Utilities, Facilities, & Services

5

Public and private utilities, facilities, and services play a critical role in providing for the health, safety, and welfare of Central Vermont's citizens. All of us depend, in one way or another, upon water distribution systems, solid waste and sewage disposal, police and fire protection, health services, schools, parks, and electric power.

The location, condition and availability of services and facilities can have a profound influence on growth and development in a Region. Homes, businesses, and industry tend to concentrate where utilities and facilities are readily available, while areas remote from infrastructure and services are more costly and difficult to develop. (They often contain important natural resources as well). Hence, communities and Regions, through the thoughtful placement of infrastructure, may direct growth to the most suitable location, or away from areas where change may have undesirable impacts.

The condition and scale of utilities also needs to be considered. Where facilities are over-sized and under-utilized they may encourage unplanned growth, or operate inefficiently and at unnecessary financial expense to residents. For systems that are at capacity and/or outdated, further development may cause environmental damage. Failure to upgrade urban systems may stall new growth or push it away from growth-designated areas. Communities and Regions can avoid the above scenarios through the appropriate timing and sizing of infrastructure improvements.

DISCUSSION: UTILITIES

Electric Power

It goes without saying that electric power is a vital component of life in modern America. When our sources of power are lost, even temporarily, as a result of weather conditions or technical difficulty, the result may be chaos and hardship. Perishables perish, business and industry halt, and the rhythm of domestic life are profoundly interrupted.

As the Region grows, so does its demand for reliable and affordable electricity, but existing sources of electric power are limited and the costs of developing new ones are dear. Neither is electricity completely benign in its impacts. Its generation, transmission, and distribution raise issues of environmental protection, public health, land use and aesthetics. Fortunately, studies have shown that kilowatt-hours can be saved at an expenditure of far less than it takes to generate them. Furthermore, conserving electricity creates jobs, conserves natural resources, curbs

pollution, and expands opportunities for self-reliance as well.

These facts did not escape the Department of Public Service (DPS) as it prepared its Comprehensive Energy Plan as directed by Executive order # 79. A fundamental theme of the DPS plan is its promotion of "least cost integrated planning" as "a way for electric utilities to address efficiency, affordability and environmental problems in a balanced and unified manner." This management strategy calls for the implementation of comprehensive and cost effective efficiency measures, including demand side management, as "an alternative to increasing supplies of fuel." Related objectives include:

- implementing a schedule to reduce "greenhouse gases" and acid rain precursors;
- decreasing per-capita non-renewable energy consumption from current levels by at least 20%;
- identifying alternative means of energy production and conservation to offset the closing of Vermont Yankee in 2012 and the possible termination of Hydro-Quebec contracts in 2015;
- limiting the percent of income Vermonters spend on energy;
- increasing Vermont's reliance on renewable energy sources; and
- quantifying the full external (environmental and social) cost for each type of energy source.[1]

CVRPC's desire to ensure that energy generation, distribution and transmission facilities are located, designed and sized to support the Region's economic and lifestyle demands with minimal adverse impact supports, and is supported by, the concept of "least cost integrated planning" and its attendant objectives.

The activities and choices of the area's utility companies can have direct and indirect impacts on land use (both locally and elsewhere). Locally, distribution line extensions can spur residential, commercial and industrial growth. Decisions regarding future power sources will also have Regional or even global impacts.

Electric Utilities

Six different utility companies provide power to Central Vermont's homes and businesses. The majority of the electric power they provide comes from: Vermont Yankee, a nuclear source in Vermont, Hydro-Quebec, and the Ryegate and McNeil wood generating systems (see chart). Residential users demand about half of this power. (Further analysis of energy uses and sources can be found in the Energy Element.)

[1] Vermont. Department of Public Service. Biennial Report. July1, 2000- June 30, 2004

Vermont's Electrical Energy by Source (GWh) 2003

		Instate	VT	Hydro	Other	Other	Instate	
	NYPA	Hydro	Yankee	Quebec	Purchases	Wood	Thermal	Total
1995	95	573	1,700	2,287	1,112	244	12	6023
	1.6%	9.5%	28.2%	38.0%	18.5%	4.1%	0.2%	
2000	72	565	2,163	2,144	709	364	75	6,093
	1.2%	9.3%	35.5%	35.2%	11.6%	6.0%	1.2%	
2003	73	554	2,131	1,694	1,226	297	34	6,134
	1.2%	9.0%	34.7%	27.6%	20.0%	4.8%	0.6%	

SOURCE: Vermont. Department of Public Service. Biennial Report. July 1, 2000- June 30, 2004

Green Mountain Power (GMP) is the Region's largest utility serving a population of about 26,000 in Central Vermont. GMP's customers are located primarily in the more populous valley areas, such as Barre, Montpelier, and many of the Region's villages. GMP is continually expanding and upgrading their facilities to meet new growth. According to Vermont Public Service, GMP's output in 2005 was 2,007 million kWh.

The Washington Electric Cooperative Inc. (WEC) provides electricity to more rural areas throughout Central Vermont. Its service territory covers a larger area in Central Vermont than any other utility and supplies 10,170 customers. Due to the rural nature of WEC's service area, residential users account for an unusually high percentage of total demand. In 2005, WEC's output was about 69 million kWh.

The Cooperative is committed to the concept of least cost integrated planning as evidenced by its recent initiatives including programs to identify and install electrical efficiency measures in buildings demonstrating high and moderate electricity use, such as: dairy farms, schools, small businesses, and new construction, as well as its recently released Interim Integrated Resource Plan. WEC is a member-owned utility run by a 9-person board elected by Co-op members.

Central Vermont Public Service Corporation provides electric power to about 500 customers in Roxbury and Northfield and serves 123,048 residential customers and 17,851 commercial customers in total with output in 2005 of 2,300 million Kwh. Its facilities in Central Vermont include distribution lines only.

A small number of Central Vermonters residing in the Towns of Calais and Woodbury is serviced by the Hardwick Electric Department. This utility serves about 3,700 residential customers and 307 commercial customers with a 2005 output of

32 million KWh. The Department is planning to expand its customer base in both of these towns.

The Northfield Electric Department serves about 1500 customers in Northfield and part of Roxbury with service to 1,646 residential customers and 254 commercial customers and a 2005 output of 27 million kWh.

The Vermont Electric Power Company, Inc. (VELCO) provides the bulk of electrical transmission network (voltages 115 kv and above) for the entire state of Vermont. VELCO serves 14,705 residential customers and 547 commercial customers and 50 industrial customers throughout the State.[2] In the Central Vermont Region VELCO has a 115 kv transmission line which leads from Wilder, Vermont, connecting with substations in Williamstown, Barre, Berlin, and Middlesex before continuing on to Essex with a 1999 output of 1238 million kWh. VELCO also maintains a 230 kv line extending from its Williamstown substation to Comerford, New Hampshire.

To reinforce its transmission system VEC installed a static compensator in Essex. Velco in resent years has also increased the voltage the major transmission line between Cavendish and West Rutland to serve the growing electrical load.[3] It is company policy, according to management, to use existing transmission corridors to accommodate expansion "wherever possible.[4]" (See map: Energy & Communications)

Water Supply

Water is among the most basic of human needs. A clean and plentiful supply of water is essential to our very survival. We need water in our homes to cook, clean, drink, and flush waste. Water is critical to our ability to fight fires. Our farms, businesses and industries depend on a plentiful water supply for their operations, as well.

Most of Central Vermont's residences and businesses receive their water from public supply systems. Defined by the Department of Health as those systems that have ten or more connections and/or serve twenty or more people, public water supply systems are regulated by the Department to ensure their compliance with State drinking water standards. In total, there are 23 municipal water systems (including those operated by fire districts) serving portions of 13 municipalities (some communities have more than one system). Most of these systems rely on groundwater as

2 Ibid.

3 Ibid.

4 Vermont. Department of Public Service. Utility Facts. October 2002

their source, although the largest systems (Barre City and Montpelier) are supplied by surface waters. (The Barre Town fire district is expanding its service and upgrading its system with a new filtration system, new reservoir, and interconnection to Barre Town).

In the past, conflicts have arisen between municipalities regarding the shared use of a supply owned and operated by one municipality. The City of Montpelier has advocated for tax-sharing agreements where its system is providing water (and sewer) service to adjacent communities. Inter-municipal conflicts have also surfaced where one municipality's source of water is located in or near an adjacent municipality, and thus is potentially affected by activities beyond the control of its users.

In addition to the municipal systems, there are three private water supply companies operating in Central Vermont. These are relatively small, the largest serving 625 residential customers, while most serve under 100. (See chart below) Outside of the service territories of public and private systems, water is generally obtained from on-site wells or springs.

Central Vermont Privately Owned Water Supply Companies

Company	Location	Residential Connections
Berlin Water Company	Berlin	34
Crystal Water Company	E. Montpelier	121
Mountain Water Company	Warren	625

SOURCE: Vermont. Department of Public Service. Utility Facts. October 2006

The recent decline of privately owned water companies, from just under 40 five years ago to three, is due largely to the Safe Drinking Water Act Amendments of 1986 and 1996, which instituted more monitoring requirements, more technical requirements, and higher water quality standards. While these changes should be beneficial to public health, they also promise to bring new burdens to bear on system operators and users.

These new rules are significant and germane to Central Vermont because water quality tends to be a bigger problem than water quantity here. Many existing systems (most notably those of Barre City and Montpelier) have remaining capacity, but have difficulty meeting State and Federal standards. The costs of necessary upgrades figure to be substantial (as would be the punitive costs of non-compliance). The financial implications of developing new sources are likewise foreboding but

such sources are critical to our future. It is clear that providing better protection of our existing and future water supplies is in the best interest of our physical and fiscal health. (See map: Water Supply & Wastewater)

Sewage Treatment

The proper treatment of septic waste is essential to a safe, healthy environment. Today, we do a better job treating waste than ever before. Treatment plants built in the 60's and 70's reduced the toxicity of effluent reaching our streams and rivers so that, in general, our surface waters are cleaner now than they were 40 years ago. Improved on-site septic system technology, regulation, and monitoring has also had a beneficial impact on our environment.

