CHAPTER 6: COMMUNITY UTILITIES, FACILITIES, AND SERVICES

BACKGROUND

Communities in the Windham Region depend on numerous infrastructure systems and public services to support public health, the function of communities, and the ability of the region to attract and retain businesses and residents. Broadly speaking, these include potable water supplies, wastewater treatment systems, solid waste management facilities, emergency planning and response, communications infrastructure, and human services facilities. This chapter examines the existing conditions, levels of service, and future needs of public and private facilities and services provided in the Windham Region. Discussion on public roads and pedestrian and bicycle facilities is included in the Transportation Chapter.

Infrastructure systems and public services are critical to supporting the health and well-being of our communities, but are often unnoticed. These utilities, facilities, and services are provided by a variety of different entities, including municipalities, private cooperatives, non-profit organizations, and private businesses. In terms of land use planning, the types and location of infrastructure investments can significantly influence how development occurs in communities. For example, in order to support higher levels of residential density and expanded commercial uses in village centers, adequate public water and wastewater systems are essential. Infrastructure investments should be planned and prioritized consistent with the future land use goals in the Land Use chapter.

Towns also need to look to the future when planning for their infrastructure needs for financial reasons. Maintenance and upgrade costs for water and wastewater systems and emergency response services are costly and by developing long-term plans towns can better forecast needs. State statute allows municipalities to create Capital Improvement Plans, which include an investment schedule for capital costs over several years and priority projects. This approach allows towns to budget and finance for future costs to minimize large, unexpected costs. Towns can benefit from encouraging growth and development within areas served by utilities and facilities to take advantage of public investments that have already been made.

The region will also need to consider how community utilities, facilities, and services continue to serve our residents given changing demographics and needs. Our population is ageing, which has implications for planning for health care facilities, emergency response services, and senior housing projects that require water and wastewater systems. The region has also dealt with an increase in substance abuse and mental health issues and there is a need for

enhanced and comprehensive support services. Finally, many workplaces have shifted to having an option for remote work, which requires adequate internet and cellular services for workers. These utilities are still lacking in parts of the region and need to be improved to support the local economy and ensure residents have adequate service.

WATER SYSTEMS

The majority of the Windham Region is served by individual private water supplies. In addition, there are over 50 public community water systems, which may be operated by a town, village or special purpose municipality, or privately operated, either individually or cooperatively. Municipally-owned public water supply systems are often provided in the more densely settled sections of towns and villages that may not otherwise have access to a safe and reliable domestic water supply. Many of the region's non-public water supplies serve seasonal housing developments located close to ski resort areas and some of the smaller villages.

Centralized systems allow residents to share in the cost of acquiring and maintaining their water supplies. Generally, public water supplies are easier to maintain and protect than individual water supplies in densely settled areas. Along with wastewater facilities, public water supplies allow for denser development within priority growth areas. Public water systems are particularly important to support higher density residential projects that require fire sprinkler systems and a variety of different commercial uses, in particular manufacturing, that need a reliable and high volume of water.

The most common problem facing communities that have or are exploring the creation of municipal or privately-owned public water supply systems is obtaining funding to acquire or upgrade water supply facilities. These systems are very expensive and communities can face challenges when trying to put together sufficient and sustainable financing for projects. The State has recognized the critical role of public water systems to support public health and revitalization in villages and recently created a new funding source for municipalities using State and Local Fiscal Recovery Funds received under the American Rescue Plan Act of 2021.

Table 8-1 below provides current data on the public water supply systems operated in Brattleboro, Bellows Falls, Guilford, Putney, Readsboro, Wilmington, and the Wilmington/Cold Brook Fire District. These systems serve populations ranging from approximately 330 to 12,000 people. In total, approximately 19,000 residents or 39 percent of the region’s population receives water through a public system. Policies regarding the extension of water mains for these municipal water supplies vary across the different entities.

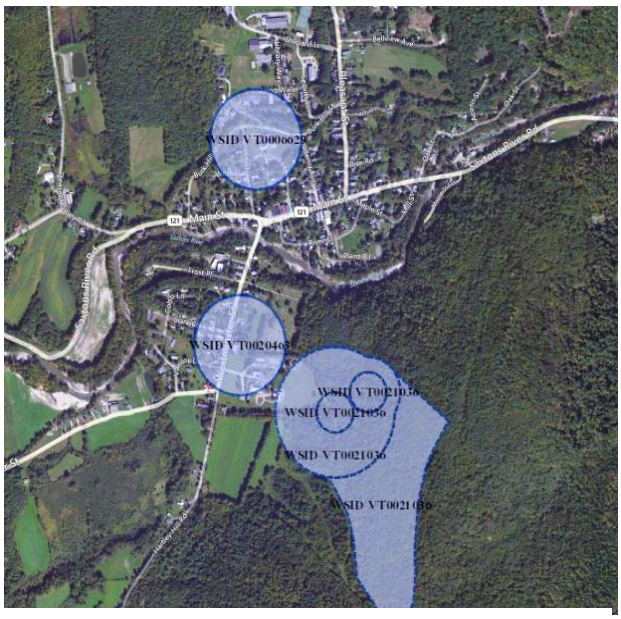
TABLE 8-1: PUBLIC WATER SUPPLES IN THE WINDHAM REGION

Town/System Name	Source Name/Type	Population Served	Capacity (MGD)	Pct of Capacity Used
Bellows Falls/Bellows Falls Village Water Department	Minard's Pond	3,500	1	30%
Brattleboro/Brattleboro Water Department	Pleasant Valley Reservoir Sunset Lake Retreat Meadow Wells	12,000	3	40-47%
Guilford/Guilford Water System	Extension of Town of Brattleboro Water System			
Putney/Putney Water System	Sand Hill Well	101 Properties	0.1	40%
Readsboro/Readsboro Village	Howe Pond	400-500	0.065	45%
Wilmington/Cold Brook Fire District "Golf Tract"	Wells	330	0.04	25%
Wilmington/Cold Brook Fire District "Base Tract"	Wells	808	0.15	7%
Wilmington Village/Wilmington Water District	Springs Haystack Pond Reservoir	1,500	Varies from 0.19-1.4	31%

Source: Information provided by water providers and town offices

According to the Vermont Department of Health, there are over 200 public non-community water supply systems in the Windham Region that serve non-residential uses, such as schools, offices, and motels. These small-scale systems are regulated by the Vermont Department of Environmental Conservation in the same manner as large systems. While almost every town in the region has at least one non-community system, the highest number are found in the towns with ski resorts (Dover, Londonderry, and Wilmington).

