

09

Utilities, Facilities, and Services

A. Background

The communities in our Region depend on a system of public, nonprofit, and private utilities, facilities, and services. These are needed to maintain the health and welfare of our citizens, as well as support a sound economy.

While TRORC does not have a direct role in maintaining these systems, it does have the ability to provide municipalities with guidance and technical assistance to achieve regional and local planning goals. Compact land use patterns generally improve the efficiency of wastewater and water supply systems, roads,

transit, and emergency services. Conversely, sprawling development leads to an expansion of infrastructure and services to new areas and is generally inefficient. Nearly all services and facilities benefit from greater density and intensity of land development within a given area.

Achieving Vermont's land use goal, [“to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside”](#)¹ is nearly impossible without public sewer, or at least water. Continued increases in density and development in our villages is unsustainable without water and wastewater facilities.

Bridgewater Fire Station | © Kevin Geiger, TRORC

Long-range planning for such infrastructure investments and their maintenance, as well as town buildings, roads, and emergency resources is essential to avoid jumps in annual tax rates. Therefore, state statutes enable communities to create a [Capital Improvement Plan \(CIP\)](#)² 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 sufficient 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 will protect against loss of service.

B. Water and Wastewater Systems

The TRO Region is largely a rural region, with most of the water supply handled through individual on-site wells. Only a fraction of municipalities has public water systems, and in those municipalities, the systems serve a limited area—generally downtown or village areas. Many of the supply lines need repairs or upgrades. Some systems suffer from inadequate storage or from poor line pressure. Many systems have poorly mapped lines due to their age (50 to 100 years old). Municipalities are required by law to create [Source Protection Area \(SPA\)](#)³ plans, which help ensure that drinking water supplies will remain safe and untainted.

Threats to water supply include fuel spills, leaking underground tanks, high amounts of natural contaminant sources such as arsenic, and chemicals known as per- and polyfluoroalkyl substances (PFAS). PFAS does not break down in nature and cause [devastating effects on our health](#)⁴. Currently, the Vermont Agency of Natural Resources has created a [PFAS Road Map](#)⁵ (2023) that helps town and state officials track public exposure of PFAS. While the EPA does not currently have a maximum contamination level (MCL) for PFAS, the Department of Environmental Conservation has set a limit of 20 ng/L for drinking water.

The best way to know whether there are contaminants in your water is to test your water. The Vermont Department of Health recommends

that residents with private water sources should test their water regularly. To learn more about testing both private and public water sources, please contact certified Vermont laboratories found on ANR's website [here](#)⁶.

Currently, [there are 12 wastewater treatment facilities in 9 communities in our Region](#)⁷. The bulk of these systems were originally built in the 1970s and 1980s, with periodic improvements being made in response to aging equipment or increasing demand. As time goes on, the cost of necessary upgrades for these facilities increases.

Wastewater treatment facilities suffer from structural defects such as leaking sewers, as well as decrepit connections that funnel stormwater into combined sewer and stormwater lines—which diminishes the efficacy of wastewater treatment.

The majority of the wastewater systems in our Region have sufficient capacity. Given that population growth rates have flattened, it is likely that the design capacity of the systems in most communities will be sufficient, as long as they are maintained.

Like water supply, waste is largely handled on site with private systems. For villages and downtowns, water supply and septic systems are vital infrastructures, as they allow communities to create greater population density than would be possible without them. Well-maintained public drinking water infrastructure and septic systems are critical for public health, strong businesses, and a clean environment.

New wastewater treatment facilities and/or

public water supplies will eventually be necessary in all communities' core areas if they desire to grow, create more housing, or attract businesses. Hartland and Norwich are the largest communities in the TRO Region without wastewater treatment facilities. Fairlee and Strafford both have viable village centers that would benefit, both economically and in overall health, from the ability to concentrate more development within those areas. Municipal plans, per Vermont statute, shall identify and prioritize future capital improvements and major repairs, as well as estimate costs and financing for maintenance and future capacity.