There is, however, much room for improvement. The volume of waste treatment byproducts (septage and sludge) grows with the population. Disposal of these substances poses its own unique set of problems and issues. Combined sewer and storm water systems are still releasing raw sewage to receiving waters during heavy rains. In addition, there remain, in spite of new laws, many unregulated or "grand-fathered" on-site systems polluting our environment.

As our population grows, sanitary disposal will become even more critical. More waste means more contaminants, pathogens and byproducts, and our increased density means more people may be impacted. It is important then, that we provide for the safe and efficient treatment of sewage for current and future residents.

Municipal Collection and Treatment Facilities

There are seven municipal sewage treatment facilities in the Central Vermont Region that serve over 10,000 households and scores of businesses and industries (see Service Area Map). They range in size from the Montpelier Water Pollution Control Facility with a design of 3.97 million gallons per day (mgd), to a .045 mgd capacity facility in Marshfield. All provide secondary treatment of effluent. All discharge treated effluent into class C receiving waters of the Winooski River or its tributaries. Combined, they generate over 1000 tons of sludge annually and retain over 3 mgd of reserve capacity. A more detailed analysis of each of the Region's sewage treatment plants and their implications for future growth and development follows.

- The **Barre** Wastewater Treatment Plant serves the City and parts of the Town of Barre. It has a design capacity of 4.0 mgd, an average flow of 3.2 mgd, .475 mgd of committed reserve capacity, and .266 mgd of uncommitted reserve. It serves a population base of about 16,000 with 3456 residential hook-ups, 220

commercial hook-ups, 80 industrial hook-ups and 62 semi-public hook-ups (i.e. schools, etc.). Assuming new hook-ups will come on line in the same ratios and require the same daily flows, the plant could accommodate 1,300 new residential connections, 49 new commercial users, an additional 18 industrial hook-ups and about 14 semi-public users. Plant operators cite difficulties regarding the handling, storage and disposal of sludge as concerns (currently 588 dry tons are disposed of each year). They believe that there needs to be more public relations efforts to promote its beneficial reuse.

- The **Marshfield** Wastewater Treatment Facility serves 102 residences, 5 commercial establishments, and 6 "other" users in the Village of Marshfield. It has a design capacity of .045 mgd, an average daily flow of .023 mgd, and an uncommitted reserve of .019 mgd. Assuming new hook-ups will come on line in the same ratios, the systems could accommodate about 40 new residential connections and a few connections for commercial or other use. The land application of sludge is cited as an operational difficulty. About 5.1 dry tons are produced each year.

- The **Montpelier** Water Pollution Control Facility serves a population of 20,000 in the Montpelier/Berlin area. Approximately 2,100 are residences and 600 are businesses. The plant has a design capacity of 3.97 mgd, an average daily flow of 2.02 mgd, a committed reserve of about .297 mgd and an uncommitted reserve of 1.652 mgd. Rough estimates show that the plant could accommodate about 1440 new residential and 410 new business hook-ups if present ratios are reflected in future growth. Berlin Fire District #1 has the rights to a maximum of .3 mgd through an inter-municipal agreement. (They are already using .10 mgd.) The City has plans to remove combined sewers, which discharge raw sewage during times of heavy runoff or rain, into the Winooski and North Branch Rivers.

- The **Plainfield** Sewage Treatment Facility serves the village area and Goddard College. It has a design capacity of 0.125 mgd, an average daily flow of .57, and a committed reserve of 1,530 gallons per day and an uncommitted reserve of 66,053 gallons per day.

- The design capacity of the **Waterbury** Wastewater Treatment Facility is .51 mgd. Its current daily flow is .299 mgd, leaving a reserve of .233 mgd. Although no figures on current hook-ups are available, it is clear that the plant has much excess capacity.

- About 1200 residents in the village area are served by the **Williamstown** Wastewater treatment Plant. This system has a design capacity of .150 mgd, an aver-

age daily flow of .083 mgd, and a committed reserve of .007 mgd. Its uncommitted reserve capacity of .050 mgd could accommodate a little under 100 average single family residences. In the past five years the plant has made several improvements, such as removing sludge from one lagoon, installing new aeration equipment, and replacing 240 feet of deteriorated sewer main.

- The **Northfield** Sewage Treatment Facility has design capacity of 1.000 mgd, an average flow of .534, and an uncommitted reserve capacity of .447 mgd. A large share of the plant's current flow is dedicated to just one of its 600 hookups (Norwich University), making projections based on current use difficult.

- **Cabot** Village has a sewage treatment facility with uncommitted reserves of 21,172 gallons per day, a design capacity of 50,000 gpd, a daily flow of 26,628 gpd, and committed reserves of 2,200 gpd.

- A community septic system has been developed for the village of **Warren** serving municipal buildings and the Pitcher Inn.

The following chart lists the location, design capacity, average daily flow, and committed and uncommitted reserves of the Region's wastewater treatment facilities.

Central Vermont Wastewater Treatment Facilities 2005

Location	Committed Reserves	Uncommitted Reserves
	(GPD)	(GPD)
Barre City	475, 769	266,064
Cabot	2,200	21,172
Marshfield	1,800	19,867
Montpelier	297,652	1,652,348
Northfield	58,288	232,545
Plainfield	1,530	66,053
Waterbury	27,819	182,264
Williamstown	14,703	47,405

SOURCE:Information provided by Department of Public Service by request.

MGD = million gallons per day
GDP = gallons per day

Location	Design Capacity	Annual Average Flow
	(MGD)	(GPD)
Barre City	4.000	3,258,167
Cabot	0.050	26,628
Marshfield	0.045	23,333
Montpelier	3.970	2,020,000
Northfield	1.000	709,167
Plainfield	0.125	57,417
Waterbury	0.510	299,917
Williamstown	0.150	87,892

SOURCE:Information provided by Department of Public Service by request.

On-Site Facilities

Central Vermont is highly dependent upon on-site, underground septic disposal, as about half of our population lives in rural areas outside of the service territories of the above-described systems. Most on-site septic systems require specific soils and site characteristics to enable the effective treatment of wastes. Where soils are impermeable, too permeable, shallow, or wet, or where slopes are steep, conventional septic systems are problematic and potentially hazardous. Accordingly, non-sewered areas displaying such site limitations have generally not been recommended for development.

Restricting such areas, however, intensifies development pressure on those soils that can accommodate septic systems. Unfortunately, prime agricultural land contains such soils. Clustered subdivisions with community septic systems may help overcome site limitations and simultaneously protect resource lands.

Historically, many communities in Central Vermont enacted health or zoning bylaws to regulate the installation and engineering of new septic systems. These regulations usually required that soil be evaluated before a sewage system was built and generally permitted the following types of systems:

- septic tank with leach field or dry well;
- aerobic tank with leach field or dry well;
- septic tank with leach field or dry well and site modifications; and
- septic tank with mound.

In 2002, Vermont adopted new Wastewater System and Potable Water Supply rules in order to allow more flexibility in the design of on-site systems and assure more

consistency in the standards for permitting systems.

The new rules provided that all local ordinances and/or bylaws regulating water and wastewater would be superseded as of July 1, 2007, creating "universal jurisdiction" over permits by the Vermont DEC Waste Water Management Division. However, while municipalities may no longer adopt or administer local regulations, they may prohibit construction under a zoning permit unless and until a wastewater and potable water supply permit is issued by the State.

The innovative systems allowed under the new technical standards may allow historically "un-developable" land to be developed. As such, towns should consider the impacts on land use patterns and associated uses, and plan accordingly.

DICUSSION: FACILITIES & SERVICES

Solid Waste

The proper management and disposal of solid waste is one of the more important and far reaching challenges facing the Region today. Everyone in Central Vermont - businesses, residents, and visitors - generates waste, often without thought as to its ultimate destination or impact. In 1987, the Vermont Legislature recognized serious health, economic, and environmental risks associated with disposal of solid waste, and adopted Act 78, Vermont's solid waste law.

Act 78 challenged Vermonters to manage trash in a new way, and encouraged communities to develop management plans in accordance with the following hierarchy of goals: source and waste reduction, followed by re-use, recycling, and lastly, disposal. The Act further required plans to be in place for the closure and monitoring of unlined landfills to begin on July 1, 1992.

Act 78 also established requirements for public involvement in solid waste planning so as to develop strategies and systems which "over the long term (are) sustainable, environmentally sound, economically beneficial, and (which) encourage innovation and individual responsibility." Accordingly, this section of the Plan promotes individual responsibility, encourages innovation, and encourages local solutions for wastes generated in order "that decisions shall be made at the most local level commensurate with their impact." (24 VSA Chapter 117, 4302 (b)(2)

Besides addressing the priorities of Act 78, solid waste plans must be in conformance with State Solid Waste plans and compatible with Regional plans. Solid waste plans must also demonstrate what solid waste facilities and programs will be established and where facilities will be located in the Region. In addition, plans

should indicate who is responsible for facility management, and how the State's goals for recycling and waste reduction will be attained.

Three Solid Waste Districts operate within our Region.. The Central Vermont Solid Waste Management District (CVSWMD) is our primary waste entity, serving Barre City, Barre Town, Berlin, Cabot, Calais, East Montpelier, Marshfield, Middlesex, Montpelier, Northfield, Orange, Plainfield, Roxbury, Washington, Williamstown, and Woodbury . The Mad River Solid Waste Alliance (MRSWA), formed and operated with assistance from CVRPC, is responsible for the solid waste planning for Duxbury, Fayston, Moretown, Waitsfield, Warren, and Waterbury. Finally, the Town of Worcester is the sole town in our Region participating in the Lamoille Solid Waste Management District.

CVSWMD recently adopted a policy/goal of working to achieve "zero waste" in the Region in the hopes that "by setting an extreme target for waste reduction, new levels of innovation and efficiency (will be) unleashed." The District argues that a zero waste goal can help create new businesses and jobs through waste-based economic development, strengthen existing businesses, and protect public health and the environment. It is estimated that landfilling/incineration creates one job per 10,000 lbs of material, while composting creates four, sorting and processing of recyclables creates 10, remanufacturing 25, and reuse business between 28 and 296.

Landfills

Vermonter's currently generate about 600,000 tons of waste per year, or approximately one ton per person! Currently, only about one third of this gets diverted from the waste stream through recycling, reuse, or composting. The rest must be disposed of through land filling (or incineration).

