



planBTV: **Comprehensive Plan**

DRAFT 2019 Update

View this plan online at: www.burlingtonvt.gov/planbtv

DRAFT v1.1
October 31, 2018

Prepared for:
Public Review in advance of
Planning Commission Public Hearing
Expected Hearing December 5, 2018



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Acknowledgements

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Church Street Marketplace



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College Street in Downtown Burlington

Welcome to planBTV:

[Burlington's Comprehensive Plan]

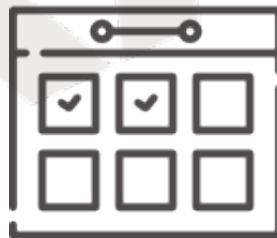
“planBTV” refers to a collection of plans that outline a vision for how we will use and develop land in Burlington over the next ten to twenty years. All of the plans in this collection are rooted in this overarching policy document: **planBTV: Burlington's Comprehensive Plan**. This plan is both visionary and strategic. It articulates our aspirations as a community, and identifies goals for how we will turn them into reality—as well as how we can improve, iterate, and problem solve along the way.

Principal Land Use Guide

planBTV: Comprehensive Plan outlines Burlington's goals and objectives for the future and is the City of Burlington's principle guide directing land use policy and decision-making. It defines the policies, programs, and specific actions necessary to attain these objectives, prepares the City for the future, and provides a reliable basis for public and private investment. This plan also recognizes that our population, economy and environment are always changing, so planBTV is also a work in progress, continually evolving to reflect the ways in which we are seeking to improve what we do and how we do it.



*Outlines a future
land use vision*



*Focused on next
10-20 years*



*Provides policy direction
to achieve this vision*

The comprehensive plan is like a road map, providing a big picture view of where we are today and where we want to go, and it points us in the general direction to get there.

But it's up to us as public, private, institutional and citizen organizations to use this guidance as we select the exact route for how we will reach our destination—our vision. As we create supplemental plans and programs which affect land use and development, we must ensure that the specific actions and projects they recommend conform to the vision and policies found in this overarching plan.

Purpose and Role [of the comprehensive plan]

Addresses common state-wide planning goals

Often referred to as the ‘Municipal Development Plan,’ the comprehensive plan is updated and adopted at least every 8 years in accordance with the Vermont Municipal and Regional Planning and Development Act (V.S.A. Title 24, Chapter 117). Chapter 117 identifies a set of common state-wide planning goals that all communities’ plans must address, including topics like housing, transportation, economic development, flood hazards, and energy. Our comprehensive plan quantifies these issues for Burlington, and identifies how we will do our part to address these state-wide priorities. More information about these goals can be found in *Appendix C*.

Provides a foundation for other in-depth plans and studies

The Comprehensive Plan is greatly advanced by the inclusion of many other planning studies and technical reports, which together comprise “planBTV”. These include area master plans and topic-specific plans which update elements of this plan, and provide a more in-depth look at and understanding of the dynamics of distinct areas within the City. As such, the Comprehensive Plan is a living document, regularly being reviewed, modified, and supplemented as necessary to reflect changing circumstances and opportunities.

Enables the use of regulatory implementation tools to advance the plan’s vision

Keeping this plan current enables the city to utilize a range of regulatory tools to advance the vision of the plan. Most importantly, these tools include the ability to assess development impact fees and amend the Comprehensive Development Ordinance- Burlington’s zoning and subdivision regulations. Additional regulatory and non-regulatory implementation tools authorized by statute are listed below.

How we use this plan

In Burlington, we use this plan to inform a whole range of land use and development activities. The plan’s vision and policy direction inform zoning changes, inspire underutilized properties to be redeveloped, prioritize lands for conservation, recommend funding mechanisms to carry out specific actions, or direct the creation of other plans and studies which investigate issues and areas of the city more thoroughly.

It’s important to keep this plan up-to-date, not only to ensure that we’re accurately understanding and addressing our community’s needs, but to enable us to continue to utilize tools that will help us implement our vision. With a current plan in place, the City is authorized by state statute to take advantage of the following implementation tools:

- Adopt and amend the *Burlington Comprehensive Development Ordinance*

- Adopt a capital plan and budget
- Assess impact fees for development projects
- Designate Downtown and Neighborhood Development Areas, providing financial and regulatory benefits to the City and property owners within these areas
- Apply for Municipal Planning Grants and other grant funds to assist with planning, transportation improvements, brownfield redevelopment, community development, and affordable housing
- Influence state regulatory proceedings including Act 250 Land Use Permits and Section 248 Certificates of Public Good

Related Plans & Studies

This Comprehensive Plan is the foundation for more specific plans and studies which make up “planBTV.” These include community planning efforts like **planBTV: Downtown and Waterfront Master Plan** and **planBTV: Walk/Bike**. Each of these builds upon the big ideas established in this plan, and provides more specific direction on how those ideas can be implemented within an area of the City, or in order to address a particular community-wide challenge. Additionally, there are plans and studies that include inventories, historical references, or regional context that inform the Comprehensive Plan. The purpose of the Comprehensive Plan is not to duplicate these plans, but instead to incorporate the key takeaways or high-level information from these plans as necessary to inform how we implement this plan.


Burlington Parks Master Plan
and the **Open Space Protection Plan**
are about the long-term stewardship
and management of the city's natural
and recreation resources.

The **Housing Action
Plan** is about expanding
housing opportunity for
all residents.


and the **Transportation Plan**
are about expanding safe, robust
transportation choices that are
competitive with the automobile.


is about preserving
and enhancing the
arts, industry, and
innovation in the
South End's
Enterprise District.



planBTV: Comprehensive Plan incorporates a collection of plans that outline how the plan's big ideas will be implemented in areas of the city or to address a specific community-wide issue.

Throughout this plan there will be many references to related plans and studies, including:

- The titles of outside plans and studies that are considered to be part of planBTV, and adopted herein by their reference. These plans will appear in **bold and underlined text**.
- The titles of plans that provide context, supporting data, or other information that is helpful but are not adopted by their reference. These will simply appear in *italicized text*.

All plans cited throughout this document, and their relationship to this plan, are included in Appendix A.

At right: planBTV: Downtown & Waterfront Master Plan is an example of a plan that is adopted and incorporated by its reference. It's a guide to downtown development, a vital economy, and housing and transportation choices.





City Hall Gardens

Burlington Today

Burlington is Vermont's largest city and a population, economic, and cultural hub for Chittenden County.

By nearly every definition, Burlington is a city: it has tall buildings; an important airport and transit system; colleges and universities; theaters, galleries, offices, restaurants, hotels, banks, and shops. It is at the heart of an urbanizing region that is the principal economic and cultural engine for the northern Champlain Valley, as well as the state of Vermont. The city itself is the most populous and most intensely developed community in Vermont, and it serves as a central place for commerce, housing, education, industry, government, and a wide range of recreational resources. It has a reputation as one of the country's most celebrated, progressive, livable, and dynamic small cities, and is a recognized world leader in promoting sustainable development, renewable energy use, and energy efficiency.

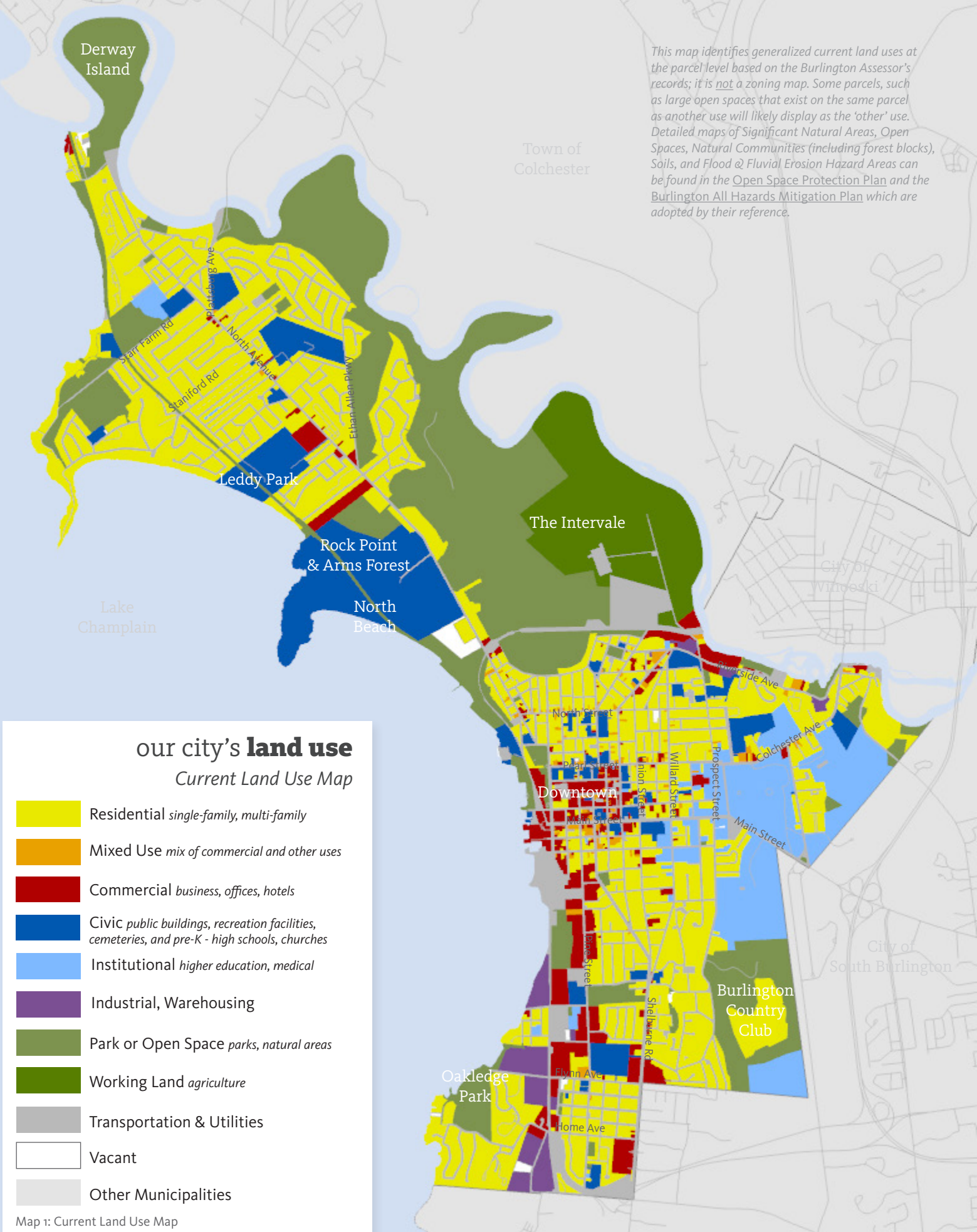
Yet in many ways, Burlington is still a traditional Vermont village: its population remains at just over 40,000 residents, and the city is small and compact. People know local business owners, and often encounter family and friends throughout their day-to-day activities. Neighborhood boundaries are defined as much by where you live as by the people who live near you. Burlingtonians are actively engaged in local events and government, and are passionate about their city.

Burlington's vitality and sense of community is rooted in a strong sense of place, the cohesiveness of its residential neighborhoods, and the diversity of its people. Burlington is, and has long been, home to a wide range of cultures, people, and households—traditional, non-traditional, and multi-generational families; unrelated individuals living together based on shared values; people from different cultural experiences and income levels; and people of differing abilities, ages, race and ethnicity, mobility, and job preferences. Through the city's diverse businesses, public art, and cultural and community events our residents' backgrounds, beliefs, and aspirations are showcased.

Burlington exemplifies the metaphor of an “urban village,” which is a way of describing the personality and connectedness of our community and how it evolves over time, more than its physical attributes.¹ It is this sense of place, combined with the quality of the built and natural environment, that form the foundation of Burlington's outstanding quality of life. This identity as both a city and a small town is the essence of what makes Burlington such an attractive place to live, work, and visit. This character and sense of place is widely celebrated, both locally and nationally. The city has evolved over time by respecting historic development patterns and architecture; cultivating community in our neighborhoods; protecting highly valuable natural and recreational resources; developing lively cultural events, resources, and activities; fostering a youthful, passionate, and creative culture; welcoming new community members from all over the world; and putting the needs of residents above the desires of visitors—while also pursuing bold innovations characteristic of a growing and vibrant small city.

***Read on to learn more about
what's happening in Burlington today.*** 

This map identifies generalized current land uses at the parcel level based on the Burlington Assessor's records; it is *not* a zoning map. Some parcels, such as large open spaces that exist on the same parcel as another use will likely display as the 'other' use. Detailed maps of Significant Natural Areas, Open Spaces, Natural Communities (including forest blocks), Soils, and Flood & Fluvial Erosion Hazard Areas can be found in the [Open Space Protection Plan](#) and the [Burlington All Hazards Mitigation Plan](#) which are adopted by their reference.



How is Burlington Developed?

Land Use @ Land Area

The entire city consists of only 6,457 acres of land-- or just over 10 square miles-- situated between the Winooski River and the eastern shore of Lake Champlain. 25 of the 32 miles of the City's political boundary are defined by these two water bodies. Burlington has a strong central urban mixed-use core surrounded by residential areas of varying scales and densities. Most residential neighborhoods are served by smaller mixed-use centers that provide basic goods and services. The University of Vermont and its academic medical center sits atop the height of land on the city's eastern edge overlooking the downtown and lake, while the lowlands of the Winooski River floodplain are actively farmed or conserved wetlands.

The basic land uses in Burlington are identified on [Map 1](#), and include residential, commercial, mixed use, industrial, institutional, civic, parks and recreation, agriculture and forestry, and utilities and infrastructure. The largest percentage of this land area, **37%**, is used for residential purposes including a wide range of housing styles and types (i.e. single family and apartments), and owner and renter occupied units. Because Burlington is both the state's largest urban center and a center for education and medicine, **32.8%** of all land in Burlington is tax-exempt, including land owned by public, institutional, religious, and non-profit housing entities. This includes about **11%** of the city's land area used by our major institutions—the University of Vermont and Champlain College, both residential institutions of higher learning, and the University of Vermont Medical Center.

Significant Natural Areas @ Open Spaces

When we look beyond the built environment of the Burlington landscape, an important layer of our unique construct is our natural heritage and resources. Like much of the landscape outside of the city's borders, Burlington is incredibly green. According to the [Open Space Protection Plan](#), just under half of all land within the city is either a public or private open space or an important natural resource—some of which are globally unique. Many of these resources are found on properties that might be considered to be developed for another purpose. In fact, only about



Burlington's
land area is
6,457 acres
or
**10.3 square
miles**

11% of our city's land area is considered to be used *primarily* as open space, and approximately another **7%** for agriculture. The [Open Space Protection Plan](#) identifies not only those areas that are conserved or utilized primarily as open space, but also resources on sites developed for some other primary land use—residential, institutional, and even commercial sites around the city.

These spaces provide incredibly valuable natural, recreational, and economic resources for the city and much of our region. Shorelines are fragile, and serve as an important greenbelt around the city. Wetlands help capture runoff, which is critical as our growing city adds impervious surfaces. Protecting these areas from development is important, as they are especially prone to damage from flooding and fluvial erosion hazards. The city's significant natural areas, distinct natural communities, and urban wilds provide habitat for rare, threatened, or endangered species and are essential areas for conservation. Steep slopes, particularly along shorelines and streambanks, are protected from development activity that can degrade slope stability and water quality and diminish the city's natural and scenic landscapes. The city's soils, particularly in the Intervale,

provide opportunities for urban agriculture in the form of incubator farms, community supported agriculture, community gardens, and even backyard gardens. Trails provide access to both publicly and privately managed open spaces and forested lands for recreation, transportation, and wildlife corridors. Similarly, our urban forest—forested blocks and street tree corridors—provide wildlife habitat and corridors, carbon sequestration, and access to nature. Integrated green stormwater infrastructure—in the form of trees, rain gardens, infiltration parks, and the like—is increasingly being utilized to capture, slow, and treat runoff; lessen impacts on our sewer systems; and beautify our community.



Garden plot in the Intervale



Winooski River near Salmon Hole

Developable Land

Because Burlington is a mature and well-established city, less than 1% of the land area is considered to be “vacant”. Due to the fact that the vast majority of developable lots in Burlington are currently utilized, and a significant portion of the land in the city provides an essential natural or recreational system, there is relatively little truly undeveloped land remaining on which to grow.

However, this is not to say that Burlington cannot grow. Many properties remain underdeveloped, offering opportunities for some lots to be more intensively re-developed with multi-use structures, taller buildings, and smaller setbacks. Without any change to the scale, pattern and intensity of the development we already have, Burlington can continue to grow significantly through redevelopment and infill on underdeveloped lots around the city. In fact, a 2001 study of potential build-out capacity within the downtown found that the amount of existing development could nearly double within the constraints of current zoning.² Similarly, a 2003 build-out analysis by the Chittenden County Regional Planning Commission showed that Burlington had the potential to add thousands of residential units and millions of square feet of non-residential development city-wide.³ While complete build-out of the City is not likely to happen, analyses such as these provide important information and assurance that the City can accommodate future development within its compact size and shape. As a result, it is important and possible to target that future growth into appropriate locations that then allow us to preserve the unique qualities and defining characteristics of others.

Using a build out analysis

Build out analyses help inform us about the form and pattern of that development could occur under current zoning and physical constraints, and help identify locations that could accommodate growth. Additionally, parking utilization studies completed for **planBTV: Downtown & Waterfront Master Plan** and the **Downtown Parking and Transportation Management Plan** have found that at peak times, as much as 35% of all parking downtown remains unoccupied. These studies help demonstrate how we can leverage the existing built infrastructure of our city to support additional growth.

Utilities and Transportation

None of this would be possible without an extensive network of public infrastructure. Another significant portion of land is used to provide power and water, process waste, and facilitate movement and storage of vehicles, bikes, and people—21.5% of all land to be exact (not counting our waterbodies)! All of this infrastructure helps us to ensure that we minimize our footprint on the land and grow in a responsible and sustainable way.

- The city relies on Lake Champlain to provide its drinking water and to receive treated wastewater; a number of facilities scattered around the city process and deliver this water. The drinking water system consists of the Water Treatment Facility on the northern waterfront, the Main Street Reservoir, and two water towers which are connected by a system of 110 miles of distribution pipes with enough capacity to serve approximately an additional 28,000 residents. The water production system is not a limiting factor in the growth of the City.
- The wastewater system consists of three treatment plants (Main Plant on the southern waterfront, East Plant on Riverside Avenue, and North Plant at the far north end of North Avenue), 25 public pumping stations, 5 combined sewer overflow outfalls, and over 92 miles of sanitary and combined sewer lines. Approximately 25% of the city is served by a combined sewer/stormwater system. Collectively, the wastewater system could support an additional approximately 30,000 residents.⁴
- The separate storm sewer system serves the majority of the city and consists of 53 miles of separate storm sewer and 118 separate stormwater outfalls. This system also includes a growing number of stormwater treatment and runoff mitigation practices, including several bio-retention bumpouts and subsurface infiltration systems within the right-of-way, as well as permeable paver and porous asphalt installations.
- Electricity is generated by various publicly- and privately-owned renewable energy generation facilities. The most significant of these include the wood burning McNeil Generating Plant located in the Intervale, for which Burlington owns 50%, and the Winooski One hydroelectric facility, located in Winooski on the bank of the Winooski River, for which Burlington also uses half the capacity. The



Electric Energy

Burlington Electric Department

“We are meeting the needs of a growing community and economy while using less electricity than we did a quarter century ago.”

307,814 MWh in 1989 → **295,975 MWh** in 2017

According to the Burlington Electric Department, Burlington’s annual electricity usage per residential customer is 24% less than the average Vermont residential customer, 34% less than the average New England residential customer, 55% less than the national average.

Sources: Burlington Electric Department, CCRPC Energy Guide



Thermal Energy

Vermont Gas Systems

2,565,337 MMBtu

2015 natural gas use

57% of natural gas is used by commercial and industrial customers, while residential customers account for 43% of natural gas consumption.

95%

Burlington buildings use natural gas for heating

85%

Burlington buildings use natural gas for hot water

Sources: Burlington Electric Department, CCRPC Energy Guide



Wastewater

Burlington Public Works

The ability for the wastewater plant to serve the projected additional population capacity depends on where development occurs. For instance, the Main Plant, which serves the downtown core, the south end and the Old North End could only support an additional approximately 12,800 more residents without needing to consider a capacity upgrade. Moreover, increases in high strength waste from certain businesses and industries (food/beverage production, restaurants, etc) can, without proper pollution control and waste diversion, limit the ability of the wastewater plants to support new connections.

McNeil plant alone supplies approximately 40% of Burlington's current electric energy use, and is capable of generating much more. And as of July 2017, there were 200 small-scale sites around the city generating solar energy, accounting for nearly 1% of the city's energy use. Thermal energy (heat) is almost exclusively powered by natural gas, supplied by Vermont Gas Systems.

- We travel our city via 95 miles of roads, 130 miles of sidewalk, 12 miles of shared use paths, 14 miles of bike lanes, and 48 miles of off-road trails—36 of which are publicly owned.
- Residents have access to 18 different transit lines, including connections to much of Chittenden County, serviced by Green Mountain Transit; short-term vehicle rental through Car Share Vermont; and access to bicycle rentals for commuting via Green Ride Bike Share.
- The city is further connected to our region and beyond via: ferry service connecting downtown to Port Kent, NY via Lake Champlain Ferries; an expanding list of major connecting cities and airlines accessible from the municipal Burlington International Airport, located in South Burlington; and access to Interstate 89 on the periphery of the city.

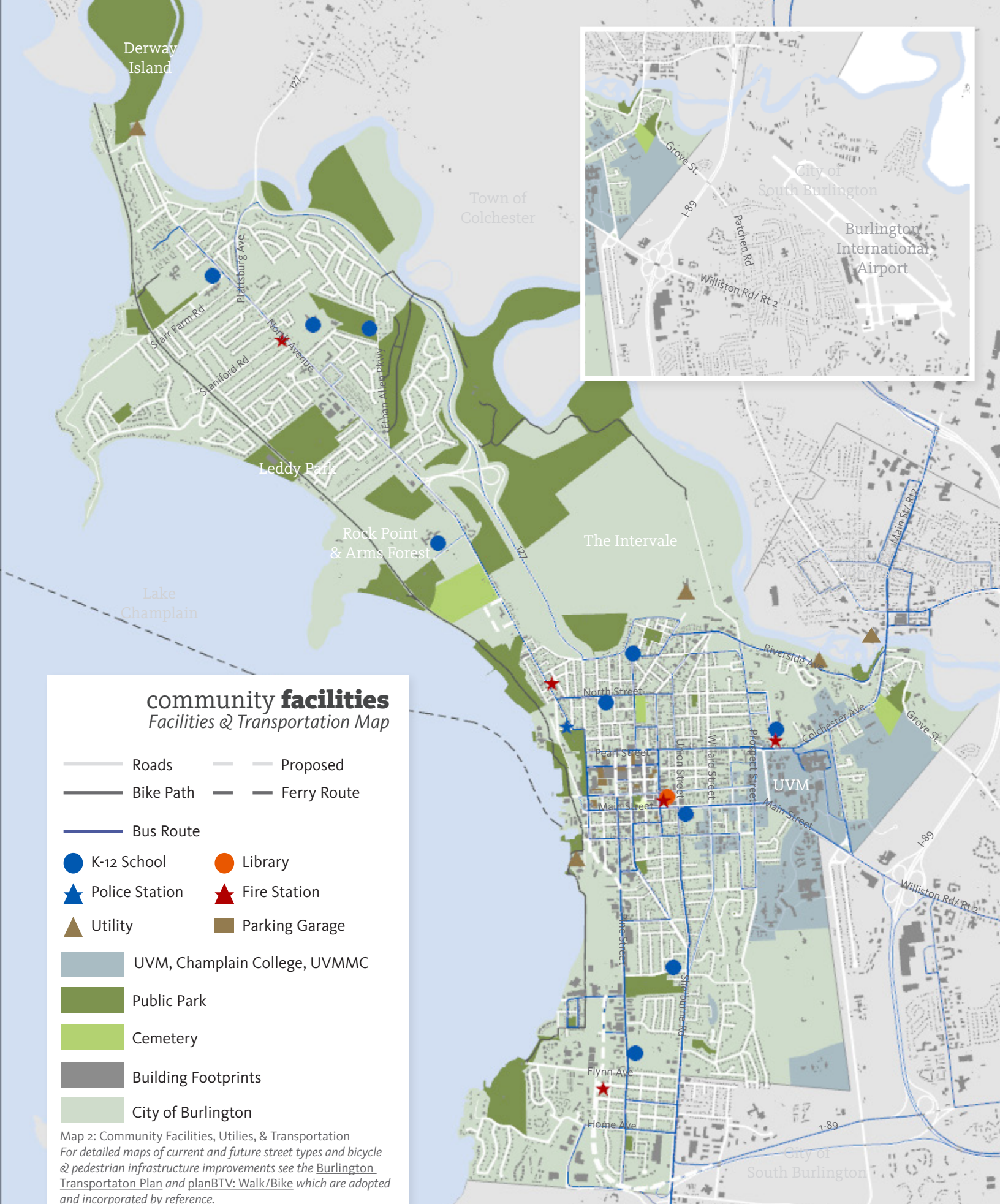
Facilities & Services

Burlington is served by a wide variety of educational, medical, public safety, and recreational services and amenities.

- The Burlington School District operates 4 elementary schools, 2 elementary-level magnet schools, 2 middle schools, and the Burlington High School. Additionally, the District operates programs for early education and pre-K in 4 sites across the city, two alternative programs, an afterschool/summer learning program, the Burlington Technical Center vocational programs, and Parent University.
- Additional schools within the city include: Rock Point School, an alternative college prep and boarding high school; Mater Christi School and Christ the King School, both private Catholic schools for students in pre-K through

8th grade; and the Baird School, operated by the Howard Center, which provides special education and therapeutic treatment to children in Kindergarten through 8th grade.

- Institutions within the city include The University of Vermont, a public undergraduate, graduate, and research university on a 460-acre campus; Champlain College, a private undergraduate and graduate college on a 22-acre campus; and the University of Vermont Medical Center's Main Campus and affiliate medical services, is an academic medical center serving as a community hospital, emergency room, and a regional referral center for residents throughout Vermont and Northern New York.
- The Burlington Police Department includes 105 sworn officers, who provide public safety by emphasizing problem-solving with residents to address the unique concerns and issues across five geographic areas of the city. Officers respond to approximately 35,000 incidents per year.
- The Burlington Fire Department, a paid professional fire department, operates fire suppression and emergency medical services via 5 fire stations and 3 fully staffed ambulances. These ambulances respond to approximately 6,000 calls per year. Central Fire Station, located on South Winooski in Downtown, is a very active station, with both its fire engine and ambulance responding to just under 3,500 calls per year.
- The University of Vermont includes a sworn police agency, a Fire Marshal, and a student-staffed ambulance, which provide safety education and emergency services on campus as well as in the community in coordination with local agencies. UVM Rescue responded to 1,700 calls in 2017.
- The city contains approximately 520 acres of parkland, both for intensive public use as well as for passive recreation and conservation purposes, and dozens of public and private facilities—libraries, community centers, marinas and sailing centers, museums and galleries, community gardens, etc—that support residents, workers, and visitors.



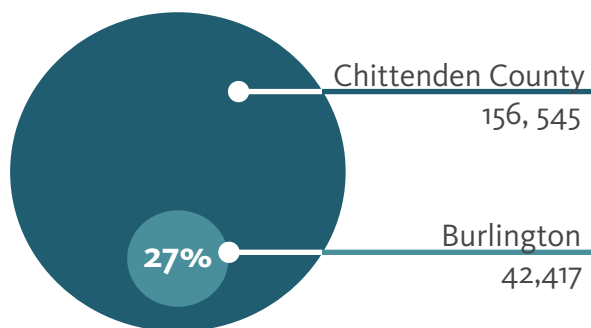
Population & Demographics

Burlington remains Vermont's most populated community – by a lot. The estimated population in 2016 was 42,556. This is about twice the population of Vermont's next most populous town of Essex, and accounts for just over 26% of Chittenden County's total population. Over the last 50 years, Burlington's population has experienced a series of 'ups and downs,' with only a small real increase—of 3,608 people, or 8.5%—since 1970. According to the *Chittenden County 2050 Population Forecasts*, Burlington's population is anticipated to grow by 12.8%, over the next 30 years and continue to represent 25-30% of the region's population.

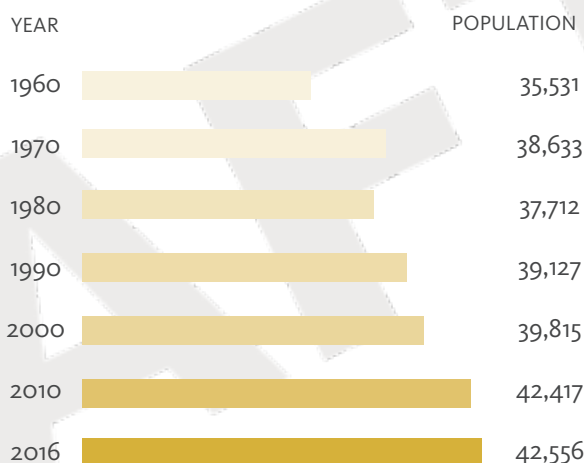
Burlington is a relatively young city. The estimated median age was 26.8 years old in 2016, compared to 42.9 for the state of Vermont, which is the second oldest state in the US. This is largely attributed to residents 18 to 24 years old, which has become and continues to be the largest age group in Burlington. In 2017, the combined enrollment of Champlain College and the University of Vermont was **12,411**. While the majority of residents in the 18 to 24 age group are enrolled in college, enrollment trends at these institutions in recent years have been and are expected to be fairly level. And, the percentage of city residents 18 to 24 years old that are enrolled in college decreased from 83% in 2010 to an estimated 76% in 2016.

The number of school-aged children declined significantly between 1970-2000, but has remained fairly level in past approximately 20 years. In 2016, it was estimated that 13% of the city's residents were under 18 and only 19% of all households included people under 18. According to data from the Burlington School District, enrollment has experienced small fluctuations from the 1999/2000 to 2018/2019 school years, with only a total 0.5% net decrease during that time frame.⁵ Conversely, the number of older adults is growing, and is expected to continue to grow as a percent of the city's population. In 2016, it was estimated that 28% of all households in the city included people over the age of 60, and an estimated 10.8% of the population was over the age of 65—double the 4.9% of the population in this age group in 1980.

Population, 2010



Burlington Population Trends



U.S. Census Bureau Decennial Census 1960-2010; ACS Estimates 2016

About population, housing, & economic data

Data in these sections comes from the U.S. Census Bureau Decennial Census or ACS Estimates unless otherwise noted. At the time of this plan update, we are approaching the end of the 2010 Census period. In some cases, 2010 data has been updated using ACS estimates; however, these data are presented with caution as to their accuracy, as these estimates often contain a high margin of error, and are far less reliable for data with a small sample size.

For detailed data about Burlington's population, housing, and economic characteristics, check out the *Consolidated Annual Action Plan* and *Fair Housing Assessment* which are prepared by the Community & Economic Development Office.

Burlington's population is increasingly made up of residents born outside the city, and it is becoming more racially and ethnically diverse. In 2016, it was estimated that nearly 55% of Burlington residents were U.S. citizens born outside Vermont, and another 12% were estimated to have been born in another country. Burlington and Vermont have long been a hub for immigrants, first for Irish, German, British, and French Canadian immigrants. Over the last nearly 30 years as a federal refugee resettlement community, Vermont has welcomed 6,300 refugees, largely from Asian, eastern European, and African countries, many of whom have settled in the greater Burlington area.⁶ In 2016 it was estimated that 14% of the population was non-white, which is a significant increase from 2.7% in 1990. The decline of the school-aged population experienced across Vermont is presumed to have been slower in Burlington in part due to the number of immigrant families who have relocated to our community. In the 2016/2017 school year, 1 out of 3 students in the Burlington School District were youth of color, compared to fewer than 1 out of 10 students across Vermont.⁷

Housing

Burlington's neighborhoods are the heart and soul of the community, and residents have strong connections to their unique features—the land use patterns, housing types, architectural and design features, and the people who live in them. The distinctive built features provide a vital link to the city's history and sense of place and time, and Burlington's rich and varied archeological, historic, and architectural legacy is illustrated in many significant places around the city. Many residents live in neighborhoods that are also along public transit routes or are near public parks and open spaces.

There were 16,897 housing units in Burlington in 2010. There have been an additional 628 housing units—93% of which were multi-family units—and 702 dormitory beds and other group quarters built in Burlington between 2010 and 2017. This represents a 3.7% growth rate in the number of housing units (excluding dormitories and group quarters) since 2010. Aside from new dormitories built on the University of Vermont's campus, the greatest proportion of housing growth occurred

in the New North End— 42% of new housing units were created in Ward 4 (92% multi-family units, 8% were single-family homes). Burlington's housing stock accounts for approximately 25% of all housing units in Chittenden County, and about 14% of all housing growth in Chittenden County since 2010.⁸

A majority of Burlington residents rent their homes—in 2016 it was estimated that approximately 40% of housing units were owner-occupied and 60% were renter-occupied. Burlington's housing stock is comprised, in large part, of multi-unit structures— in 2016, only 33% of housing units are estimated to be detached single-family homes, while nearly 48% are in structures that include 3 or more units. In the 2017/2018 Academic Year, the University of Vermont housed 61% of its undergraduate students on campus, and Champlain College housed 71% of its students in on-campus and college-supported housing.⁹

Regardless of whether homes are rented or owned, there has been little housing vacancy and increasingly high housing costs. While rental housing vacancies have experienced some ups and downs over the last several decades, the vacancy rate across Chittenden County remained at 3.5% in late 2017.¹⁰ A 5% vacancy is considered to be the signal of a "healthy" housing market, offering opportunities for housing mobility and newcomers, and helping keep prices in check. In 2016, it was estimated that approximately 54% of renters and 30% of homeowners in Burlington pay a third or more of their income on housing costs. While affordability is a major challenge across all income spectrums, it is increasingly impacting low and moderate income households, and minority households are significantly more likely to experience severe cost burden¹¹.

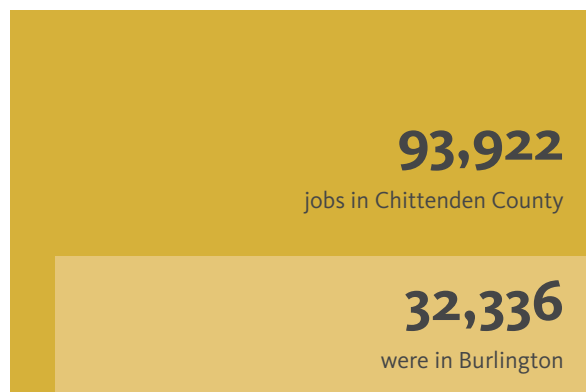
Economy: Jobs, Income, and Education

Burlington has a number of industries that characterize its economy. Healthcare and academic institutions offer the latest in intellectual, technology, and scientific opportunities. Food production is joined with agricultural entrepreneurship in the Intervale. The South End is home to a thriving mix of arts, industrial, and creative enterprises. The Old North End is home to small businesses representing the City's diverse cultures. And arts and entertainment have a unique presence throughout the city.

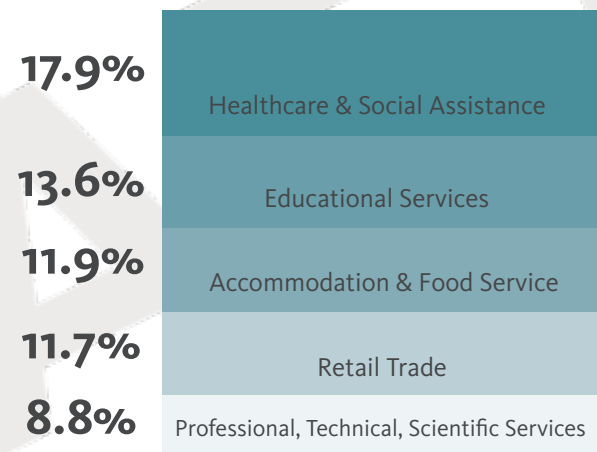
In 2015, it was reported that there were 32,336 jobs in the city. Approximately 73% of these jobs were occupied by people who lived outside Burlington, illustrating the city's major role as an economic hub for our region and beyond. 46% of Burlington residents who worked had a job within the city, and another 20% worked elsewhere in Chittenden County.

