9 UTILITIES, FACILITIES, AND SERVICES

3 A. Background

- 4 The communities in our Region depend on a system of public, nonprofit, and
- 5 private utilities, facilities, and services. These are needed to maintain the health
- 6 and welfare of our citizens, as well as support a sound economy.
- 7 While TRORC does not have a direct role in maintaining these systems, it does
- 8 have the ability to provide municipalities with guidance and technical assistance
- 9 to achieve regional and local planning goals. Compact land use patterns generally
- 10 improve the efficiency of wastewater and water supply systems, roads, transit,
- and emergency services. Conversely, sprawling development leads to an
- 12 expansion of infrastructure and services to new areas and is generally inefficient.
- 13 Nearly all services and facilities benefit from greater density and intensity of land
- 14 development within a given area.
- 15 Achieving Vermont's land use goal, "to maintain the historic settlement pattern of
- 16 <u>compact village and urban centers separated by rural countryside</u>" is challenging
- 17 for communities to implement without public sewer and water. Continued
- increases in density and development in many of our villages will eventually be
- 19 unsustainable without water and wastewater facilities.
- 20 Long-range planning for such infrastructure investments and their maintenance is
- 21 essential to avoid jumps in annual tax rates. Therefore, state statutes enable
- 22 communities to create a Capital Improvement Plan (CIP) for the purposes of

- planning and investing in long-range capital facilities. From a regional standpoint, investments in municipal infrastructure must be made based on the population they will serve and on the most pressing needs. For communities with existing infrastructure and stable population numbers, capacity is not a significant issue, therefore priority for future investments is in modernizing or replacing aging infrastructure. This will make these systems more sustainable and affordable and
- 30 Goals, Policies, and Recommendation: Overall Utilities,
- 31 Facilities, and Services

will protect against loss of service.

32 Goals

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- The maintenance, expansion, or construction of new facilities and utilities is
 financially sustainable for governments and taxpayers.
 - 2. Investments in utilities, facilities, and recreation enhance the desired pattern of development which is compact village and urban centers surrounded by open countryside.
 - Policies
 - Public investments in governmental and public utility facilities services should support existing and future development.
- 2. The scale, type, and design of major public utilities and facilities shall be consistent with the future land use settlement patterns recommended in this Plan and relevant municipal plans.

- Public investments in municipal, regional, and state facilities should be
 located within existing or planned Regional Growth, Industrial, and Mixed Use Areas.
 - 4. Public facilities such as solid waste disposal facilities, correctional facilities, and wastewater treatment facilities shall be situated in an area where they best serve their purpose while minimizing negative impacts on the surrounding area.
 - 5. TRORC supports the acquisition of future public and quasi-public utility sites, properties, or interests, when such acquisitions advance the goals and policies of this Plan and relevant local plans.
 - 6. The construction of primary educational facilities, health-care facilities, emergency facilities, post offices, libraries, and other public facilities should occur in or adjacent to existing or planned Regional Growth and Mixed-Use Areas, so as to maximize their convenience to people (either locating facilities near transit stops or walking distance), to minimize additional infrastructure improvement costs, and to contribute to the vitality of communities.
 - 3. The maintenance, expansion, or construction of new facilities and utilities is financially sustainable for governments and taxpayers.
 - 4. Investments in utilities, facilities, and recreation enhance the desired pattern of development which is compact village and urban centers surrounded by open countryside.

Policies

- 7. Public investments in governmental and public utility facilities services should support existing and future development.
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89	B. Water and Wastewater Systems
90	The TRO Region is largely a rural region, with most of the water supply handled
91	through individual on-site wells and septic systems. Only a fraction of
92	municipalities has public water systems, and in those municipalities, the systems
93	serve a limited area—generally downtown or village areas (see map/figure X).
94	Many of the supply and sewer lines need repairs or upgrades. Some systems suffer
95	from inadequate storage or from poor line pressure. Many systems have poorly
96	mapped lines due to their age (50 to 100 years old). Municipalities are required by
97	law to create Source Protection Area (SPA) plans, which ensure that drinking water
98	supplies will remain safe and untainted.
99	For villages and downtowns, water supply and septic systems are vital
100	infrastructures, as they allow communities to create greater population density
101	than would be possible without them. Well-maintained public drinking water
102	infrastructure and septic systems are critical for public health, strong businesses,
103	and a clean environment.
104	Currently, there are 12 wastewater treatment facilities in 9 communities in our
105	Region. The bulk of these systems were originally built in the 1970s and 1980s,
106	with periodic improvements being made in response to aging equipment or
107	increasing demand. As time goes on, the cost of necessary upgrades for these
108	facilities increases.
109	Wastewater treatment facilities suffer from structural defects such as leaking