C. Solid Waste

All Vermont municipalities, either individually or as part of a solid waste district or an intermunicipal association, are required by Vermont law to adopt a [Solid Waste Implementation Plan \(SWIP\)](#)⁸. The SWIP documents town or district waste management facilities and articulates how solid waste will be managed over the next five years. All solid waste districts and intermunicipal SWIPs must be in compliance with the goals outlined in the statewide 2019 [Materials Management Plan \(MMP\)](#)⁹. In addition to being in conformance with the state plan, all SWIPs must be in accordance with any Town or Regional Plan. The TRO Region is served by a total of [six waste management districts](#)¹⁰, as well as one intermunicipal association. [The Greater Upper Valley Solid Waste Management District](#)¹¹ covers a ten -town area, which contains nearly half of the Region's population. The second largest service area by population is within the town of Hartford, which



operates the [Hartford Community Recycling Center](#)¹². The third largest waste management district by population is the [White River Alliance](#)¹³, which covers eight of the Region’s towns.

In 2023, there were 25 active solid waste facilities throughout our Region that have been certified by the State. Presently, the Region has 7 recycling facilities, 4 composting facilities, and 11 transfer stations. A third of the Region’s towns lack any waste management facility and are instead reliant on their neighboring municipalities for waste disposal. In some instances, these towns find themselves two to three towns removed from a landfill or transfer station. There are no operating landfills in the region.

D. Educational Facilities and Services

Access to quality education is required to achieve social and economic goals of the TRO Region. According to Vermont statute, the right to public education is key to guaranteeing political and civil rights to constituents. Indeed, “[to keep Vermont’s democracy competitive and thriving, Vermont students must be afforded substantially equal access to a quality basic education](#)¹⁴.”

Elementary and Secondary Schools

All public schools in the Region are governed by a district school board elected by the voters of their respective municipalities, and administrative support to the district board is received from supervisory unions. Some school districts and municipalities accept, on a year-to-year basis, tuition-paying students from neighboring communities that do not provide elementary

or secondary education, or that lack adequate facilities.

Declining enrollments have created staffing, programmatic, and financial planning challenges for schools throughout the Region, resulting in the closure of some schools. Sustained levels of enrollment decline may have adverse social and economic impacts for towns in the TRO Region, and are, therefore, an area of vigilance and concern for the future well-being of the Region.

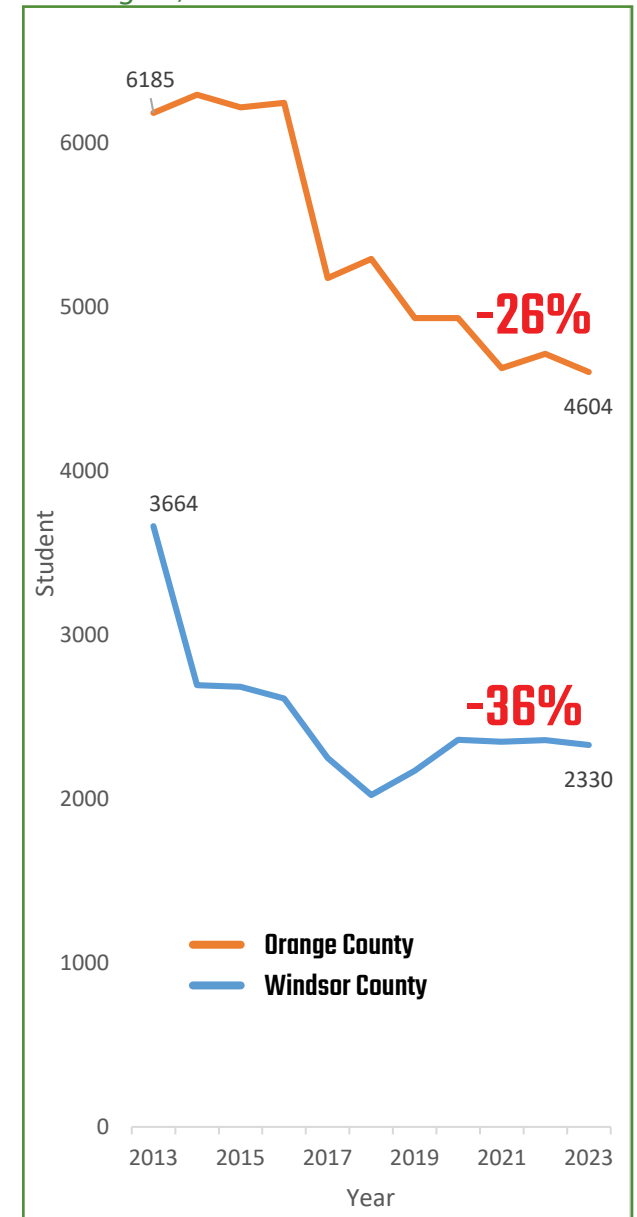
A table of schools in the Region and their average daily enrollment can be found on the [Vermont Department of Education website](#)¹⁵.