In Central Vermont, it is estimated that between two and three million dollars is spent annually on the disposal of approximately 40 million tons of trash. Of this, 73% goes to a landfill in Coventry, 23% to the Moretown Landfill, and 2% to Bethlehem, New Hampshire. Coventry's license is scheduled to expire in 2009. The Moretown Landfill recently received approval to add lined cell space (thereby extending its life) and to add a landfill gas to energy facility on-site.

In 1987, the District commissioned a study to examine options for managing solid waste. CVSWMD followed study recommendations and decided not to pursue waste incineration as a disposal method, but instead decided to find a site and develop a Regional lined landfill.

CVRPC assisted the District's Landfill Siting Advisory Committee (LSAC) in establish-

ing landfill-siting criteria that were endorsed by CVSWMD in 1989. As a result of LSAC recommendations, CVSWMD adopted a pledge to attempt to keep business and household hazardous waste from entering the Region's landfill.

Act 78 required that all operating landfills be lined by July 1, 1992. Lined landfills are designed to prevent leachate (e.g. liquid residuals of waste) from contaminating the environment. Collected leachate is sent to a municipal wastewater treatment plant or other biological treatment facility, where it is treated. However, wastewater treatment plants aren't designed to treat leachate, and, as a result, diluted quantities of heavy metals or organic compounds may be released into the air, waterways or sludge. Sludge is then released into the environment through land application, composting, or land filling.

Size and location are important issues to consider in any discussion of solid waste disposal facilities. While large, Regional facilities may provide space for long term disposal needs, they may also present economic difficulties to communities and haulers on the periphery of the Region. This could exclude smaller trash haulers, and instead promote larger, long-hauling waste businesses.

The siting of large Regional facilities may also commit the Region to "put all of its eggs in one basket," thus limiting future local disposal options in the event of unforeseen problems with the few, large facilities. Sub-Regional or local landfill facilities could guard against the above scenarios while promoting locally derived solutions. Thus far, CVSWMD's efforts to site such a Regional lined landfill disposal facility have been unsuccessful.

Recycling and Transfer Facilities

Recycling of appropriate components of the waste stream is one method available to reduce the burdens on disposal facilities. Available data indicate that source separation of recyclables produces a more acceptable market product. In addition, source separation keeps the management of solid waste closer to the point of generation, thus encouraging consumers to participate more fully in the management of their solid waste.

Recycling was made mandatory for households, businesses, schools and municipalities in the CVSWMD in 1995. Households must recycle clear glass, tin and aluminum cans, newspaper, and #2 plastic jugs. Corrugated cardboard and white office paper are added to the above list for the other entities. An estimated 25% diversion rate has been the outcome of this program.

Private waste haulers offer curbside collection of trash to approximately 90% of the households in the Region. These materials are brought to private processing facilities. The District at several locations within the Region subsidizes public recycling drop-off depots. In addition, there are several private facilities. These centers run the gamut between once a week drop off sites to full time transfer stations.

In our technology based society, electronic waste is a growing problem as various devices wear out and must be disposed of. More than 54 tons of so called "e-waste" was recycled through a CVSWMD pilot program between July 2005 and June 2006.

Processing Facilities

While facilities that process waste are given many different names, they all perform the following two functions: desired materials are separated from a mixed waste stream, and are processed for further management. Such facilities are generally more cost-effective if operated on the Regional rather than local level. However, when materials aren't carefully separated at the source, there is a greater likelihood of contamination and lower re-use value. In the absence of local recycling opportunities, large processing facilities may discourage the participation of individuals in solid waste management at the personal level, and attempt to rely on high technology solutions.

Composting

It is estimated that about 40% of the waste we generate is food and yard waste. Currently most of this is landfilled – a result that is both more expensive and wasteful than the better alternative of composting

Composting is a natural process of decomposition of organic materials. It is the biological process that allows leaves and grass clippings to degrade. Composting of the organic component of the solid waste stream could produce an end product that both saves landfill space and provides a useful soil amendment. Source separated organics could be managed locally to produce a compost that would benefit local gardeners, farmers and plant nurseries.

There are several different types of processes/facilities designed to compost, dry, or land-apply municipal solid waste and organic materials. These include the following: organic composting facilities, municipal solid waste composting facilities, organic materials drying facilities, land application of septage and sludge, and backyard composting units.

Source-separated organic composting is generally preferable to municipal solid waste composting. Municipal solid waste composting is a process that attempts to remove inorganic materials from mixed municipal waste before grinding, shredding and composting the remainder. On the other hand, organic composting facilities allow only source-separated organic materials (i.e. septage, sludge, yard and food waste) into the processing facility, and therefore allow minimal contamination. Organic composting appears to result in higher quality compost, and hence produces a safer product with a greater variety of potential land uses.

Land application of septage and sludge is another method of re-using nutrients by reintroducing them directly onto croplands. However, social and environmental concerns, including the introduction of heavy metals into the food chain, may continue to limit the use of this option.

The CVSWMD is quite active in promoting composting. In addition to producing and distributing the booklet "The Dirt on Composting" the District operates a "Business Organics" and a "School Organics" program. The former works with restaurants and other commercial food waste generators to divert food waste from landfills to composting (As of 2007, over 1200 tons); the latter with school cafeterias.

Re-use

In modern society we tend to throw away objects for which we no longer have use. Many such objects are suitable for other uses or desired by other individuals for their original use. By matching would-be discarded products with those in need of them, we may conserve resources and save valuable landfill space and product production resources. The Re- Store in Montpelier provides an outlet for used office supplies and knick-knacks for art projects. The Region also has a variety of used clothing stores and a Salvation Army, which re-sell clothing and furniture.

For its part, the CVSWMD holds a variety of "Drop and Swap" events, operates a "Reuse Stop" at the Barre Town recycling facility, and maintains a data base of Central Vermont businesses that buy or sell reusable items.

Business and Household Hazardous Waste Collection Facilities

Although most solid waste is relatively benign, a percentage is hazardous in nature. In fact about 1% of the landfilled material (or about 400 tons in Central Vermont) falls into this category. The disposal of even small quantities of certain types of solid waste, including unregulated hazardous wastes, may pose a risk to both human health and the environment.

Unregulated hazardous waste is comprised of two categories: household hazardous waste (HHW) and exempt small quantity generator hazardous waste (ESQG). Even though household hazardous waste exhibits characteristics of hazardous waste, they are exempted from State hazardous waste regulations and, for management purposes, are considered a solid waste. ESQG hazardous waste is exempt from most regulations, provided that less than 220 pounds of hazardous waste (or 2.2 pounds of acutely hazardous waste) are generated per month.

The Region's growing population is projected to generate quantities of household and business hazardous waste that will need proper management and disposal. With the likelihood of fewer landfills and solid waste processing and disposal facilities, it is important that both present and future generations be provided with the following: information on reducing the use of hazardous chemicals whenever possible; opportunities for diverting hazardous waste from the municipal waste stream through hazardous waste collection programs; and programs for hazardous waste screening at landfills and other solid waste facilities.

Both the Central Vermont Solid Waste District and The Mad River Solid Waste Alliance put on a variety of special one-day events, including household hazardous waste collection. In addition, there are now five permanent drop off locations for used oil. Three collection sites are sponsored by the District: Barre Town Ambulance Headquarters on Route 302 in East Barre, and the Northfield and Randolph Municipal Landfills; and two others are sponsored by the private sector. These include: Central Vermont Landfill in East Montpelier, and Waste Professionals of VT. A Montpelier paint store, True Colors, offers opportunities for latex paint recycling by reprocessing and reselling latex paint.

Communications

Our era is often referred to as "the age of communication." Innovations in the way we process and transmit information have made the world a smaller place. Communication networks are rapidly linking the Region's residents, businesses, and government with the rest of the world. While Central Vermont's existing communication facilities seem adequate to meet current needs, the maintenance and development of communications systems can help keep Central Vermont informed and competitive. Ultimately though, such systems may make our current working and living patterns obsolete; as they change the elements of our lifestyle, such as the distinctions between home, the work place, and the marketplace. Radio, newspaper, television and telecommunication are the communication systems addressed in this plan. (See map: Energy & Communications)

Radio

Central Vermont is home to seven radio stations. WNCS and WSKI broadcast out of Montpelier; Waterbury is home to WDEV and WGLY; WDEV-FM in Warren, Goddard College's WGDR, and WSNO - WORK in Barre round out the field. The Region is also served by Vermont Public radio and several commercial stations broadcasting from locations outside Central Vermont, as well as HAM operators.

Newspaper

The Barre-Montpelier Times Argus and the Burlington Free Press are the primary daily newspapers serving the Region and its residents. These publications cover international, national, Regional and local news. Weekly paper, covering local and/or sub Regional events include: The Valley Reporter (Waitsfield, Warren, Moretown, Fayston and Duxbury), The Hardwick Gazette (Woodbury, Cabot, Calais and Marshfield), the Northfield News (Northfield and vicinity), and the Washington World (all of Central Vermont). In addition, several community papers exist in the Region.

Television

Most residents of Central Vermont are within receiving distance of signals from affiliates of the major commercial networks (ABC and CBS stations broadcast from Burlington, and Plattsburgh, New York is home to an NBC affiliate). In addition, Vermont ETV, a public station, broadcasts from Colchester. Cable television is now available to over three-quarters of the Region's population. Under Public Service Board rules, cable television companies offer local access for community programs.

Vermont Interactive Television operates out of Vermont Technical College in Randolph feeding additional sites across the State, including Montpelier and Waterbury. This system allows people in distant locations to have visual and audio contact with each other for conferences, meetings and classes. This technology not only facilitates communication, but saves energy and reduces fossil fuel consumption as it obviates the need for long distance travel.

Telephone and Cellular Communication

For telephone service, most of Central Vermont is served by FairPoint Telephone Company. The Mad River Valley, where Waitsfield Telecom operates, Cabot and Marshfield, served by ConTel Company, and Northfield, served by the Northfield Telephone Company, are outside of FairPoint's service territory. However, Central Vermont has a state of the art telecommunication system. Much, if not all, of the Region will witness conversion to digital (i.e. "fiber optics") equipment in the years

ahead.

