Central Vermont Regional Planning Commission

Regional Plan Committee

December 17, 2024 at 4:00 pm

29 Main Street, Suite 4, Montpelier, VT 05602

To join Zoom meeting:

https://us02web.zoom.us/j/87815276521?pwd=Mmw5U080SGpCTUFNVHZFSERQUll0dz09

Meeting ID: 878 1527 6521, Passcode: 783374

One tap mobile 1(929)436-2866 or 1(301)715-8592

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AGENDA

4:00 pm[2]	**Adjustments to the Agenda**
	Public Comment
4:05 pm	**Approval of Minutes**[3]
4:10 pm	**Infrastructure Chapter review** (discussion)
	One chapter or two, add/delete/edit any sections?
5:00 pm	**Staff time constraints on formatting Plan** (discussion)
5:15 pm	**How to proceed on Energy Chapter** (discussion)
5:30 pm	**Adjourn**

Next meeting: January 7, 2025

[1] Dial-in telephone numbers are "Toll" numbers. Fees may be charged to the person calling in dependent on their phone service.

[2] All times are approximate unless otherwise advertised

[3] Anticipated action item.

Central Vermont Regional Planning Commission

MEMO

Date: December 15, 2024
To: Regional Plan Committee
From: Will Pitkin, Planner
Re: December 2024 Meeting

Reminder that the December 2024 **meeting will be on Tuesday, December 17**, not the usual first Tuesday of the month. Still 4pm, still CVRPC HQ and Zoom.

This month's meeting will focus on the draft Infrastructure Chapter. Specific discussion points are which sections to include and whether to split the chapter back into separate social and physical infrastructure chapters.

The committee previously reviewed this chapter briefly in June and there was some discussion at that meeting about whether to have it in one chapter or two: physical infrastructure and social infrastructure. The main reason the committee decided to have them in one chapter – titled Utilities, Facilities, and Services to match the language in VT statute – is that it's difficult to separate many of the social services from the facilities that house them, plus it would create a lot of redundancy between the two chapters if social and physical infrastructure were separate. For example, talking about health services in one chapter then healthcare facilities in the other would require essentially the same goals and strategies for both. Now that we have a chance to review a draft of the combined chapter, is that still how we want to go forward?

For the question of which sections to include, Infrastructure is an especially broad chapter that encompasses a lot of different topics and, in the previous Regional Plan, many of the sections of the Infrastructure chapter were essentially just inventory with no associated vision or aspiration; Keith has removed many of those for this draft – are there more that need to be removed? Are there sections that we need to add in or add back in?

We will also discuss staff time constraints in formatting the Regional Plan and a strategy moving forward with the Energy chapter.

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

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
Regional Plan Committee
Draft Minutes
November 19, 2024 4:00 – 5:30 pm

29 Main Street, Suite 4, Montpelier, VT 05602
Remote Access Via Zoom

Committee Members:

X	Alice Peal, Waitsfield Alternate Rep
X	Alice Farrell, Barre Town Rep
X	Doug Greason, Waterbury Rep
X	Mike Miller, Montpelier Alternate Rep
X	John Brabant, Calais Rep

Staff: Sam Lash, Christian Meyer, Will Pitkin, Niki Sabado (in person)
Zoe Christiansen – East Montpelier Rep, James Crafts – Warren Planning Commission member

Adjustment to the Agenda

A. Peal adjusted agenda to add staff follow-up on committee members' questions from October 2024 meeting regarding reforms introduced in Act 181. W. Pitkin said that Act 181 states that if the Land Use Review Board (LRB – currently known as the Natural Resources Board) rejects a Regional Plan and/or the Future Land Use Map contained therein, the LRB can suggest modifications. Act 181 did not state an appeals procedure for if the LRB rejects a Regional Plan and/or Future Land Use Map and C. Baker, executive director of the Chittenden County Regional Planning Commission, stated that there was no appeals procedure before any courts. Committee members discussed whether it was legally permissible for there to be no appeals procedure. M. Miller noted that the ability to appeal decisions by state boards hinges on whether the board is quasi-judicial (quasi-judicial boards' decisions are appealable but other boards' decisions are not); recently, Montpelier was unable to appeal the Community Investment Board's decision to reject the city's application for a Growth Center designation.

Public Comment

No public comment.

Approval of Minutes

Committee did not approve October draft meeting minutes and stated an intent to review them in the December meeting.

Discussion

Meeting began at 4:02pm.

Staff presented results of follow-up research on committee members' Act 181-related questions and discussion followed, as detailed above.

Draft Energy Chapter

Discussion began with committee members' feedback on draft chapter. A. Peal reiterated a desire for a

readable document that is accessible to layperson readers.

D. Greason echoed a desire for readability, plus consistency between different chapters in formatting, tone, and approach. D. Greason liked the Energy chapter from the 2016 Regional Plan as amended 2020 that had a brief executive summary/intro to the issues followed by the full, in-depth energy plan at the end of the regional plan. D. Greason expressed a preference for the Energy element of the upcoming regional plan to be structured similarly. D. Greason also wanted a more transparent process for what changes staff have made from the previous regional plan to the upcoming one and between different drafts of the upcoming plan, including Track Changes.

J. Brabant repeated prior concerns about building a regional plan from scratch instead of updating the previous plan. J. Brabant also wanted a clearer indication of what changes have been made from plan to plan and between drafts of the upcoming plan and expressed concern about the lack of commissioner involvement in the writing. J. Brabant suggested returning to the 2016 Regional Plan as amended 2020 then adding in new content from current draft chapter with commissioner involvement.

A. Farrell wanted the chapters to have clear links between each other and not become siloed. A. Farrell stated that her primary concern was that the regional plan be interrelated between chapters, easy to read, and make sense to readers as a contiguous document.

M. Miller agreed with D. Greason's preference for a shorter Energy chapter that may be distinct from the more in-depth Energy Plan. M. Miller stated that the Energy draft chapter was moving in the right direction relative to previous drafts, though he had not reviewed the previous regional plan.

A. Peal stated that she saw redundancy between the draft Energy chapter and outside documents, such as the State Climate Action Plan, and suggested enhancing readability by including references to outside documents with abbreviated or no summaries of those documents. A. Peal wanted the Energy chapter to be a document that she could bring to municipal officials that briefly states what relevant state regulations are and what towns and interested individuals can do to help meet requirements/goals.

Z. Christiansen requested that the regional plan include more discussion on the interconnectedness of chapters.

D. Greason reiterated his opinion that the 2016 Regional Plan as amended 2020 had an excellent executive summary.

C. Meyer provided background on the regional plan writing process, including that staff were originally directed in 2019 to do a full rewrite of the regional plan. A. Peal noted that the previous regional plan had details on the planning and writing process, including a steering committee, and asked what the writing process was for the current draft.

S. Lash noted that she had tried several times to reform the energy steering committee throughout the years but did not receive approval to reform that committee, in part due to CVRPC's staffing shortage in prior years. S. Lash provided regular trainings, webinars, publications, and direct outreach to municipalities and other interested parties, including utilities.

S. Lash reiterated that when she began work on the draft Energy chapter, she was instructed to merge into one section the briefer Energy Element with the more in-depth Enhanced Energy Plan, which were discrete sections in the 2016 Regional Plan as amended 2020.

D. Greason reiterated his request for a before and after document with Track Changes. A. Peal wanted a shift away from state and developer focus toward a focus on municipal actions. S. Lash stated that she has been highlighting actions that CVRPC municipalities have taken and asked the committee how she can continue to bring municipalities' actions to the forefront of the chapter.

A. Peal asked who the main audience was for the chapter. S. Lash stated that the audience was originally the statutory requirements plus the Public Service Department and other technical stakeholders and municipal energy committees. Many sections, including municipal targets and explanations of data limitations, are directed at municipal energy committees.

A. Peal posed the questions of what would be most helpful for staff from the committee and vice versa.

Discussion followed regarding the legibility of comparing different versions of the Energy chapter with Track Changes.

S. Lash discussed energy project siting constraints and a project review procedure that she is developing. J. Brabant discussed scales of renewable energy generation projects and expressed his desire that the plan be an aid to member municipalities, not a threat to them. J. Brabant reiterated his desire that the Energy chapter include the previous regional plan's restriction on wind turbine hub height and background on how that restriction was developed, then discussed the potential regional impacts of renewable energy developments. J. Brabant requested that staff highlight the goals and strategies and constraints that the draft Energy chapter has and compare them to those in the previous regional plan.

S. Lash summarized the process for putting together the draft Energy chapter's energy project constraints and desired characteristics and how those related to statutory requirements and other chapters in the regional plan. Discussion followed regarding constraints and energy project development.

A. Peal asked how the committee can best help move the chapter forward. C. Meyer suggested that commissioners bring draft chapters to their towns for review. A. Peal, D. Greason, and J. Brabant offered to work with S. Lash on the draft chapter outside of meetings.

Committee members asked which draft chapters are ready to share with their towns. Staff suggested the chapters that have already been reviewed by the Regional Plan Committee and the Board of Commissioners – Natural Systems, Economy, and Transportation – be shared; the committee requested that the chapters have consistent formatting. Staff will incorporate all suggested edits from those three chapters and make formatting consistent then distribute to the committee. S. Lash recommended that staff and committee prepare specific questions from readers before distributing to the towns.

J. Brabant requested that chapter drafts be sent to the committee in Word doc format so that committee members can see edits in Track Changes and suggest additional edits in comments.

S. Lash requested clarification on how the committee wanted to provide input before the next meeting.

S. Lash asked if the committee wanted to provide written answers to the questions in the meeting packet that were not covered in the meeting; committee members said yes. S. Lash provided a summary of several of the key questions, including questions related to energy efficiency measures which are new to this draft and not featured heavily in the previous regional plan.

Committee decided to postpone approval of the October draft meeting minutes until the December meeting.

A. Peal adjourned meeting.

Minutes taken by W. Pitkin

2016 Plan Goals & Policies/Strategies	Notes	2025 Plan Goals & Policies/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.	Language updated for brevity and clarity and combined with Water Systems	**GOAL 1: Public water systems and wastewater treatment facilities that protect public health, maximize public investment, and reinforce desired patterns of growth.**
1. This Plan supports efforts to improve existing wastewater collection and treatment systems.	Strategy 1.4	**Strategy 1.1** Promote utilization of existing water supply systems that are functioning properly, particularly when located in combination with the region's wastewater systems recommended for high intensity development.
2. Encourage municipalities to establish a schedule indicating when and for what uses remaining capacity should be allocated. A schedule of the number and types of hookups can serve a similar purpose.	Removed due to no effective way to encourage or implement by CVRPC.	**Strategy 1.2** Assist communities in developing local regulations and/or incentives to protect aquifer recharge areas and source protection areas and encourage prohibition of land uses or activities that would measurably degrade the quality of water supply sources.
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.	Strategy 1.5	**Strategy 1.3** Provide technical assistance for grant writing for maintenance and upgrades to existing systems to increase the lifespan of these systems.
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.	Strategy 1.4	**Strategy 1.4** Assist municipalities and partners in efforts to improve existing wastewater collection and treatment systems and upgrades to increase efficiency and flood resilience.
A. Encourage coordination of upgrades to coincide with other municipal infrastructure projects (i.e. roads).	Removed due to no effective way to encourage or implement by CVRPC.	**Strategy 1.5** Assist municipalities in efforts to improve water quality through the separation of combined sewers or other methods to ameliorate the harmful impacts of combined sewer overflows.
B. Perform outreach to municipalities whose systems are approaching 20-yr design life and connect local operators/commissions with available technical assistance.	Strategy 1.3	**Strategy 1.6** Assist municipalities in planning for new or expanded wastewater treatment facilities where municipalities have immediate need or where additional growth is appropriate and zoned accordingly for intended development.
5. In order to encourage municipalities to optimize the use of wastewater treatment capacities, municipalities are encouraged to participate in intermunicipal facilities or agreements. Intermunicipal facilities can prove cost effective for the communities involved. At the same time, capacity allocation agreements offer individual communities the option of encouraging or discouraging growth. Provide model intermunicipal agreements upon request.	Was removed due to no pathway for CVRPC to push can assist as necessary.	**Strategy 1.7** Assist municipalities in planning for and installation of decentralized community wastewater treatment systems in villages, hamlets, and in clustered housing developments, and ensure that agreements for those facilities adequately provide for ongoing maintenance and oversight.
6. New or expanded wastewater treatment facilities should be planned where municipalities have immediate need or where additional growth is appropriate, including Regional Centers, Town Centers, Hamlets, Resort Centers, and Mixed Use Commercial and Industrial areas. Explore opportunities to develop a region-wide water and wastewater study to iden- tify priority investments to supporting desired growth patterns.	Strategy 1.6	A. Engage with and assist in the formation of and support efforts of local Wastewater Advisory Committees.

7. Encourage planning for and installation of decentralized community wastewater treatment systems in villages, hamlets, and in clustered housing developments, and ensure that agreements for those facilities adequately provide for ongoing maintenance and oversight. A. Encourage formation of and support efforts of existing local Wastewater Advi- sory Committees. B. Assist with grant writing and coordinate provision of technical assistance (i.e. soil mapping, wastewater studies, capacity-building) to local efforts to identify wastewater solutions. C. Assist with public outreach and engagement efforts in planning for wastewater infrastructure.	Strategy 1.7 Strategy 1.7 A. Strategy 1.7 B. Strategy 1.7 C.	B. Assist with grant writing and coordinate provision of technical assistance (i.e. soil mapping, wastewater studies, capacity-building) to local efforts to identify wastewater solutions. C. Assist with public outreach and engagement efforts in planning for wastewater infrastructure.
8. This Plan encourages the extension of municipal sewage treatment collection systems to existing developments within currently unsewered drinking water source protection areas in order to protect underground water supplies from harmful septic system leachate.	Stragegy 1.8	**Strategy 1.8** Encourage the extension of municipal sewage treatment collection systems to existing developments within currently un-sewered drinking water source protection areas to protect underground water supplies from harmful septic system leachate.
9. Wherever possible, extensions of municipal wastewater collection systems should occur, along or within existing public rights of way.	Removed due to no effective way to encourage or implement by CVRPC. Can provide bmp when aware of extensions.	**Strategy 1.9** Engage with and provide technical assistance for programs that assist with the replacement of failed on-site sewage disposal systems.
10. CVRPC will promote and encourage environmentally and fiscally sound solutions to the Region's sludge disposal problem.	Strategy 1.8C	**Strategy 1.10** Engage with Towns on 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.
11. Work with municipalities to improve outreach to on-site sewage disposal system owners through provision of guidance material explaining how to properly maintain their systems.	Strategy 1.7 C	**Strategy 1.11** Engage with Towns on retrievable record keeping systems for "as built" municipal wastewater system engineering plans, to ensure exact knowledge of the placement of underground collection lines.
12. Support programs to assist with the replacement of failed on-site sewage dis- posal systems.	Strategy 1.9	
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.	Strategy 1.10	
14. CVRPC urges communities to establish retrievable record keeping systems for "as built" municipal waste water system engineering plans, so as to ensure exact knowledge of the placement of underground collection lines.	Strategy 1.11- language has been improved and updated	
WATER SYSTEM GOAL: Improvement and expansion of public water system facilities so as to protect public health, maximize public investment, and reinforce desired patterns of growth.	Language updated for brevity and clarity and combined with Water Systems	
1. Where existing water supply systems are functioning properly, they should be utilized. Particularly when located in combination with the region's wastewater systems, the service areas of water supply systems are recommended for high intensity development.	Strategy 1.1	

2. Land uses or activities that would measurably degrade the quality of water supply sources should be prohibited. Assist communities in developing local regulations and/or incentives to protect aquifer recharge areas and source protection areas.	Strategy 1.2 and 1.10
3. Work with the region's small water supply systems to build administrative capacity, coordinate with each other and develop capital improvement plans and budgets.	Strategy 1.7 B
A. Encourage participation in VT DEC's Asset Management trainings.	Strategy 1.1 (Check Infrastructure Chapter)
B. Incorporate outreach and education regarding water and wastewater infrastructure planning into Municipal Transportation Capital Improvement Planning task in the Transportation Planning Initiative.	Not viable funding option. TPI budget cannot be used for non transportation related projects.
4. Intermunicipal water supply agreements are encouraged. The sharing of water resources can be a cost effective method of insuring that water supply adequately supports the municipal plan.	Was removed due to no pathway for CVRPC to encourage, can assist at town request.
5. CVRPC encourages municipalities that have not already done so, to identify and protect backup or alternative sources of water.	Removed-Most have already completed if interested will support communities as they identify need.
A. Assist such efforts at the request of local officials.	
B. Raise awareness of groundwater mapping resources available from the VT Agency of Natural Resources and U.S. Geological Survey.	Strategy 1.8B
6. Water service area expansions should be designed to encourage development in areas where growth is appropriate including Regional Centers, Town Centers, Hamlets, Resort Centers, Rural Commercial and Industrial areas and growth centers as identified by town plans	Strategy 1.7
7. Capacity expansion and water quality improvements to existing water supply systems are encouraged where such problems are impediments to concentrated growth.	Strategy 1.7
8. CVRPC urges communities when designing and constructing public water systems and, to require the site engineer to provide "as-built" plans so as to ensure exact knowledge of the placement of underground collection lines. when the need for repair or replacement arises.	Strategy 1.12- language has been improved and updated

ELECTRIC POWER GOAL: Improvement, and expansion of electric power generation methods and infrastructure so as to provide adequate service, conserve energy, maximize benefits of public investment, minimize impacts on aesthetic, ecological and recreational resources, and protect public health.

1. CVRPC supports the concepts of "demand side management" and "least cost integrated planning" as mechanisms to reduce electrical power consumption, and its attendant costs (both financial and environmental) through conservation and energy efficiency

2. CVRPC encourages the development and use of renewable energy sources to meet the region's electrical power needs, while minimizing impacts on aesthetic, ecological and recreational resources (see Energy element of this Plan).

3. CVRPC encourages diversity in the region's future power supply so as to establish flexibility and avoid reliance on any single source.

4. CVRPC encourages utilities and the Public Service Board to give greater consideration to making service territories more flexible by allowing for inter-utility connections and deregulation where there will be beneficial impact to the consumer and the environment. Such flexibility will help promote the Region's goals regarding settlement patterns, and save money as well.

5. Proposals to introduce extra high voltage and ultra high voltage transmission lines (capacity greater than 345 KV, AC or DC) to Central Vermont should be carefully scrutinized pending satisfactory resolution to the health and safety issues concerning their operation.

6. The Commission encourages adherence to environmentally and ecologically sound utility line maintenance practices. Plans and designs for utility infrastructure and corridors should incorporate climate projections and be reviewed for long-term reliability, safety and economic, social and aesthetic impacts.

7. The corridor concept is generally supported by this Plan. As such, the location of new transmission lines should share existing power line routes as illustrated on the Central Vermont utilities map. However, it is recognized that existing routes may not always be optimal for additional or expanded transmission lines. It is also recognized that the construction of distribution lines within, or adjacent to, public highway rights-of-way may, in some instances, have more negative aesthetic impacts than would a parallel route away from the road.

8. Utility infrastructure and corridors shall be sited so as to minimize aesthetic impacts, particularly in areas of local and regional scenic importance.

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.
9. Resource areas, as identified by this Plan, shall be avoided wherever possible, in the location or routing of new substation or transmission facilities.

10. Substation facilities should be located in industrial areas or in those planned for industrial use whenever practical. In any case, such facilities should be sited as unobtrusively as possible.

11. Utility infrastructure and corridors shall be sited to minimize aesthetic impacts, particularly in areas of local and regional scenic importance. Wherever practicable, utility lines will be installed underground or behind structures in downtowns and village centers.

OUTDOOR RECREATION GOAL: To promote adequate access to a wide range of high quality outdoor recreation experiences to all sectors of the population.

1. CVRPC will encourage and foster the provision of diverse outdoor recreational opportunities, with consideration given to the needs of the elderly, disabled, and economically disadvantaged.

2. CVRPC encourages, in particular, those recreation activities that focus on, respect, enhance, and educate, about the natural environment.
3. Recreation inventories and needs assessments should occur at the local and regional levels in order to determine deficiencies and conflicts, and to identify key recreational resources and opportunities on both public and private land.

4. Municipalities should develop and implement strategies to protect important recreation lands. Actions such as securing voluntary easements, fee or less than fee acquisition, subdivision or zoning regulations which contain provisions for common open space, impact fees or other contractual arrangements are encouraged as alternatives for achieving permanent or semi- permanent protection.

5. Public access to rivers, streams, lakes, ponds and recreation lands is a need in the Region. Municipalities, the State, and private groups, such as land trusts, should coordinate efforts to provide for improved access to the Region's surface waters. At the same time, significant water related natural areas should be maintained and protected.

6. Priority consideration should be given to rehabilitating and upgrading existing recreation facilities.

Has been moved to the Economy Chapter

7. CVRPC supports the maintenance or upgrading of existing surface water classifications to reflect their actual recreational uses, except where lower classifications may be needed for municipal sewage treatment projects.
8. Landowners are encouraged to voluntarily keep their lands open for public recreation and enjoyment where possible, so as to maintain the Region's tradition of informal, resource based recreation on private lands.
9. CVRPC will support future legislation to alleviate landowners of unreasonable liability burdens.
10. New development proposals are encouraged, through design, to make an effort
to preserve access to recreational uses for the general public.