The medical and academic institutions undoubtedly form the basis of the economy—in 2015, approximately 43% of all jobs within the city were in the health care, social services and education industries, and roughly 32% of Burlington residents who are employed work within these fields. This is more than the next most common industries combined: retail, accommodations, and food service, which together account for 17% of jobs in Burlington; and professional, scientific, technology,

Total Jobs, 2015



Top Industries in which Burlington residents work, 2015



finance, and insurance which together account for nearly 15% of jobs in the city.

In 2016, the estimated Median Household Income for Burlington was \$46,754. For family households, this number increased to \$76,574 and for non-family households it decreased to \$34,373. In 2016, it was estimated that 13.4% of family households in Burlington had incomes below the poverty line. Poverty disproportionately affects children, young adults, and women raising families as single parents—it is estimated that 52% of families with a female household live in poverty. Further, in the 2016/2017 academic year, nearly 45% of all students enrolled in the Burlington School District were eligible for free or reduced meal programs.¹² Inequitably high unemployment and poverty rates continue to disproportionately impact people of color in our region, who experience unemployment rates that may be up to twice as high as the population average.¹³

It is estimated that in 2016, almost 56% of Burlington residents over the age of 25 had received a college degree, and another 16% had some college despite not receiving a degree. The Burlington School District is the largest district in the state, with a total enrollment of 3,935 in the 2016/2017 academic year. The district is also among the most culturally diverse in the state, with 45% of students speaking at least one language other than English at home.¹⁴ There is a shortage of available childcare resources for Burlington's children before they enter school. In 2015, there were 1,225 childcare spots in Burlington, while the 2010 Census reported that there were 1,739 children under age 5. Along with the fact that not all childcare spots are full-time or year-round, and that some Burlington employees who live outside of the city may prefer to access childcare close to their place of employment, there is an estimated need for over 500 additional childcare spots in the city.¹⁵



Nepali Dumpling House in the Old North End



Mural at the Generator in the South End

So, what are some of the biggest challenges and opportunities facing Burlington?

Suburbanization in our Region

The regional *ECOS Plan* identifies much of Burlington in a ‘Metropolitan Planning Area,’ and downtown Burlington as a ‘Center Planning Area.’ These designations are intended to promote these areas for the most intensive development within our region. This follows Vermont’s land use planning goal to establish ‘growth centers’—areas of higher-density development, served by adequate public infrastructure and public transportation—surrounded by working lands. This traditional development pattern, however, has become blurred and is threatened by suburban development on the fringes of the city and in neighboring municipalities. This trend is not only a threat to the region’s identity and traditional patterns of development, but also to our future economic growth, energy demand and consumption, natural environment, and sense of community.

To combat this sprawl, the *ECOS Plan* contains a collective goal to focus 80% of new development in areas planned for growth. From 2011-2016 this target was met, but we must continue to actively collaborate as a region on land use and public investment issues in order to remain on course.¹⁶ While Burlington is only a small geographic part of the surrounding region, with no authority over development in adjoining communities, as the urban center we have a major role to play in

reversing and slowing the trend of suburbanization. It is our responsibility to actively encourage development within our existing mixed use centers and along major transportation corridors, particularly those served by transit.

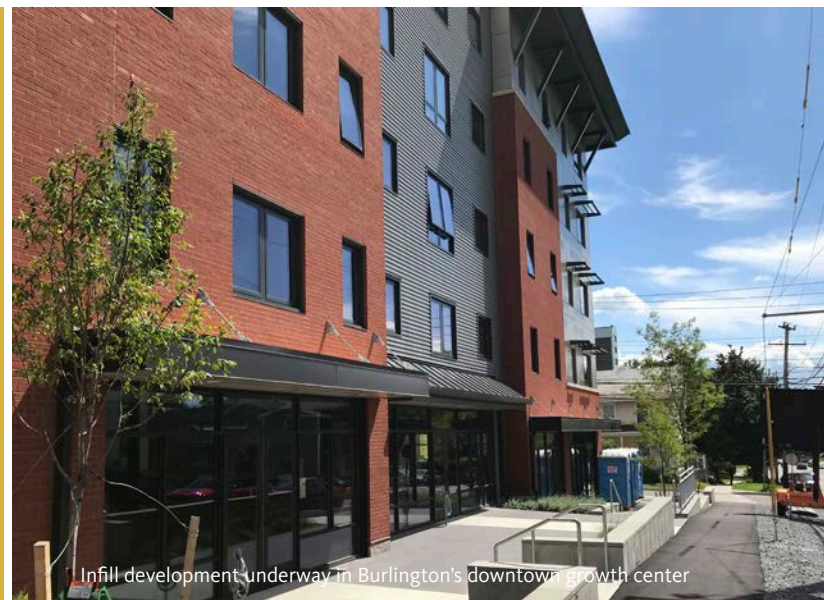
Increasing Costs of Living and Doing Business

According to the *ECOS Plan*, the region’s economy has largely recovered from the 2007 recession; however, “the costs of living and doing business continue to restrict our [economic] potential.” Housing affordability and lack of population growth are among the major factors contributing to concerns about the region’s economic future. In fact, in a survey of employers, housing affordability in Chittenden County was rated lowest among quality of life factors, and it was the most commonly identified weakness for the region.

Burlington is no exception to these challenges. Housing growth in the city over the last several decades has been slow, and housing costs have been increasing faster than wages. A significant, and increasing, number of both owner- and renter-occupied households are spending more than a third of their income on housing costs.¹⁷ These costs are not only impacting low- and moderate-income households, but also those households that do not qualify for assistance but that still have trouble affording housing in our market. This

A **growth center** is an area designated for compact, mixed-use development. Burlington zoning regulations encourage smart growth planning principles to accommodate growth and development in a manner that maintains the City’s historic settlement pattern of an urban village.

Growth centers in our region must be small enough to concentrate development, yet large enough to accommodate projected growth through high-density infill and adaptive reuse. These areas must encourage higher density mixed-use development, be served by adequate public infrastructure, respect historic and cultural resources, preserve and create recreation and natural areas, promote public transit, walking and biking as the preferred forms of transportation.



Infill development underway in Burlington’s downtown growth center

burden is felt by employees in many of the city's core industries. From 2009 to 2016, the median rent in Burlington increased by approximately 20%, while median income in renter-occupied households only increased by approximately 13%. Additionally, in 2017, the salaries for many occupations within the city's main industries didn't meet the income needed to buy a home at the median sales price—including school teachers, child care workers, food and retail service employees, accountants, nursing aides, and police officers.¹⁸ Together, increasing rents and stagnant wages are causing many professionals and employees of businesses in the city to search for housing in neighboring communities.

Beyond the cost of a mortgage or rent, property tax rates, transportation and energy costs, and childcare have a major influence on cost of living and doing business. Further, generational investments in utility systems, public schools, and other aging infrastructure have the potential to add an additional burden on property taxes and rate payers for the next several decades. With a large portion of land in the city that is exempt from property taxes, it is imperative that the city grow in order to expand its tax base, and continue to identify innovative approaches to generating and more efficiently using revenues. This growth must address the need for additional housing options for all income levels, and space for a wide diversity of jobs and businesses.

To do so, we must identify and address unintended or unnecessary barriers to creating new housing and commercial spaces within parts of the city that are suitable for growth. This growth should be targeted into densely developed, mixed use areas

According to the U.S. Department of Housing and Urban Development, affordable housing is defined as housing that requires no more than 30% of a household's income. However, the Center for Housing and Policy has found that households spend an additional 77 cents on transportation per dollar spent on housing. The cost of transportation is often overlooked as a factor in the analysis of housing affordability.

that are supported by transit, walking, and biking alternatives and that maximize the use of existing public infrastructure and help lower transportation and energy costs for users.

With the cost of childcare rivaling that of college tuition, we must also identify ways to ensure that childcare is accessible by and affordable to all working families. Further, we must also expand programs that offer income-sensitive rate structures to utilities undergoing significant reinvestment, and explore ways to make programs that help reduce utility costs more widely available to lower-income residents and renters.

Changing Demographics with Complex Needs

Demographic changes among residents are resulting in a 50-year decline in the average family size and number of families with children; greater socioeconomic, cultural, and racial and ethnic diversity; a desire for more urban living; and the “graying” of some of the city's largest neighborhoods. These shifting dynamics are impacting school enrollments, homeownership rates, housing affordability, demand for services and amenities, and transportation preferences.

Generational Transitions: Boomers and Millennials

While Burlington benefits from a very young median age relative to the state as a whole, older adults represent a growing portion of the city's population—a trend which is expected to accelerate. Older adults need a wider range of and more accessible housing options that allow them to stay in their home or neighborhood, as well as more specialized transportation services to access essential services, recreation, and social activities. On the other end of the spectrum, young professionals, families, and employees of businesses in the city are facing an increasingly competitive—and expensive—housing market, often driving them to search for housing that meets their needs in neighboring communities.

It is between and among these two demographic groups that we see the biggest shift in demand for housing, services, and amenities. These residents are more likely to live in urban neighborhoods, seek out smaller housing units, and even share a portion of their home in order to offset housing costs or better utilize extra space. They are driving

a greater demand for day-to-day needs (like grocery stores and medical offices), as well as amenities (like restaurants, retail, and other small businesses), close to where they live rather than clustered in suburban developments. And they often need—or prefer—different ways to get around, increasing demand for transit services and bike and pedestrian amenities in parts of our city historically only accessed by car.

Increasing Racial & Ethnic Diversity

The racial, ethnic, and linguistic diversity of Burlington's youth represents a major demographic shift and opportunity on the horizon with implications for our economy, housing, City services and programs, schools, and public spaces. While this growing diversity in our community has enriched our neighborhoods, schools, and economy, there are signs of widening racial disparities. Among major concerns that have been shared are transportation, housing cost, and access to quality educational and employment opportunities. We must be proactive about identifying and removing educational and economic barriers which lead to inequity in employment, income and poverty, and access to housing. In particular, we must strengthen and expand partnerships which create targeted educational and workforce training opportunities. We must address barriers to participation in and access to a variety of community services, amenities, and public spaces, reducing segregation and ensuring that all are welcome and comfortable. The increasing linguistic diversity of residents in the city provides us with opportunities to assess how we deliver public administration, information, and education services for language access as well as for other adaptations. And we need to ensure there is greater participation by and representation of racial and ethnic communities in our decision-making and policy implementation.

Changes in Transportation Technology

Burlington residents and employees have long benefitted from public transit and carpool matching services to help meet their transportation needs without demanding the use of a personal vehicle. But the transportation sector has the potential to be further and dramatically transformed by technological advancements in place today, or coming in the not-so-distant future.

In the 2016/2017 year, 1 out of 3 students in the Burlington School District were youth of color.

Burlington School District Annual Report

Burlington has just begun to see these transportation innovations take hold with increasing utilization of ride sharing services and the launch of car share and bike share. In fact, between July 2017-June 2018, almost a half-million trips were reported to have been taken that began and/or ended in Burlington using the transportation networking companies Uber and Lyft.¹⁹ Energy efficiency efforts are targeting the electrification of personal vehicles, utility and service vehicles, and even buses. Electric bikes are becoming an increasingly viable alternative to the car, especially for those with challenging commutes or mobility challenges. Adaptive signal control, GPS routing apps, and demand-based parking fees are additional tools that allow communities and motorists to manage and avoid traffic congestion. And as autonomous vehicle technology is developed and deployed, it is estimated that these vehicles could represent as much as 10-20% of the total vehicles on the road in the next approximately 10 years, and 40-60% by the 2050's.²⁰

All of these platforms have the potential to significantly reduce single occupant vehicle ownership and usage, and some estimates suggest as much as a 25-30% reduction in the demand for parking.²¹ We must be prepared to reuse sites that are primarily dedicated to parking today, build new parking structures to be easily repurposed into commercial or residential space if the parking is no longer needed, evaluate the increased need for bike parking and pick up and drop off spaces within our public rights of way, and monitor these systems' impact on overall vehicle miles driven and traffic congestion.

Hazards to our Built and Natural Environments

Climate change poses significant environmental, economic, and quality of life threats to our region and beyond. According to research conducted by the Vermont Department of Health, the state of Vermont is already experiencing many impacts of climate change. In the last 50 years, average air and water temperatures have increased, spring arrives two weeks earlier and winter one week later, annual precipitation has increased by almost 7 inches, and days with greater than one inch of rainfall occur twice as often. These changes are impacting our residents, infrastructure, and natural resources. We've seen an increase in heat-related illness, allergies, and asthma, particularly for the young and elderly and for those with homes and businesses that are not designed to deal with extreme heat and polluted air. Extreme weather events have become more frequent, with 18 federally-declared disasters in Vermont from 2007-2016—twice as many as in the previous 10 years. Heavy rains are increasing the amount of pollution discharged to our drinking and recreational waters due to stormwater runoff. Additionally, an increasing frequency of intense rain events reduces the effectiveness of controls designed to reduce untreated combined sewer overflows, which can result in restricted recreational opportunities due to beach closures. And warming trends are resulting in more frequent toxic cyanobacteria blooms in our waters. The same warming trends are also resulting in increasing cases of tick and mosquito-borne diseases.²²

The *Chittenden County All Hazards Mitigation Plan* also identified a number of additional hazards, and potential mitigation efforts, for which Burlington is most at risk in the future. These include natural hazards, such as severe winter storms, rain storms, and flooding; technological hazards, such as multi-structure fires, water pollution, and major transportation incidents; and societal hazards, such as epidemic, civil disturbance, and economic recession. If realized, these hazards can impact our community's security (such as disrupting power or heat services), health (such as contaminating our drinking and recreational waters), damage infrastructure (such as roads or sewer pipes), or result loss of life or property (such as from fire or flooding).

Additionally, in 2018, Vermont became the 33rd state in the US that detected the presence of the Emerald Ash Borer, an invasive insect that has led to widespread destruction of ash trees. According to the City's Tree Inventory, about 10% of the trees managed by Burlington Parks & Recreation—including those along streets and in parks, natural areas, and City cemeteries—are Ash. Throughout the city, there are reminders of the impact other invasive insects and diseases have had on our tree canopy. While the insect has not yet been detected in Burlington, it is critical to continue monitoring and implementing measures to mitigate and protect the city against this and other invasive species and diseases which threaten our critical urban forests.

Transportation Choices in BTV

Transportation options make it possible for Burlington residents to live car-light or car-free.

88% of Burlington residents live within **1/4 mile of a bus route**



11.9 mi of bike lane on City streets



7,706 bike share rides in **2018**

130 mi of sidewalks throughout the city



Within the city, CarShare Vermont rents **27 cars**

~ 500,00 rides via Uber & Lyft in FY2018



Transportation Technologies

These technologies have the potential to significantly transform Burlington's transportation system.



E-Bikes



TNC's (Uber, Lyft)



Real-time Transit Info



Autonomous Vehicles

Our plan for BTV:

[A vision for Burlington's future]

planBTV is all about ensuring that Burlington continues to be a dynamic city of opportunity at the heart of a regional population, and that as it evolves over time it preserves its distinctive identity, becomes more inclusive, and strengthens its connections. This plan provides a big picture view of who we are and where we want to go guided by these core characteristics and values. It includes two sections: ***Our Plan for Action*** and ***Our Future Land Use***.

The first part of this plan, *Our Plan for Action*, is organized around four themes, rather than the traditional structure of a comprehensive plan which focuses on housing, transportation, etc. These themes have been distilled from the long-standing land use policies of previous municipal development plans, as well as the community's input on this plan update. These themes reflect core Burlington characteristics and values, and will guide its growth as:



a **dynamic** city.

It is a major growth center in Chittenden County and Vermont, despite occupying just 10 square miles. It will continue to grow by leveraging its unique identity while being nimble, creative, and purposeful in addressing its current needs and future challenges. It will prioritize innovative solutions that are environmentally, economically, and socially sound.



a **distinctive** city.

It is an urban village, with a rich architectural legacy set within an exceptional natural setting. Together these characteristics provide the foundation for its vital economy, human-scale environment, and high quality of life. Burlington will remain the core of a regional population, economic and cultural center, and will grow in a way that allows it to meet its current and future needs without compromising these celebrated characteristics.



an **inclusive** city.

It will grow in a way that meets the needs of and provides opportunity for all residents—current and future. It is part of a region that, together, shares in the responsibility of providing a diverse housing stock and a healthy job market. It is accessible, affordable, provides jobs for all skill levels, and offers meaningful opportunities for participation in decision-making. The city welcomes residents of diverse social, demographic, cultural, and economic backgrounds and of all abilities.



a **connected** city.

It will grow through the benefit of a thoughtful and holistic understanding of the city's many and inter-connected physical, social, economic, and environmental systems, and through the careful coordination of land use and development policies and decisions.

Each theme is meant to complement the others, in order to demonstrate the interrelatedness of individual planning issues. The structure of this plan reflects the reality that the decisions we make can impact—positive or negative—a broad range of people and issues.

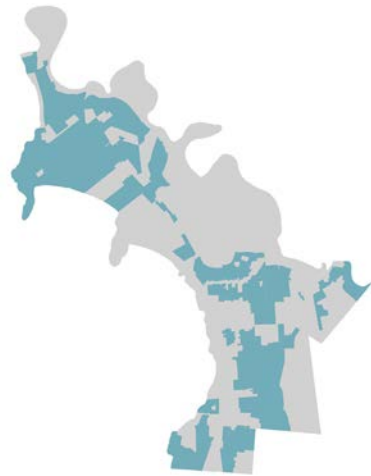
Land Use Framework

planBTV also provides direction for how we will use and develop land based on these characteristics and values. This plan provides a land use framework for what type and scale of development can occur throughout different parts of the city. This framework shapes the policies and regulations that we will use to implement our vision. **The second section of this plan, *Our Future Land Use*, identifies areas in Burlington where we are planning to:**



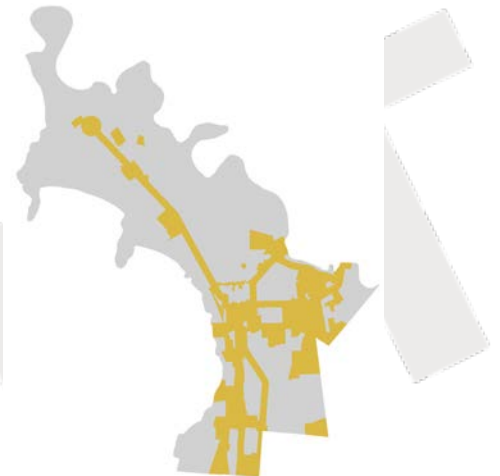
conserve.

In these parts of the community we will take great care to protect and conserve them largely as they are today. These include places like our natural areas, shore lands, floodplains, agricultural areas, recreational resources, and significant buildings and sites. This plan envisions that they will continue to look and be used primarily as they are today, with relatively few adaptations intended to that allow them to maintain their functions, remain economically viable, and be well-maintained.



sustain.

In these parts of the city, we anticipate small and incremental change that is consistent with existing development patterns, building scale, and neighborhood character—details which are unique to various parts of the city. These include our residential neighborhoods, where it is important to preserve and enhance what makes them great. However, this plan recognizes these areas aren't locked in time, and anticipates that they will see some small and subtle changes over time that support their ability to meet the evolving needs of current and future families and households.



grow.

In these parts of the community we expect to see the most change over time, as they are the areas most suitable to accommodate the city's future growth. These include places like our downtown core, major street corridors, and neighborhood mixed use, enterprise, and institutional areas. This plan recognizes that in order to preserve and maintain vast parts of the city as described above, we need to have places where we can accommodate and encourage future growth and development in order to maintain our vibrancy, tax base, and character.

The following sections discuss these themes and the land use framework in detail. Read on for more!

How to Read this Plan

There are two major sections of planBTV: *Our Plan for Action* and *Our Future Land Use*.

Our Plan for Action

is organized by four themes—distinctive, dynamic, inclusive, and connected. Each theme includes a vision statement, a discussion about why it is important, and the related goals and action steps.



Find it on pages 30-79.

Our Future Land Use

is organized by areas of the city where we are planning to conserve and sustain existing uses, and those areas where we are planning to grow.



Find it on pages 80-103.

planBTV is all about the ways that decisions we make influence, and are influenced by, a wide range of issues.

Each action item in this plan is accompanied by several icons, which represent the individual topics below. These icons are included to help demonstrate the interrelatedness of individual decisions to a wide range of issues that are important to our community. If you are interested in all of the actions related to a specific topic—such as housing or transportation—check out the indexes in Appendix B on page 106.



planBTV helps point us in the direction of our vision.

This plan doesn't answer every question about our future—in some cases, it flags issues that we must dedicate more attention to. But it does outline a series of steps we can take to move toward our vision. The action items in this plan are followed by helpful pointers on how we will implement this plan, including what City departments will take the lead, resources that may be available that will help us get started, and a target timeframe for moving it forward. Each action is accompanied by the following icons, which represent:



City departments who will lead or play a role.



Time horizon to initiate or complete work.



Resources to guide or assist in this work.



Related planning topics this action addresses.

planBTV guides action according to sustainable development principles.

The goals and actions of this plan further the following principles:

- Support and **strengthen our neighborhoods.**
- Concentrate **mixed-use, high density development within growth centers**, including the downtown core, neighborhood activity centers, and institutional core campuses
- Long-term **protection and stewardship** for natural areas, waterways, and open spaces.
- **Lessen the dependence on the automobile** by offering a range of transportation choices.
- Respect for the city's **architectural and cultural history.**
- Support **long-term solutions over short-term fixes** to community needs and problems.
- Promote collaboration and cooperation through **working partnerships** between governments, non-profits, institutions, and businesses.
- Increased **participation in decision-making.**



Walkable mixed-use development in growth centers



Diverse and vibrant residential neighborhoods



burlington as a **distinctive** city.

It is an urban village, with a rich architectural legacy set within an exceptional natural setting. Together these characteristics provide the foundation for its vital economy, human-scale environment, and high quality of life. Burlington will remain the core of a regional population, economic and cultural center, and will grow in a way that allows it to meet its current and future needs without compromising these celebrated characteristics.

Downtown Burlington at sunset with Mt. Mansfield in the distance

Our vision for Burlington as a distinctive city.

Burlington is located within an outstanding natural setting—surrounded by Lake Champlain and the Winooski River, with views of the Adirondack Mountains to the west and the Green Mountains to the east. Burlingtonians value—and the city is known for—being in close proximity to both natural and recreational resources, supporting high-quality arts and educational opportunities, and benefitting from a diverse and robust year-round economy.

The city is built for people, with buildings of all scales being designed and situated to offer connections to streets that are attractive and comfortable public spaces. The built environment reflects a legacy of moderately-scaled buildings, high-quality urban design, and a rich architectural heritage, and new development integrated within and complements the unique and historic design characteristics of each neighborhood.

Development patterns enable growth, while also protecting important natural and man-made features. This is achieved by concentrating the highest density of mixed-use development in taller buildings within the downtown core, which is a distinctly urban place, and in activity centers where the scale and mix of uses supports surrounding neighborhoods. Residential neighborhoods are diverse in their patterns and character, with unique built, social, and cultural identities. Medical and educational institutions have a respected place in the community and are concentrated on core campuses. And developed areas are surrounded by and integrated with a network of open spaces and natural systems which are cherished as valuable natural and economic assets.

The city is a place where people can get their start—from companies launching, experimenting and growing, to residents of diverse cultures having access to jobs and housing. The city leverages the industries at the core of its economy—education, healthcare, the arts, industry, technology, food production, and environmental services—to provide economic and cultural value for the city and the region.

This theme is all about:

- Protecting Burlington's natural context and features, particularly Lake Champlain
- Our place in history as the foundation for the future
- The city's architecture and patterns of the built environment
- City's overall development pattern of mixed-use centers surrounded by residential neighborhoods
- Our community's and individual neighborhoods' characteristics
- Social and cultural diversity
- Unique economic identities as a center for innovation and technology, education and healthcare, industry and agriculture, arts and entertainment
- How diversity of people and economic identities adds to the city's cultural richness

Why is this important?

[learn more in the next few pages]



Because Burlington's identity is the foundation for its evolution.

By nearly every definition, Burlington is a city. And yet, in many ways, its personality reflects that of a traditional Vermont village. This dual identity is the essence of what makes Burlington such an attractive place to live, work, and visit, and is one of its core competitive advantages. Its vitality and sense of community come largely from its high quality natural resources, the strength of its residential neighborhoods, and the creativity and diversity of its people—characteristics that regularly place Burlington on someone's top ten list. In addition to its outstanding beauty, Burlington's natural setting is distinctive for its geological and hydrological history; the presence of rare, threatened, and unique species; and the presence and preservation of natural communities within the city's boundaries. Its neighborhoods, businesses, public art, and cultural and community events reflect the city's social and architectural history, as well as residents' backgrounds, beliefs, and aspirations. As the racial and ethnic identities of the city's residents have evolved, so have opportunities to learn about and engage with those identities via the amenities, businesses, and cultures of neighborhoods. One of the primary objectives of this plan is to encourage the city's future growth and development, while nurturing this human scale, social character, and sense of place.

Because Lake Champlain and our natural resources are cherished and valuable assets

The natural environment is the foundation and a chief ingredient in defining Burlington's character and contributes much to our uniqueness. In particular, Lake Champlain is one of the region's most iconic and valuable resources—providing drinking water to more than 145,000 people and generating \$300 million in tourism in Vermont annually.¹

Lake Champlain, the Winooski River, and the many other unique and natural systems and open spaces are protected and cherished as valuable natural and economic assets for the city and the region.

Burlington clearly recognizes that conservation of these assets and development are not inherently at odds. Rather, protecting these resources, and our sense of place, is good for everyone: residents, property owners, businesses, and visitors. This is evidenced in actions such as: the reclamation of much of the lakeshore within the downtown as public open space; the maintenance of 43% tree canopy across the city—along streets, within public parks and conserved lands, and on private property; stewardship of sensitive natural communities within recreational areas; the preservation of productive farmland just over a mile from the center of downtown; and an ordinance and review process that creates opportunities to foster robust stormwater mitigation through new development. This plan underscores that natural and recreational



View of Adirondacks and Lake Champlain from Rock Point

How does increased development impact runoff to Lake Champlain?

The City's stormwater ordinance and development review process ensure that new development and redevelopment not only "do no harm," but actually improve the stormwater runoff impact of long-standing impervious surfaces. Many of these developments, while adding density and intensity of uses, incorporate significant infrastructure that results in a more "natural" performance from a stormwater perspective than an existing surface parking lot or single-story building. These tools include a combination of built infrastructure like storage tanks as well as green infrastructure like rain gardens or green roofs.

systems play an essential role in enhancing environmental quality, economic prosperity, and quality of life. The **Open Space Protection Plan** is an important tool to help us identify these important land resources and prioritize them for protection, and the *Integrated Water Quality Plan* effort is identifying the most cost-effective and scientifically sound ways to protect and restore the quality of the lake.

Because the built environment is an important factor in making Burlington the special place it is

The built environment is made up of all the things (streets, buildings, etc) we put upon the land, and is characterized by how they relate to the city's landscapes, layout, and history.

Burlington is laid out for people to experience on foot, and many places are within walking distance. Our streets should be vibrant public spaces that encourage social interaction, designed to reinforce the character and support the activities of the adjacent land uses and building designs. They must accommodate all modes of transportation and users of all abilities while remaining functional for utilities, service, and maintenance. The gateways to our city—from land, water, and air—should reflect the city's character and provide a welcoming introduction to visitors from near and far. And public art enhances the overall quality of the built environment—a mural on a building wall, a sculpture in a park, unique architectural details

on a building, street performers, festivals, rallies, demonstrations. These creative expressions personalize the city and activate our streets, provide a sense of community, and offer seeds for contemplation and conversation.

The city also has a legacy of rich architectural heritage, moderately-scaled buildings, and high quality urban design. Burlington's rich and varied archeological, historic, and architectural legacy is illustrated in many significant places around the city which remain a vital link to the city's history and sense of place and time. As identified in the *Burlington Survey Plan*, protecting historic structures isn't just about a single building or site, but rather is part of a larger endeavor to conserve the elements and design characteristics that are at the heart of the city's neighborhoods and commercial areas, while also ensuring their continued function in serving the needs of residents and the economy.

Our mixed-use, institutional, and enterprise core areas are where we expect our tallest buildings and most intensive development. Development within these core areas features buildings that are close to the street and frame the public realm, with facades that invite pedestrian activity. New development and larger buildings within the downtown core compliment the scale and pattern of their surroundings, and parking is hidden behind, within, or underneath buildings. Within neighborhood activity centers, gradual transitions in the intensity of development and the uses



Church Street is a widely recognized element of Burlington's character



Example of mixed-use development with screened parking

permitted are important to help these mixed-use areas blend with lower density residential areas that surround them. In residential areas, the unique design characteristics of each neighborhood are important to retain—such as front yards, porches, and building facades—while allowing properties to evolve to meet the changing needs of residential areas through adaptive reuse, renovation, or expansion.

It is important that these high-quality urban developments carefully blend into the city's natural setting. Developed areas are complemented by and integrated with open spaces, parks, and natural areas. Throughout the city—at the end of streets, and from parks and other public spaces—view corridors and scenic vistas frame views of the lake, river, mountains, urban forests and natural communities, as well as prominent buildings and landmarks. Public streets and gathering spaces offer an opportunity to expand these natural resources within our urban environment, particularly by retrofitting these spaces to better support a healthy tree canopy and incorporating green stormwater infrastructure.

Because the city's distinctive characteristics fuel its economy

Burlington is widely recognized as an environmentally-friendly community, an incubator for new and locally-owned businesses, and a highly-desirable place to live and work. It benefits from an economy with enough economic diversity

to weather temporary weaknesses in individual sectors and global market fluctuations. These are powerful tools to attract and retain businesses that place a premium on entrepreneurship and social and environmental factors, and are important features of both the city's economy and to support regional job creation.

While the health and education fields form the basis of the city's economy, it has also long been recognized as a creative economy, an arts and entertainment center, a center for government and social services, home to a diversity of environmental and ethnic enterprises and services, and a hub of agriculture and local food production. The institutions are responsible for and uniquely positioned to take advantage of the city's emerging technology businesses and telecommunications innovations, and to be a partner in bringing the latest in science and technology to market to create spin-off businesses in our region. As the creative economy continues to evolve, we have seen tremendous opportunities for synergies between art, manufacturing, food and goods production, research and development, and creative and digital design that have and will continue to create new economic opportunities. We have also seen the importance of agriculture and the local food network to our economy as a whole, and in promoting the economic resilience of individual households. Neither manufacturing, tourism, education, small business, tech, healthcare, finance, food, nor retail offer the single answer to maintaining and improving Burlington's economy—



City neighborhoods have unique patterns and architectural features



Local food plays a central role in the city's economic identity

it's all of them. We must continue to leverage our competitive advantages, while evaluating how the city fits within broader regional economic development goals.

The institutions not only reinforce our economic base, but also provide rich educational, cultural, and medical resources for Burlington and beyond. In fact, many businesses contribute to and enhance our city's identity by supporting festivals and events, contributing to public spaces and infrastructure improvements, and being good stewards of our natural resources through environmentally-friendly business practices. Promoting and supporting locally-owned and controlled small businesses committed to investing in our community and promoting the well-being of our residents will be an important focus going forward.

Burlington will preserve and foster its distinctive identity by:

- 1** Improving and protecting the quality of Lake Champlain, the Winooski River, tributary waters, natural resources, and open spaces throughout the city and protect them from degradation
- 2** Creating new opportunities for mixed-use infill and redevelopment in the most densely developed areas consistent with the city's scale and urban form, while conserving and strengthening adjacent residential neighborhoods.
- 3** Protecting historic buildings, architectural features, and archaeological resources, while encouraging the adaptive reuse and historically-sensitive redevelopment of underutilized sites and buildings.
- 4** Strengthening the city's role as a cultural and arts center, and supporting efforts to expand public art and placemaking within the built environment.
- 5** Leveraging the city's unique characteristics, economic advantages, and core industries to further strengthen its economy.

What actions will we take to achieve these goals?

[check out the details]



Institutions and businesses contribute to the city's vitality

Improve and protect the quality of Lake Champlain, the Winooski River, natural areas, and open spaces throughout the city and protect them from degradation.

- 1.1** Complete an Integrated Water Quality Plan to address policies, operations, and capital improvements related to the management of stormwater and waste water city-wide, including overall reductions in phosphorus discharge, reduction of untreated combined sewer overflows, and implementation of an industrial wastewater pollution prevention program.



Department of Public Works (DPW)



Short-Term



DRAFT Integrated Water Quality Plan



- 1.2** Prioritize improvements to the City's wastewater treatment plants to stabilize and modernize existing infrastructure that protects adjacent waterbodies from unpermitted discharges that are not compliant with Vermont Water Quality Standards.



Department of Public Works



Mid-Term



Clean Water Plan, DRAFT Integrated Water Quality Plan



- 1.3** Expand design criteria and incentives for innovative techniques and best management practices for stormwater management in new development, and retrofits and other mitigation measures in existing development.



DPW, Planning & Zoning



Short-Term



Burlington Comprehensive Development Ordinance, Great Streets Standards



- 1.4** Work with local, state, and regional agencies on water quality policy and planning to protect Lake Champlain, the Winooski River, and other surface waters from degradation.



DPW, Planning & Zoning



Ongoing



CCRPC, WVPD, VT Dept. of Environmental Conservation



- 1.5** Ensure the responsible long-term stewardship, management, and responsible evolution of significant land and lakeside natural communities, conservation areas, urban wilds, agricultural resources, and parks.



Dept. of Parks, Recreation & Waterfront (BPRW)



Ongoing



Open Space Protection Plan; Parks, Recreation & Waterfront Master Plan; Winooski Valley Parks District



- 1.6** Support and expand public education efforts in order to effectively protect and improve the quality of natural resources and conservation areas.



BPRW



Ongoing



Open Space Protection Plan; Parks, Recreation & Waterfront Master Plan; Winooski Valley Parks District



See also action items 16.1 through 16.7 and 19.2

Create new opportunities for mixed-use infill and redevelopment in the most densely developed areas consistent with the city's scale and urban form, while conserving and strengthening adjacent residential neighborhoods.

- 2.1** Evaluate neighborhood mixed-use areas to better understand the capacity of these areas to accommodate additional development; when necessary, create a neighborhood or area-wide master plan to guide this development.



Planning & Zoning, Community & Economic Development Office (CEDO)



Build-out analysis tools



Mid-Term



- 2.2** Evaluate opportunities for expanding planBTV: Downtown Code to include new form districts with standards for the form and design characteristics of neighborhood mixed-use areas and transitional urban neighborhoods.



Planning & Zoning



Burlington Survey Plan, planBTV: Downtown Code



Short-Term



- 2.3** Consider alternative methods to using dwelling units per acre as the method for regulating development intensity within residential and neighborhood mixed-use areas.



Planning & Zoning



Short-Term



- 2.4** Communicate the benefits available through the Vermont Downtown and Neighborhood Development programs to encourage reuse, redevelopment, and rehabilitation of buildings within downtown and the city's core urban neighborhoods.



CEDO



VT Agency of Commerce and Community Development



Ongoing



See also action items 6.2 and 6.5

Protect historic buildings, architectural features, and archaeological resources, while encouraging the adaptive reuse and historically-sensitive redevelopment of underutilized sites and buildings.

- 3.1** Create a city-wide comprehensive plan for historic preservation that identifies and prioritizes buildings and sites for local designation and protection, and includes recommendations for implementation tools and techniques, including regulatory tools, design guidelines, technical assistance, financial assistance, and funding mechanisms necessary to preserve and enhance the long-term protection and economic viability of these important cultural resources.



Planning & Zoning



Short-Term



Burlington Survey Plan, Permit Reform Study



- 3.2** Re-evaluate the zoning regulations and development standards for low and medium density residential districts to ensure standards allow for existing development patterns, design character, scale and mass that are desired to be maintained, while also enabling some evolution of these properties to meet the changing needs of households.



Planning & Zoning



Mid-Term



Burlington Survey Plan



- 3.3** Review, and revise as necessary, the design review standards and tools for determining the consistency of new development/redevelopment with the existing neighborhood character to make them more objective in application and the process more predictable.



Planning & Zoning



Mid-Term



Permit Reform Study



- 3.4** Create and support educational and tourism opportunities that promote the city's historic and cultural resources.