Each public water system has an accompanying source protection area. The adjacent graphic illustrates the source protection areas in Saxtons River as an example. Within the 200-foot radius of the primary water collection area, contamination impacts are likely to be immediate and certain. Beyond that, source protection areas are tested and mapped to determine further sources of probable and possible contamination. Where there has been no mapping, the State assumes a circular area with a 3,000-foot radius around the water source. The DEC has jurisdiction over the protection of public water supply sources. Within source protection areas, the DEC reviews Act 250 and wastewater facility applications. The DEC also requires that towns develop a plan for protecting source areas. Such protection may become part of a municipal zoning bylaw, though towns are not currently required to restrict land uses within these areas. Key Source Protection Areas in the region are identified on the Utilities Map.



GROUNDWATER SOURCE PROECTION AREAS, SAXTONS RIVER

Source: Vermont Natural Resources Atlas

Threats to groundwater and wells in the region include agricultural runoff, nearby salt storage areas, road salting, contaminated runoff from paved areas, flood events, and failing septic systems. Some private water systems have been pumped at rates exceeding the aquifer's capacity, resulting in yields that do not adequately meet the needs of users. Some systems have inadequate storage capacity, creating problems during power failures when homes may be without water.

As more PFAS (per-and polyfluoroalkyl substances) contamination is discovered in groundwater, additional public water systems may be required by the State of Vermont. This will require significant public investments. PFAS are a large group of commonly used chemicals whose components breakdown very slowly over time. Studies have shown that exposure to PFAS may be linked to harmful effects in humans. Since 2016, the Vermont Department of Environmental Conservation and the Vermont Department of Health have been working on identifying PFAS sources in Vermont, protecting consumers from existing exposures to PFAS, and encouraging the EPA to provide leadership

on the management of PFAS.

WASTEWATER TREATMENT SYSTEMS

Most of the region is served by on-site wastewater disposal systems and the majority of new housing is being built with private septic systems. There are 15 publicly and privately-owned wastewater treatment plants in the region. These systems are primarily located in downtown and village centers and in ski resort areas where there is a high concentration of commercial facilities and residential housing.

Villages that do not have centralized systems have difficulty attracting or retaining businesses and more concentrated residential development because these uses require a public system in a more densely settled area. Towns face high costs associated with the installation and maintenance of new systems, and there is often a lack of available land in village centers to site wastewater treatment facilities. Many of the existing wastewater facilities in the region also have trouble obtaining funding needed to maintain and upgrade their infrastructure. Funding can be obtained through user fees, capital reserve funds, bonding, and grants and loans.

Similar to public water systems, the State recognizes the need to help smaller towns with developing these systems and has set aside State and Local Fiscal Recovery Funds for grants for community wastewater systems in addition to existing funding programs. In the Windham Region, the towns of Londonderry, Grafton, and Jamaica are exploring systems for village centers in their communities. These towns are considering decentralized wastewater that includes small and larger soil-based water systems on suitable parcels. In comparison, centralized water treatment facilities have significantly higher costs and require more extensive permitting.

There are 9 municipalities with publicly owned wastewater treatment plants providing secondary or tertiary treatment and 4 privately owned treatment plants in the region (see Table 8-2). Facility types include lagoons, extended aeration and oxidation ditches, and rotating biological contactors. Most systems are operating under hydraulic capacity. However, the difference between design flow and current average flow does not necessarily represent available capacity. Other factors, such as capacity already allocated or being held in reserve, the ability to safely and economically dispose of the sludge that results from the treatment process, the organic load on the treatment plant that may be presented by different materials, and local decisions regarding how close to the limit the plant should operate, all affect the potential to use any remaining capacity. Generally, when a facility is operating at 80 percent capacity, the plant may be required to upgrade. Federal regulations and future nutrient loading limits may also play a prominent role in affecting the potential use of remaining capacity.

TABLE 8-2: WINDHAM REGION WASTEWATER TREATMENT FACILITIES

Municipality	Facility Design Capacity (MGD)	Percent of Design Hydraulic Capacity Remaining	Sludge Treatment or Disposal Technique	Effluent Disposal Location
Bellows Falls (serves Walpole & N. Walpole, NH)	1.4	66%	Compost	Connecticut River
Brattleboro	3	50%	Land Application	Connecticut River
Jacksonville	0.0501	41%	Landfill/Compost	East Branch North River
Putney	0.1	50%	Landfill/Incineration	Sacketts Brook
Readsboro	0.075	42.9%	Land Application	Deerfield River
Saxtons River	0.105	50%	Co-treatment	Saxtons River
West Dover	0.475	40%	Landfill	Spray-Deerfield River Basin
Whitingham	0.0123	43%	Landfill/Compost	Deerfield River
Wilmington Village	0.135	73.75%	Landfill	Deerfield River
Wilmington/Cold Brook FD, Golf	0.049	80%	Incineration	Spray-Deerfield River Basin
Wilmington/Cold Brook Fire District, Base	0.03	--	Incineration	Spray-Deerfield River Basin
Winhall-Stratton Fire District	0.83	30%	Treatment	Erving WWTF Erving, MA

Source: Information provided by town offices and fire districts

Wastewater must be treated before being released to groundwater or surface water in order to ensure adequate removal of solids, destruction of pathogens, and removal of other pollutants, such as certain metals and organic compounds. Sludge disposal from municipal wastewater treatment plants is accomplished by land application, composting, landfilling, or incineration. No sludge is incinerated in the Windham Region, but several small treatment plants in the region ship sludge to be incinerated in Connecticut and landfilled in Massachusetts. The State of Vermont regulates the levels of nitrates, phosphates, PCBs, and seven metals in each land application of sludge.

Effluent that remains after treatment is discharged to either surface waters or groundwater. Four plants in the region discharge treated effluent by "spray irrigation," which involves spraying the effluent at controlled rates and at approved times of the year onto an area that is approved for that purpose and where public access is restricted. The remaining plants discharge effluent directly into one of the following streams: Connecticut River (four discharges), Deerfield River (three discharges), and one discharge each in Sacketts Brook, Saxtons River, East Branch North River, and No Name Brook. Discharges of effluent into surface waters are regulated by State and Federal agencies in accordance with regulatory requirements.