While homeschooled children do not require educational provisions from school districts, there are actions that towns and local organizations should consider for the wellbeing of these children.

Poverty and Education

The Region’s school system provides a major avenue of support for children living in poverty, as it may be the main source of food for children in this condition. Children who are homeless have the same right of access to a free public 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.

Figure 9-1: School Enrollment Figures for the TRO Region, 2013-2023



Source: Vermont Department of Education



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](#)¹⁶
- [Randolph Technical Career Center](#)¹⁷
- [Hartford Area Career & Technology Center](#)¹⁸

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 [adult learners](#)¹⁹ is critical to the social and economic well-being of the Region and its residents. The adult learning centers in the region offer classes free of cost to adults in basic skills, General Educational Development (GED) certification, English as a second language, college transition skills, and



Testing Water Quality | Source: Community College of Vermont

work readiness skills, including WorkKeys (ACT) certification. For instance, The Family Place is a family support center that offers courses to young mothers with the aim of helping them earn their GED and acquire basic employment skills.

The Agency of Education funds three adult learning centers in the region: the [Vermont Adult Learning Center](#)²⁰ in Hartford and the two [Central Vermont Adult Basic Education Centers](#)²¹ in Randolph and Bradford. Both of the Community Action Agencies covering the TRO Region ([Southeastern Vermont Community Action](#)²² and [Capstone](#)

[Community Action](#)²³) have adult education and job skills programs. Capstone Community Action has two locations in our Region: Bradford and Randolph. Southeastern Vermont Community Action's physical location is in Westminster, with an additional office in White River Junction. Other than these options, participants are required to travel outside the Region for these educational opportunities. This is a burden to the Region's lower-income residents who wish to use these services.



Continuing Education

As Vermont’s senior population significantly increases, and adults of all ages continue to seek learning opportunities for economic or personal reasons, the State will be confronted with the need for both new educational and recreational activities. Currently, residents can enroll in the following institutions:

- [Artistree in Pomfret](#)²⁴
- [Vermont Law and Graduate School in South Royalton](#)²⁵
- [Vermont State University in Randolph](#)²⁶
- [Dartmouth College in Hanover, NH](#)²⁷
- [Riverbend Career and Technical and Oxbow High School in Bradford](#)²⁸
- [Bethel University in Bethel](#)²⁹
- [Community College of Vermont in Wilder](#)³⁰

The Future of Education in the Region

Many of our Region’s communities have a school. Unfortunately, declining enrollments and an aging population have made the traditional model of “one school in every town” less sustainable. The cost of publicly educating children places a significant financial strain on many municipalities. As a result, many communities continue to work on ways that they can collaborate together to decrease costs and maintain the quality of education desired by everyone.

Ensuring all students have access to high-speed Internet will extend our students’ academic opportunity beyond the brick-and-mortar classroom

setting and put students on an equal footing with those from more developed regions of the nation. Lack of access to high-speed Internet in portions of the Region hinders access to education materials.

With the adoption of [Act 46](#)³¹ in 2015, many schools in the Region began consolidating with other districts. Several communities have either closed or merged their schools with other communities. If the trend toward smaller classes and fewer children in many towns continues, more communities will need to engage in these consolidation discussions.

Considering the cost of repairs is also important when determining whether schools ought to be consolidated. In the event that communities choose to close or merge schools, how to manage vacant infrastructure should be part of the discussion.

For many communities, the closure of a school can present new opportunities; because schools are often located within villages or town centers, they can become prime locations for reuse in areas that are otherwise built up. Possible options for reuse of existing school buildings could include:

- Town offices and other municipal services
- Inclusive, mixed age and income housing opportunities
- Senior centers
- Light industrial development
- Business incubators or office parks

E. Childcare Services

The availability of high-quality and affordable childcare is an important factor in the appeal



Town Green and Gazebo in Rochester | © Kevin Geiger

and sustainability of our Region. For example, the childcare industry contributes to the regional economy as a business and employer in its own right. It also functions as a service industry that provides crucial support to employers and employees. Without access to affordable, high-quality childcare, one parent would likely leave the labor force to care for young children. Good quality childcare helps prepare children for schooling or may even supplement a child’s school curriculum, and it provides them with opportunities for socialization.