sewers, as well as decrepit connections that funnel stormwater into combined

111	sewer and stormwater lines—which diminishes the efficacy of wastewater
112	rehabilitation.
113	The majority of the wastewater systems in our Region have sufficient capacity.
114	Given that population growth rates have flattened, it is likely that the design
115	capacity of the systems in most communities will be sufficient, as long as they are
116	maintained.
117	However, new wastewater treatment facilities and/or public water supplies will
118	eventually be necessary in all communities' core areas if they desire to grow,
119	create more housing, or attract businesses. Hartland and Norwich are the largest
120	communities in the TRO Region without wastewater treatment facilities. Fairlee
121	and Strafford both have viable village centers that would benefit, both
122	economically and in overall health, from the ability to concentrate more
123	development within those areas. Municipal plans, per Vermont statute, shall
124	identify and prioritize future capital improvements and major repairs, as well as
125	estimate costs and financing for maintenance and future capacity.
126	Goals, Policies, and Recommendations: Water and Wastewater
127	Systems
128	Goals
129	1. Municipal water and wastewater systems are secure, financially sustainable
130	well-maintained and energy efficient.
131	2. Municipal water supply areas maintain high quality of drinking water for
132	public health.
133	Policies

- Municipalities and private utilities should create capital budgets and reserve
 accounts for utilities and facilities management and operations.
 - 2. TRORC supports proposals to install, upgrade, and improve existing public water supplies and wastewater treatment facilities that serve Regional Growth, Industrial, and Mixed-Use Areas as designated in this Plan, as well as affordable housing projects in Rural Areas.
 - 3. Proposals for upgrades, improvements, or expansion of water and wastewater treatment infrastructure shall not promote sprawl, strip development, and scattered land uses.
 - 4. New hookups must not promote sprawl or strip development.
 - 5. TRORC encourages the location of community water supplies and wastewater treatment facilities primarily in Regional Growth, Industrial, and Mixed-Use Areas; however, systems designed specifically to supply appropriately scaled cluster housing projects in rural areas are consistent with this Plan.
 - 6. Land development within existing or planned Source Protection Areas shall not pose a reasonable threat of contamination to public water supplies.
 - 7. TRORC supports water conservation measures to reduce demand for water and to promote the life span and efficiency of water and wastewater facilities.
 - 8. TRORC supports and encourages installation of community wastewater treatment facilities and/or water supply systems in areas of existing

156		concentrated settlement where conventional on-site septic systems and
157		wells are inadequate for public health and development.
158	9.	New water and wastewater systems should be designed to be energy
159		efficient and secure.
160	10	O.The village areas of Norwich, Hartland, Sharon, Strafford, and Fairlee are
161		the highest regional priorities for new wastewater treatment facilities.
162	Reco	mmendations
163	1.	TRORC will assist communities with the identification and prioritization of
164		future capital improvements and repairs, grant writing, and project
165		management.
166	2.	TRORC will continue to offer capital budgeting services to the towns.
167	3.	Water efficiency programs and codes should be adopted at the state or local
168		level to reduce demand for municipal water systems.
169	4.	TRORC shall seek grant opportunities to map water and wastewater systems
170		throughout the Region.
171	5.	When funding is available, municipal plans should inventory water and
172		wastewater systems to identify current and projected capacity gaps.
173	6.	Municipalities should conduct periodic auditing of all water and wastewater
174		distribution systems to calculate infiltration and losses.
175	C. So	olid Waste
176	All Ve	ermont municipalities, either individually or as part of a solid waste district or
177	an in	termunicipal association, are required by Vermont law to adopt a Solid

178	Waste Implementation Plan (SWIP). The SWIP documents town or district waste
179	management facilities and articulates how solid waste will be managed over the
180	next five years. All solid waste districts and intermunicipal SWIPs must be in
181	compliance with the goals outlined in the statewide 2019 Materials Management
182	Plan (MMP). In addition to being in conformance with the state plan, all SWIPs
183	must be in accordance with any Town or Regional Plan. The TRO Region is served
184	by a total of six waste management districts, as well as one intermunicipal
185	association. The Greater Upper Valley Solid Waste Management District covers a
186	ten-town area, which contains nearly half of the Region's population. The second
187	largest service area by population is within the town of Hartford, which operates
188	the <u>Hartford Community Recycling Center</u> . The third largest waste management
189	district by population is the White River Alliance, which covers eight of the
190	Region's towns.
191	As of 2023, there are 25 active solid waste facilities throughout our Region that
192	have been certified by the State. Presently, the Region has 7 recycling facilities, 4
193	composting facilities, and 11 transfer stations (see map). A third of the Region's
194	towns lack any waste management facility and are instead reliant on their
195	neighboring municipalities for waste disposal. In some instances, these towns
196	find themselves two to three towns removed from a landfill or transfer station.
197	There are no operating landfills in the region.

Goals, Policies, and Recommendations: Solid Waste

Goals

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- 200 1. Solid and hazardous waste generation in the TRO Region is reduced.
 - 2. Reuse, recycling, and composting in the TRO Region is increased.

202 **Policies**

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- Solid waste collection systems should be coordinated to lessen costs and
 increase efficiency.
- 205 2. Products that are fully recyclable are encouraged to be recycled.