11. The Commission supports and encourages the creation and existence of inter municipal recreation districts. (Inter-municipal districts are legal arrangements whereby a governmental entity joins with another to provide recreational facilities or services. Through these arrangements, increased opportunities may exist for municipalities to acquire or develop land, provide services, or manage an area).Accordingly, we will continue to provide administrative and technical assistance to the Wrightsville Beach Recreation District Board of Directors.

12. CVRPC will work towards and support the maintenance and development of trail and greenway networks to provide for recreational diversity, tourist amenity, habitat linkage, and low impact transportation choices. Specifically, the Commission will strive to:
- work with individual municipalities, at their request, to help plan local trails and greenways;
- work with groups of municipalities and/or citizens to promote the concept and realization of a regional trail and greenway network that connects and builds upon local initiatives;
- encourage the paving of shoulder for safe bicycle and pedestrian travel on all state highways in the region;
- encourage the development of multi-purpose trail corridors along abandoned rail beds;
- encourage municipalities to retain Class IV roads and public trails for public recreational use; and
- encourage the provision of recreation along utility corridors, as appropriate.

13. Downhill ski areas provide valuable recreational and economic benefits in Central Vermont. However, certain external costs (e.g. expanded demands on facilities and service, environmental impacts, etc...) are inherent in their operational and expansion activities, too. It is CVRPC's goal to enhance the viability of existing ski areas and foster their development in a manner which will enable them to remain competitive while ensuring that they will protect and co-exist with the natural, physical, and socio-economic environment. Equitable means of sharing external costs between ski areas and their host towns are encouraged where such costs cannot be avoided. The Memorandum of Understanding between the Sugarbush Area Resort, CVRPC, and the Mad River Valley towns is a model for such positive coordination and communication.

14. Atmospheric pollution has become an increasing problem over the past few decades. It now threatens to disrupt global weather patterns and endanger public health. The impacts of air quality on recreation and tourism are also recognized. CVRPC will support measures to address air quality at the local, regional, state, federal, and global levels. Promotion of energy conservation practices will be the focus of such support (see Energy Element).

CULTURAL RESOURCES GOAL: To promote adequate access to a wide range of high quality cultural experiences for all sectors of the population.

Goal 16

Goal 16: CULTURAL RESOURCES GOAL: To promote adequate access to a wide range of high quality cultural experiences for all sectors of the population.

1. CVRPC encourages the development of new cultural facilities and services (including studio space), in Central Vermont, particularly in or near existing settlements and growth centers, as such areas are most accessible to all segments of the population, and the proliferation of culture in such areas will strengthen their vitality.	Encourage is an ideal. Changed language to supports	Strategy 16.1. CVRPC supports the development of new cultural facilities and services (including studio space), in Central Vermont, particularly in or near existing settlements and growth centers, as such areas are most accessible to all segments of the population, and the proliferation of culture in such areas will strengthen their vitality.
2. The protection and preservation of existing cultural resources and activities is a goal of the Commission.	Is it a goal of the commission? Commission supports existing cultural resources and activities when funding is available to support.	
3. CVRPC will continue to work with cultural organizations where appropriate, to support cultural resources in Central Vermont.	adjusted language	Strategy 16.2. CVRPC will work with cultural organizations where appropriate, to support cultural resources in Central Vermont.
4. The Commission encourages the rehabilitation or adaptive use of sites and structures for cultural pursuits.	Strategy 3	Strategy 16.3. The Commission encourages the rehabilitation or adaptive use of sites and structures for cultural pursuits.
5. CVRPC supports strengthening the role of cultural and artistic disciplines in public education.	adjusted language	Strategy 16.4. CVRPC supports the role of cultural and artistic disciplines in public education.
HISTORICAL AND ARCHEOLOGICAL RESOURCES GOAL: To promote the protection and use of the Region's historical and archeological resources.	Goal 15	**Goal 15: HISTORICAL AND ARCHEOLOGICAL RESOURCES**: To promote the protection and use of the Region's historical and archeological resources.
1. Municipalities are encouraged to provide a historic preservation section in their municipal plans. (CVRPC will assist in such an effort, if requested.)	Strategy 15.1 added language That aligns with flood safety	Strategy 15.1. Municipalities are encouraged to provide a historic preservation section in their municipal plans that align with flood safety. (CVRPC will assist in such an effort, if requested.)
2. CVRPC encourages development which preserves the historic and architectural character of town and village centers and the rural landscape.	flood hazard consideration and adjusted language to more appropriately align with VSA 4302.	Strategy 15.2. CVRPC encourages development which preserves the natural and historic features of towns, village centers, rural countryside, and the natural and fragile landscape without increasing risk from natural hazards.
3. Therefore, it is the policy of this Commission to support and encourage downtown revitalization programs and Downtown and Village Center Designation. Downtown revitalization efforts are means to create jobs and to preserve our national heritage.	Update for new designations and to include flood hazard considerations	Strategy 15.3. Therefore, it is the policy of this Commission to support and encourage downtown revitalization programs and Downtown and Village Center Designation while instituting flood hazard designs in development.
4. CVRPC encourages the restoration, rehabilitation and adaptation of historic structures where feasible, as this minimizes the environmental impact of development by conserving raw materials, using land already developed, employing existing services.	Add outside of hazard areas	Strategy 15.4. CVRPC encourages the restoration, rehabilitation and adaptation of historic structures where feasible outsided of hazard areas, as this minimizes the environmental impact of development by conserving raw materials, using land already developed, employing existing services.
5. Where economically practical, rehabilitation of a historic site or structure should be designed to minimize the architectural impact and maintain the historic character of the site or building.	where feasible, safe and energy efficient	Strategy 15.5. Where economically feasible and safe, rehabilitation of a historic site or structure should be designed to minimize the architectural impact and maintain the historic character of the site or building while incorporating energy efficient design.
6. Where an area is not designated as a historic district, but where there are buildings of local historical significance, projects should be designed to maintain and protect the historic character of the area. Municipalities are encouraged to develop criteria that would assist in protecting the character of an area considered historic, whether designated as such or not.	where feasible, safe and energy efficient. Not sure that this should be included. No pathway for regulating.	Strategy 15.6. Where an area is not designated as a historic district, but where there are buildings of local historical significance, projects should be designed to maintain and protect the historic character of the area. Municipalities are encouraged to develop zoning criteria that would assist in protecting the character of an area considered historic, whether designated as such or not.

7. The impact upon the historic character of the area should be considered when public or private municipal improvement projects (such as sidewalks, roads and traffic improvements) are proposed.	Removed. Directly conflicts with Transportation and access. At odds with state complete streets and climate goals.
8. Activities having substantial impact on an important historical site or structure should be planned in consultation with the Division for Historic Preservation, Agency of Commerce and Community Development.	Removed as this is already required under state historic preservation rules.
9. Additions to a historic building should be designed to minimize the visual impact upon the site or building.	Removed- NO authority or pathway to implement is up to SHPO. flood hazard consideration

10. Land development adjacent to or on an important prehistoric or historic archeological site should be designed to minimize the impact upon the site.	RPC will work with municiaplities to ensure that. ACT 250 address this.	
11. Prehistoric and historic archeological sites are recognized as important to Vermont's history. Any activity that may have an impact on a prehistoric or archeological site should be planned in consultation with the Division for Historic Preservation, Agency of Commerce and Community Development.	Change language to what CVRPC does in relation to historic and archeological sites. Handled under ACT 250. Otherwise should be handled by zoning bylaws.	
12. CVRPC will provide support to local, regional, and state non-profit historic preservation trusts upon request.	Adjusted language to "Support to municipalities"	Strategy 8. CVRPC will provide support to municipalities for historic preservation upon request.
13. CVRPC will promote the awareness of historic preservation through periodic publication of funding sources available to municipalities and investment tax credits available to individuals.	Clarified language to outreach we can do.	Strategy 9. CVRPC will provide outreach of State and Federal historic preservation opportunities of funding sources available to municipalities and investment tax credits available to individuals.
WIRELESS TELECOMMUNICATION FACILITIES GOAL: To promote Effective and efficient communication systems.	Goal 3	**GOAL 3: Effective and efficient communication systems.**
1. Telecommunication facilities should not be sited where they may create an attractive nuisance.	Strategy 3.1	Strategy 3.1 Promote that telecommunication facilities should be sited, designed, maintained and operated to minimize negative impacts on natural, cultural and scenic resources. Use of stealth design and/or use of existing structures are encouraged where appropriate. New towers should be no taller than necessary to provide coverage.
2. Telecommunication facilities should be sited, designed, maintained and operated so as to minimize negative impacts on natural, cultural and scenic resources. Use of stealth design and/or use of existing structures are encouraged where appropriate. New towers should be no taller than necessary to provide coverage. The policies of this Plan addressing ridgeline and hilltop development (see Land Use Element, Goal 5) are intended to apply to telecommunication facilities.	Strategy 3.1	Strategy 3.2 Assist service providers and municipalities to identify appropriate locations for the construction of new tower (or other facilities) necessary to achieve adequate coverage of the Region as well as locations not appropriate for new towers.
3. Use of existing towers, communication facilities, and structures where possible, is encouraged and expected rather than development of new transmission and receiving stations. Permits for tower facilities should require permiteess to accommodate additional users, appropriate to the structure, at a fair market rate.	Up to contract negotiations with owner or site developer. No mechanism for enforcement. Aspirational.	Strategy 3.3 Provide CVRPC's "Model Telecommunication Facility" bylaw to all member municipalities and work with towns and cities to develop bylaw, ordinance, and/or town plan language to address facility siting. The Commission encourages municipalities that adopt telecommunications regulations to provide for an expedited permit process for small scale facilities.
4. Permits for towers should require a financial mechanism to ensure their removal by service providers should they be abandoned or rendered obsolete by advances in technology. Processes for establishing bonds should take inflation into account as many years can elapse between construction and removal.	Up to contract negotiations with landowner. No mechanism for enforcement. Aspirational	Strategy 3.4 Participate in Section 248a processes including review of new towers and necessary infrastructure for regionally substantial impact and potential interference with orderly development.
5. Applicants must demonstrate that telecommunication facilities comply with FCC emission standards in order to protect public health and safety.	Removed outside of regions purview	

6. Assist service providers and municipalities to identify appropriate locations for the construction of new tower (or other facilities) necessary to achieve adequate coverage of the Region as well as locations that are not appropriate for new towers. CVRPC will act to implement the results of this effort through its participation in the Section 248 Process.	Strategy 3.2 with removal of section 248 process statement.
7. CVRPC will provide its "Model Telecommunication Facility" bylaw to all member municipalities and work with towns and cities to develop bylaw, ordinance, and/or town plan language to address facility siting. The Commission encourages municipalities that adopt telecommunications regulations to provide for an expedited permit process for small scale facilities.	Strategy 3.3
8. New towers should be constructed in areas served by existing roads or trails. 9. Access roads should be designed to minimize their impact on scenic, agricultural, forestry, and natural resources. 10. The location of telecommunication towers is a significant aesthetic issue within the Region. Strategies intended to minimize negative impact are presented in the Energy and Infrastructure chapters of his plan.	Removed-Town enforcement by DRB or planning commissions Removed- Aspirational
EMERGENCY/HEALTH SERVICES GOAL: To promote effective, efficient and accessible emergency and health care services.	Goal 11
1. Adequate health care facilities and personnel should be planned and located throughout the Region so that all residents have access to such services. It is necessary that planning for these facilities be coordinated with population distribution and existing and future transportation patterns.	Strategy 11.1
2. For all aspects of emergency/health service delivery, full consideration of the costs and benefits of cooperative and regional provision of these services is encouraged.	Strategy 11.2

GOAL 11: Effective, efficient and accessible emergency and health care services for all that protect the lives of professional and volunteer staff.

Strategy 11.1 Assist municipalities and partners in planning for adequate health care facilities and personnel located throughout the Region and in coordination with population distribution, existing and future transportation patterns to meet the needs of all residents.

Strategy 11.2 Assist municipalities and partners in planning for all aspects of emergency/health service delivery with full consideration of the costs and benefits of cooperative and regional provision of these services.

Strategy 11.3 Coordinate with the District Health Office and the MRC/CERT Medical Reserve Corps/Community Emergency Response Team.

Strategy 11.4 Advocate for public services that are responsive and representative of the populations they are serving.

Strategy 11.5 Provide technical assistance to municipalities in accessing and applying for funding to sustain and improve the structures and equipment needs of emergency services and fire departments to current accepted national standards.

EMERGENCY MANAGEMENT GOALS:

GOAL 13: Minimize loss of life, physical and emotional injury, financial loss, and property damage or loss resulting from all hazards

1. To build disaster resistant communities in Central Vermont through sound emergency planning and management	Goal 12	Strategy 13.1 Provide technical assistance and educate municipalities in all-hazards assessment to identify risk to people and property.
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.	Strategy 12.1	Strategy 13.2 Engage with and provide technical assistance to municipalities to adopt minimum standards for public roads, bridges, and culverts and River Corridor bylaws to maximize Emergency Relief and Assistance Fund (ERAF) scores for access to more disaster relief funding.
1. Promote the importance of local emergency management plans to municipalities in Central Vermont	Strategy 12.1	Strategy 13.3 Require that new or rebuilt development shall not increase disaster risk and will take reasonable steps to reduce existing risk.
2. Encourage municipalities to annually review and update their Rapid Response Plans for the new contact information and to identified risks.	Strategy 12.1	Strategy 13.4 Advocate and provide technical assistance to municipalities and telecommunications partners to increase radio and cellular coverage for emergency responders.
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.	Strategy 13.1 and 13.6	Strategy 13.5 Engage with and provide technical assistance to municipalities on how to enforce National Flood Insurance Program (NFIP) requirements for permitting of structures and development within the Special Flood Hazard Area.
4. Encourage municipalities to adopt minimum standards for public roads, bridges, and culverts (using the Vermont Local Roads Program and FEMA's standards).	Strategy 12.1 and 13.2	Strategy 13.6 Engage with and provide technical assistance municipalities on the use of Federal funding for updating Local Hazard Mitigation Plans to address natural hazards found in each municipality.
5. Encourage municipalities to implement land use policies and development regulations that consider the potential impacts of disasters on people and property.	Stategy 13.3	Strategy 13.7 Assist towns in accessing Grants for Hazard Mitigation to lessen the risks to communities.
6. Discourage residential, commercial, or residential development in flood plains.	Stategy 13.3	Strategy 13.8 Assist towns in accessing funding and support the implementation of buffer plantings along waterways and eroded slopes to lessen the extent of damages from extreme rain events.
7. Maintain, wherever possible, vegetated buffer strips adjacent to all waterways to reduce the occurrence and magnitude of flooding.	Strategy 13.8	
8. Encourage municipalities to amend flood hazard regulations so they comply with current NFIP requirements.	Strategy 13.5	
9. Provide local officials with information on programs and funding available through FEMA and/or VEM for emergency management and hazard mitigation projects.	Strategy 13.7	
CRIME AND SAFETY		**GOAL 14: Minimimze community conflicts and crime rate, and protection of the community from violence and serious crimes.**
Overall Goal: To minimize community conflicts within Central Vermont, reduce the Region's already low crime rate, and protect the community from violence and serious crimes.	Goal 14 and Strategy 14.1	Strategy 14.1 Provide technical assistance to municipalities to support law enforcement departments and other public safety service providers access to equipment, training and facilities upgrades.
Goal 1: To prevent the social and economic conditions that often lead to community conflicts.	Removed due to no effective way to encourage or implement by CVRPC.	
1. To encourage the use of early intervention and prevention strategies in schools	Removed due to no effective way to encourage or implement by CVRPC.	

2. To work to implement the other goals and policies of this Plan, particularly those regarding education, housing, and employment.	Removed-Aspirational goal	
Goal 2: To foster safe and supportive communities by educating municipal officials on crime issues, supporting prevention programs, encouraging rehabilitation strategies, and fostering public safety.	Removed due to no effective way to encourage or implement by CVRPC. As well as no funding for this work .	
1. To encourage municipalities to investigate the establishment of community based, victim focused crime prevention/justice initiatives.	Removed due to no effective way to encourage or implement by CVRPC.	
2. To work with municipalities, SRS, and the Vermont criminal justice system to support the establishment of a regional restorative justice center.	Removed due to no effective way to encourage or implement by CVRPC.	
3. To support the use of conflict reduction/resolution techniques and restorative processes in schools, law enforcement, and communities.	Removed due to no effective way to encourage or implement by CVRPC.	
4. To gather and report information on crime and safety indicators as related to other indicators of community health to establish data on possible relationships therein.	Removed due to no effective way to encourage or implement by CVRPC.	
5. To coordinate all crime/rehabilitation related efforts with municipalities and the Vermont criminal justice system.	Removed due to no effective way to encourage or implement by CVRPC.	
6. To encourage State financial and technical support for community restorative justice programs.	Removed due to no effective way to encourage or implement by CVRPC.	
Goal 3: To protect the community from violence and other serious crimes.	Removed due to no effective way to encourage or implement by CVRPC.	
1. To support incarceration of violent offenders.	Removed due to no effective way to encourage or implement by CVRPC.	
2. CVRPC should consider the need for, costs, benefits, and detriments of construction of new prison facilities within the Region.	Removed due to no effective way to encourage or implement by CVRPC.	
EDUCATION GOAL: To promote effective, efficient, accessible, and affordable educational facilities and services.	Goal 5	**GOAL 5: Efficient, accessible, and affordable educational facilities and services.**
1. New development that places a significant impact on local and regional educational systems must address and mitigate these impacts.	Removed part of ACT 250	
2. The construction of new educational facilities should occur in locally designated growth areas or in other locations that will maximize their convenience and accessibility to the population and infrastructure, and will contribute to the vitality of communities.	Removed part of ACT 250	
3. Through improved coordination among planning commissions, school boards and the State Department of Education, a regional approach to planning for the placement and timing of construction of educational facilities is encouraged.	Strategy 5.3	Strategy 5.3 Assist in development of collaboration and improved coordination among planning commissions, school boards and the State Department of Education, to ensure a regional approach to planning for the placement and timing of construction of educational facilities.

4. Municipalities and school districts are encouraged to employ capital budgeting and programming as a means to anticipate and plan for the payment of capital improvements to public schools.	Strategy 5.4	Strategy 5.4 Assist and provide technical assistance to municipalities and school districts to employ capital budgeting and programming to anticipate and plan for the payment of capital improvements to public schools.
5. CVRPC supports and promotes efforts to broaden access to adult and senior educational opportunities.	Strategy 5.5	Strategy 5.5 Assist municipalities and partners in development of and promote efforts to broaden access to adult and senior educational opportunities.
6. CVRPC supports and promotes efforts to broaden access to vocational education opportunities.	Strategy 5.6	Strategy 5.6 Assist municipalities and partners in development of and promote efforts to broaden access to vocational education opportunities.
CHILD CARE GOAL: To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process.	Goal 6	**GOAL 6**: **Safe and affordable childcare**
1. Continue to inform municipalities of their statutory responsibility to plan for child care and assist in this effort upon request.	Strategy 6.1	Strategy 6.1 Inform municipalities of their statutory responsibility and provide technical assistance to plan for childcare.
2. Encourage municipalities to assess local barriers (regulatory or otherwise) to the provision of child care services and to support them in taking action to remove or reduce those barriers.	Removed	Strategy 6.2 Assist municipalities on the integration of childcare issues into the planning process.
3. Consider undertaking, in partnership with local advocacy organizations, a regionwide needs assessment for child care services. As part of such a program, CVRPC could examine the relationship between the location of jobs and the location of child care facilities.	Removed aspiration goal	Strategy 6.3 Engage with municipalities on collaboration options to develop community childcare access.
4. Encourage the location of child care facilities in growth centers and existing settlements, near residential clusters, schools, and large employers, and along public transportation routes. Such locations can help reduce traffic, energy consumption, and the overall financial cost of day care for families.	Removed aspiration goal and part of Act 250 process.	Strategy 6.4 Assist municipalities in developing access to Act 166 (publicly funded prekindergarten) programs.
SOLID WASTE GOAL: Safe, sound, cost effective, and efficient solid waste management.	Goal 2	**GOAL 2: Safe, cost effective, and efficient solid waste management.**
1. For both environmental and economic reasons, support waste reduction as a top priority of the Region and support the concept of "zero waste" as outlined by Vermont's Universal Recycling Law and the policies of the Central Vermont Solid Waste Management District, Northeast Kingdom Waste Management District, Lamoille Solid Waste Management District and the Mad River Resource Management Alliance.	Updated language Strategy 2.1	Strategy 2.1 Engage with municipalities on the concept of "zero waste" as outlined by Vermont's Universal Recycling Law and the policies of the Solid Waste Management Districts and Alliances and assist with implementing recommendations and mandates.
2. Encourage managing solid waste as close to the source as is reasonable, with a preference given to local or sub-regional solutions to waste management. Proper management of municipal solid waste should utilize environmentally sound systems and programs at the least cost possible.	Updated language Strategy 2.2	Strategy 2.2 Assist municipalities and partners to manage solid waste as close to the source as is reasonable, with preference given to local or sub-regional solutions to waste management.