According to the 2020 U.S. Census, approximately 56,000 people live in the TRO Region. The number of children aged 0-14 is a relatively small percentage of the Region’s population: just over 15 percent, or 8,430 individuals. As of 2020, there are 101 registered and licensed childcare providers; to see the locations of providers and the types of



programs they provide, please visit [Bright Future's Childcare Information System](#)³².

After-school programs and summer camps provide childcare options for parents with children old enough to attend public or private school full time. Both help to keep children engaged in enriching activities, while also allowing parents to feel comfortable that their children are safe if they are working past school hours or during summer vacation. According to the [2020 Vermont After 3 PM study](#)³³, statewide there are approximately 19,000 children who are participating in afterschool programs and 26,000 children who are not because of financial constraints and lack of available programs in their communities.

Barriers associated with childcare in Vermont include inadequate amount of infant to toddler care available, complicated application forms, and insufficient financial assistance to cover the cost of high-quality services (despite receiving financial help from some childcare providers). Searching for childcare is often difficult for parents in the Region,



Bradford Library | © Kevin Geiger

as the availability of childcare providers, especially for infant and school-age children, is not enough to meet the need. To learn more about other obstacles to childcare services that caretakers commonly experience, visit [Vermont's Early Childhood Systems Needs Assessment 2020](#)³⁴.

To address the workforce needs of childcare providers, there are a few vocational schools in the Region that have training programs that teach students to care for infants and preschool-age children. One vocational school to offer such a program is the River Bend Career and Technical Center in Bradford in their "[Teacher Education](#)³⁵" curriculum. The Randolph Technical Career Center has a similar program in their "[Education Services](#)³⁶" curriculum. CCV offers [a degree in Education](#)³⁷, along with several other related degrees, and an option to obtain a certificate. In addition, there is ongoing professional development offered through Northern Lights at CCV for those who are in the field and seek training or additional qualifications.

To help families pay for childcare, the State of Vermont provides financial assistance through the [Vermont Childcare Financial Assistance Program \(CCFAP\)](#)³⁸. Vermont's CCFAP helps families who meet certain work, education, and income requirements afford childcare. The program also provides childcare financial assistance for children in foster care and children and families who meet certain health criteria.

Given the high costs of childcare, it can be difficult for low- to moderate income families to afford placing their children in childcare. As a consequence of this situation, a family member

may decide to provide care for the child or children instead of working and supplementing the family income.

Out of approximately 32,000 households in the TRO Region, 1,704 of them are classified as "single-head-of-household" with children 18 years old or younger. It is very important for single parents to find childcare so that they are able to work and provide for their families. The parent may have another family member or trusted adult care for their child or children while at work, or they may seek out a childcare provider. Women are often the ones filling the role of the primary caregiver for young children. A national statistic states that [out of all women between the ages of 25-44 who are not participating in the workforce, about a third are not working due to childcare \(compared to 12% of men for the same reason\)](#)³⁹.

[Let's Grow Kids](#)⁴⁰ is a statewide campaign looking for more high-quality, affordable childcare in Vermont to better support our children, families, women, communities, and economy. [More than 70 percent of Vermont children under age 6 have both of their parents in the labor force](#)⁴¹, meaning they're likely to need care. Yet half of those infants and toddlers don't have access to any regulated care, and [nearly 80 percent don't have access to high-quality programs](#)⁴². This has a negative ripple effect on our businesses, schools, communities, health-care system, and economy as a whole.

In our Region, there have been two major reports that focus on childcare. [The Blue-Ribbon Commission on Financing Childcare](#)⁴³, published in 2016, looked into the real cost of childcare and



found that “the estimated cost of high -quality early care and learning is currently unaffordable for almost 90% of Vermont families.” The second report was [Stalled at the Start](#)⁴⁴, published in 2022 and produced by Let’s Grow Kids, which analyzed the supply and demand of childcare.