Recommendations

- TRORC will continue to assist member towns, alliances, and the Greater Upper Valley Solid Waste Management District in the update and implementation of municipal and regional solid waste plans.
- TRORC will support and participate in any future discussions regarding the development of regional waste management services.
 - TRORC should assist towns in meeting the Universal Recycling Law requirements through outreach and education, with assistance from the Agency of Natural Resources.
 - 4. All towns or districts of this Region are encouraged to contact TRORC offices regarding their current planning activities and determine if their SWIP revisions meet the overall goals and policies of this Plan.

218 D. Educational Facilities and Services

- 219 Access to quality education is required to achieve social and economic goals of
- 220 the TRO Region. According to Vermont statute, the right to public education is key
- 221 to guaranteeing political and civil rights to constituents. Indeed, "to keep
- 222 <u>Vermont's democracy competitive and thriving, Vermont students must be</u>
- 223 afforded substantially equal access to a quality basic education."

224	Elementary and Secondary Schools
225	All public schools in the Region are governed by a district school board elected by
226	the voters of their respective municipalities, and administrative support to the
227	district board is received from supervisory unions. Some school districts and
228	municipalities accept, on a year-to-year basis, tuition-paying students from
229	neighboring communities that do not provide elementary or secondary education,
230	or that lack adequate facilities.
231	Declining enrollments have brought staffing, programmatic, and financial planning
232	challenges to schools throughout the Region, resulting in the closure of some
233	schools.
234	Sustained levels of decline may have adverse social and economic impacts for
235	towns in the TRO Region, and are, therefore, an area of vigilance and concern for
236	the future well-being of the Region. A table of schools in the Region and their
237	average daily enrollment can be found on the <u>Vermont Department of Education</u>
238	website.
239	While homeschooled children do not require educational provisions from school
240	districts, there are actions that towns and local organizations should consider for
241	the wellbeing of these children.
242	Poverty and Education
243	The Region's school system provides a major avenue of support for children living
244	in poverty, as it may be the main source of food for children in this condition.
245	Children who are homeless have the same right of access to a free public
246	education that other children do. Many students may not be classified as

homeless but may be staying with friends and family members, or be housed in a
motel. The summer, when school is out, is concerning for those that are homeless
and living in poverty, as schools can be the main source of food for children who
are homeless and living in poverty.

Vocational Training and the Region's Youth

- Educational opportunities that support the acquisition of professional skillsets allow students to better understand and prepare for valuable local employment sector opportunities. Many trades are an integral part of our economy and can supply a good living wage. Providing opportunities for the Region's youth to see, experience, and learn about local jobs may serve as an incentive, convincing many youths to stay in our communities well beyond high school. In our region, there are currently three vocational schools:
- River Bend Career and Technical Center in Bradford
- Randolph Technical Career Center
- Hartford Area Career & Technology Center
 - Both students and prospective employers from local enterprises stand to benefit substantially from networks formed between students and the working world, both within and outside of the traditional classroom. These connections serve as an enriching supplement to traditional academic course offerings.

Adult Education

The availability of education services for <u>adult learners</u> is critical to the social and economic well-being of the Region and its residents. The adult learning

269	centers in the region offer classes free of cost to adults in basic skills, General
270	Educational Development (GED) certification, English as a second language,
271	college transition skills, and work readiness skills, including WorkKeys (ACT)
272	certification. For instance, The Family Place is a family support center that offers
273	courses to young mothers with the aim of helping them earn their GED and
274	acquire basic employment skills.
275	The Agency of Education funds three adult learning centers in the region:the
276	<u>Vermont Adult Learning Center</u> in Hartford and the two <u>Central Vermont Adult</u>
277	Basic Education Centers in Randolph and Bradford. Both of the Community Action
278	Agencies covering the TRO Region (Southeastern Vermont Community Action and
279	<u>Capstone Community Action</u>) have adult education and job skills programs.
280	Capstone Community Action has two locations in our Region: Bradford and
281	Randolph. Southeastern Vermont Community Action's physical location is in
282	Westminster, with an additional office in White River Junction. Other than these
283	options, participants are required to travel outside the Region for these
284	educational opportunities. This is a limiting factor to the Region's lower-income
285	residents who wish to use these services.
286	Continuing Education
287	As Vermont's senior population significantly increases, and adults of all ages
288	continue to seek learning opportunities for economic or personal reasons, the
289	State will be confronted with the need for both new educational and recreational
290	activities. Currently, residents can enroll in the following institutions:
291	Artistree in Pomfret