3. Promote education about composting, recycling and waste reduction in the Region.	Removed. Has been addressed with Universal Recycling law Act 148	Strategy 2.3 Assist municipalities in developing ordinances and policies that cause individuals and businesses in the Region to bear the cost of proper management of the waste generated. Support Extended Producer Responsibility (EPR) programs and sites for industries to recycle their own byproducts in the Region.
4. Encourage individuals or businesses in the Region to bear the cost of proper management of the waste generated. Support Extended Producer Responsibility (EPR) programs and sites for industries to recycle their own byproducts in the Region.	Updated language Strategy 2.3	Strategy 2.4 Provide technical assistance to municipalities and partners to support the maintenance and upgrades of collection centers for hard to recycle materials within the Region.
5. Support recycling and composting facilities and programs that promote individual participation and responsibility. Encourage the convenient and de-centralized placement of local drop-off facilities	Language removed. No clear implementation pathway except through municipalities.	
6. Support the maintenance of collection centers for hard to recycle materials within the Region.	Strategy 2.4	
A. Support the siting and building of a permanent location for the Additional Recyclables Collection Center (ARCC) in a location central to the Region	Removed ARCC is moving to Berlin	
B. Support the siting and building of a facility to collect and recycle asphalt shingles and drywall in a location central to the Region	Removed not currently aware of any projects in region. ONLY recycling is in Chittenden county.	
7. Encourage composting of residential, commercial and institutional organic waste in order to maintain the materials' highest re-use value. Composting efforts should move toward being financially self-supporting and locally controlled. Support the continuing presence and establishment of composting centers at appropriate sites within the Region	Removed. Has been addressed with Universal Recycling law Act 148	
8. Continue to implement recycling and waste reduction measures in our internal operations, in accordance with Vermont's Universal Recycling Law.	Removed but have addressed with standard office procedures.	
9. Support projects that involve the distribution of Class A Biosolids from municipal wastewater treatment facilities only when only when Central Vermont Solid Waste Management District, Northeast Kingdom Waste Management District, Lamoille Solid Waste Management District or the Mad River Resource Management Alliance has worked with municipalities to ensure that said biosolids are safe and that municipal officials and other decision makers have been educated about the issue.	Removed due to no effectual way for our support.	
BROADBAND GOAL: Universal broadband availability and affordability	Goal 4	**GOAL 4: High-speed Internet (DSL), cable, fiber optic, or 5G availability and affordability.**
1. Encourage Municipalities to include broadband goals and strategies within local plans as tools to enhance economic development, education and overall resiliency	Strategy 4.1	Strategy 4.1 Provide technical assistance to municipalities and connectivity partners to include internet connectivity goals and strategies within local plans as tools to enhance economic development, education and overall resiliency.

2. Promote awareness of broadband informational resources, such as BroadbandVT.org, to inform residents, businesses and local planning processes.

3. Support expansion of broadband services and enhancements in underserved areas, Regional Centers and Town Centers.

A. Encourage creation of public wi-fi zones in Regional Centers, Town Centers and Hamlets.

B. Encourage expansion of wireless internet service providers in rural communities.

Removed due to CV Fiber and tech. advancements beyond Broadband

Removed due to CV Fiber and tech. advancements beyond Broadband

Removed -aspirational

Strategy 13.4

GOAL 7: Diversified and upgraded services at our regional libraries.

Strategy 7.1 Engage with and provide technical assistance to municipalities in the development of libraries as resiliency hubs.

Strategy 7.2 Assist municipalities in the expansion of services and partnerships between libraries and social service organizations and including expanded services as community or resiliency hubs.

Strategy 7.3 Provide technical assistance to libraries in pursuing grant applications.

GOAL 8: Land use and infrastructure design that ensures health equity.

Strategy 8.1: Engage with and provide technical assistance to municipalities to address health issues in their town plans through the Vermont Health Equity Planning Toolkit and other health-related planning tools.
Strategy 8.2 Assist municipalities seeking funds for health-related planning
Strategy 8.3 Assist municipalities with community engagement in the decision-making process to ensure that the built environment is equitably accessible to all
Strategy 8.4 Collaborate with municipalities and partners to hold trainings on those elements in the built environment that support the mental health of all in the community
Strategy 8.5 Engage with municipalities on options to conduct health impact and equity assessments when developing or updating plans, zoning reform or land development processes.

Strategy 8.6 Collaborate with municipalities and partners to hold trainings on cultural competency and making public spaces inclusive and welcoming to all ages, abilities and backgrounds.

Strategy 8.7 Assist towns in the creation of smoke free ordinances, alcohol ordinances and ordinances to protect children from marketing of tobacco products in local stores.

Strategy 8.8 Train and assist municipalities with Smart Growth principles and how zoning can facilitate healthy lifestyles, activities, and development patterns.

Strategy 8.9 Facilitate cooperation between municipalities and health-promoting groups and agencies working towards healthy community design

GOAL 9: Air quality that maintains national ambient air quality standards.

Strategy 9.1 Collaborate with State and Federal entities to identify and monitor local air quality impacts through the Act 250 and Section 248 processes for any project that would negatively impact regional air quality.

GOAL 10: Food security for all residents of the region.

Strategy 10.1 Provide technical assistance to municipalities and food access partners to improve community wellness and healthy community design, including pedestrian networks, to ensure food access.

Strategy 10.2 Provide technical assistance to municipalities and advise on integrating food access into town plans and application of the Vermont Planning for Local Food Access Toolkit in their town plan and bylaw processes.

GOAL 12: Disaster resistant communities with sound emergency planning and management.

Strategy 12.1 Engage with municipalities on the importance of local emergency management plans (LEMP) and annually review requirements to help maximize town Emergency Relief Assistance Fund (ERAF) scores.

Strategy 12.2 Assist municipalities in capital investment planning for climate resilience.

Goals and Strategies;

GOAL 1: Public water systems and wastewater treatment facilities that protect public health, maximize public investment, and reinforce desired patterns of growth.

Strategy 1.1 Promote utilization of existing water supply systems that are functioning properly, particularly when located in combination with the region's wastewater systems recommended for high intensity development.

Strategy 1.2 Assist communities in developing local regulations and/or incentives to protect aquifer recharge areas and source protection areas and encourage prohibition of land uses or activities that would measurably degrade the quality of water supply sources.

Strategy 1.3 Engage with and assist municipalities on inter-municipal water supply and wastewater treatment facilities agreements.

Strategy 1.4 Provide technical assistance for grant writing for maintenance and upgrades to existing systems to increase the lifespan of these systems.

Strategy 1.5 Assist municipalities and partners in efforts to improve existing wastewater collection and treatment systems and upgrades to increase efficiency and flood resilience.

Strategy 1.6 Assist municipalities in efforts to improve water quality through the separation of combined sewers or other methods to ameliorate the harmful impacts of combined sewer overflows.

Strategy 1.7 Assist municipalities in planning for new or expanded wastewater treatment facilities where municipalities have immediate need or where additional growth is appropriate and zoned accordingly for intended development.

Strategy 1.8 Assist municipalities in planning for and installation of decentralized community wastewater treatment systems in villages, hamlets, and in clustered housing developments, and ensure that agreements for those facilities adequately provide for ongoing maintenance and oversight.

A. Engage with and assist in the formation of and support efforts of local Wastewater Advisory Committees.

B. Assist with grant writing and coordinate provision of technical assistance (i.e. soil mapping, wastewater studies, capacity-building) to local efforts to identify wastewater solutions.

C. Assist with public outreach and engagement efforts in planning for wastewater infrastructure.

Strategy 1.9 Support the extension of municipal sewage treatment collection systems to existing developments within currently un-sewered drinking water source protection areas to protect underground water supplies from harmful septic system leachate.

Strategy 1.10 Engage with and provide technical assistance for programs that assist with the replacement of failed on-site sewage disposal systems.

Strategy 1.11 Engage with on 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.

Strategy 1.12 Engage with on retrievable record keeping systems for “as built” municipal wastewater system engineering plans, to ensure exact knowledge of the placement of underground collection lines.

GOAL 2: Safe, cost effective, and efficient solid waste management.

Strategy 2.1 Engage with municipalities on the concept of "zero waste" as outlined by Vermont's Universal Recycling Law and the policies of the Solid Waste Management Districts and Alliances and assist with implementing recommendations and mandates.

Strategy 2.2 Assist municipalities and partners to manage solid waste as close to the source as is reasonable, with preference given to local or sub-regional solutions to waste management.

Strategy 2.3 Assist municipalities in developing ordinances and policies that cause individuals and businesses in the Region to bear the cost of proper management of the waste generated. Support Extended Producer Responsibility (EPR) programs and sites for industries to recycle their own byproducts in the Region.

Strategy 2.4 Provide technical assistance to municipalities and partners to support the maintenance and upgrades of collection centers for hard to recycle materials within the Region.

GOAL 3: **Effective and efficient communication systems.**

Strategy 3.1 Promote that telecommunication facilities should be sited, designed, maintained and operated to minimize negative impacts on natural, cultural and scenic resources. Use of stealth design and/or use of existing structures are encouraged where appropriate. New towers should be no taller than necessary to provide coverage.

Strategy 3.2 Assist service providers and municipalities to identify appropriate locations for the construction of new tower (or other facilities) necessary to achieve adequate coverage of the Region as well as locations not appropriate for new towers. CVRPC (Central Vermont Regional Planning Commission) will act to implement the results of this effort through its participation in the Section 248 Process.

Strategy 3.3 Provide CVRPC's "Model Telecommunication Facility" bylaw to all member municipalities and work with towns and cities to develop bylaw, ordinance, and/or town plan language to address facility siting. The Commission encourages municipalities that adopt telecommunications regulations to provide for an expedited permit process for small scale facilities.

Strategy 3.4 Participate in Act 250 and Section 248 processes to ensure that new towers and necessary infrastructure follow best management practices to minimize their impact on erosion and stormwater management.

GOAL 4: High-speed Internet (DSL), cable, fiber optic, or 5G availability and affordability.

Strategy 4.1 Provide technical assistance to municipalities and connectivity partners to include internet connectivity goals and strategies within local plans as tools to enhance economic development, education and overall resiliency.

GOAL 5: Efficient, accessible, and affordable educational facilities and services.

Strategy 5.1 Require that new development that places a significant impact on local and regional educational systems must address and mitigate these impacts.

Strategy 5.2 Require the construction of new educational facilities to occur in locally designated growth areas or in other locations that will maximize their convenience and accessibility to the population and

infrastructure and will contribute to the vitality of communities and be sited to not be within the river corridor/floodplain.

Strategy 5.3 Assist in development of collaboration and improved coordination among planning commissions, school boards and the State Department of Education, to ensure a regional approach to planning for the placement and timing of construction of educational facilities.

Strategy 5.4 Assist and provide technical assistance to municipalities and school districts to employ capital budgeting and programming to anticipate and plan for the payment of capital improvements to public schools.

Strategy 5.5 Assist municipalities and partners in development of and promote efforts to broaden access to adult and senior educational opportunities.

Strategy 5.6 Assist municipalities and partners in development of and promote efforts to broaden access to vocational education opportunities.

GOAL 6: **Safe and affordable childcare**
Strategy 6.1 Inform municipalities of their statutory responsibility and provide technical assistance to plan for childcare.

Strategy 6.2 Assist municipalities on the integration of childcare issues into the planning process.

Strategy 6.2 Assist in siting childcare facilities in growth centers and existing settlements, near residential clusters, schools, and large employers, and along public transportation routes.

Strategy 6.3 Engage with municipalities on collaboration options to develop community childcare access.

Strategy 6.4 Assist municipalities in developing access to Act 166 (publicly funded prekindergarten) programs.

GOAL 7: Diversified and upgraded services at our regional libraries.
Strategy 7.1 Engage with and provide technical assistance to municipalities in the development of libraries as resiliency hubs.

Strategy 7.2 Assist municipalities in the expansion of services and partnerships between libraries and social service organizations and including expanded services as community or resiliency hubs.

Strategy 7.3 Provide technical assistance to libraries in pursuing grant applications.

GOAL 8: Land use and infrastructure design that ensures health equity.

Strategy 8.1: Engage with and provide technical assistance to municipalities to address health issues in their town plans through the Vermont Health Equity Planning Toolkit and other health-related planning tools.

Strategy 8.2 Assist municipalities seeking funds for health-related planning

Strategy 8.3 Assist municipalities with community engagement in the decision-making process to ensure that the built environment is equitably accessible to all

Strategy 8.4 Collaborate with municipalities and partners to hold trainings on those elements in the built environment that support the mental health of all in the community

Strategy 8.5 Engage with municipalities on options to conduct health impact and equity assessments when developing or updating plans, zoning reform or land development processes.

Strategy 8.6 Collaborate with municipalities and partners to hold trainings on cultural competency and making public spaces inclusive and welcoming to all ages, abilities and backgrounds.

Strategy 8.7 Assist towns in the creation of smoke free ordinances, alcohol ordinances and ordinances to protect children from marketing of tobacco products in local stores.

Strategy 8.8 Train and assist municipalities with Smart Growth principles and how zoning can facilitate healthy lifestyles, activities, and development patterns.

Strategy 8.9 Facilitate cooperation between municipalities and health-promoting groups and agencies working towards healthy community design

GOAL 9: Air quality that maintains national ambient air quality standards.

Strategy 9.1 Collaborate with State and Federal entities to identify and monitor local air quality impacts through the Act 250 and Section 248 processes for any project that would negatively impact regional air quality.

GOAL 10: Food security for all residents of the region.

Strategy 10.1 Provide technical assistance to municipalities and food access partners to improve community wellness and healthy community design, including pedestrian networks, to ensure food access.

Strategy 10.2 Provide technical assistance to municipalities and advise on integrating food access into town plans and application of the Vermont Planning for Local Food Access Toolkit in their town plan and bylaw processes.

GOAL 11: Effective, efficient and accessible emergency and health care services for all that protect the lives of professional and volunteer staff.

Strategy 11.1 Assist municipalities and partners in planning for adequate health care facilities and personnel located throughout the Region and in coordination with population distribution, existing and future transportation patterns to meet the needs of all residents.

Strategy 11.2 Assist municipalities and partners in planning for all aspects of emergency/health service delivery with full consideration of the costs and benefits of cooperative and regional provision of these services.

Strategy 11.3 Advocate for transportation planning that increases accessibility of health services.

Strategy 11.4 Coordinate with the District Health Office and the MRC/CERT Medical Reserve Corps/Community Emergency Response Team.

Strategy 11.5 Advocate for public services that are responsive and representative of the populations they are serving.

Strategy 11.6 Provide trainings for municipalities and partners on opportunities to address substance use disorder, site for treatment facilities, support residential treatment programs in the region, support recovery-based employment programs in the region.

Strategy 11.7 Partner with organizations to support access and training of Narcan for use in the community and safe depositories and collection for sharps.

Strategy 11.8 Provide technical assistance to municipalities in accessing and applying for funding to sustain and improve the structures and equipment needs of emergency services and fire departments to current accepted national standards.

GOAL 12: Disaster resistant communities with sound emergency planning and management.

Strategy 12.1 Engage with municipalities on the importance of local emergency management plans (LEMP) and assist municipalities to annually review and update their LEMP to help maximize town Emergency Relief Assistance Fund (ERAF) scores.

Strategy 12.2 Assist municipalities in capital investment planning for climate resilience.

GOAL 13: Minimal loss of life, physical and emotional injury, financial loss, and property damage or loss resulting from all hazards

Strategy 13.1 Provide technical assistance and educate municipalities in all-hazards assessment to identify risk to people and property.

Strategy 13.2 Engage with and provide technical assistance to municipalities to adopt minimum standards for public roads, bridges, and culverts and River Corridor bylaws to maximize Emergency Relief and Assistance Fund (ERAF) scores for access to more disaster relief funding.

Strategy 13.3 Require that new or rebuilt development shall not increase disaster risk and will take reasonable steps to reduce existing risk.

Strategy 13.4 Advocate and provide technical assistance to municipalities and telecommunications partners to increase radio and cellular coverage for emergency responders.

Strategy 13.5 Engage with and provide technical assistance to municipalities on how to enforce National Flood Insurance Program (NFIP) requirements for permitting of structures and development within the Special Flood Hazard Area.

Strategy 13.6 Engage with and provide technical assistance municipalities on the use of Federal funding for updating Local Hazard Mitigation Plans to address natural hazards found in each municipality.

Strategy 13.7 Engage with and provide technical assistance municipalities on the use of State and Federal funding to update and implement hazard mitigation goals laid out in town LHMPs.

GOAL 14: Minimal community conflicts and crime rate, and protection of the community from violence and serious crimes.

Strategy 14.1 Provide technical assistance to municipalities to support law enforcement departments and other public safety service providers access to equipment, training and facilities upgrades.

Goal 15: HISTORICAL AND ARCHEOLOGICAL RESOURCES: To promote the protection and use of the Region's historical and archeological resources.

Strategy 15.1. Municipalities are encouraged to provide a historic preservation section in their municipal plans that align with flood safety. (CVRPC will assist in such an effort, if requested.)

Strategy 15.2. CVRPC encourages development which preserves the natural and historic features of towns, village centers, rural countryside, and the natural and fragile landscape without increasing risk from natural hazards.

Strategy 15.3. Therefore, it is the policy of this Commission to support and encourage downtown revitalization programs and Downtown and Village Center Designation while instituting flood hazard designs in development.
Strategy 15.4. CVRPC encourages the restoration, rehabilitation and adaptation of historic structures where feasible outsided of hazard areas, as this minimizes the environmental impact of development by conserving raw materials, using land already developed, employing existing services.

Strategy 15.5. Where economically feasible and safe, rehabilitation of a historic site or structure should be designed to minimize the architectural impact and maintain the historic character of the site or building while incorporating energy efficient design.

Strategy 15.6. Where an area is not designated as a historic district, but where there are buildings of local historical significance, projects should be designed to maintain and protect the historic character of the area. Municipalities are encouraged to develop zoning criteria that would assist in protecting the character of an area considered historic, whether designated as such or not.

Goal 16: CULTURAL RESOURCES GOAL: To promote adequate access to a wide range of high quality cultural experiences for all sectors of the population.
Strategy 16.1. CVRPC supports the development of new cultural facilities and services (including studio space), in Central Vermont, particularly in or near existing settlements and growth centers, as such areas are most accessible to all segments of the population, and the proliferation of culture in such areas will strengthen their vitality.

Strategy 16.2. CVRPC will work with cultural organizations where appropriate, to support cultural resources in Central Vermont.

Strategy 16.3. The Commission encourages the rehabilitation or adaptive use of sites and structures for cultural pursuits.

Strategy 16.4. CVRPC supports the role of cultural and artistic disciplines in public education.

Infrastructure

Aspiration

*Guide construction and maintenance of **cost-effective infrastructure** that supports public health economic development, Housing and environmental sustainability.*

Goal is to show an accurate representation of the facilities with the region

Introduction

Public and private utilities, facilities, and services play a critical role in providing for the health, safety, and welfare of Central Vermont's residents. Our communities increasingly rely on physical and social infrastructure which is critical in everyday life and for emergency and recovery efforts allowing communities to not only be resilient but to thrive. This includes water distribution systems, solid waste, and sewage disposal, first responders, health services, schools, parks, community food assets, energy infrastructure, and information technology.

The location, condition, and availability of services and facilities can have a profound influence on growth and development in a region. Homes, businesses, and industry tend to concentrate where utilities and facilities are readily available. Areas remote from infrastructure and services are more costly and difficult to develop. Through the thoughtful placement of infrastructure, we may direct growth to the most suitable locations and close rural infrastructure gaps without undesirable impacts. To this end, the condition and scale of utilities is key to consider. Where facilities are over-sized and under-utilized, they may encourage unplanned growth or operate inefficiently and at an unnecessary financial expense to residents. However, communities also need the flexibility to plan and size for future demand and need. For systems that are at capacity and/or outdated, further development without retrofitting or updating may exacerbate risks of negative impacts and/or stall new growth and discourage development in designated growth areas. Communities and regions can avoid these scenarios through the appropriate timing and sizing of infrastructure improvements. Robust capital plans can help with acquiring, updating, and maintaining town infrastructure and help to prioritize long-term, cost-effective implementation to create the best long-term benefits from municipal capital expenditures.

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Section 1: Public Works

Every town within the region has, at least, a town garage and town hall or town clerk's office. These are in varying condition throughout the region. These provide a vital piece of the infrastructure required for maintaining town resources and functional town government. In some locations these also serve as the town Emergency Operations Centers, community food shelves, default meeting spaces and/or libraries. They allow the town government to respond to residents' needs and coordinate town government. Capital planning for upkeep and maintenance of these structures is crucial for maintaining good working infrastructure and allows municipal governments to be proactive in planning rather than reactive. This section will profile the other public works facilities that are owned by the municipalities.

Section 1.1: Water and Wastewater Systems

GOAL 1: Public water systems and wastewater treatment facilities that protect public health, maximize public investment, and reinforce desired patterns of growth.

Strategy 1.1 Promote utilization of existing water supply systems that are functioning properly, particularly when located in combination with the region's wastewater systems recommended for high intensity development.

Strategy 1.2 Assist communities in developing local regulations and/or incentives to protect aquifer recharge areas and source protection areas and encourage prohibition of land uses or activities that would measurably degrade the quality of water supply sources.