Cellular access has also become widely available. However, with the increasing demand for cellular capabilities, comes the increasing need for cellular towers. The placement of cellular towers is a planning issue of some concern throughout Vermont. It is important to balance aesthetics, signal quality, health, business and personal needs when deciding whether, and where, to build additional telecommunication towers.

While Central Vermonters want and expect good cellular service, they also expect the placement and design of new facilities to be guided by a respect for the integrity of the Region's landscape, and compliance with microwave emissions standards. As such, it is important to balance aesthetics, signal quality, health, business and personal needs when deciding whether and where to build new towers and other facilities.

The Federal Telecommunications Act of 1996 does not allow local government to prohibit the construction of wireless facilities on a town-wide (or city-wide) basis, or to make regulatory barriers so onerous as to effectively block service. However, municipalities do have the right to place reasonable requirements and restrictions upon such facilities in order to protect community character and the environment, and encourage the efficient use of resources.

Accordingly, CVRPC developed a "Model Telecommunications Facility" bylaw to help communities think about strategies for siting facilities and to provide a legal framework for implementing such strategies. This model addresses such issues as "stealth design" (i.e. concealing facilities by disguising or hiding them), co-location (the sharing of facilities by service providers to reduce proliferation of sites), access roads and on-ground facilities, setbacks, protection of views, insurance, bonding, and removal. It also establishes an expedited permit process for "small scale" facilities.

Communities investigating the regulation of wireless facilities have to ask themselves many questions as they proceed. Would they rather have several small scale, less visible, facilities closer to the population or a few large, highly visible sites in less populated spots? Are there certain locations that are so environmentally or visually sensitive that they should be "off-limits"? What areas are providers most interested in serving? Through careful planning and clear, reasonable regulations, cities and towns can ensure good service without compromising the area's character or the welfare of residents.

5 Vermont. Department of Public Service. Utility Facts. October 2006.

Internet

Internet services have become an integral part of everyday life relied upon by business, emergency services, and the public. Clearly, the ability to communicate to almost anyone, from almost anywhere, at almost anytime brings added convenience and security to our lives.

Central Vermont has several internet providers, and high speed connections are now available to most residents in highly populated areas. However, in large parts of the Region, chiefly in rural locations, must still rely on dial-up connections over telephone wires - a slow and inconvenient process. This is a concern for residents of those locales and an impediment to economic development and energy saving activities such as telecommuting.

Fortunately, the State has recognized the importance of this issue and is taking steps to address it. The Vermont Rural Broadband Project assists rural communities in efforts to obtain or expand broadband services by helping community groups in documenting broadband demand, building a business case and locating potential service providers. In addition, in 2008, the Vermont Legislature funded a $180,000 grant program for broadband infrastructure development. These monies are available to municipalities and service providers alike.

Emergency/Health Services

The availability of emergency services and health care facilities helps to ensure the personal safety and physical well being of Central Vermonters. As the Region grows, changes, and ages, new and increasing pressures will be brought to bear on service providers and existing facilities. While the cost of providing such services soars, public funding supplies are not keeping pace. Obviously, then, it will take innovative thinking and action to address the Region's long term emergency and health care needs.

The Enhanced 911 Board operates nine 911 call answering points, known as public safety answer points or PSAP. One of the nine PSAP's is located at the Montpelier Police Department. During 2001, 5,251 calls were answered for Central Vermont communities by the PSAP's. This represented 3% of the total calls made statewide. In 2002, the number of calls from Central Vermont increased to 9,557, or 6% of all statewide calls. It should be noted, however, that statewide calls were down by 8% in 2002. (See map: Emergency Management)

Fire Protection

Central Vermont is protected by over 20 local fire departments. Most of these are based in village or urban areas and staffed by volunteer crews. In some instances, the demands on local fire departments are beginning to outstrip their capabilities. Sprawling development patterns make response more difficult and time consuming. In addition, many departments are faced with a shortage of trained volunteers and less than state-of -the-art equipment.

All of the Region's fire companies are members of mutual aid systems. These associations provide for back-up assistance from neighboring member companies, when needed.

Montpelier Fire Department, Montpelier, Vermont.

Police Protection

Although not immune to crime, Central Vermont has historically enjoyed low crime rates. The Region's crime rate of the 1990's has declined sharply in the more serious crimes (Part I crimes such as homicide, aggravated assault, etc) and less significantly in lesser crimes (Part II crimes such as forgery, vandalism, simple assault, etc.) since the high in 1993. The Part I crime rate dropped by 23% from a Region-wide rate per 1,000 population of 33.42 in 1990 to 26.01 in 2001 while the statewide rate decreased by 35% from 45.64 to 29.90. The Part II crime rate for the Region increased from 70.46 in 1990 to a high of 85.60 in 1993. However, the 2001 rate dropped to 78.10, a decline of 9% from 1993. The statewide rate in 1990 was 83.33 and in 2001 was 82.57, a slight decrease from 1990, but a decrease of 10% from its peak of 91.03 in 1997. Our ability to maintain lower crime rates will depend on maintaining adequate police services at the local and Regional levels.

Barre City, Barre Town, Berlin, Montpelier, Northfield and Waterbury maintain municipal police departments. The Washington and Orange County Sheriff's Departments, located in Montpelier and Chelsea respectively, provide contractual law enforcement services to some of Central Vermont's smaller communities. The Vermont State Police (with headquarters in Waterbury and barracks in Middlesex) provides primary police service to those towns without municipal squads or contracts with County departments, and backup assistance to all others. In addition, the State Police patrols Interstate 89.

Police departments responding to CVRPC's survey cited increasing crime and lack of manpower as the greatest problem for the foreseeable future.

Ambulance/Emergency Medical Services

Some 17 ambulance and emergency medical squads operate in and around Central Vermont, providing first aid and medical transport to injured persons. Most of these operate with volunteer crews and are funded at least in part by donations and user/ member fees. Lack of volunteers and members are cited by several squads as major concerns for the future.

Medical Facilities

The Central Vermont Medical Center (CVMC), located at Berlin Corners, is the Region's most significant medical complex. With 122 beds and a service area which includes all of Washington County and portions of neighboring counties, CVMC is truly a Regional facility. A wide range of medical specialties and procedures including: emergency care, x-rays, rehabilitation, pre-natal and maternity care, pediatrics, physical therapy, mental health care, and cardiology, are available at CVMC. Some unusual and complex problems, however, may require more sophisticated treatment and/or equipment at tertiary care hospitals.

The Vermont State Complex in Waterbury, while now largely converted to state offices, still provides mental health care for some patients. In addition, the Washington and Orange County Mental Health Agencies provide mental health counseling, adult day programs, and substances abuse services to those in need.

The Region's elderly population is expected to grow for at least the next several decades. Accordingly, elder care facilities and services will become increasingly important. Central Vermont hosts five nursing homes boasting more than 500 beds in total. In addition, there are several facilities which provide at home nursing and health care options.

Finally, Central Vermont is home to several health care clinics including Planned Parenthood of Northern New England (Barre and Waterbury), private facilities, and complexes of physicians.

Health care costs continue to rise at a rate faster than the rate of inflation. Consequently, access to adequate health care services has become an impossibility to many. It is the position of CVRPC that health care should be everyone's right.

Emergency Planning & Hazard Mitigation

Emergency planning is an important aspect of planning that is critical to every municipality in Central Vermont and the Region as a whole. The goal of emergency planning and hazard mitigation is to work toward the development of disaster-resistant communities through land use planning that reduces the impacts of disasters on persons and property. Municipalities can utilize tools, such as town plans and zoning regulations, to implement sound land use practices that consider the consequences of disasters, whether they be naturally occurring or man-made. In order for a municipality or the Region to understand the types and extent of potential disasters, an assessment of all known risks from potential natural and man-made disasters needs to be completed. These identified risks can then be used to develop land use practices that will protect a community from disaster, based on mitigation, preparedness, response, and recovery.

Naturally occurring disasters, which are the most common form of disaster in Central Vermont, are those events that result from environmental conditions. These disasters vary in frequency and magnitude, but always pose a threat to the Region. In Central Vermont, the most common types of natural disasters include: floods, winter storms, hurricanes, landslides, wildfires, earthquakes, and even tornadoes.

Although some of these disasters may seem unlikely in Central Vermont, it is critical to plan for them so that the impacts from their occurrence can be mitigated if they do indeed hit the Region. However, those disaster events that occur more frequently in Central Vermont, mainly floods and storms, should be given priority in the planning process.

Between 1996 and 2006, the National Climatic Data Center reported 267 major storm events in the Central Vermont Region, all of which resulted in the loss of life or property. In total, these storm events cost Central Vermont $21.083 million in property damage and resulted in 5 deaths. Based on this data, it is evident that Central Vermont is vulnerable to major storms and the damage resulting from them.

Man-made disasters are those events that are caused by humans usually involving accidents with hazardous materials. Man-made disasters can occur either on-site, such as factory malfunction, or in transit, such as an accident involving a truck carrying hazardous materials. Although these types of events occur less frequently in Central Vermont than natural disasters, they can be extremely dangerous and a threat to public health. Title III of the Superfund Amendment Reauthorization Act (SARA), Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. (1986) gives a municipality the legal right to know what chemicals

are being used, stored, made, or transported through the community. During a community's risk assessment, this information regarding the presence of chemicals can be gathered from businesses.

Mitigation is any action that reduces or eliminates long-term risk to people and property from disasters and their impacts. It involves an ongoing effort at the individual, local, State, and Federal level and is aimed at reducing the impact of disasters on families, homes, communities, and economies. Mitigation includes compliance with the National Flood Insurance Program (NFIP). Municipalities must be in compliance with this program in order for property owners to receive flood insurance to offset some of the costs of major flood events. All 23 municipalities in Central Vermont are in compliance. However, FEMA is currently updating Flood Hazard Maps and regulatory standards – actions that will require amending local bylaws in many cases if eligibility is to be maintained. CVRPC has been assisting our communities in responding to these new mandates.