• Vermont Law and Graduate School in South Royalton

Vermont State University in Randolph

294	Dartmouth College in Hanover, NH
295	Riverbend Career and Technical and Oxbow High School in Bradford
296	Bethel University in Bethel
297	Community College of Vermont in Wilder
298	The Future of Education in the Region
299	Many of our Region's communities have a school. Schools are often seen as the
300	center of a community, or at the very least, a location that brings the
301	townspeople. Unfortunately, declining enrollments and an aging population have
302	made the traditional model of "one school in every town" less sustainable. The
303	cost of publicly educating children places a significant financial strain on many
304	municipalities. As a result, many communities continue to work on ways that they
305	can collaborate together to decrease costs and maintain the quality of education
306	desired by everyone.
307	Ensuring all students have access to high-speed Internet will extend our students'
308	academic offerings beyond the brick-and-mortar classroom setting and put
309	students on an equal footing with those from more developed regions of the
310	nation. Lack of access to high-speed Internet in portions of the Region can hinder
311	access to education materials.
312	With the adoption of Act 46 in 2015, many schools in the Region began
313	consolidating with other districts Several communities have either closed or
314	merged their schools with other communities. If the trend toward smaller classes
315	and fewer children in many towns continues, more communities will need to
316	engage in these consolidation discussions.

317	Considering the cost of repairs is also important when determining whether
318	schools ought to be consolidated. In the event that communities choose to close
319	or merge schools, how to manage vacant infrastructure should be part of the
320	discussion.
321	For many communities, the closure of a school can present new opportunities;
322	because schools are often located within villages or town centers, they can
323	become prime locations for reuse in areas that are otherwise built up. Possible
324	options for reuse of existing school buildings could include:
325	Town offices and other municipal services
326	 Inclusive, mixed age and income housing opportunities
327	Senior centers
328	Light industrial development
329	Business incubators or office parks
330	Goals, Policies, and Recommendations: Educational Facilities
331	and Services
332	Goals
333	1. Accessible and affordable educational facilities and services are available
334	throughout the Region that meet or exceed statewide standards, including
335	life-long learning opportunities.
336	2. Students have access to quality vocational and workforce training
337	opportunities to prepare them for future careers.
328	Policies

- The construction of primary educational facilities should occur in or within
 close proximity to existing or planned Regional Growth and Mixed-Use
 Areas, so as to maximize their accessibility to people and infrastructure.
 - 2. Expansion of continuing education and vocational education opportunities is encouraged.

Recommendations

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- Town and school authorities should create and maintain safe pedestrian access and transit opportunities to educational facilities, in line with Safe Routes to School efforts.
- 2. Towns must assess and incorporate the needs of disabled children and staff into educational facility and budgetary planning efforts to ensure the provision of free and appropriate education for all children.
- 3. Towns should consider adaptive reuse of vacant school facilities that occurs in a manner that enhances villages and downtowns and stimulates the local economy.
- 4. Towns should consider applying for funding opportunities enhancing educational facilities as early as possible (i.e., a year in advance) in order to request help from TRORC, if needed.

E. Childcare Services

The availability of high-quality and affordable childcare is an important factor in the appeal and sustainability of our Region. For example, the childcare industry contributes to the regional economy as a business and employer in its own right.

361	It also functions as a service industry that provides crucial support to employers
362	and employees. Without access to affordable, high-quality childcare, one parent
363	would likely leave the labor force to care for young children. Good quality
364	childcare helps prepare children for schooling or may even supplement a child's
365	school curriculum, and it provides them with opportunities for socialization.
366	According to the 2020 U.S. Census, approximately 53,000 people live in the TRO
367	Region. The number of children aged 0-14 is a relatively small percentage of the
368	Region's population: just over 15 percent, or 12,445 individuals. As of 2020, there
369	are 101 registered and licensed childcare providers; to see the locations of
370	providers and the types of programs they provide, please visit Bright Future's
371	Childcare Information System.
372	Afterschool programs and summer camps provide childcare options for parents
373	with children old enough to attend public or private school full time. Both help to
374	keep children engaged in enriching activities, while also allowing parents to feel
375	comfortable that their children are safe if they are working past school hours or
376	during summer vacation. According to the 2020 VermontAfter 3 PM study,
377	statewide there are approximately 19,000 children who are participating in
378	afterschool programs and 26,000 children who are not because of financial
379	constraints and lack of available programs in their communities.
380	Barriers associated with childcare in Vermont include inadequate amount of
381	infant/ toddler care available, complicated application forms, and insufficient
382	financial assistance to cover the cost of high-quality services (despite receiving
383	financial help from some childcare providers). Searching for childcare is often
384	difficult for parents in the Region, as the availability of childcare providers,

385	especially for infant and school-age children, is limited. To learn more about
386	other obstacles to childcare services that caretakers commonly experience,
387	visit Vermont's Early Childhood Systems Needs Assessment 2020.
388	To address the workforce needs of childcare providers, there are a few vocational
389	schools in the Region that have training programs that teach students to care for
390	infants and preschool-age children. One vocational school to offer such a program
391	is the River Bend Career and Technical Center in Bradford in their " <u>Teacher</u>
392	Education" curriculum. The Randolph Technical Career Center has a similar
393	program in their "Education Services" curriculum. CCV offers a degree in
394	Education, along with several other related degrees, and an option to obtain a
395	certificate. In addition, there is ongoing professional development offered
396	through Northern Lights at CCV for those who are in the field and seek training or
397	additional qualifications.
398	To help families pay for childcare, the State of Vermont provides financial
399	assistance through the <u>Vermont Childcare Financial Assistance Program (CCFAP)</u> .
400	Vermont's CCFAP helps families who meet certain work, education, and income
401	requirements afford childcare. The program also provides childcare financial
402	assistance for children in foster care and children and families who meet certain
403	health criteria.
404	Given the high costs of childcare, it can be difficult for low- to moderate income
405	families to afford placing their children in childcare. As a consequence of this
406	situation, a family member may decide to provide care for the child or children
407	instead of working and supplementing the family income.