One available program that could benefit families is the [Childcare Financial Assistance Program \(CCFAP\)](#)⁴⁵. This is a government program that helps eligible families cover some of the cost of childcare. There is also a federal scholarship program for childcare center teachers that are trying to earn credentials/degrees. Through the [T.E.A.C.H. Early Childhood Vermont program](#)⁴⁶, up to 80 percent of tuition can be covered, along with other benefits.

In 2023, [Act 76 \(H.217\)](#)⁴⁷, which pertains to childcare and early childhood education, was enacted into law. This legislation includes significant investments in Vermont’s childcare system and introduces policy changes that will affect childcare services for both early childhood and school-age children.

F. Telecommunications

Information technology (such as broadband Internet and wired/wireless telecommunications) has become essential to residents and businesses in the Region. Our economy, educational systems, and functionality of our homes rely on ubiquitous availability of data and communications for our Region.

In the 2021 [Vermont Ten-Year Telecommunications Plan](#)⁴⁸, the Public Utilities

Commission set the following goals:

- Bringing every currently unserved and underserved on-grid Vermont home access to 100/100 megabits per second (Mbps) broadband that can be scalable to faster speeds as demand warrants
- Leveraging residential fiber deployments into better mobile voice coverage along key roadways and in small communities
- Ensuring that telecommunications systems are resilient, redundant, secure, and



An example of a Cell Tower in Disguise
| © Bill Morrow

futureproof for commercial, consumer, and public safety needs

- Facilitating competition and choice of multiple internet service providers 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 \(VDEP\)](#)⁴⁹, 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 pursuing other prominent projects that expanded digital literacy in rural towns. Similar in scope, the [VT Community Broadband Board \(VCBB\)](#)⁵⁰, was established in 2021 in order to “accelerate the development and implementation of universal community broadband solutions” all throughout Vermont.

In our Region, VDEP has built free village Wi-Fi zones in the communities of Bethel, Royalton, and Rochester. These investments provide residents who lack access in their homes with a reliable place to connect to the Internet. In East Barnard, there is also a community-funded Wi-Fi zone for residents. Village-wide access is a boon to businesses who can take advantage of the additional customers who are drawn to the village for Internet access. To see Wi-Fi coverage across our Region and Vermont, visit [Vermont Department of Public Service’s interactive map showing Wi-Fi hotspots](#)⁵¹.

The [East Central Vermont Fiber-Optic Network \(EC Fiber\)](#)⁵² is a consortium of 24 towns (including 21 TRO Region towns) that is working to expand access to high-speed Internet. Major cellular providers are continually working to expand coverage, particularly along major transportation corridors, such as Interstates 89 and 91.

Use of cellular phones in day-to-day activities has skyrocketed over the past decade. The availability of broadband cellular data has increased the use of cellular phones to the point that they are essential to businesses and individuals alike. In fact, [most U.S. households no longer have a “landline” phone](#)⁵³. The lack of cell coverage is a major deterrent to both attracting businesses and younger families.

Cellular access is determined in great part by topography in relation to the placement of cellular transmission towers. While coverage in the TRO Region is reasonably good along main travel corridors, it is spotty in more rural areas. In some instances, there are entire communities (such as Barnard) that have [virtually no cellular access](#)⁵⁴. In most cases, residents support improved cell phone access, but are less supportive of having the necessary facilities located in their communities. When residents object to proposed facilities, it is almost always due to the potential for aesthetic impacts.

Wireless telecommunications facilities are primarily permitted under [Section 248a](#)⁵⁵. The 248a process was created to enable a faster permitting process in order to achieve greater wireless coverage, and it specifically exempts projects that achieve this wireless coverage from local zoning or Act 250.

Under the Section 248a permitting process, the [Public Utility Commission](#)⁵⁶ must review the environmental, economic, and social impacts associated with a particular project prior to issuing a [Certificate of Public Good](#)⁵⁷. The project is reviewed against both Regional and Town Plans, and even relevant parts of zoning that would otherwise apply, are accorded “substantial deference” in such reviews, unless there is good cause to find otherwise”. Even when substantial deference is not granted, the 248a process must give due consideration to the recommendations of municipal planning commissions, selectboards, and regional planning commissions based on their respective plans. Accordingly, it is appropriate that this Plan

address these land uses and provide guidance to town officials, regulators, and providers.