Municipalities in Central Vermont have a variety of tools and programs to assist them with mitigation activities, provided they have a FEMA-approved and locally-adopted Pre-Disaster Mitigation Plan. The Federal Emergency Management Agency (FEMA), through Vermont Emergency Management (VEM), administers the Hazard Mitigation Grant Program (HMGP).

This program allocates funding to municipalities, following a Presidential-declared disaster, to implement mitigation projects. In addition, the Vermont Local Roads Program, administered through St. Michael's College, assists municipalities in setting the proper standards for planning roads, culverts, bridges, and access to local roads. Finally, the Central Vermont Regional Planning Commission is developing a Regional Pre-Disaster Mitigation Plan which will address vulnerabilities and relevant mitigation projects throughout Central Vermont. Depending on the availability of funds, local appendices covering specific concerns and projects for each municipality will be developed in consultation with local officials.

Preparedness is the process of inventorying and organizing the people and tools available for responding to an emergency event. A municipality's Rapid Response Plan (RRP) is the first step towards emergency preparedness. An RRP, which identifies key emergency personnel, contact numbers, locations, tasks, and an evacuation plan, is a guide for use in the early stages of disaster response. Although RRP's are not required, all municipalities in Central Vermont are strongly encouraged to have one in place and to update it annually. The Local Emergency Planning Committee (LEPC) is comprised of one emergency coordinator from each municipality. The LEPC is responsible for developing a disaster response plan for the Region, including training and exercises. Currently, not every municipality in Central Vermont has a

representative on the LEPC; only Barre City, Barre Town, Middlesex, and Northfield do. However, all local leaders and emergency personnel are encouraged to participate in the Committee.

Response is a time sensitive reaction to an emergency event designed to save lives, save property, and stabilize the situation. Response to an event includes warning, evacuating, rescuing, sheltering, informing, and providing medical care to the public.

Recovery is the effort to restore the infrastructure and the social and economic aspects of communities after a disaster occurs. In the case of severe events in which

Emergency Resources by Municipality in Central Vermont (January 2004)

Municipality	Rapid Response Plan (Yr. Adopted)	Ambulance/ Rescue Service	Fire Department	Police Department
Barre City	2006	Barre City	Barre City	Barre City
Barre Town	2006	Barre Town	Barre Town	Barre
Berlin	2006	Barre Town	Berlin	Berlin
Cabot	2006	Cabot	Cabot	VSP
Calais	2006	E. Montpelier/ Barre Town	E. Montpelier/ Woodbury	VSP
Duxbury	2006	Waterbury/ Mad River Valley	Waterbury/ Moretown	VSP
E. Montpelier	2006	Barre Town	E. Montpelier	VSP
Fayston	2006	Mad River Valley	Waitsfield	VSP
Marshfield	2007	Cabot	Marshfield	VSP
Middlesex	2007	Montpelier	Middlesex	VSP
Montpelier	2006	Montpelier	Montpelier	Montpelier
Moretown	2006	Mad River Valley/ Montpelier	Moretown/ Waterbury	VSP
Northfield	2006	Northfield	Northfield	Northfield
Orange	2006	Washington	Barre Town/ Washington	VSP
Plainfield	2006	Plainfield	Plainfield	VSP
Roxbury	2007	Northfield	Roxbury	VSP
Waitsfield	2006	Mad River Valley	Waitsfield	VSP
Warren	2006	Mad River Valley	Warren	VSP
Washington	2006	Barre Town	Washington	VSP
Waterbury	2006	Waterbury	Waterbury	Waterbury
Williamstown	2006	Williamstown	Williamstown	VSP
Woodbury	2006	Hardwick	Woodbury/ Hardwick	VSP
Worcester	2007	Montpelier	Worcester	VSP

the President of the United States declares a disaster; Federal funds will become available to assist impacted communities with recovery efforts.

Emergency Management

Emergency management in Central Vermont is handled at the local level. It is led by a municipality's emergency managers and emergency personnel who are either professional or volunteer-based depending on the community. Emergency management deals with the emergency events that occur on a regular basis, such as fire, injury, accidents, and crime. It is very important to the social and economic stability of Central Vermont and should be a high priority in the Region. Due to limited emergency resources and the geographic extent of certain towns, emergency management is sometimes coordinated among municipalities. This is especially true with ambulance and rescue services in Central Vermont.

As a result of towns lacking sufficient resources to meet FEMA requirements to prepare for disasters, VEM looked to the Regional planning commissions to contribute educational information, training, and emergency expertise. In 1999, VEM contracted with the Regional planning commissions to administer the Local Emergency Management Program (LEMP). This required the Regional planning commissions to work with local municipalities on emergency planning, mitigation, education, exercises, and response.

Crime & Safety

Central Vermont is a relatively safe place to live where neighbors tend to look out for each other, and conflicts between members of the community are the exception rather than the rule. Vermont's crime rates are considerably below national averages and there wasn't a dramatic increase in those rates during the 1990's. It continues to be in the best interest of the Region and its residents to maintain and improve upon this enviable position.

At first glance, crime may not seem like an issue that bears much relation to land use planning. However, these issues do share many of the same peripheral concerns. Population growth tends to increase the opportunity for both interpersonal and land use conflicts. In addition, crime prevention experts and land use planners are both interested in many of the same "quality of life" issues, including: livable wage, the availability of meaningful jobs, access to education and training, access to transportation, community stability and vitality, recreational opportunities and even the aesthetic quality of the places where people live. It is widely accepted that vibrant, pleasant, well-planned communities can avoid many of the socio-economic conditions that lead to conflict. Conversely, low crime rates are essential to the

creation and maintenance of these kinds of places. To the extent that this relationship exists, it can be said that this Plan deals with the issue of crime prevention by default in the policies and programs espoused in its required elements. However, CVRPC believes the connection between land use planning and community conflict is important enough to merit direct attention.

Crime prevention is only one piece of the puzzle, however. The others may be found in the answer to the question "What happens after a crime has been committed?" The components of the answer involve the exploration of such concepts as justice, punishment, rehabilitation, restoration, and re-integration.

The traditional justice model is founded on the concept of retribution. The offender is generally punished for his or her offense by jail time, fines, or probation. The sentence is intended to be both the punishment and the rehabilitation with the prospect of returning to jail serving as the incentive to reform behavior. The offender has little or no contact with the victim of the crime and no requirements (or opportunity) to make amends directly. Some crime experts argue that this traditional justice model is responsible for over-crowded prisons, high recidivism rates, and an unsatisfactory outcome for crime victims.

Corrections agencies around the country, however, (including Vermont's Department of Corrections, DOC) are beginning to operate under a new paradigm that stresses "restorative" over "retributive" solutions for non-violent crimes. This new model (called the "Restorative Justice Program" and authorized in Vermont Statute Title 3 Section 163) is intended to make offenders answer directly to those they have wronged and begin to make amends to their victims and the community. Often this approach can maximize public resources by having offenders perform community services instead of serving costly prison sentences. In addition, it can reduce court loads and the associated expense to the taxpayers. However, there is the danger of the cost of delivering justice in this format being shifted from the State to the municipality.

Under the "restorative" model, justice for non-violent crimes may be prescribed by those closest to the offender and the victim through the establishment and operation of community reparative boards and/or restorative justice centers. Such an approach could work hand in hand with other local initiatives, such as neighborhood watch programs and "reintegration panels." While community-based justice would be in keeping with CVRPC's commitment to "bottom up" public processes, valid concerns exist over impartiality, over-zealousness, and personal vendettas whenever small town dramas play out. Consequently, the community restorative justice model demands protection against abuse. In addition, financial incentives to municipalities

Public School Enrollment

School	1990/91	2001/02	2005/06	% Change
Barre Town Elem	1,135	1,037	956	-8%
Barre City Elem*	890	974	905	-8%
Berlin Elem	250	267	230	-16%
Cabot School	249	235	193	-22%
Calais Elem	192	121	119	-2%
Crossett Brk Middle**	NA	348	312	-12%
Doty Memorial School	85	81	80	-1%
E. Montpelier Elem	247	251	223	-13%
Fayston Elem	101	108	112	4%
Harwood UHSD#19	738	790	828	5%
Main Street (Mtplr)	392	312	232	-34%
Montpelier High	396	437	430	-2%
Moretown Elem	176	171	172	1%
Northfield Elem	510	362	321	-13%
Northfield Jr/Sr HS	412	510	427	-19%
Orange Center School	133	104	97	-7%
Roxbury Village School	82	58	67	13%
Rumney School	179	162	149	-9%
Spaulding UHSD#33	906	1,000	931	-7%
Thatcher Brook Elem**	NA	453	411	-10%
Twinfield UHSD#33	514	504	496	-2%
U32 High School	822	824	890	7%
Union Elem (Mtplr)	498	413	392	-5%
Waitsfield Elem	153	159	183	13%
Warren Elem	150	168	143	-17%
Washington Village	151	93	60	-55%
Williamstown Elem	426	250	293	15%
Williamstown High****	167	325	303	-7%
Woodbury Elem****	NA	50	57	12%
TOTAL	**9,954**	**10,567**	**10,012**	**-6%**

* Five Barre elementary schools consolidated into a single facility between sample years.

** This is a relatively new facility serving Waterbury and Duxbury grades 5-8

*** Waterbury and Duxbury grades 1 through 4 were consolidated into the former Waterbury Elementary school which was then remanded Thatcher Brook Elementary.

****The Williamstown Middle school moved from the elementary building to the high school building.

SOURCE: Vermont. Department of Education. Elementary/ Secondary Public School Enrollment. 2005-2006 School Year.

are an integral part of the success of the community restorative justice model. The costs usually borne by the State should not be passed on to the municipalities.

Obviously, this model is not applicable to violent or serious crime. In such instances the need to protect the public from further harm requires that offenders be incarcerated even as it is becoming increasingly difficult to house the prison population.

Educational Facilities & Services

A commitment to education is the hallmark of an enlightened society. A well-educated citizenry contributes to the societal, economic, and cultural well being of a place. Education expands the horizon of individuals, families, communities, and nations. It is the laboratory in which new ideas develop, ideas that may one day mold the future, or correct the mistakes of the past. Further, education should be a life-long process, not a luxury of youth.