408	Out of approximately 32,000 households in the TRO Region, 1,704 of them are
409	classified as "single head-of-household" with children 18 years old or younger. It is
410	very important for single parents to find childcare so that they are able to work
411	and provide for their families. The parent may have another family member or
412	trusted adult care for their child or children while at work, or they may seek out a
413	childcare provider. Women are often the ones filling the role of the primary
414	caregiver for young children. A national statistic states that out of all women
415	between the ages of 25-44 who are not participating in the workforce, about a
416	third are not working due to childcare (compared to 12% of men for the same
417	reason).
418	Let's Grow Kids is a statewide campaign looking for more high-quality, affordable
419	childcare in Vermont to better support our children, families, women,
420	communities, and economy. More than 70 percent of Vermont children under age
421	6 have both of their parents in the labor force, meaning they're likely to need
422	care. Yet half of those infants and toddlers don't have access to any regulated
423	care, and nearly 80 percent don't have access to high-quality programs. This has
424	a negative ripple effect on our businesses, schools, communities, health-care
425	system, and economy as a whole.
426	In our Region, there have been two major reports that focus on childcare. The
427	Blue-Ribbon Commission on Financing Childcare, published in 2016, looked into
428	the real cost of childcare and found that "the estimated cost of high-quality early
429	care and learning is currently unaffordable for almost 90% of Vermont families."
430	The second report was <u>Stalled at the Start</u> , published in 2022 and produced by
431	Let's Grow Kids, which analyzed the supply and demand of childcare.

132	One available program that could benefit families is the Childcare Financial
133	Assistance Program (CCFAP). This is a government program that helps eligible
134	families cover some of the cost of childcare. There is also a federal scholarship
135	program for childcare center teachers that are trying to earn
136	credentials/degrees. Through the <u>T.E.A.C.H. Early Childhood Vermont program</u> ,
137	up to 80 percent of tuition can be covered, along with other benefits.
138	Goals, Policies, and Recommendation: Childcare Services
139	Goals
140	1. An adequate supply of safe and affordable childcare services and facilities is
141	available.
142	2. A regional network of high-quality childcare programs fulfills the needs of
143	families and employers.
144	Policy
145	1. TRORC supports initiatives to develop childcare facilities where a need has
146	been proven and the location conforms to this Regional Plan.
147	Recommendations
148	1. TRORC should encourage major employers (employing more than 35
149	employees) to provide childcare services and create a partnership with a
150	local childcare service.
151	2. TRORC should work collaboratively with childcare providers and towns to
152	help them locate childcare services in convenient and safe areas.

453	3. TRURC should work with towns to address identified needs for childcare
454	facilities or services by:
455	a. Identifying publicly owned buildings throughout the Region; and
456	b. Evaluating and prioritizing their suitability to serve as childcare
457	facilities after considering Vermont regulations.
458	4. Towns should review their zoning regulations (if adopted) to determine the
459	ability of the regulations to allow childcare providers to be located in the
460	town.
461	F. Telecommunications
462	Information technology (such as broadband Internet and wired/wireless
463	telecommunications) has become essential to residents and businesses in the
464	Region. Our economy, educational systems, and functionality of our homes rely
465	on ubiquitous availability of data and communications for our Region.
466	In the 2021 Vermont Ten-Year Telecommunications Plan, the Public Utilities
467	Commission set the following goals:
468	Bringing every currently unserved and underserved on-grid Vermont
469	home access to 100/100 megabits per second (Mbps) broadband that can
470	be scalable to faster speeds as demand warrants
471	 Leveraging residential fiber deployments into better mobile voice
472	coverage along key roadways and in small communities
473	 Ensuring that telecommunications systems are resilient, redundant,
474	secure, and futureproof for commercial, consumer, and public safety
4 75	needs

476	•	Facilitating competition and choice of multiple internet service providers
477		at the majority of premises in the state

- Promoting local input and oversight in the direction of future use for publicly funded broadband infrastructure through empowered regional Communication Union Districts
- Leveraging fiber broadband expansion to ensure public safety has access to reliable and redundant communications capacity

In the TRO Region, access to broadband is provided via a number of mediums, including cable, DSL (digital subscriber line), fiber-optic cable, cellular, wireless, and satellite. This access varies from town to town, with the highest concentration of availability being in villages and downtowns. Broadband providers tend to locate their infrastructure in areas with high population density to maximize the subscriber-to-infrastructure ratio. The farther away from a community center, the fewer options for broadband connectivity; this makes the "last mile" homes and businesses the least likely to have access.