Planning & Zoning, Burlington City Arts, BPRW, Fletcher Free Library, Church Street Marketplace



Ongoing



Lake Champlain Byways Program, Lake Champlain Chamber of Commerce



- 3.5** Identify and preserve views of iconic buildings, natural features, and scenic vistas that are visible from primary public streets and parks.



Planning & Zoning, BPRW



Mid-Term



Strengthen the city's role as a cultural and arts center, and supporting efforts to expand public art and placemaking within the built environment.

- 4.1** Develop a city-wide arts and culture plan, including an inventory of current assets (both public and private) and those unique to various parts of the city, and identify needs for additional facilities, capital improvements, programs, technologies, maintenance, and funding to support these resources.



Planning & Zoning, Burlington City Arts, BPRW, Fletcher Free Library, Church Street Marketplace, CEDO



Mid-Term



- 4.2** Create additional conference and exhibition space within the downtown.



CEDO, Burlington City Arts



Long-Term



- 4.3** Implement a Percent-for-the-Arts program that creates a sustainable funding source for creation and management of public art.



Burlington City Arts (BCA)



Short-Term



- 4.4** Utilize the Great Streets Standards as a guide to design and install public art and placemaking elements throughout the city that add character, vibrancy, and interpretation to streetscapes and utility infrastructure, while also being functional, durable, and safe.



DPW, BCA



Great Street Standards



Ongoing



- 4.5** Identify programs and other tools to create and secure affordable housing and/or work spaces for artists and makers.



Planning & Zoning, CEDO, BCA



[planBTV: South End Master Plan](#)



Mid-Term



Leverage the city's unique characteristics, economic advantages, and core industries to further strengthen its economy.

- 5.1** Create a comprehensive economic development strategy, which inventories the city's economic advantages and role within the region; priority industries and businesses to target for recruitment, retention, and expansion; and appropriate technical assistance and workforce development tools.



Planning & Zoning, CEDO, BCA



Short-Term



ECOS Plan Comprehensive Economic Development Strategy



- 5.2** Identify specific opportunities to leverage and build partnerships with the creative economy and institutions of higher education to strengthen the city's economy.



CEDO



Ongoing



- 5.3** Strengthen the capacity of the Old North End arts and business community to market, support, and expand small businesses and initiatives that serve and reflect the character of the neighborhood.



CEDO



Ongoing



ONE Arts & Business Network



- 5.4** Evaluate changes to the one-size-fits-all approach to land use policy within the South End Enterprise Zone, in order to preserve and expand the unique and varied character of the district as an arts, innovation, and industrial district.



Planning & Zoning, CEDO, BCA, DPW



Short-Term



planBTV: South End Master Plan, Brownfields Area Wide Plan



- 5.5** Expand and/or develop programs to build capacity of farms and businesses in the Intervale to supply local businesses and connect them to potential customers.



CEDO



Mid-Term



5.6 Strengthen partnerships between local businesses, institutions, non-profit and government agencies, and neighboring communities to actively support, attract, and retain diverse economic development and job opportunities, and create additional opportunities to retain youth.



CEDO



Ongoing



ECOS Plan Comprehensive Economic Development Strategy, Lake Champlain Chamber of Commerce, Greater Burlington Industrial Development Corp.



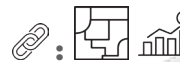
5.7 Explore and expand approaches to promote and support locally-owned and controlled small businesses, including home occupations, that serve both city-wide needs and surrounding neighborhoods.



Planning & Zoning, CEDO



Mid-Term



See also action item 20.6 and 21.5



burlington as a **dynamic** city.

Burlington is a major growth center in Chittenden County and Vermont, despite occupying just 10 square miles. It will continue to grow by leveraging its unique identity while being nimble, creative, and purposeful in addressing its current needs and future challenges. It will prioritize innovative solutions that are environmentally, economically, and socially sound.

Old North End intersection repurposed as a neighborhood parklet

Our vision for Burlington as a dynamic city.

Burlington embraces its 'big ideas, bigger ideals' ethos by thinking beyond the limits of its size and location, and enthusiastically applying bold, creative, long-term solutions to address our community's needs and opportunities. It celebrates and builds upon its strengths, while adapting its policies, tools, and programs to respond to our community's evolution and the changes happening in the world around us.

The city continues to evolve and grow, embracing its opportunities and responsibilities as Vermont's largest city and a regional economic and population hub. In order to balance the benefits and burdens of this role, the city continues to iterate its land use and development policies in order to prioritize areas that should grow, and reinforce areas that should be protected and maintained.

Burlington prioritizes meeting the basic needs of all of its residents while protecting its natural resources, consuming those resources at the same rate it replenishes them, maximizing the benefits of local wealth, and investing that wealth back into the community.

To meet these hallmarks of sustainability, Burlington will continue to be a leader in developing and implementing measures to become a Net Zero Energy Community, protect our natural resources, adapt to the effects of climate change, promote the health of residents, address the rising cost of living, and prepare for demographic and technological shifts.

This theme is all about:

- Burlington's role as a regional nucleus and growth center for the county
- Growing in a way that respects the city's characteristics and promotes economic vitality
- Meeting our basic needs in a way that is economically, environmentally, and socially sound
- Evolving in response to new and chronic challenges, rather than remaining static at a point-in-time
- Becoming a Net Zero Energy Community
- Adapting to and becoming more resilient against the effects of climate change
- Leader of and center for innovation and problem solving
- Promoting diverse economic, housing, and transportation choices
- Being good stewards of public utilities and services to ensure they continue to support our community

Why is this important?

[learn more in the next few pages]

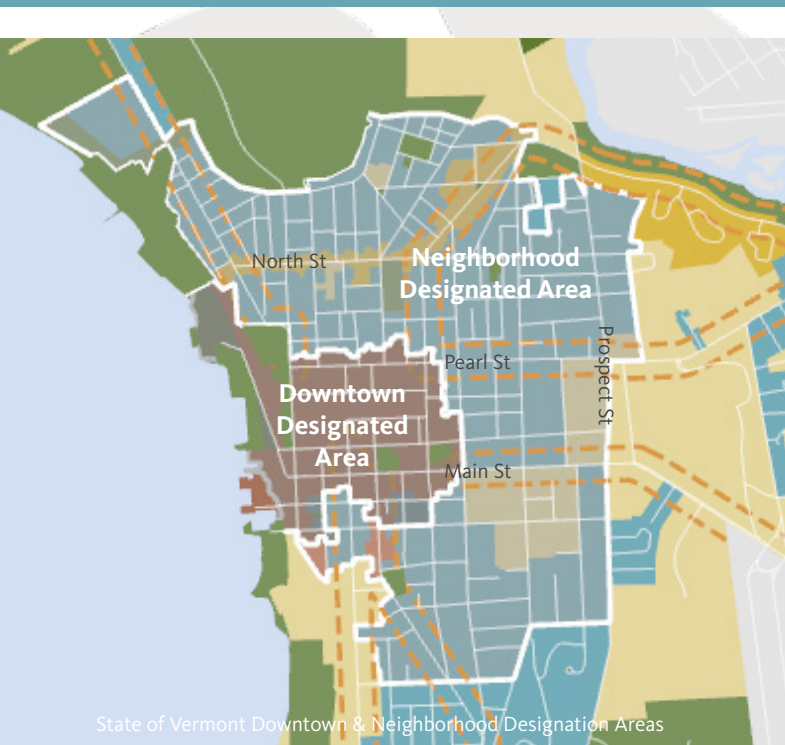


Because Burlington is a regional nucleus with a relatively small geographic footprint.

Burlington is at the heart of a larger urbanizing region that is the principal economic and cultural engine for the northern Champlain Valley, and much of the state of Vermont. Despite making up less than 2% of Chittenden County's land area, Burlington is the most populous and intensely developed community in Vermont. Being the most urban community in the state brings challenges and opportunities to Burlington that are similar to larger metropolitan areas. We have been and will continue to be an important center of housing, education, healthcare, government, social service, hospitality, and recreation opportunities. However, we are a small community, and Burlington's attractiveness has led to significant upward pressure on housing and business costs, causing many parts of our community to become unaffordable. If we are not constantly evaluating how to offer these opportunities and respond to changes, our ability to meet the needs of our residents and businesses in the future will be threatened.

The regional *ECOS Plan* identifies much of Burlington as a regional growth center, and the city is expected to continue to be home to 25-30% of the regional population and a third of the region's jobs.² The city welcomes the opportunities and responsibilities associated with serving in this role. As such, this plan anticipates continued and sustainable growth in housing, service, transportation, and employment choices and population growth, while protecting the city's natural systems, maintaining its overall moderate scale and high-quality urban design, supporting its neighborhoods, and celebrating its heritage.

To do so, we must define growth areas that reflect existing and proposed development within the city, while recognizing that portions of these areas may be more suitable or desirable for future development. The city has little remaining undeveloped land on which to grow, and many parcels are substantially developed, some with historic buildings, or include areas that are inappropriate for intense development. However, there are parts of the city, such as in the downtown core, where parcels exist that are underdeveloped and where utility and land capacity could accommodate additional growth and taller buildings. This plan anticipates infill and redevelopment in its areas defined for growth in order to sustain Burlington as an important nucleus of the region without threatening its unique and defining qualities. To do so, we must remove disincentives and barriers, and prioritize strategies that ensure a more efficient use of properties that are already developed or that are currently underutilized but could undergo redevelopment.



How does new development maintain Burlington's overall scale?

Targeting development into areas specifically identified for growth helps preserve the overall character and scale of the city as a whole. In the downtown core, planBTV: Downtown Code aims to promote new infill development and adaptive reuse that reflects Burlington's character and sense of place, while taking advantage of limited opportunities for new development at modestly larger scales and densities where appropriate. Further, the Great Streets Standards outline the elements of the public realm that will achieve the goals of this plan, as well as create cohesion between existing and new development. The Vermont Downtown Program is another tool for achieving this goal. It offers benefits to the city and property owners to make investments in the rehabilitation of buildings and transportation improvements within areas we've specified as appropriate for future growth.

To ensure there is sustainable infrastructure to support future growth

While there is adequate capacity in the city's public infrastructure and services to support growth, it is critical to ensure that those systems are sustainable, well-maintained, and their capacity is routinely evaluated to monitor change over time. In order to be good stewards of the city's infrastructure, we must continue to carefully coordinate areas identified for development with the capacity and capability of municipal facilities, utilities, and the transportation system. We must continue to invest in maintenance, improvements, and upgrades to these systems in order to maximize their efficiency and reliability, maintain a high-quality level-of-service, limit degradation of the natural environment, and not unnecessarily burden taxpayers.

To do so will require innovative approaches to challenges like stormwater management, wastewater services, energy generation and utilization, and transportation system investments. The City's work to-date on these issues has made us a national leader, most notably in the achievement of 100% renewable energy generation within the electricity sector. Based on the [ECOS Plan Energy Data Guide](#), and the Burlington Electric Department's *Integrated Resource Plan*, Burlington's electric utility is adequate to service a sustainable level of growth over the next several decades while at the same time meeting statewide targets for renewable energy generation.

However, we cannot stop there, and must continue to pursue policies, programs, and other projects that will reduce energy demand, increase efficiency, and expand the utilization of renewable energy resources, particularly in the thermal and transportation sectors—all of which are at the core of the city's goal to become a Net Zero Community.

Beginning with the passage of the [Sustainable Infrastructure Capital Plan](#) in 2016, the City began reinvesting in and upgrading its municipal water system and its transportation network at an unprecedented level. Aging infrastructure, particularly at the Main Wastewater Treatment Plant, will prove an increasing and costly challenge, and it is critical to the city's future that we be responsible and proactive stewards of this infrastructure. Phase 2 of the [Sustainable Infrastructure Capital Plan](#) includes the [Clean Water Resiliency Plan \(CWRP\)](#). Together with the *Integrated Water Quality Plan*, the CWRP will help the City prioritize upgrades and improvements in this system, while also proactively implementing green stormwater infrastructure, and other water quality and conservation measures throughout the city, to reduce the plant's load and protect our highly valuable resource—Lake Champlain. The [Sustainable Infrastructure Capital Plan](#) also calls for and has begun to invest in extensive street and sidewalk repairs and upgrades, new bike and pedestrian facilities, new street connections, and park and public facility improvements which foster a growing and vibrant community.



Future Energy Use

Transportation, thermal, electric

By 2050, Burlington is projected to decrease its total per capita energy use by 31% from its 2015 benchmark, even as our community grows!

5,104,052 MMBtu  4,024,751 MMBtu
in 2015 in 2050

In Burlington, **Net Zero** means that we will source at least as much renewable energy as the city consumes for electric, thermal, and ground transportation purposes. Today, we are sourcing 100% renewable energy for our electric purposes.

To achieve this ambitious goal, we will work towards net-zero with Burlington's residential, commercial,

and industrial energy customers for both thermal and electric purposes. Within the transportation sector, our goal is to make in-city travel net-zero, and lower the impact of inter-city ground travel. And we will continue to source renewable energy from New England and adjoining states and territories with a strong preference for resources generated closest to Burlington.

Achieving this goal will require all hands on deck, and a series of strong policies, programs, and incentives. For example, we must take advantage of strategic opportunities to convert systems which run on fossil fuels to run on our renewable electric grid, maximize buildings' energy efficiency along with local design and historic preservation goals, and reduce energy demand by creating more robust alternative transportation systems.

Sources and additional data on future energy projections available in CCRPC [Burlington Energy Data Guide](#)

To be more resilient against the effects of climate change

While increases in global temperature are often highlighted as one of the primary outcomes of climate change, many impacts that are more serious may result. Many of these are already being experienced in Vermont—more extreme and dangerous weather events, including more intense rainstorms and more frequent flooding, heat-related illnesses in humans, water pollution, and stress on plant and animal species which provide food and essential environmental benefits. Therefore, it is essential to continue to aggressively develop and implement strategies to mitigate our contribution to climate change, and to strengthen our community's adaptation to and resilience against these impacts, including:

- strengthen compact mixed-use land development patterns
- advance alternative transportation options
- increase local food production
- expand energy efficiency and renewable energy generation
- promote urban forestry and carbon sequestration
- restore natural communities, ecologically significant areas and species habitat
- improve waste reduction and recycling
- develop an integrated stormwater management system
- mitigate flooding, fluvial erosion, and water

pollution

- ensure building, site, and public space design accounts for both harsh winters as well as increasingly hot summers, and more frequent severe weather events
- be responsible stewards of these systems and existing infrastructure

The City's **Climate Action Plan** is our primary resource regarding actions necessary to reduce our greenhouse gas emissions and pollution, protect the environment for future generations, improve human health and economic vitality, and create a more livable community. And the Chittenden County **All Hazards Mitigation Plan** outlines a number of steps to mitigate the environmental, technological, and societal hazards for which Burlington is most at risk in the future.

Because the economy, technology, and demographics are changing where and how we live

The population is aging rapidly in the US and in Vermont, while Millennials now make up the largest generation in the workforce. Baby Boomers and young professionals alike are bringing new preferences and attitudes regarding work, housing, community, transportation, and families. We must expand housing availability and deploy new housing types that enable empty nesters and older adults to age-in-place within their community, as well offer more options and price points for young professionals and families—from those looking to



Rock Point School Solar Field and BPRW Community Garden



Safe transportation alternatives can add character and greenery to streets

live in an apartment close to the center of things, to those with families who want to purchase a home in one the city's diverse neighborhoods.

Further, the sharing economy, online shopping, and advancements in transportation technology are rapidly changing how we use our homes and cars, and where we shop. These changes will continue to demand more innovative approaches to land use and housing designs so that we can balance the benefits—such as offsetting housing costs or reducing the demand for parking—with the potential impacts on how we allocate space on our public streets, the value of homes city-wide, and the vitality of local businesses.

Burlington will be dynamic in meeting its current and future needs by:

- 6** Promoting land use, housing, transportation and economic development policies and public improvements consistent with its role as a regional growth center.
- 7** Enabling a range of land use and development models that respond to, and benefit from, evolving needs of households, new technologies, and changing environmental and economic factors.
- 8** Coordinating land use and development with the availability and capacity of public services, facilities, and utilities to ensure a high-level of service.
- 9** Making tangible efforts to reduce greenhouse gas emissions and become a Net Zero Energy community by 2030.
- 10** Implementing projects and policies to strengthen the city's built, natural, and social environments in order to be more adaptable to and resilient against the effects of climate change and other hazards.

What actions will we take to achieve these goals?

[check out the details]



Infill and adaptive reuse strengthen our compact, mixed-use land use pattern

Promote land use, housing, transportation, and economic development policies and public improvements consistent with its role as a regional growth center.

- 6.1** Enable the development of additional housing at all income levels consistent with the regional Building Homes Together targets and the city's Housing Action Plan by reducing regulatory barriers and disincentives to development, and encouraging infill and redevelopment of underutilized sites.



Planning & Zoning, CEDO



Short-Term



Housing Action Plan, Inclusionary Zoning Study, Permit Reform Study, Building Homes Together Initiative



- 6.2** Encourage infill and redevelopment within the downtown core, where there is demonstrated capacity for increased housing and commercial development that is supported by existing infrastructure and parking.



Planning & Zoning, CEDO



Ongoing



planBTV: Downtown & Waterfront Master Plan, 2003 Buildout Analysis



- 6.3** Evaluate the potential of the city-owned parking lots on Elmwood Avenue and Main Street for mixed-use development.



Planning & Zoning, CEDO



Long-Term



planBTV: Downtown & Waterfront Master Plan



- 6.4** Consider land use policy changes that will enable the development of additional student housing and amenities on the institutions' campuses, consistent with campus master plans.



Planning & Zoning



Short-Term



Housing Action Plan, UVM Campus Master Plan, Champlain College Campus Master Plan



- 6.5** Examine opportunities for allowing higher-density, mixed-use development along the city's major multi-modal corridors and transit routes.



Planning & Zoning, DPW



Mid-Term



Burlington Transportation Plan, planBTV: Walk/Bike, Housing Action Plan



- 6.6** Pursue opportunities to establish regional bus rapid transit corridors.



Planning & Zoning, DPW



Long-Term



Green Mountain Transit, CCRPC



6.7 Cleanup and redevelop brownfield sites, particularly in the South End, to improve the environment, create and retain job opportunities, expand the tax base, and curb sprawl.



CEDO, DPW



Ongoing



Burlington Area Wide Plan, planBTV: South End Master Plan, Railyard Enterprise Project, state/federal brownfield programs



See also action items 2.1, 2.4, 5.1, and 19.1

Enable a range of land use and development types and choices that respond to, and benefit from, evolving needs of households, new technologies, and changing environmental and economic factors.

7.1 Modify land development and building ordinances regarding accessory dwelling units, and create a program to provide technical assistance and/or funding, to support their creation.



Planning & Zoning, CEDO, DPW, Code Enforcement



Short-Term



Housing Action Plan



7.2 Create land use, building, and other ordinances as needed regarding short-term rentals, that balance preservation of long-term housing availability with the evolving needs of homeowners.



Planning & Zoning, City Attorney, CEDO, Clerk & Treasurer, Code Enforcement



Short-Term



7.3 Eliminate on-site parking requirements in all mixed-use zones and utilize bedroom count as the basis for calculating parking for housing units in residential areas.



Planning & Zoning



Short-Term



Downtown Parking & Transportation Management Plan, Inclusionary Zoning Study



7.4 Evaluate land development or building ordinances for necessary changes that accommodate the evolving needs and characteristics of commercial and industrial workspaces.



Planning & Zoning, CEDO, DPW, Code Enforcement



Short-Term



See also action items 9.3, 9.4, 9.6 and 9.8

Coordinate land use and development with the availability and capacity of public services, facilities, and utilities to ensure a high-level of service.

- 8.1** Prepare an update to the Sustainable Infrastructure Capital Plan that considers the long-range capacity and future needs of City buildings, lands, harbor, utilities, fleet, and staffing levels, and identifies a strategy for the necessary maintenance, upgrade, and/or expansion of those facilities.



All Departments



Ongoing



- 8.2** Prepare a comprehensive update to the City's Impact Fee Study and rates to ensure that new development is paying its appropriate share of the impact of new demand.



Planning & Zoning, DPW



Mid-Term



- 8.3** Assume delegation from the state for wastewater permitting to improve coordination and review of new development and redevelopment.



Department of Public Works



Short-Term



VT Department of Environmental Conservation



- 8.4** Increase the efficiency of and collaboration among departments during the Technical Review Committee process to ensure potential impacts from new development on schools, transportation systems, and city services are proactively evaluated and accounted for, and to determine how to maximize the public benefits of new private development.



Planning & Zoning, DPW, Burlington School District, Burlington Fire Department, Burlington Police Department, Burlington Electric Department



Ongoing



- 8.5** Maintain and improve the reliability of the electric grid while leveraging it to displace fossil fuel use in the thermal and ground transportation sectors.



Burlington Electric Department (BED)



Long-Term



Burlington Electric Tier 3 Plan, Burlington Electric Integrated Resource Plan, ECOS Plan



- 8.6** Identify zoning changes needed to ensure capital improvements and projected needs of the school district can be accommodated on existing school sites and district properties.



Planning & Zoning, Burlington School District



Mid-Term



Burlington School District Facilities Capital Plan



Make tangible efforts to reduce greenhouse gas emissions and become a Net Zero Energy community by 2030.

- 9.1** Develop a roadmap for identifying objectives and steps necessary to transition Burlington to a Net Zero Energy community in the electric, thermal, and ground transportation sectors, including an update to the Climate Action Plan to include additional climate resiliency strategies.



Burlington Electric Department, Planning & Zoning, CEDO, DPW



Mid-Term



Climate Action Plan



- 9.2** Include metrics for energy resource proximity to Burlington and land requirements in the next Burlington Electric Department Integrated Resource Plan, and identify priority sites within Burlington for locating renewable energy generation resources.



BED, Planning & Zoning



Mid-Term



BED Integrated Resource Plan, ECOS Plan



- 9.3** Create a policy to require all public buildings adhere to higher standards of efficiency, and identify strategies to reduce these buildings' energy and water consumption and municipal transportation emissions by 50%.



DPW, BED



Long-Term



Climate Action Plan, Burlington 2030 District



- 9.4** Create an ordinance regarding green and high-performing buildings that advances the city's energy efficiency, environmental protection, urban design, and historic preservation priorities, and considers developers' and the city's ability to reasonably implement, benchmark and monitor, and enforce its requirements.



Planning & Zoning, CEDO, DPW, BED



Short-Term



planBTV: Downtown Code, Burlington 2030 District



- 9.5** Expand upon Burlington Electric Department's efforts to improve energy efficiency in the commercial and industrial sectors by establishing a sustainable business program which provides information, education, and incentives to make business practices more sustainable, including issues of energy, water/waste water, transportation, solid waste disposal, and purchasing/sourcing.



CEDO, DPW, BED



Short-Term



Burlington 2030 District



Continued next page

9.6 Create, implement, and enforce policies and programs, including an update to the Time of Sale Ordinance, to address split incentive issues in leased commercial and residential properties.



Burlington Electric Department



Mid-Term



9.7 Solicit innovative ways to expand available incentives for electric vehicles, buses, and bikes to include charging infrastructure at home and work, and to offer attractive rates for charging during off-peak times.



Burlington Electric Department



Short-Term



9.8 Make permitting for solar energy infrastructure more efficient, and disseminate information about the process to stakeholders and the public.



Burlington Electric Department, DPW



Permit Reform Study



Short-Term



9.9 Pursue a Burlington District Energy System to displace fossil fuel emissions in the thermal sector for buildings within the downtown and institutional cores.



Burlington Electric Department, DPW



Burlington District Energy 2017 Feasibility Study




Mid-Term




See also action items 3.1, 6.2, 6.5, 6.6, 8.5, 10.2, 12.1, 14.5, 17.11, and 19.1

Implement projects and policies to strengthen the city's built, natural, and social environments in order to be more adaptable to and resilient against the effects of climate change and other hazards.

10.1 Implement policy, operational, and capital improvements to mitigate risks to the city's built, natural, social and technological systems.

 All Departments

 Ongoing

 [Burlington Annex, All Hazards Mitigation Plan](#)




10.2 Modify land development and building ordinances as necessary to ensure building design takes into account Burlington's climate and become more adaptable to and resilient against environmental hazards.


 Planning & Zoning, DPW


 Short-Term



10.3 Continue to enforce, and modify as necessary, Natural Resource Overlay zoning regulations to protect flood and fluvial erosion hazard areas and mitigate risks to life, property, and public infrastructure.

 Planning & Zoning

 Ongoing


 [Burlington Annex, All Hazards Mitigation Plan, Burlington Comprehensive Development Ordinance](#)



10.4 Develop a comprehensive education and outreach program to increase public awareness about the anticipated effects of climate change, how to prepare, and available emergency resources.

 Planning & Zoning, BED, Burlington Fire Department, DPW, BPRW

 Mid-Term

 [Climate Action Plan, Burlington Annex, All Hazards Mitigation Plan](#)



See also action items 9.1



burlington as an **inclusive** city.

Burlington will grow in a way that meets the needs of and provides opportunity for all residents— current and future. It is part of a region that, together, shares in the responsibility of providing a diverse housing stock and a healthy job market. It is accessible, affordable, provides jobs for all skill levels, and offers meaningful opportunities for participation in decision-making. The city welcomes residents of diverse social, demographic, cultural, and economic backgrounds and of all abilities.

Mural in Roosevelt Park in the Old North End

Our vision for Burlington as an inclusive city.

Neighborhoods provide a rich quality of life for households that are diverse in age, family situation, income, race and ethnicity, cultural background, and abilities, each adding to the collection of rich and vibrant threads in the tapestry we know and love as Burlington. All people have equitable access to safe, decent, and affordable housing that meets their needs. Diverse housing options have significantly reduced the need for shelters for the homeless, offered new opportunities for low- and moderate-income people to own their own homes, and relieved the pressure on the rental housing market.

The city's economic base includes regional businesses and services focused in the downtown, and businesses and services in vibrant neighborhood centers that support the needs of nearby residents. The economy includes meaningful job opportunities that pay a livable wage for all skill levels, and residents who are not fully participating in the local and regional economy have access to educational, job training, and job retention services. A robust public education system, early childhood learning programs, and childcare resources ensure that parents are able to participate in the workforce, and that all Burlington children have the opportunity to succeed.

Whether born in Burlington, a transplant from another state, or a new arrival from another country, all members of our community feel safe, welcome, and included. All residents have opportunities to participate in the city's recreational, educational, and civic offerings. Public buildings, facilities, parks, the waterfront, and streets are accessible by the public and are designed to be inclusive of people of all abilities, cultures, genders, and ages.

Burlington is a community where a broad section of its residents passionately participate in decisions that affect them, have a clear voice in policy-making that is open and accessible, and have access to information from City government that aids in participation and decision-making. Elected officials and public servants engage with the community using methods that are appropriate for and convenient to residents, and are responsive to the long-term needs of our community as a whole.

This theme is all about:

- Providing housing choices for all households of all incomes
- Promoting an economy that offers job opportunities for all skill levels
- Expanding access to education, childcare, and transportation
- Ensuring our community is physically and socially accessible and provides equitable opportunities for participation
- Government that is responsive to residents' needs
- Engaging more and more diverse audiences utilizing a wide variety of methods
- Increasing representation of the city's growing racial and ethnic diversity

Why is this important?

[learn more in the next few pages]




Because safe, decent, and affordable housing is fundamental to the well-being of all residents and our economy

In order to grow in a way that is sustainable, Burlington must increase the availability, quality, and affordability of housing in the city—not only to meet the needs of our current population, but also their evolving needs and those of future residents. An essential element of our future vitality is providing a diversity of housing types suitable for all income ranges—Burlington cannot and will not be a community that favors just one population or group. Instead, we must fill in the gaps in the “housing ladder,” providing greater opportunity to those for whom opportunity is currently limited. We must also take care to provide this housing in an equitable way across the city, and to ensure that all parts of our city play a role in contributing to our housing interventions.

Within Burlington and Chittenden County, there has been a chronic shortage of available housing and rapid inflation of median home prices and rents for close to 30 years. These challenges have persisted despite the hard work of City government, residents, and non-profits to develop innovative funding mechanisms, permanently affordable housing units, and ordinances and policies to address underlying market dynamics. As a result, the **Housing Action Plan** was created, which outlines 22 strategies to reduce the cost of housing for residents across all incomes, increase the supply of both subsidized and non-subsidized housing, and to providing appropriate housing for our community’s most vulnerable including older adults, residents with disabilities, and those who are homeless. An important underlying element is to actively promote and encourage the development of higher-density housing in our growth areas where it currently permitted. In short, if we are serious that housing is a human right, we need to build more housing.

However, encouraging the development of additional housing units alone is not the only solution. We must advocate for and develop additional funding sources, partnerships, and creative regulatory solutions to fill gaps in the housing ladder. For example, as a result of the *Evaluation of the City of Burlington’s Inclusionary Zoning Ordinance* and the *Inclusionary Zoning Working Group Report* a number of recommendations have been offered that are intended to increase the effectiveness of the Inclusionary Zoning Ordinance and provide additional resources to support the Housing Trust Fund.

Finally, it is now understood that quality of housing is a key determinant in the health of a city’s residents. Housing must be safe, and free of lead-based paint hazards, indoor air quality triggers, and other life-safety threats. We must identify more effective mechanisms for ensuring housing meets and exceeds minimum housing code standards, and housing must be safe and accessible for residents of varying abilities, and across their life stage. Further, we must identify opportunities to reverse and prevent chronic issues of disinvestment in and abuse of our city’s rental housing stock, as chronic disinvestment erodes the character of neighborhoods, and impacts the emotional and physical health of residents.



“It is hard to argue that housing is not a fundamental need. Decent, affordable housing should be a basic right for everybody in this country. The reason is simple: without stable shelter, everything else falls apart.”

Matthew Desmond, Author of
Evicted: Poverty and Profit in the American City

Because access to meaningful employment and support services are essential to our vitality

Burlington's economy has been largely resilient to economic downturns, but not all residents are fully employed or equally prepared to enter the workforce. While unemployment is relatively low, there are others who are employed but do not earn a livable wage to support themselves or their families within Burlington's housing market, and still others who are under-employed, working in positions that do not make the best use of their talents and abilities. These economic challenges impact residents across Burlington's economic sectors—from teachers and nurses who provide essential services to our community to those working in small, local businesses in the service and retail sectors. It is critical to improve the economic well-being of residents of all socioeconomic backgrounds, but particularly for the working class, young people, people with disabilities, women, refugees, immigrants, and people of color. The City, together with service agencies and other institutions, must encourage the creation of additional meaningful job opportunities that offer workers a safe workplace, job security, a wide variety of salaries and benefits, and training and advancement opportunities. Further, it is important to continue expand the supporting infrastructure necessary to ensure residents can participate meaningfully in the economy—adult educational opportunities, high-quality and affordable childcare, access to services and amenities near

where people live and work, and efficient and reliable transit systems.

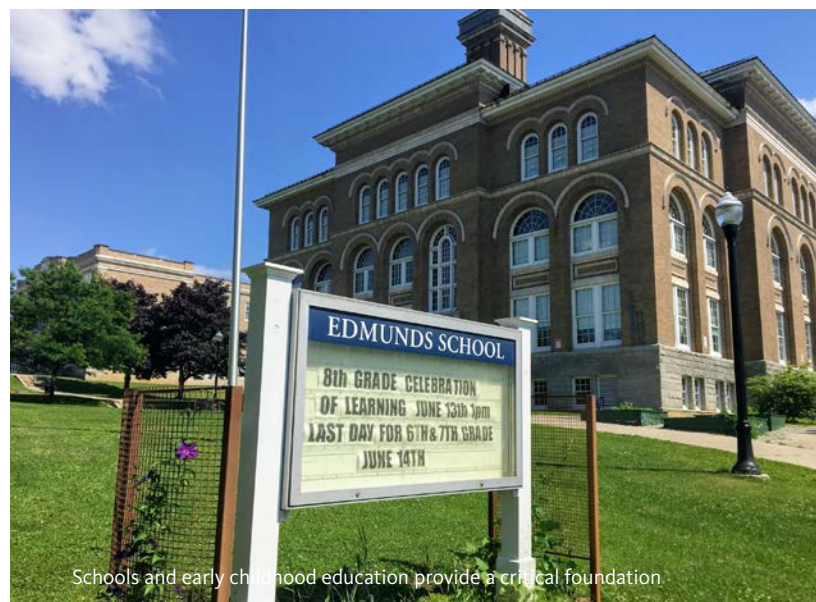
Ensuring all residents are prepared to participate in the workforce and our community begins at a very early age. While Burlington is home to a range of early learning, K-12, and post-secondary educational opportunities, additional resources are needed to meet the diverse needs of our residents. This is particularly important in our public school system, where nearly 45% of students received free or reduced meal programs, 17% of students received services as English Language Learners, and 24% of students had a disability and were on a plan to adapt their educational experience to their needs³. Further, more than 500 childcare spots are needed for Burlington children before they even begin school. It is imperative that across our education system, and through efforts such as the *Burlington Early Learning Initiative*, we expand the availability, quality, and continuity of support services for Burlington youth in order to reduce the educational and lifetime achievement gap experienced by low-income children and children with special needs.

To ensure the built environment provides equal access and opportunity in all parts of our city, to everyone

As we plan for and promote investment and reinvestment, we must consider the needs of all parts of the city. The **Sustainable Infrastructure Capital Plan**, and planBTV's area-wide and topic specific plans are important resources to guide



Rhino Foods employees in the 'Crash Cafe' - Photo courtesy of Caitlin Goss



Schools and early childhood education provide a critical foundation

public investment in areas that have suffered from deferred maintenance or that lack infrastructure like parks, transportation connections, or streetscape enhancements. Housing and commercial growth targeted for mixed-use areas throughout the city should prioritize services and amenities that support nearby residents. We must ensure that these investments are implemented in a way that is consistent with the character of surrounding neighborhoods, and that provides economic opportunity without inadvertently displacing our community's most vulnerable populations.

Public and private buildings and public spaces must provide equal access for people with sensory and mobility sensitivities and impairments, and all ages. New development and renovations, must go beyond the minimums established by regulation and pursue innovative ways to enhance convenience and accessibility for all residents. This is especially challenging, yet critically important in the older building stock, which will require creativity and resourcefulness to improve accessibility. Equal opportunity for people with disabilities means that doors open easily and ramps are not too steep; signs are appropriately located and large enough to read; there are accessible parking spaces, transit loading/unloading zones, and other public amenities; and that arts, culture, recreation, education, and public decision-making are available to people who need accommodations. It is also important that public facilities and spaces are designed and managed to welcome everyone, despite their ability. This means they not only offer access, but ensure that users are comfortable and

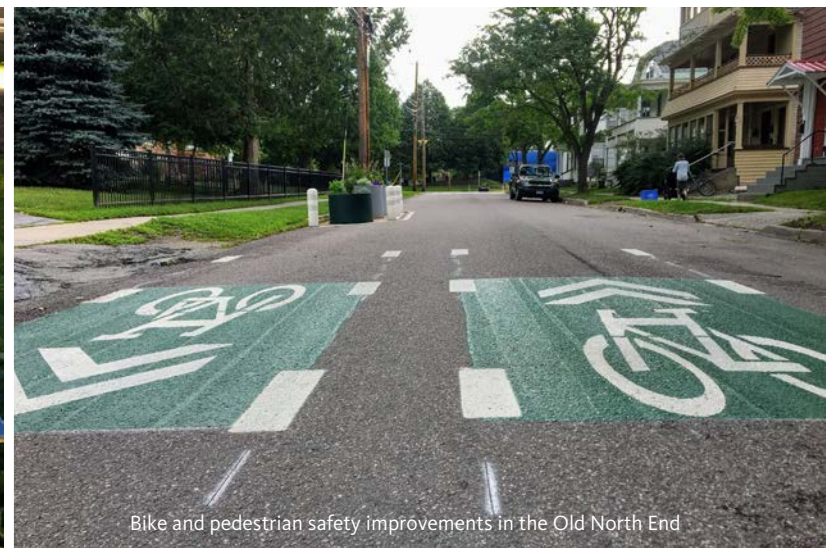
safe—from young children, to older adults, women, and minorities. These places must be free from crime and aggression, and incorporate benches, bike racks, waste and recycling containers, drinking fountains, public restrooms, tree canopy, lighting, information kiosks, public art, and other amenities that support all users.