SOLID WASTE MANAGEMENT

Solid waste disposal services are essential to protect public health and the environment. In addition to the typical residential and commercial waste, there are numerous special wastes, such as hazardous materials, used motor oil, and septage that need to be properly separated and handled. As the region plans for its future solid waste management needs, it is important to develop strategies that reduce the quantity of waste generated and to ensure proper disposal of all materials. Recycling, composting, and hazardous waste collection are important components of solid waste management.

Seventeen towns in the region belong to the Windham Solid Waste Management District (Brattleboro, Brookline, Dover, Dummerston, Guilford, Halifax, Jamaica, Marlboro, Newfane, Putney, Readsboro, Stratton, Townshend, Vernon, Wardsboro, Westminster, and Wilmington), two belong to the Southern Windsor/Windham Counties Solid Waste Management District (Grafton and Rockingham), and three (Londonderry, Weston, and Windham) belong to the Londonderry Cooperative Group. Searsburg, Winhall, and Whitingham operates its own municipal facilities. Athens has a contract with Triple T Trucking for services. Somerset is not a voting member of Windham Solid Waste Management District, but is included in the District's Solid Waste Implementation Plan .

Vermont state law requires all towns to adopt a Solid Waste Implementation Plan (SWIP), either individually or through a solid waste district or inter-municipal association. The SWIP must document town or district waste facilities, explain how solid waste will be managed, and demonstrate compliance with the statewide Materials Management Plan adopted in 2019. In addition, SWIPs must be in conformance with any Town Plan and the Regional Plan.

In 2012, the Vermont Legislature passed the Universal Recycling Law (Act 148), mandating universal recycling and composting throughout the State by 2020. The law was phased in and banned the disposal of common recyclables in 2015, leaves, yard debris, and clean wood in 2016, and food scraps in 2020. The law requires all facilities and haulers that collect trash to offer recycling and food scrap collection. Transfer stations and bag drop haulers must also offer leaf and yard debris collection seasonally. According to the Universal Recycling 2019 Status Report,

approximately 72% of recyclable paper and containers are being recycled statewide. Home composting of food scraps is also on the rise with 58% of Vermonters reporting they compost or feed animals at least some food scraps in a 2018 poll by the Castleton Polling Institute.

The disposal of hazardous waste occurs in two different ways. District facilities accept wastes such as antifreeze, waste oil and cadmium batteries for recycling. Other household hazardous waste items (and waste from conditionally exempt small quantity generators) are disposed during special hazardous waste collection days that are held several times each year. Federal and State regulations govern the management and disposal practices of all industries, businesses, and institutions that generate in excess of 100 kg (220 pounds) of hazardous waste or 1 kg (2.2 pounds) of acute hazardous waste per month.

The only large industrial sources of wastewater sludge in the region are paper mills. Paper mill wastewater is treated on site by its generators. The solid and liquid portions from that process must be treated or disposed of, sometimes with wastewater treatment plant sludge and septage.

RADIOACTIVE WASTE MANAGEMENT

The former Vermont Yankee (VY) Nuclear Power Station is located on the Connecticut River in the Town of Vernon and first became operational in 1972. Since it was first proposed, the WRC has been engaged in discussions about VY because of its regional economic, energy, land use, and emergency planning significance. The plant was owned and operated by the Vermont Yankee Nuclear Power Corporation up until 2002 when it was purchased by Entergy Nuclear Vermont Yankee. In 2013, Entergy announced it would cease operations and close VY in 2014 due to economic factors. Entergy filed its Post Shutdown Decommissioning Activities Report, its decommissioning activities plan, with the Nuclear Regulatory Commission (NRC) in December 2014 and ceased operation fifteen days later.

In January 2019, ownership was transferred from Entergy to NorthStar for the purpose of decommissioning and site restoration after receiving approvals from the NRC and the Vermont Public Utility Commission. The approvals for the transfer of ownership were conditioned upon a decommissioning plan, related budget, and financial assurances. The WRC was a signatory to a Settlement Agreement and Memorandum of Understanding that were foundational to the Vermont Public Utility Commission (PUC) order.

Once the decommissioning has been completed and the site has been restored per federal and state standards and the PUC order, high-level nuclear waste and spent fuel will remain on the site, stored in casks in the on-site Independent Spent Fuel Storage Installation (ISFSI) until transferred to the US Department of Energy (DOE). The transfer to DOE is assumed to be complete by 2052 at which point the ISFSI will be decommissioned and the NRC license terminated. This assumption is made by the federal government which has thus far failed for decades to

establish either a permanent or temporary high-level nuclear waste and spent fuel repository, thus how, when or if the spent fuel will ultimately be removed from the site is uncertain. The WRC has taken the position that the Vermont Yankee license holder should use its commercial best efforts to remove spent fuel and high-level nuclear waste from the site as soon as possible. The WRC has also commented on U.S. Department of Energy consent-based siting of spent nuclear fuel and high-level radioactive waste. While the footprint of the ISFSI is small, the Vermont Yankee site itself is also small (approximately 125 acres), and the presence of an ISFSI has historically contributed an impediment to redevelopment of decommissioned nuclear power station sites in the United States.

EMERGENCY SERVICES

Resilient communities are better able to withstand and recover from disasters. Two key elements of resilience are emergency planning and preparedness. Comprehensive emergency planning is achieved by mitigating potential hazards through implementation of sound land use practices and establishing emergency procedures to guide effective response and recovery. Community experiences during and following Tropical Storm Irene in 2011 and the flooding of July 2023 revealed the importance of direct emergency preparedness, achieved through having the infrastructure and resources, trained personnel, and emergency services in place to respond swiftly and effectively.

EMERGENCY PLANNING

Vermont Emergency Management contracts with most Vermont regional planning commissions to assist towns with emergency planning. Statewide, this has changed emergency planning from a top-down system to a more locally and regionally coordinated process. The WRC coordinates with Vermont Emergency Management (VEM), the Federal Emergency Management Agency (FEMA), local emergency responders and emergency management directors, mutual aid organizations, the Red Cross, the Vermont Agency of Transportation, the State Emergency Response Commission and other regional planning commissions to continually promote emergency planning and disaster resilience for our member towns.