Efforts to improve broadband coverage in the TRO Region are ongoing. Between 2000 and 2012, the State of Vermont invested a substantial amount of funding in an effort to bring broadband to all Vermonters. One such project was the Vermont Digital Economy Project (VDEP), which was developed as part of the State's goal to create more resilient communities after Tropical Storm Irene in 2011 by delivering 26 free Wi-Fi zones/hotspots and pursing other prominent projects that expanded digital literacy in rural towns. Similar in scope, the VT

Community Broadband Board (VCBB), was established in 2021 in order to

499	"accelerate the development and implementation of universal community
500	broadband solutions" all throughout Vermont.
501	In our Region, VDEP has built free village Wi-Fi zones in the communities of
502	Bethel, Royalton, and Rochester. These investments provide residents who lack
503	access in their homes with a reliable place to connect to the Internet. In East
504	Barnard, there is also a community-funded Wi-Fi zone for residents. Village-
505	wide access is a boon to businesses who can take advantage of the additional
506	customers who are drawn to the village for Internet access. To see Wi-Fi
507	coverage across our Region and Vermont, visit <u>Vermont Department of Public</u>
508	Service's interactive map showing Wi-Fi hotspots.
509	The East Central Vermont Fiber-Optic Network (EC Fiber) is a consortium of 24
510	towns (including 21 TRO Region towns) that is working to expand access to
511	high-speed Internet. Major cellular providers are continually working to expand
512	coverage, particularly along major transportation corridors, such as Interstates
513	89 and 91.
514	Use of cellular phones in day-to-day activities has skyrocketed over the past
515	decade. The availability of broadband cellular data has increased the use of
516	cellular phones to the point that they are essential to businesses and
517	individuals alike. In fact, most U.S. households no longer have a "landline"
518	phone. The lack of cell coverage is a major deterrent to both attracting
519	businesses and younger families.
520	Cellular access is determined in great part by topography in relation to the
521	placement of cellular transmission towers. While coverage in the TRO Region is
522	reasonably good along main travel corridors, it is spotty in more rural areas. In

523	some instances, there are entire communities (such as Barnard) that have virtually
524	no cellular access. In many cases, residents support improved cell phone access,
525	but are less supportive of having the necessary facilities located in their
526	communities. When residents object to proposed facilities, it is almost always due
527	to the potential for aesthetic impacts.
528	Wireless telecommunications facilities are primarily permitted under <u>Section</u>
529	248a. The 248a process was created to enable a faster permitting process in order
530	to achieve greater wireless coverage, and it specifically exempts projects that
531	achieve this wireless coverage from local zoning or Act 250.
532	Under the Section 248a permitting process, the Public Utility Commission must
533	review the environmental, economic, and social impacts associated with a
534	particular project prior to issuing a <u>Certificate of Public Good</u> . The project is
535	reviewed against the Act 250 criteria and both Regional and Town Plans, and even
536	relevant parts of zoning that would otherwise apply, are accorded "substantial
537	deference" in such reviews, "unless there is good cause to find otherwise". Even
538	when substantial deference is not granted, the 248a process must give due
539	consideration to the recommendations of municipal planning commissions,
540	selectboards, and regional planning commissions based on their respective plans.
541	Accordingly, it is appropriate that this Plan address these land uses and provide
542	guidance to town officials, regulators, and providers.
543	Transmission towers are necessary telecommunications facilities, but as land
544	uses, these towers have planning concerns, primarily for aesthetic reasons. To
545	ensure adequate transmission of signals in mountainous areas such as ours,
546	towers and related facilities need to be located on hilltops or high elevation

547	points. These areas are also significant contributors to the scenic and rural
548	character of the Region. Protection of these areas from insensitive
549	developments is a matter of public good. Thus, due to transmission towers'
550	higher visibility from multiple vantage points, conflict with scenic landscapes
551	has become an issue.
552	Goals, Policies, and Recommendations: Telecommunications
553	Goals
554	1. Universal broadband access using fiber is available throughout developed
555	areas in the TRO Region.
556	2. Universal availability of mobile cellular service is available throughout
557	developed areas in the TRO Region.
558	Policies
559	1. Public and private efforts to expand telecommunications access are
560	supported, when done in a manner that does not have an undue adverse
561	impact on the rural character of our communities.
562	2. Efforts to provide free public broadband access in places such as village
563	centers and public buildings are supported.
564	3. Telecommunications facility development shall be excluded from the
565	following areas:
566	a. Floodways shown on FEMA Flood Insurance Rate Maps.
567	b. Wetlands as indicated on Vermont State Wetlands Inventory maps or
568	identified through site analysis.