Because our community is stronger as a result of its diverse values and viewpoints

Burlingtonians are known for their passion and engagement in political, civic, and community issues. As we implement plans and make choices about how to address our community's challenges, it is essential to be informed about the opinions of those most likely to be impacted by them. We must include diverse viewpoints and ensure that public dialogue is respectful and tolerant of all voices. To do so, we must continue to share information with the public, listen to their concerns and decisively act upon them, in order to increase accountability and responsiveness to voters. It is important to continue to expand opportunities for citizen education about the community as a whole and individual issues in particular, and provide meaningful participation in decision-making so that there is a clear direction on how to move plans and projects forward. We must continually seek ways to iterate the processes and tools used to involve community members—particularly by increasing diversity on elected and appointed decision-making boards and increasing the accessibility of critical information and opportunities for involvement to people of diverse socioeconomic backgrounds and who speak languages other than English.



North Street has a long history of immigrant-owned businesses



Bike and pedestrian safety improvements in the Old North End

Burlington will become a more inclusive community by:

- 11** Utilizing a range of policies, programs, and funding sources to expand housing opportunity, fill gaps in the housing tenure ladder, ensure perpetual affordability, and increase the overall supply and inclusiveness of housing.
- 12** Supporting and implementing programs, laws, and ordinances that improve the safety and accessibility of housing, and ensure that no person seeking housing is discriminated against.
- 13** Enhancing the built environment to ensure public buildings and spaces are safe, well-maintained, and provide equal access for people of all abilities and backgrounds.
- 14** Ensuring all residents have access to meaningful employment at a livable wage.
- 15** Providing meaningful opportunities for citizens to be involved in decision-making, and ensuring that City government is responsive to citizens.

What actions will we take to achieve these goals?

[check out the details]



Youth sharing their input on what they love about Burlington

Utilize a range of policies, programs, and funding sources to expand housing opportunity, fill gaps in the housing tenure ladder, ensure perpetual affordability, and increase the overall supply and inclusiveness of housing.

11.1 Update the City's Inclusionary Zoning Ordinance and other land use policies to expand the creation of affordable homes.



Planning & Zoning, CEDO



Short-Term



Housing Action Plan, Inclusionary Zoning Study



11.2 Examine the feasibility of public bonding and seek other local, state, or federal funding sources that can expand the Housing Trust Fund's capacity to support projects which create and preserve affordable housing and support more housing choices across the housing spectrum.



CEDO



Ongoing



Housing Action Plan, Inclusionary Zoning Study



11.3 Utilize new initiatives that increase housing options for residents who are ineligible for subsidy but unable to compete in Burlington's housing market.



Planning & Zoning, CEDO



Ongoing



Housing Action Plan, Inclusionary Zoning Study



11.4 Identify policies, programs, or investments necessary to increase the rate of homeownership, particularly in low- and moderate-income neighborhoods, and areas that have traditionally had much higher rates of rental housing.



Planning & Zoning, CEDO



Short-Term



Housing Action Plan, Inclusionary Zoning Study



11.5 Work with banks, credit unions, and mortgage companies to offer innovative mortgage products that expand opportunities for homeownership.



CEDO



Mid-Term



Housing Action Plan



11.6 Develop a program through which the City of Burlington, the institutions, and other employers can support efforts for their employees to purchase homes in city neighborhoods.



CEDO



Mid-Term



Housing Action Plan



- 11.7** Work with partner agencies to strengthen our approach to homelessness, both through providing more short-term and emergency housing, and by expanding access to permanent housing and wrap-around services.



CEDO



Ongoing



[Housing Action Plan](#)



See also action items 6.1, 7.1, and 7.3

Support and implement programs, laws, and ordinances that improve the safety and quality of housing, and ensure that no person seeking housing is discriminated against.

- 12.1** Identify funding sources and programs to support the preservation and rehabilitation of substandard housing units throughout the city, and particularly in historic neighborhoods.



Planning & Zoning, CEDO, Code Enforcement



The Neighborhood Project Report



Mid-Term



- 12.2** Place chronically and seriously substandard rental properties in receivership, and rehabilitate as affordable housing for low- and moderate-income homeowners.



CEDO, Code Enforcement



Mid-Term



- 12.3** Encourage increased funding for comprehensive code enforcement, and establish mechanisms for enforcement outside of the zoning process for landlords who continue to violate minimum housing code, zoning, and quality of life standards.



Code Enforcement



Short-Term



- 12.4** Develop programs to expand income-sensitive rate structures for public utilities, and incentives and partnerships to expand the equity and accessibility of utility innovation programs.



BED, CEDO, DPW, Burlington Telecom



Mid-Term



- 12.5** Monitor community-wide needs for emergency shelters and treatment facilities and identify potential changes to land use regulations to enable these services in accessible locations for residents who need them.



Planning & Zoning, CEDO




Ongoing




Continued next page

12.6 Implement a system to investigate and act on claims under the city's anti-discrimination ordinance.

 CEDO, City Attorney



 Ongoing



12.7 Develop incentives for new housing units and rehabilitation to exceed Vermont's visit-ability standards, by incorporating elements of Universal Design, to ensure housing is suitable over an occupant's lifespan regardless of temporary or long-term disability.

 DPW, CEDO



 Mid-Term



12.8 Create a program to assist with rehabilitation and/or access modification for low-income homeowners to stay in their homes.

 DPW, CEDO



 Mid-Term



See also action items 9.6


Enhance the built environment to ensure public buildings and spaces are safe, well-maintained, and provide equal access for people of all abilities and backgrounds.

13.1 Create safer streets and pathways for everyone, and eliminate traffic related fatalities and serious injuries.

 DPW



[planBTV: Walk/Bike](#)

 Ongoing



13.2 Ensure all City buildings, facilities, public streets, and sidewalks meet and exceed minimum requirements for accessibility when renovated or reconstructed.

 DPW, BPRW, Burlington School District



Great Streets Design and Construction Standards

 Ongoing



13.3 Evaluate the accessibility of all City-managed parks, the waterfront, floating infrastructure, and public spaces and identify opportunities for improving those spaces not currently accessible by residents with disabilities.

 BPRW




 Mid-Term



13.4 Design and maintain parks, public spaces, recreation facilities, and infrastructure to accommodate programming that encourages use for a variety of purposes, and by residents of all cultures and backgrounds.


 BPRW, DPW, Burlington City Arts, Church Street Marketplace, Fletcher Free Library



 Ongoing



13.5 Create a plan for the location and management of public restrooms, particularly within the downtown core and in public spaces.

 DPW, BPRW, Burlington Fire Department



 Mid-Term



13.6 Develop and implement signage that includes pictograph and/or other languages for accessibility of wayfinding and public information.

 DPW, BPRW, Church Street Marketplace



 Mid-Term




See also action items 17.1, 17.4, and 17.6

Ensure all residents have access to meaningful employment at a livable wage.

14.1 Support organizations that provide workforce training support to prepare residents for available jobs in the local economy, including English language instruction, in order to ensure all residents have basic skills to find employment.

 CEDO, Fletcher Free Library



 Ongoing



14.2 Work with the Burlington School District to expand programs and training that prepare students for the local workforce, or for higher education, with a focus on low-income and underserved youth and youth of color.

 CEDO, Fletcher Free Library




 Ongoing



14.3 Continue to support programs, such as My Brother's Keeper, which expand equity of access to college, training, and career opportunities for youth of color, and for other underserved groups in the local workforce.

 CEDO



 Ongoing



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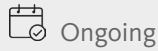
- 14.4** Expand the number and quality of spaces available for, and funding sources to support, childcare close to where residents live and work in order to ensure that all Burlington families have access to these services regardless of income or background.



CEDO



Burlington Early Learning Initiative



Ongoing



- 14.5** Improve the frequency, reliability, and operating hours of transit service for those who are transit dependent and to make transit a viable alternative to driving, particularly for late-shift workers; explore options for subsidizing the cost of services for low-income workers.



DPW, CEDO



GMT Next Gen Transit Plan



Mid-Term



- 14.6** Increase gender, racial, and ethnic diversity in the City's hiring practices.



All Departments



Ongoing



See also action items 5.1 through 5.7, and 18.4

Provide meaningful opportunities for all citizens to be involved in decision-making, and ensure that City government is responsive to its citizens.

- 15.1** Develop a Civic Engagement Handbook to identify best practices for public meetings and other forms of outreach that increase understanding of cultural, racial, and socio-economic diversity and reduce barriers to engagement experienced by residents.



CEDO



Short-Term



- 15.2** Increase diversity—including youth, people of color, and other underrepresented groups—on decision-making boards to ensure residents are better represented by elected and appointed officials



CEDO



Ongoing



- 15.3** Expand education and training programs for elected and appointed officials and City staff focused on effective community engagement, equity and inclusion.



Human Resources



Ongoing



15.4 Expand staffing and/or other resources available to the Community and Economic Development Office to support the outreach and engagement efforts of all City departments.



CEDO



Short-Term



15.5 Continue to improve the organization and administration of City government to make it more responsive and accountable to residents, and balance effective project implementation and management with input from residents and boards/commissions.



All Departments



Ongoing



15.6 Create and implement a Language Access Plan to ensure city documents, meetings, and other resources are available in alternative formats and languages.



CEDO



Short-Term



15.7 Continue to utilize a range of approaches, venues, technologies, and communications methods to more effectively share information and solicit input in community planning and decision-making.



All Departments



Ongoing



15.8 Explore ways to support the neighborhood planning assemblies with community engagement and other training, to support broader participation by all community members.



CEDO



Short-Term



15.9 Create a citizen's academy focused on citizen education about city government, and to prepare citizens and residents to vote, volunteer on boards and commissions, and participate in other forms of community decision-making.



CEDO, Clerk & Treasurer's Office



Mid-Term



15.10 Identify community service, internships, and educational opportunities for students to learn about and participate in civic affairs.



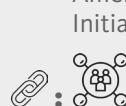
CEDO



City Hall Internship Program,
AmeriCorps, My Brother's Keeper
Initiative



Ongoing





burlington as a **connected** city.

Burlington will grow through the benefit of a thoughtful and holistic understanding of the city's many and interconnected physical, environmental, economic, and social systems, and through the careful coordination of land use and development policies and decisions.



Old North End Community Center

Our vision for Burlington as a connected city.

Public and private investments have protected significant natural areas and important natural and recreational systems for the benefit and enjoyment of current and future generations. Sensitive shorelines along the river remain largely undeveloped, and throughout the city there is an integrated network of protected and conserved lands that offer habitat and travel corridors for wildlife; agriculture; trails and paths for recreation; and ecological, natural, and cultural interpretation.

The urban fabric of the city integrates areas of mixed-use development and residential neighborhoods in close proximity to these open spaces and to one another. This pattern of development is easily accessible by transit, walking, and biking, making needing access to a car less of a burden. Burlington is at the core of a regional transportation system, which is interconnected and offers a wide range of mode choices that are increasingly competitive with the automobile, and are safe, affordable, and convenient for residents, employees, and visitors.

Parks and open spaces, public facilities, and schools serve as gathering spaces and community centers, and include facilities that serve the needs of the surrounding population. These are places where residents of diverse cultures and backgrounds enjoy opportunities to engage with their neighbors.

Elected officials and public servants are purposeful and thoughtful in decision-making and government administration, with careful consideration given to how action on one issue can impact others—positive or negative—over time. Public services and facilities are managed in a way that are highly efficient and conserve resources, with a high priority placed on maintaining, upgrading, and improving the effectiveness of existing systems, facilities, and infrastructure before building new.

This theme is all about:

- People and place
- Economy and the natural environment
- Land use and development carefully coordinated with public services and natural environment considerations
- Robust transportation choices
- Recreation, services, and amenities close to where people live
- Internet and telecommunications
- Economic, social, and physical connections to our larger geographic region and beyond
- Opportunities for diverse cultures and backgrounds to connect
- Cohesion in decision-making and public administration
- Considering the long-term and wide-ranging impacts of decision-making

Why is this important?

[learn more in the next few pages]



Because the complex and integrated natural, built, economic, and social systems are what make our city work

Land use, housing, urban design, transportation and parking, climate change, the economy, and residents' well-being are all inter-related topics that we cannot plan for in isolation. Residents must have access to a robust economy with jobs that pay a livable wage so that they can afford to rent or own their home, while a robust job market relies on the availability and affordability of homes and transportation options for workers of all incomes. Beyond our borders, the city is also inextricably linked to our municipal neighbors and our region. It is a hub of cultural facilities and amenities, human and social service agencies, education and healthcare resources, jobs, events and programs—a connection that is illustrated by the fact that more than 70% of Burlington's workers live outside the city. Conversely, we own and operate facilities on land in adjacent municipalities—including the hydroelectric plant in Winooski and the airport in South Burlington— and rely on land and facilities in other parts of Vermont, and even Quebec, to help us achieve our 100% renewable electricity generation and to create integrated recreational systems like the bike path. Zooming out even further, despite our fairly remote geographic area, Burlington is well-connected to the outside world. The city's proximity and reputation attract visitors year-round, commonly from places like the Boston, New York, and Montreal metro areas. The city's investments in a gigabit fiber optic network is a draw for businesses who rely on technology, and has broadened residents' ability to telecommute for jobs all over the world. And the city's long history of innovative leadership on community development issues is well-known and emulated by cities across the country.

Ultimately, planning for the sustainable development of Burlington as a core community requires that we make careful, well-planned choices about these issues as they have a direct influence on the success and outcomes of each and every other issue. Our decision-making must consider a wide range of factors and outcomes, and proactively pursue partnerships between and among neighboring communities, governments, institutions, non-profit agencies, and private businesses in order to maximize our resources and talents, share responsibilities, and serve the future vitality.

Because our physical, cultural, and economic health are inseparably linked to our natural systems

Sustainable development begins with a respect for and understanding of how our natural systems

provide us with necessary resources to function and grow, support our natural setting and natural communities, and enhance our overall quality of life. The elements of the natural world do not recognize political or legal boundaries, nor can they be compartmentalized, fenced off, and isolated from our day-to-day activities. Our connections to them are no more obvious than the fact that our city is surrounded by water and sheltered by trees—which are part of a larger watershed and natural communities that extend hundreds of miles outside our borders. It is important to recognize our landscape as part of an “urban ecosystem” that contains not only natural resources and systems, but also the human adaptations to them like street trees and stormwater infrastructure.

The **Open Space Protection Plan** is a critical resource that reinforces the importance of guiding development into mixed-use areas of our city in order to protect and preserve natural areas and open spaces that are of local, regional, and statewide significance; ensure long-term



Lake Champlain is vital to the city's economy and quality of life

stewardship of these areas; and improve our community's access to and interaction with these areas. The **Parks, Recreation, and Waterfront Master Plan** has led to more active utilization of ecological restoration as a management technique—maintaining and managing hundreds of acres of land in our community requires strategic decision-making about how to balance conserved land and resources with the availability and diversity of spaces for active recreation. The **Urban Forestry Master Plan** identifies goals for maintaining and improving the integrity of our urban forests, and includes the ambitious goal of 50% tree canopy across the city. Further, Burlington is part of the *Northern Lake Champlain Direct Drainages Tactical Basin Plan* and the *Winooski River Tactical Basin Plan* which inventory and monitor the quality of our waterways, and identify and catalogue strategies for improving water quality by all municipalities in these watersheds.

To ensure we have vibrant nodes of activity that support the needs of the surrounding neighborhood

It is important that neighborhood activity centers support the everyday needs of nearby residents, are within walking distance of where people live, and are linked to the rest of the city via multi-modal transportation corridors. Uses within these neighborhood centers need to be calibrated to the needs of all residents in the surrounding residential areas, and should include basic services (such as groceries, banks, laundry, medical offices, etc),

educational and childcare facilities, community facilities (community or senior centers, library or other public service branches, etc), as well as other amenities (restaurants, galleries, local shops, etc). Schools, in particular, are an essential element of a neighborhood activity center because they function as more than just schools—they are community assets providing a focal point and meeting place within neighborhoods, establishing a connection between families, providing event and outdoor recreation facilities, and hosting culturally appropriate programs and services.

In addition to mixed-use neighborhood centers, Burlington contains hundreds of acres of parkland and dozens of public and private educational, community, and recreational facilities. These resources are important to ensure people feel connected to nature and to each other, and have equitable opportunities for health, wellness, social, and educational programming. Using resources like the **Parks, Recreation, and Waterfront Master Plan**, the **Sustainable Infrastructure Capital Plan**, and efforts such as the *Burlington Wildways Coalition*, the city should prioritize the maintenance and enhancement of these amenities and expand access to them. We must also better utilize existing facilities and programs, and enhance partnerships in order to expand opportunities and fill gaps where they're needed—especially for indoor recreation and social purposes in the winter—in order to respond to the changing needs of our diverse community.



Lunchtime at the Champlain Senior Center and ONE Community Center

The ONE Community Center is an example of a facility that provides a wide variety of services and activities to residents in the Old North End and beyond. The former St. Joseph's School building is now a hub for NPA meetings and community dinners; childcare services; a senior center and a youth center; adult education, english language, and nutrition classes; services for immigrants and new arrivals; theater; and recreation programs.

Throughout the city, many parks, indoor recreation facilities, public schools, and religious buildings serve as important hubs for residents to meet, interact, and participate in life-long learning.

Because mobility is necessary for residents to participate in all our community has to offer

Our streets and transportation infrastructure are a critical part of the city's urban form—a sort of skeleton that holds everything else together—and a strong contributor to how it is experienced in our daily lives. This infrastructure is a key piece of our land and economic development goals. Robust transportation options and frequent transit service rely on and reinforce compact and efficient land use patterns, and transportation connectivity can unlock development potential in parts of the city that are currently underdeveloped or inaccessible, creating new opportunities for job and housing creation.

But transportation is just as much about how we move around the city as it is about supporting a diverse and inclusive community. Interconnected transportation systems, with a variety of modes that are increasingly competitive with the automobile, provide access to economic opportunity by ensuring residents can reliably access jobs and affordable housing that meet their needs. Transportation options also ensure access to basic services and amenities, promote safety, improve human and environmental health, help residents balance their cost of living, provide independence and mobility to people who cannot or prefer not to drive, and allow us to more efficiently use our streets and parking resources. Our streets and transportation system

are a reflection of our community's character, complementing adjacent building design, supporting business activity, encouraging social interaction, and supporting green and natural elements within the urban landscape.

The **Burlington Transportation Plan**, **planBTV: Walk/Bike**, and GMT's *NextGen Transit Plan* outline a number of critical improvements to our transportation infrastructure to ensure that a robust, interconnected system is in place, and that routes are safe, efficient, appropriately designed, and well-maintained.

To more efficiently use public buildings, and deliver more effective services and results

The City of Burlington employs over 650 people (with another 150-200 seasonally), located in many different buildings and sites throughout the city. Public buildings and facilities are an important capital asset, and present a visible expression of the community's values, priorities, and expectations. The City must be a responsible steward of these resources, prioritizing the preservation and enhancement of historic public buildings, stewardship of all public facilities, and innovative rehabilitation and new construction projects that demonstrate high quality design, energy efficiency, and green building techniques. We must also ensure that these facilities and services are appropriately staffed, and that there is adequate space to house equipment and materials



Gordon Paquette Ice Arena at Leddy Park



Downtown Transit Center

to deliver the core public services residents deserve and expect.

While there are many examples of collaborative projects and decision-making across City government, the distribution of quasi-independent departments creates some silos, requires an additional level of coordination, and presents space-management challenges. Particularly in the development permitting realm, the separation of related functions causes confusion and hassle for residents, property owners, and contractors who need to interface with these city services. As such, one of the primary recommendations of the *Permit Reform Study* was to establish a central permitting center that includes all departments, or department offices, responsible for land development and building permits in one centralized location. To do so would not only improve public access and make the overall process easier to understand, but would also streamline and improve coordination and collaboration between the various departments that issue permits.

As technology and telecommunications play an ever-increasing role in our residents' lives, so should they enhance connections among departments and with the public in order to improve service and information delivery. The City should prioritize improvements to shared information systems for land records/assessment/permitting information and digitizing records. It should continue to expand and leverage high-speed fiber and wireless internet technology to boost the performance and maintenance of public utilities, and to support the community's economic development goals.

Burlington will increase the connectivity among and integrity within its systems by:

- 16** Protecting, preserving, and improving the integrity and connectivity of natural areas, open space, and recreational systems of local, regional, and statewide significance, and protecting them from incompatible development.
- 17** Coordinating land use, development, and transportation to strengthen multi-modal transportation corridors that support and provide access to a wide range of services and mode choices.
- 18** Guiding important services and amenities into neighborhood activity centers, and enhancing public spaces and facilities serve as neighborhood meeting points.
- 19** Coordinating the ongoing care and enhancement of public facilities and services in order to ensure they adhere to approved standards, serve the whole community, and minimize cost and disruption to taxpayers.
- 20** Increasing consistency and coordination in decision-making and public administration among quasi-independent departments and decision-making bodies.
- 21** Improving coordination with municipal neighbors and leveraging our location within the larger northeastern region.

Protect, preserve, and improve the integrity and connectivity of natural areas, open space, and recreational systems of local, regional, and statewide significance, and protect them from incompatible development.

- 16.1** Update the Urban Forestry Master plan to identify opportunities to protect, maintain, and expand the city's urban forests, including both large patches of woods, and wooded corridors/tree belts, in order to achieve 50% tree canopy.



BPRW



Short-Term



Open Space Protection Plan, Urban Forestry Master Plan



- 16.2** Revise the City Tree Ordinance to be consistent with overall canopy goals and formalize into a city policy.



BPRW



Mid-Term



Open Space Protection Plan, Urban Forestry Master Plan



- 16.3** Update the Open Space Protection Plan to incorporate work done to-date, and to refresh the natural communities inventory to guide acquisitions for the Conservation Legacy Fund.



Planning & Zoning, BPRW



Mid-Term



Open Space Protection Plan



- 16.4** Work with property owners to identify appropriate locations and methods for protecting open spaces through site planning, easements, acquisition, and/or long-term management plans.



BPRW, Planning & Zoning



Ongoing



Open Space Protection Plan, Conservation Legacy Program, Winooski Valley Parks District



- 16.5** Identify additional funding sources that could be used to expand the capacity of the Conservation Legacy Fund.



BPRW, Clerk & Treasurer's Office



Mid-Term



- 16.6** Support efforts to increase connectivity, access, and interpretation for our city's natural areas.



BPRW



Mid-Term



Burlington Wildways Coalition



- 16.7** Assess public parks, city buildings, public land, and rights-of-way for potential to be retrofitted with green stormwater infrastructure to slow, treat, and/or disconnect runoff before reaching wastewater treatment facilities or discharging into water bodies.



DPW, BPRW



Mid-Term



DRAFT Integrated Water Quality Plan, Parks, Recreation & Waterfront Master Plan



See also action items 1.1 through 1.6

Coordinate land use, development, and transportation to strengthen multi-modal transportation corridors that support and provide access to a wide range of services and mode choices.

- 17.1** Provide safe routes and transportation alternatives to schools, neighborhood centers, downtown, parks, and the Intervale particularly for those walking, biking, and using transit.



DPW, BPRW, Burlington School District



Ongoing



Burlington Transportation Plan, planBTV: Walk/Bike, Safe Routes to Schools Studies, Health Impact Assessment tools



- 17.2** Repurpose space within public rights-of-way using temporary, quick-build strategies that inform permanent retrofits that include bike and pedestrian facilities, stormwater management infrastructure, landscaping, and/or other streetscape elements to enhance the function and comfort of streets.



DPW, BPRW



Ongoing



Burlington Transportation Plan, planBTV: Walk/Bike, Quick Build Design Guide, Great Streets Standards



- 17.3** Define mid-block pedestrian pathways within the downtown core and other mixed-use areas that connect them with surrounding neighborhoods.



DPW, Planning & Zoning



Mid-Term



planBTV: Downtown & Waterfront Master Plan; planBTV: South End Master Plan; planBTV: Walk/Bike



- 17.4** Create and implement standards for amenities at bus stop locations to improve the comfort and safety for all users in all season.



DPW



Short-Term



GMT Next Gen Transit Plan, Great Streets Standards



Continued next page

17.5 Identify alternative funding sources for public transit operations and expanded service.



DPW



GMT Next Gen Transit Plan



Mid-Term



17.6 Work with service providers to expand paratransit services, possibly through partnerships with transportation networking companies, to offer more convenient and affordable options for users.



DPW, CEDO



Mid-Term



17.7 Support improvements in the western corridor rail infrastructure and expansion of passenger rail services through Burlington.



DPW, CEDO



CCRPC



Mid-Term



17.8 Identify opportunities to restore and/or fill critical missing gaps in the city's street network.



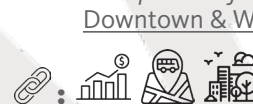
DPW, CEDO



Champlain Parkway Plans, Railyard Enterprise Project, planBTV: Downtown & Waterfront Master Plan



Long-Term



17.9 Implement tools for dynamic management of on- and off-street parking facilities, including stronger public/private partnerships to increase access to private parking resources.



DPW, CEDO



Downtown Parking & Transportation Management Plan



Ongoing



17.10 Expand vehicular wayfinding, particularly within the downtown core and along major transportation corridors, to guide users to and increase the utilization of available parking resources.



DPW



Downtown Parking & Transportation Management Plan



Ongoing



17.11 Support a regional effort to establish guidelines for transportation demand management that can be applied with greater predictability and consistency for new development and redevelopment county-wide and increase number of people using these services.



DPW, Planning & Zoning



CCRPC, CATMA



Mid-Term



- 17.12** Continue to monitor traffic volumes and utilization of on- and off-street parking and curbside loading zones to assess what impact enhanced alternative transportation modes and new transportation technologies (including AV's, TNC's, EV's) have on the demand for these resources.



DPW, Planning & Zoning, Clerk & Treasurer's Office, BED



Ongoing



Champlain Parkway Plans, Railyard Enterprise Project, planBTV: Downtown & Waterfront Master Plan



- 17.13** Develop a policy regarding level of service standards and access management for major thoroughfares which balance the city's urban context and multi-modal transportation goals.



DPW



Mid-Term



Burlington Transportation Plan; Great Streets Standards



See also action items 6.5, 6.6, 13.1, 13.2, 13.6, 14.5, and 21.1

Guide important services and amenities into neighborhood activity centers, and enhance public spaces and facilities as neighborhood meeting points.

- 18.1** Support and maintain neighborhood-based schools, close to where people live, and consider ways to utilize school facilities to serve a wider range of community, neighborhood functions.



Planning & Zoning, Burlington School District



Ongoing



- 18.2** Encourage essential community services to locate in neighborhood activity centers and along multi-modal transportation corridors.



Planning & Zoning, CEDO



Ongoing



Health Impact Assessment Tools



- 18.3** Prioritize the use of CDBG funds, and other applicable municipal resources, to support the capital needs of essential community and social service organizations.



CEDO



Ongoing



Consolidated Action Plan



- 18.4** Identify other funding, regulatory, or technical assistance tools to expand the availability and affordability of commercial space in neighborhood activity centers to encourage the location of businesses and essential services that support the needs of nearby neighborhoods



CEDO, Planning & Zoning



Short-Term



See also action items 13.4, 17.1, and 19.3

Coordinate the ongoing care and enhancement of public facilities and services in order to ensure they adhere to approved standards, serve the whole community, and minimize cost and disruption to taxpayers

- 19.1** Make more efficient use of existing public buildings, facilities, utilities, and services to support increased development within core areas of the city, before building new.



All Departments



Ongoing



- 19.2** Update the Burlington Harbor Management Plan to include current and projected uses, management strategies, safety measures, as well as needed public and private infrastructure investments and their phasing, for both water-based and upland activities within the harbor, with an emphasis on the Inner Harbor, Perkins Pier, and the Urban Reserve.



BPRW, CEDO, Planning & Zoning



Mid-Term



planBTV: Downtown and Waterfront Master Plan; Parks, Recreation & Waterfront Master Plan; Urban Reserve Interim Use & Stewardship Plan; Burlington Harbor Management Plan; Waterfront Revitalization Plan



- 19.3** Assess the needs for indoor and outdoor recreation space to support evolving neighborhoods, particularly within the downtown core as the population grows



BPRW



Ongoing



Parks, Recreation & Waterfront Master Plan



- 19.4** Analyze the capacity of the city's public cemeteries, and consider new models and emerging trends for burial where limited land area is available.



BPRW, Planning & Zoning



Mid-Term



- 19.5** Implement the Burlington School District Capital Facilities Plan to upgrade and redevelop educational facilities, to serve the current and future educational needs, and identify additional funding sources to support school infrastructure needs.



Burlington School District



Long-Term



Burlington School District Long Range Facilities Plan



- 19.6** Define street design and lighting characteristics for all public thoroughfares.



Planning & Zoning, DPW, BED



Mid-Term



Great Streets Standards, BED Street Lighting Policy



- 19.7** Locate utilities underground in the downtown and waterfront core, on North Winooski Avenue, on streets that offer important view corridors to Lake Champlain, and other multi-modal corridors to support development, multi-modal access, street tree plantings, and preservation of important viewsheds.



BED, DPW, CEDO



Ongoing



- 19.8** Update city ordinances pertaining to underground utilities and develop engineering standards to improve the coordination among public and private utility work within rights-of-way in order to minimize the cost of construction and disruption to neighborhoods, and to improve long-term management.



BED, DPW, CEDO, BPRW



Ongoing



- 19.9** Develop policies and tools to support the evolution and expansion of wireless service, while increasing coordination among the City and other service providers to keep infrastructure hidden from public view.



Planning & Zoning, DPW, BED



Mid-Term



- 19.10** Consider wireless and programmable technology for street and traffic lighting systems to increase energy efficiency, reduce cost, improve operations, and collect real-time information.



DPW, BED



Great Streets Standards



Mid-Term



- 19.11** Ensure that plans detailing, and adequate funding levels, for operations and maintenance are in place when implementing new and innovative public infrastructure designs, techniques, and materials.



All Departments



Sustainable Infrastructure Capital Plan, *Great Streets Standards*



Ongoing



- 19.12** Review and update, if needed, applicable standards for municipal services and facilities to achieve the goals of this plan, including the needs of workers and residents, as well as the impact of visitors.



All Departments



Great Streets Standards, *BED Street Lighting Policy*



Ongoing



See also action items 21.2 through 21.5

Increase consistency and coordination in decision-making and public administration among quasi-independent departments and decision-making bodies.

- 20.1** Expand and formalize a coordinated, multi-departmental asset management system to ensure long-term stewardship of public assets, which informs consistent and cost-effective operations and maintenance, and aids in establishing budgets and maintaining appropriate levels of funding and staffing.



All Departments



Short-Term



- 20.2** Locate core functions of City government within the downtown area, particularly customer-focused services including a municipal permitting center.



All Departments



Short-Term



Permit Reform Study, Online Business Portal



- 20.3** Continue to improve the ability of City departments to effectively implement and use technology and telecommunications tools to expand and improve services for the public, better manage multi-year capital projects, and enhance geospatial data management.



Dept. of Innovation & Technology



Ongoing



- 20.4** Continue and expand upon existing initiatives within City government to enhance cross-departmental collaboration, information sharing, and tracking data and performance metrics.



Dept. of Innovation & Technology, All Departments



Ongoing



BTV Stat Program, CommStat Program



- 20.5** Communicate and celebrate successful implementation of plans and studies to highlight outcomes, and recognize ways that the community's input shaped these accomplishments.



All Departments



Ongoing



Burlington School District Long Range Facilities Plan



- 20.6** Expand the Church Street Marketplace and the Downtown Improvement District into a full-service community benefit district to provide enhanced maintenance, safety, parking operations, marketing, and promotion.



CEDO, DPW, Church Street Markplace, P&Z



Short-Term



Downtown Improvement District Phase Assessment



See also action items 8.1, 8.4, and 15.5

Improve coordination with municipal neighbors and leverage our location within the larger northeastern region.

- 21.1** Continue actively participating in discussions of issues and implementing efforts of regional importance regarding land use, housing, economic development, community facilities and services, and resiliency.



All Departments



Short-Term



CCRPC, LCRCC, GBIDC



- 21.2** Evaluate the feasibility of a consolidated system for collection of solid waste, recycling, organics for residential customers, and/or high strength waste from commercial/industrial customers, in partnership with CSWD and one or more neighboring municipalities.



DPW



Mid-Term



CSWD



- 21.3** Conduct a needs assessment and collaborate with municipal neighbors to determine if opportunities existing to coordinate the purchase and/or use of specialized, but seldom used, equipment.



DPW, BPRW



Mid-Term



- 21.4** Develop and implement the governance structure and framework for the Chittenden County Public Safety Authority, to provide regional emergency dispatch services for Burlington and neighboring municipalities.



Burlington Fire Department, Burlington Police Department



Ongoing



CCRPC



- 21.5** Continue to build out a high-speed fiber network across the entire city to ensure residents and businesses have access to high-quality telecommunications services, and leverage with further investment in supporting infrastructure.



Burlington Telecom, Dept. of Innovation & Technology, CEDO



Mid-Term



- 21.6** Develop a City-wide marketing and communications strategy to promote the city more broadly.



All Departments



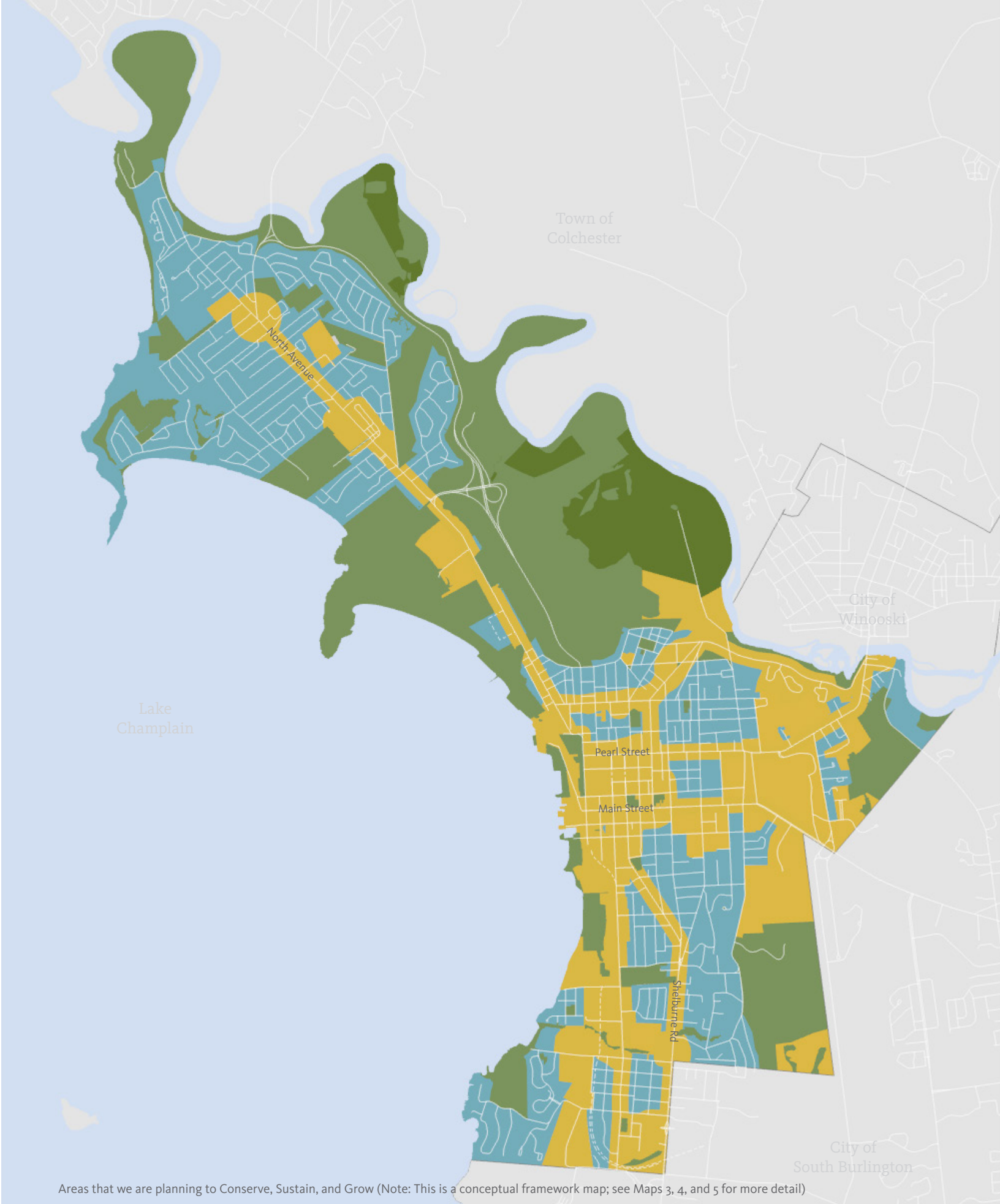
Mid-Term



Downtown Improvement District Phase Assessment



See also action items 1.4, 3.4, 5.1, 5.6, 6.1, 9.2, 17.5, 17.7, and 17.11



Areas that we are planning to Conserve, Sustain, and Grow (Note: This is a conceptual framework map; see Maps 3, 4, and 5 for more detail)

Our plan for land use in Burlington

Future development and investment in Burlington are guided by the broad set of policies and strategies articulated in **Our Plan for Action** section. This section, **Our Future Land Use**, helps us visualize where and how this vision will be implemented.