Building disaster-resilient communities through sound land use planning is a primary goal of emergency planning. Emergency planning involves prevention, preparedness, response, recovery and mitigation. Prevention and mitigation involve strategies aimed at vulnerability reduction or elimination to protect and/or relocate public and private property away from predictable hazards. Preparedness planning involves having the appropriate policies, plans, protocols, training and equipment in place prior to an event. Response planning is both creating tools to assist towns with their own on-the-ground response efforts and ensuring that they have what is needed for that response. It also involves up and down information sharing between state agencies and towns during and after events. At the planning level, recovery involves short- and long-term actions taken to assist towns with recovering to a less

vulnerable state and it involves coordination across many organizational boundaries. In short, accidents and natural hazard events will always happen; the extent to which they become emergencies or disasters is partly a function of readiness.

With the enactment of the Federal Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, Congress imposed upon state and local governments additional planning and preparedness requirements for emergencies involving the release or spill of hazardous materials. Provisions of this law require that facilities with hazardous materials stored on-site report these products to local fire departments, the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC). VEM and the SERC have organized the LEPC structure to form a statewide LEPC that fulfills EPCRA requirements with Regional Emergency Management Committees (REMC)in place to maintain local engagement. WRC provides administrative support for the Windham REMC. Membership is composed of two REMC appointees from each member town: the local emergency management director and a second interested volunteer who is actively a part of an emergency response organization serving the Windham Region. REMC meetings cover requested topics or the latest emergency management issue facing the region and provide opportunities for networking, skill sharing, problem solving and learning. The WRC also has an Emergency Planning Committee to provide an opportunity for commissioner engagement in the work of the WRC that is supported by funding through the Emergency Management Planning Grant, to develop effective strategies to support emergency planning within towns, and to develop a cadre of commissioners to supplement staff in the event of another large-scale disaster.

Response assistance for all types of emergencies may be provided by local and Vermont State Police, local fire companies, public works departments, state agencies, the local Red Cross Chapter and private contractors. Other disaster relief services, such as emergency shelters, are provided by these same local response organizations, and may be coordinated with FEMA or state agencies, as appropriate. The role of Regional Planning Commissions (RPCs) in disaster response and recovery is defined through a comprehensive memorandum of understanding (MOU) between the RPCs and VEM. This MOU recognizes the essential and varied emergency response and recovery roles RPCs have assumed both within their own regions in support of their towns, in the provision of assistance to sister regions, and at the State Emergency Operations Center.

EMERGENCY PREPAREDNESS AND CROSS-TOWN EFFORTS

National Incident Management System (NIMS) provides a consistent nationwide framework and approach to enable government at all levels, the private sector, and non-governmental organizations to coordinate response and recovery efforts. NIMS trains emergency responders from different jurisdictions and disciplines to work together effectively and efficiently in response to natural disasters and emergencies, including acts of terrorism. One of the

major elements of the Command and Management component of NIMS is the Incident Command System (ICS). ICS is used to organize on-scene operations for, ranging from small to complex incidents, both planned (such as a parade or holiday event), and unexpected, such as the sudden onset of a natural or man-made disaster. ICS is structured to facilitate activities in five major functional areas: Command, Operations, Planning, Logistics and Finance/Administration. ICS is used by all levels of government – federal, state, tribal and local. VEM and the FEMA provide in-person and virtual training in ICS throughout the year. These and other emergency management trainings can be found on the Learning Management System. WRC promotes the importance of training all town employees in ICS 100, which is the most basic level.

WRC works or has worked with the vast majority of member towns to develop or update a Local Hazard Mitigation Plan. FEMA approved Local Hazard Mitigation Plans are critical in helping towns to identify their vulnerabilities to natural hazards, determine the level of risk and the potential impact of those hazards, and to ultimately develop strategies to mitigate the loss to property or lives which could result from those hazards. The WRC helps member towns understand the significance of natural land processes and how such knowledge should inform their land use decisions, i.e.: where to build, and where not to build. Workshops and trainings with experts in various fields of emergency planning are held occasionally for town officials and interested members of the public. These events are a way of bringing officials from the region's towns together to meet one another, develop cross-town communications networks, and come away with new knowledge about how to plan for and manage emergency events.

Each major hazard event we experience teaches lessons about emergency preparedness. Towns now know how critical it is to have a consistent and thorough documentation mechanism in place to keep track of all recovery and repair work for reimbursement purposes. Towns also realize the importance of keeping their emergency shelters ready and fully functional in the case of an event that displaces people from their homes. The Red Cross Local Shelter Initiative is able to offer towns permanent supplies of cots, blankets, and pillows for their local shelter, as long as the space is capable of meeting Red Cross standards and the town recruits a separate pool of volunteers, not including town officials and first responders, who will be trained for emergency shelter operations. In many towns it is a challenge to find and keep up to date volunteers for this task. Towns must also have staff trained and ready to run the town Emergency Operations Centers (EOC) where response efforts are coordinated at the local level. Other practical steps for towns to increase their resiliency are: to develop interoperability of communications between fire, police, road crew, and town officials; have hydraulic and hydrologic studies for road/culvert/bridge improvements done in advance; and create detailed capital improvement budget plans to implement the mitigation strategies in their Hazard Mitigation Plan.

FIRE

Most towns in the region have local fire-fighting capacity within their boundaries. The towns of Brattleboro and Wilmington and the villages of Bellows Falls and Saxtons River have fire departments which are also divisions of local government. The remaining towns are served by privately incorporated volunteer fire companies and some are partially staffed by paid firefighters. Many of these private fire companies receive a significant amount of their funding from the towns they serve, but they operate successfully because of the dedication of the fire company personnel who volunteer their services and a great deal of their time. Several towns have more than one fire company within their boundaries to better serve different areas. Only Athens, Searsburg, and Somerset do not have local fire companies. Athens is served by the Saxtons River fire department. Searsburg and Somerset are served by the Wilmington Fire Department.

MARLBORO FIRE STATION

All of the region's fire companies are members of mutual aid systems, associations that allow local fire companies to receive fire-fighting assistance or back-up service from other member fire companies. There are five mutual aid systems that serve Windham Region towns: Keene Mutual Aid, Tri-State Mutual Aid, Tri-Mountain Mutual Aid, and Deerfield Valley Mutual Aid. Some towns belong to more than one mutual aid system. These types of mutual aid systems are critical for providing emergency response services given that many communities in the region have small fire departments with limited equipment and personnel.