Strategy 1.3 Engage with and assist municipalities on inter-municipal water supply and wastewater treatment facilities agreements.

Strategy 1.4 Provide technical assistance for grant writing for maintenance and upgrades to existing systems to increase the lifespan of these systems.

Strategy 1.5 Assist municipalities and partners in efforts to improve existing wastewater collection and treatment systems and upgrades to increase efficiency and flood resilience.

Strategy 1.6 Assist municipalities in efforts to improve water quality through the separation of combined sewers or other methods to ameliorate the harmful impacts of combined sewer overflows.

Strategy 1.7 Assist municipalities in planning for new or expanded wastewater treatment facilities where municipalities have immediate need or where additional growth is appropriate and zoned accordingly for intended development.

Strategy 1.8 Assist municipalities in planning for and installation of decentralized community wastewater treatment systems in villages, hamlets, and in clustered housing developments, and ensure that agreements for those facilities adequately provide for ongoing maintenance and oversight.

A. Engage with and assist in the formation of and support efforts of local Wastewater Advisory Committees.

B. Assist with grant writing and coordinate provision of technical assistance (i.e. soil mapping, wastewater studies, capacity-building) to local efforts to identify wastewater solutions.

C. Assist with public outreach and engagement efforts in planning for wastewater infrastructure.

Strategy 1.9 Support the extension of municipal sewage treatment collection systems to existing developments within currently un-sewered drinking water source protection areas to protect underground water supplies from harmful septic system leachate.

Strategy 1.10 Engage with and provide technical assistance for programs that assist with the replacement of failed on-site sewage disposal systems.

Strategy 1.11 Provide technical assistance on 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.

Strategy 1.12 Engage with on retrievable record keeping systems for “as built” municipal wastewater system engineering plans, to ensure exact knowledge of the placement of underground collection lines.

Clean water systems are an integral piece of good government. Deemed the “bones” of a municipality, they create the ability to have increased density of housing stock and are an essential requirement for public health and economic vitality. The need for more housing within our region requires safe water access from municipal systems. A primary goal of this plan is to ensure that the municipal systems either have the capacity to expand or the ability to access necessary funding to be able to increase their footprint and add new customers. The municipal systems within our municipalities require increased maintenance of the underground infrastructure to sustain them. There are sections of subsurface pipes that are approximately 100 years old. These structures have been affected by increased inflationary costs that directly affect their capital improvement planning.

Within the region there are 138 permitted public water systems with 12 being permitted to allow expansion; the 12 that are permitted for expansion are listed in the table below.

System	System Type	Town	County	Population Served	Average Flow (gallons/day)	Number of Sources
WILLIAMSTOWN WATER DEPT	C	WILLIAMSTOWN	ORANGE	985	89,100	2
GRANITEVILLE FIRE DISTRICT 4	C	BARRE TOWN	WASHINGTON	700	108,914	30
BARRE CITY WATER SYSTEM	C	BARRE CITY	WASHINGTON	14,000	1,600,000	3
CABOT TOWN WATER SYSTEM	C	CABOT	WASHINGTON	250	24,650	2
MARSHFIELD WATER SYSTEM	C	MARSHFIELD	WASHINGTON	350	26,000	1
MONTPELIER WATER SYSTEM	C	MONTPELIER	WASHINGTON	8,912	900,000	1
NORTHFIELD WATER DEPT	C	NORTHFIELD	WASHINGTON	5,145	327,000	3
EDWARD FARRAR UTILITY DISTRICT	C	WATERBURY	WASHINGTON	6,003	218,868	12
BARRE TOWN WATER SYSTEM	C	BARRE TOWN	WASHINGTON	1,638	102,000	3
WAITSFIELD WATER SUPPLY	C	WAITSFIELD	WASHINGTON	450	33,000	1
FARMS AT CLUB SUGARBUSH	C	WARREN	WASHINGTON	48		1
BERLIN MUNICIPAL WATER SYSTEM	C	BERLIN	WASHINGTON	300		3
Total				**38,781**	**3,429,532**	

Problems arise in these systems due to deferred maintenance, age of infrastructure, supply chain issues, and natural disasters. Regular maintenance is one of the best ways to avoid costly unplanned fixes or upgrades. Since the onset of the Covid-19 pandemic there have been supply chain issues or delays for needed parts for pumps and other necessary equipment. The July 2023 flood brought location and hardening of infrastructure into focus for many municipalities, both within our region and in surrounding municipalities. Both water facilities and the necessary pipelines were damaged due to erosional forces exposing pipes to the floodwaters and inundating necessary infrastructure. This created loss of service and boil water notices throughout the region.

These systems are regulated and inspected by the Vermont Department of Environmental Conservation Drinking Water and Groundwater Protection Division. They require that the system has a certified operator of the system for the class operated, with the frequency of monitoring being somewhat dependent on the contaminant and the population served by the public water system. The upkeep of day-to-day operations falls completely on the permittee.

The funding gaps that exist are often in relation to funding both for expansion and upgrades. As new rules for both federal and state inspections to remove contaminants are created the onus of funding usually falls upon the utility, whether public or private, for installation of the necessary equipment. For public utilities, the Vermont Bond Bank may be one option that many of these entities can utilize to access the necessary funding for capital improvements.

Section 1.1a: Drinking Water Source Protection

Each public water system has an accompanying source protection area. The Vermont Water Supply Rule defines a Source Protection Area as, "… a surface and subsurface area from or through which contaminants are reasonably likely to reach a public water system source."
All public communities and non-transient, non-community water systems must have approved Source Protection Plans. These plans address the actions the public water system will perform to minimize the contaminant risks to their drinking water supply source. Threats to groundwater and wells in the region include agricultural runoff, nearby salt storage areas, road salting, underground or above-ground storage tanks, contaminated runoff from paved areas, flood events, and failing septic systems. Specifically identified threats in local operating permits for municipally owned systems primarily include roadways and impervious surfaces within 200 feet of the water source.
Within these source protection areas, the VT Dept. of Environmental Conservation reviews Act 250 and wastewater facility applications. VT DEC also requires that towns develop a plan for protecting source areas and have protections in place for anything within the 2-year travel time area defined for each community water system source area.

Wastewater Systems

The proper treatment of wastewater is essential to a safe, healthy environment. Today, we do a better job treating waste than ever before. Treatment plants built in the 60's and 70's reduced the impacts of effluent reaching our streams and rivers, including biological oxygen demand and microbe levels. Currently efforts are being made to reduce phosphorus content of the processed effluent to prevent excessive algal growth in Lake Champlain (see Watershed Planning in Natural Resources chapter). Improved onsite septic system technology, regulation, and monitoring has had a beneficial impact on our environment too.

There is, however, much room for improvement. The volume of waste treatment byproducts (effluent and sludge) grows with the population. Disposal of these substances poses its own unique set of problems and issues. The locations of some of these systems have also been shown to be problematic due to inundation flooding. Many of these systems would benefit from some hardening or resiliency upgrades to protect them from flooding events. There remain, despite new laws, many unregulated or "grandfathered" on-site systems polluting our environment. Due to the high cost of upgrades and replacement of these onsite septic systems, the state has created a program to assist in financing these called the "On-site Loan Program" for those that cannot qualify for a traditional loan. The overall cost of upgrades to these systems creates a large financial burden for most homeowners to update.

It is important then, that we provide for the safe and efficient treatment of sewage for current and future residents. As communities in Central Vermont plan, wastewater treatment and disposal will continue to be a critical factor, particularly when considering encouraging higher residential densities or in permitting commercial or industrial uses.

Section 1.2a: Public Wastewater Systems

There are eight municipal wastewater treatment facilities in the Central Vermont region that serve over 10,000 households and scores of businesses and industries (see Service Area Map). They range in size from the Montpelier Wastewater Treatment Facility with a design capacity of 4 million gallons per day (mgd), to a .045 mgd capacity facility in Marshfield. All provide secondary treatment of effluent. All

discharge treated effluent is released into class C receiving waters of the Winooski River or its tributaries. Combined, they retain over 5 mgd of reserve capacity. A more detailed analysis of each of the region's sewage treatment plants and their implications for future growth and development is shown in Table 1.

Facility Name	Permit ID	Permitted Design Flow (MGD)	2022 Monthly Average Flow (MGD)	Unused Flow
Barre City	3-1272	4	2.0838	1.9162
Cabot	3-1440	0.05	0.0175	0.0325
Marshfield	3-1195	0.045	0.0152	0.0298
Montpelier	3-1207	3.97	1.6136	2.3564
Northfield	3-1158	1	0.4469	0.5531
Plainfield	3-0381	0.125	0.0493	0.0757
Waterbury	3-1160	0.510	0.3324	0.1776
Williamstown	3-1176	0.150	0.0901	0.0599
		9.85	**4.6488**	**5.2012**

Municipalities within the region have made progress on separation of stormwater and wastewater lines or even removing combined sewer lines, which previously discharged raw sewage during times of heavy runoff or rain, into the region's waterways. Many towns have made significant progress in separating these lines as funding and opportunities arise. The city of Montpelier has been upgrading their wastewater plant in the last few years allowing the plant operators to filter out solids from organic waste and process them in an anaerobic digester, which uses bacteria to generate power from organic waste. There is a planned upgrade in 2024 to improve solids handling and reduce landfill disposal costs. Officials estimate that the second phase of the upgrades to the wastewater treatment plant will reduce the plant’s greenhouse gas emissions by around 2,000 metric tons per year by using methane from the solid waste to power the plant’s operations. These kinds of efficiencies and upgrades both save money and help to create a cleaner environment for all residents of the region.

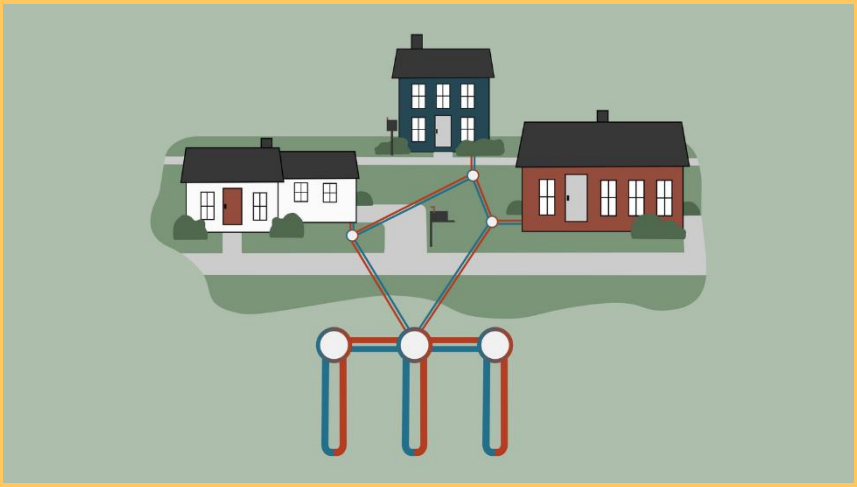
Most municipal systems in the region are operating under hydraulic capacity. It should not be inferred, however, that the difference between design flow and current average flow represents available capacity. Other factors, such as capacity already allocated and/or being held in reserve, the amount of phosphorous in the treated effluent, and local decisions regarding how close to the theoretical limit the plant should operate, all affect the potential to use any remaining capacity. Generally, when a facility is operating at 80 percent capacity regularly, the plant may be required to upgrade.

The needs to address aging wastewater treatment systems are significant. Nearly all municipalities with aging wastewater treatment systems need assistance in managing their assets. Upgrades to address Total Maximum Daily Load of phosphorus have increased the level of complexity and automation in some of the Region’s facilities, creating considerations for staff capacity to manage these systems. Wastewater typically contains between 4-8 mg/L of total phosphorus new limits of 0.5 mg/L or lower are required to get phosphorus levels down to naturally occurring levels. Continuing to separate combined stormwater and wastewater lines when possible and budgeting for this should be a priority to improve water quality and prevent sewage discharges during high rain events.

Lack of wastewater infrastructure has been cited as obstacles to promoting denser development and redevelopment in some of the Region's more rural villages. While new, centralized systems are a cost-prohibitive option, flexible or alternative waste-water solutions such as decentralized treatment systems may be a viable option for rural communities. The town of Waitsfield is currently working on the design process with the intention of constructing a wastewater treatment facility to improve water quality and increase development within the town.

Decentralized systems can include conventional or advanced onsite septic tank systems with dispersal trenches that serve individual homes and businesses, larger septic systems that serve a cluster of buildings on one or more properties or a sewer system that connects to a neighborhood or community treatment unit. The decentralized option can be used in a more targeted way so that communities are able to envision their land use and environmental protection goals first, and then develop wastewater management solutions to best serve those goals. Warren underwent detailed studies to identify a cost-effective combination of onsite individual and offsite cluster systems tailored to the localized need and conditions which resulted in the first municipal alternative system in the state. The decentralized wastewater management program in Warren included upgrading individual, onsite systems; building an innovative system at the elementary school; and building a small cluster system and large cluster system to which residences can connect. As decision-making related to wastewater solutions can be very complex, forming an advisory body or local wastewater committee can be an important first step for a community in understanding the problem to be addressed and planning for local action.

Maximize Infrastructure Investments: Wasteheat Recovery



Many Vermont communities are taking advantage of new levels of state and federal funding to install, expand, and/or upgrade local water and wastewater systems. Integrating waste heat recovery into wastewater systems is a terrific way to maximize the benefits of such an investment by recovering heat from wastewater to make potable hot water and to heat buildings (wastewater can also be used as a heat sink to cool buildings). Wastewater is a continuous and existing source of thermal energy; the average residential wastewater temperature is 70°F while commercial and industrial wastewater can be up to

140°F or higher. Heat recovery systems are simple, low maintenance, offer lower, predictable customer heating and cooling bills, and are scalable from one building/facility to much larger community or district thermal energy networks.

See Chapter 3 section on Thermal Energy Networks for more key opportunities to meet local infrastructure needs while reducing energy burden, GHG emissions, and thermal sector energy demand. Visit Vermont Community Geothermal Alliance for toolkits and more information.)

Section 1.2b: Stormwater

Stormwater runoff is the precipitation that flows over land during and after rain or snow events. Runoff gathers sediment, salt, and a variety of chemicals that, if left untreated, are discharged into waterways. Increased precipitation due to climate change, including rain on snow events, and the expansion of impervious surfaces from development are rapidly degrading surface and groundwater quality. Vermont utilizes a mix of regulatory and nonregulatory methods to control stormwater runoff from entering waterways. As of July 1, 2022, projects in Vermont that expand or redevelop one half-acre or more of impervious surface are required to apply for stormwater operational permit coverage. This permit is in addition to the Stormwater Three-Acre General permit which regulates stormwater on impervious areas of three acres or more. An example of a non-regulatory initiative to manage stormwater runoff is the program Storm Smart[15] operated by the Friends of the Mad River, Friends of the Winooski, and The Winooski Natural Resources Conservation District. This program can recommend green stormwater solutions on individual lawns and driveways. Municipalities looking for a town-wide approach to addressing runoff may choose to pursue Stormwater Master Planning. This planning process identifies and prioritizies regulatory and nonregulatory stormwater projects. Currently, 15 of Central Vermont's 23 municipalities have completed or are in the process of writing a Stormwater Master Plan.

Land use regulations are an important tool in reducing stormwater impacts to existing and future development. Stormwater bylaws regulate and incentivize preservation of vegetation and natural areas, minimize land disturbance during construction, and limit impervious areas. Towns interested in adopting or updating stormwater regulations can reference the Vermont League of Cities and Town's Model Stormwater Management Bylaw[16]. These bylaws incorporate Low Impact Development techniques and Green Stormwater Infrastructure that help mimic pre-development hydrologic conditions.

Case Study – Regulatory: Town of Fayston

The Town of Fayston has incorporated Low Impact Standards and Guidelines for Stormwater Management into their development review process. Fayston requires development to follow standards for vegetation and landscaping, reducing impervious surfaces, and green stormwater infrastructure.

Town of Fayston Land Use Regulations

"Standard (3): Green Stormwater Infrastructure. Stormwater shall be managed through the use of small-scale controls to capture, store and infiltrate stormwater close to its source.

- *Guideline (a): Create vegetated depressions, commonly known as bioretention areas or rain gardens that collect runoff and allow for short-term ponding and slow infiltration. Raingardens consist of a relatively small depressed or bowl-shaped planting bed that treats runoff from storms of one inch or less.*
- *Guideline (b): Locate dry wells consisting of gravel or stone-filled pits to catch water from roof downspouts or paved areas.*
- *Guideline (c): Use filter strips or bands of dense vegetation planted immediately downstream of a runoff source to filter runoff before it enters a receiving structure or water body. Natural or man-made vegetated riparian buffers adjacent to waterbodies provide erosion control, sediment filtering and habitat.*
- *Guideline (d): Utilize shallow grass-lined channels to convey and store runoff.*
- *Guideline (e): When paving, use permeable paving and sidewalk construction materials that allow stormwater to seep through into the ground.*
- *Guideline (f): Consider other LID techniques such as rooftop gardens and/or rain barrels and cisterns of various sizes that store runoff conveyed through building downspouts. Rain barrels are generally smaller structures, located above ground. Cisterns are larger, often buried underground, and may be connected to the building's plumbing or irrigation system.*
- *Guideline (g): Add minerals and organic materials to soils to increase its capacity for absorbing moisture and sustaining vegetation.*

Insert Case Study – Non-Regulatory: Moretown Elementary School

Section 2: Solid Waste

GOAL 2: Safe, cost effective, and efficient solid waste management.

Strategy 2.1 Engage with municipalities on the concept of "zero waste" as outlined by Vermont's Universal Recycling Law and the policies of the Solid Waste Management Districts and Alliances and assist with implementing recommendations and mandates.

Strategy 2.2 Assist municipalities and partners to manage solid waste as close to the source as is reasonable, with preference given to local or sub-regional solutions to waste management.

Strategy 2.3 Assist municipalities in developing ordinances and policies that cause individuals and businesses in the Region to bear the cost of proper management of the waste generated. Support Extended Producer Responsibility (EPR) programs and sites for industries to recycle their own byproducts in the Region.

Strategy 2.4 Provide technical assistance to municipalities and partners to support the maintenance and upgrades of collection centers for hard to recycle materials within the Region.

Central Vermont Solid Waste Management District serves the largest number of towns within the region. The Mad River Resource Management Alliance, Mountain Alliance, Lamoille Regional SWMD, Northeast Kingdom WMD round out the other providers that serve our region. Each entity accepts different amounts of goods for disposal and recycling. The region also is served by the ARCC (additional recyclables collection center. This facility can dispose of many other products such as paint, batteries, TVs, computers, and others for a minimal fee. to divert 187 tons of recyclables from ending up in a landfill in 2021. This is part of CVSWMD policy/goal to achieve zero waste. Many of these organizations also schedule Household hazardous waste collection events where household products labeled “caution, toxic, danger, hazard, poisonous, reactive, corrosive, or flammable” are accepted. These organizations are a good source of information on how to dispose of most anything including syringes, propane tanks, fireworks and more. Vermont is the first state to pass a law requiring producers of household hazardous products to safely collect and dispose of them. This series of laws goes back to 1992 with the most recent being passed in 2016. Many retailers recycle light bulbs, batteries, electronics, thermostats, and paint at their establishment's. Specific information can be found here: Recycle Locations in Washington County | Department of Environmental Conservation (vermont.gov)

	Serves
Mad River Resource Management Alliance	Warren, Fayston, Waitsfield, Moretown and Waterbury.
Central Vermont Solid Waste Management District	Barre City, Barre Town, Berlin, Calais, Duxbury, East Montpelier, Middlesex, Montpelier, Orange, Plainfield, Washington, Williamstown, and Woodbury
Mountain Alliance	Northfield and Roxbury
Lamoille Regional SWMD	Worcester
Northeast Kingdom WMD	Marshfield and Cabot

Universal Recycling Materials Management Map (vermont.gov) -recycling centers

Section 3: Energy

Section 3.1: Energy Infrastructure: Electricity

This section introduces existing energy infrastructure and stakeholders, existing energy generation and storage (baseline), and challenges that frame more detailed conversation in the following energy chapter. Energy analyses and targets for the electricity, thermal, and transportation sectors, renewable energy generation and storage siting, and recommendations can be found in the Energy Chapter.

Energy is a vital component of modern life. When sources of power are lost or interrupted, even temporarily, the rhythms of our lives are profoundly interrupted. Business and industry halt and

residents and goods dependent on electricity and other types of power are at great risk. Our electric infrastructure in Vermont is increasingly vulnerable to extreme weather conditions due to climate change. This comes at a time when we anticipate significant increases in demand for reliable and affordable electricity due to overlapping causes including addressing rural infrastructure gaps, regional growth and development, increasing need for heating & cooling, as well as electrification of the thermal and transportation sectors.

While existing and potential sources of electric power in the region are more than adequate (see Enhanced Energy Element), the region's electric infrastructure is aging and reaching performance limits. While the costs of developing new infrastructure are high upfront, potential long-term cost savings are increasing as technology is rapidly advancing and markets are shifting to match need and the urgency of the climate crisis. Integrating renewable energy infrastructure more comprehensively into all scales of our planning across the region is important to not only maximize associated community benefits but also to minimize negative environmental and land use impacts of electric generation, transmission, and distribution (see Enhanced Energy Element). CVRPC's objective is to ensure that energy generation, distribution and transmission facilities are located, designed, and correctly-sized to support the Region's community and economic needs, which increasingly means it must be reliable, resilient, and affordable as well as sustainable to reduce operational costs and Green House Gas emission contributions (further reducing long-term costs).