The city is made up of unique neighborhoods and sub-areas that have many distinctive characteristics—both in terms of how land is used and what type and scale of development is appropriate. While the vision of this plan applies to the entire city, what it means will differ across geographic areas. A helpful tool for defining the characteristics of and relationship among these areas is known as the “transect”. This helps to understand and visualize development patterns along a continuum from undeveloped open space to compact mixed-use urban development, and provides examples of the typical land uses and characteristics of buildings and sites within each zone. This section characterizes our future land use patterns according to this framework.

When it comes to how we will use and develop land in the next 10-20 years, this vision will be achieved largely by reinforcing Burlington’s existing development patterns:

- promoting greater utilization of developed areas through infill development and redevelopment within core growth areas
- strengthening our diverse residential neighborhoods
- protecting our most vulnerable natural and culturally significant lands and sites.

This development pattern has been at the core of the city’s land use and development policies for decades, and will continue to guide thoughtful, well-planned growth in the future.

planBTV identifies areas in our community that we are planning to:



conserve.

sustain.

grow.

Read on to learn more about the future land use goals for these parts of the City.





planning to **conserve.**

In these parts of the community we will take great care to protect and conserve them largely as they are today. These include places like our natural areas, shore lands, floodplains, agricultural areas, recreational resources, and significant buildings and sites. This plan envisions that they will continue to look and be used primarily as they are today, with relatively few adaptations intended to allow them to maintain their functions, remain economically viable, and be well-maintained.

What areas are we planning to conserve?



Natural Areas, Parks, & Open Space: The purpose of these areas is to protect natural resources and recreation while guiding development away from important natural assets or hazard areas. These include city and regional parks, natural areas, conserved lands, and large pieces of land that are undevelopable due to features such as steep slopes, wetlands, or floodplains.



Working Land: The purpose of these areas is to protect agriculture and supporting enterprises. These are areas that are sparsely developed except for structures, services, and businesses that are compatible with and serve the working landscape, and low-intensity recreational uses.

Considerations for Future Land Use and Development

As this plan details, these spaces provide incredibly valuable natural, recreational, and economic resources for the city and much of our region. The long-term maintenance and stewardship of these areas is a high priority, as are strategies that will preserve the integrity and improve the function of these resources. As development pressures across the city increase, there will be more and more pressure to develop increasingly marginal sites. It will be critical to uphold, and expand where necessary, the tools and resources available to protect these areas and sites from extensive development pressure. In particular, we must

protect flood hazard areas, in order to minimize loss of life and property and public expenditures resulting from flooding, and to maintain a location for temporary flood storage in the case of a flood event.

Additionally, we must carefully balance the conservation and management of land and water resources with the availability of spaces for recreation and increased connectivity to these resources that support a growing and vibrant community. Where these resources abut areas of development, it will be important ensure that appropriate infrastructure is in place to allow for public accessibility and use, while minimizing resource fragmentation and degradation. This is

of particular importance along our shorelines and urban forests. A significant component of this plan is ensuring that our surface waters are protected from encroachment by development and non-point source pollution, and preserving plants and vegetation that support lakeshore and river bank habitat, while providing for public access where feasible and appropriate. Further, our urban forests must be managed, protected from fragmentation, and restored when feasible to provide wildlife habitat, and air quality, ecological, and climate change benefits.

The impacts of climate change may threaten or alter the natural functions and values of these systems and resources—for example, Emerald Ash Borer threatening the urban tree canopy, wetlands or flood prone areas expanding due to increased precipitation, or changes to growing seasons due to rising temperatures. We must monitor these changes and adapt our protections and management practices accordingly.

How we use and manage these resources should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **Open Space Protection Plan**
- **Parks, Recreation and Waterfront Master Plan**
- *Waterfront Revitalization Plan*
- *Harbor Management Plan*
- *Winooski Valley Parks District Master Plan*
- **Burlington Annex to the All Hazards Mitigation Plan**
- *Urban Reserve Interim Use & Management Plan*
- *BED Integrated Resource Plan*
- **Urban Forestry Master Plan**

Relevant Policies & Actions

The following action items from ***Our Plan for Action*** are particularly relevant to these areas:

Distinctive Theme:

- Actions 1.1 through 1.6
- Actions 3.1 through 3.5
- Action 5.5

Dynamic Theme:

- Action 9.2
- Actions 10.1 and 10.3

Inclusive Theme

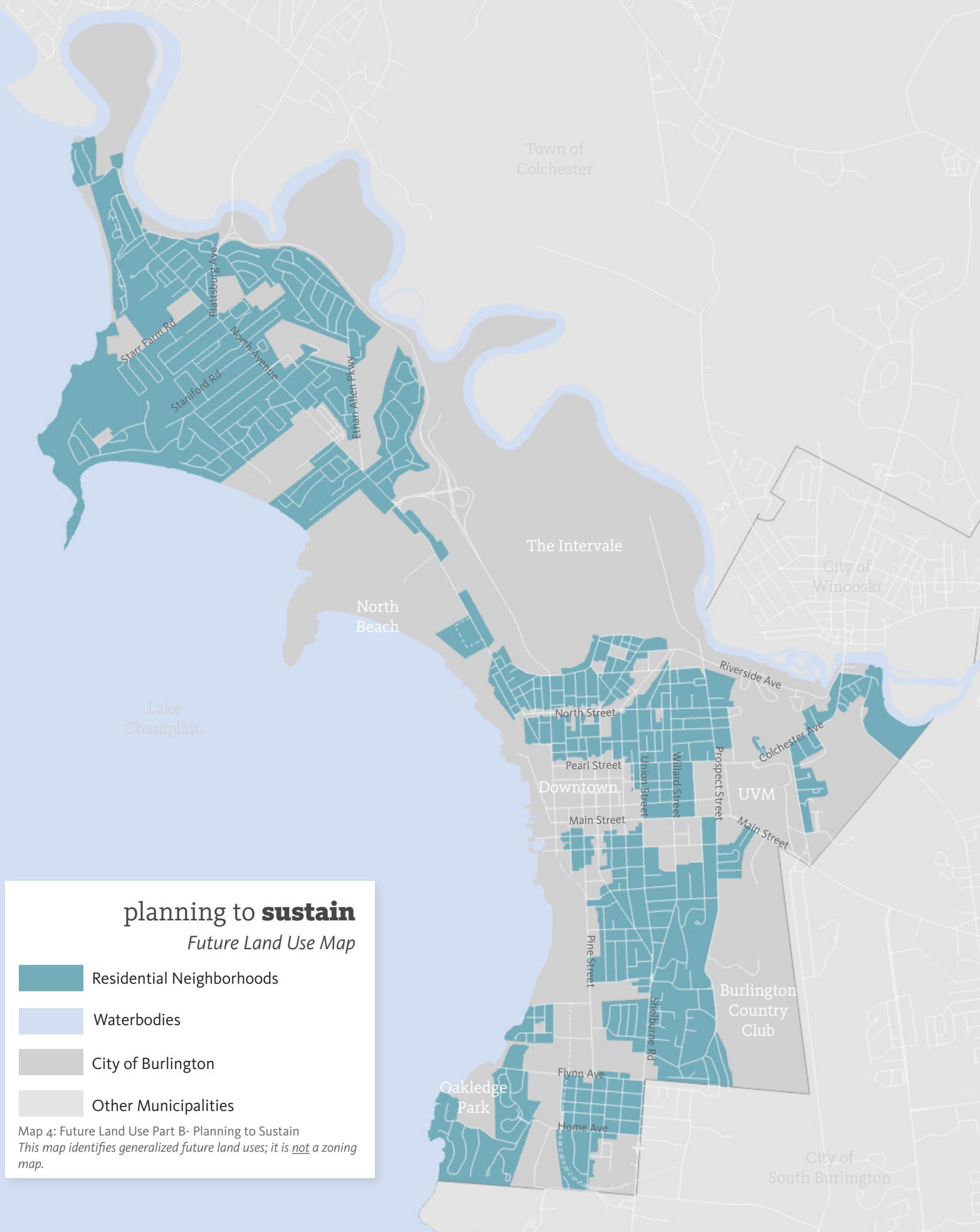
- Actions 13.3 and 13.4

Connected Theme

- Actions 16.1 through 16.7
- Action 17.1
- Action 19.1 through 19.3

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planning to **sustain.**

In these parts of the community, we anticipate small and incremental change that is consistent with the existing development pattern, building scale, and neighborhood character—details which are unique to various parts of the city. These include our residential neighborhoods, where it is important to preserve and enhance what makes them great. However, these areas aren't locked in time. This plan anticipates that these areas will see some small and subtle changes over time that support their ability to meet the evolving needs of current and future families and households. How these neighborhoods evolve depends on their current development pattern and unique influences and threats relative to the rest of the city.

What areas are we planning to sustain?



Residential Neighborhoods: The purpose of these areas is to strengthen existing neighborhoods which feature predominantly residential uses. Throughout the city, there is great diversity in the density (single-family or multi-family), pattern (buildings' features and layout of streets), and scale (height or intensity of development) of these neighborhoods and their relationship to nearby civic, commercial, and recreational resources. Within these areas, we are planning to maintain the primarily residential character, while allowing for some modifications which enable these neighborhoods to continue to be vital, better connected, and more resilient to the influences of nearby growth areas.

Considerations for Future Land Use and Development

It will be important to closely analyze the unique characteristics of neighborhoods across the city, in order to maintain neighborhood stability without foreclosing opportunities for them to evolve and remain vital. This plan recognizes that within the city there are many different types of neighborhoods, each with their own needs relative to their location in the city and predominant housing types.

Beyond housing type and connectivity characteristics, neighborhood character is also

defined by distinctive architectural styles and the historic significance of individual structures and groups of buildings; buildings' massing and placement on lots; and cultural, economic, or community influences that affect quality of life and market dynamics. The individuality of each residential area must be respected in order to support and strengthen established land use and design patterns, and most importantly the quality of life enjoyed by residents. As such, this plan recognizes that neighborhood type and outside influences must be considered together when identifying the appropriate tools to strengthen residential areas.

Example General Neighborhood Types



Outer Neighborhoods- Low Density: These neighborhoods feature predominantly single-family, detached housing with some existing duplexes and accessory dwelling units. Many of these neighborhoods are in close proximity to parks and local schools, but currently few have neighborhood-commercial uses within a walkable distance, and transit, bike, and walking infrastructure is limited but expanding.



Outer Neighborhoods- Higher Density: These neighborhoods feature predominantly multi-family housing in the form of apartments or condominium complexes. Many of these neighborhoods currently have limited connectivity to parks, local schools, and neighborhood-supporting commercial uses, and access via transit, bike and walking infrastructure is limited but expanding.



Inner Neighborhoods: These neighborhoods feature single-family housing with some duplexes, triplexes, and small multi-family buildings interspersed within the neighborhood fabric. Many of these neighborhoods are within a walkable distance of neighborhood-serving commercial areas, parks, and local schools, and feature transit, biking, and walking infrastructure within and between other parts of the city.



Core Neighborhoods: These neighborhoods feature a mix of single-family and multi-family housing types and are within a quarter- to half-mile of the downtown core. Many of these neighborhoods are in walkable distance to local schools, neighborhood commercial areas, and the downtown core, and walking, biking, and transit accessibility greatly reduce the need to utilize a vehicle.

How we sustain diverse residential neighborhoods should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **Housing Action Plan**
 - *Inclusionary Zoning Report*
 - *The Neighborhood Project*
 - *Accessory Dwelling Unit White Paper*
- *Consolidated Plan for Housing @ Comm. Devt.*
- *Burlington Survey Plan*
- **planBTV Walk/Bike**
- **Burlington Transportation Plan**
- *GMT NextGen Transit Plan*

Common Neighborhood Influences

Physical Character

Through additional studies and/or neighborhood-level plans, we must better identify the unique physical characteristics and patterns of neighborhoods across the city (such as setbacks, height, and density), recognizing that they are not uniform throughout the city. This analysis should guide work to fine-tune land use policies and programs used to preserve and enhance these important features, and to calibrate tools for reviewing the compatibility of new development and renovations within existing neighborhoods.

Neighborhood Connectivity

The changing needs of households—especially for young families, older adults, and those who don't own a car—paired with our goal to become a Net Zero Energy community is elevating the importance of locating neighborhood-serving businesses and amenities close to where people live, and in locations that are walkable, bikeable, and accessible by transit. In order to strengthen our neighborhoods, we must pursue opportunities within each neighborhood, and between neighborhoods and places like downtown, to: improve pedestrian and bicycle travel, access to public transportation, and traffic calming on residential streets; enhance public greenspace and community gathering places; and encourage mixed-use development in activity centers and along major corridors which provides convenient access to services that enhance neighborhood identity.

Housing Cost & Neighborhood Access

In some neighborhoods, major demographic transitions are driving a change in the life-stage of residents, leading to an increase in the price of homes in neighborhoods that have long been considered affordable. Other neighborhoods are struggling to maintain their affordability and diversity in the face of rising housing costs and limited homeownership opportunities. In order to ensure our neighborhoods remain vital, we must create and implement strategies that will address the availability and affordability of housing, and sure that there are homes in the city for all residents, regardless of income. In some of our core and inner neighborhoods, this could mean exploring how we can facilitate modest,

incremental infill that creates new housing opportunities within the existing scale and pattern of development. In all of our neighborhoods, this could include more tools and funding sources to offset the cost of housing for the thousands of employees in the city who don't earn enough to afford the market-rate home prices and rents.

Proximity to Institutions

There are neighborhoods in the city that face ongoing impacts related to the availability and affordability of housing and quality of life concerns due to their proximity to the institutions and a high number of student neighbors. To sustain these neighborhoods, we must continue to encourage a more urban configuration on the institutions' core campuses, particularly to meet student housing needs, and investigate other tools that will help us expand opportunity to rent or buy a home in these neighborhoods by non-students.

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to these areas:

Distinctive Theme:

- Actions 2.2, 2.3
- Actions 3.2, 3.3

Dynamic Theme:

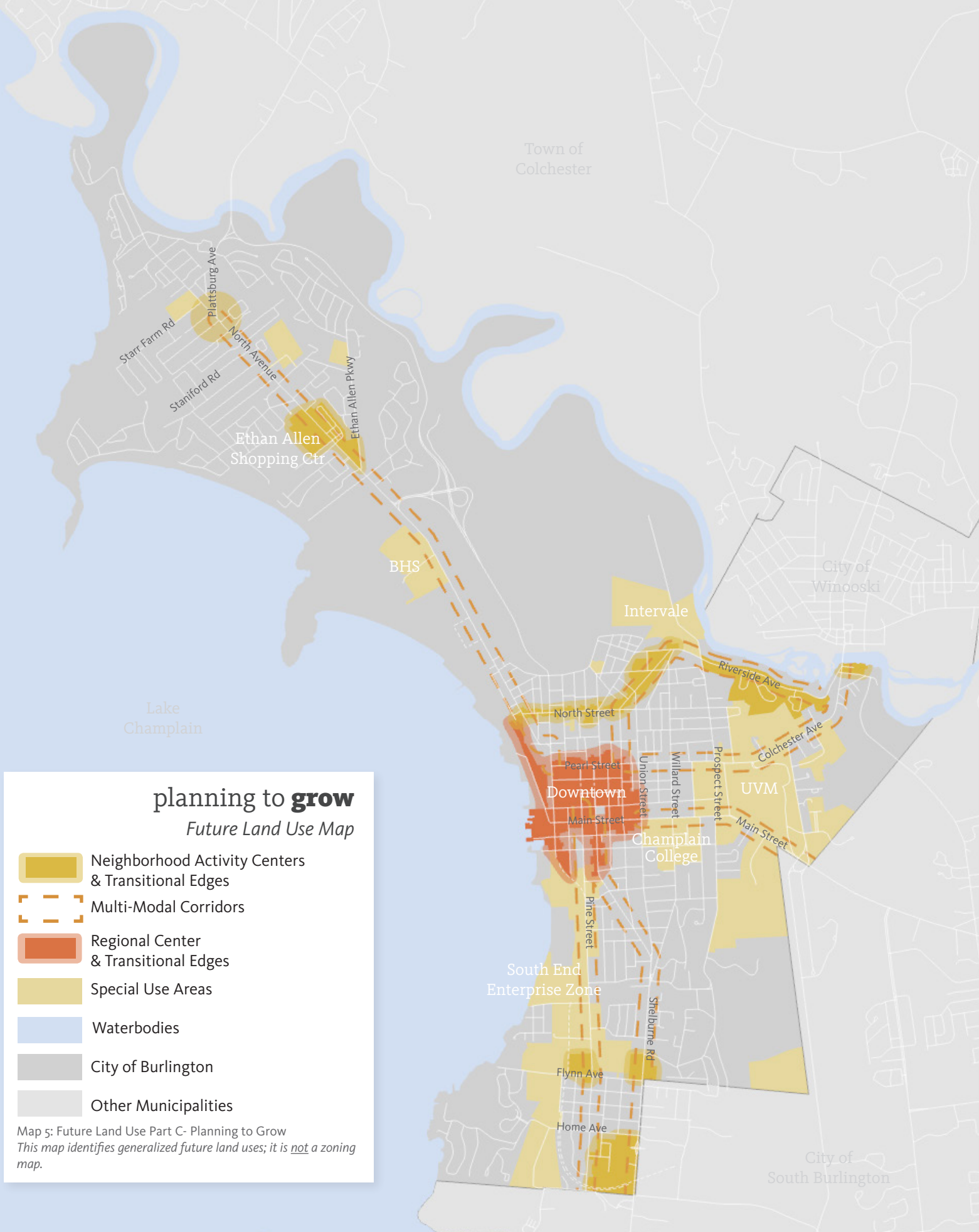
- Action 6.4
- Actions 7.1, 7.2, 7.3

Inclusive Theme

- Actions 11.2, 11.3, 11.4, 11.5, 11.6
- Actions 12.1, 12.2, 12.3, 12.7, 12.8

Connected Theme

- Actions 17.1, 17.2
- Actions 18.1, 18.2, 18.4
- o Action 19.3



planning to **grow.**

In these parts of the community we expect to see the most change over time, as they are the areas most suitable to accommodate the city's future growth. These include places like our downtown core, major street corridors, and neighborhood mixed use, enterprise, and institutional areas. This plan recognizes that in order to preserve and maintain vast parts of the city as described above, we need to have places where we can accommodate and encourage future growth and development in order to maintain our vibrancy, tax base, and character.

What areas are we planning to grow?



Neighborhood Center: The purpose of these areas is to provide nodes of neighborhood-supporting commercial activity and services. These are areas that allow for commercial, residential and community-oriented uses, sometimes in mixed-use buildings, at a higher density than nearby residential areas. These areas feature a variety of building and architectural types and are typically within walking or biking distance of nearby homes.



Multi-Modal Corridors: The purpose of these areas is to provide nodes of higher density residential, commercial, and/or mixed use development along major thoroughfares. These are areas that may feature low-density, single purpose land uses today, but which are served by the main automobile routes and transit lines, and could be more intensely utilized to benefit from and support a high quality transit system.



Regional Center: The purpose of this area is to provide a range of business, civic, cultural, commercial, and residential uses and transportation options for the city and the region. This area is compact, highly walkable, served by transit, and supports the highest density of development. It features a variety of building types, most of which are mixed use, architecturally interesting, and taller than in other parts of the city.

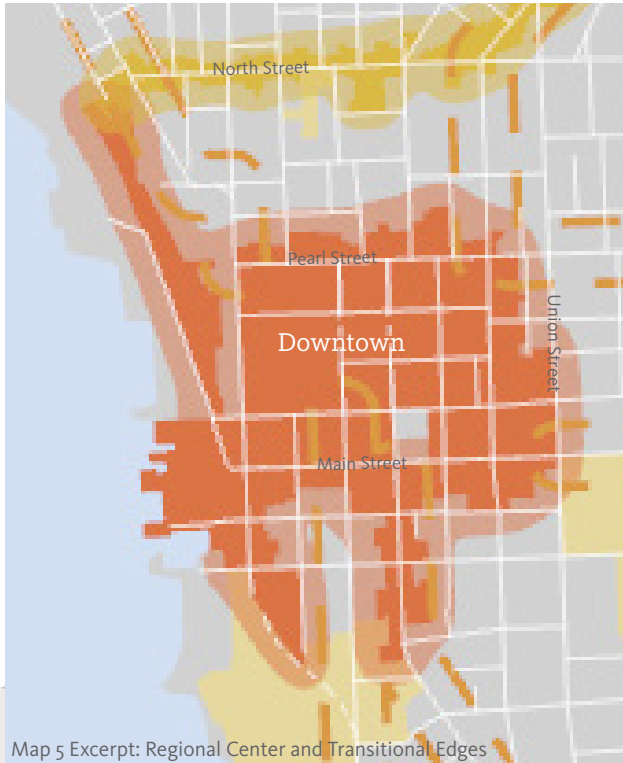


Special Areas: The purpose of these areas is to allow large-scale civic, institutional, and industrial uses that have unique space needs that do not fit into other areas. These areas often take up large or multiple lots, or are on campuses with multiple buildings, that don't fit into other zones and may need some level of separation or buffer to protect more sensitive uses nearby.

Considerations for Future Land Use and Development

Much like our residential neighborhoods, these growth areas each provide unique opportunities and benefits to the city—from neighborhood-scale services and amenities, to supporting our regional economic identity. This plan recognizes that within these growth areas there are varied considerations for the scale and type of development that may occur relative to their location in the city, their proximity to community resources, and what happens along the edges of these areas where they abut neighborhoods and other land uses. These considerations are detailed in the following sections.

Downtown @ Waterfront Core



Since the early 1800's, Burlington's harbor and downtown waterfront have been an important commercial area, scenic and recreational attraction, and community resource. The Lake Champlain waterfront is the city's premier gateway, a critical resource providing access to the lake, and an asset that cannot be duplicated or replaced. The downtown is a hub of jobs, services, retail, and housing that includes offerings for Burlington residents as well as neighbors from across the region and visitors from all over the world.

This plan anticipates that this is the most urban part of our city; additionally, the regional *ECOS Plan* identifies this area as a regional growth center and it has been designated as a development area by the Vermont Downtown Program. This means that this is the part of the city where we are planning for the most intensive infill and redevelopment to occur through the transformation of underutilized sites and structures, and by supporting the highest density and intensity of development. This part of



Historic structures on the "Top Block" of Church Street



Summer concerts in City Hall Park downtown

our city provides tremendous opportunity to grow in a way that greatly advances progress toward our economic, housing, and climate change goals.

planBTV: Downtown & Waterfront Master Plan

is the primary tool guiding private and public investment necessary to ensure the vitality of this part of the city—providing guidance on improving the downtown’s vibrant economy, advancing great urban design, and promoting and expanding housing and transportation choice. Additionally, it specifies the infrastructure needs, density potential, development logistics, and design standards for this area. This plan serves as the foundation for many other plans, studies, and initiatives that will occur over the next generation.

How the downtown grows should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **planBTV: Downtown & Waterfront Master Plan**
- *Waterfront Revitalization Plan*
- *VT Designated Downtown Development Area Five Year Action Plan*
- **Downtown Parking & Transportation Study**
- **Burlington Transportation Plan**
- **planBTV: Walk/Bike**
- *Winooski Avenue Corridor Study (underway)*

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to the downtown core.

Distinctive Theme:

- Action 1.3
- Actions 2.2, 2.4
- Action 3.1
- Actions 4.1, 4.2, 4.4
- Action 5.1

Dynamic Theme:

- Actions 6.1, 6.2, 6.3, 6.6
- Actions 7.3, 7.4
- Action 9.9

Inclusive Theme

- Actions 11.1, 11.2, 11.3, 11.7
- Actions 13.5, 13.6

Connected Theme

- Actions 17.1, 17.2, 17.3, 17.7, 17.8, 17.9, 17.10, 17.12, 17.13
- Actions 19.1, 19.2, 19.7, 19.10
- Action 20.2, 20.6



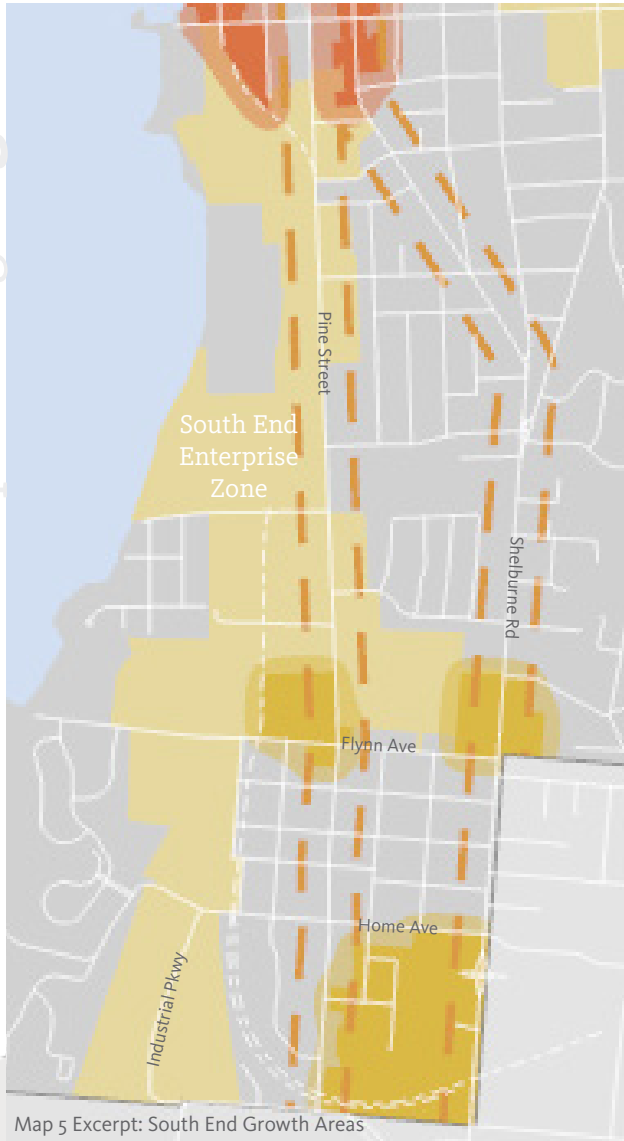
Boathouse on the Burlington Waterfront at sunset



Multi-family housing on the downtown transitional edge

South End Enterprise Zone @ Pine Street

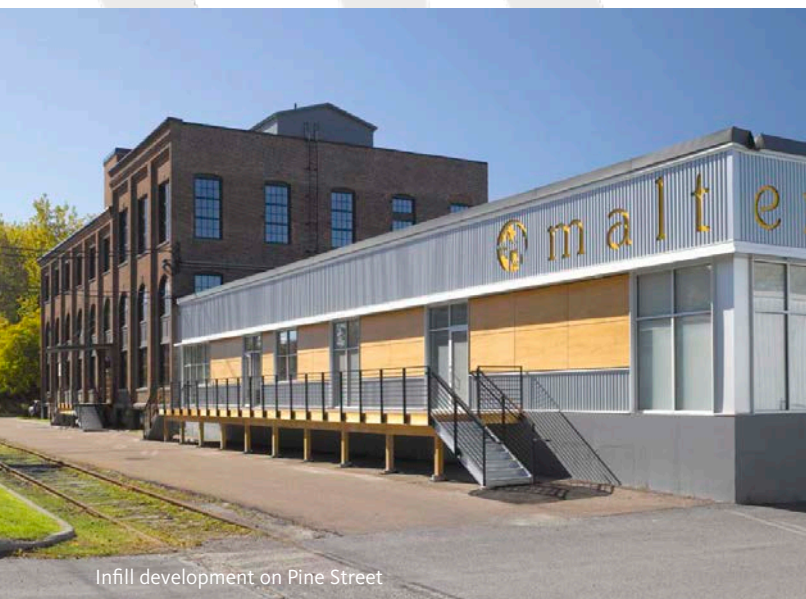
planning to grow.



Map 5 Excerpt: South End Growth Areas

This area was historically a major industrial corridor. Today, it has an identity as an arts and entrepreneurial hub, and continues to be one of the only places in the city where many commercial-industrial uses are permitted. Over the years, this area has seen new and expanded industrial uses, significant changes to the city's manufacturing base, and the adaptive reuse of many old warehouses and factories. This area is also adjacent to several well-established residential neighborhoods that have become increasingly attractive places to live. With its favorable character, there has been increasing pressure to allow new uses within this area that are not in keeping with the historic commercial-industrial character and function, and the redevelopment and expansion of uses within this area has contributed to greater impacts on nearby residential areas.

This plan anticipates that this area will continue to be a major economic driver for the city and the region. With existing low-density commercial development, many undeveloped or underdeveloped brownfield sites, and the proposed expansion of the Champlain Parkway, this area has significant potential to support economic development efforts city-wide. Much of this area is expected to continue to evolve into more of mixed-use commercial, arts, and innovation district, while strategic locations within it will offer a viable place for commercial-industrial uses to be maintained and flourish. This will be achieved by protecting



Infill development on Pine Street



Wide mix of businesses along Flynn Avenue

core industrial areas from the encroachment of uses that increase demand, raise rents, and increase the vulnerability of these businesses. Balancing these distinct economic characteristics must be guided by an economic development strategy and supported by more fine-grained land use policies. Further, this plan anticipates the implementation of projects and policies that will protect adjacent neighborhoods from impacts such as traffic, air quality, and noise from nearby uses, and that will improve pedestrian and bicycle safety, expand neighborhood-serving businesses and amenities, and increase connectivity to nearby parks and the lake.

planBTV: South End Master Plan is the primary tool guiding private and public investment necessary to ensure the vitality of this part of the city—with an emphasis on preserving and enhancing the district’s arts, innovation, and industrial uses and identities. Additionally, it specifies future development opportunities as well as infrastructure, greenspace, and circulation needs of this portion of the city. This plan serves as the foundation for many other plans, studies, and initiatives that will occur over the next generation.

How this district grows should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **planBTV: South End Master Plan**

- *Burlington Harbor Management Plan*
- **Burlington Transportation Plan**
- **planBTV: Walk/Bike**
- *Railyard Enterprise Project*

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to the Enterprise District.

Distinctive Theme:

- Action 2.1, 2.2, 2.3
- Action 4.1
- Actions 5.1, 5.4

Dynamic Theme:

- Action 6.7
- Action 7.4

Inclusive Theme

- Actions 14.1, 14.2

Connected Theme

- Actions 17.1, 17.3, 17.7, 17.8, 17.13
- Actions 19.2, 19.7



Rhino Food expansion on Industrial Parkway Photo courtesy of Caitlin Goss



Art Hop signage outside studios on Pine Street

Shelburne Road Corridor & Neighborhood Activity Centers



Map 5 Excerpt: South End Growth Areas

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to these areas.

Distinctive Theme:

- Actions 2.1, 2.2, 2.3

Dynamic Theme:

- Actions 6.1, 6.5, 6.6, and 7.3

Inclusive Theme

- Actions 11.1 and 13.1

Connected Theme

- Actions 17.1, 17.4, 17.5, 17.10, 17.13
- Actions 18.1, 18.2, and 19.7

Shelburne Road is currently the primary gateway into Burlington from the south. It provides access to downtown, the institutions, and many well-established residential neighborhoods adjacent to it. Today, it features primarily low-density residential and occasional commercial uses along the corridor but it is anchored by the downtown core and several neighborhood activity centers, particularly near the southern boundary of the city. It is a major thoroughfare with heavy traffic volumes and increasing congestion.

This plan envisions that this corridor will evolve from single-use development to mixed-use development in strategic locations. This evolution should emphasize opportunities to support housing as well as neighborhood-serving amenities within walking distance of vibrant South End neighborhoods, and should benefit from access to robust multi-modal transportation choices. Additionally, this plan envisions an opportunity to expand the current neighborhood activity center that is located at the southernmost extent of the city to integrate adjacent areas of multi-family development to provide a more dynamic opportunity to promote connectivity and reinvestment along this major corridor.

This evolution should be guided by a detailed plan which considers the land use, development, and transportation influences and opportunities along this corridor. Further, this study should be coordinated with the City of South Burlington. Shelburne Road/Route 7 is an important spine connecting these communities, and opportunities for infill and redevelopment of the large vacant and/or underutilized sites near the border of these two cities have the potential to impact and be impacted by the land use policies of the other.

How this corridor grows should be influenced by the detailed analyses and recommendations contained in the following planBTV documents:

- **Housing Action Plan**
- **Burlington Transportation Plan**
- **planBTV: Walk/Bike**
- *GMT NextGen Transit Plan*
- *Winooski Avenue Corridor Study (underway)*

North Avenue Corridor @ Neighborhood Activity Centers

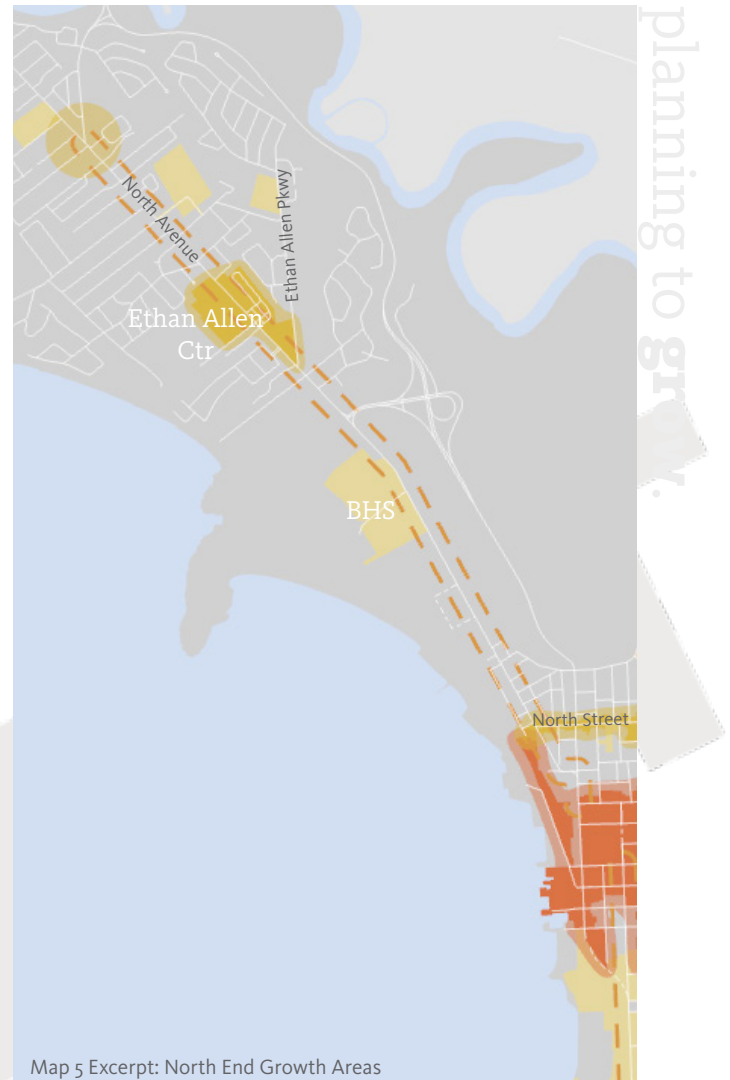
North Avenue is just one of two streets that connect the New North End to the central part of Burlington. It is the main artery for many well-established residential neighborhoods, many of which developed post-WWII, that are home to approximately a quarter of the city's population. Today it features primarily low-density residential and occasional commercial uses along the corridor. It is anchored by a hub at the Ethan Allen Shopping Center that is one of the truest definitions of a neighborhood activity center based on its mix of uses: it features a grocery store, restaurants, a hardware store, a post office, fitness and medical services, and is adjacent to apartments, parks, and recreational amenities. The Avenue is a transit corridor, and has recently been reconfigured to include bike lanes.