Increasingly, the lack of volunteer fire-fighters and rescue personnel threatens to seriously compromise the effectiveness of the region's fire companies and emergency medical squads. As is true for many fire services nationwide, limited discretionary time at work, increased cost, increased training demands, and an aging population of fire service personnel combine to restrict volunteers' availability. Additionally, many fire departments are seeing increased calls to respond to medical emergencies and there is a need for properly trained personnel for these service calls.

EMERGENCY MEDICAL SERVICES

First response squads respond to calls for emergency medical service by getting to the injured person as soon as possible and stabilizing the person's condition until a licensed emergency medical transport vehicle arrives. Many members of these local rescue squads also volunteer to use their own vehicles and equipment to respond to calls for emergency medical services when contacted by a mutual aid system or other dispatching service. The following towns maintain volunteer first response squads: Dover, Dummerston, Grafton, Guilford, Halifax, Jamaica, Marlboro,

Putney, Rockingham, Vernon, Wardsboro, Westminster, Whitingham, and Winhall. The Brattleboro Fire Department is a state-licensed EMS provider and provides EMS services for the Town of Brattleboro.

Five ambulance/rescue squads provide emergency ambulance services between towns and health care facilities. The professional and private State-licensed ambulance services include Deerfield Valley Rescue (Wilmington), Rescue, Inc. (Brattleboro & Townshend), Golden Cross Ambulance (Rockingham & Westminster), and Londonderry Volunteer Rescue Squad. Other entities outside of the region provide back-up service to these companies through mutual aid agreements. In addition, C&S Wholesale Grocers has a full-time rescue squad for its facility in Brattleboro which will respond to Mutual Aid calls as needed. Stratton Mountain Rescue functions during winter months only. Fire and EMS is dispatched for most of the region (and a few towns beyond) by Southwestern New Hampshire District Fire Mutual Aid (SWNHDFMA) operating out of Keene, NH. SWNHDFMA dispatches for 28 Vermont municipalities. Brattleboro is a member of SWNHDFMA but does not use their dispatch services. In 2025, SWNHDFMA promptly and efficiently handled 9,293 Vermont calls, of which approximately 75% were for emergency medical calls. First responder, basic life support (BLS), and advanced life support (ALS) EMS are provided by a coordinated network of fire departments, non-profit ambulance services, commercial ambulance services, and FAST squads. Fire departments that do not provide ambulance transport services are dispatched to EMS calls to provide first responder, BLS, and ALS care, technical rescue and extrication, incident scene safety management, incident command support, and personnel to assist with patient care and lifting. As of this writing, funding is being sought for the upgrade of 7 dispatch towers in the region with obsolete equipment.

POLICE

Law enforcement is organized into town and village police departments, the Windham County Sheriff's Department, and the Vermont State Police. The Village of Bellows Falls and the towns of Brattleboro, Dover, Winhall, and Wilmington have municipal police departments. Towns are allowed by Vermont Statute to employ constables, although the level of activity and authority of constables varies. Typical duties of a town constable include patrolling at sporting and community events and serving court summonses.

The Windham County Sheriff's Department has contracts with towns for the provision of service. The towns of Dummerston, Halifax, Jamaica, Marlboro, Newfane, Putney, Rockingham, Vernon, Westminster, and Windham have contracts with the Windham County Sherriff. This Department also has contracts for police protection with schools (Dummerston Elementary, Leland and Gray, and Windham Central Supervisory Union), Saxtons River Village and Newfane Village. The County Sheriff's Department responds to calls in towns that do not have contracts and which do not have their own police department; however, this service is provided only when staff is available and the Department is not responding to more urgent calls. The County Sheriff's Department also provides backup support to town police departments and the Vermont State Police when requested.

Troop B1 of the Vermont State Police serves the majority of the Windham Region out of their station in Westminster. The western towns of Readsboro, Searsburg, Somerset, Stratton and Winhall are served by Troup B3 of Shaftsbury. Vermont State Police provide backup assistance to towns that have their own police departments (sometimes through contract) and often provide primary police service to towns which do not have their own police squads and do not contract with the Windham County Sheriff's Office for service. The Vermont State Police has primary responsibility for patrolling Interstate 91.

Law enforcement is a problem for many towns in the region, especially since only five municipalities have police departments. Traffic and speed enforcement continue to be issues that towns are struggling to address. Other concerns include slow response times and drug trafficking, especially along the Interstate 91 corridor.

ENHANCED 911

The rural pattern of development in the Windham Region can present frustrating and potentially life-threatening delays to callers, dispatchers and emergency responders. The Vermont Enhanced 911 (E911) emergency calling system was developed to reduce these delays through a statewide system of street or road addresses linked to telephone numbers and to mapped locations. Each town regularly updates its street address data and forwards the information to the State E911 board.

HEALTH CARE SERVICES AND FACILITIES

Health and human services and facilities are important to the health and well-being of the public. These services include care for children, the elderly, and persons with physical and mental disabilities, as well as services to support impoverished families and individuals. The Windham Region has an aging population that will increasingly need care and new facilities in the coming decades. The rising cost of healthcare raises concerns regarding the financial condition of regional hospitals and healthcare facilities. Meanwhile, disparities in income and growing issues around substance use and mental health are increasing demands on social service agencies and their resources of food, shelter, heat, and other needs.

This plan also recognizes the importance of the built environment in influencing public health outcomes. This includes how we design and plan for our homes, streets, infrastructure, workplaces and open space. A lack of opportunities for walking, recreating, and socializing with others can lead to an increase in rates of obesity, heart health, mental health problems, and isolation. The Land Use chapter of the plan addresses community design and land use recommendations to help support healthy lifestyle options.

HOSPITALS

Six hospitals serve most of the region's general and emergency medical care needs: Brattleboro Memorial Hospital, Southwestern Vermont Medical Center in Bennington, Rutland Regional Medical Center, Springfield Hospital, Mount Ascutney Hospital in Ascutney, and the Cheshire Medical Center/Dartmouth-Hitchcock in Keene, NH. These hospitals have facilities that provide surgery, X-ray, outpatient, laboratory, and physical therapy services. The Grace Cottage Family Health Center and Hospital in Townshend provides primary care, rehabilitation, wellness, prevention, inpatient care, and emergency services. The Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire and hospitals in Massachusetts and New York provide more specialized medical care for the region.