569		c. Rare, threatened, or endangered species habitat or communities.
570	4.	All new telecommunications facilities and related infrastructure must be
571		sited and designed to avoid or, if no other reasonable alternative exists, to
572		otherwise minimize and mitigate adverse impacts to the following:
573		a. Historic districts, landmarks, and sites.
574		b. State or federally designated scenic byways and municipally
575		designated scenic roads and viewsheds.
576		c. Special flood hazard areas identified by National Flood Insurance
577		Program maps.
578		d. Necessary wildlife habitat identified by the State or through analysis,
579		including core habitat areas, migration, and travel corridors.
580	5.	New telecommunications facilities and related infrastructure (including
581		access roads, site clearing, on-site power lines, lighting, and off-site power
582		lines) must be sited to avoid the fragmentation of large priority and high
583		priority forest blocks.
584	6.	Telecommunications facilities development shall minimize site clearing and
585		highly visible roadways.
586	7.	The developer shall make reasonable efforts to minimize the aesthetic
587		impact of the telecommunications facility or infrastructure on the
588		surrounding landscape. This includes options such as the utilization of
589		"stealth towers," camouflage through paint scheme, or designs that blend
590		into the surroundings, such as asymmetrical monopoles disguised as pine
591		trees.

592 8. Telecommunications facilities shall be designed to be the minimum height 593 necessary to achieve coverage. 594 9. All new facilities shall incorporate reasonable options for sharing space on 595 the proposed towers. Applicants for new towers must demonstrate that 596 there is no reasonable opportunity for colocation on existing towers. 597 10. To support resiliency, applicants shall make space available on towers for 598 municipal communication systems to enhance or expand road and 599 emergency service communication networks. 600 11. To minimize conflict with scenic values, facility design and construction shall 601 employ the following principles: 602 a. In rural locations, be located in forested areas or be sufficiently 603 landscaped to screen the lower sections of towers and related ground 604 fixtures from public vantage points, such as trails, roads, or water bodies. 605 606 b. In more developed areas, utilize materials, architectural styles, color 607 schemes, lighting fixtures, size, and other design elements to 608 promote aesthetic compatibility with surrounding uses and to avoid 609 adverse visual impacts; and 610 c. Be located downgrade of the ridge so as not to exceed the elevation 611 of the tree line as seen from public highways. 612 12. Consideration shall be given to the environmental limitations of any given

site. Impacts on wildlife habitats, soil erosion, forestry and agricultural

514	lands, and similar resources should be carefully addressed. Projects that
615	materially impact these resources are discouraged.
616	13. The clearing of land associated with site development for tower and facility
617	construction shall not negatively impact the scenic views present.
618	14. Towers or facilities that are designed to resemble trees or natural features
619	shall not be placed unnaturally higher than the tree line.
620	15. Permits must require removal of facilities that are no longer used.
621	Recommendations
622	1. TRORC should continue to participate actively in Section 248a permitting
623	process.
624	2. Communities should seek out funding to implement new or sustain existing
625	Wi-Fi zones in villages and downtowns.
626	3. The State should continue to support programs that achieve universal
627	broadband and cellular communication access.
628	G. Municipal Buildings and Properties
629	Towns own a variety of public buildings, and every town has a town office
630	building. Nearly every town has a town hall where they hold town meetings and
631	other events. Sometimes, town offices are also located in this building. Towns
632	with their own road crews also own town garages, some of which are woefully
633	inadequate for their function, and are sites for salt and sand storage. Some towns
634	own their own sand and gravel pit, but most contract this function out. Nearly all
625	of the town halls and offices are in older structures, many of which need

636	substantial maintenance or improvements, but several have been renovated to
637	create better working space and improve energy efficiency. Town offices, like
638	other civic functions, help to create a sense of community and give energy and
639	importance to town and village centers.
640	Public libraries play an important role in providing materials to inform,
641	challenge, and inspire the Region's residents, as well as Wi-Fi hotspots and
642	computer access. In some towns, public libraries are privately owned
643	entities that still provide an essential public service to residents.
644	Goal, Policies, and Recommendations: Municipal Buildings and
645	Properties
646	Goal
647	1. The Region has adequate municipal buildings to serve town needs.
648	Policies
649	2. Town buildings must be carefully sited and designed to meet the future
650	energy efficiency needs of the town and built with both construction and
651	operating costs in mind.
652	3. Towns are encouraged to rehabilitate historic buildings that are located in
653	existing developed areas for their offices.
654	4. The State shall only construct new office buildings in Regional Growth
655	Areas.