Section 3.1a: Electric Distribution Utilities (DUs)

In 2021, Vermont distribution utilities purchased over 5.8 million MWh of electricity to meet the demand of their customers, of this 64% came from renewable resources and 18% came from carbon free resources. Also in 2021, Vermont distribution utilities retired just over 4 million renewable energy certificates[1] (i.e. equivalent to just over 4 million MWh of electricity) to meet their obligations under Vermont's Renewable Energy Standards, of this 72% of the electricity Vermont accounted for was renewable; including nuclear 90% of it was low-carbon[2].

[1] Renewable energy credits (RECs) are the accounting system used to track all renewable electricity generation in or sold into ISO New England's regional electric system (ISO= Independent System Operator). These certificates ensure no two entities claim credit for that electricity, and provides a mechanism to buy and retire (aka take credit) for renewable energy generation regardless of their own production and use (or rather to compensate for it).

[2] See 3 one-page resources for more info: *Where does Vermont's electricity come from*, *Current policies & programs*, *and Tradeoffs between different sources of electricity*- these were made as part of the Say WATT? Regional Event Series in the fall of 2023 during which the Department of Public Service partnered with the RPCs to offer a series of engagement opportunities for Vermonters to weigh in on renewable electricity policies and programs: https://publicservice.vermont.gov/renewables

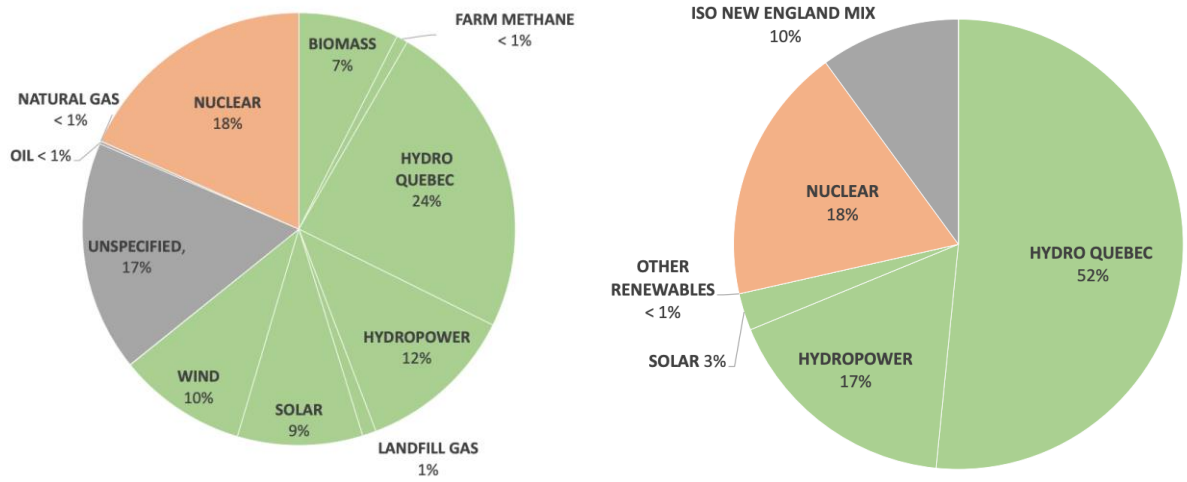


Figure 1: 2021 Vermont Electricity Characteristics: the left shows the electricity Vermont utilities generated and bought to meet demand, the right shows how renewable Vermont's electricity is considered based on renewable energy certificates (*Department of Public Service Webinar: Where Does VT Electricity Come From? https://publicservice.vermont.gov/sites/dps/files/documents/Webinar%201%20-%20Where%20does%20VT%20electricity%20come%20from.pdf*)

Central Vermont is served by four different distribution utility companies including Green Mountain Power, Washington Electric Cooperative, the Northfield Electric Department, and the Hardwick Electric Department (see Table 1, below, for customer counts and types by town; and Figure 2 for DU territory). Green Mountain Power (GMP) and Washington Electric Cooperative Inc. (WEC) are the region's primary distribution utilities, geographically covering most of the region. Central Vermont is unique in that most municipalities are served by at least two distribution utilities (exceptions are Warren, Waterbury, and Barre City served only by GMP; Northfield, Moretown, Berlin, and Calais are each served by 3 DUs). GMP territory is located primarily in the more populous valley areas such as Barre City, Montpelier, and many of the villages along the major transportation routes (Figure 2 above); WEC territory fills in the more rural, and primarily residential, areas. The Northfield Electric serves part of Northfield, as well as small parts of Moretown and Berlin; The Hardwick Electric Department serves much of Woodbury and a small sliver of Calais. Three phase power is limited in the region to where GMP provides it (see Figure 2 above), this is important for siting distributed generation projects but not absolutely required for most residential and even some smaller municipal/commercial plants.

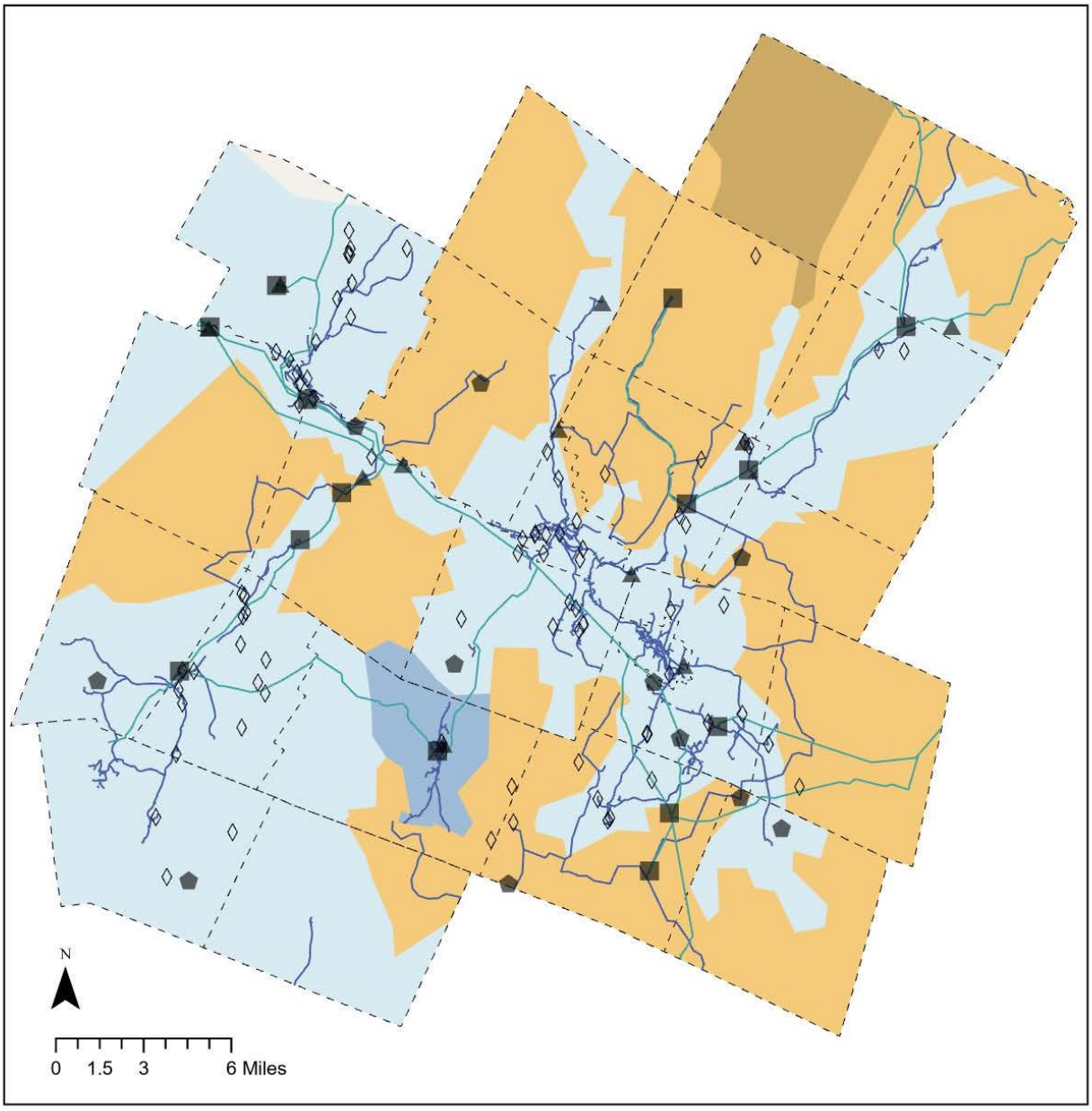


Figure 2: CVRPC Distribution Utility Territory and Infrastructure (substations, transmission lines, 3 phase power lines; distribution circuits GMP only available here)

Table 1: Customer/Member by Town and Distribution Utility (DU)

	GMP	WEC	Northfield	Hardwick
Regional Total	**27,246**	**7,167**	**2,200**	**738**[3]
Barre City	4,525			
Barre Town	3,745	412		
Berlin	1,398	83	*	
Cabot	297	508		
Calais	121	733		*
Duxbury	208	471		
East Montpelier	599	753		
Fayston	710	346		
Marshfield	547	202		
Middlesex	306	578		
Montpelier	4,794	18		
Moretown	585	325	*	
Northfield	271	289	2124[4]	
Orange	55	494		
Plainfield	406	355		
Roxbury	269	111		
Waitsfield	1,376	50		
Warren	2,494			
Washington	334	223		
Waterbury	3,072			
Williamstown	901	892		
Woodbury		78		
Worcester	233	246		

Table 2: Customer/Member by Type and Distribution Utility (DU)

DU	Dairy Farm	Residential	Commercial	Large Power	**Total**
GMP		22,337	4,909		**27,246**
WEC	33	6,725	398	11	**7,167**
Northfield					**2,200**
Hardwick					**738**

[3] Northfield Electric and Hardwick Electric did not provide updated customer counts by towns, these numbers come from their Integrated Resource Plans and the number from Hardwick Electric specifically reflects the number of customers on the Woodbury Circuit which may or may not reflect the true total customers in the region (a map of their circuits is not available online). Data requests were sent over the course of Fall 2023 and Winter 2024.

[4] Northfield has not provided specific customer counts by town; 2200 customers are served according to the Integrated Resource Plan; Efficiency VT data reported 2,124 residential premises served in Northfield, subtracting those reported by GMP and WEC gives this number although it should be noted that Efficiency Vermont data is simply given as residential premises not customers.

The Washington Electric Cooperative Inc. (WEC), a member-owner utility run by a 9-person member elected board, provides electricity to the more rural areas throughout Central Vermont. Its service territory covers a larger area geographically in Central Vermont than any other utility, serving approximately 7,167 customers. Due to the rural nature of WEC's service area, residential users account for an unusually high proportion of total demand; furthermore, the rural infrastructure is not co-located as often with roads nor hardened (buried), making it both more susceptible to Vermont's increasingly frequent extreme weather and more difficult to maintain and repair.

Central Vermont has 32 substations in 14 of our towns; most towns are at least partially served by additional substations outside the region. Distribution substation location, condition, and headroom capacity are important to consider when proposing distributed generation (DG) projects (see Enhanced Energy Element for a description of barriers and costs). Ultimately, the different distribution utilities in our region have unique challenges and benefits, most towns can utilize coverage by 2 or more DUs to maximize opportunities and minimize limitations, however at the individual scale this is rarely possible. The municipality can thus play a critical role in supporting residents and businesses to access key energy opportunities including renewable generation and storage, EVSE, energy efficiency measures, and more (see enhanced energy element).

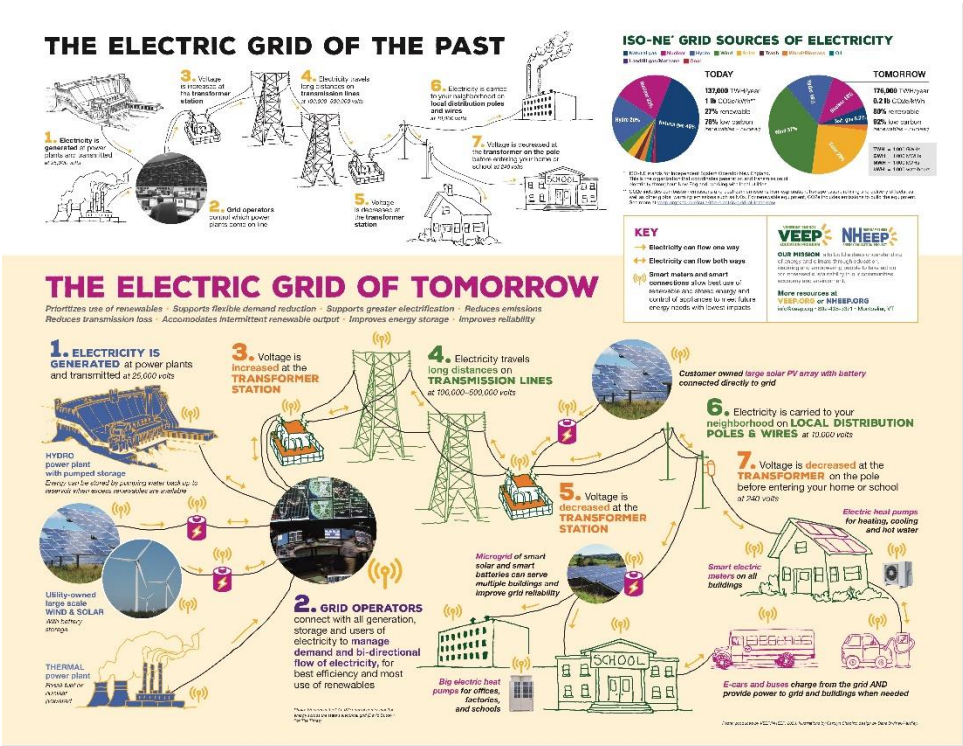


Figure 3: Electrical Grid Systems Primer, Poster from Vermont Energy Education Program[5]

[5] Vermont Energy Education Program provides resources and curricula including additional posters on Energy Audits and Actions, Heating Vermont Homes, Vermont's Climate Action Plan, VT Electricity Use and Sources, the Climate Impact of Getting to School and more (https://veep.org).

Section 3.1b: Electric Transmission

The Vermont Electric Power Company, Inc. (VELCO) manages the safe, reliable, cost-effective transmission of electric power throughout Vermont and as part of the integrated New England regional network. VELCO updates its Long Range Transmission Plan every 3 years. The 2021 Long Range Transmission Plan[6] highlights that peak demand is forecast to grow due to accelerating electrification of the heating and transportation sectors. While the transmission system has sufficient capacity to serve expected future demand for the first 10-years of the 20-year planning horizon:

- Load management is necessary to serve high electrification loads consistent with Vermont's total energy goals in the 20-year planning horizon,
- Currently, DG projects are reviewed on a project-by -project basis without regard to transmission system impact, to prevent further stressing transmission and distribution systems careful coordinated statewide planning is required to successfully integrate future distributed generation and storage without significant grid reinforcements;
- There are sub-transmission scale reliability issues (categorized as causing high or low voltage, or a thermal overload in which equipment exceeds its rate temperature).

As DUs take on more and more interconnection of distributed energy projects, coordination between VELCO, DUs, the region[7], and municipalities will be increasingly important to ensure not only Vermont and its stakeholders can meet their respective goals, but that we do so in a manner that minimizes negative impacts to our landscapes and natural resources and maximizes benefits to all Vermonters foremost those who have been disproportionately burdened by energy costs and reliability issues to build resilience for all. CVRPC continues to work with DUs to integrate their Integrated Resource Planning into regional and municipal planning and project development and to advocate that regional and municipal energy planning and goals in turn are considered in their Integrated Resource Planning Processes.

Section 3.1c: Efficiency Utility

Efficiency Vermont is the statewide energy efficiency utility; it provides technical advice and financial incentives to residents, businesses, non-profits, and municipalities alike to reduce their energy use and costs with efficiency buildings, equipment, and lighting. CVRPC works closely with Efficiency Vermont to connect municipalities with opportunities and to provide support to energy committees and coordinators with resources for their communities. CVRPC also works with Efficiency Vermont to provide data on consumption and efficiency measures implemented, as well as to adapt incentives programs and support in recovery situations (e.g. July 2023 floods). More information about energy efficiency and conservation, as well as supporting partners can be found in the Enhanced Energy Element of this plan. Additional key partners include Capstone Community Action who provide income-based fuel support, weatherization, and more to community members with the lowest incomes and highest needs.

Section 3.1d: Existing Generation & Storage Facilities

For an in-depth discussion of future renewable generation in the context of demand and energy planning see the Enhanced Energy Element, this section summarizes existing energy infrastructure including non-combustion-based renewables (solar, wind, and hydroelectric), combustion-based

[6] https://www.velco.com/assets/documents/2021%20VLRTP%20to%20PUC_FINAL.pdf

[7] noted also by the Department of Public Service in the 2022 Vermont Comprehensive Energy Plan (e.g. pages 68, 87) https://publicservice.vermont.gov/sites/dps/files/documents/2022VermontComprehensiveEnergyPlan_0.pdf

renewables (biomass specifically for electricity generation- for discussion on biomass and the thermal sector see the Energy chapter), nuclear energy, and fossil fuels (as categorized by the 2022 State Comprehensive Energy Plan).

There is one remaining fossil fuel peaking power plant in Central Vermont in Berlin run by Green Mountain Power:

Table 3: Regional Fossil Fuel Generation

Resource Type	MW	Town	Name	Details
Fossil Fuels	46.5MW	Berlin	Berlin 1	Gas Turbine, 46yo. Largest peaking plant in VT consisting of a gas turbine generator and 2 engines run on low-sulfur kerosene fuels. Full winter output is 50MW; 40MW in summer. Improvements were made in 2008, 2012, 2013, 2019, and 2020[8].

Existing Renewable Energy Generation has noticeably increased since the last plan:

Table 4: Existing Renewable Electricity Generation

Existing Generation	**2024**		**2016**	
Resource Type	**MW**	**MWh**	**MW**	**MWh**
Solar	41.7	53876.4	24	29,919
Wind	0.24	473.04	0.14	486
Hydroelectric	26	134,861.4*	25	88,467
Biomass (wood, methane, farm biogas)	0	0	3	13,091
Total Existing Regional Renewable Electricity Generation	**68**	**189,211**	52.14	131,963
Total Storage	**7.95MW****			

Sources: Distributed Generation Survey (Distribution Utilities, Public Utilities Commission, Department of Public Service), Distribution Utilities Integrated Resource Plans, Federal Energy Regulatory Commission, Low Impact Hydropower Institute (Hydroelectric), Town Plans, State Comprehensive Energy Plan.
**calculated using constants provided in the supplement (consistent with those used by the Public Service Department and the Generations Scenarios Tool), except for hydroelectric which was taken directly from DUs IRPs, FERC, and LIHI.*

The closure of the Moretown Landfill is a significant change for Central Vermont; while there are thus no longer biomass electricity generation facilities in the region, WEC acquired a significant portion of their power to serve their territories including Central Vermont from the Coventry Landfill facility among others biomass facilities just outside the region. CVRPC does not anticipate biomass becoming an electricity generation source in the region, although it plays a critical role in the thermal sector for both space and water heating and will continue to be a key resource for residential heating in particular (see Enhanced Energy Element).

[8] page 192 of Green Mountain Power's 2021 Integrated Resource Plan https://greenmountainpower.com/wp-content/uploads/2021/12/2021-Integrated-Resource-Plan.pdf

The region's hydroelectric facilities, though few in number make up over a third of the region's renewable generation, balancing ecological considerations, flood management, and energy generation potential at these and potential future sites is a high priority topic for future planning efforts (see Map of existing and potential hydroelectric sites in the Enhanced Energy Element). These are not new resources, despite the contrast in the table above, they were not reported in the previous plans assessment which likely was sourced specifically from the distributed generation inventory (DG Survey, see below) based off the Public Utilities Commission which focuses, generally, on smaller projects most participating in the State's net-metering program.

By and large the most change has been solar generation; in terms of numbers most are small residential scale plants (many, but certainly not all, are rooftop- we do not have data specifying the type. Below, in the table of renewable distributed generation in our region (<5MW), there is a clear preference, or at least ability to access and implement, smaller scale projects.

Table 5 Distributed Generation Projects <5MW (DG Inventory as of 2/2024)

Total from DG Survey (not regional total)	MW	# Projects	
Generation <15kW Category I	14.69856	2233	Residential scale- most solar.
Generation 15kW to <150kW (Category II)	6.56739	184	Generally includes Municipal/Community Scale (not limited to)
Generation 150kW to <500kW (Category III)	6.18665	23	Currently have to be preferred sites to participate in net metering
Generation 500kW+	22.944	23	
DG Total:	50.3966	2463	

Source: Public Service Department 2/1/24, Current DG Survey (<5MW), see Methodology for aggregation below

This is very much in line with the results of community engagement efforts CVRPC conducted in the fall of 2023 in partnership with the Department of Public Service and the other RPCs. CVRPC found that in addition to consistent support for a diversity of renewable resources, that support was bounded by scale- as in support decreased with the scale of the project increasing (see full report[9]). CVRPC has found both in these engagement opportunities and while working with municipalities more broadly, technology type is not generally the key factor except for strongest opposition. Instead scale, location, and perceived community benefits/burdens are important to the region. An emphasis on local, community-scale, generation and storage is paired with other measures including efficiency/weatherization, waste heat recovery opportunities, dual land use, energy independence, and more representing a more holistic view of energy systems that stemmed from a wider variety of perspectives than are often considered. See the Enhanced Energy Element for considerations and discussion of future renewable energy generation and more.