The Mountain Valley Health Center in Londonderry, Rockingham Health Center in Bellows Falls, and the Deerfield Valley Health Center and Green Mountain Healthcare in Wilmington, along with the region's many medical offices, serve the day-to-day health care needs of the region. In order to provide immediate emergency health care, the Stratton Mountain and Mount Snow resorts provide health care facilities staffed by physicians during the ski season.

The financial condition of the region's hospitals is of primary concern, as it is for rural areas across the country. The level of service that hospitals can provide is determined to a great extent by the resources available to purchase new equipment, upgrade facilities, and attract and retain physicians and other staff. In recent years there has also been a trend in smaller hospitals affiliating with the larger Dartmouth-Hitchcock Health for financial and maintaining service level reasons. For example, Cheshire Medical Center and Southwestern Vermont Medical Center now have affiliations with Dartmouth-Hitchcock.

MENTAL HEALTH

Mental health services are provided by Health Care & Rehabilitation Services of Southeastern Vermont and the Brattleboro Retreat. The Brattleboro Retreat is one of this country's oldest and largest independent mental health organizations, and provides a full range of psychiatric in-patient care and a variety of out-patient services. Health Care & Rehabilitation Services of Southeastern Vermont has extensive outpatient programs in a number of towns in the region.

ELDER CARE

As the population continues to age, there will be a growing need for nursing homes and residential care facilities that are convenient to resident's families and homes. As of 2021, there were only 3 nursing homes, 2 assisted living centers, and 5 residential care facilities in Windham County. The Valley Cares facility in Townshend provides both independent living and assisted living facilities and is one of the few examples of this type of facility in the region. Without the development of more elderly housing options, residents in need of care and assistance may need to find

facilities outside of the region. New facilities should be encouraged in village and town centers to take advantage of existing infrastructure, services, and pedestrian amenities.

Southern Vermont Home Health Agency and the Visiting Nurse Alliance of Vermont and New Hampshire are the primary home health care agencies in the region that provide care for residents ageing in place. Two others, Brattleboro Area Hospice Care and Bayada Home Healthcare, are located in the Brattleboro area, and a third, My Community Nurse Project, serves residents in Weston and Londonderry as well as three other communities outside of the Windham Region. Home health care service providers are Medicare certified by the Vermont Department of Disabilities, Aging and Independent Living.

HUMAN SERVICES

Helping people meet their needs is essential to the social and economic well-being of the region. There are a variety of reasons why residents may need help: poverty, illness, language and cultural barriers, lack of education, physical and/or mental disability, addiction, and isolation are just a few of those reasons. Supporting approaches that prevent problems from developing and that meet the needs of residents in the region is critical. Among the challenges to the region's human service agencies are an aging population, poverty, substance use, and a lack of affordable housing.

Over 100 organizations and agencies provide a variety of programs to meet the region's human service needs including social services and nutrition programs for elders, energy assistance for low-income households, employment referral services, emergency food and shelter programs, and a range of programs for children. To better support residents, these organization and agencies often collaborate with one another and with healthcare and housing agencies.

As in many rural areas, access to services can be a challenge for households that do not have a car or who cannot afford much gasoline. Access not only includes being able to physically reach the service but also includes outreach and technology that make people aware of the services.

COMMUNICATIONS INFRASTRUCTURE

Communications technology is rapidly advancing and adequate and reliable cellular and internet services are now essential infrastructure for all businesses, organizations, and residents in the region. Many rural towns and villages still lack sufficient internet and cellular infrastructure, which is a barrier when it comes to attracting new residents and businesses. At the same time, communications infrastructure can receive public resistance due to concerns of its negative impacts to the area's natural and scenic resources. Development and maintenance of modern communications systems is vital to promote stronger connectivity within the region and provide quick and efficient

connections with the rest of the country and world. This has become even more critical with the shift of some employers to offering remote work options.

The Public Utilities Commission established the following goals in the 2014 Vermont Telecommunications Plan relevant to communities in the Windham Region:

- Every address in Vermont should have available broadband Internet access with the minimum technical requirements of 4 megabits per second (Mbps) download and 1 Mbps upload. By year end 2020, a majority of addresses in Vermont should have access to the Internet at speeds of at least 100 Mbps symmetrical (download/upload), and every address should have access at speeds of at least 10 Mbps download.
- Every address in Vermont should have access to wired and wireless broadband Internet access service.
- Broadband service should be affordable to all members of every customer class.
- Universal adoption and use of broadband service at home and at work.
- Universal availability of mobile service along roadways and near universal availability statewide.
- Reliable, economical telephone service in all areas of the State, including rural areas. All residents, regardless of income or location, should have access to basic telephone service.

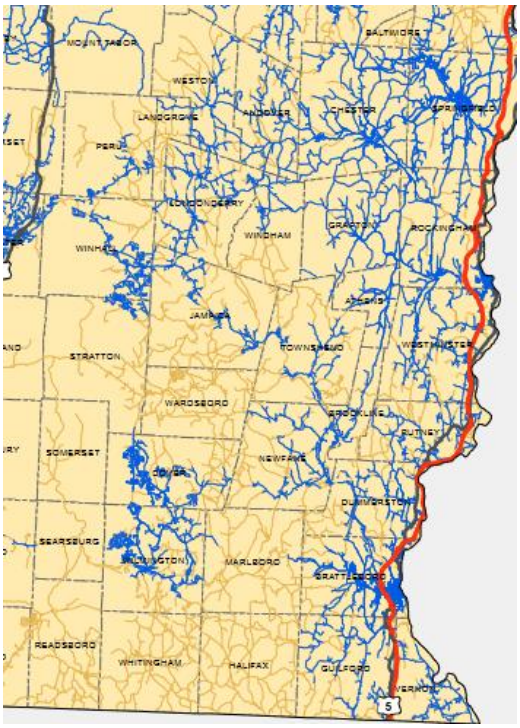
INTERNET

Internet access in the Windham Region is provided by cable, DSL, fiber optic cable, cellular, wireless, and satellite. These different means for broadband access have a wide range of effectiveness and availability across the region. Broadband infrastructures is being expanded across the region and current availability data is regularly changing as improvements are made. Based on data collected by the Vermont Department of Public Service, as of November 2022, 72 percent of buildings in the Windham Region were served by internet at speeds of at least 100/20 Mbps, but 20 percent of buildings still lacked service of at least 25/3 Mbps as shown in Table 8-3 below.