This plan envisions that this corridor continues to evolve, building upon the energy of the mix of uses at the shopping center, evaluating opportunities to encourage more mixed-use and housing along the corridor— in particular, this plan envisions a new neighborhood activity center near the intersection with Plattsburg Avenue. This corridor will be anchored by the downtown and several neighborhood activity centers along it, as well as a wide variety of transportation options, that are within walking distance of the neighborhoods that are adjacent to it. Further, opportunities to strengthen connectivity and access to residential communities and the multitude of natural and open areas along this corridor should be explored.

This evolution should be guided by a detailed plan which considered the land use, development, and transportation influences and opportunities along this corridor.

How this corridor grows should be influenced by the detailed analyses and recommendations contained in the following planBTV documents:

- **Housing Action Plan**
- **Burlington Transportation Plan**
- **planBTV: Walk/Bike**
- *GMT NextGen Transit Plan*
- *North Avenue Corridor Study*



Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to these areas.

Distinctive Theme:

- Actions 2.1, 2.2, 2.3

Dynamic Theme:

- Actions 6.1, 6.5, 6.6, and 7.3

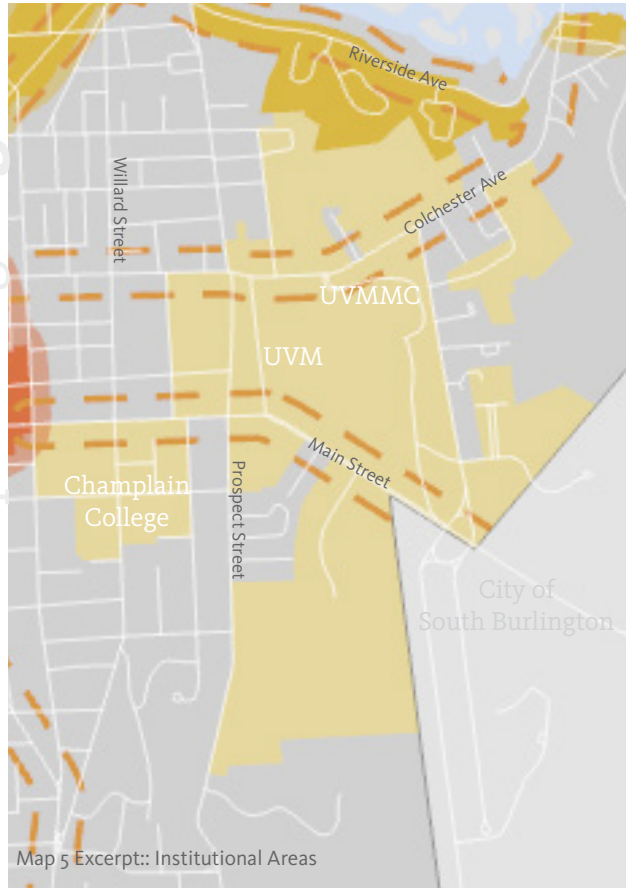
Inclusive Theme

- Actions 11.1 and 13.1

Connected Theme

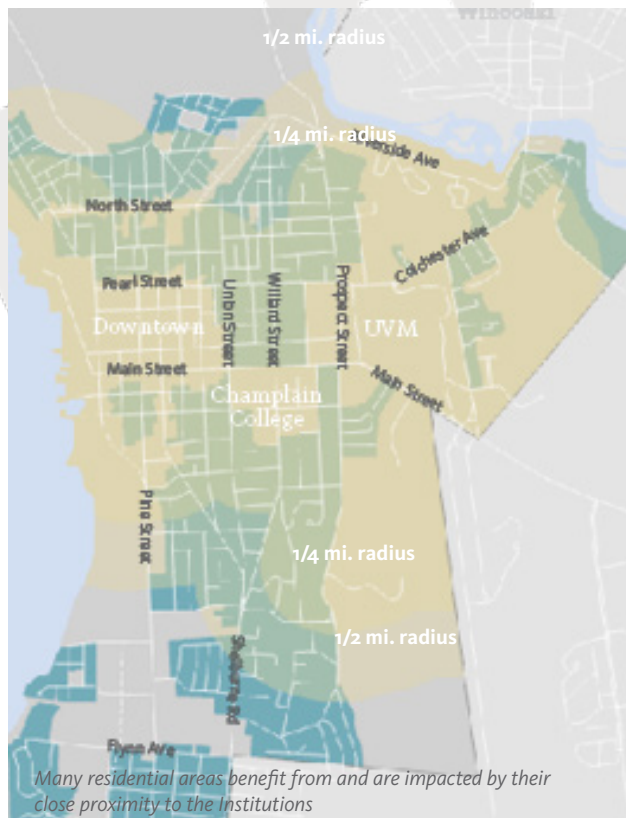
- Actions 16.6, 17.1, 17.4, 17.5, 17.6, 17.10, 17.13
- Actions 18.1, 18.2, and 19.7

The Institutions @ Eastern Gateway Corridors



Burlington's institutions of higher education and health care play an important role in the city's economy and overall vitality. In the last several years, these institutions have made major capital investments in medical facilities and labs, academic buildings, and dormitories on their core campuses. Additionally, through partnerships with the city, non-profits, and neighborhood organizations, the institutions have continued to make improvements to reduce traffic and noise impacts, are contributing more resources and funding to addressing quality of life issues faced by residential neighborhoods.

This plan envisions that these efforts will continue. It is essential to continue to focus future growth of these institutions within their core campuses, especially to create new and additional housing options for students. The institutions must evaluate whether sites within their campuses and/or sites along the adjacent multi-modal corridors identified in this plan can provide opportunities for infill and redevelopment that meets their evolving needs while also reinforcing the stability of and quality of life within adjacent neighborhoods. As the institutions' enrollments are currently and are expected to continue to be fairly level, this growth should be aimed at expanding the number of students who live on-campus and in campus-supported housing. For the University of Vermont, there must also be efforts to better balance on-campus housing opportunities to the north and south of the core academic areas of campus.



Students have a major impact on the availability and affordability of housing throughout the city, as well as on quality of life in residential neighborhoods near campus. In addition to promoting greater housing on and near the institutions' campuses, we must seek opportunities to expand tools which address neighborhood quality of life concerns, opportunities to incorporate amenities along the institutions' edges that promote positive interaction between students and nearby residents, and preserve and expand opportunities for other members of our community to rent or own homes in these near-campus areas. Together, these efforts can have a tremendous impact in relieving pressure of the institutions and student housing on nearby residential areas.

How this part of the city grows should be guided by the detailed analyses and recommendations contained in the following documents:

- UVM Campus Master Plan & Housing Plan
- Champlain College Campus Master Plan
- UVM Medical Center Capital Facilities Plan
- **Housing Action Plan**
 - The Neighborhood Project
- **Burlington Transportation Plan**

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to the Institutions, these major eastern gateways to the city, and the residential areas in close proximity.

Distinctive Theme:

- Actions 5.2, 5.6

Dynamic Theme:

- Action 6.4, 6.5, 6.6
- Action 7.4
- Action 9.9

Inclusive Theme

- Actions 11.4, 11.6
- Actions 12.1, 12.3
- Action 13.1

Connected Theme

- Actions 17.1, 17.10, 17.13
- Actions 19.1, 19.7

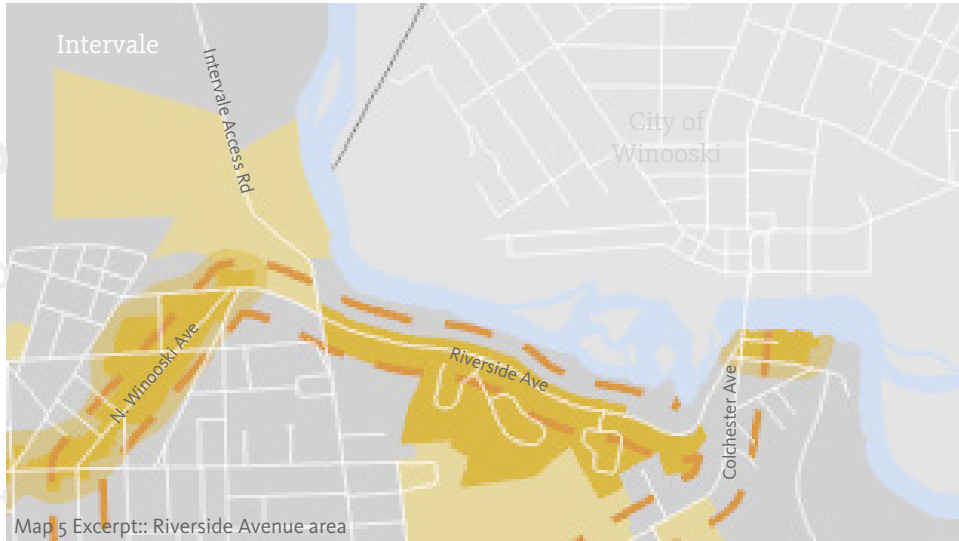


UVM amphitheater and dormitory building



Champlain College's Juniper Hall on S. Willard Street

Riverside Avenue Corridor



Riverside Avenue is historically home to a mix of residential, industrial, public, and commercial uses. It provides a connection between the city's northeast gateway, The Mill Street- Grove Street neighborhood, the Old North End, and the Intervale. Along the corridor itself, the south side of the street incorporates apartment and condominium complexes alongside commercial and industrial uses. The north side of road parallels the Winooski River along a steep embankment. While it is the current location of many commercial, industrial, and residential uses, and one of the City's wastewater treatment plants, the slope has been increasingly prone to instability and failures and is largely protected by a conservation overlay zoning district. The street itself has been improved

with more urban streetscape elements and facilities to promote safety and access by pedestrians and bicyclists, as well as to improve traffic flow.

At the eastern end of Riverside Avenue is the Mill Street-Grove Street neighborhood, which serves as an important gateway to both the cities of Burlington and Winooski. Mill Street is a neighborhood with a rich history, and strong ties to the City of Winooski. The entire riverfront surrounding the Winooski Falls and the associated mill buildings are important features both naturally and historically. Similar to Riverside Avenue, areas along Grove Street have very steep banks and sensitive habitats. The Intervale is an 870-acre floodplain of the Winooski River, with significant



Community Health Centers at the intersection of Riverside & N Winooski



Shared use path on Riverside Avenue connecting to the Old North End

natural and human history. It contains both the city's largest natural area and working farms within the city limits. Near the intersection of Riverside Avenue and Intervale Road is a hub of enterprise activity that includes businesses that leverage the location and productive capacity of the Intervale—notably, this is the home of the City's McNeil Plant, a wood-burning electricity generating station, and the Intervale Center, a non-profit steward of the Intervale's land, sustainable agriculture, and recreation resources.

This plan anticipates a more urban configuration of higher-density mixed residential and commercial uses on the south side of Riverside Avenue. Along Riverside Avenue and Mill Street, additional neighborhood-serving amenities should be incorporated that support the needs of nearby residents within walking distance. Within the Intervale, additional enterprises that support value-added agricultural products and services and energy innovation should be fostered. Additionally, further transportation improvements are needed, particularly to improve multi-modal connections to the Intervale; at the intersections of Riverside with Barrett Street, Mill Street, and Colchester Avenue; and at the bridge that connects to the City of Winooski. These enhancements will improve pedestrian and bicyclists safety, efficiency of and access to public transit, enhance this important city gateway, and improve the quality of life in nearby residential areas.

Further, this plan anticipates that the area along the river bank continues to be managed and improved as a greenway corridor and buffer from the development activity along the street. Along the river bank from the Intervale to Grove Street, continued efforts to preserve and enhance this green corridor to protect water quality, preserve wildlife travel corridors, and provide passive recreation are a high priority.

How this part of the city grows should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **Burlington Transportation Plan**
- *GMT NextGen Transit Plan*
- *Colchester/Riverside/Barrett Intersection Study*
- *Winooski Avenue Corridor Study (underway)*
- **Open Space Protection Plan**

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to this part of the city.

Distinctive Theme:

- Actions 1.2, 1.5
- Actions 2.1, 2.2, 2.3
- Action 5.5

Dynamic Theme:

- Action 6.5
- Action 10.3

Inclusive Theme

- Action 13.1

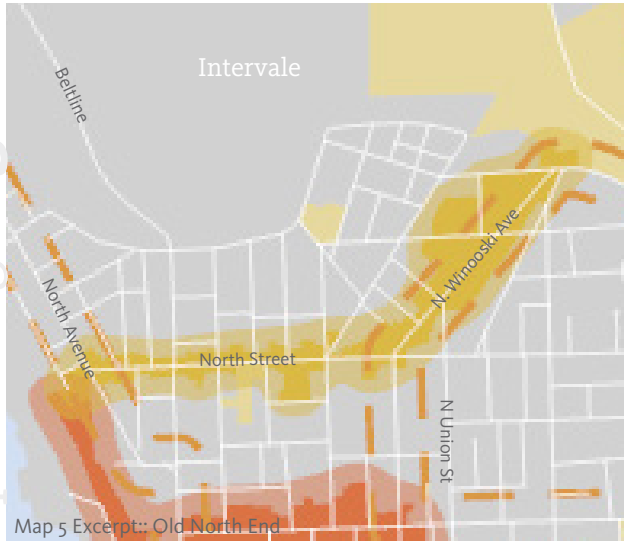
Connected Theme

- Actions 16.6, 17.1
- Action 18.2
- Actions 19.7



Intervale Center in the Burlington Intervale

Old North End- North Street @ N. Winooski Avenue



Historically, North Street, between N. Winooski Avenue and North Avenue, has served as “Main Street” for Burlington’s Old North End neighborhood, and is an example of how the city’s diverse social and culture identities continue to evolve. The street has historically been home to a network of immigrant-owned businesses, first by Canadian and European immigrants in the 1850’s and in recent decades by African and Asian immigrants. It is a unique expression of this diversity and “continually reminds and redefines the commonly accepted notion of what it means to be a Vermonter and American in the 21st century.”⁴

This neighborhood continues to evolve and various initiatives over the years have been targeted

at improving the residential and commercial environment along North Street and in nearby residential areas. Street lighting upgrades and other urban streetscape enhancements were made in the North Street corridor to support and elevate the visibility of this important commercial area. The former St. Joseph’s School building is now a hub of neighborhood-supporting services and a community center. There is a well-established network of “third-sector” organizations with years of experience and which provide services to businesses and residents in the neighborhood. Often, existing businesses need just a little bit more space, technical assistance, or capital to prosper. In recent years, there has been some conversion of commercial spaces to residences along North Street while infill development and new commercial energy has located along N. Winooski Avenue, particularly near the intersection with Riverside Ave.

Nearby residential areas are culturally vibrant and feature some of the greatest diversity in terms of the racial and ethnic backgrounds of residents, and the housing and household types that make up the neighborhood. However, these neighborhoods struggle with buildings that are in poor condition, and a high number of renters who are vulnerable to rising housing costs.

This plan anticipates some additional opportunities for infill or redevelopment along North Street and



N. Winooski Avenue in order to create suitable spaces for neighborhood-serving amenities and housing. It will be essential that this growth is targeted for and is affordable to businesses and services that support the area's residents and provide job opportunities close to where people live. Further, programs and initiatives that promote affordable and inclusive housing opportunities, the safety and maintenance of homes, and create new homeownership opportunities for residents will aid in enhancing the quality of life in nearby residential areas.

How this neighborhood activity center grows should be guided by the detailed analyses and recommendations contained in the following planBTV documents:

- **Housing Action Plan**
 - *The Neighborhood Project*
- *Fair Housing Assessment*
- *Consolidated Plan for Housing & Community Development*
- **Burlington Transportation Plan**
- **planBTV: Walk/Bike**
- *GMT NextGen Transit Plan*

Relevant Policies & Actions

These action items from ***Our Plan for Action*** are particularly relevant to this part of the city.

Distinctive Theme:

- Actions 2.1, 2.2, 2.3, 2.4
- Action 4.5, 5.3, 5.7

Dynamic Theme:

- Action 6.1, 6.5
- Action 7.3, 7.4
- Action 10.3

Inclusive Theme

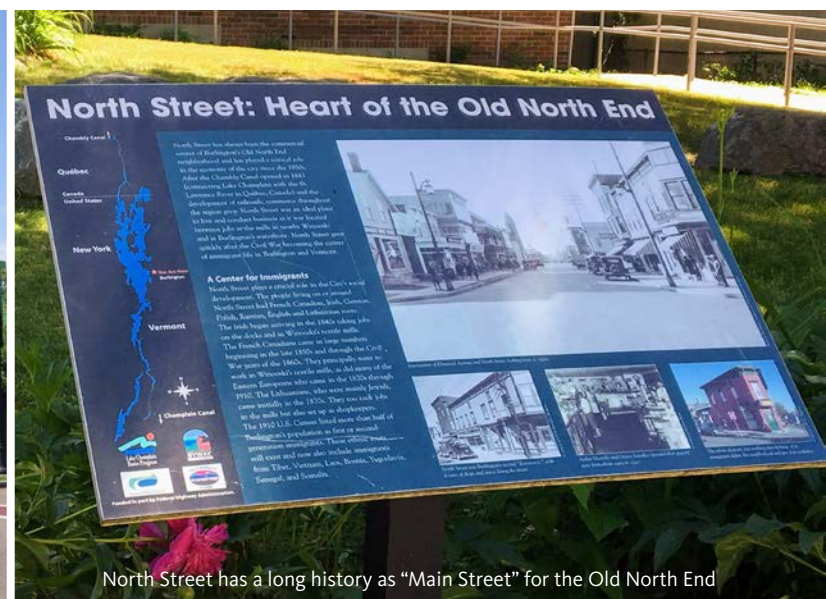
- Actions 11.1, 11.2, 11.4, 11.6, 12.1
- Action 13.1, 13.4,

Connected Theme

- Actions 17.1
- Action 18.1, 18.2, 18.3, 18.4



Mixed use infill and commercial space on North Street



North Street has a long history as "Main Street" for the Old North End

Appendices

[Appendix A: Relationship to Other Planning Documents]

Plans Incorporated & Adopted by Reference

These plans are hereby adopted as part of planBTV: Comprehensive Plan by their reference. Throughout the plan, titles of these documents are indicated in **bold, underlined text**.

planBTV: Downtown & Waterfront Master Plan

planBTV: South End Master Plan

Brownfields Area Wide Plan

Burlington Transportation Plan

planBTV: Walk/Bike

Downtown Parking & Transportation Management Plan

Residential Parking Management Plan

Housing Action Plan

Sustainable Infrastructure Capital Plan & Clean Water Resiliency Plan

Open Space Protection Plan 2000 and 2014 Update

Climate Action Plan

Chittenden County All Hazards Mitigation Plan, Annex 3 Plan for the City of Burlington

Chittenden County Energy Guides

Chittenden County Population & Employment Forecast

Burlington Parks, Recreation, and Waterfront Master Plan

Urban Forestry Master Plan

Winooski Valley Park District Master Plan

Background and Historic Context

These plans are referenced in this document to provide context and additional information, and are not adopted by their reference. Throughout the plan, titles of these documents are indicated in *italics*.

Burlington Land Use Plans 1947, 1952, and 1970

Previous Municipal Development Plans: 1973, 1979, 1985, 1991, 1996, 2001, 2006, 2011, 2014

Burlington Comprehensive Development Ordinance

Chittenden County Regional ECOS Plan

planBTV: Downtown Code

Legacy Action Plan & 2010 Update

Historic Sites and Structures Survey Plan

Chittenden County Regional Build-Out Analysis

Burlington Downtown Build Out Analysis 2001

The Neighborhood Project

Permit Reform Study

Inclusionary Zoning Report

North Avenue Corridor Study

Burlington: A Shared Vision

Vermont Downtown Program Renewal Application 2017-2022

Downtown Improvement District Phase 1 Feasibility Assessment

Jobs & People IV (the 2018 update)

Consolidated Plan for Housing & Community Development

Fair Housing Assessment

Americans for the Arts: Arts & Economic Prosperity Report V

Waterfront Urban Renewal Plan, 1998 Update

Urban Reserve Interim Use and Stewardship Plan

Harbor Management Plan

Common Ground: A Strategic Plan for the Old North End Enterprise Community Part 1 / Part 2

North Street Revitalization Plan

Knowing Your Neighbors: The Evolution of Immigrant Owned Small Businesses on North Street

Burlington Early Learning Initiative

Burlington School District Long Range Facilities Plan

Burlington School District Strategic Plan

Burlington Electric Department Integrated Resource Plan

University of Vermont Campus Master Plan & Design Guidelines

Champlain College Master Plan: A Roadmap for the Future

UVM Medical Center Master Facilities Plan

Joint Institutional Parking Management Plan

GMT Next Gen Transit Plan & Transit Development Plan

Riverside Avenue Plan & Colchester/Riverside/Barrett Intersection Study

Lake Champlain Byway Chittenden County Corridor Plan

Lake Champlain Basin Program, State of the Lake Report 2018

Winooski River Tactical Basin Plan

Northern Lake Champlain Direct Drainages Tactical Basin Plan

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

LAND USE

Burlington as a distinctive city. (p. 36-41)

Number	Description
1.1	Complete an Integrated Water Quality Plan
1.5	Ensure long-term stewardship of natural and conservation areas and parks
2.1	Evaluate capacity of neighborhood mixed-use areas to support additional development
2.4	Utilize Downtown & Neighborhood Designation programs to rehabilitate buildings in the core of the city
3.2	Re-evaluate zoning for RL and RM to ensure preservation of development patterns and design character, while enabling some evolution based on changing household needs
5.2	Identify opportunities to leverage the creative economy and institutions to strengthen the economy
5.3	Strengthen the capacity of the Old North End arts and business community
5.4	Evaluate changes to the Enterprise Zone to preserve and expand the character of the South End
5.5	Build capacity of Intervale farms to support local business and connect to customers

Burlington as a dynamic city. (p. 48-53)

Number	Description
6.1	Remove barriers and disincentives to housing production, and encourage infill/redevelopment of underutilized sites
6.2	Encourage infill and redevelopment within the downtown core
6.3	Evaluate the redevelopment potential of City-owned parking lots for mixed-use development
6.4	Consider land use policy changes to enable more student housing and amenities on institutions' campuses
6.5	Examine opportunities for higher-density mixed-use development along major multi-modal corridors
6.6	Establish regional bus rapid transit corridors
6.7	Cleanup and redevelop brownfield sites, particularly in the South End
7.3	Eliminate on-site parking requirements in mixed-use areas and modify the method for calculating parking requirements for residential areas
7.4	Evaluate changes to ordinances to accommodate the evolving needs of commercial and industrial workspaces
8.6	Identify zoning changes needed to accommodate the evolving needs of school sites and district properties
9.1	Develop a roadmap for transitioning to a Net Zero Energy community and update the Climate Action Plan
9.2	Develop metrics for energy resource proximity to the city, land requirements, and priority sites for renewable energy generation
10.3	Protect flood and fluvial erosion hazard areas to mitigate risks to life, property, and public infrastructure.

Burlington as a connected city. (p. 72-79)

Number	Description
16.1	Update the Urban Forestry Master Plan and identify strategies to achieve 50% tree canopy
17.12	Continue to monitor traffic volumes, parking demand, and curbs-side loading zones to assess any impact of new transportation technologies
18.1	Support and maintain schools close to where people live, and utilize to meet wider range of community functions
18.2	Encourage essential services to locate in neighborhood activity centers, along multi-modal corridors
19.2	Updated the Burlington Harbor Management Plan, to include focus on the Inner Harbor, Perkins Pier, and Urban Reserve
19.4	Evaluate capacity of public cemeteries and explore new burial methods for land-constrained cities
21.1	Continue active participation in issues of regional importance

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

NATURAL ENVIRONMENT

Burlington as a distinctive city. (p. 36-41)

Number	Description
--------	-------------

- | | |
|-----|---|
| 1.1 | Complete an Integrated Water Quality Plan |
| 1.2 | Prioritize improvements to the city's wastewater treatment plants |
| 1.3 | Expand stormwater management measures in new and existing development |
| 1.4 | Work with local, state, and regional agencies on watershed policy and planning |
| 1.5 | Ensure long-term stewardship of natural and conservation areas and parks |
| 1.6 | Expand public education efforts to protect and improve natural resources and conservation areas |
| 3.5 | Preserve public views of iconic buildings, natural features and scenic vistas |
| 5.5 | Build capacity of Intervale farms to support local business and connect to customers |

Burlington as a dynamic city. (p. 48-53)

Number	Description
--------	-------------

- | | |
|------|--|
| 6.7 | Cleanup and redevelop brownfield sites, particularly in the South End |
| 8.5 | Leverage the electric grid to displace fossil fuels in the thermal and transportation sectors |
| 9.1 | Develop a roadmap for transitioning to a Net Zero Energy community and update the Climate Action Plan |
| 9.4 | Create an ordinance regarding green and high-performing buildings |
| 10.1 | Implement improvements to the built, natural, social, and technological systems to mitigate hazards |
| 10.2 | Modify ordinances to ensure building design is appropriate to Burlington's climate and environmental hazards |
| 10.3 | Protect flood and fluvial erosion hazard areas to mitigate risks to life, property, and public infrastructure. |
| 10.4 | Develop educational resources regarding the effects of and how to prepare for climate change |

Burlington as a connected city. (p. 72-79)

Number	Description
--------	-------------

- | | |
|------|--|
| 16.1 | Update the Urban Forestry Master Plan and identify strategies to achieve 50% tree canopy |
| 16.2 | Revise the City Tree Ordinance and include canopy goals |
| 16.3 | Update the Open Space Protection Plan and natural communities inventories |
| 16.4 | Identify locations and methods to protect natural areas and open spaces |
| 16.5 | Identify funding sources to expand the capacity of the Conservation Legacy Fund |
| 16.6 | Increase connectivity, access, and interpretation of the city's natural areas |
| 16.7 | Assess parks and ROW for potential to be retrofitted for green stormwater infrastructure |

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

BUILT ENVIRONMENT

Burlington as a distinctive city. (p. 36-41)

Number	Description
1.1	Complete an Integrated Water Quality Plan
1.2	Prioritize improvements to the city's wastewater treatment plants
1.3	Expand stormwater management measures in new and existing development
1.5	Ensure long-term stewardship of natural and conservation areas and parks
2.1	Evaluate capacity of neighborhood mixed-use areas to support additional development
2.2	Explore creation of new form districts for neighborhood mixed-use and transitional urban neighborhood areas
2.3	Consider alternatives to dwelling units per acre to measure density
2.4	Communicate available resources to assist with redevelopment and rehabilitation in core areas
3.2	Re-evaluate zoning for RL and RM to ensure preservation of development patterns and design character, while enabling some evolution based on changing household needs
3.3	Review and revise design review standards regarding neighborhood character to make them more objective and predictable
3.5	Preserve public views of iconic buildings, natural features and scenic vistas
4.3	Implement a Percent-for-the-Arts program
4.4	Use Great Streets standards to install public art that is functional, durable, safe

Burlington as a dynamic city. (p. 48-53)

Number	Description
9.4	Create an ordinance regarding green and high-performing buildings
9.6	Create and implement policies and programs to address the split incentive issue in leased commercial and residential buildings
9.7	Make permitting for solar infrastructure more efficient
10.1	Implement improvements to the built, natural, social, and technological systems to mitigate hazards
10.2	Modify ordinances to ensure building design is appropriate to Burlington's climate and environmental hazards
10.3	Protect flood and fluvial erosion hazard areas to mitigate risks to life, property, and public infrastructure.

Burlington as an inclusive city. (p. 60-65)

Number	Description
12.1	Identify tools to support preservation and rehab of substandard housing units
12.2	Rehabilitate chronically and seriously substandard rental housing into affordable housing for low- and moderate-income homeowners
12.3	Increase funding for code enforcement, and establish more effective methods for enforcing violations of livability standards
12.7	Develop incentives for housing units to incorporate elements of Universal Design
12.8	Create a program to assist low-income homeowners with rehab and access modifications
13.1	Create safer streets for everyone and eliminate traffic-related fatalities and serious injuries
13.2	Ensure all public buildings, facilities, streets and pathways meet and exceed requirements for accessibility

Burlington as a connected city. (p. 72-79)

Number	Description
16.7	Assess parks and ROW for potential to be retrofitted for green stormwater infrastructure
17.1	Provide safe routes and transportation alternatives to schools and mixed use areas

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

BUILT ENVIRONMENT

17.2	Repurpose excess space in ROW's with elements that enhance the function and comfort of streets
17.3	Define mid-block connections between downtown, South End enterprise district and adjacent neighborhoods
17.4	Create standards for amenities at bus stop locations
17.8	Restore/fill critical missing gaps in city street network
17.12	Continue to monitor traffic volumes, parking demand, and curbs-side loading zones to assess any impact of new transportation technologies
17.13	Develop level of service and access management standards for major thoroughfares
19.6	Define street design and lighting characteristics for public thoroughfares
19.7	Locate utilities underground in the downtown & waterfront core, N. Winooski Ave., other major corridors, and on streets with views of the lake
19.8	Update ordinance regarding underground utilities and develop engineering standards to coordinate location and maintenance
19.9	Develop policies and tools to support wireless service expansion while keeping infrastructure hidden from public view
19.12	Review and adjust standards for services and facilities if needed, and account for residents, workers, and visitors' needs and impacts

HISTORIC PRESERVATION

Burlington as a distinctive city. (p. 36-41)

Number	Description
2.4	Communicate available resources to assist with redevelopment and rehabilitation in core areas
3.1	Create a city-wide comprehensive plan for historic preservation
3.2	Re-evaluate zoning for RL and RM to ensure preservation of development patterns and design character, while enabling some evolution based on changing household needs
3.3	Review and revise design review standards regarding neighborhood character to make them more objective and predictable
3.4	Create and support educational and tourism resources that promote historic and cultural resources
3.5	Preserve public views of iconic buildings, natural features and scenic vistas
5.3	Strengthen the capacity of the Old North End arts and business community

Burlington as an inclusive city. (p. 60-65)

Number	Description
12.1	Identify tools to support preservation and rehab of substandard housing units

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

HOUSING

Burlington as a distinctive city. (p. 36-41)

Number	Description
2.3	Consider alternatives to dwelling units per acre to measure density
4.5	Create and secure affordable housing and work spaces for artists and makers

Burlington as a dynamic city. (p. 48-53)

Number	Description
6.1	Remove barriers and disincentives to housing production, and encourage infill and redevelopment of underutilized sites
6.2	Encourage infill and redevelopment within the downtown core
6.3	Evaluate the redevelopment potential of City-owned parking lots for mixed-use development
6.4	Consider land use policy changes to enable more student housing and amenities on institutions' campuses
6.5	Examine opportunities for higher-density mixed-use development along major multi-modal corridors
7.1	Modify ordinances and create a program to support the creation of accessory dwelling units
7.2	Create ordinances regarding short-term rentals that balance long-term availability of housing and homeowners' evolving needs
7.3	Eliminate on-site parking requirements in mixed-use areas and modify the method for calculating parking requirements for residential areas

Burlington as an inclusive city. (p. 60-65)

Number	Description
11.1	Update the City's Inclusionary Zoning Ordinance
11.2	Examine the feasibility of public bonding and other resources to expand the capacity of the Housing Trust Fund
11.3	Utilize new initiatives to expand housing options for those who do not qualify for subsidies but cannot compete in the market
11.4	Identify tools to increase the rate of homeownership in low- and moderate-income neighborhoods and those with high rates of rental housing
11.5	Work with lenders to offer innovative mortgage products to expand opportunities for homeownership
11.6	Develop a program for employers to support their employees in purchasing homes in the city
11.7	Work with partner agencies to strengthen opportunities for housing and services for the homeless
12.1	Identify tools to support preservation and rehab of substandard housing units
12.2	Rehabilitate chronically and seriously substandard rental housing into affordable housing for low- and moderate-income homeowners
12.3	Increase funding for code enforcement, and establish more effective methods for enforcing violations of livability standards
12.4	Create income-sensitive rate structures for utilities, and expand the equity of BED's energy innovation programs
12.5	Monitor community-wide needs for shelters and treatment facilities and identify any necessary land use policy changes to support them
12.6	Implement a system to act on claims under the City's anti-discrimination ordinance
12.7	Develop incentives for housing units to incorporate elements of Universal Design
12.8	Create a program to assist low-income homeowners with rehab and access modifications

Burlington as a connected city. (p. 72-79)

Number	Description
21.1	Continue active participation in issues of regional importance

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

TRANSPORTATION

Burlington as a dynamic city (p. 48-53)

Number	Description
6.5	Examine opportunities for higher-density mixed-use development along major multi-modal corridors
6.6	Establish regional bus rapid transit corridors
7.3	Eliminate on-site parking requirements in mixed-use areas and modify the method for calculating parking requirements for residential areas
8.1	Update the City's Capital Plan to consider long-range capacity and future needs
8.3	Prepare a comprehensive update to the City's Impact Fee Study
8.4	Increase participation in the Technical Review Committee
8.5	Leverage the electric grid to displace fossil fuels in the thermal and transportation sectors
9.1	Develop a roadmap for transitioning to a Net Zero Energy community
9.7	Expand incentives to encourage use of electric vehicles, buses, and bikes
10.1	Implement improvements to the built, natural, social, and technological systems to mitigate hazards

Burlington as an inclusive city (p. 60-65)

Number	Description
13.1	Create safer streets for everyone and eliminate traffic-related fatalities and serious injuries
14.5	Improve transit service, particularly for late-shift workers, and explore options for subsidizing cost of service for low-income workers

Burlington as a connected city (p. 72-79)

Number	Description
16.7	Assess parks and ROW for potential to be retrofitted for green stormwater infrastructure
17.1	Provide safe routes and transportation alternatives to schools and mixed use areas
17.2	Repurpose excess pavement in ROW with elements that enhance the function and comfort of streets
17.3	Define mid-block connections between downtown, South End enterprise district and adjacent neighborhoods
17.4	Create standards for amenities at bus stop locations
17.5	Identify additional funding sources for public transit
17.6	Expand paratransit services to include more convenient and affordable options
17.7	Support improvements in the western corridor rail infrastructure and expansion of passenger rail
17.8	Restore/fill critical missing gaps in city street network
17.9	Implement dynamic parking management tools, expand partnerships to provide access to private parking
17.10	Expand vehicular wayfinding in the downtown core and on major transportation corridors
17.11	Establish regional guidelines for transportation demand management
17.12	Continue to monitor traffic volumes, parking demand, and curbs-side loading zones to assess any impact of new transportation technologies
17.13	Develop level of service and access management standards for major thoroughfares
18.2	Encourage essential services to locate in neighborhood activity centers, along multi-modal corridors
19.1	Make more efficient use of existing buildings, facilities, utilities, services before building new
20.6	Create a full-service community benefit district downtown
21.1	Continue active participation in issues of regional importance

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

ECONOMIC DEVELOPMENT

Burlington as a distinctive city. (p. 36-41)

Number	Description
2.4	Communicate available resources to assist with redevelopment and rehabilitation in core areas
3.1	Create a city-wide comprehensive plan for historic preservation
3.4	Create and support educational and tourism resources that promote historic and cultural resources
4.1	Develop a city-wide arts and culture plan
4.2	Create additional conference and exhibit space within downtown
4.5	Create and secure affordable housing and work spaces for artists and makers
5.1	Create a comprehensive economic development strategy
5.2	Identify opportunities to leverage the creative economy and institutions to strengthen the economy
5.3	Strengthen the capacity of the Old North End arts and business community
5.4	Evaluate changes to the Enterprise Zone to preserve and expand the character of the South End
5.5	Build capacity of Intervale farms to support local business and connect to customers
5.6	Strengthen partnerships to support, attract, and retain diverse economic and job opportunities
5.7	Promote and support locally-owned and controlled small businesses, including home occupations

Burlington as a dynamic city. (p. 48-53)

Number	Description
6.1	Remove barriers and disincentives to housing production, and encourage infill and redevelopment of underutilized sites
6.2	Encourage infill and redevelopment within the downtown core
6.3	Evaluate the redevelopment potential of City-owned parking lots for mixed-use development and housing
6.5	Examine opportunities for higher-density mixed-use development along major multi-modal corridors
6.7	Cleanup and redevelop brownfield sites, particularly in the South End
7.3	Eliminate on-site parking requirements in mixed-use areas and modify the method for calculating parking requirements for residential areas
7.4	Evaluate changes to ordinances to accommodate the evolving needs of commercial and industrial workspaces
8.3	Assume delegation for stormwater permitting
9.4	Create an ordinance regarding green and high-performing buildings
9.5	Establish a sustainable business program to improve energy efficiency and environmentally-friendly practices in the commercial and industrial sectors