Inset box on Current State Renewable Electricity Policies/Programs

[9] CVRPC Report on Renewable Energy Standards Update Regional Engagement Events
https://publicservice.vermont.gov/sites/dps/files/documents/CVRPC%20RES%20Event%20Summary.pdf

Table 6 Existing Renewable Energy Generation and Storage by Town

TOTAL EXISTING GENERATION			PROPOSED		EXISTING SOLAR			EXISITNG HYDROELECTRIC			EXISTING WIND		
Town	Total MW	% Regional	Projects	MW	Projects	MW	% Regional	Projects	MW	% Regional	Projects	MW	% Regional
Barre City	1.03	1.50%			138	0.93	2.20%		0	0.00%	1	0.1	42.39%
Barre Town	7.92	11.70%			273	7.79	18.70%	1	0.014	0.10%	3	0.12	51.28%
Berlin	1.32	1.90%	2 solar projects	4.4	79	1.32	3.20%						
Cabot	5.84	8.60%			53	0.84	2.00%	1	5	19.20%			
Calais	0.43	0.60%			54	0.43	1.00%						
Duxbury	9.25	13.60%			51	0.45	1.10%	1	8.8	33.80%			
East Montpelier	3.45	5.10%			148	2.28	5.50%	3	1.16	4.50%			
Fayston	0.48	0.70%			65	0.48	1.20%						
Marshfield	0.61	0.90%			68	0.61	1.50%						
Middlesex	0.75	1.10%			104	0.75	1.80%						
Montpelier	4.71	6.90%			307	3.78	9.10%	2	0.93	3.60%			
Moretown	5.21	7.70%			112	0.81	1.90%	2	4.4	16.90%			
Northfield	0.39	0.60%	16 solar projects, 2 hydroelectric projects	1.26	52	0.39	0.90%				1	0.003	1.04%
Orange	1.19	1.80%			23	1.19	2.90%						
Plainfield	0.53	0.80%			81	0.53	1.30%						
Roxbury	0.26	0.40%			32	0.26	0.60%						
Waitsfield	2.6	3.80%			132	2.6	6.20%						
Warren	1.34	2.00%			140	1.34	3.20%				1	0.003	1.06%
Washington	0.24	0.40%			29	0.23	0.60%				1	0.01	4.24%
Waterbury	9.97	14.70%			338	4.45	10.70%	1	5.53	21.20%			
Williamstown	9.97	14.70%			100	9.97	23.90%						
Woodbury	0.02	0.02%			2	0.02	0.04%						
Worcester	0.42	0.60%			39	0.24	0.60%	1	0.18	0.70%			
TOTAL EXISTING	**67.95**		**5.66**		**2420**	**41.7**		**12**	**26.02**		**7**	**0.24**	

	STORAGE		
Town	Total MW	Number of Projects	% Regional
Barre City	0.1367	17	1.72%
Barre Town	5.209	26	65.52%
Berlin	0.09	10	1.13%
Cabot	0.029	3	0.36%
Calais	0.01	1	0.13%
Duxbury	0.039	5	0.49%
East Montpelier	0.069	7	0.87%
Fayston	0.105	12	1.32%
Marshfield	0.08	9	1.01%
Middlesex	0.079	8	0.99%
Montpelier	0.3595	41	4.52%
Moretown	0.097	11	1.22%
Northfield	0.035	5	0.44%
Orange	0	0	0.00%
Plainfield	0.02	2	0.25%
Roxbury	0.075	9	0.94%
Waitsfield	0.3695	41	4.65%

Warren	0.543	60	6.83%
Washington	0.025	3	0.31%
Waterbury	0.539	62	6.78%
Williamstown	0.01	1	0.13%
Woodbury	0	0	0.00%
Worcester	0.03	3	0.38%
TOTAL EXISTING	**7.9497**	**336**	**100.00%**

Section 3.1e: Key Challenge

Vermont Distribution Utilities, to varying degrees, are implementing programs to smooth energy demand peaks and valleys through flexible load management, incentives, and battery storage. These initiatives are intended to increase system reliability, help address the climate crisis, and lower customer costs. The 2021 Vermont Long-Range Transmission Plan continues to emphasize the importance of thoughtful siting of generation with respect to interconnection and grid capacity, grid automation, deployment of battery storage and flexible load management programs, grid reinforcements, as well as the communications infrastructure necessary to synchronize energy demands with supply across DUs, to ensure Vermont's transmission grid reliably serves expected load growth. The implications for our regional infrastructure, to the municipal, and household scales, include the importance of the "get ready" approach to retrofitting/switching over individual systems and components to be in line with, and thus benefitting from these broader investments which includes at times, higher up front costs and/or more intentional and longer-term phased planning- the Enhanced Energy Element will touch on many specific measures further. CVRPC thus anticipates, the key challenge facing our region is the capacity and coordination to draw down unprecedented funding and invest in not only transforming the energy sectors to meet legally binding GWSA goals to mitigate future climate change, but to support all our communities down to the local scale so that none are left behind or without options.

The vulnerability of our critical infrastructure including our energy systems to high wind, wet heavy snow, and flooding has become increasingly apparent (see Climate Chapter). In the last 5 years or so, CVRPC has noticed the increased consideration of climate impacts in DU planning, for example GMP has conducted topographical surveys of their substations to assess their location in relation to FEMA-designated floodplains.[10] While the Middlesex transmission station and hydro generation are both located on ground higher than the 100-year and 500-year floodplain, the Waterbury distribution substation was rebuilt outside the 100-year flood plain (moved from 48 Winooski Street, Waterbury to Cloverdale Lane), and the Barre South End distribution substation was raised three feet at its current location (121 South Main Street Barre City) so that it is above the 100-year floodplain (Riverton in Berlin remains in the 500-year floodplain). Again, due to structure, dominant customer type and distribution, not to mention historical development, our region's DUs are not equipped equally to handle large infrastructure projects nor the increasingly demanding recovery efforts in response to extreme weather (see outages table). CVRPC will continue to work with regional and state stakeholders, including the DUs themselves, to identify opportunities for funding and technical assistance, build transparency in planning processes, and promote public data sharing to support municipal and community efforts

[10] 2021 GMP IRP Appendix I: Substations https://greenmountainpower.com/wp-content/uploads/2022/01/Appendix-I-Substations.pdf;

including Local Hazard Mitigation and Local Emergency Management Planning, as well as the development of projects and programs that promote on-site back-up power and/or the establishment of community micro-grids.

Section 4: Communications

GOAL 3: **Effective and efficient communication systems.**

Strategy 3.1 Promote that telecommunication facilities should be sited, designed, maintained and operated to minimize negative impacts on natural, cultural and scenic resources. Use of stealth design and/or use of existing structures are encouraged where appropriate. New towers should be no taller than necessary to provide coverage.

Strategy 3.2 Assist service providers and municipalities to identify appropriate locations for the construction of new tower (or other facilities) necessary to achieve adequate coverage of the Region as well as locations not appropriate for new towers.

Strategy 3.3 Provide CVRPC's "Model Telecommunication Facility" bylaw to all member municipalities and work with towns and cities to develop bylaw, ordinance, and/or town plan language to address facility siting. The Commission encourages municipalities that adopt telecommunications regulations to provide for an expedited permit process for small scale facilities.

Strategy 3.4 Participate in Section 248a processes including review of new towers and necessary infrastructure for regionally substantial impact and potential interference with orderly development.

GOAL 4: High-speed Internet (DSL), cable, fiber optic, or 5G availability and affordability.

Strategy 4.1 Provide technical assistance to municipalities and connectivity partners to include internet connectivity goals and strategies within local plans as tools to enhance economic development, education and overall resiliency.

Section 4.1: Telephone

Most of Central Vermont is served by FairPoint Telephone Company or a subsidiary of FairPoint, the Telephone Operating Company of Vermont LLC. Areas outside of FairPoint's service territory include: The Mad River Valley, where Waitsfield Telecom operates, Northfield & Roxbury are served by TDS Telecom and finally part of Washington and Orange are served by Topsham Telephone. Vermont Public Utility Commission has opened Vermont to local telephone service competition, competitive local exchange carriers are only currently available within the FairPoint service territory.

Almost all residences are still served by a landline connection even though use of such services has seen a significant decline as cellular and internet options have abounded often for lower costs than landline service. As of 2020 only 12% of Vermonters live in a landline only household.

Section 4.2: Wireless Coverage

Much of the Central Vermont region is served by cellular connectivity, however, due to our topography and limited sightlines this network has many gaps and unserved areas. The Vermont Department of Public Service field test showed that many areas that are claimed to be served by cellular voice and data do not actually have that level of coverage advertised. To increase this would most likely require

building a larger network of towers. Successful construction of new towers must consider the general character and planned growth patterns of the area. Many communities would ideally like these to not be seen within their view sheds and ideally providers will connect with communities to find acceptable locations for tower placement.

Section 4.3: Cable, Internet, and Fiberoptic services

All towns in the region have broadband, cable, or Fiber optic within their communities. Many of the more rural areas are greatly limited in the build out of this infrastructure. CV fiber is attempting to address this within the region by building out a network in the more rural and underserved communities to allow high speed internet access to more remote areas. The towns of Orange and Roxbury currently have the smallest areas served by any of these services within the region. These services can replace standard telephone services with Voice over internet protocol which allows telephone calls to be transmitted over internet connections. The installation of these services increases the economic opportunities of individuals with access to high-speed internet services.

Section 4.4: Radio

Twelve radio stations host transmitters within the region of these three are AM, with 10 being FM. These stations have seen an overall loss in listenership due to streaming services but still do play an important role in public messaging and reporting. The Region is also served by Vermont Public radio and several commercial stations broadcasting from locations outside Central Vermont but whose transmitters are located here.

Section 4.5: Television

Most residents of Central Vermont are within receiving distance of signals from affiliates of the major commercial networks. Only two have licenses within the region, WNNE, a CW affiliate, and WVER, a PBS affiliate. Cable television is now available to over three-quarters of the Region's population. Under Public Service Board rules, cable television companies offer local access for community programs.

Section 4.6: Newspapers

The Barre-Montpelier Times Argus, and the Burlington Free Press are the primary daily newspapers serving the Region and its residents. These publications cover international, national, regional and local news. Weekly papers, covering local and/or sub regional events include: The Valley Reporter (Waitsfield, Warren, Moretown, Fayston and Duxbury), The Hardwick Gazette (Woodbury, Cabot, Calais and Marshfield), the Northfield News and Transcript (Northfield and vicinity), The Bridge (Montpelier area), and the Washington World (all of Central Vermont). The Seven Days weekly, also from Burlington, has a large readership and footprint within the region. VTDigger (statewide) and the Waterbury Roundabout are online news websites that also serve the region.

Section 5: Health/Social Infrastructure/Community Services

The goal of CVRPC is to, through education, assistance, and engagement, promote health equity in Central Vermont. Health equity refers to the attainment of the highest possible level of health for all people, regardless of social or economic factors. It involves addressing disparities in health outcomes and ensuring everyone can achieve their full health potential. Achieving health equity requires recognizing and addressing systemic and structural factors that contribute to health inequalities, such as

socioeconomic status, race, ethnicity, gender, and other social determinants of health. The goal is to create fair and just opportunities for good health, ensuring that no one is disadvantaged due to circumstances beyond their control. Health equity involves promoting policies and practices that eliminate barriers to healthcare access and address the root causes of health disparities, ultimately striving for a society where everyone has the chance to lead a healthy life. The following goals and strategies are conceived to help CVRPC facilitate greater health equity within our region.

A healthy population is more than just the absence of disease. It is physical, mental and social wellbeing. Vermont Healthy Communities highlights that "clinical care impacts approximately 20 percent of people's health. Thirty percent of people's health can be connected to diet and exercise with 10 percent going to physical environments such as housing, air quality, and transit. This leaves 40 percent of health impact from social and economic factors which include education, employment, and income." According to the Centers for Disease Control and Prevention (CDC), lifestyle and environmental factors play a far more significant role in a person's life expectancy than genetics.

Social, Economic and Environmental Factors on Health:

Healthy communities thrive when a balance is struck between social well-being and economic prosperity. The interplay of social and economic factors significantly influences the overall health and vitality of communities. These factors include discrimination based on income, class, ethnicity, sexual identity, ability, and/or age. Here we delve into the impact that these factors have on the well-being of communities, highlighting the need for approaches that foster sustainable development.

In this element, we will address social and economic factors, the physical environment, and their impact on a healthy community including health behavior and access to healthcare. The goals included in this chapter address how a regional response can address health disparities across communities and ensure all individuals have the opportunity to achieve their highest level of health. The following list provides examples of the social determinants of health, which can influence health equity in positive and negative ways:

- Income and social protection
- Education
- Unemployment and job insecurity
- Working life conditions
- Food insecurity
- Housing, basic amenities and the environment
- Early childhood development
- Social inclusion and non-discrimination
- Structural conflict
- Access to affordable health services of decent quality.

Section 5.1: Healthcare

GOAL 11: Effective, efficient and accessible emergency and health care services for all that protect the lives of professional and volunteer staff.

Strategy 11.1 Assist municipalities and partners with technical assistance in planning for adequate health care facilities and personnel located throughout the Region and in coordination with population distribution, existing and future transportation patterns to meet the needs of all residents.

Strategy 11.2 Assist municipalities and partners in planning for all aspects of emergency/health service delivery with full consideration of the costs and benefits of cooperative and regional provision of these services.

Strategy 11.3 Advocate for transportation planning that increases accessibility of health services.

Strategy 11.4 Coordinate with the District Health Office and the MRC/CERT Medical Reserve Corps/Community Emergency Response Team.

Strategy 11.5 Advocate for public services that are responsive and representative of the populations they are serving.

Strategy 11.6 Provide trainings for municipalities and partners on opportunities to address substance use disorder, site for treatment facilities, support residential treatment programs in the region, support recovery-based employment programs in the region.

Strategy 11.7 Partner with organizations to support access and training of Narcan for use in the community and safe depositories and collection for sharps.

Strategy 11.8 Provide technical assistance to municipalities in accessing and applying for funding to sustain and improve the structures and equipment needs of emergency services and fire departments to current accepted national standards.

Section 5.1a: Healthcare Access

Economic disparities often result in unequal access to healthcare resources. Communities with limited financial resources may struggle to provide adequate healthcare facilities and services, leading to health disparities. This lack of access can contribute to preventable illnesses, increased healthcare costs, and a compromised ability to respond to public health crises.

THRIVE is our region's Regional Accountable Community for Health: a multi-agency coalition, made up of health providers, social service agencies, government, civic, and religious entities, and numerous other community partners, dedicated to improving health for the residents of Washington and Northern Orange Counties. Accountable Communities for Health bring together partners from health care, social services, and other sectors to take responsibility for the entire population's health in a defined geographic area. The model fosters collaboration that engages all the levels of population health – social circumstances, economic conditions, environment, behavior, and more. THRIVE members play an integral role in overseeing data collection and reviewing findings to determine community health priorities based on the *Community Health Needs Assessment* (CHNA) study. CVMC conducts the Community Health Needs Assessment (CHNA) every three years. This study measures the health status of residents. The CHNA results and related action plan guide CVMC's community health activities over a three-year cycle.

Get VT CHEP Report from THRIVE/Dept of Health

In Vermont, the rate of uninsured people has been going down since 2005. A large decrease occurred from 2012 to 2014 with a drop from 6.8% to 3.7%, perhaps because of the enacting of the Affordable Care Act in 2010.

Underinsured

Underinsured is defined as those whose policy does not sufficiently cover current medical costs, or their potential future medical expenses should a serious condition or illness develop and current medical expenses, excluding the cost of insurance premiums, is equal to or greater than:

- 10% of household income if 200% or higher of Federal Poverty Level,
- 5% of household income if below 200% of Federal Poverty Level,

or

- Have a deductible equal to or greater than 5% of household income.

In 2021, 40% of Vermonters under the age of 65 who had any type of insurance were underinsured, which was up by 3% since 2018 and up 10% since 2010[1].

Substance use continues to contribute to poor health outcomes in Central Vermont. The last two decades have seen an increase in opioid use and alcohol, smoking and marijuana remain public health concerns. Aiding Central Vermont municipalities that are trying to address the social determinants of health, CVRPC aims to address some of the underlying factors that impact mental health and contribute to substance use.

Section 5.1b: Hospitals and Clinics

Central Vermont Medical Center (CVMC)

The biggest medical provider system in our region is Central Vermont Medical Center (CVMC). CVMC is a general hospital and part of The University of Vermont Health Network, a six-hospital system serving patients in New York and Vermont. CVMC's main medical campus is located central to our region in Berlin, Washington County and serves as the primary health care provider for 66,000 people in our region. The main hospital complex has 275 beds comprised of 122 inpatient hospital beds and 153 skilled nursing beds at Woodridge Rehabilitation and Nursing. The Berlin campus is also the site of a 24-hour emergency care center. In addition to the main hospital complex CVMC has 27 community-based clinics and practices including the following facilities in our region;

- Pediatric Primary care in Berlin
- Adult Primary Care in Barre
- Family Medicine Practices in;
  - Berlin (2 centers)
  - Waitsfield
  - Waterbury
  - Northfield
  - Montpelier
- ExpressCare facilities that are open 7 days per week (2 in our region)
- CVMC also has 200 physicians and 70 advanced practitioners providing outpatient services in 25 specialties

Plainfield Health Center

Plainfield Health Center is a rural primary healthcare facility serving Cabot, Calais, East Montpelier, Marshfield, Plainfield, and Woodbury, as well as patients from many other surrounding communities. Plainfield Health Center has integrated medical, dental and mental health care located in Plainfield, Washington County.

People's Health & Wellness Clinic
People's Health & Wellness Clinic offers free essential health care to adults who do not have adequate health insurance.

In Washington County 5.7% of the population are Veterans slightly lower than Vermont's rate of 6.5% (Source: 2022 U.S. Census American Community Survey 5-year estimates) For Veterans, none of the outpatient or VA medical care is located in our region. Veterans living in our region would need to travel to White River Junction for VA Medical Care or Bennington, Brattleboro, Burlington, Newport or Rutland for Community Based Outpatient Clinics.

LGBTQ+ health outcomes can vary, and disparities in healthcare exist for this community compared to the general population. These disparities can be attributed to various factors, including social, economic, and legal inequalities. The following organizations offer support programs to the LGBTQ+ community in Central Vermont

Rainbow Umbrella of Central Vermont

The Rainbow Umbrella of Central Vermont is an LGBTQ social and political group in Central Vermont. They offer several support groups and recreational activities, such as book clubs, for LGBTQ individuals. LGBTQ adults of all ages from Central Vermont have come together to plan and execute events to foster community and increase LGBTQ visibility in the region. The group's ongoing work will engage the social, political, and intellectual interests of its members.

Outright Vermont

Building a Vermont where all LGBTQ+ youth have hope, equity, and power!

Youth inform organizational strategies, partner with staff to evaluate programs, host regional gatherings and act as thought partners, mentors, facilitators, and trainers.

- Train school personnel
- Camps for LGBTQA+ Youth
- Youth Groups accessible statewide
- Rural Summits

Section 5.1c: Dental Care

Within 30 miles of Montpelier, VT there are 9 General and 11 Specialty dental providers

Nursing Homes and Residential Care Home Facilities

The region is host to 19 nursing, assisted living, and residential care home facilities. With the region's aging population, the demand for these facilities is high. With housing being a major issue within Vermont an increase in residential care and assisted living facilities would only improve the options for housing. Currently many people are constrained with aging in place rather than downsizing or having the alternative of assisted living or residential care home facilities. There are no designated dementia and only one memory care facility, The Gary Residence within the region.

Nursing Home, Residential Care Home and Assisted Living Residence Facilities Serving CVRPC Region

Provider Type	Facility Name	Facility Town	Centers for Medicare and	Special Care Unit?	
Nursing Home					
	Barre Gardens Nursing and Rehab	Barre	Y	N	
	Berlin Health & Rehab Center	Barre	Y	N	
	Woodridge Nursing Home	Barre	Y	N	
	Mayo Healthcare, Inc.	Northfield	Y	N	
			Designated Dementia/ Memory Care?	Vermont Assistive Community Care Services (ACCS)?	Vermont Enhanced Residential Care (ERC)?
Residential Care Home					
	Arioli Community Care Home	Barre	N	Y	N
	Averill Place	Barre	N	Y	N
	Hill Street	Barre	N	Y	N
	Lincoln House	Barre	N	Y	N
	Roadhouse	Barre	N	Y	N
	Heaton Woods	Montpelier	N	Y	Y
	Single Steps	Montpelier	N	Y	N
	The Gary Residence	Montpelier	N	Y	Y
	Westview Meadows at Montpelier	Montpelier	N	N	N
	Four Seasons Care Home, Inc.	Northfield	N	Y	Y
	Mayo Residential Care	Northfield	N	Y	Y
	Kirby House Inc.	Waterbury	N	Y	Y
	Second Spring South	Williamstown	N	Y	N
Assisted Living Residence					
	Chesnut Place	Berlin	N	Y	N

Source:
Vermont Department of Disabilities, Aging and Independent Living, Division of Licensing and Protection https://dlp.vermont.gov/survey-cert/facilities-by-county

Section 5.1d: Mental Health Care

Mental Health Care is a field where demand for services has seen a large increase. Most mental health services within the region are provided by the Department of Mental Health Designated Agency, Washington County Mental Health, which covers the same region as CVRPC. They provide a wide array of support and treatment options for children, adolescents, families, and adults. They have many innovative programs including the Doula project, Parent Child interactive therapy, and have many partnerships within the community. The primary mental health service providers are listed below.