TABLE 8-3: INTERNET SERVICE LEVELS FOR WINDHAM REGION (NOVEMBER 2022)

Service Level	Percent of Buildings in Windham Region
Served 100/100	33%
Served 100/20 or better	72%
Served 25/3 or better	80%
Served 4/1 or better	97%
Lacking 4/1	3%

Generally, the parts of the region served by 100/20 Mbps or better are located along major roadways in Connecticut and West River valley towns, in Wilmington and Dover along Routes 100 and 9 and adjacent roads, and in the Winhall, Londonderry, Weston areas. The map to the right depicts in blue roads and addresses served by 100/20 Mbps or better as of November 2022 according to data from the Vermont Department of Public Service. There are approximately 986 buildings, or 3 percent of total buildings, in the region that lack 4/1 Mbps service. These properties are primarily located in more isolated areas of the region because broadband providers tend to focus on areas with higher population concentrations. The communities of Dummerston, Halifax, Jamaica, Marlboro, Newfane, Readsboro, Searsburg, Somerset, Stratton, and Wardsboro have the highest rate (7 percent or greater) of buildings without 4/1 Mbps service.



ROADS AND ADDRESSES SERVED BY 100/20 MBPS OR BETTER IN BLUE, NOVEMBER 2022

Source: Vermont Department of Public

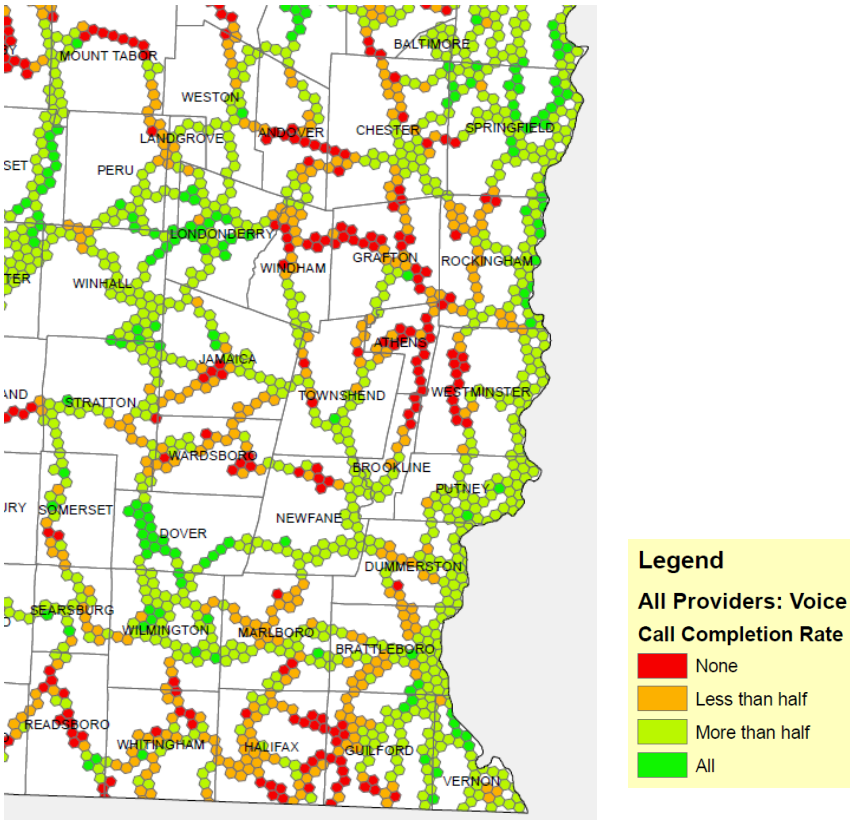
The State of Vermont has invested significant funding in several initiatives over the last several years to improve broadband coverage. These have included the Broadband Innovation Grant program to help communities conduct studies and create business plans for broadband deployment, the Connectivity Initiative Grant for internet service providers to extend service to designated areas, and the Line Extension Customer Assistance Program that provided small-scale grants for telecommunication line extensions to properties just beyond the reach of existing infrastructure.

Much of the work to improve broadband access in rural and underserved areas in being completed by local Communication Union Districts (CUDs). For-profit companies, and in particular Fidium Fiber, are also expanding the availability of the fiber network. A CUD is a governing structure similar to a water or wastewater district that allows multiple municipalities to join together to address the need for improved broadband service. Broadband build-out expenses are covered by grants, service fees, and donations. CUDs cannot use municipal taxes for the infrastructure costs. There are currently two CUDs serving municipalities in the Windham Region: Deerfield Valley Fiber (DV Fiber) and Southern Vermont Communication Union District (SoVT CUD). Deerfield Valley Fiber represents 23 towns in the region. SoVT CUD represents two towns, Londonderry and Winhall, which are also members of DV Fiber.

Rockingham, Grafton, Athens, and Somerset do not belong to a CUD at this time.

CELLULAR AND TELEPHONE COMMUNICATIONS

Cellular phone service coverage varies widely in the region because some areas remain difficult and less practical to serve. Generally, the best cellular service coverage is found along the Interstate 91 corridor and major state highways, like Routes 9, 100, and 30. Based on driving tests completed by VTrans in the summer of 2022, areas in the region with the least cellular coverage include more remote areas in Guilford, Halifax, Whitingham, Readsboro, Wardsboro, Jamaica, Marlboro, Windham, Grafton, Athens, and Westminster. Coverage also varies based on the provider. The region is currently served by AT&T, FirstNet, T-Mobile, US Cellular, Verizon, and VTel Wireless.



MOBILE WIRELESS VOICE COVERAGE – ALL PROVIDERS
BASED ON DRIVE TESTING CONDUCTED JULY – SEPTEMBER
2022 USING OOKLAN WIND TEST SOFTWARE

Source: Vermont Department of Public Service

Wireless telecommunication facilities in Vermont are permitted under the Section 248a process. Municipalities can also adopt zoning bylaws to regulate these facilities. However, applicants seeking approval through the Section 248a process are not required to adhere to local zoning bylaws. For projects requiring Section 248a permitting, the Public Utilities Commission is required to issue a Certificate of Public Good finding that the project will not unduly interfere with the orderly development of the region and with due consideration given to the recommendations of the

municipality and the regional planning commission. The Section 248a process was set up to expedite the approval of telecommunication facilities and projects that are interconnected with other proposed or existing facilities are exempt from local zoning and Act 250. However, Act 250 still regulates towers over 50 feet in height from ground level or more than 20 feet in height above the structure it is attached to. In cases where an Act 250 permit is required for a tower, an applicant is also required to comply with any local zoning bylaws.