While the link between education and Regional planning is not particularly obvious, there are, in fact, connections. Planning decisions regarding the location and amount of future growth may influence the location and size of future schools or the stability of existing ones. Planning can help schools project future needs and assist municipalities in financing capital improvements. CVRPC hopes this Plan can be used to broaden access to educational and vocational training opportunities so as to help ensure the full realization of the abilities of Central Vermonters.

Central Vermont is home to 17 public elementary/middle schools, eight middle and /or high schools, and two schools (Cabot and Twinfield) which host students K - 12. (See map: Educational Facilities) Despite declining enrollment, some public schools face major expansion, renovation, or construction costs due to State public facility standards, as well as other factors. (see table Public School Enrollment)

Higher education thrives in Central Vermont. Norwich University in Northfield, Union Institute & University in Montpelier, and Goddard College in Plainfield offer four-year degree programs, in a variety of disciplines. Associates Degree programs and about 100 different courses are offered through the Community College of Vermont (CCV). CCV maintains central administrative offices in Waterbury and conducts classes in Montpelier. Woodbury College, in Montpelier, offers training in mediation, Para-legal skills, counseling and human relations. Montpelier's New England Culinary Institute trains in the culinary arts and operates two restaurants where skills are honed. Yestermorrow Design/Build School is an additional advanced education institution in Central Vermont. It offers courses in design, construction, woodworking and architectural craft and is located in Warren.

Vocational training opportunities are available to Central Vermonter's primarily through the Barre Regional Vo-Tech Center which offers programs in: accounting/ bookkeepers, typing/general office skills, general marketing, allied health, food service, vocational home economics, brick/stone masonry, automotive mechanics, and drafting. Some area high schools offer courses in vocational skills as well.

Regulated Child Care Providers in Central Vermont, 2007

Town	Registered Home Care Providers	% Regional Total	Licensed Providers	% Regional Total
Barre City	20	22%	6	27%
Barre Town	18	21%	3	14%
Berlin	2	2%	1	5%
Cabot	1	1%	0	-
Calais	0	-	0	-
Duxbury	2	2%	0	-
East Montpelier	5	6%	2	5%
Fayston	0	-	1	5%
Marshfield	2	2%	0	-
Middlesex	1	1%	0	-
Montpelier	6	7%	3	14%
Moretown	1	1%	0	-
Northfield	5	6%	0	-
Orange	0	-	0	-
Plainfield	3	3%	0	-
Roxbury	1	1%	1	5%
Waitsfield	0	-	3	14%
Washington	0	-	0	-
Waterbury	9	10%	3	14%
Warren	1	1%	0	-
Williamstown	7	8%	0	-
Woodbury	2	2%	0	-
Worcester	1	1%	0	-

SOURCE:Vermont Agency of Human Services.

Child Care

The availability of safe and affordable child care services is critical to the Central Vermont Region. Quality child care benefits families by preparing children for schooling and social interaction while enabling parents to work and provide income. It benefits businesses by expanding the workforce and creating more reliable, productive employees. Furthermore, child care facilities are businesses themselves and their existence expands local and Regional economies directly through the hiring of workers and purchase of goods and services. Research has shown that investment in early child development programs brings a real (adjusted for inflation) public return of 12% and a real total return, public and private, of 16%.

Availability: Despite the economic and social good created by child care services, Vermont appears to have a shortage of such facilities. In fact, the Child Development Division of the Vermont Agency of Human Services estimates that the capacity in regulated facilities meets only 50-60% of the State-wide need. Consider the following statistics:

- 80% of Vermont workers with children under the age of six work outside the home.
- 87% of Vermont women with school age children work outside the home.
- There are 93,436 children ages birth through 12 in the State. An estimated 60,733 of those require child care.
- There are currently only about 36,000 children in regulated care.
- Only 35% of licensed centers serve infants and toddlers.
- On average, children under six receiving child care spend 8-9 hours per day with their care providers.
- Only 25% of the demand for infant care is being met.
- An estimated half of all Vermont businesses have employees with a child or children in child care.

In Central Vermont, there are 87 registered home care providers and 22 licensed care providers (see Table 1 for breakdown). However, there are only 7 "quality" providers (licensed with 4 or 5 STARs in the Vermont Step Ahead Recognition System and/or with national accreditation). Furthermore, if we assume that each center is licensed for 50 children (some are less and some are more) then there are 350 spaces for an estimated 21,000 working population. This suggests that we have a crisis that is affecting the social and economic well-being of Central Vermonters.

Affordability: According to the Child Development Division of the Vermont Agency of

Human Services, the average cost for center-based care for infants is $140.92 a week and $125.71 for pre-schoolers. This means a family with an infant and a pre-schooler in licensed care would pay $266.63 a week, or $13,865 a year, for child care. (These figures may be the average for all providers, but are low for quality ones. Costs range from $8,000 to $11,000 per year per child depending on age. State subsidies are available, but fall short of actual tuition.) This equates to 29% percent of the median household income for Central Vermont.

It is probable that the high cost of child care keeps some residents of the Region out of the workforce. Simply put, for some families the cost and inconvenience of putting children in daycare outweighs any potential income gain. Even moderate income families that do opt for a daycare solution, often pay a large portion of their total income for these services and consequently struggle to get ahead.

While the financial challenges of child care are certainly daunting, the State of Vermont DCF Subsidy Program, operated by the Agency of Human Services, does provide some financial assistance to low and moderate income families. The amount of the subsidy available is based on a formula (tied to the poverty rate) which takes into account both income and family size. Unfortunately, the formula has not been changed since 1999. Consequently, the percentage of families qualifying for subsidies has been decreasing. It would cost an estimated sustainable $18 million to bring subsidies up to date. Therefore, many working poor families are caught in a downward spiral. Both parents need to work, can't afford child care and education which then affects their ability to survive.

Resources: While child care "slots" are scarce, resources for parents, providers and would-be providers are abundant. Among the many sources of information and assistance are:

- The Family Center of Washington County/Child Support Services – Offers referral services, operates care programs. www.fcwvt.org/child care. (802)-828-8771 (referral), (802) 828-8774 (subsidy).

- Bright Futures Child Care Information System – Web based resource providing comprehensive information on child care in Vermont, as well as municipal level data on regulated care providers. www.brightfuturesinfo.org

- Vermont Association of Child Care Resource and Referral Agencies – Works with parents, care providers, businesses and community organizations to provide quality child care services throughout the State. www.vermontchild

care.org

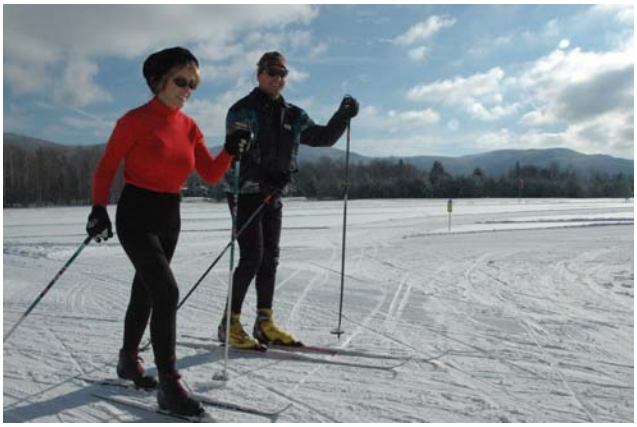
- Vermont Child Care Consumer Line – Provides access to records of violations, counseling regarding child care concerns. www.dcf.state.vt.us/cdd/programs/child care/cccl.html.

Outdoor Recreation

Recreation is a basic psychological need; not a frivolous luxury. To recreate (literally, to "make new") is to refresh minds, bodies, and spirits. The ability to recreate enhances the quality of our lives immeasurably. Where the opportunity for recreation is denied, history and science have shown the spirit withers.

Recreation contributes not only to our individual well being, but to the health of our society as well. Throughout Vermont, recreation breeds tourism, which in turn provides an influx of imported wealth. Recreation also improves the health and productivity of our work force, thereby saving untold dollars for health care. In addition, a Region that boasts recreational amenities has a competitive advantage in attracting new entrepreneurs.

One of Central Vermont's greatest recreational "facilities" is its landscape. Besides being the home to Vermont's last undeveloped mountain range (the Worcester Range), a bounty of mountains, rivers, lakes, forest and fields, provide a virtual playground for residents, neighboring Regions, and out-of-state visitors alike. The Region boasts some 59,194 acres of public outdoor recreational lands. These include a National Forest, eight State forests, three State parks, four wildlife management areas, and about a dozen municipal forests. In addition, there are public parks and playgrounds, as well as State surface water access points.


Skiers at Ole's Cross Country Ski Center, Warren, Vermont.

In addition, an impressive network of trails traverses the Region. While these lands contain some of Central Vermont's finest scenery, natural resources, and recreational opportunities, such values are abundantly represented in many of the Region's private holdings, as well. Accordingly, un-posted private lands are an important fabric in Central Vermont's recreational tapestry.

Given the Region's natural endowments, it is not surprising that recreational pursuits dependent upon or enhanced by natural resources and scenery flourish here. Skiing, snowmobiling, hiking, jogging, hunting, fishing, golf, cycling, boating, swimming, camping, picnicking, and auto-touring are examples of some of our popular outdoor activities. So popular are they that occasionally their practitioners find themselves in conflict with each other over scarce resources. Furthermore, the Vermont State Outdoor Recreation Plan (SCORP) has predicted that water- based recreation, bicycling, day hiking, walking and X-C skiing will witness increasing popularity over the next few decades, and the public demand for a more elaborate network of trails and green-ways, for recreation and transit, will increase accordingly.

Alpine skiing has, however, shown a decline in terms of participation, although the enthusiasm of its adherents has not been tempered. Recent mild winters, the sport's expense, and the popularity of X-C skiing as an alternative are all factors in the recent decline. However, alpine skiing is a major industry in Central Vermont, and one of the economic mainstays of the Region in general and the Mad River Valley in particular.

The SCORP report also identified several societal trends that may affect recreation in Central Vermont in the years to come. Among these are: decreasing leisure time/ shorter vacations; aging population/life long interest in recreation; recreation for fitness; increased privatization and commercialization; continued low levels of public funding for public recreation; resources threatened by recreation/overuse; resources/opportunities threatened by development and pollution; redistribution of population and decline in community spirit; changing households; loss of opportunities on private land due to fear of liability, property damage, and fragmentation of large land holdings; and increases in travel and tourism.

