previously disturbed and do not offer significant opportunities for future development.
  These areas would include:
  - Rooftops
  - Mines
  - Quarries
  - Historic impervious surfaces with no adverse ecological impact from development
  - Brownfield sites

- Gravel pits
- Municipally designated “preferred sites”

Criteria for Municipally-Designated Preferred Sites:

- Town owned land, especially if it is cleared and has good solar orientation
- Proximity to 3 phase power lines to reduce utility infrastructure expansion
- Location near the end of utility distribution lines for grid support
- Lack of viewshed impact for those objections to the appearance of the development
- Existing road structure suitable for installation and maintenance
- Minimal impact upon agricultural use of high quality soils
- No disruption of wildlife travel corridors or living habitat
- South facing slopes having low quality agricultural soils which allow higher density solar arrays
- Location on agricultural soils only with facility design compatible with continued agricultural use
- No interference with riparian buffers
- Existing areas of open land such that significant deforestation would not be required

Town of Manchester

- The town supports larger scale solar development (greater than 150 kW capacity) on preferred sites as defined in state statute or as delineated on the solar energy resource map (Figure 2.8). Such projects also may be located on sites with good access to solar energy, where minimal or no environmental constraints are present (Figure 2.8), subject to the following specific siting criteria: New solar facilities shall be restricted to areas that do not adversely impact the community's traditional and planned patterns of growth, of compact (downtown/village) centers surrounded by a rural countryside, including working farms and forest land. Solar facilities shall, therefore, not be sited in locations that adversely impact scenic views and scenic roads, nor shall solar facilities be sited in locations that adversely impact any of the following scenic attributes: views from public roadways across open fields, especially when those fields form an important foreground; prominent ridgelines or hillsides that can be seen from many public vantage points and thus form a natural backdrop for many landscapes; historic buildings and districts and gateways to historic districts; and, scenes that include important contrasting elements such as water. The impact on prime and statewide agricultural soils currently in production shall be minimized during project design. The use of perimeter fencing around solar installations should be limited to the extent possible to avoid adversely impacting both aesthetics and wildlife. Alternative perimeter treatments, including natural vegetative screening, should be considered and used whenever possible.

Town of Richmond

- Renewable energy generation development should be located to avoid state and local known constraints that have been field-verified and minimize impacts to state/local possible constraints that have been field verified.

- Preferred sites for solar generation (including but not limited to net metering) are on previously impacted areas (such as, parking lots, previously developed sites, brownfields, and gravel pits/quarries, or on or near existing structures).
- Prioritize homes and businesses in Downtown Richmond Village and locate ground-mounted solar larger than 15 kW. AC and wind turbines with a hub height larger than 30 meters (98 ft.) outside of Downtown Richmond Village.
- Locate wind generation in areas with high wind potential, such as the prime and base wind potential areas shown on the Potential Wind Energy Resource Map.

Town of Norwich

- The applicant [for a CPG/renewable energy project] shall select one or more specific vantage points along public roads from where the proposed development may be seen. These vantage points shall be shown on a plan. The plan shall also depict areas where existing trees will be maintained or new trees will be planted to provide screening.

Town of Dorset

- Dorset has determined that only small-scale and mid-scale wind power generation is appropriate in the town... Small-scale systems are appropriate at homes, businesses, schools, and other institutions. Mid-scale wind turbines are only appropriate for placement at institutions such as schools and businesses for the purpose of supplementing onsite energy consumption.

  This policy shall not preclude development of small- or mid-scale wind projects that serve and are supported by the local community. For example, community-serving wind development that offsets the electrical demand for businesses, offices, or a neighborhood may be appropriate. All wind development must comply with the State's noise and environmental standards.
- The Town of Dorset establishes the following policies to guide solar energy development in the town. For policy purposes of this plan, solar energy facilities are grouped into three categories: **Small-Scale Solar**, here defined as solar electricity and transmission facilities up to and including 15 kW (AC) capacity; **Mid-Scale Solar**, here defined as solar electricity generation and transmission facilities greater than 15 kW (AC) capacity and less than or equal to 150 kW (AC) capacity or up to two acres of developed area including fencing, whichever is greater; and **Large-Scale Solar** (also known as 'utility-scale'), here defined as a solar electricity generation and transmission facility 150 kW (AC) or greater in capacity or more than 2 acres of developed site area, whichever is greater.
  …Solar energy policies should consider the evolving nature of energy technologies. As capacity and diversity of solar energy systems increase over time, policies shall be reviewed to reflect relevant updates in the technology.

VAPDA
Vermont Association of Planning & Development Agencies

August 1, 2018

Ms. Judith Whitney, Clerk
Vermont Public Utility Commission
112 State Street
Montpelier, VT 05702

RE: Comments of Vermont's Regional Planning Commissions Following the July 19th, 2018 Public Utility Commission Workshop on Commission Rule 5.103 Preferred Site Definition.

Dear Commissioners:

The Vermont Association of Planning and Development Agencies (VAPDA), writing on behalf of the eleven regional planning commissions of Vermont, is providing these written comments following the Public Utility Commission (PUC) workshop on Commission Rule 5.103 Preferred Site Definition. We thank the PUC for hosting the workshop and being open to input on the aforementioned rule and its implementation.