The demand is not only for the expansion of mobile voice services, but also mobile broadband internet access. To increase capacity and meet demands, service providers will likely need to increase the number of transmission sites in the region. While there is a need for improved cell phone service, the expansion of telecommunication facilities can potentially have environmental and aesthetic impacts. A concern for the WRC and for member towns is the impact that cellular towers and related facilities may have on rural and scenic landscapes and villages.

Vermont continues to have a high rate of households that still have a traditional phone landline. This is likely due in part to the lack of cellular service in rural locations, as well as household preferences. As cellular service expands, it will be important to retain landline services for those households that choose it, particularly for more vulnerable populations and those in remote areas.

COMMUNITY UTILITIES, FACILITIES AND SERVICES POLICIES

GENERAL

1. Encourage towns to consider and plan for their future public utility needs and support their acquiring of future public and quasi-public utility sites, properties, or interests.

2. Support towns to identify and seek opportunities for shared services and infrastructure with other towns in order to reduce cost and improve efficiencies and the quality of service.

WATER AND WASTEWATER FACILITIES

3. Support water conservation measures to reduce demand for water and to promote the life span and efficiency of water facilities.

4. Ensure that any proposed land use or growth within existing or planned public water supply well-head protection areas will not pose a threat of contamination. No development that would cause any threat of contamination shall be permitted.

5. Minimize erosion and runoff to protect public and private water supplies by maintaining town roads consistent with Best Management Practices for erosion control.

6. Encourage towns to develop capital improvement plans to budget for public water and wastewater facility management and operations and to have contingency planning in place for facility failure. Plan development so as to manage wastewater effectively and to maintain surface and groundwater quality.

7. Support development of new public water and wastewater treatment facilities in areas where future growth is appropriate and in consideration of flood hazards, including downtown centers, village centers, planned growth areas, village areas, resource-based recreation areas, enterprise areas, transition/infill areas, and other growth areas as identified by town plans, and in areas where extension is required for public health purposes.

SOLID WASTE MANAGEMENT

8. Support the regular review and update of solid waste implementation plans (or "SWIP") that regulate the safe disposal of all solid waste, including household hazardous wastes. Ensure that each town is covered by a SWIP that meets all state requirements.

9. Support federal, state, and local actions that reduce the volume and toxicity of solid waste in the Windham Region, including implementation of the Universal Recycling Law.

10. Work with solid waste entities and towns to plan for waste disposal needs, including regulations under the Universal Recycling Law, through the establishment of recycling, composting, waste reduction and reuse, and general waste management programs, while addressing public health, environmental quality, and impacts on adjacent and nearby land uses.

11. Support the assessment of waste disposal fees that accurately and fairly charge disposal costs to the waste generators.

12. Encourage towns to maintain membership in a solid waste management district, or join with other towns if there is desire for change. Multi-town districts can lessen SWIP requirements for individual towns involved and serve to increase efficiencies versus single town districts.

RADIOACTIVE WASTE

13. Ensure the safe and effective storage, transportation, and disposal of radioactive waste.

14. Work to assure that standards proposed for any radioactive materials storage site in Vermont are at least as

stringent as those applied to any alternative site.

15. Support public involvement regarding all spent nuclear fuel and radioactive storage permitting and licensing decisions.

16. Compensation for permanent or interim storage of spent nuclear fuel and/or high-level radioactive waste must benefit everyone in the host community, as that community is providing a critical public service to the nation as a whole. This siting and the benefits derived from it must respond to the economic and environmental justice needs of the host community.

EMERGENCY PLANNING

17. Build disaster resistant and resilient communities by promoting sound land use planning that accounts for known hazards, especially climate change.

18. Encourage towns and the State of Vermont to continue to improve and adopt road, bridge and culvert codes and standards that exceed federal minimums.

19. Encourage towns to require that all new public and private roads and driveways are properly constructed so that they do not contribute to the damage of town roads from stormwater.

20. Support towns in hazard mitigation planning according to FEMA guidelines that stress consideration of mitigation possibilities and include decisions and programs related to infrastructure, policy, education and the effective utilization of the natural environment to lessen vulnerability.

21. Encourage towns to adopt the most stringent flood and fluvial erosion hazard bylaws possible. Support towns in understanding and properly implementing their bylaws. Advocate to the Agency of Natural Resources for training and other needs that towns express around bylaw administration.

22. Encourage the development and regular review and update of local emergency plans, including local emergency management plans and local hazard mitigation plans, and encourage towns to engage in climate preparation planning.

23. Support towns and emergency management entities with planning needs through the entire disaster cycle: prevention, preparedness, response, recovery, and mitigation.

24. Encourage towns to consider and create evacuation plans related to their hazards and the evacuation needs around those hazards specific to their town.

25. Support efforts by Green Mountain Power to relocate utility lines underground in order to improve grid

resilience.

EMERGENCY RESPONSE

26. Ensure that towns are able to provide timely and effective emergency services to all persons and properties in their community.

27. Ensure that all proposed developments plan for fire hydrants or other water sources in proposed developments so that fire-fighting personnel can adequately serve all structures.

28. New roads shall be designed and built so that emergency vehicles can readily maneuver and access all proposed structures.

29. Ensure that any additional emergency service personnel, facilities, and equipment needed to effectively service new development are available to avoid placing undue demands on existing resources.

30. Support the development and installation of an additional or improved emergency communications infrastructure, systems, and procedures.

31. Support the regionalization of emergency services if that is deemed desirable for those departments or entities involved.

COMMUNICATIONS INFRASTRUCTURE

32. Promote universal access to broadband telecommunications and information services that are competitive in availability and cost.

33. Encourage modernization and expansion of transmission and receiving equipment at existing transmission and receiving stations, including co-location of cellular and radio communications.

34. Siting, design, and access to communications towers and structures must show consideration and minimization of negative impacts on natural and scenic resources.

35. Require that communications towers and structures be set back from property lines and public rights of way, such that the tower or structure will not cross the aforementioned lines or rights of way in the event of a collapse.

HUMAN SERVICES

36. Support the development and maintenance of appropriate facilities to provide for the care of children, elderly residents, and persons with disabilities in the region.

37. Assist the coordination of community service organizations to avoid duplication of effort, as is feasible and appropriate.