Transmission towers are necessary telecommunications facilities, but as land uses, these towers have planning concerns, primarily for aesthetic reasons. To ensure adequate transmission of signals in mountainous areas such as ours, towers and related facilities need to be located on hilltops or high elevation points. These areas are also significant contributors to the scenic and rural character of the Region. Protection of these areas from insensitive developments is a matter of public good. Thus, due to transmission towers’ higher visibility from multiple vantage points, conflict with scenic landscapes has become an issue.

G. Municipal Buildings and Properties

Towns own a variety of public buildings, and every town has a town office building. Nearly every town has a town hall where they hold town meetings and other events. Sometimes, town offices are also located in this building. Towns with their own road crews also own town garages, some of which are woefully inadequate for their function, and are sites for salt and sand storage. Some towns own their own sand and gravel pit, but most contract this function out. Nearly all of the town halls and offices are in older structures, many of which need substantial maintenance or improvements, but several have been renovated to create better working space and improve energy efficiency. Town offices, like other civic functions, help to create a sense of community and give energy and



importance to town and village centers.

Public libraries play an important role in providing materials to inform, challenge, and inspire the Region’s residents, as well as Wi-Fi hotspots and computer access. In some towns, public libraries are privately owned entities that still provide an essential public service to residents.

H. Recreational Facilities

Many recreational opportunities are available to the Region’s residents and visitors. These range from organized, structured prospects at state and federal parks to more informal opportunities in municipal parks and forests.

The Region has one national park—the [Marsh-Billings-Rockefeller National Historic Park](#)⁵⁸ in Woodstock. Associated with the Park is the privately owned [Billings Farm and Museum](#)⁵⁹, which offers farm educational programs. The western part of our Region is also home to a portion of the [Green Mountain National Forest](#)⁶⁰ and the [Long Trail](#)



Pittsfield Town Hall | © Kevin Geiger

[corridor](#)⁶¹. The [Appalachian Trail corridor](#)⁶² goes through the central part of the Region. Additionally, outdoor recreation opportunities are available at the [Saskadena Six ski area](#)⁶³, many rivers and lakes, public and private forests, and Class 4 roads. Indoor recreational opportunities include ice rinks, [the Upper Valley Aquatic Center](#)⁶⁴, and the [Montshire Museum of Science](#)⁶⁵.

Several state parks can be found in the Region, including the [Calvin Coolidge Historic Site](#)⁶⁶ in Plymouth, the [Quechee Gorge State Park](#)⁶⁷, and several other historical sites. The Department of Forests, Parks and Recreation, and the Department of Fish and Wildlife also have several state forests, wildlife management areas, and lake or river access points that offer additional outdoor recreational opportunities.

Several towns also offer town recreation programs through their recreation departments. These may include ski programs in conjunction with local schools in the winter, camps and track and field programs in the summer, and various events year-round. These recreation departments may also manage a modest network of town parks.

Many towns also have excellent trail networks linked to their road networks, and portions of these networks include Class 4 roads and trails. In Vermont, many trails were once town highways that gradually became public rights-of-way. These [legal trails](#)⁶⁸ often pass through private land, and access to them can be restricted or altered by the Selectboard.

The Region’s rivers and lakes offer opportunities

for [swimming, and boating](#)⁶⁹, and [fishing](#)⁷⁰, all of which require public access areas for parking or boat launching. Scenic waterfalls, cascades, and gorges are also destinations for tourists and residents. There is a need for access areas to water resources in the Region.

Only [13 percent of all land in Vermont is owned by state or federal agencies](#) which means many of the outdoor recreational resources in the Region rely on the willingness of landowners to allow access to private land. Several large private landowners allow access to their land.

I. Opportunities for Shared Services/ Infrastructure

As is the case in much of Vermont, our Region is generally low-density with a limited population as compared to more urban locations.

Opportunities exist in our rural communities, as well as in our more urban downtowns, for inter-municipal cooperation. State statute enables communities to join into inter-local contracts or union municipal districts for the purposes of performing “any governmental service, activity, or undertaking which each municipality entering into the contract is authorized by law to perform.” TRORC also now can provide a mechanism for shared services; common existing examples among communities include shared police services and municipal aid agreements. Communities may also share staff or equipment. Under certain forms of cooperative agreements, they may purchase property together. Engaging in well-planned and well-organized cooperative efforts can ensure that services are provided more efficiently and more effectively.



Goals and Policies: **Overall Utilities, Facilities, and Services**

Goals

1. 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

1. 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.
3. 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.