Burlington as an inclusive city. (p. 60-65)

Number	Description
11.2	Examine the feasibility of public bonding and other resources to expand the capacity of the Housing Trust Fund to create and preserve affordable housing
11.3	Utilize new initiatives to expand housing options for those who do not qualify for subsidies but cannot compete in the market
11.4	Identify tools to increase the rate of homeownership in low- and moderate-income neighborhoods and those with high rates of rental housing
11.5	Work with lenders to offer innovative mortgage products to expand opportunities for homeownership
11.6	Develop a program for employers to support their employees in purchasing homes in the city

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

ECONOMIC DEVELOPMENT

Burlington as an inclusive city. (p. 60-65)

Number	Description
12.2	Rehabilitate chronically and seriously substandard rental housing into affordable housing for low- and moderate-income homeowners
14.1	Support organizations that provide workforce training support and English language instruction
14.2	Work with the school district to expand programs that prepare students for the workforce and higher education
14.3	Support programs which expand job opportunities for youth of colors and other underrepresented groups in the workforce
14.4	Expand the number and quality of childcare spaces close to where residents live and work
14.5	Improve transit service, particularly for late-shift workers, and explore options for subsidizing cost of service for low-income workers
14.6	Increase diversity in City hiring practices

Burlington as a connected city. (p. 72-79)

Number	Description
17.2	Repurpose excess pavement in ROW with elements that enhance the function and comfort of streets
17.5	Identify additional funding sources for public transit
17.6	Expand paratransit services to include more convenient and affordable options
17.7	Support improvements in the western corridor rail infrastructure and expansion of passenger rail
17.8	Restore/fill critical missing gaps in city street network
18.4	Identify tools to ensure affordability and availability of space in neighborhood centers for businesses and services that meet the needs of nearby residents
19.2	Updated the Burlington Harbor Management Plan, to include focus on the Inner Harbor, Perkins Pier, and Urban Reserve
19.4	Implement the BSD Capital Facilities Plan and identify additional funding sources for infrastructure needs
20.6	Create a full-service community benefit district downtown
21.1	Continue active participation in issues of regional importance
21.5	Continue to build out the high-speed fiber network

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

COMMUNITY FACILITIES & SERVICES

Burlington as a distinctive city. (p. 36-41)

Number	Description
1.1	Complete an Integrated Water Quality Plan
1.2	Prioritize improvements to the city's wastewater treatment plants
4.1	Develop a city-wide arts and culture plan
4.2	Create additional conference and exhibit space within downtown

Burlington as a dynamic city. (p. 48-53)

Number	Description
8.1	Update the City's Capital Plan to consider long-range capacity and future needs
8.2	Prepare a comprehensive update to the City's Impact Fee Study
8.3	Assume delegation for stormwater permitting
8.4	Increase participation in the Technical Review Committee
8.5	Leverage the electric grid to displace fossil fuels in the thermal and transportation sectors
8.6	Identify zoning changes needed to accommodate the evolving needs of school sites and district properties
9.1	Develop a roadmap for transitioning to a Net Zero Energy community and update the Climate Action Plan
9.2	Develop metrics for energy resource proximity to the city, land requirements, and priority sites for renewable energy generation
9.3	Reduce public buildings' energy and water consumption and transportation emissions by 50%
9.8	Make permitting for solar infrastructure more efficient
9.9	Implement the Burlington District Energy System in the downtown and institutional cores
10.1	Implement improvements to the built, natural, social, and technological systems to mitigate hazards
10.4	Develop educational resources regarding the effects of and how to prepare for climate change

Burlington as an inclusive city. (p. 60-65)

Number	Description
11.7	Work with partner agencies to strengthen opportunities for housing and services for the homeless
12.4	Create income-sensitive rate structures for utilities, and expand the equity of BED's energy innovation programs
12.5	Monitor community-wide needs for shelters and treatment facilities and identify any necessary land use policy changes to support them
13.2	Ensure all public buildings, facilities, streets and pathways meet and exceed requirements for accessibility
13.3	Improve City-managed parks and public spaces not currently accessible by residents with disabilities
13.4	Design and maintain parks and public spaces to be used by residents of all cultures and backgrounds
13.5	Create a plan for the location and management of public restrooms
13.6	Create pictographic wayfinding signage
14.4	Expand the number and quality of childcare spaces close to where residents live and work
15.2	Increase diversity on city boards
15.4	Expand CEDO's capacity to assist with city-wide engagement efforts
15.5	Continue to improve the organization and administration of City government
15.6	Create and implement a Language Access Plan for City documents, meetings, and other resources

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

COMMUNITY FACILITIES & SERVICES

Burlington as a connected city. (p. 72-79)

Number	Description
16.3	Update the Open Space Protection Plan and natural communities inventories
16.7	Assess parks and ROW for potential to be retrofitted for green stormwater infrastructure
17.1	Provide safe routes and transportation alternatives to schools and mixed use areas
17.6	Expand paratransit services to include more convenient and affordable options
18.1	Support and maintain schools close to where people live, and utilize to meet wider range of community functions
18.2	Encourage essential services to locate in neighborhood activity centers, along multi-modal corridors
18.3	Prioritize CDBG funds for capital needs for essential community and social service organizations
18.4	Identify tools to ensure affordability and availability of space in neighborhood centers for businesses and services that meet the needs of nearby residents
19.1	Make more efficient use of existing buildings, facilities, utilities, services before building new
19.2	Updated the Burlington Harbor Management Plan, to include focus on the Inner Harbor, Perkins Pier, and Urban Reserve
19.3	Assess needs for indoor and outdoor recreation space to support neighborhoods' evolving needs
19.4	Evaluate capacity of public cemeteries and explore new burial methods for land-constrained cities
19.8	Update ordinances regarding underground utilities, develop engineering standards to coordinate public and private utilities within the ROW
19.9	Develop policies and tools to support wireless service expansion while keeping infrastructure hidden from public view
19.10	Consider wireless and programmable technology for street and traffic lighting systems
19.12	Review and adjust standards for services and facilities if needed, and account for residents, workers, and visitors' needs and impacts
20.1	Expand efforts to create a coordinated asset management system
20.2	Locate essential customer-serving City operations in the downtown core
20.3	Continue to expand City departments' use of technology/telecommunications
20.4	Expand City departments' ability to collaborate, and share and track data/performance
20.6	Create a full-service community benefit district downtown
21.1	Continue active participation in issues of regional importance
21.2	Evaluate the feasibility of a consolidated solid waste, recycling, and organics collection for residential customers
21.3	Evaluate opportunities to share equipment with municipal neighbors
21.4	Implement the Chittenden County Public Safety Authority
21.5	Continue to build out the high-speed fiber network

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

ENERGY

Burlington as a dynamic city. (p. 48-53)

Number	Description
8.1	Update the city's Capital Plan to consider long-range capacity and future needs
8.2	Prepare a comprehensive update to the City's Impact Fee Study
8.4	Increase participation in the Technical Review Committee
8.5	Leverage the electric grid to displace fossil fuels in the thermal and transportation sectors
9.1	Develop a roadmap for transitioning to a Net Zero Energy community
9.2	Develop metrics for energy resource proximity to the city, land requirements, and priority sites for renewable energy generation
9.3	Reduce public buildings' energy and water consumption and transportation emissions by 50%
9.4	Create an ordinance regarding green and high-performing buildings
9.5	Establish a sustainable business program to improve energy efficiency and environmentally-friendly practices in the commercial and industrial sectors
9.6	Create and implement policies and programs to address the split incentive issue in leased commercial and residential buildings
9.7	Expand incentives to encourage use of electric vehicles, buses, and bikes
9.8	Make permitting for solar infrastructure more efficient
9.9	Implement the Burlington District Energy System in the downtown and institutional cores
10.2	Modify ordinances to ensure building design is appropriate to Burlington's climate and environmental hazards
10.4	Develop educational resources regarding the effects of and how to prepare for climate change

Burlington as an inclusive city. (p. 60-65)

Number	Description
12.4	Create income-sensitive rate structures for utilities, and expand the equity of BED's energy innovation programs

Burlington as an connected city. (p. 72-79)

Number	Description
19.1	Make more efficient use of existing buildings, facilities, utilities, services before building new
19.10	Consider wireless and programmable technology for street and traffic lighting systems
21.1	Continue active participation in issues of regional importance

Appendices

[Appendix B: Cross Reference to 2014 Plan Chapters]

EDUCATION

Burlington is a dynamic city. (p. 48-53)

Number	Description
8.2	Prepare a comprehensive update to the City's Impact Fee Study
8.4	Increase participation in the Technical Review Committee
8.6	Identify zoning changes needed to accommodate the evolving needs of school sites and district properties

Burlington as an inclusive city. (p. 60-65)

Number	Description
14.2	Work with the school district to expand programs that prepare students for the workforce and higher education
14.3	Support programs which expand job opportunities for youth of colors and other underrepresented groups in the workforce
14.4	Expand the number and quality of childcare spaces close to where residents live and work

Burlington as a connected city. (p. 72-79)

Number	Description
17.1	Provide safe routes and transportation alternatives to schools and mixed use areas
18.1	Support and maintain schools close to where people live, and utilize to meet wider range of community functions
19.5	Implement the BSD Capital Facilities Plan and identify additional funding sources for infrastructure needs

Appendices

[Appendix C: Statutory Requirements]

This appendix outlines the locations within this plan, and/or plans that are referenced within this document, in which statutory requirements of the State of Vermont per Title 24 V.S.A. Chapter 117 can be found. This includes plan requirements and consistency with statewide planning goals. Further, it discusses the plan's compatibility with the regional plan and adjacent municipalities' adopted plans.

Required Elements (§4382) & Planning Goals (§4302(c))	
Element / Goal	Location
(§4382)(a)(1) <i>Statement of Objectives, Policies, Programs</i>	These elements are incorporated in each of the plan themes and in the land use framework. Within each theme, this is articulated in the respective vision statements (p. 31, 43, 55, 67) and supporting policies & actions (p. 36-41, 48-53, 60-65, 72-79). Within the land use element this is articulated on p. 81, 83, 87, and 91.
(§4382)(a)(2)- <i>Land Use Plan</i> and (§4302)(c) Goal 1- <i>RE: Development Pattern</i>	<p>The required elements of the land use plan and compatibility with state goals regarding development patterns are included in the "Our Future Land Use" section, p. 81-103, as well as within the policies and actions of the themes, found on p. 36-41, 48-53, 60-65, 72-79. This plan does not change the land use policies of the 2014 Burlington Municipal Development Plan. Further direction on these elements is included in the plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104.</p> <p>Existing land use in Map 1 on p. 12. Prospective land use in Maps 3 (p. 82), 4 (p. 86), and 5 (p. 90). Additional prospective land use maps are included in plans adopted and incorporated by referenced as indicated in Appendix A on p. 104.</p> <p>Designated growth areas p. 44 and referenced document <i>Vermont Downtown Program Renewal Application 2017-2022</i>.</p>
(§4382)(a)(3)- <i>Transportation Plan</i> and (§4302)(c) Goal 4- <i>RE: Transportation</i>	<p>The required elements of the transportation plan and compatibility with state goals regarding transportation are addressed in actions: 6.5, 6.6, 6.7, 7.3, 8.1, 8.2, 8.4, 8.5, 9.1, 9.7, 10.1, 13.1, 14.5, 16.7, all actions associated with policy 17, 18.2, 18.4, 19.1, 20.6, and 21.1.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104.</p> <p>Existing and proposed transportation facilities in Map 2 on p. 17, and in maps in the above referenced documents.</p>
(§4382)(a)(4)- <i>Utility & Facility Plan</i> and (§4302)(c) Goal 12- <i>RE: Public Facilities</i> and Goal 8- <i>RE: Recreation</i>	<p>The required elements regarding rare and irreplaceable features/resources and compatibility with state goals regarding the protection of these resources are addressed in actions: 1.1, 1.2, 4.1, 4.2, all actions associated with policy 8, 9.1, 9.2, 9.3, 9.8, 9.8, 10.1, 10.4, 11.7, 12.4, 12.5, 13.3, 13.4, 13.5, 13.6, 14.4, 15.2, 15.4, 15.5, 15.6, 16.2, 16.3, 16.6, 16.7, 17.1, 17.6, and all actions associated with policies 18, 19, 20, and 21.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104.</p> <p>Existing facilities in Map 2 on p. 17, and proposed facilities outlined in the above referenced documents.</p>
(§4382)(a)(5)- <i>Rare Natural Resources/ Historic Resources</i> and (12)- <i>Flood Resiliency Plan</i> and (§4302)(c) Goal 5- <i>RE: Natural and Historic</i> , Goal 6- <i>RE: Quality of Natural Resources</i> , and Goal 14- <i>RE: Flood Resiliency</i>	<p>The required elements regarding rare and irreplaceable features/resources and compatibility with state goals regarding the protection and quality of these resources are addressed in actions: All actions associated with policies 1, 3, 10, 16, and actions 5.3, 5.5, 6.7, 8.5, 9.1, 9.4, 12.1, 12.3, and 19.2.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104. Additional guidance for these resources are found in referenced plans, including <i>Burlington Historic Sites & Survey Plan</i>, <i>Lake Champlain Byway Chittenden County Corridor Plan</i>, <i>Winooski River Tactical Basin Plan</i>, and <i>Northern Lake Champlain Direct Drainages Tactical Basin Plan</i>.</p>

<p>(§4382)(a)(6)- <i>Educational Facilities Plan</i></p> <p>and</p> <p>(§4302)(c) Goal 3- RE: <i>Education</i></p>	<p>The required elements of the educational facilities plan and compatibility with state goals regarding education are addressed in actions: 8.2, 8.4, 8.6, 14.2, 14.3, 14.4, 17.1, 18.1, and 19.5.</p> <p>Further direction on these elements is included in plans referenced in this document, including <i>Burlington Early Learning Initiative</i>, the <i>Burlington School District Long Range Facilities Plan</i>, and the <i>Burlington School District Strategic Plan</i>.</p> <p>Existing facilities in Map 2 on p. 17, and proposed facilities outlined in the above referenced documents.</p>
<p>(§4382)(a)(9)- <i>Energy Plan</i></p> <p>and</p> <p>(§4302)(c) Goal 7- RE: <i>Energy</i></p>	<p>The required elements of the energy plan and compatibility with state goals regarding the use of energy and development of renewable energy resources are addressed in actions: 8.1, 8.2, 8.4, 8.5, all actions associated with policy 9, 10.2, 10.4, 12.4, 19.1, 19.10, and 21.1.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104. Additionally, direction on these elements is included in plans referenced in this document, including the <i>ECOS Regional Plan</i> and <i>Burlington Electric Department Integrated Resource Plan</i>.</p> <p>Existing facilities in Map 2 on p. 17, and proposed facilities outlined in the above referenced documents.</p>
<p>(§4382)(a)(10)- <i>Housing Element</i></p> <p>and</p> <p>(§4302)(c) Goal 11- RE: <i>Housing</i></p>	<p>The required elements of a housing program and compatibility with state goals regarding the availability and affordability of housing are addressed in actions: 2.3, 4.5, all actions associated with policy 6, 7.1, 7.2, 7.3, all actions associated with policies 11 and 12, and 21.1.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104. Additionally, direction on these elements is included in plans referenced in this document, including the <i>The Neighborhood Project</i>, <i>Permit Reform Study</i>, <i>Inclusionary Zoning Report</i>, <i>Consolidated Plan for Housing & Community Development</i>, <i>Fair Housing Assessment</i>, <i>University of Vermont Campus Master Plan</i>, and the <i>Champlain College Master Plan</i>.</p>
<p>(§4382)(a)(11)- <i>Economic Development Element</i></p> <p>and</p> <p>(§4302)(c) Goal 2- RE: <i>Economy</i>, Goal 9- RE: <i>Agriculture & Forestry</i>, and Goal 13- RE: <i>Childcare</i></p>	<p>The required elements of an economic development program and compatibility with state goals regarding the economy, jobs, unemployment, childcare resources, and agricultural and forest industries are addressed in actions: 3.1, 3.4, 4.1, 4.2, 4.5, all actions associated with policies 5 and 6, 7.3, 7.4, 8.3, 9.4, 9.5, all actions associated with policy 11, 12.1, all actions associated with policy 14, 17.2, 17.5, 17.6, 17.7, 17.8, 19.2, 20.6, 21.1, and 21.5.</p> <p>Further direction on these elements is included in plans that are adopted and incorporated by reference, as indicated in Appendix A on p. 104. Additionally, direction on these elements is included in plans referenced in this document, including the <i>Regional ECOS Plan</i> and the <i>Burlington Early Learning Initiative</i>.</p>
<p>(§4302)(c) Goal 10- RE: <i>Use of Resources</i></p>	<p>The City of Burlington does not contain active earth extraction activities and does not plan for this use in the future. Therefore, the Planning Commission has determined that this goal is not relevant or attainable.</p>
<p>(§4382)(a)(7) <i>Program for Implementation</i></p>	<p>The recommended program for implementation of this plan is articulated within the plan, following each of the actions (p. 36-41, 48-53, 60-65, 72-79). Additionally, this plan is implemented through the administration of the <i>Burlington Comprehensive Development Ordinance</i>.</p> <p>A report on implementation of the 2014 <i>Municipal Development Plan</i> can be found in Appendix X on p. X.</p>
<p>(§4382)(c) <i>Data & Trends</i></p>	<p>Existing conditions pertaining to the policies and actions articulated in this plan can be found in the Burlington Today section on p. 11-25. Further detailed studies are contained in the myriad plans and studies that are adopted and incorporated by reference, as well as those simply referenced, as outlined in Appendix A on p. 104.</p>

The impacts of growth and development, as well as the functions of our natural environment, know no boundaries. It is incumbent upon each community to look beyond its borders, and evaluate the potential regional impacts associated with land use patterns and individual developments. This plan recognizes that despite the city's small geographic footprint relative to the county, it has an important responsibility as a regional growth center; a hub of housing, jobs, services, and educational opportunities; and a part of the region's watershed and natural ecosystem.

These responsibilities are discussed in greater detail on p. 22, regarding opportunities and challenges facing the city, in the Dynamic theme on p. 42-53, and in the Connected theme on p. 66-79. Specific discussion of the relationship with the city's direct adjacent municipalities follows. Further, the plan includes a number of specific action items that promote regional cooperation, coordinated planning and service provision, and/or address regional impacts of growth, including: 1.4, 2.4, 3.4, 5.6, all actions associated with policy 6, 9.2, 17.5, 17.7, 17.11, 21.1, 21.2, 21.3, and 21.4.

Adjacent Municipalities

South Burlington

Important areas in which Burlington and South Burlington abut include along Route 7/ Shelburne Road, Route 2/Main Street/Williston Road, Spear Street, and Grove Street/ Patchen Road. In general, the land use classifications proposed for these locations are compatible. In the case of the proposed land uses near the intersection of Industrial Parkway, Queen City Park Road, and Central Ave at Red Rocks Park, *planBTV: South End Master Plan* includes strategies aimed at reducing the impacts of industrial activities on adjacent neighborhoods and recreational amenities. The city's gateways along Route 2 (Main St) and Route 7 (Shelburne Rd) are of particular interest, as developments in these areas have the potential to impact traffic congestion into and out of the city, and the visual relationship to the city's development patterns. In addition to land use patterns, Burlington and South Burlington will continue to collaborate around issues including emergency response, Airport planning & operations, institutional planning & operations for UVM and UVM Medical Center, public service provision, transportation corridors, and management of events of regional draw.

Winooski

The Winooski River forms the boundary between Burlington and Winooski. Both communities call for shoreline protection and natural/recreational use of these fragile areas. Further, the cities share the Winooski River Bridge as a gateway. The City of Winooski has and will continue to strengthen the mixed-use infill development of its downtown commercial area on the north side of this gateway, and Burlington maintains a small neighborhood activity center on the south side. These uses are generally compatible. However, the bridge, and the complex intersections on either side of the bridge are of particular interest, and current study. Proposed transportation changes and developments near this gateway have the potential to impact traffic congestion into and out of the city, and the visual relationship to the city's development patterns. In addition to land use patterns, Burlington owns half of the Winooski One Hydroelectric facility on the bank of the river in Winooski. The cities must continue to collaborate particularly around issues of transportation and energy facilities, as well as on water quality and protection of the river corridor.

Colchester

The Winooski River also forms the boundary between Burlington and Colchester. Both communities recognize the value and need to limit development impacts on sensitive natural features and environmental concerns along this river corridor. Additionally, Colchester intends to promote careful infill development within existing neighborhoods near the Warners Corner area. Likewise, Burlington seeks to strengthen North Avenue as a multi-modal corridor anchored by neighborhood activity centers. Existing commercial land uses in Colchester provide additional opportunity for city residents to access services close to home. The cities share the 127/Plattsburg Avenue/Heineberg Drive gateway, and the Burlington bike path links up with recreational trails in Colchester stretching far into northwest Vermont via a pedestrian bridge at the mouth of the river. Proposed transportation changes and developments near the 127 gateway have the potential to impact traffic congestion into and out of the city. The cities must continue to collaborate around issues of transportation and multi-use path connectivity, as well as on water quality and protection of the river corridor.

Continued on next page.

Compatibility with the ECOS Regional Plan

Largely, the ECOS Plan articulates a strong and visionary future for Chittenden County, emphasizing future development that fulfills the concept of “growth centers” at both the regional and local scale. In doing so, it recognizes the importance of mixed-use development, higher densities, walkable and transit-connected communities, and shared responsibilities for affordable housing, economic development, transportation improvements, protecting open space, and planning for future infrastructure. This overall regional land use vision is consistent with the foundation of planBTV’s future land use framework, which identifies areas that we are planning to conserve, sustain, or grow. In fact, planBTV’s vision is about “ensuring that Burlington continues to be a dynamic city of opportunity at the heart of a regional population...” Additionally, as indicated in Appendix A on p. 104, this plan incorporates a number of elements from the 2018 *ECOS Plan* into planBTV, and references several other regional plans, studies, and initiatives.

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Appendices

[Appendix D: List of Maps & References]

Maps

Map 1: Current Land Use p. 12

Map 2: Community Facilities, Utilities, and Transportation p. 16

Map 3: Future Land Use Part A- Planning to Conserve p. 82

Map 4: Future Land Use Part B- Planning to Sustain p. 86

Map 5: Future Land Use Part C- Planning to Grow p. 90

References

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View this plan online at: www.burlingtonvt.gov/planbtv

MEMORANDUM

To: Burlington Planning Commission; Burlington Planning and Zoning Department Staff; Burlington Electric Department Staff
From: Chittenden County Regional Planning Commission
Date: February 12, 2018
Re: Analysis, Targets, and Maps for Enhanced Energy Planning

The purpose of this memo is to share CCRPC's updated *Municipal Energy Data Guide* for your municipality. This replaces the guide issued in April 2017. The guide can be accessed on the CCRPC website here: <https://www.ccrpcvt.org/our-work/our-plans/regional-energy-plan/#energy-data-guides>. The guide is intended to support municipal "Enhanced Energy Planning," which is needed to advance the State's energy goals. The State's energy goals are:

- To obtain 90% of all energy across all sectors (transportation, heating and electricity) from renewable sources by 2050, with the interim goals of 25% renewable by 2025 and 40% renewable by 2035;
- To reduce total energy consumption per capita by 15% by 2025, and by more than one third by 2050;
- To weatherize 25% of homes by 2020; and
- To reduce greenhouse gases by 50% from 1990 levels by 2028; and 75% by 2050.

The data in this guide provide an overview of current energy use and set targets for advancing the State's 2050 goals for energy use from heating, transportation, electricity, as well as the State's 2050 goals for renewable energy generation. Intermediate targets for 2025 and 2035 provide each municipality with checkpoints towards meeting these goals. This document includes all data required to plan for these goals at a municipal level. Consistency with the goals above is measured through the Vermont Department of Public Service's "Energy Planning Standards for Municipal Plans." For the full standards, visit the Department of Public Service's website: <http://publicservice.vermont.gov/content/act-174-recommendations-and-determination-standards>. The data in this document meet the *Analysis and Targets* section of the Standards (Standards 4 and 5).

The projections in this guide are consistent with the ECOS Plan's Metropolitan Transportation Plan scenario. This Municipal Energy Data Guide replaces the one distributed to you in April 2017. The data in the Guide are subject to change until the ECOS Plan is adopted, likely in June 2018. The guide is meant to be only a starting point for discussions on how towns and the regions can begin to plan for meeting the Act 174 standards. It is a representation of possible conditions and should be used for planning purposes only. These data will not be used to assess whether energy generation projects, utilities or municipalities are meeting energy goals. More in-depth analysis or evaluation should be done to verify or confirm actual conditions for each scenario represented, as errors or omissions may exist in the data.

A. Current Energy Use and Generation

The data below are from various sources and represent actual current consumption and generation, rather than estimates from the Long-Range Energy Alternatives (LEAP) model. Estimates from the LEAP model are shown in Section B.

Table A1. Current Municipal Transportation Energy Use

Fossil Fuel Burning Light Duty Vehicles, 2015	22,186
Electric Light Duty Vehicles, July 2017	123
<i>Sources: DMV, Drive Electric Vermont</i>	

Table A2. Number of Homes Heating with Delivered Fuels, 2015

Number of homes heating with Fuel oil, Kerosene	1,369 homes (8% of homes)
Number of homes heating with Propane	614 homes (4% of homes)
Percentage of Households Heating with Delivered Fuels	12% of homes
<i>Sources: American Community Survey 2011-2015 5-Year Estimate</i>	

Table A3. Current Thermal Energy Use from Natural Gas, 2015

Total Residential Natural Gas Consumption (MMBtu)	1,098,358
Percentage of Municipal Natural Gas Consumption	43%
Total Commercial/Industrial Natural Gas Consumption (MMBtu)	1,466,980
Percentage of Municipal Natural Gas Consumption	57%
Total Municipal Natural Gas Consumption	2,565,337
<i>Sources: Vermont Gas</i>	

Table A4. Recent Residential Energy Efficiency Projects

	2014	2015	2016
Home Performance with ENERGY STAR® Leads	49	34	45
Home Performance with ENERGY STAR® Projects	25	17	17
Total Residential Projects (includes Home Performance with ENERGY STAR® projects)	27	26	25
<i>Source: Efficiency Vermont, October 2017</i>			

Table A5. Electrical Energy Use

Residential Electric Energy Use (MWh)	85,660
Commercial and Industrial Electric Energy Use (MWh)	210,315
Total Electric Energy Use (MWh)	295,975
<i>Sources: Burlington Electric Department, July 2017</i>	

Table A6. Existing Renewable Electricity Generation

	Sites	Power (MW)	Energy (MWh)
Solar	200	1.8	2,205
Wind	4	.007	22
Hydroelectric*	1	2.4	14,137
Biomass (Wood)	1	50	269,078
Other	Unknown	Unknown	Unknown
Total	206	54.2	285,442

Source: Burlington Electric Department, July 2017; Burlington Electric Department Distributed Generation Map Data, January 2018

**Half of Winooski One's hydroelectric generation is counted, as the project is split between Burlington and Winooski*

B. Projected Energy Use

Projected future energy use targets are drawn from the Long-range Energy Alternatives Planning (LEAP) analysis for Chittenden County, completed by the Vermont Energy Investment Corporation (VEIC). LEAP is an accounting framework that shows one possible path for Chittenden County and its municipalities to meet the State's energy goals required for enhanced energy plans. LEAP aggregates existing energy use data and forecasts the demand for energy and sources of energy over time, based on a set of anticipated economic and policy changes. For example, demographic projections are one component of projecting future energy use. LEAP is well suited for examining how energy systems might evolve over time to meet certain goals (in this case, Vermont's goal to gain 90% of energy from renewable sources by 2050). These targets show the direction and magnitude of change needed meet local, regional and state energy goals

It is also important to remember that the targets established by LEAP represent only one way to achieve each municipality's energy goals. Other strategies may allow the municipality to meet its goals (for example, switching some wood heating systems to heat pump systems). If desired, CCRPC will provide the spreadsheets and source materials used to calculate these data, and a municipality can revise their targets. Many of these targets are associated with concrete implementation actions. The Department of Public Service's Guidance on implementation actions can be found here:

http://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/Act_174/Municipal%20Guidance_Final.pdf

For more information on the LEAP model, including its underlying assumptions, please see Draft 2018 ECOS Plan Supplement 6 – Energy Analysis, Targets, & Methodology, available here:

<http://www.ecosproject.com/2018-ecos-plan/>

Table B1. Projected Transportation Energy Use, 2025-2050

	2025	2035	2050
Total Light Duty Transportation Energy Use (MMBtu)	1,313,971	832,314	362,755
Electricity Used for Light Duty Transportation (MMBtu)	17,522	120,779	254,909
Light Duty Electric Vehicles (% of Vehicle Fleet)	6%	41%	89%
Biofuel Blended* Energy Used for Light Duty Transportation (MMBtu)	1,296,449	711,535	107,846
Biofuel Blend*Light Duty Vehicles (% of Vehicle Fleet)	94%	59%	11%
Heavy-Duty Transportation Energy Use from Biodiesel (Percent of Total)	33%	58%	96%
Heavy-Duty Transportation Energy Use from Fossil Fuels (Percent of Total)	67%	42%	4%

**This measures biofuels blended with fossil fuels. A common example is gasoline with ethanol mixed in.*

Sources: VTrans, LEAP Model

Table B2. Projected Commercial and Industrial Thermal Energy Use, 2025-2050

	2025	2035	2050
Total Commercial and Industrial Thermal Energy Use (MMBtu)	932,101	887,826	785,296
Percent of Commercial and Industrial Establishments Weatherized by Target Year	20%	22%	39%
Energy Saved by Weatherization by Target Year (MMBtu)	50,106	69,474	167,428
Commercial and Industrial Establishments Using Heat Pumps (%)	22%	35%	40%
Commercial and Industrial Thermal Energy Use by Heat Pumps (MMBtu)	75,581	149,410	223,238
Commercial and Industrial Establishments Using Wood Heating (%)	9%	10%	11%
Commercial and Industrial Thermal Energy Use Attributable to Wood Heating (MMBtu)	112,784	155,344	227,430

Sources: LEAP Model, Department of Public Service, Department of Labor

Table B3. Projected Residential Thermal Energy Use, 2025-2050

	2025	2035	2050
Total Residential Thermal Energy Use (MMBtu)	1,436,597	1,218,067	843,336
Percent of Residences Weatherized by Target Year	14%	36%	100%
Energy Saved by Weatherization by Target Year (MMBtu)	67,060	183,168	573,316
Percent of Residences Using Heat Pumps	18%	37%	60%
Residential Thermal Energy Use from Heat Pumps (MMBtu)	93,110	191,563	280,858
Residences Using Wood Heating (%)	14%	14%	14%
Residential Thermal Energy Use from Wood Heating (MMBtu)	263,813	264,067	232,013

Sources: LEAP Model, Department of Public Service

Table B4. Projected Electrical Energy Use, 2025-2050

	2025	2035	2050
Without Industrial	269,053	342,928	444,417
Industrial Only	87,303	112,886	151,528
Total	356,356	455,814	595,945
Total Electric Energy Saved (MWh)	27,221	54,950	102,778
Residences that have increased their Electric Efficiency	30%	58%	98%
Commercial and Industrial Establishments that have Increased Their Electric Efficiency	30%	58%	98%

Source: LEAP Model

**Please note that industrial electricity use is recognized as the most difficult element to project in the LEAP model, because of regional discrepancies in data from the commercial and industrial sector. Therefore, projected electricity use and total energy use are reported two ways: with industrial electricity use included and excluded.*

Table B5. Projected Total Energy Use Per Capita (Including Industrial Electricity Use*) 2015-2050

	2015	2025	2035	2050
Total Energy Use (MMBtu)	5,104,052	4,898,556	4,493,443	4,024,751
Population	42,452	44,736	46,185	48,430
Total Energy Use Per Capita (MMBtu)	120.2311	109.4992	97.29227	83.10451
Reduction in Total Energy Use Per Capita since 2015	--	-9%	-19%	-31%

Source: LEAP Model

**Please note that industrial electricity use is recognized as the most difficult element to project in the LEAP model, because of regional discrepancies in data from the commercial and industrial sector. Therefore, projected electricity use and total energy use are reported two ways: with industrial electricity use included and excluded.*

Table B6. Projected Total Energy Use Per Capita (Excluding Industrial Electricity Use) 2015-2050

	2015	2025	2035	2050
Total Energy Use (MMBtu)	4,894,072	4,600,677	4,108,277	3,507,737
Population	42,452	44,736	46,185	48,430
Total Energy Use Per Capita (MMBtu)	115.2848	102.8406	88.95262	72.42901
Reduction in Total Energy Use Per Capita since 2015	--	-11%	-23%	-37%

Source: LEAP Model

**Please note that industrial electricity use is recognized as the most difficult element to project in the LEAP model, because of regional discrepancies in data from the commercial and industrial sector. Therefore, projected electricity use and total energy use are reported two ways: with industrial electricity use included and excluded.*

One goal of enhanced energy planning is for energy use per capita to be reduced by more than 1/3 between 2015 and 2050. The LEAP model reports an energy pathway that leads to a 1/3 reduction in energy use per capita for the state as a whole. However, because of Chittenden County's concentration of the State's largest employers, especially commercial/industrial establishments with high energy loads, Chittenden County as a whole, and a few of its largest municipalities, do not meet this goal individually when industrial electricity use is included in the projections. However, because the LEAP model includes this 1/3 reduction at a statewide level, this data guide still represents a future that is consistent with this goal.

C. Projected Renewable Energy Generation Potential

This guide also reports how much wind and solar generation potential exists in the municipality, and sets targets for additional renewable energy generation within each municipality. However, the generation targets are technology neutral, meaning a municipality can use any form of renewable generation (wind, solar, biomass, hydroelectric, etc.) to meet its goals. For more information on how these targets were determined, please see Draft 2018 ECOS Plan Supplement 6 – Energy Analysis, Targets, & Methodology, available here: <http://www.ecosproject.com/2018-ecos-plan/>

Prime solar or wind areas are areas where models show the appropriate conditions for electricity generation, and where there are no constraints. Base solar or wind areas are areas where models show the appropriate conditions for electricity generation, but where there are possible constraints, which must be considered during development and may reduce the development potential of a site. The draft 2018 ECOS Plan indicates that *“development should be located to avoid state and local known constraints that have been field verified, and to minimize impacts to state and local possible constraints that have been field verified.”* Please see Table C4 for the list of constraints.

A municipality’s reported land available for wind and solar generation and generation potential are based on models of the elevation, slope, and aspect of land, or the modeled wind speed, in a municipality. These models do not remove existing impervious surfaces. Therefore, land-based generation potential may be over-estimated for municipalities with a high percentage of impervious surface, including Burlington, Winooski and Essex Junction.

Table C1. Land Available for Wind and Solar Generation

	Prime Potential	Base Potential
Solar	71 acres	2,042 acres
Wind	200 acres (3% of city)	2,767 acres (41% of city)

Source: CCRPC, Department of Public Service, Vermont Center for Geographic Information

Table C2. Projected Renewable Electricity Generation Potential

	Power (MW)	Energy (MWh)
Rooftop Solar*	14	17,504
Ground-Mounted Solar* – Prime	9	10,808
Ground-Mounted Solar* – Base	34	41,738
Wind – Prime	8	24,501
Wind – Base	111	339,385
Hydro	See Hydro Map	
Biomass	See Biomass Map	
Methane	Unknown	Unknown
Other	Unknown	Unknown

Source: CCRPC and the Department of Public Service

*Rooftop solar potential is calculated by assuming that a certain percentage of rooftops can hold solar systems. Ground-mounted solar potential reports how much land could be developed with solar based on its aspect and elevation, and does not remove space taken up by impervious surfaces like roofs. Therefore, rooftop solar potential cannot be added to ground-mounted solar potential, as this would lead to some generation potential being double counted.

Renewable Electricity Generation Targets

While CCRPC encourages the siting of new renewable energy generation as appropriate in Burlington, the town has already exceeded its 2050 high generation target of 281,769 MWh and does not have year-by-year targets.