Engagement with Regional Planning Commissions (RPC) as Statutory Parties: As statutory parties to Section 248 and 248(a) petitions, we respectfully request direct notice to each RPC when the PUC opens a docket or otherwise solicits comments on the application of regional plans in PUC proceedings. We often learn of PUC dockets from other parties, and sometimes after the fact or too close to comment deadlines to respond effecitively. RPCs are tasked with implementing the plans that we develop, and PUC proceedings are the primary regulatory means through which our energy development and telecommunications polices are implemented. We have a stake in your process and proceedings, and hope you value our input. As for PUC deliberation on the application of municipal plans in its proceedings, the RPCs have the capacity to inform each municipal legislative body and planning commission that the PUC is soliciting input. We hope you will engage more directly with the state's RPCs in the future.

Preferred Site Definition 2 - A parking lot canopy over a paved parking lot, provided that the location remains in use as a parking lot: While Section 248 precludes the regulation of energy development projects through municipal bylaws, those same bylaws regulate uses and structures. In its definition of a parking lot canopy as a preferred site, the PUC recognizes that parking must remain the primary use of the site. We support the concept of the use of parking lot canopies over paved parking lots for the generation of solar energy, but as the canopy in question would be a structure built over a paved parking lot, the PUC should recognize and support municipal rules regulating structures (size, height, placement) to ensure orderly development and consistency in application of those rules.

Preferred Site Definition 4 - Land certified by the Secretary of Natural Resources to be a brownfield site as defined under 10 V.S.A. § 6642: We generally support the use of brownfield sites for renewable energy generation, recognizing that there may be instances when the development policies of our respective plans and those of municipalities may give priority to other uses. But reuse of brownfields, by definition, "may be complicated by the release or threatened release of a hazardous material." As such the application of brownfields rules must be consistent statewide, and the assessment and clean-up process must apply to renewable energy projects as it would any other development per the rules. Many regions have their own brownfield programs and are committed to ensuring that the rules be followed.

Preferred Site Definition 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: We appreciate the PUC's recognition of municipal plans that identify a specific location for the siting of a renewable energy plant. We also appreciate the recognition by the PUC that it may take some time for municipal plans to be revised to include such designated locations. However, the requirement of a joint letter of support is problematic for two reasons.

First, as separate political subdivisions or units with separate statutory planning authorities, both regional planning commissions and municipalities are enabled to appear as separate parties in Section 248 proceedings to represent their respective plans. Second, as a matter of policy, some regional commissions and municipalities may not write letters of support. A "support letter" may connote a subjective value judgment rather than an objective assessment of consistency with plan policy.

Regional planning commissions are political subdivisions of the state, and municipalities are political units. 24 V.S.A. § 4341(a) states, "For the purpose of a regional planning commission's carrying out its duties and functions under State law, such a designated region shall be considered a political subdivision of the State." 24 V.S.A. § 4345a(14) states that with respect to proceedings under 30 V.S.A. § 248, regional planning commissions "(A) have the right to appear and participate; and (B) appear before the Public Utility Commission to aid in making determinations under that statute when requested by the Commission."

30 V.S.A. § 248(a)(4) notes that regional planning commissions and municipalities have the right to appear as a party in proceedings held under this section, commonly known as Section 248. Subsection (G) states, "The regional planning commission for the region in which the facility is located shall have the right to appear as a party in any proceedings held under this subsection." Subsection H goes on to state, "The legislative body and the planning commission for the municipality in which a facility is located shall have the right to appear as a party in any proceedings held under this subsection."

We are not aware of another circumstance whereby the PUC requires two separate political units of the state, with their own duly adopted plans and their own right to appear as a party in proceedings before it, to define a site through a joint letter of support. This would seem to compromise the rights and powers conferred upon regional planning commissions and municipalities through statute to represent their positions as independent parties in PUC proceedings. It would further seem to compromise the

rights of petitioners by asking for a subjective value assessment of a project, rather than an objective assessment as to the extent to which an energy development proposal comports with the policies of the plan in question.

We suggest the PUC consider replacing the "joint letter of support" requirement with the following:

> …or letters from the legislative body and municipal and regional planning commissions that the *site* in question is potentially preferred for solar energy development based upon the policies their respective plans. The PUC recognizes that such letters in no way constitute confirmation of *project* conformance with the respective plans, that conformance cannot be determined until a complete petition has been filed with the PUC, and that letters of site preference in no way limit further engagement of municipalities and regional planning commissions in the petition review process going forward.

Finally, RPCs request that the rule instruct petitioners to provide a minimum level of information to municipalities and the RPCs in order to make a determination of whether a location is a preferred site. This should include at minimum a site plan with the area of disturbance shown. Alternatively, the rule could state that the preferred site determination will be made after submittal of the 45-day notice.

One other item of note is the nature of questions raised by PUC staff during the workshop. It seemed that there may be some expectation that regional energy plans that have received determinations of energy compliance will contain specific locations for energy development. They do not, primarily because of the scale and nature of these plans. Regions were directed to accommodate renewable energy development through their policies, not the identification of specific locations. Furthermore, this is not what the Rule calls for. The Rule recognizes specific locations identified by municipal plans.

Thank you for your consideration of these comments. We look forward to further engagement with the PUC and hope you will consider direct outreach to us in the future development of rules that govern the application of regional and municipal plans. We believe we would be a valuable resource in that process.

Sincerely,

Chris Campany, President