Goals, Policies, and Recommendations: **Water and Wastewater**

Goals

1. Municipal water and wastewater systems are secure, financially sustainable, well-maintained and energy efficient.
2. Municipal water supply areas maintain high quality of drinking water for public health.

Policies

1. Municipalities and private utilities should create capital budgets and reserve accounts for utilities and facilities management and operations.



Policies (continued)

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 concentrated settlement where conventional on-site septic systems and wells are inadequate for public health and development.
9. New water and wastewater systems should be designed to be energy efficient and secure.
10. The village areas of Norwich, Hartland, Sharon, Strafford, and Fairlee are the highest regional priorities for new wastewater treatment facilities.

Recommendations

1. Municipal plans, per Vermont statute, shall identify and prioritize future capital improvements and major repairs, as well as estimate costs and financing for maintenance and future capacity.
2. TRORC will assist communities with the identification and prioritization of future capital improvements and repairs, grant writing, and project management.
3. TRORC will continue to offer capital budgeting services to the towns.
4. Water efficiency programs and codes should be adopted at the state or local level to reduce demand for municipal water systems.
5. TRORC shall seek grant opportunities to map water and wastewater systems throughout the Region.
6. When funding is available, municipal plans should inventory water and wastewater systems to identify current and projected capacity gaps.
7. Municipalities should conduct periodic auditing of all water and wastewater distribution systems to calculate infiltration and losses.



Goals, Policies, and Recommendations: **Solid Waste**

Goals

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

Policies

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

Recommendations

1. TRORC will support and participate in any future discussions regarding the development of regional waste management services.
2. TRORC should assist towns in meeting the Universal Recycling Law requirements through outreach and education, with assistance from the Agency of Natural Resources.
3. 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.

Goals, Policies, and Recommendations: **Educational Facilities and Services**

Goals

1. Accessible and affordable educational facilities and services are available throughout the Region that meet or exceed statewide standards, including life-long learning opportunities.
2. Students have access to quality vocational and workforce training opportunities to prepare them for future careers.

Policies

1. 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.
3. Town schools should be supported.



Goals, Policies, and Recommendations: **Educational Facilities and Services**

Recommendations

1. 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.

Goals, Policy, and Recommendations: **Childcare Service**

Goals

1. An adequate supply of safe and affordable childcare services and facilities is available.
2. A regional network of high-quality childcare programs fulfills the needs of families and employers.

Policy

1. TRORC supports initiatives to develop childcare facilities where a need has been proven and the location conforms to this Regional Plan.

Recommendations

1. TRORC should encourage major employers (employing more than 35 employees) to provide childcare services and create a partnership with a local childcare service.
2. TRORC should work collaboratively with childcare providers and towns to help them locate childcare services in convenient and safe areas.
3. TRORC should work with towns to address identified needs for childcare facilities or services by:
 - a. Identifying publicly owned buildings throughout the Region; and
 - b. Evaluating and prioritizing their suitability to serve as childcare facilities after considering Vermont regulations.
4. Towns should review their zoning regulations (if adopted) to increase the ability of the regulations to allow childcare providers to be located in the town.



Goals, Policies, and Recommendations: **Telecommunications**

Goals

1. Universal broadband access using fiber is available throughout developed areas in the TRO Region.
2. Universal availability of mobile cellular service is available throughout developed areas in the TRO Region.

Policies

1. Public and private efforts to expand telecommunications access are supported, when done in a manner that does not have an undue adverse impact on the rural character of our communities.
2. Efforts to provide free public broadband access in places such as village centers and public buildings are supported.
3. Telecommunications facility development shall be excluded from the following areas:
 - a. Floodways shown on FEMA Flood Insurance Rate Maps.
 - b. Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site analysis.
 - c. Rare, threatened, or endangered species habitat or communities.
4. All new telecommunications facilities and related infrastructure must be sited and designed to avoid or, if no other reasonable alternative exists, to otherwise minimize and mitigate adverse impacts to the following:
 - a. Historic districts, landmarks, and sites;
 - b. State or federally designated scenic byways and municipally designated scenic roads and viewsheds;
 - c. Special flood hazard areas identified by National Flood Insurance Program maps; and
 - d. Necessary wildlife habitat identified by the State or through analysis, including core habitat areas, migration, and travel corridors.
5. New telecommunications facilities and related infrastructure (including access roads, site clearing, on-site power lines, lighting, and off-site power lines) must be sited to avoid the fragmentation of large priority and high priority forest blocks.
6. Telecommunications facilities development shall minimize site clearing and highly visible roadways.
7. The developer shall minimize the aesthetic impact of the telecommunications facility or infrastructure on the surrounding landscape. This includes options such as the utilization of “stealth towers,” camouflage through paint scheme, or designs that blend into the surroundings, such as asymmetrical monopoles disguised as pine trees.
8. Telecommunications facilities shall be designed to be the minimum height necessary to achieve coverage.