Table C4. State/Local Known and Possible Constraints

State Known Constraints	State Possible Constraints	Local Known Constraints	Local Possible Constraints
FEMA Floodways	Agricultural Soils + Hydric Soils	None	Historic Districts, Historic Neighborhoods (Eligible for Listing)
DEC River Corridors	Act 250 Ag. Soil Mitigation Areas		Mixed Use, Institutional Core Campus and Enterprise Zoning Districts
National Wilderness Areas	FEMA Special Flood Hazard Areas		Designated Downtown and Neighborhood Development Area
State-significant Natural Communities and Rare, Threatened, and Endangered Species	VT Conservation Design Highest Priority Forest Blocks (Forest Blocks – Connectivity, Forest Blocks – Interior, Forest Blocks - Physical Land Division)		Official Map Features
Vernal Pools (confirmed and unconfirmed)			View Corridors
Class 1 and 2 wetlands (VSWI and advisory layers)			

	Highest Priority Wildlife Crossings		Burlington Country Club property
	Highest Priority Wildlife Crossings		City-owned parks and Centennial Woods
	Protected Lands (State fee lands and private conservation lands)		
	Deer Wintering Areas		

Section D. Mapping

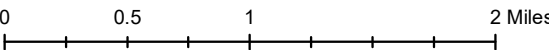
The maps in this section meet the Act 174 Mapping standards for your municipality. Municipal plans must include the maps contained within this section. These maps identify potential areas for development and siting of solar and wind generation, which account for areas that are unsuitable for siting renewable energy generation because of the presence of state/local known and possible constraints, identified in table C4. Maps showing preferred sites/existing renewable generation facilities, hydro and biomass generation are also included.

These maps should be used in conjunction with complementary policies in the town plan. The map identifying constrained areas is a visual representation of the constraints listed above. A certified Enhanced Energy Plan means that a municipality's "land conservation measures and specific policies" might be given substantial deference during project review under 30 V.S.A. § 248. However, for these measures and policies to be given substantial deference, they must be clearly included in the text, as a map may lack sufficient clarity or granularity regarding the area in which a project is proposed.

Existing Renewable Energy Sites & Preferred Sites

**Burlington, Vermont
Act 174
The Energy Development
Improvement Act of 2016**

This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions. They may also be used for conceptual planning or initial site identification by those interested in developing renewable energy infrastructure. They should NOT take the place of site-specific investigation for a proposed facility and should not be used as "siting maps."



Existing Site Type

- McNeil Generating Station
- Wind Site
- Hydropower
- Methane
- Wood Chip or Pellet Heat
- Solar Site

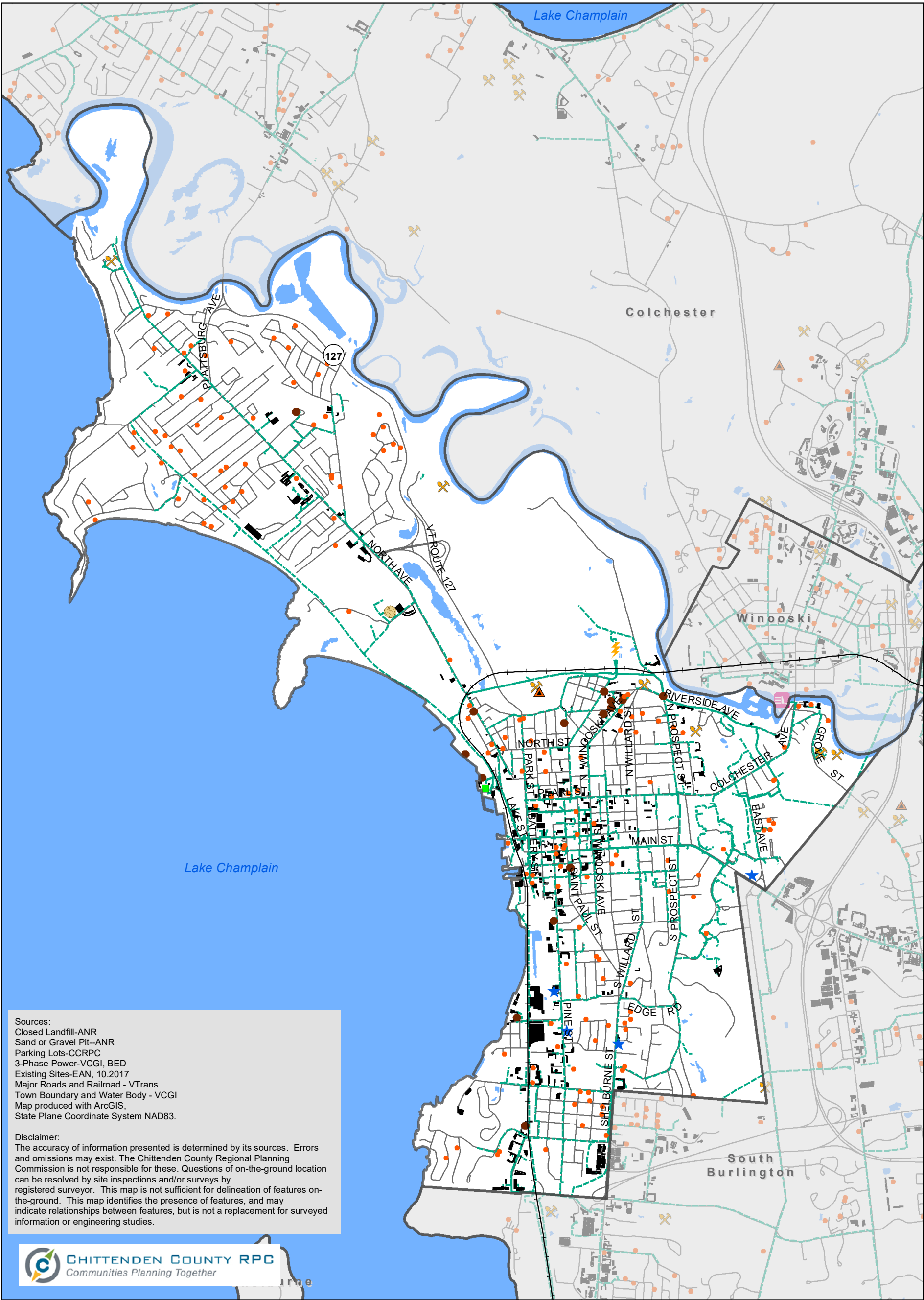
Preferred Sites

- Closed Landfill
- Sand or Gravel Pit
- Brownfield
- Parking Lots

- 3 Phase Power Lines
- Transmission lines

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Date: 2/12/2018



Sources:
Closed Landfill-ANR
Sand or Gravel Pit-ANR
Parking Lots-CCRPC
3-Phase Power-VCGI, BED
Existing Sites-EAN, 10.2017
Major Roads and Railroad - VTrans
Town Boundary and Water Body - VCGI
Map produced with ArcGIS,
State Plane Coordinate System NAD83.

Disclaimer:
The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.

State Known Constraints

Burlington, Vermont Act 174 The Energy Development Improvement Act of 2016

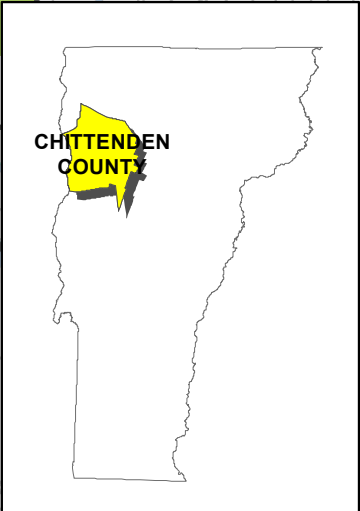
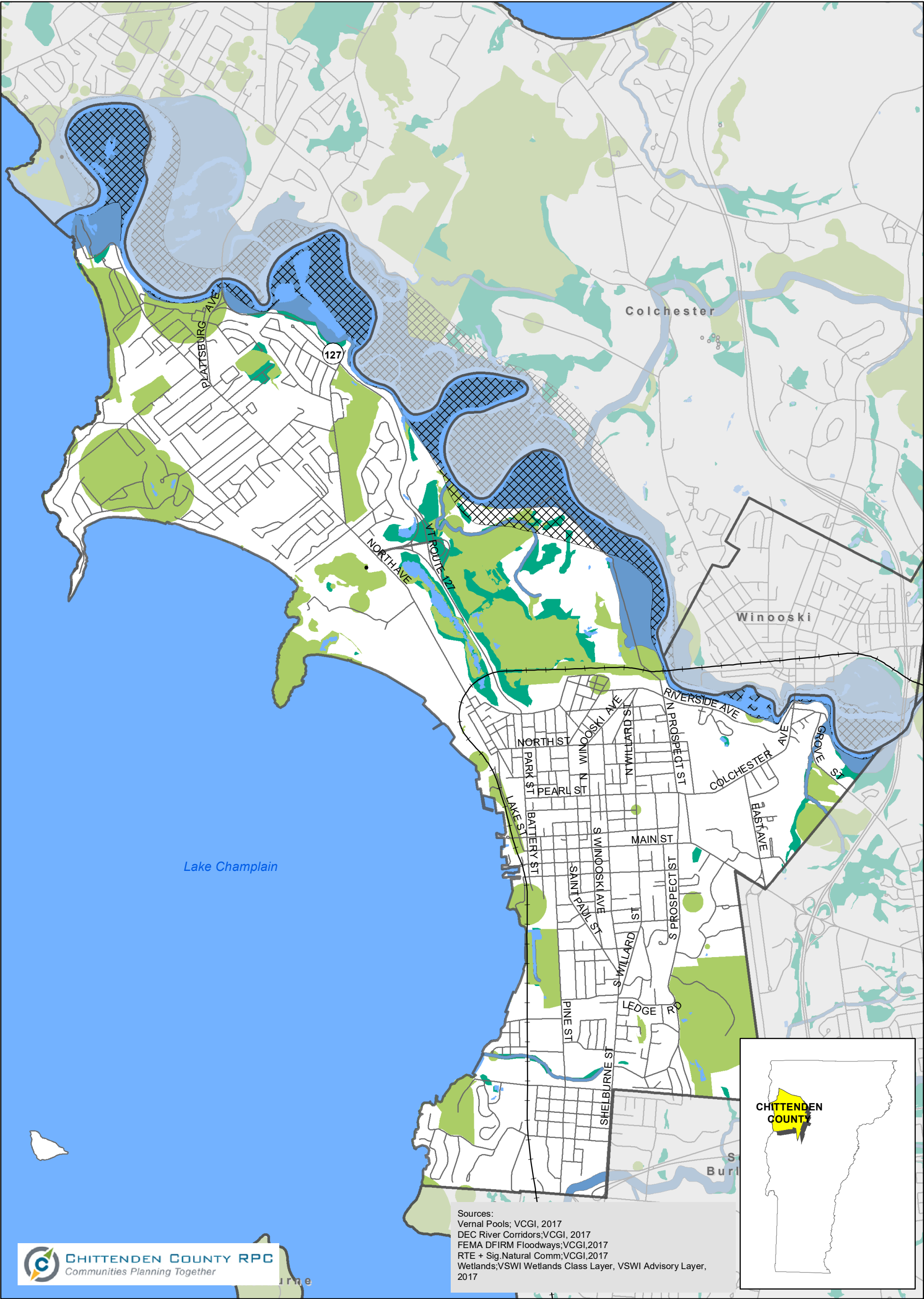
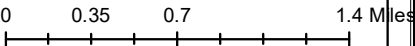
Known local constraints are listed in the text.

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Disclaimer:
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- Vernal Pools (Confirmed)
- Vernal Pools (Unconfirmed)
- ▨ FEMA Floodways
- Vermont Department of Environmental Conservation River Corridors*
- State-significant Natural Communities & RTE Species
- Class 1 and 2 Wetlands

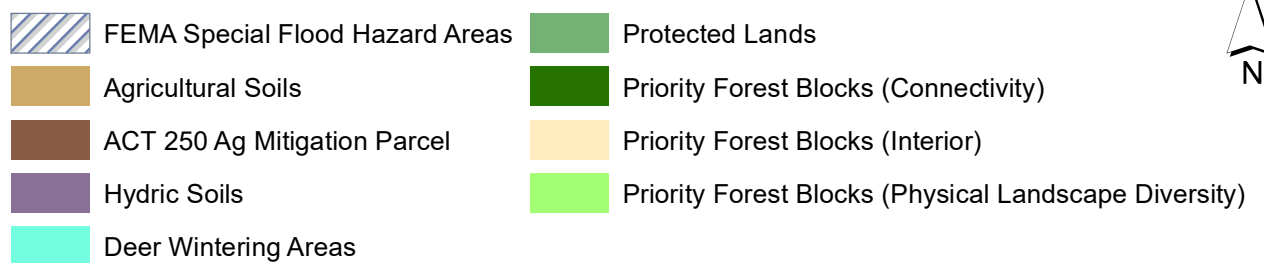
*Note: River corridors are comprised of meander belt and riparian buffer components for the purpose of achieving and maintaining stream equilibrium conditions. Small streams draining 0.5 to 2 square miles and a 50 ft. buffer are also included.



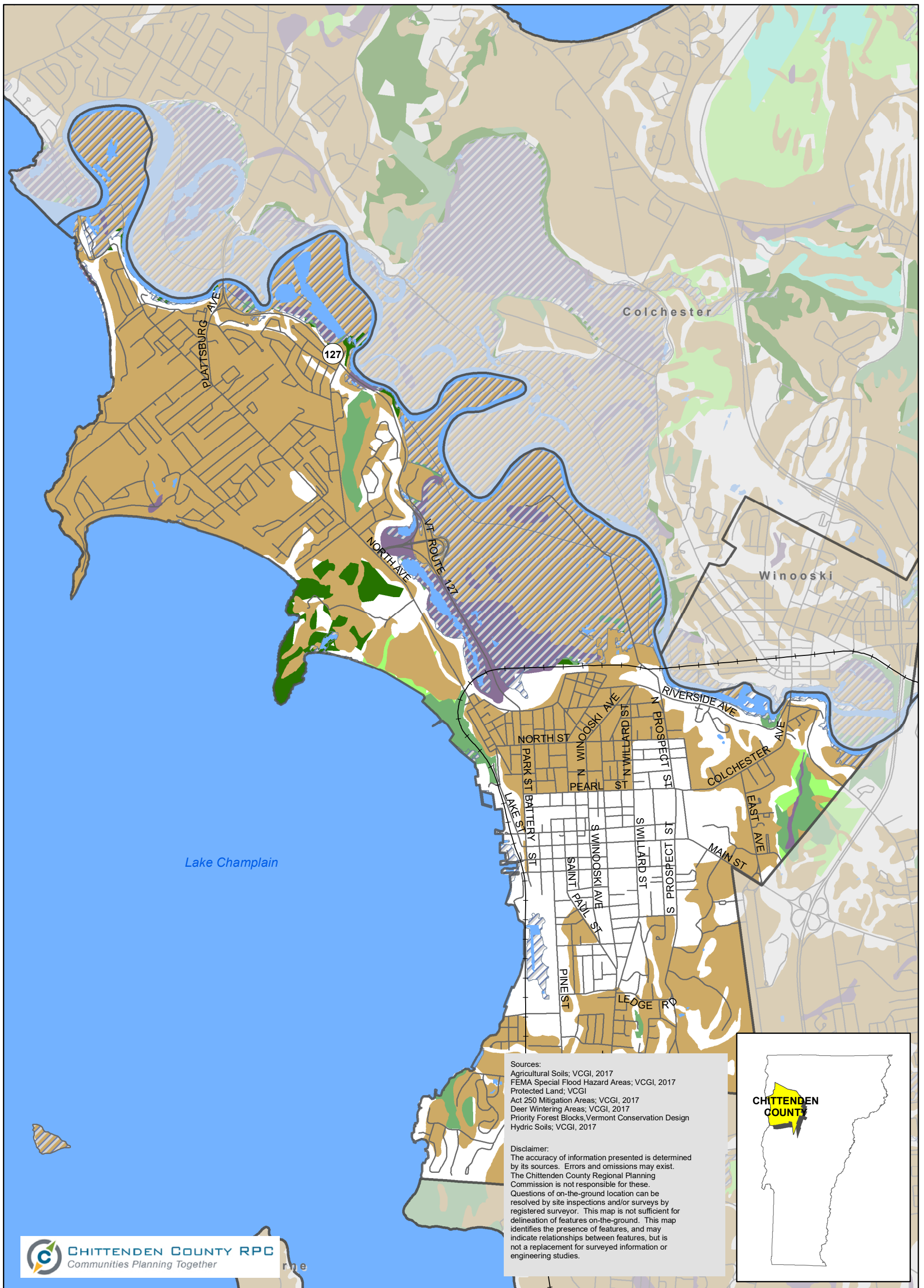
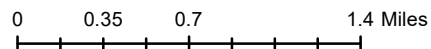
Sources:
Vernal Pools; VCGI, 2017
DEC River Corridors; VCGI, 2017
FEMA DFIRM Floodways; VCGI, 2017
RTE + Sig. Natural Comm; VCGI, 2017
Wetlands; VSWI Wetlands Class Layer, VSWI Advisory Layer, 2017

Possible Local Constraints are listed in the text

The Energy Development Improvement Act of 2016



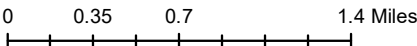
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Potential Solar Energy Resource Areas

Burlington, Vermont
Act 174
The Energy Development
Improvement Act of 2016

This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions. They may also be used for conceptual planning or initial site identification by those interested in developing renewable energy infrastructure. They should NOT take the place of site-specific investigation for a proposed facility and should not be used as "siting maps"

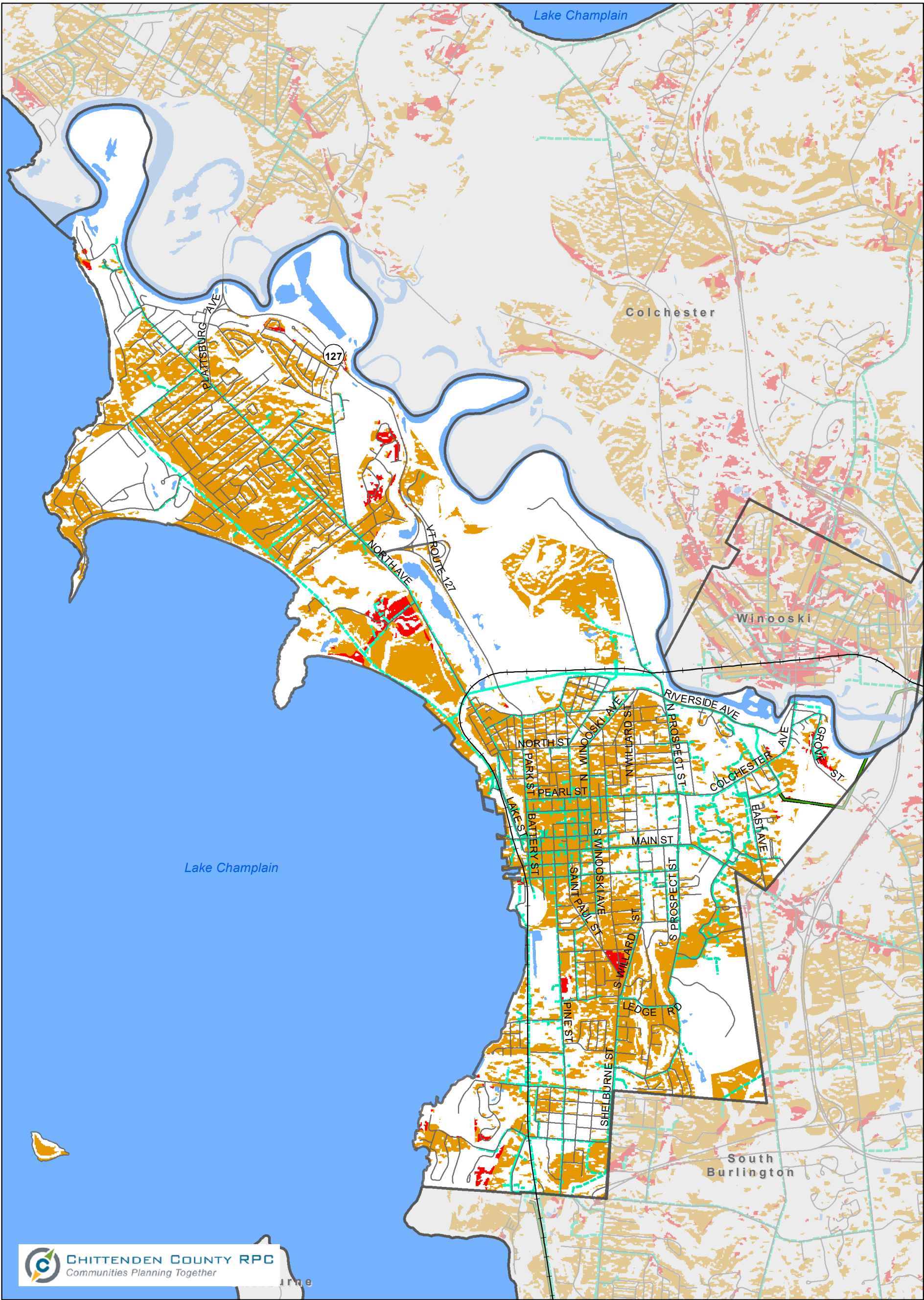


- Prime Solar: Areas with high solar potential and no state/local known & possible constraints
- Base Solar: Areas with high solar potential and a presence of state/local possible constraints

- 3 Phase Power Lines
- Transmission Lines

Sources:
Solar Energy Resource Areas; VCGI, 2017
Disclaimer:
The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.
Date: 2/12/2018

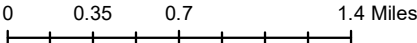
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Potential Wind Energy Resource Areas

Burlington, Vermont
Act 174
The Energy Development
Improvement Act of 2016

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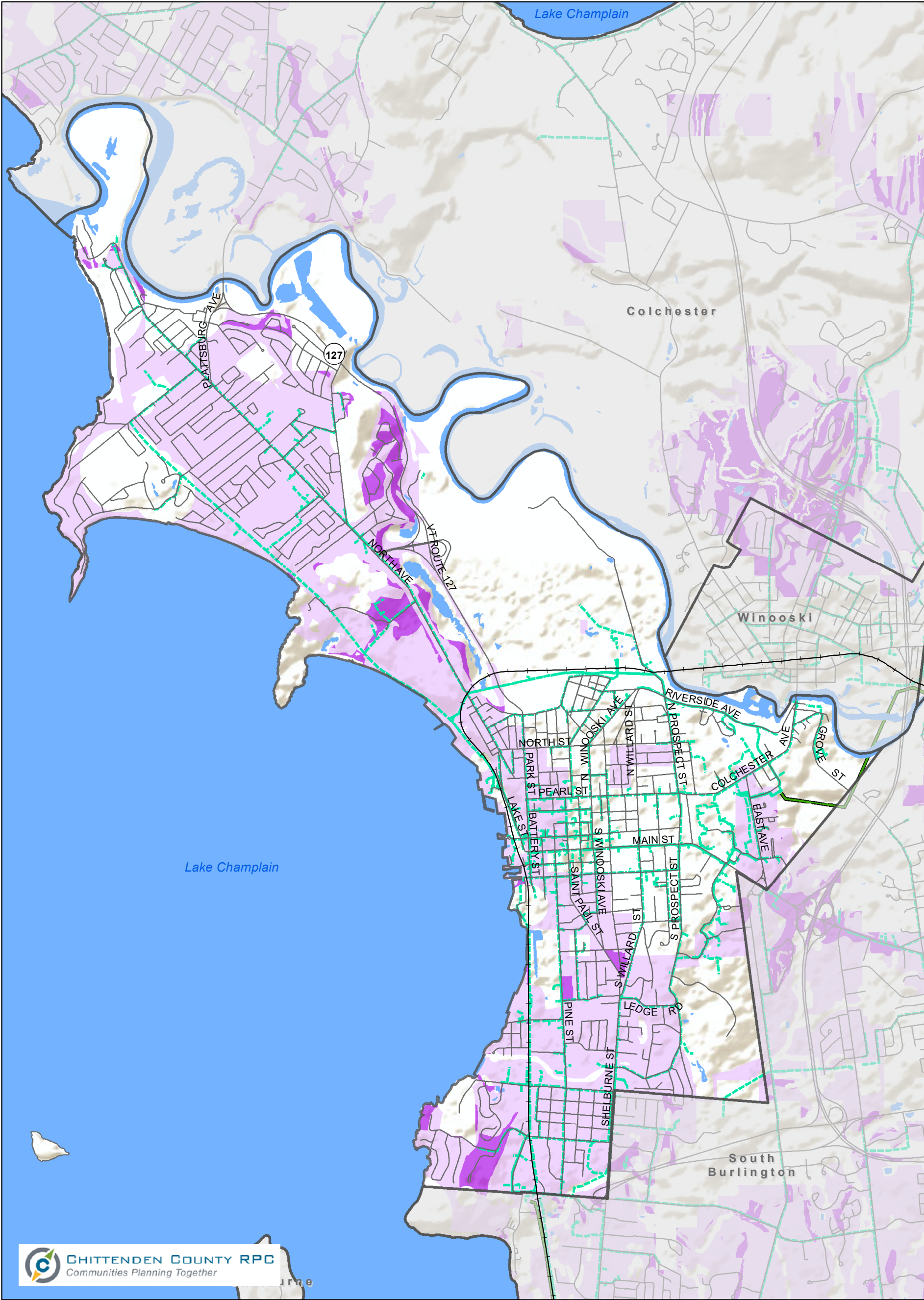


- Prime Wind: Areas with high wind potential and no state/local known +possible constraints
- Base Wind: Areas with high wind potential and a presence of state/local possible constraints
- 3 Phase Power Lines
- Transmission Lines

Sources:
Wind Energy Resource Areas;VCGI,2017
Disclaimer:
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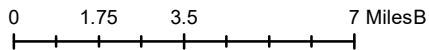
Date: 2/12/2018



Woody Biomass Resource Locations

Chittenden County, Vermont
Act 174
The Energy Development
Improvement Act of 2016

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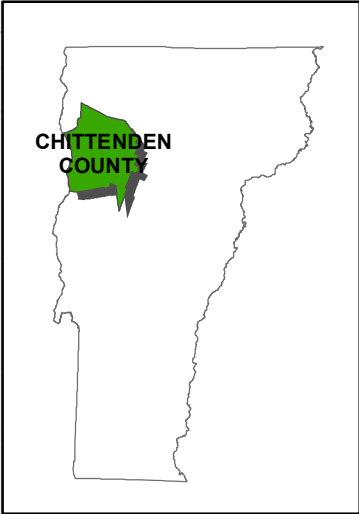
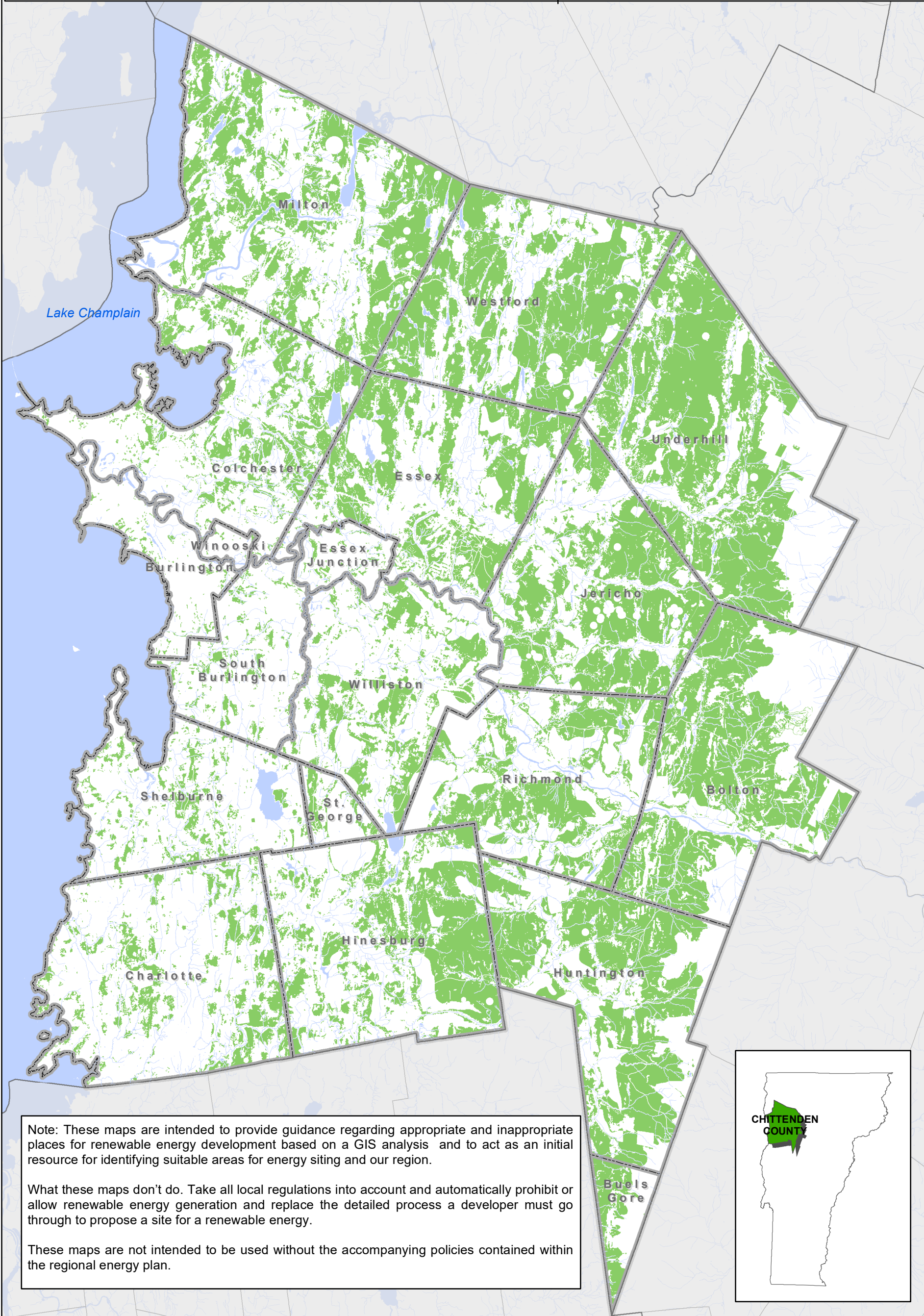
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Woody Biomass Resource Areas



Date: 4/29/2017

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Note: These maps are intended to provide guidance regarding appropriate and inappropriate places for renewable energy development based on a GIS analysis and to act as an initial resource for identifying suitable areas for energy siting and our region.

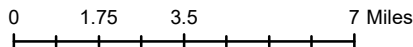
What these maps don't do. Take all local regulations into account and automatically prohibit or allow renewable energy generation and replace the detailed process a developer must go through to propose a site for a renewable energy.

These maps are not intended to be used without the accompanying policies contained within the regional energy plan.

Hydro- Electric Energy Resource Locations

Chittenden County, Vermont
Act 174
The Energy Development Improvement Act of 2016

This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions. The may also be used for conceptual planning or initial site identification by those interested in developing renewable energy infrastructure. They should NOT take the place of site-specific investigation for a proposed facility and should not be used of as "siting maps"



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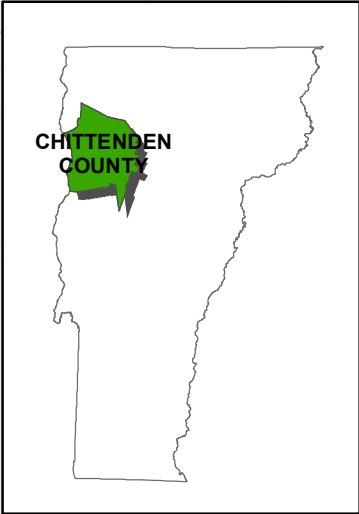
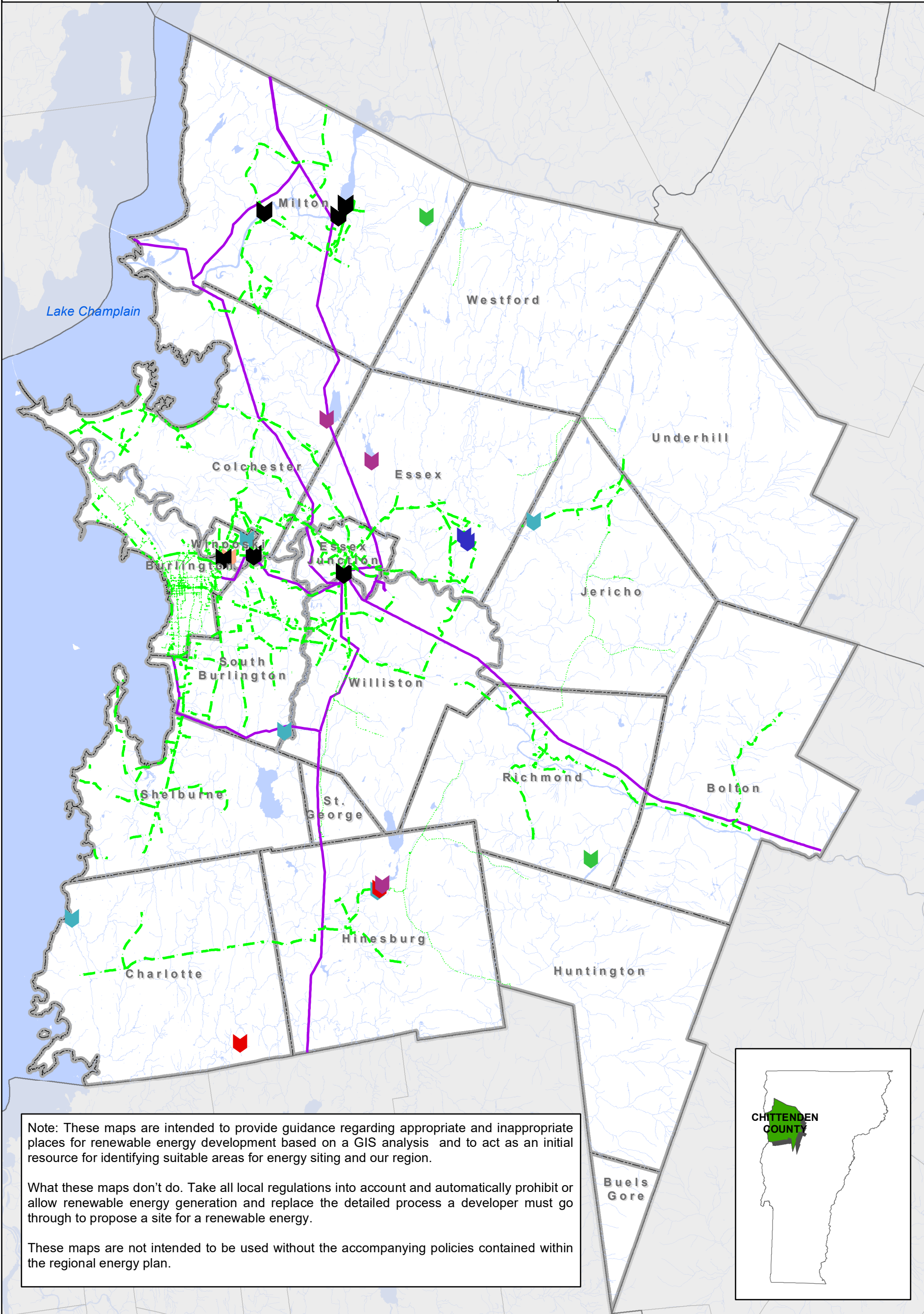
Legend

- Current Operating Hydroelectric Dams
- Unknown Capacity
- > 50kW Capacity
- < 10kW Capacity
- Low Hazard with >50 kW
- Low Hazard with <10KW
- Significant Hazard with <10KW
- 3 Phase Power Lines
- Transmission lines
- OH_Primary
- UG_Primary



Date: 4/26/2017

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Note: These maps are intended to provide guidance regarding appropriate and inappropriate places for renewable energy development based on a GIS analysis and to act as an initial resource for identifying suitable areas for energy siting and our region.

What these maps don't do. Take all local regulations into account and automatically prohibit or allow renewable energy generation and replace the detailed process a developer must go through to propose a site for a renewable energy.

These maps are not intended to be used without the accompanying policies contained within the regional energy plan.