Vermont Psychiatric Care Hospital is a 25-bed acute care Psychiatric Hospital located in Berlin and administered by the Vermont Department of Mental Health
Plainfield Health Center – Mental Health Department (number of providers and specialties)
CVMC Family Psychiatry A Central Vermont Medical Center family psychiatry practice provides psychiatric evaluation and therapy to children and adults.
Washington County Mental Health Services (number of providers and specialties)
The provider network of WCMHS *advocates the inclusion of all persons into our communities and actively encourages Self-Determination and Recovery. We serve all individuals and families coping with the challenges of developmental and intellectual disabilities, mental health, and substance use by providing trauma-informed services to support them as they achieve their highest potential and best possible quality of life*.

Independent Mental Health Practitioners throughout the region (list the organizations that accredit or organizations of practitioners)

Another Way Community Center serves the region *providing voluntary peer-run alternatives for people who avoid conventional mental health services. We operate a center offering peer support, community, information, resources and advocacy for psychiatric survivors* and people currently or formerly at serious risk of psychiatric intervention.* Another Way is funded by the Department of Mental Health and various smaller grants and is located on Barre Street in Montpelier.

Vermont Psychiatric Survivors is an independent, statewide mutual support and civil rights advocacy organization run by and for psychiatric survivors.

Vermont Center for Independent Living, working to promote the dignity, independence and civil rights of Vermonters with disabilities. Like other independent living centers across the country, VCIL is committed to:

- services for all disabilities;
- promotion of active citizenship;
- and working with others to create services that support free-choice and full participation in community life.

National Alliance on Mental Illness (NAMI) Vermont supports, educates, and advocates so that all communities, families, and individuals affected by mental health challenges can build better lives.

Pathways Vermont *offers a variety of different programs to individuals throughout the State of Vermont. While they are diverse in nature, all programs operate under the same general mission: to provide access to services and resources that are human-centered and support diverse roads to wellness. Housing First, Soteria House Vermont Support Line*

Vermont CARES *provides life-saving harm reduction services, education and resources to Vermonters affected by HIV, Hepatitis C and substance use by increasing access to care, reducing social stigmas and building relationships.*

Section 5.1e: Substance Use Recovery Resources in CVRPC Region

Turning Point of Central Vermont

Our mission is to help people find, maintain and enhance their substance abuse recovery by providing peer-based recovery supports to individuals and families; conducting educational programs that aid in building and enriching a healthy life; and maintaining a safe haven for sober recreation and social activities. We support ALL paths to addiction recovery!

BAART Programs

BAART Programs offers medication-assisted treatment, counseling and supportive recovery services

Central Vermont Substance Abuse Services

CVSAS provides outpatient clinic support to people with a wide range of substance abuse and their families. We support adults and adolescents in the greater Washington County region.

Treatment Associates

Treatment Associates, Inc. specializes in substance abuse and mental health treatment through the support of therapeutic and medical interventions. Utilizing group and individual counseling alongside medications designed to support a person in overcoming addiction, Treatment Associates strives to support the whole person.

Our opioid recovery program utilizes prescription Buprenorphine products for the treatment of opioid dependence including addiction to heroin and prescription pain narcotics. The program consists of

medication management, group and individual therapy and accountability requirements (urine screens, pill/film counts).

Elevate Youth Services

We're the only non-profit in Washington County focused solely on the unique needs of adolescents and young adults. In addition to these direct services, we administer four statewide coalitions of youth service providers that strengthen and ensure a statewide safety net for youth. Our mission is to promote safety, competence, and confidence as youth create their path through adolescence and into adulthood.

Prevention Works! Vermont

We are a network of community coalition leaders, prevention consultants, service providers and individuals with an interest in and a commitment to, substance misuse prevention across the state of Vermont.

PW!VT partners help shape how substance misuse prevention is valued in our state. By partnering with PW!VT you lend your commitment, your knowledge and your action to strengthen the prevention and public health community in Vermont.

Vermont Helplink

VT Helplink is your statewide, public resource for finding substance use treatment and recovery services in Vermont. Helplink services are free and confidential. Our caring, trained Specialists will help you or your loved one take a step toward recovery.

Recovery Partners of Vermont

Recovery Partners of Vermont promotes wellness for all who are affected by substance or alcohol use disorder.

Vermont Foundation of Recovery

Our mission is to create a state wide network of Recovery Homes (clean and sober living homes) to help people suffering from Substance Use Disorder, re-assimilate into society by supporting the transitions from active use, to recovery, to independent living.

Friends of Recovery Vermont

Recovery Vermont celebrates substance use disorder recovery in Vermont through trainings, advocacy and leadership programs. Recovery Vermont is responsible for training Vermont's recovery workforce through our nationally IC&RC certified training program, the Vermont Recovery Coach Academy. Since the Vermont Recovery Coach Academy's (VRCA) inception in 2010, Recovery Vermont has trained over 600 Recovery Coaches.

Vermont CARES

Vermont CARES provides life-saving harm reduction services, education and resources to Vermonters affected by HIV, Hepatitis C and substance use by increasing access to care, reducing social stigmas and building relationships.

Foundation House or Barre Recovery Residence

Foundation House, Central Vermont's only Recovery Residence dedicated to supporting women, especially women in recovery with children with room for up to four families of varying sizes. The three-floor building provides sober, stable housing and supportive resources through Recovery Vermont. There is no time limit for how long women and their children can choose to live at Foundation House. The CVRPC region has no residential substance use treatment facilities. For those seeking residential treatment in our region there are options outside of the region such as Valley Vista with locations in Bradford and Vergennes and Serenity House in Wallingford. For those who have Medicaid and for many other insurance plans these are the only options and the time to get a spot is often prolonged. The time for treatment stay has also decreased over the past few years, originally a 30-day treatment is likely to

be closer to 14 days now. For those who have higher quality insurance, out of state treatment is more of a reality.

Section 5.2: Education

GOAL 5: Efficient, accessible, and affordable educational facilities and services.

Strategy 5.3 Assist in development of collaboration and improved coordination among planning commissions, school boards and the State Department of Education, to ensure a regional approach to planning for the placement and timing of construction of educational facilities.

Strategy 5.4 Assist and provide technical assistance to municipalities and school districts to employ capital budgeting and programming to anticipate and plan for the payment of capital improvements to public schools.

Strategy 5.5 Assist municipalities and partners in development of and promote efforts to broaden access to adult and senior educational opportunities.

Strategy 5.6 Assist municipalities and partners in development of and promote efforts to broaden access to vocational education opportunities.

Section 5.2a: Access to Education

Educational opportunities play a pivotal role in shaping the health of communities. Socioeconomic disparities in access to quality education can perpetuate cycles of inequality. Communities with limited educational resources may experience higher rates of unemployment, reduced economic mobility, and a compromised ability to address pressing social challenges. (*See Infrastructure Element for additional information about child care*)

Access to education is integral to any thriving community. A well-educated citizenry contributes to the societal, economic, and cultural well-being of a place. This also is a bulwark against manipulation and predation in economic settings. Education expands the horizon of individuals, families, communities, and contributes to a strong nation. It is required in all education venues (colleges, trade schools, and apprenticeships) to maintain our systems and infrastructure.
There are 19 public elementary/middle schools, 7 middle and /or high schools, and 2 schools (Cabot and Twinfield) that host students K-12. The trend in enrollment of the region's schools is a decrease of 3.6% with a lot of variability from town to town.

Org Id	School Name	2022	2014	% Change
PS020	BARRE TOWN ELEMENTARY SCHOOL	787	856	-8.06
PS033	BERLIN ELEMENTARY SCHOOL	206	213	-3.29
PS055	CABOT SCHOOL	157	182	-13.74
PS056	CALAIS ELEMENTARY SCHOOL	111	133	-16.54
PS091	EAST MONTPELIER ELEM SCHOOL	246	218	12.84
PS107	FAYSTON ELEMENTARY SCHOOL	97	120	-19.17

PS138	HARWOOD UNION MIDDLE/HS #19	580	543	6.81
PS173	MAIN STREET MIDDLE SCHOOL	360	192	87.5
PS181	RUMNEY MEMORIAL SCHOOL (MIDDLESEX)	143	176	-18.75
PS191	MONTPELIER HIGH SCHOOL	396	285	38.95
PS193	MORETOWN ELEMENTARY SCHOOL	148	117	26.50
PS210	NORTHFIELD ELEMENTARY SCHOOL	302	297	1.684
PS211	NORTHFIELD MIDDLE/HIGH SCHOOL	265	308	-13.96
PS215	ORANGE CENTER SCHOOL	84	103	-18.45
PS250	ROXBURY VILLAGE SCHOOL	47	41	14.63
PS276	SPAULDING UHS #41	657	732	-10.25
PS304	TWINFIELD US #33	312	406	-23.15
PS305	U32 UHS #32	764	781	-2.18
PS308	UNION ELEMENTARY SCHOOL	443	519	-14.64
PS315	WAITSFIELD ELEM SCHOOL	163	155	5.16
PS320	WARREN ELEMENTARY SCHOOL	129	183	-29.51
PS322	WASHINGTON VILLAGE SCHOOL	118	96	22.92
PS343	WILLIAMSTOWN ELEM SCHOOL	256	238	7.56
PS344	WILLIAMSTOWN MIDDLE/HIGH SCHOOL	299	316	-5.38
PS353	WOODBURY ELEMENTARY SCHOOL	48	55	-12.73
PS357	DOTY MEMORIAL SCHOOL	78	78	0
PS381	BARRE CITY ELEM/MIDDLE SCHOOL	773	902	-14.30
PS390	BROOKSIDE PRIMARY SCHOOL	409	443	-7.67
		8378	**8688**	**-3.57**

Despite declining enrollment region wide, some public schools face major expansion, renovation, or construction costs due to State public facility standards, as well as other factors. Recent focus on removal or remediation of per- and polyfluoroalkyl substances (PFAS) have added additional pressure to the expense and maintenance of school buildings within the region as the state continues to test these facilities for the extent of the exposure to PFAS.

There are also multiple private schools within the region. These fall outside the public funding paradigm and often serve niche purposes from religious to outdoor education, specific sports, to therapeutic settings or one-on-one support.
Central Vermont Career Center provides vocational education within the Central Vermont region. They offer programs in building, plumbing and electrical trades, medical professions, emergency services, automotive technology, design and fabrication, natural resource management, culinary arts, among other options. They have updated their offerings with the changing needs and desires of students. They also offer adult education training for career preparation or advancement or even just for personal enrichment. The 2022 enrollment numbers were 214 students taking CVCC classes.

Higher education within the region is evolving in Central Vermont. Norwich University in Northfield offers four-year degree programs in various disciplines. Associate Degree programs and about 100 different courses are offered through the Community College of Vermont. The Vermont College of Fine Arts has closed its on-campus instruction and has sold most of the buildings to the Greenway Center for

Equity and Sustainability, a campus of Elizabethtown College in Pennsylvania. The buildings will be used for semester-long residencies in sustainable and equitable engineering. The higher education model is currently changing with the post pandemic experience of online learning being integrated into many programs and institutions.

Section 5.3: Childcare

GOAL 6: **Safe and affordable childcare**

Strategy 6.1 Inform municipalities of their statutory responsibility and provide technical assistance to plan for childcare.

Strategy 6.2 Assist municipalities on the integration of childcare issues into the planning process.

Strategy 6.2 Assist in siting childcare facilities in growth centers and existing settlements, near residential clusters, schools, and large employers, and along public transportation routes.

Strategy 6.3 Engage with municipalities on collaboration options to develop community childcare access.

Strategy 6.4 Assist municipalities in developing access to Act 166 (publicly funded prekindergarten) programs.

The availability of safe and affordable childcare services is critical to the Central Vermont Region. Quality childcare benefits families by preparing children for schooling and social interaction while enabling parents to work and provide income. Safe and affordable childcare benefits businesses by expanding the workforce and creating more reliable, productive employees. Furthermore, childcare facilities are businesses themselves and their existence expands local and regional economies directly through the hiring of workers and purchase of goods and services. Research has shown that investment in early child development programs brings a real (adjusted for inflation) public return of 12% and a real total return, public and private, of 16%. High-quality early childhood education is imperative to child development outcomes but also broadens the tax base, maintains a stable workforce and supports economic stability and growth.

Despite the economic and social good created by childcare services, Vermont has a shortage of childcare programs. In fact, the Child Development Division of the Vermont Agency of Human Services (AHS) estimates that the capacity in regulated facilities meets only 50-60% of the State-wide need. Building Bright Futures has Regional Councils who have identified Access to Basic Needs and Early Childhood Workforce as Central Vermont's Priorities.

Consider the following statistics: From AHS

- 72% of infants, 37% of toddlers, 56% of preschoolers are likely to need care and don't have access to any regulated programs in Washington County.
- There are 93,199 children ages birth through 14 in the State. An estimated 60,733 of those require childcare.
- Cost of childcare has increased with average costs across the state being $13,915/year for infant care at a Childcare Center (CCC) and $9,428/year at Family Childcare (FCC) this being between 10%-14% of median income of a two-earner family to 32-48% the median income of a single-parent household. Vermont-Front (childcareaware.org) Costs decrease slightly as a child grows but costs for a 4-year-old are still $12,835/year (CCC) and $8,885/year (FCC).

- Only 35% of licensed centers serve infants and toddlers in the State of Vermont.
- Only 25% of the demand for infant care is being met.
- An estimated half of all Vermont businesses have employees with a child or children in childcare.
- There is currently only capacity for 1,981 children at childcare facilities within the region, these being broken into infant, toddler, pre-school, and school age categories and as of January of 2023, 57 vacancies with no infant and only 6 of those being for toddlers.
- From the Lets Grow Kids Stalled at the Start, Vermont's Child Care Challenge report 2022 Washington County's estimated need was 581 infant, 147 toddler, and 450 preschool slots. Orange County needs an estimated 271 infant, 111 toddler, and 200 preschooler slots.

(i) Measuring Impacts: Early childhood development

Adverse Childhood Experiences (ACEs) comprise ten factors relating to household challenges, neglect and abuse that have long-lasting effects on the health outcomes of those who experienced them. Those who have four or more of these factors present in their childhood are significantly more likely to be vulnerable to poor health outcomes. [1] ACE scores do not only measure risk factors, they also measure resilience factors and the role these factors play in protecting individuals against negative outcomes.[1]

According to the *2020-21 National Survey of Children's Health* (administered by the U.S. Department of Health and Human Services' Maternal and Child Health Bureau), Vermont was 47 out of 50, making it the fourth worse state for Adverse Childhood Experiences in the country. [1]

Section 5.4: Cultural Resources

Section 5.4a: Libraries

GOAL 7: Diversified and upgraded services at our regional libraries.
Strategy 7.1 Engage with and provide technical assistance to municipalities in the development of libraries as resiliency hubs.

Strategy 7.2 Assist municipalities in the expansion of services and partnerships between libraries and social service organizations and including expanded services as community or resiliency hubs.

Strategy 7.3 Provide technical assistance to libraries in pursuing grant applications.

Libraries are critical physical and social infrastructure in the region. There are 14 libraries found throughout our region (11 municipal, 3 incorporated). In addition to library and educational services, our libraries provide community members with internet, computer, and printer access (including 24-hour wifi in most cases), reliable food distribution and meals, provide bike repair/rentals, art and school supplies in addition to educational programming, resources on mental and physical health, support navigating state and federal resources, free tax services, social meeting rooms and clubs, and more. Furthermore, libraries offer cooling and warming during business hours, and increasingly, adopting policies for extended use during extreme weather conditions. Libraries are an essential resource for all community members especially those with acute needs in day-to-day, emergency, and recovery conditions. Our regions libraries are thus considered important community stakeholders with significant insight into local needs as well as ideal locations for community infrastructure investment including but not limited to: flood mitigation, sidewalk/recreation projects, on-site energy generation and storage

Library	Town	Square Feet	Year Built	Renovation or Addition	Refresh	Public Computer Sessions	WiFi Sessions	Website Visits	Total Programs	Total Program Attend.
Aldrich Public	Barre	20,000	1908	2001	2018					
Brown Public	Northfield	11,790	1906	1999	2020	728	200	0	134	675
Cabot Public	Cabot	1,300	1920	N/A	N/A	1,404	5,951	2,735	125	1,236
Calef Memorial	Washington	966	1919	2016	2022	220	0	1,134	27	418
Cutler Memorial	Plainfield	1,125	1937	1937	N/A	1,300	2,653	4,500	50	319
Jaquith Public	Marshfield	1,700	1920	1990		624	5,916	7,750	106	1,973
Joslin Memorial	Waitsfield	3,082	1913	2018	2018	416	60	2,979	43	702
Kellogg Hubbard	Montpelier	18,449	1895	2000	2022	6,642	65,026	75,026	299	5,295
Moretown Memorial	Moretown	1,700	1835	2005	2012	18		1,705	62	1,261
Roxbury Free	Roxbury	690	N/A	2008	2018	52	2,833	3,000	10	231
Warren Public	Warren	1,450	1872	2009	2021	94	250	4,904	112	2,003
Waterbury Public	Waterbury	7,656	2016		2023	702		21,408	221	2,406
Woodbury Community	Woodbury	1,500	1991	1991	1991		1	947	21	221
Total		**71,408**				**12,200**	**82,890**	**126,088**	**1,210**	**16,740**
Average (Mean)		**5,493**	**1919**	**1998**	**2017**	**1,109**	**8,289**	**10,507**	**101**	**1,395**
Median		**1,700**	**1916**	**2001**	**2019**	**624**	**1,452**	**2,990**	**84**	**969**

projects, and more. CVRPC will provide outreach and technical assistance for funding opportunities for libraries to access funding for implementation of projects.

Section 5.4b: Museums

Throughout our region there are many museums from the Granite Museum in Barre, the Vermont History Museum in Montpelier, and the Norwich University Sullivan Museum and History Center. These are important educational facilities that help to connect us to our region's past.

Section 5.4c: Theaters

An important cultural resource for our region is our theaters. This creates an opportunity for expression within our towns. These facilities are mainly historic structures like the Barre and Plainfield Opera houses and the Valley Players theater in Waitsfield. Lost Nation theater in Montpelier is housed in the Montpelier City Hall, the Unadilla theater in Marshfield and Valley Players Theater in Waitsfield are all cultural institutions. These facilities are definite assets that allow for large public meetings and allow space to hold community discussions with citizens. Barre and Plainfield used their theaters for 2023 post flood community discussions to facilitate the healing process and discuss paths forward.

Section 5.5: Healthy Communities

GOAL 8: Land use and infrastructure design that ensures health equity.

Strategy 8.1: Engage with and provide technical assistance to municipalities to address health issues in their town plans through the Vermont Health Equity Planning Toolkit and other health-related planning tools.

Strategy 8.2 Assist municipalities seeking funds for health-related planning.

Strategy 8.3 Assist municipalities with community engagement in the decision-making process to ensure that the built environment is equitably accessible to all.

Strategy 8.4 Collaborate with municipalities and partners to hold trainings on those elements in the built environment that support the mental health of all in the community.

Strategy 8.5 Engage with municipalities on options to conduct health impact and equity assessments when developing or updating plans, zoning reform or land development processes.

Strategy 8.6 Collaborate with municipalities and partners to hold trainings on cultural competency and making public spaces inclusive and welcoming to all ages, abilities and backgrounds.

Strategy 8.7 Assist towns in the creation of smoke free ordinances, alcohol ordinances and ordinances to protect children from marketing of tobacco products in local stores.

Strategy 8.8 Train and assist municipalities with Smart Growth principles and how zoning can facilitate healthy lifestyles, activities, and development patterns.

Strategy 8.9 Facilitate cooperation between municipalities and health-promoting groups and agencies working towards healthy community design.

Section 5.5a: Community Infrastructure

The availability and quality of infrastructure, including transportation, communication, and public services, shape the day-to-day lives of community members. Insufficient infrastructure in economically challenged communities can hinder economic development, limit opportunities for social interaction, and impede overall community well-being. Isolation and social ostracization are major risk factors for mental health issues and substance use.

Section 5.5b: Social Cohesion and Inclusion

The social fabric of a community is crucial for its health. Social factors, including inclusivity, diversity, and community engagement, shape the sense of belonging and well-being among residents. Communities with strong social cohesion tend to experience lower rates of crime, improved mental health, and a higher overall quality of life.