CVRPC faces the challenge of promoting and capitalizing on those trends which bode well for the Region, countering those which may have negative impacts, and adapting to those which are neutral and unavoidable. (See map: Public Recreation Resources)

Cultural Resources

The word "culture" refers to the development, improvement or refinement of the mind, emotions or interests, through ideas, customs, skills and arts. The opportunity for cultural experiences like recreation, theater, the arts, craft making, and public discussion is critical to our well being, happiness, and fulfillment. Culture, while universal among humans, is manifested differently, and with varying intensity, in different places. While the more urbane among us may perceive rural areas as existing in a cultural void, this is never true. Such an assumption about Central

Vermont would be particularly erroneous. We are, in fact, in possession of cultural resources of unusual richness, quality and diversity for an area of our size and population.

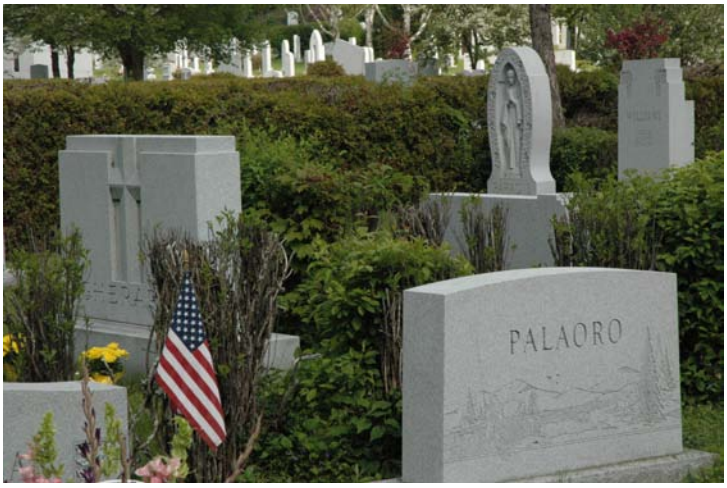
This wealth of culture is partly responsible for Central Vermont's popularity as a tourist destination. At the same time, tourism bolsters our cultural resources. The link between culture and the economy is becoming ever clearer.

Central Vermont is home to a talented array of artists, musicians and crafts people, including many who have migrated here seeking a fertile ground and supportive environment for their endeavors. A multitude of festivals, galleries, playhouses, concert halls, and patron organizations exist in support of these talents.

The Region's public libraries (of which there are more than one dozen) conduct and sponsor readings, discussions, lectures and other literary activities. In addition, a few local literary publications provide a forum for amateur writers.

Central Vermont has several facilities capable of housing large cultural events and programs, including the Barre Opera House (seating capacity 645 and recently renovated to be handicap accessible), Montpelier's City Hall Auditorium (seating capacity 600-650), Barre City Auditorium, and Barre City Recreational facility (the BOR). The Region's colleges, and primary and secondary schools also provide space for cultural happenings.

Museums are archives of our culture. Central Vermont's cultural treasures are well protected in a diversity of small museums. Montpelier is home to the T.W. Wood Art Gallery (Vermont College), the Statehouse Museum, the Children's Museum of Central Vermont, and the Vermont Historical Society Museum. The former Kent Tavern Museum in Calais remembers 18th and 19th century agrarian life. In Northfield, the Norwich University museum displays a variety of military artifacts. Several local historical societies maintain small displays as well.



Hope Cemetery, Barre, Vermont.

Historical & Archeological Resources

Preserving an accurate and tangible record of historic and pre-

historic endeavors of the people of Central Vermont helps us to develop a better understanding of the past and an awareness and appreciation of our cultural lineage. Significant properties and historic resources edify and provide important benefits to individuals, municipalities, and the Region in the forms of aesthetics enhancement, economic revitalization, tourism, job creation and investment tax credits.

Central Vermont harbors a rich historic record, in its buildings, in its soil, and in the very fabric of its landscape. It is a goal of this Region to preserve, protect, and perpetuate this record as an important part of Vermont's heritage.

UTILITIES, FACILITIES, & SERVICES GOALS AND POLICIES

ELECTRIC POWER GOAL:

To promote the upgrading, improvement, and expansion of electric power generation methods and infrastructure so as to provide adequate service, conserve energy, maximize public investment, and protect public health.

Policies:

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

2. CVRPC encourages the development and use of renewable energy sources to meet the Region's electrical power needs.

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

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

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

6. The Commission encourages adherence to environmentally and ecologically sound utility line maintenance practices.

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

8. CVRPC encourages underground placement of electric distribution lines where possible and economically practical, in order to promote the aesthetic enhancement of the Region, particularly in urban areas.

9. In all cases, transmission and distribution line routes shall be designed to minimize aesthetic impacts. The use of wood support structures, appropriate conductor colors for the background, and landscape compatibility techniques are encouraged.

10. Natural and cultural resource areas, as identified by this Plan, shall be avoided wherever possible, in the location or routing of new substation or transmission facilities.

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

12. Municipalities, in their plans, should consider the visual impacts of the siting of utility poles.

WATER SYSTEM GOAL:

To promote the upgrading, improvement, and expansion of public water system facilities so as to protect public health, maximize public investment, and reinforce desired patterns of growth.

Policies:

1. Where existing water supply systems are functioning properly, they should be utilized. Particularly when located in combination with the Region's wastewater systems, the service areas of water supply systems are recommended for high intensity development.

2. Land uses or activities that would measurably degrade the quality of water supply sources should be prohibited. (CVRPC will assist communities in developing local regulations to protect aquifer recharge areas.)

3. Inter-municipal water supply agreements are encouraged. The sharing of water resources can be a cost effective method of insuring that water supply adequately supports the municipal plan.

4. CVRPC encourages municipalities that have not already done so, to identify and protect backup or alternative sources of water. (The Commission will assist such efforts at the request of local officials.)

5. Service area expansions should be designed to encourage development in areas where growth is appropriate and desired. Expansions should be discouraged in areas where development is undesirable.

6. Capacity expansion and water quality improvements to existing water supply systems are encouraged where such problems are impediments to concentrated growth.

7. CVRPC urges communities, when designing and constructing water systems, to require the site engineer to provide as-built plans for water systems so as to ensure knowledge of the exact placement of underground distribution lines when the need for repair or replacement arises.

SEWAGE TREATMENT GOAL:

To promote the upgrading, improvement, and expansion of sewage treatment facilities and options so as to protect public health, maximize public investment, and reinforce desired patterns of growth.

Policies:

1. This Plan supports efforts to improve existing wastewater collection and treatment systems.

2. Municipalities are encouraged to establish a schedule indicating when and for what uses remaining capacity should be allocated. A schedule of the number and types of hookups can serve a similar purpose.

3. CVRPC encourages efforts to improve water quality through the separation of combined sewers or other method to ameliorate the harmful impacts of CSO's.

4. In order to encourage municipalities to optimize the use of wastewater treatment capacities, municipalities are encouraged to participate in inter-municipal facilities or agreements. Inter-municipal facilities can prove cost effective for the communities involved. At the same time, capacity allocation agreements offer individual communities the option of encouraging or discouraging growth.

5. New or expanded wastewater treatment facilities should be planned where municipalities have immediate need or where additional growth is appropriate and desired.

6. New collection and treatment systems or expansion of existing systems may be necessary to meet the needs of locally identified growth areas. (CVRPC will support and assist such construction or expansion projects. While CVRPC will strive to promote the compatibility of such projects with other portions of the Regional Plan, it is recognized that some environmental "trade- offs" may be necessary and justified to encourage settlement pattern goals.)

7. This Plan encourages the extension of municipal sewage treatment collection systems to existing developments within currently un-sewered aquifer protection areas in order to protect underground water supplies from harmful septic system leachate, and to allow increased development density, where appropriate.

8. Wherever possible, extensions of municipal wastewater collection systems should occur, along or within existing public rights of way.

9. This Plan recognizes "existing settlements" as those areas currently served by public sewer/or water systems or characterized by higher densities of development. Existing settlements include the downtowns and cities, the villages and the myriad concentrated neighborhoods.

10. Sewage treatment improvements outside of existing settlements, proposed growth centers, or locally approved areas should not be made at public expense.

11. CVRPC will promote and encourage environmentally and fiscally sound solutions to the Region's sludge disposal problem.

12. CVRPC encourages the use of shoreline zoning powers (24 V.S.A., Chapter 117, and Section 4411) to regulate the design of sanitary facilities on lands adjacent to surface waters.

13. CVRPC urges communities, when designing and building waste water disposal systems, to require the site engineer to provide "as-built" plans so as to ensure exact knowledge of the placement of underground collection lines when the need for repair or replacement arises.

SOLID WASTE GOAL:

To promote safe, sound, cost effective, and efficient solid waste management.

Policies:

1. Waste reduction, re-use, recycling, proper management and disposal of municipal solid waste help minimize detrimental impacts on surface and ground waters, air quality, soil, plant and animal and human communities. Maximum efforts should be placed on source and waste reduction. For both environmental and economic reasons, CVRPC supports waste reduction as a top priority of the Region, and the concept of "zero waste" as a means of accelerating solutions.

2. The concept of managing solid waste as close to the source as reasonable is encouraged with a preference given to local or sub-Regional solutions to waste management. Proper management of municipal solid waste should utilize environmentally sound systems and programs at the least cost possible.

3. The development of low-tech, low cost, environmentally sound waste management systems is encouraged.

4. Each individual or business in the Region should bear the cost of proper management of the waste generated. Recycling efforts should move in the direction of being financially self-supporting and locally controlled whenever possible.

5. Recycling facilities and programs should promote individual participation and responsibility. Communities are encouraged to adopt mandatory recycling ordinances at the local level where no waste district ordinance exists , The convenient and de-centralized placement of local drop-off facilities is encouraged.

6. CVRPC supports the establishment of a "center for hard to recycle materials (aka. CHARM) within the Region.

7. Composting of residential, commercial and institutional organic waste is encouraged in order to maintain the materials' highest re-use value. Composting efforts should move toward being financially self-supporting and locally controlled.