Recommendations

657	 Towns should assess expected maintenance and upgrades for town
658	buildings and create reserve funds to cover these so that these buildings
659	remain in good condition.
660	2. TRORC should assist towns with planning, public dialogue, and grant
661	writing, if requested, when considering, constructing, or renovating
662	buildings so that they meet community needs and are located wisely.
663	3. The State must consider effects on the Region and our towns if they are
664	considering siting new buildings so they fit well with the Region's needs.
665	H. Recreational Facilities
666	Many recreational opportunities are available to the Region's residents and
667	visitors. These range from organized, structured prospects at state and federal
668	parks to more informal opportunities in municipal parks and forests.
669	The Region has one national park—the Marsh-Billings-Rockefeller National Historic
670	<u>Park</u> in Woodstock. Associated with the Park is the privately owned <u>Billings Farm</u>
671	and Museum, which offers farm educational programs. The western part of our
672	Region is also home to a portion of the Green Mountain National Forest and the
673	Long Trail corridor. The Appalachian Trail corridor goes through the central part of
674	the Region. Additionally, outdoor recreation opportunities are available at the
675	Saskadena Six ski area, many rivers and lakes, public and private forests, and Class
676	4 roads. Indoor recreational opportunities include ice rinks, the Upper Valley
677	Aquatic Center, and the Montshire Museum of Science.
678	Several state parks can be found in the Region, including the <u>Calvin Coolidge</u>
679	Historic Site in Plymouth, the Quechee Gorge State Park, and several other

680	historical sites. The Department of Forests, Parks and Recreation, and the
681	Department of Fish and Wildlife also have several state forests, wildlife
682	management areas, and lake or river access points that offer additional outdoor
683	recreational opportunities.
684	Several towns also offer town recreation programs through their recreation
685	departments. These may include ski programs in conjunction with local schools in
686	the winter, camps and track and field programs in the summer, and various events
687	year-round. These recreation departments may also manage a modest network of
688	town parks.
689	Many towns also have excellent trail networks linked to their road networks, and
690	portions of these networks include Class 4 roads and trails.
691	The Region's rivers and lakes offer opportunities for swimming, and boating, and
692	fishing, all of which require public access areas for parking or boat launching.
693	Scenic waterfalls, cascades, and gorges are also destinations for tourists and
694	residents. There is a need for access areas to water resources in the Region.
695	Only 13 percent of all land in Vermont is owned by state or federal agencies,
696	which means many of the outdoor recreational resources in the Region rely on the
697	willingness of landowners to allow access to private land. Several large private
698	landowners allow access to their land.
699	Goal, Policies, and Recommendations: Recreational Facilities
700	Goal
701	1. The Region is home to a variety of indoor and outdoor recreational
702	opportunities.

703 **Policies**

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- The maintenance and development of recreation trail networks (e.g.,
 Appalachian and Long Trails, Cross Vermont and Cross Rivendell Trails,
 regional and state snowmobile networks, and cross-country ski trails) is
 encouraged.
 - New development and land subdivisions that have an undue adverse impact on the enjoyment or continued use of recreational uses should be discouraged.
 - 3. Consistent with private property rights, maintenance and enhancement of public access to and use of recreational amenities on privately held land are encouraged.
 - 4. Where development interacts with the Appalachian or Long Trails and other related side trails, design plans and construction must maintain the predominant scenic character and the primitive qualities of the trail corridor.
 - 5. TRORC supports the development of multipurpose trails using abandoned railroad beds and other public rights-of-way.
 - 6. TRORC encourages federal, state, and local acquisition of land and facilities well-suited for outdoor recreation, provided that adequate financial and management plans and arrangements are made with involved local governments.

Recommendations

725	1. TRORC will assist communities with the establishment of Conservation
726	Commissions and will support existing Conservation Commissions when
727	possible.
728	2. TRORC will help towns develop highway policies that address recreation
729	needs and should encourage the adoption of walkable communities
730	programs within the Region.
731	3. TRORC will assist towns with establishing and managing town forests.
732	4. TRORC should work with the State, White River Partnership, the Vermont
733	River Conservancy, and other groups on increased river access.
734	5. TRORC will continue to assist towns with their efforts to improve public
735	access to outdoor recreational opportunities, while ensuring consistency
736	with local and regional land use plans.
737	I. Opportunities for Shared Services/Infrastructure
738	As is the case in much of Vermont, our Region is generally low-density with a
739	limited population as compared to more urban locations.
740	Opportunities exist in our rural communities, as well as in our more urban
741	downtowns, for inter-municipal cooperation. State statute enables communities
742	to join into inter-local contracts or union municipal districts for the purposes of
743	performing "any governmental service, activity, or undertaking which each

municipality entering into the contract is authorized by law to perform." TRORC

examples among communities include shared police services and municipal aid

also now can provide a mechanism for shared services; common existing

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747	agreements. Communities may also share staff or equipment. Under certain forms
748	of cooperative agreements, they may purchase property together. Engaging in
749	well-planned and well-organized cooperative efforts can ensure that services are
750	provided more efficiently and more effectively.

751 Goal, Policy, and Recommendation: Shared Services and

Infrastructure

753 **Goal**

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1. Shared services and infrastructure are provided efficiently and effectively.

755 **Policy**

 TRORC encourages communities to seek opportunities for shared staffing, services, and infrastructure with other municipalities to reduce costs and improve quality of service.

Recommendation

 TRORC will assist communities with the development of inter-local agreements, union municipal districts, and other cooperative agreements whenever possible.