Goals, Policies, and Recommendations: Telecommunications

Policies (continued)

9. All new facilities shall incorporate reasonable options for sharing space on the proposed towers. Applicants for new towers must demonstrate that there is no reasonable opportunity for colocation on existing towers.
10. To support resiliency, applicants shall make space available on towers for municipal communication systems to enhance or expand road and emergency service communication networks.
11. To minimize conflict with scenic values, facility design and construction shall employ the following principles:
 - a. In rural locations, be located in forested areas or be sufficiently landscaped to screen the lower sections of towers and related ground fixtures from public vantage points, such as trails, roads, or water bodies;
 - b. In more developed areas, utilize materials, architectural styles, color schemes, lighting fixtures, size, and other design elements to promote aesthetic compatibility with surrounding uses and to avoid adverse visual impacts; and
 - c. Be located downgrade of the ridge so as not to exceed the elevation of the tree line as seen from public highways.
12. Consideration shall be given to the environmental limitations of any given site. Impacts on wildlife habitats, soil erosion, forestry and agricultural lands, and similar resources should be carefully addressed. Projects that materially impact these resources are discouraged.
13. The clearing of land associated with site development for tower and facility construction shall not negatively impact the scenic views present.
14. Towers or facilities that are designed to resemble trees or natural features shall not be placed unnaturally higher than the tree line.
15. Permits must require removal of facilities that are no longer used.

Recommendations

1. TRORC should continue to participate actively in Section 248a permitting process.
2. Communities should seek out funding to implement new or sustain existing Wi-Fi zones in villages and downtowns.
3. The State should continue to support programs that achieve universal broadband and cellular communication access.

Goal, Policies, and Recommendations: Recreational Facilities

Goal

1. The Region is home to a variety of indoor and outdoor recreational opportunities for all users.



Goal, Policies, and Recommendations: **Recreational Facilities**

Policies

1. 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, Class IV roads, legal trails, and cross-country ski trails) is encouraged.
2. 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

1. TRORC will assist communities with the establishment of Conservation Commissions and will support existing Conservation Commissions when possible.
2. TRORC will help towns develop highway policies that address recreation needs and should encourage the adoption of walkable communities programs within the Region.
3. TRORC will assist towns with establishing and managing town forests.
4. TRORC should work with the State, White River Partnership, the Vermont River Conservancy, and other groups on increased river access.
5. TRORC will continue to assist towns with their efforts to improve public access to outdoor recreational opportunities, while ensuring consistency with local and regional land use plans.

Goal, Policy, and Recommendation: **Shared Services and Infrastructure**

Goal

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



Goal, Policy, and Recommendation: **Shared Services and Infrastructure**

Policy

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

Recommendation

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

Utilities, Facilities, and Services Endnotes

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- 3 <https://dec.vermont.gov/water/drinking-water/public-drinking-water-systems/source-water-protection>
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- 6 <https://dec.vermont.gov/water/drinking-water/pfas>
- 7 <https://anrgeodata.vermont.gov/datasets/waste-water-facilities/explore?location=44.165157%2C-72.360567%2C10.78>
- 8 https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/SWIPGuidance_VermontMunicipalities_7.30.14.pdf
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Utilities, Facilities, and Services Endnotes (continued)

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- 34 <https://buildingbrightfutures.org/wp-content/uploads/2020/12/Final-Vermont-Early-Childhood-Needs-Assessment-2020.pdf>
- 35 <https://www.rbctc.org/high-school-programs>
- 36 <https://rtcc.orangesouthwest.org/programs/education-services>
- 37 <https://ccv.edu/academics/programs/education/>
- 38 <https://dcf.vermont.gov/benefits/ccfap>
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