Although it's hard to measure social isolation and loneliness precisely, there is strong evidence that many adults aged 50 and older are socially isolated or lonely in ways that put their health at risk. Older adults are at increased risk for loneliness and social isolation because they are more likely to face factors such as living alone, the loss of family or friends, chronic illness, and hearing loss. [2]Recent studies found that:

- Social isolation significantly increased a person's risk of premature death from all causes, a risk that may rival those of smoking, obesity, and physical inactivity.
- Social isolation was associated with about a 50% increased risk of dementia.
- Poor social relationships (characterized by social isolation or loneliness) were associated with a 29% increased risk of heart disease and a 32% increased risk of stroke.
- Loneliness was associated with higher rates of depression, anxiety, and suicide.
- Loneliness among heart failure patients was associated with a nearly 4 times increased risk of death, 68% increased risk of hospitalization, and 57% increased risk of emergency department visits.

New Americans who are linguistically and/or culturally isolated may also face adverse health outcomes due to social isolation.

Section 5.5c: Employment and Economic Stability

Economic factors, including employment opportunities and income levels, are fundamental to community health. High rates of unemployment, underemployment, or low wages can contribute to financial stress, affecting the health of individuals and families. Economic instability within a community can result in increased rates of poverty, diminished access to healthcare, and a general decline in overall well-being. (*See economic element for additional data on regional economics and vocational opportunities*)

Section 5.5d: Housing and Neighborhood Conditions

The quality of housing and neighborhood conditions significantly influences community health. Socioeconomically disadvantaged communities may face challenges such as inadequate housing, lack of access to essential services, and environmental hazards. These factors contribute to higher rates of health issues and reduced quality of life for residents. (*See Housing Element for additional details*)

Section 5.5e: Environmental Factors

The environmental conditions in which a community exists can impact the health of its residents. Socioeconomically disadvantaged communities may be disproportionately affected by environmental pollution, lack of green spaces, and inadequate infrastructure. These factors contribute to higher rates of respiratory issues, chronic diseases, and overall reduced well-being.

Section 5.5f: Noise and Environmental Stressors

Noise pollution and other environmental stressors can impact the mental health of community members. Constant exposure to high levels of noise, industrial activities, or environmental stressors can lead to increased stress, sleep disturbances, and mental health challenges. Mitigating these factors is crucial for fostering a healthier and more resilient community.

Section 5.5g: Built Environment and Safety

The design and safety of the built environment significantly influence community health. Safe and well-maintained buildings and neighborhoods contribute to a sense of security, reducing the risk of accidents and injuries. Conversely, poorly designed or unsafe environments can lead to higher rates of accidents, injuries, and overall community distress.

Section 5.5h: Climate Change and Resilience

The impacts of climate change, including extreme weather events, rising temperatures, and natural disasters, can have severe consequences for community health. Vulnerable communities may face

increased risks of heat-related illnesses, vector-borne diseases, and displacement. Building resilience and implementing sustainable practices are essential for mitigating the health impacts of climate change on communities.

Section 5.5i: Physical Environment

The physical environment in which communities exist plays a vital role in shaping the overall health and well-being of their residents. From air and water quality to green spaces and infrastructure, various factors in the physical environment contribute to the health dynamics of a community. This includes land use planning and town bylaws and the influence they have on how a community plans for local transportation, recreational opportunities, environmental protection, and energy use, and where a community locates medical care and emergency response facilities, food access, safe and affordable housing, employment centers, and parks and playgrounds.

Section 5.5j: Access to Green Spaces

The availability of green spaces within a community has a profound impact on the physical and mental well-being of its residents. Communities with ample parks, recreational areas, and green infrastructure tend to experience lower rates of stress, improved physical fitness, and enhanced community cohesion. Green spaces also contribute to a higher quality of life and support overall community health. Green spaces offer health benefits such as space to play and exercise, access to quality air, increase in sense of belonging, and places to gather. They also offer widespread benefits to a community such as stormwater runoff management, flood resiliency, air filtration and phytoremediation of chemicals. Access to green spaces is not always equitable in our communities. Barriers such as cost, transportation, inaccessibility, feeling unwelcome or not sure if one belongs, unsafe access (busy roads) and distance from where one lives and not having enough pre-visit information are all conditions that can limit or deny access to green spaces. Disparities in access to green spaces are higher for those of certain identities, backgrounds or intersections of identities and backgrounds. Many studies have found that green spaces in urban areas are larger and more accessible to wealthier and predominantly white neighborhoods and are less accessible to neighborhoods with a higher percentage of residents of racial minorities and those of lower socioeconomic status.

GOAL 9: Air quality that maintains national ambient air quality standards.

Strategy 9.1 Collaborate with State and Federal entities to identify and monitor local air quality impacts through the Act 250 and Section 248 processes for any project that would negatively impact regional air quality.

Section 5.5k: Air and Water Quality

The quality of air and water directly influences the health of community members. Poor air quality, often associated with industrial emissions and traffic pollutants, can contribute to respiratory diseases and other health issues. Similarly, contaminated water sources pose significant risks to public health, leading to waterborne illnesses and long-term health consequences.

Historically, the Region’s local air quality concerns have been limited mainly to emissions from traffic, heating systems and some agricultural practices; the cumulative effect of these sources will likely increase with additional growth and have greater impact on local air quality. Air quality is also a growing concern due to the increased frequency and duration of wildfires. Currently, there are no air quality

monitoring stations located in the Region. Various stationary sources of emissions within the Region are regulated by the Environmental Protection Agency (EPA), state, and local air pollution agencies. The Agency of Natural Resources maintains statewide Real-Time Air Quality Data and offers a subscription to EPA air quality alerts. Many communities have chosen to include performance standards in their zoning regulations that address sources of air pollution. Discussions about land use, transportation, energy production, and other issues must consider the effect upon the production of greenhouse gases and air quality. Impacts on air quality also pose a serious threat to fragile, high elevation ecosystems. Our forested landscapes play a key role in maintaining good air quality through the sequestration of CO2 and airborne pollutants.

GOAL 10: Food security for all residents of the region.

Strategy 10.1 Provide technical assistance to municipalities and food access partners to improve community wellness and healthy community design, including pedestrian networks, to ensure food access.

Strategy 10.2 Provide technical assistance to municipalities and advise on integrating food access into town plans and application of the Vermont Planning for Local Food Access Toolkit in their town plan and bylaw processes.

Section 5.5l: Access to Healthy Food

The availability of nutritious and affordable food options is a critical factor in community health. Food deserts, where residents have limited access to fresh and healthy food, contribute to higher rates of diet-related diseases such as obesity, some cancers and diabetes. Ensuring equitable access to healthy food options is essential for promoting overall community health. The Vermont State Agency of Agriculture Food and Markets provides additional information for residents seeking emergency food services and whom Central Vermonters can contract when in need of help, including information on the Supplementation Nutrition Assistance Program (SNAP) and the locations of food banks or other assistance programs.

Food deserts are geographic areas where residents have few to no convenient options for securing affordable and healthy foods, especially fresh fruits and vegetables. Among other adverse health outcomes, lack of access to healthy food options leads to a greater chance of diabetes and obesity. The USDA definition of a food desert uses two qualifiers, low-income and low access, to determine food desert status. There are 39 census tracts, or neighborhoods, designated food deserts in Vermont, and many of these are in the CVRPC region.

Definitions:

Food Security: All people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (United Nations)

Food Insecurity: Limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

Section 6: Emergency Management

GOAL 12: Disaster resistant communities with sound emergency planning and management.

Strategy 12.1 Engage with municipalities on the importance of local emergency management plans (LEMP) and assist municipalities to annually review and update their LEMP to help maximize town Emergency Relief Assistance Fund (ERAF) scores.

Strategy 12.2 Assist municipalities in capital investment planning for climate resilience.

GOAL 13: Minimal loss of life, physical and emotional injury, financial loss, and property damage or loss resulting from all hazards

Strategy 13.1 Provide technical assistance and educate municipalities in all-hazards assessment to identify risk to people and property.

Strategy 13.2 Engage with and provide technical assistance to municipalities to adopt minimum standards for public roads, bridges, and culverts and River Corridor bylaws to maximize Emergency Relief and Assistance Fund (ERAF) scores for access to more disaster relief funding.

Strategy 13.3 Require that new or rebuilt development shall not increase disaster risk and will take reasonable steps to reduce existing risk.

Strategy 13.4 Advocate and provide technical assistance to municipalities and telecommunications partners to increase radio and cellular coverage for emergency responders.

Strategy 13.5 Engage with and provide technical assistance to municipalities on how to enforce National Flood Insurance Program (NFIP) requirements for permitting of structures and development within the Special Flood Hazard Area.

Strategy 13.6 Engage with and provide technical assistance municipalities on the use of Federal funding for updating Local Hazard Mitigation Plans to address natural hazards found in each municipality.

Strategy 13.7 Engage with and provide technical assistance municipalities on the use of State and Federal funding to update and implement hazard mitigation goals laid out in town LHMPs.

Section 6.1: Local Emergency Management Plans

Emergency planning is critical to every municipality in both mitigating and responding to emergencies and disasters. The goal of emergency planning is to work toward the development of disaster-resistant communities and improve how our communities respond during a disaster: ideally by moving or engineering people out of harm's way. Municipalities can utilize tools, such as town plans and zoning regulations, to implement sound land use practices that consider the consequences of disasters, whether they be naturally occurring, or human made. For a municipality or the Region to understand

the types and extent of potential disasters, an assessment of all known risks from potential natural and human-made disasters needs to be completed. These identified risks can then be used to develop land use practices that will protect a community from disaster, based on mitigation, preparedness, response, and recovery.

Local planning for disaster response is primarily done in Vermont by Local Emergency Management Plans, an integral part of each community's response. This is stated in 20 V.S.A. § 6 and the State Emergency Management Plan. That all municipal jurisdictions are expected to update and review their Local Emergency Management Plan yearly and to formally readopt them following town meeting day and before May 1st. These plans address the framework of how a town will respond during a significant event or disaster. The plan stipulates who the emergency management director is, where the town Emergency operations center and shelters are located, and any spending authority the emergency management director may have during a disaster. The plan is also used by the state during a disaster for who to contact in each town and reporting to the State Emergency Operations Center. This is also required to receive federal preparedness funding and is a component in the state Emergency Relief and Assistance Fund that combined with the other requirements increases a municipalities state reimbursement rate during a declared disaster.

Section 6.2: Local Hazard Mitigation Plans

A Local Hazard Mitigation Plan (LHMP) identifies, assesses, and attempts to reduce the long-term risk within a community to life, property, and infrastructure from both natural and human derived disasters. They are a more in-depth look at hazards faced by that community. These often have a common theme within the region, but each one is individualized based on local conditions and infrastructure. LHMPs are completed every five years and are required to access Federal Emergency Management Agency (FEMA) hazard mitigation grant funding. They require significant community engagement and outreach and help prioritize projects to address conditions that the municipalities deem to be threats to their well-being and provide a timeline as well as designating parties responsible for implementation.

Mitigation includes compliance with the National Flood Insurance Program (NFIP). Municipalities must comply with this program for property owners to be able to purchase flood insurance to offset some of the costs of major flood events. All 23 municipalities in Central Vermont are in compliance, however, FEMA is currently updating Flood Hazard Maps and regulatory standards – actions that will require amending local bylaws in many cases, if eligibility is to be maintained. CVRPC has been assisting our communities in responding to these new mandates.

The National Flood Insurance Program (NFIP) is an insurance program managed by FEMA and is delivered to the public by insurance companies. The NFIP provides flood insurance to property owners, renters and businesses, and having this coverage helps them recover faster when floodwaters recede. The NFIP works with communities required to adopt and enforce floodplain management regulations to help mitigate flooding effects. All the towns within our region are registered members of the NFIP program. This program has many regulations on structures found in the Special Flood Hazard Area, defined as the area within the 100-year flood zone. This program is available to anyone in an NFIP registered community and offers some of the only insurance on the market for flooding.

A large piece of wise land use planning is how towns choose to protect the River Corridors. River Corridors in Vermont are defined as, “the land area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance or natural restoration of a dynamic equilibrium condition” from section 1422 of 10 V.S.A. Chapter 32 § 752. Definitions. Due to historical practices such as bank armoring, channelization

and riverside development most of our waterways are not in an equilibrium condition. These are important to protect and to attempt to lessen damage during flooding events.

Buffer zones are areas adjacent to the river that help to protect the stream bank from fluvial erosion due to the cohesiveness provided by woody vegetation. These provide a filter effect by helping remove sediment before it reaches rivers and streams and maintaining soils. Forested buffer zones slow water during flooding events which lowers its erosive power thus lowering the overall extent of fluvial erosion and adds woody debris to the stream bed that provides habitat for in stream species. Trees along the streams and rivers also lower the water temperature providing habitat for increase in fish diversity.

These pieces together create the backbone of the state's regulated response to disaster planning and make up a portion of the state's Emergency Relief and Assistance Program.

-Side bar on ERAF program.:

MAP: Police, Fire, EMS, Medical (possible shelters or recovery centers?)

Section 6.3: Police

GOAL 14: Minimal community conflicts and crime rate, and protection of the community from violence and serious crimes.

Strategy 14.1 Provide technical assistance to municipalities to support law enforcement departments and other public safety service providers access to equipment, training and facilities upgrades.

Our region is served by 2 county sheriff's departments, 5 municipal departments, and the Vermont State Police (VSP). Barre City, Barre Town, Berlin, Northfield, and Montpelier all have their own police forces. These departments often work in coordination when they require more staff for certain operations. Depending where you are within the region response times can vary greatly depending on location and who is the responding department. The Vermont State Police are the primary coverage in 18 of the regions towns and are based out of the Berlin barracks.

Definitions:

bjs2018_vt_crime_analysis_-_top_five_crimes_by_county_.pdf (crgvt.org)

Section 6.4: Fire

Central Vermont is protected by 19 local fire departments. Most of these are
based in village or urban areas and primarily staffed by volunteer crews. In some instances, the demands on local fire departments are beginning to outstrip their capabilities.
Sprawling development patterns make responses more difficult and time consuming.
Many departments are faced with a shortage of trained volunteers and budgetary restrictions on acquiring new equipment. With increased training requirements and increased demands, it is a struggle to fully staff many of these organizations. The need for more volunteers and the time needed to train them may require innovative ways to provide incentives either through stipends, a minuteman pay structure, or tax breaks for members.

All the Region's fire companies are members of the Capital Fire Mutual Aid system. These associations provide for back-up assistance from neighboring member companies, when needed and coordination of radio and training needs.

Many of the fire stations in the region need upgrades due to the age of the structures and the need for more room. With the immense cost of building new fire stations, it is often necessary for creative funding to address this need using both state and federal programs. Due to the increase in demand for our fire stations many need to modernize to keep up with technological advancements which require more space than their old structures currently have. Multiple fire stations had flooding or erosional damage due to the July 2023 flooding event which directly supports the need to move emergency services to protected locations that have more resiliency from flooding and erosional/landslide events. Two of the stations were either destroyed or severely impacted by the flood and will require new structures due to their damage.
Due to the volunteer nature of most of the region's fire departments, many have been struggling with membership. This can be due to the increased strain of work/home life and the need for significant training to qualify as a firefighter. The fact that most individuals are employed outside of their home community increases the difficulties of quick response times during normal business hours. Moving forward this may require looking into regionalization or merging of neighboring town's fire and Emergency medical service teams. It also may be worth investigating some reimbursement/paid models or advocating for tax break incentives for active members.

Hazard Material services or HAZMAT are provided by a coordination of state and locally trained individuals. Local fire departments provide personnel with assistance from State Hazardous Material technicians who are located throughout the state. The state has 3 hazardous response vehicles and 18 prepositioned trailers throughout the state. These resources have the necessary Personal Protective Equipment and cleanup material to deploy at an incident commander's request.

Section 6.5: EMS

Most Emergency medical services within the region are provided by a combination of non-profit, for-profit, and town owned ambulance services. Much of the coverage of the region is provided by volunteers such as the Barre Town EMS, Mad River ambulance, Waterbury ambulance, and Cabot Ambulance. Many of these groups provide coverage to multiple towns and the professional municipal owned ambulance services also contract with neighboring towns to provide coverage.

Section 6: Dams-will be show on map

Dams: There are 10 dams within the Region that are classified as high hazard dams by the State. Failure of these dams could cause loss of life and serious damage to critical infrastructure. The Vermont Center for Geographic Information has calculated and mapped dam inundation areas of prioritized high-hazard dams as defined by Vermont Division of Emergency Management and Homeland Security. High hazard dams in the Central Vermont Region include:

- Waterbury Reservoir Dam, Waterbury*
- Wrightsville Reservoir Dam, Middlesex*
- Marshfield No. 6, Cabot*

• East Barre Dam, Barre Town*

• Thurman Dix Reservoir Dam, Orange

• Sugarbush Tank Dam, Warren

• Warren Lake Dam, Warren

• Middlesex No. 2 Dam, Middlesex

• Nichols Pond Dam, Woodbury

• East Long Pond Dam, Woodbury

There are an estimated 152 Historic, breached, and functional dams in the region. Many of these have had minimal or no maintenance for many years. Those that have a hazard potential rating of high or significant and aren't currently serving some purpose for the greater good should be removed. All dams ideally should have both state inspections and a maintenance plan with funding for repairs to prevent lurking hazards within the region and potential loss of life.

Goal 15: HISTORICAL AND ARCHEOLOGICAL RESOURCES: To promote the protection and use of the Region's historical and archeological resources.

Strategy 15.1. Municipalities are encouraged to provide a historic preservation section in their municipal plans that align with flood safety. (CVRPC will assist in such an effort, if requested.)

Strategy 15.2. CVRPC encourages development which preserves the natural and historic features of towns, village centers, rural countryside, and the natural and fragile landscape without increasing risk from natural hazards.

Strategy 15.3. Therefore, it is the policy of this Commission to support and encourage downtown revitalization programs and Downtown and Village Center Designation while instituting flood hazard designs in development.

Strategy 15.4. CVRPC encourages the restoration, rehabilitation and adaptation of historic structures where feasible outsided of hazard areas, as this minimizes the environmental impact of development by conserving raw materials, using land already developed, employing existing services.

Strategy 15.5. Where economically feasible and safe, rehabilitation of a historic site or structure should be designed to minimize the architectural impact and maintain the historic character of the site or building while incorporating energy efficient design.

Strategy 15.6. Where an area is not designated as a historic district, but where there are buildings of local historical significance, projects should be designed to maintain and protect the historic character of the area. Municipalities are encouraged to develop zoning criteria that would assist in protecting the character of an area considered historic, whether designated as such or not.

Goal 16: CULTURAL RESOURCES GOAL: To promote adequate access to a wide range of high-quality cultural experiences for all sectors of the population.

Strategy 16.1. CVRPC supports the development of new cultural facilities and services (including studio space), in Central Vermont, particularly in or near existing settlements and growth centers, as such areas are most accessible to all segments of the population, and the proliferation of culture in such areas will strengthen their vitality.

Strategy 16.2. CVRPC will work with cultural organizations where appropriate, to support cultural resources in Central Vermont.

Strategy 16.3. The Commission encourages the rehabilitation or adaptive use of sites and structures for cultural pursuits.

Strategy 16.4. CVRPC supports the role of cultural and artistic disciplines in public education.

State Requirements	CVRPC Goals & Strategies	Other Chapters
24 V.S.A. § 4302 (c)(3) To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Vermonters.	Goal 6, Strategy 6.6	
24 V.S.A. § 4302 (c) (6) To maintain and improve the quality of air, water, wildlife, forests, and other land resources.	Goal 10, Strategy 10.1	
(A) Vermont's air, water, wildlife, mineral, and land resources should be planned for use and development according to the principles set forth in 10 V.S.A. § 6086(a).		
24 V.S.A. § 4302(c)(12)(A)(B) To plan for, finance, and provide an efficient system of public facilities and services to meet future needs...		

(A) Public facilities and services should include fire and police protection, emergency medical services, schools, water supply, and sewage and solid waste disposal.	Goal 1, Strategies 1.1,1.2,1.3,1.4; Goal 2, Strategies 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 Goal 3, Strategies 3.1, 3.2, 3.3, 3.4, 3.5 Goal 6, Strategies 6.1, 6.2, 6.3, 6.4, 6.5 Goal 12, Strategies 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 Goal 13, Strategies 13.1, 13.2, 13.3, 13.4, 13.5 Goal 14, Strategy 14.1 Goal 15, Strategies 15.1, 15.2, 15.3, 15.4, 15.5, 15.5, 15.6, 15.7	
…(B) The rate of growth should not exceed the ability of the community and the area to provide facilities and services.		
24 V.S.A. § 4302(c)(13) To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.	Goal 7, Strategies 7.1, 7.2	
24 V.S.A. § 4348a (5) A utility and facility element, consisting of a map and statement of present and prospective local and regional community facilities and public utilities, whether publicly or privately owned, showing existing and proposed educational, recreational and other public sites, buildings and facilities, including public schools, State office buildings, hospitals, libraries, power generating plants and transmission lines, wireless telecommunications facilities and ancillary improvements, water supply, sewage disposal, refuse disposal, storm drainage, and other		

similar facilities and activities, and recommendations to meet future needs for those facilities, with indications of priority of need.		