8. CVRPC will continue to implement recycling and waste reduction measures in our

internal operations.

9. CVRPC will continue to oppose projects in the Region (composting or otherwise) which ultimately involve the unmonitored distribution of Class A Biosolids from municipal wastewater treatment facilities unless and until it is demonstrated to produce a reliably and universally recognized safe product.

WIRELESS TELECOMMUNICATION FACILITIES GOAL:

To promote effective and efficient communication systems.

Policies (facilities access):

1. To enable new economic opportunities through the use of wireless telecommunications technology.

2. To help make high-speed internet access available to all areas of the Region and support the enhancement of the broadband internet network.

Policies (facilities siting):

1. Telecommunication facilities should not be sited where they may create an attractive nuisance.

2. Telecommunication facilities should be sited, designed, maintained and operated so as to minimize negative impacts on natural, cultural and scenic resources. Use of stealth design and/or use of existing structures are encouraged where appropriate. The policies of this Plan addressing ridgeline and hilltop development (see Land Use Element, Goal 5)) are intended to apply to telecommunication facilities.

3. Use of existing towers, communication facilities, and structures where possible, is encouraged and expected rather than development of new transmission and receiving stations. Permits for tower facilities should require permitees to accommodate additional users, appropriate to the structure, at a fair market rate.

4. Permits for towers should require a financial mechanism to ensure their removal by service providers should they be abandoned or rendered obsolete by advances in technology. Processes for establishing bonds should take inflation into account as many years can elapse between construction and removal.

5. Applicants must demonstrate that telecommunication facilities comply with FCC emission standards in order to protect public health and safety.

6. CVRPC will attempt to work with service providers and municipalities to identify appropriate locations for the construction of new tower (or other facilities) necessary to achieve adequate coverage of the Region as well as locations that are not appropriate for new towers. CVRPC will act to implement the results of this effort through its participation in the Act 250 Process.

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

8. New towers should be constructed in areas served by existing roads or trails. Access roads should be designed to minimize their impact on scenic, agricultural, forestry, and natural resources.

EMERGENCY/HEALTH SERVICES GOAL:

To promote effective, efficient and accessible emergency and health care services.

Policies:

1. Adequate health care facilities and personnel should be planned and located throughout the Region so that all residents have access to such services. It is necessary that planning for these facilities be coordinated with population distribution and existing and future transportation patterns.

2. For all aspects of emergency/health service delivery, full consideration of the costs and benefits of cooperative and Regional provision of these services is encouraged.

EMERGENCY MANAGEMENT GOALS:

Goal 1: To build disaster resistant communities in Central Vermont through sound emergency planning and management.

Goal 2: To ensure that all communities in Central Vermont have the appropriate information, resources, and tools to respond to disaster events and recover from their impacts.

Policies:

1. Promote the importance of local emergency management plans to municipalities in Central Vermont.

2. Encourage municipalities to annually review and update their Rapid Response Plans for the new contact information and to identified risks.

3. Encourage municipalities to undertake and periodically review an all-hazards assessment in their community to identify potential hazards and the at-risk people and property.

4. Encourage municipalities to adopt minimum standards for public roads, bridges, and culverts (using the Vermont Local Roads Program and FEMA's standards).

5. Encourage municipalities to implement land use policies and development regulations that consider the potential impacts of disasters on people and property.

6. Discourage residential, commercial, or residential development in flood plains.

7. Maintain, wherever possible, vegetated buffer strips adjacent to all waterways to reduce the occurrence and magnitude of flooding.

8. Encourage municipalities to amend flood hazard regulations so they comply with current NFIP requirements.

9. Provide local officials with information on programs and funding available through FEMA and/or VEM for emergency management and hazard mitigation projects.

CRIME AND SAFETY GOALS:

Overall Goal: To minimize community conflicts within Central Vermont, reduce the Region's already low crime rate, and protect the community from violence and serious crimes.

Goal 1: To prevent the social and economic conditions that often lead to community conflicts.

Policies:

1. To encourage the use of early intervention and prevention strategies in schools

2 To work to implement the other goals and policies of this Plan, particularly those regarding education, housing, and employment.

Goal 2: To foster safe and supportive communities by educating municipal officials on crime issues, supporting prevention programs, encouraging rehabilitation strate-

gies, and fostering public safety.

Policies:

1. To encourage municipalities to investigate the establishment of community based, victim focused crime prevention/justice initiatives.

2. To work with municipalities, VT Department of Social & Rehabilitative Services, and the Vermont criminal justice system to support the establishment of a Regional restorative justice center.

3. To support the use of conflict reduction/resolution techniques and restorative processes in schools, law enforcement, and communities.

4. To gather and report information on crime and safety indicators as related to other indicators of community health to establish data on possible relationships therein.

5. To coordinate all crime/rehabilitation related efforts with municipalities and the Vermont criminal justice system.

6. To encourage State financial and technical support for community restorative justice programs.

Goal 3:

To protect the community from violence and other serious crimes.

Policies:

1. To support incarceration of violent offenders.

2. CVRPC should consider the need for, costs, benefits, and detriments of construction of new prison facilities within the Region.

EDUCATION GOAL:

To promote effective, efficient, accessible, and affordable educational facilities and services.

Policies:

1. New development that places a significant impact on local and Regional educational systems must address and mitigate these impacts.

2. The construction of new educational facilities should occur in locally designated growth areas or in other locations that will maximize their convenience and accessibility to the population and infrastructure, and will contribute to the vitality of communities.

3. Through improved coordination among planning commissions, school boards and the State Department of Education, a Regional approach to planning for the placement and timing of construction of educational facilities is encouraged

4. Municipalities and school districts are encouraged to employ capital budgeting and programming as a means to anticipate and plan for the payment of capital improvements to public schools.

5. CVRPC supports and promotes efforts to broaden access to adult and senior educational opportunities.

6. CVRPC supports and promotes efforts to broaden access to vocational education opportunities.

CHILD CARE GOAL:

To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process.

Policies:

1. Continue to inform municipalities of their statutory responsibility to plan for child care and assist in this effort upon request.

2. Encourage municipalities to assess local barriers (regulatory or otherwise) to the provision of child care services and to support them in taking action to remove or reduce those barriers.

3. Consider undertaking, in partnership with local advocacy organizations, a Region-wide needs assessment for child care services. As part of such a program, CVRPC could examine the relationship between the location of jobs and the location of child care facilities.

5. Encourage the location of child care facilities in growth centers and existing settlements, near residential clusters, schools, and large employers, and along public transportation routes. Such locations can help reduce traffic, energy consumption, and the overall financial cost of day care for families.

OUTDOOR RECREATION GOAL:

To promote adequate access to a wide range of high quality outdoor recreational experiences to all sectors of the population.

Policies:

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

2. CVRPC encourages, in particular, those recreational activities that focus on, respect, enhance, and educate about the natural environment.

3. Recreation inventories and needs assessments should occur at the local and Regional levels in order to determine deficiencies and conflicts, and to identify key recreational resources and opportunities on both public and private land.

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

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

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

7. CVRPC supports the maintenance or upgrading of existing surface water classifications to reflect their actual recreational uses, except where lower classifications may be needed for municipal sewage treatment projects.

8. Landowners are encouraged to voluntarily keep their lands open for public recreation and enjoyment where possible, so as to maintain the Region's tradition of informal, resource based recreation on private lands.

9. CVRPC will support future legislation to alleviate landowners of unreasonable li-

ability burdens.

10. New development proposals are encouraged, through design, to make an effort to preserve access to recreational uses for the general public.

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

12. CVRPC will work towards and support the maintenance and development of trail and greenway networks to provide for recreational diversity, tourist amenity, habitat linkage, and low impact transportation choices. Specifically, the Commission will strive to:

    - work with individual municipalities, at their request, to help plan local trails and greenways;
    - work with groups of municipalities and/or citizens to promote the concept and realization of a Regional trail and greenway network that connects and builds upon local initiatives;
    - encourage the paving of shoulder for safe bicycle and pedestrian travel on all State highways in the Region;
    - encourage the development of multi-purpose trail corridors along abandoned rail beds;
    - encourage municipalities to retain Class IV roads and public trails for public recreational use; and
    - encourage the provision of recreation along utility corridors, as appropriate.

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

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

CULTURAL RESOURCES GOAL:

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

Policies:

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

2. The protection and preservation of existing cultural resources and activities is a goal of the Commission.

3. CVRPC will continue to work with cultural organizations where appropriate to support cultural resources in Central Vermont.

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

5. CVRPC supports strengthening the role of cultural and artistic disciplines in public education.

HISTORICAL AND ARCHEOLOGICAL RESOURCES GOAL:

To promote the protection and use of the Region's historical and archeological resources.

Policies:

1. Municipalities are encouraged to provide a historic preservation section in their municipal plans. (CVRPC will assist in such an effort, if requested.)

2. CVRPC encourages development which preserves the historic and architectural

character of town and village centers and the rural landscape.

3. Therefore, it is the policy of this Commission to support and encourage downtown revitalization programs and Downtown and Village Center Designation. Downtown revitalization efforts are means to create jobs and to preserve our national heritage.

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

5. Where economically practical, rehabilitation of a historic site or structure should be designed to minimize the architectural impact and maintain the historic character of the site or building.

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

7. The impact upon the historic character of the area should be considered when public or private municipal improvement projects (such as sidewalks, roads and traffic improvements) are proposed.

8. Activities having substantial impact on an important historic site or structure should be planned in consultation with the Division for Historic Preservation, Agency of Commerce and Community Development.

9. Additions to a historic building should be designed to minimize the visual impact upon the site or building.

10. Land development adjacent to or on an important prehistoric or historic archeological site should be designed to minimize the impact upon the site.

11. Prehistoric and historic archeological sites are recognized as important to Vermont's history. Any activity that may have an impact on a prehistoric or archeological site should be planned in consultation with the Division for Historic Preservation, Agency of Commerce and Community Development.

12. CVRPC will provide support to local, Regional, and state non-profit historic pres-

ervation trusts upon request.

13. CVRPC will promote the awareness of historic preservation through periodic publication of funding sources available to municipalities and investment tax credits available to individuals.